

BEFORE
MAHARASHTRA ELECTRICITY REGULATORY
COMMISSION

PETITION FOR
FINAL TRUE UP FOR FY 2022-23 & FY 2023-24
PROVISIONAL TRUE UP FOR FY 2024-25
AND

MYT PROJECTIONS FOR
FY 2025-26 TO FY 2029-30



Maharashtra State Electricity Distribution Company Ltd.

Regd. Off: Prakashgad, Anant Kanekar Marg, Bandra (E),

Mumbai-400051

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ABBREVIATIONS

Abbreviation	Expansion
A&G	Administration and General
ABR	Average Billing Rate
ABT	Availability Based Tariff
ACoS	Average Cost of Supply
AFC	Annual Fixed Cost
AG	Agriculture
AMR	Automated Metering Reading
APDRP	Accelerated Power Development and Reforms Programme
APPC	Average Power Purchase Cost
ARR	Aggregate Revenue Requirement
AS	Accounting Standard
ASC	Additional Supply Charge
AT&C	Aggregate Technical and Commercial
ATE/APTEL	Appellate Tribunal for Electricity
BPL	Below Poverty Line
BPO	Business Process Outsourcing
CAGR	Compounded Annual Growth Rate
Capex	Capital Expenditures
CBA	Cost Benefit Analysis
CCCC	Centralized Customer Care Center
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGPL	Coastal Gujarat Power Limited
CGRF	Consumer Grievances Redressal Forum
CGS	Central Generating Stations
CIL	Coal India Ltd.
COD	Commercial Operation Date
Commission/MERC	Maharashtra Electricity Regulatory Commission
COS	Cost of Supply
CPI	Consumer Price Index
CPP	Captive Power Plant
CPPA	Captive Power Producers Association
CSS	Cross-subsidy Surcharge
CTU	Central Transmission Utility
CUF	Capacity Utilisation Factor
CWIP	Capital Work in Progress
DA	Dearness Allowance
DCL	Distribution Commercial Loss
DDF	Dedicated Distribution Facility
DDUGJY	Deen Dayal Upadhyay Gram Jyoti Yojana

**Final True Up for FY 2022-23 & FY 2023-24,
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Abbreviations

Abbreviation	Expansion
DF	Distribution Franchisee
DIC	Directorate of Industries and Commerce
DISCOM	Distribution Company
DMF	District Mineral Foundation
DPC	Delay Payment Charges
DPR	Detailed Project Report
DSM	Demand Side Management
DTC	Distribution Transformer Centre
EA 2003/Act	Electricity Act, 2003
ED	Electricity Duty
EHV	Extra High Voltage
EPS	Electric Power Survey
ERP	Enterprise Resource Planning
FAC	Fuel Adjustment Charge
FBSM	Final Balance Settlement Mechanism
FY	Financial Year
GEC	Gross Energy Consumption
GFA	Gross Fixed Assets
GOI	Government of India
GoM	Government of Maharashtra
GSC	Grid Support Charges
GST	Goods and Services Tax
HP	Horse Power
HT	High Tension
HVDS	High Voltage Distribution System
IDC	Interest During Construction
IEX	Indian Energy Exchange Ltd
IIT	Indian Institute of Technology
InSTS	Intra-State Transmission System
IoWC	Interest on Working Capital
IPDS	Integrated Power Development Scheme
IPP	Independent Power Producer
ISTS	Inter State Transmission System
IT/ITES	Information Technology/ Information Technology Enabled Services
kVA	Kilo-Volt Ampere
kW	Kilo Watt
kWh	Kilo Watt Hour / Unit
LC	Letter of Credit
LF	Load Factor
LT	Low Tension
LTA	Long Term Access

Abbreviations

Abbreviation	Expansion
LV	Low Voltage
MCLR	Marginal Cost of fund-based Lending Rate
MDAS	Meter Data Acquisition System
MDDL	Minimum Drawdown Level
MERC	Maharashtra Electricity Regulatory Commission
MIDC	Maharashtra Industrial Development Corporation
MIS	Management Information System
MJP	Maharashtra Jeevan Pradhikaran
MoD	Merit Order Despatch
MOP	Ministry of Power
MoU	Memorandum of Understanding
MPECS	Mula Pravara Electric Cooperative Society Limited
MRI	Meter Reading Instrument
MSEB	Maharashtra State Electricity Board
MSEDCL	Maharashtra State Electricity Distribution Co. Ltd.
MSETCL	Maharashtra State Electricity Transmission Co. Ltd.
MSKVY	MUKHYAMANTRI SAUR KRUSHI VAHINI YOJANA
MSLDC	Maharashtra State Load Despatch Centre
MSPGCL	Maharashtra State Power Generation Co. Ltd.
MSW	Municipal Solid Waste
MTR	Mid Term Review
MU	Million Units
MW	Mega Watt
MYT	Multi Year Tariff
NCDP	New Coal Distribution Policy
NLDC	National Load Despatch Centre
NMET	National Mineral Exploration Trust
NPCIL	Nuclear Power Corporation of India Limited
NTP	National Tariff Policy
NTPC	National Thermal Power Corporation Limited
O&M	Operation and Maintenance
OA	Open Access
OEM	Original Equipment Manufacturer
Opex	Operational Expenditure
P&L	Profit and Loss
P:IE	Project for Intensive Electrification
P:SI	Project for System Improvement
PD	Permanent Disconnected
PF	Power Factor
PFC	Power Finance Corporation
PGCIL	Power Grid Corporation of India Limited

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Abbreviations

Abbreviation	Expansion
PLF	Plant Load Factor
PoC	Point of Connection
PPA	Power Purchase Agreement
PWW	Public Water Works
PXIL	Power Exchange India Limited
QTR	Quarter
R&M	Repair and Maintenance
RBI	Reserve Bank of India
RE	Renewable Energy
REC	Renewable Energy Certificates
RGGVY	Rajeev Gandhi Grameen Vidyutikaran Yojana
RLC	Regulatory Liability Charge
RLDC	Regional Load Despatch Centre
RoE	Return on Equity
RPO	Renewable Purchase Obligation
Rs.	Indian Rupees
RSD	Reserve Shutdown
RTC	Round The Clock
SBI	State Bank of India
SCADA	Supervisory Control and Data Acquisition
SCOD	Scheduled Commercial Operation Date
SD	Security Deposit
SERC	State Electricity Regulatory Commission
SEZ	Special Economic Zone
SLDC	State Load Dispatch Centre
SMK	Shil, Mumbra & Kalwa
SOP	Standards of Performance
SSP	Sardar Sarovar Project
STP	Sewage Treatment Plant
STU	State Transmission Utility
T&D	Transmission and Distribution
TC	Transmission Charge
ToD	Time-of-Day
TOSE	Tax on Sale of Electricity
TPL	Torrent Power Limited
TSU	Transmission System User
TTSC	Total Transmission System Cost
TVS	Technical Validation Session
UI	Unscheduled Interchange
ULDC	Unified Load Dispatch and Communication
UMPP	Ultra Mega Power Projects

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Abbreviations

Abbreviation	Expansion
UOM	Unit of Measurement
USO	Universal Service Obligation
Wef	With effect from
WPI	Wholesale Price Index
WRLDC	Western Regional Load Dispatch Centre
y-o-y	Year on Year

1 BACKGROUND

1.1 Introduction

1.1.1 Maharashtra State Electricity Distribution Co. Ltd. (hereinafter referred to as “MSEDCL” or “The Company” or “The Petitioner”) has been incorporated under the Companies Act, 1956 pursuant to decision of Government of Maharashtra to reorganize erstwhile Maharashtra State Electricity Board (“MSEB”). The said reorganization of the MSEB has been done by Government of Maharashtra pursuant to “Part XIII – Reorganization of Board” read with section 131 of The Electricity Act 2003. MSEDCL has been incorporated on 31.5.2005 with the Registrar of Companies and has obtained Certificate of Commencement of Business on 15.09.2005. MSEDCL is functioning in accordance with the provisions envisaged in the Electricity Act, 2003 (“the Act”) and is engaged, within the framework of Electricity Act, 2003, in the business of distribution of electricity to its consumers situated over the entire State of Maharashtra, except Mumbai City & its suburbs (excluding Mulund & Bhandup).

1.1.2 The Maharashtra Electricity Regulatory Commission (hereinafter referred to as “MERC” or “Hon’ble Commission”) is an independent statutory body constituted under the provisions of the Electricity Regulatory Commissions (ERC) Act, 1998, which was superseded by Electricity Act (EA), 2003. Hon’ble Commission is continued as provided under Section 82 of the EA, 2003. Hon’ble Commission is vested with the authority regulating the power sector in the State inter alia including setting of tariff for electricity consumers.

1.1.3 The Hon’ble Commission has issued MERC (Multi Year Tariff) Regulations 2024 (hereinafter to be referred to as MYT Regulations 2024) for the 5th Control Period (FY 2025-26 to FY 2029-30). These Regulations have come into force from 19th August 2024.

1.2 Provisions of Law

1.2.1 The MERC (MYT) Regulations, 2024, issued by the Hon’ble Commission provide the framework under which the licensees have to operate along with determination of Aggregate Revenue Requirement, Tariff, etc. The MYT Regulations, 2024 provide for the Petitions to be filed in the Control Period. Regulation 5.1(a) provides for the MYT Petition. The key provisions of the said Regulation are reproduced below for

reference.

“5.1 The Petitions to be filed in the Control Period under these Regulations are as under:

Multi-Year Tariff Petition, which is complete in all aspects as per these Regulations, shall be filed by November 1, 2024 by Generating Companies, Transmission Licensees, ESSD, MSLDC and STU, and by November 30, 2024, by Distribution Licensees, comprising:

Truing-up for FY 2022-23 and FY 2023-24 to be carried out under the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2019:

Provided that the Commission may, if it considers appropriate, carry out the Truing-up for years prior to FY 2022-23 under the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2019, along with the Truing-up for FY 2022-23, in case such Truing-up is yet to be completed;

Provisional Truing-up for FY 2024-25 to be carried out under the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2019;

Aggregate Revenue Requirement for each year of the Control Period under these Regulations;

Revenue from the sale of power at existing Tariffs and charges and projected revenue gap for each year of the Control Period under these Regulations;

Proposed category-wise Tariff or Fees & Charges for each year of the Control Period under these Regulations;”

1.2.2 As per the provisions of Regulation 5.1(a) of the said Regulations, Distribution Licensee had to file Multi Year Tariff Petition (MYT Petition) by 30th November 2024. MSEDCL had submitted its MYT Petition for the 5th Control Period within the stipulated time frame. Further, Hon’ble Commission conducted the Technical Validation Session (TVS) for MSEDCL’s Petition on 26th December 2024. The Hon’ble Commission also shared Data Gaps in the interim. MSEDCL is hereby submitting its Revised MYT Petition for the 5th Control Period, as per the MYT Regulations, 2024.

1.2.3 Further, Regulation 6.1 provides for scope of the MYT Petition. The key provisions of

the said Regulation are reproduced below for reference.

“6.1 The Multi-Year Tariff Petition shall include a forecast of Aggregate Revenue Requirement and expected revenue from Tariff for each year of the Control Period in the manner specified in these Regulations and be accompanied by applicable fees.

6.2 The forecast of Aggregate Revenue Requirement may be based on assumptions relating to the behaviour of individual variables during the Control Period, including category-wise sales and demand projections, power procurement plan, capital investment plan, financing plan and physical targets, in accordance with guidelines and formats as may be prescribed by the Commission.

6.3 The capital investment plan shall show, separately, on-going projects that will spill over into the Control Period, and new projects (along with justification) that will commence in the Control Period but may be completed within or beyond it, for which relevant technical and commercial details shall be provided as per the provisions of the Maharashtra Electricity Regulatory Commission (Approval of Capital Investment Schemes) Regulations, 2022 and amendments thereof.

6.4 The Distribution Licensees shall project the realistic power purchase requirement from all Generating Stations including Energy Storage system(s) considering the provisions of the Maharashtra Electricity Regulatory Commission (Framework for Resource Adequacy) Regulations, 2024 and the amendments thereof. Distribution Licensees while submitting the MYT Petitions, shall submit the details of approved power procurement plan by the Commission and variation in the actual power procurement vis-à-vis approved power procurement plan in compliance to the provisions of the MERC (Framework for Resource Adequacy) Regulations, 2024:

Provided that, the distribution Licensees shall also consider the Merit Order Despatch principles, the Renewable Purchase Obligation (RPO), Energy Storage Obligations (ESO) specified by the Commission under the relevant Regulations, and the target set, if any, for Energy Efficiency (EE), Energy Conservation (EC) and Demand Side Management (DSM) schemes, in accordance with Energy Conservation (Amendment) Act, 2022 and guidelines thereof and or Regulations framed on these aspects, while preparing power procurement plan:

Provided further that Merit Order Despatch principles shall not apply to purchase of power from Renewable Energy sources.

6.5 The forecast of expected revenue from Tariff and charges shall be based on the following:

.....

.....

In the case of a Distribution Licensee, estimates of quantum of electricity to be supplied to consumers and wheeled on behalf of Distribution System Users for each year of the Control Period:

Provided that the Distribution Licensee shall submit relevant details of category-wise sales separately for each Distribution Franchisee area, including the Input Energy and the Input Rate;

6.6 Based on the forecast of Aggregate Revenue Requirement and expected revenue from Tariff and charges, Generating Company, ESSD or Distribution Licensee or MSLDC or STU shall submit the proposed Tariff or Fees and Charges, category-wise if applicable, for each year of the Control Period, that would meet the gap, if any, in the Aggregate Revenue Requirement, including unrecovered revenue gaps of previous years to the extent proposed to be recovered.

6.7 Full details supporting the forecast shall be provided, including but not limited to details of past performance, proposed initiatives for achieving efficiency or productivity gains, technical studies, contractual arrangements and secondary research, to enable the Commission to assess the reasonableness of the forecast.

6.8 On receipt of the Petition, the Commission shall either issue an Order approving the Aggregate Revenue Requirement and Tariff for the Control Period, subject to such modifications and conditions as it may stipulate; or reject the Petition for reasons to be recorded in writing, after giving the Petitioner a reasonable opportunity of being heard.”

1.2.4 MSEDCL hereby submits the Petition under Section 62 of the Electricity Act, 2003 and MERC (MYT) Regulations, 2019 for True-up for FY 2022-23 and FY 2023-24, and Provisional True- up for FY 2024-25 and MERC (MYT) Regulations, 2024 for

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Projections for the 5th Control Period FY 2025-26 to FY 2029-30 based on projections. The Regulatory Formats are annexed as Annexure 1.1 to this Petition. MSEDCL is also submitting the Annual Accounts for the period 1st April 2022 to 31st March 2023, 1st April 2023 to 31st March 2024 duly audited by the statutory auditors for the purpose of truing up of expenses and revenue for FY 2022-23 and FY 2023-24 annexed as Annexure 1.2 and Annexure 1.3 respectively to this Petition.

1.2.5 MSEDCL is also filing the provisional True up for FY 2024-25 based on latest available information for FY 2024-25 and Projections for the period from FY 2025-26 to FY 2029-30 based on the estimates/ projections provided in this Petition.

1.3 Appeal No. 280 of 2019 before the Hon'ble APTEL, New Delhi

1.3.1 MSEDCL submits that on 29th October 2018, it had filed Petition for review of certain aspects of the Mid-Term Review (MTR) Order dated 12th September, 2018 in Case No. 195 of 2017. Hon'ble Commission disposed of the said Petition vide its Order No. 321 of 2018 dated 24th December 2018 and partly allowed the certain contentions of MSEDCL. However, aggrieved by the rulings of Hon'ble Commission, MSEDCL preferred an appeal before the Hon'ble APTEL, New Delhi (Appeal No. 280 of 2019) on following major grounds.

- Non-consideration of MSEDCL proposal for revision in definition of Billing Demand;
- Capping Cross Subsidy Surcharge to 20% of Average Tariff;
- Non-consideration of approved trajectory of distribution loss for computation of sharing of Gains and Losses for FY 2016-17;
- Non-consideration of MSEDCL submission for mandatory Standby Arrangement for SEZ and Deemed Licensees;
- Difference in opening normative equity for FY 2015-16 as submitted in MTR Petition and as approved in MTR Order.
- MSEDCL is submitting the current Petition without prejudice to any of its right and contentions taken by MSEDCL in said Appeal and MSEDCL reserves its right to again approach the Hon'ble Commission depending upon the final decision of the Hon'ble APTEL, New Delhi in said Appeal.

1.4 Appeal No. 65 of 2022 before the Hon'ble APTEL, New Delhi

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1.4.1 Hon'ble Commission has issued MYT Order dated 30th March 2020 in Case No. 322 of 2019 for True-up for FY 2017-18 and FY 2018-19, Provisional True up for FY 2019-20 and ARR and Tariff of Control Period from FY 2020-21 to FY 2024-25. MSEDCL submits that on 14.05.2020 it had filed Petition for review of certain aspects of the MYT Order dated 30th March 2020 in Case No. 322 of 2019. Hon'ble Commission disposed of the said Petition vide its Order in Case No. 84 of 2020 dated 30th June 2020 and partly allowed the certain contentions of MSEDCL. However, aggrieved by the ruling of Hon'ble Commission, MSEDCL preferred an Appeal No. 65 of 2022 (DFR No. 318 of 2020) against the Hon'ble Commission Review Order dated 30th June 2020 in Case No. 84 of 2020 as well against Hon'ble Commission MYT Order dated 30th March 2020 in Case No. 322 of 2019 on following major grounds:

- Revision in Ag sales estimation for FY 2017-18 and FY 2019-20
- Ag Sales re-assessment for the year prior to FY 2019-20
- Relative reduction of Ag sales for FY 2019-20 than that for FY 2018-19
- Grant of consequential impact on Gross Fixed Assets (GFA) i.e., depreciation, interest on loan and equity from FY 2007-08 onwards.

1.4.2 MSEDCL is submitting the current petition without prejudice to any of its rights and contentions taken by MSEDCL in said Appeal and MSEDCL reserves its right to again approach the Hon'ble Commission depending upon the final decision of Hon'ble APTEL in said Appeal.

2 FINAL TRUE UP FOR FY 2022-23 & FY 2023-24

2.1 Preamble

- 2.1.1 This section outlines the actual performance of MSEDCL for FY 2022-23 & 2023-24. MSEDCL hereby submits final True Up for FY 2022-23 & FY 2023-24 comparing the actual audited data for FY 2022-23 & FY 2023-24 with those approved by the Hon'ble Commission vide MTR order dated 31st March 2023 in Case no. 226 of 2022.
- 2.1.2 The Board of Directors of MSEDCL has approved the Audited Annual accounts audited by Statutory Auditors M/s. GMJ & Co., M/s. Khandelwal Jain & Co. and M/s. M.P. Chitale & Co. for the period of FY 2022-23 vide report dated 26th October 2023 (attached as Annexure 1.2 to this Petition), and audited by Statutory auditors M/s. M.P. Chitale & Co., S. Jaykrishan and K C Mehta & Co LLP for the financial year FY 2023-24 vide report dated 30th August 2024 (attached as Annexure 1.3 to this petition). MSEDCL hereby proposes to True up its expenses and revenues based on the said Audited Accounts for FY 2022-23 and FY 2023-24 for the respective Financial Years.
- 2.1.3 Following sections outline the deviations in actual expenses and revenue for FY 2022-23 & FY 2023-24 based on the Audited Accounts of MSEDCL in comparison with the expenses and revenue approved by the Hon'ble Commission vide MTR order dated 31st March 2023 in Case no. 226 of 2022.

2.2 Principles of Truing-up for FY 2022-23 & FY 2023-24

- 2.2.1 MSEDCL submits that Regulation 5.1 (c) of MERC (Multi Year Tariff) Regulations, 2019 specifies that the Truing up for FY 2022-23 & FY 2023-24 has to be carried out based on the provisions of the MERC (Multi Year Tariff) Regulations, 2019 and has to be filed by 30th November 2024 by the Distribution Licensee. The excerpt of the Regulation is provided below for the kind reference of the Hon'ble Commission:

"5.1 (c)

True-up Petition, which is complete in all aspects as per these Regulations, for the third and fourth year of the Control Period shall be filed by November 1, 2024, by Generating Companies, Transmission Licensees and SLDC, and by 30th November 2024, by Distribution Licensees, comprising:

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- i. *Truing-up for FY 2022-23 and FY 2023-24 to be carried out under the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2019;”*
- ii. *Provisional Truing-up for FY 2024-25 to be carried out under the Maharashtra Electricity Regulatory Commission (Multi year Tariff Regulations, 2019;*

2.2.2 In line with the provisions of MERC (Multi Year Tariff) Regulations, 2019, MSEDCL has computed this Truing-up for FY 2022-23 & FY 2023-24 in the following sections.

2.3 Category Wise Sales for FY 2022-23 & FY 2023-24

2.3.1 Category wise actual sales for FY 2022-23 & FY 2023-24 for MSEDCL has been summarized in the following table:

Table 1 Category wise sales for FY 2022-23 & FY 2023-24

Category	Sales (Mus)			Sales (Mus)		
	FY 2022-23 (Approved)	FY 2022-23 (Actual)	Deviation	FY 2023-24 (Approved)	FY 2023-24 (Actual)	Deviation
Residential	25,696.02	23,044.43	(2,651.59)	26,255.04	24,521.57	(1,733.47)
Commercial	8,404.94	7,371.76	(1,033.18)	8,702.51	8,197.82	(504.68)
HT Industrial	38,520.88	36,591.78	(1,929.10)	39,613.85	38,147.76	(1,466.09)
LT-Industrial	9,657.76	9,212.63	(445.13)	9,804.15	10,083.35	279.20
PWW	2,716.83	2,701.49	(15.34)	2,783.58	2,791.97	8.38
Street Light	896.33	1,089.07	192.75	896.33	1,098.08	201.75
Agriculture	27,953.45	37,666.04	9,712.59	28,176.63	41,314.34	13,137.70
Public Services	1,877.95	1,810.52	(67.43)	1,943.77	2,012.36	68.59
Railways	107.77	101.91	(5.86)	111.15	133.21	22.06
EV	54.68	59.54	4.86	60.15	100.22	40.07
Others	832.39	797.09	(35.30)	870.14	625.53	(244.60)
Total Excl DF	1,16,719.00	1,20,446.27	3,727.27	1,19,217.30	1,29,026.21	9,808.91
Particulars	FY 2022-23 (Approved)	FY 2022-23 (Actual)	Deviation	FY 2023-24 (Approved)	FY 2023-24 (Actual)	Deviation
Total Excl DF	1,16,719.00	1,20,446.27	3,727.27	1,19,217.30	1,29,026.21	9,808.91
Add: Energy Sales in DF						
a. Bhiwandi	3,364.62	3,555.09	190.47	3,425.38	3,541.62	116.25
b. Malegaon	741.32	782.88	41.56	754.21	831.88	77.67
c. Thane	545.76	522.47	(23.29)	558.32	590.05	31.73
Total Sales Incl. DF	1,21,370.70	1,25,306.71	3,936.02	1,23,955.20	1,33,989.76	10,034.56

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Category	Sales (Mus)			Sales (Mus)		
	FY 2022-23 (Approved)	FY 2022-23 (Actual)	Deviation	FY 2023-24 (Approved)	FY 2023-24 (Actual)	Deviation
Add: OA Sales (Conventional)	4,631.00	4,353.64	(277.36)	4,863.00	4,505.94	(357.06)
Add: OA Sales (Renewable)	1,988.00	1,992.12	4.12	2,825.00	3,072.36	247.36
Add: Solar Offset Units	0	159.65	159.65	(0.38)	202.66	203.04
Total Energy Sales MSEDCL	1,27,989.70	1,31,812.12	3,822.43	1,31,642.82	1,41,770.73	10,127.90

2.3.2 MSEDCL submits that at the time of filing of MTR Petition, it had submitted the provisional information available for FY 2022-23 and revised projections for FY2023-24.

2.3.3 MSEDCL's actual Sales for FY 2022-23 & FY 2023-24 are recorded as 1,31,812.12 MUs & 1,41,770.73 MUs respectively.

2.3.4 MSEDCL would like to bring to the notice of the Hon'ble Commission, that it has taken all possible efforts to meet the energy needs of the consumers in its license area. The sales have grown consistent over the years from 99,664 MUs in FY 2016-17 to 141,771 MUs in FY 2023-24 (at an overall CAGR of ~5%).

2.3.5 Total actual sales is more than the Approved sales for both FY2022-23 and FY 2023-24, due to increase in Agriculture sales.

2.3.6 Further, MSEDCL would like to bring to the notice of the Hon'ble Commission that the GOM had introduced the "AG Policy 2020" in FY 2020. Under the Policy, GOM had made the provisions for release pending AG connections within a period of three years. During these years MSEDCL released 3,24,409 connections within FY 2021-22 to FY 2023-24 to Agriculture consumers.

2.3.7 MSEDCL requests the Hon'ble Commission to approve the Actual sales for FY 2022-23 and FY 2023-24.

2.4 Distribution Losses for FY 2022-23 & FY 2023-24

2.4.1 MSEDCL has submitted that the actual distribution loss (excluding EHV sales) achieved by MSEDCL for FY 2022-23 and FY 2023-24 are 16.49% & 17.95% against the approved figure of 14% and 13% respectively in the MTR Order.

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Table 2 Distribution Losses for FY 2022-23 & FY 2023-24

Particulars	FY 22-23 (Approved)	FY 22-23 (Actual)	FY 23-24 (Approved)	FY 23-24 (Actual)
Distribution Loss	14%	16.49%	13%	17.95%

2.4.2 MSEDCL endeavours for taking Distribution Losses to the lowest possible level. MSEDCL has taken various initiative to limit the rise in tariffs rates by curtailing Distribution Loss, accurate billing of proper reading of unutilized energy, increasing collection efficiency, limiting Operations and Maintenance expenses and implementing latest technology for efficient management for reduction of Distribution losses.

2.4.3 It is also pertinent to note that the number of AG Consumers in Maharashtra are one of the highest in India. MSEDCL has taken initiatives to convert all AG feeders to feeder input based index billing in phase wise manner by installation of AMR meters to all Ag feeders. MSEDCL has initiated the installation of AMR meters on the selected 2,000 non-Ag feeders (including earlier 502+27 MERC AG working group selected AG feeders).

2.4.4 In the MYT order 322 of 2019 dated 30th March 2020, Hon' Commission has laid down a methodology for Feeder Index and Unmetered Ag sale estimation.

2.4.5 Accordingly, Hon. Commission in its MYT for the control period FY 2020-21 to FY 2024-25 introduced feeder index-based Ag consumption estimation initially on 502 MERC selected feeders.

2.4.6 In furtherance, Hon. Commission has given various directives regarding Agriculture sale estimation in Case no. 226 of 2022 dated 31st March 2023 to be implemented in time bound manner. Also directed to extend this methodology to all Ag feeders till 100% completion of Ag metering. The relevant abstract is as under

MTR Order Case No. 226 of 2022 "8.10.14 – The Commission observes that the process/methodology for selection of feeders for AG Index methodology has been amply elaborated with associated conditions under MYT Order in Case No. 322 of 2019 and any deviation from the same is not appropriate. Besides, the addition of more feeders in the AG index methodology will have to be undertaken upon careful diligence of all the steps outlined therein and certainly not in substitution /replacement of identified 502 feeders, just because significant discrepancy in actual billed sale and estimated sale is noticed or it is inconvenient to use such identified 502 feeders."

- 2.4.7 For compliance of the directives, MSEDCL planned to convert all Ag feeders to feeder input based index billing in phase wise manner by installation of AMR meters to all Ag feeders. In first phase i.e., in FY 2023-24, 2,000 nos. of AG feeders (including earlier 502 + 27 MERC Ag working group selected AG feeders) were targeted to include in index billing. Accordingly, MSEDCL initiated installation of AMR meters on all the selected 2,000 Nos. Ag feeders.
- 2.4.8 Further, in addition to the initial 529 nos., additional 1,168 feeders are considered for feeder input based index Ag billing where metering data is received through AMR/MRI which are included after careful consideration of all the steps outlined in Case No. 322 of 2019. After correction of Consumer indexing on these 1,168 feeders (in addition to 529 Ag feeders), the same are considered for feeder input based Index based Ag billing in Sept 2023 quarter. The data of above feeders is displayed on website.
- 2.4.9 Further, Hon'ble Commission has issued directives in Clarificatory Order 79 of case 2020 dated 30th March 2020.
- “21. Therefore, till the feeder wise actual technical losses are not available, the Commission allows MSEDCL to use 18% as Technical Loss for implementing feeder input based billing to Agriculture consumer connected on 502 selected feeders. Further, this billing method (billed for units consumed arrived based on feeder input) will be applicable to all Agriculture Consumers (metered or un-metered) connected on that feeder.”*
- 2.4.10 In furtherance, as per the above directives of Hon. MERC regarding consideration of 18% loss for estimation of Feeder Ag index and thereby Ag sale estimation by applying the same index to all unmetered Ag consumers widespread across Division jurisdiction.
- 2.4.11 Due to this revised methodology, an estimated Ag sale of unmetered consumers has considerably reduced affecting the overall distribution losses of MSEDCL.
- 2.4.12 To estimate the distribution losses correctly, MSEDCL has initiated computation of technical losses with advanced software “CYME DIST” for these 502 feeders. For computation, Software considers all the parameters of feeders i.e., length and conductor size of HT /LT line, Capacity of DT, No of Ag consumers with their connected load and feeder real-time loading data etc.

2.4.13 MSEDCL has updated and computed the average technical losses of 535 feeders as per CYMDIST software which is 9.1%.

2.4.14 The methodology for calculation of AG feeder indexing is detailed in section 2.5 of this petition.

2.4.15 It is humbly submitted that the Distribution losses of MSEDCL for the FY 2023-24 is 16.90% (by considering technical feeder losses 9.1%).

2.5 Methodology for AG feeder indexing and calculation of losses

2.5.1 MSEDCL submits that, it has calculated the technical losses for all 535 feeders and the approach adopted for AG feeder indexing and calculation of losses is detailed in this section.

2.5.2 MSEDCL submits that the AG sales for FY 2022-23 and FY 2023-24 is as below:

Table 3 AG sales for FY 2022-23 and FY 2023-24

Category	FY 2022-23	FY 2023-24
	As per Actual	As per Actual
AG (Metered)	22,552	24,116
AG (Feeder Index)	1,579	4,604
Total AG Metered	24,132	28,706
AG (Unmetered)	12,503	10,629
Total AG	36,635	39,349

2.5.3 MSEDCL has two categories in Agriculture sale, metered and unmetered.

FY 2022-23 - Metered consumers were billed as per there meter reading and metered tariff, the metered AG sale is as per billing. Unmetered consumers were billed as per HP tariff and sale was as per normal metered consumer's index.

FY2023-24 - Metered consumers were billed as per there meter reading and metered tariff, the metered AG sale is as per billing. Unmetered consumers were billed as per HP tariff and sale was as per MERC + additional feeder input based index.

As per MERC Order Case No.84 of 2020 -

11.22....Hence, the Commission has decided to accept overall approach and feeder input based methodology as basis for estimation of AG Sales and

assessment of distribution loss in principle with adjustment in the range of estimation as +/-8% instead of +/-4% and for the purpose of true-up of sales, energy balance and assessment of distribution loss level for FY 2018-19 and for stipulating distribution loss reduction trajectory for future period.”

As per MERC Order - Case No. 226 of 2022 -

7.1.34 However, the Commission further rules that Feeder input-based AG Index methodology as finalised under MYT Order in Case No. 322 of 2019 and also adopted in this MTR exercise based on identified 502 feeders shall form the basis for approval of AG sales during truing up exercise to be carried out at the end of the 4th Control Period and for years FY 2022-23 to FY 2024-25. MSEDCL should assess the AG Sales and Distribution Loss thereof based on AG Index as determined based on identified 502 feeders. The Commission shall review this arrangement at the time of next tariff exercise based on progress of feeder-input based Group metering scheme. The Commission has given certain directions to address this important issue.”

2.5.4 As per MERC directives in Case no. 322 of 2019, Case no. 84 of 2020 & Case No. 226 of 2022,

- Follow the feeder input based AG index methodology as basis for estimation of AG Sales.
- This is the basis for approval of AG sales for future trajectory
- To extend this methodology to all AG feeders, MSEDCL to follow process for selection of additional feeders for AG Index methodology as elaborated under MYT Order in Case 322 of 2019 and any deviation from the same is not appropriate.
- Further, Commission directs MSEDCL to complete technical loss computation of 502 selected feeders and till the feeder wise actual technical losses are not available, the Commission allows MSEDCL to use 18% as Technical Loss for implementing feeder input based billing to Agriculture consumer connected on 502 selected feeders.

2.5.5 MSEDCL has followed these directives and taken following actions,

- From June 2020, MSEDCL has implemented feeder input based AG index methodology on 502 selected feeders.
- In Sept 2023, MSEDCL has added 1168 additional feeders by following the

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process of selection as elaborated in Case no. 322 of 2019. The same is provided in section 2.5.9.

- The details of AG sales based on feeder input based methodology and index is given as below. Hence it is humbly submitted to consider these additional feeders as basis for estimation of AG Sales.

Table 4 AG Index 502 feeders

Period	FY 20-21			FY 2021-22			FY 2022-23			FY 2023-24		
	Sale (MUs)	Load (HP)	Index	Sale (MUs)	Load (HP)	Index	Sale (MUs)	Load (HP)	Index	Sale (MUs)	Load (HP)	Index
Jun-Qtr	397	1191508	334	398	1260484	316	413	1287885	321	424	1320406	321
Sep-Qtr	200	1191422	167	272	1278716	213	197	1262382	156	313	1321144	237
Dec-Qtr	376	1240305	303	342	1267277	270	391	1285523	304	461	1327091	347
Mar-Qtr	490	1251969	391	511	1273716	401	527	1290843	408	511	1343815	380
FY			1196			1199			1189			1286

Table 5 502+Additional feeder AG Index (from Sept 2023 qtr)

Period	FY 2023-24		
	Sale (MUs)	Load (HP)	Index
Jun-QTR	424	1,320,406	321
Sep-QTR	1,043	3,898,927	268
Dec-QTR	1,457	3,898,016	374
Mar-QTR	1,600	3,940,519	406
FY			1,368

2.5.6 Technical losses of MERC selected AG feeders

- 2.5.6.1 MSEDCL laid out an ambitious plan to improve reliability of power supply, enhance customer services and implement cutting edge technology. MSEDCL have adopted various engineering analysis tools and taken major initiatives for improvement of 33KV & 11KV power sub-transmission & distribution network performance. The network analysis tools which are complying with SRS document advised by MOP & CEA for shortlisting & procurement of the Network Analysis. The present available network analysis tool is being used by most of the Power Utilities in India and inducted in system after techno-commercial evaluation of Network Analysis solutions.
- 2.5.6.2 MSEDCL have conducted Network analysis to optimize the technical losses and improve network conditions. Here is the process for evaluating the Power Distribution network / feeders of AG Consumers in Maharashtra and generation of study reports as per standard practices and guidelines made available by various standard organizations & CEA, India.
- 2.5.6.3 Main objective of this exercise is to evaluate the 11KV AG Feeder Power distribution network and compute technical & energy losses in scientific manner which shall help to derive the strategy for finalization of feeder level AG index. It is decided that the Feeder Technical loss can be computed through CYMEDIST software, if the feeder level HT Line, LT Line, DTC, Poles and consumer level data & drawings were modelled in CYMEDIST software.
- 2.5.6.4 MSEDCL has planned to complete the technical loss calculations of MERC selected feeders. For accurate calculation of technical losses & energy losses index / percentage level of 11KV AG Feeders, following technical data is required / considered.
- Electrical Single line diagram starting from 33/11KV substations upto Distribution Transformer (11/0.415KV) including low Tension lines up to consumer level.
 - Single line diagram containing complete electrical network information such as Transformer ratings, (11KV & 415V) distribution line conductor/cable type & size and length consumer no, connected load details (HP rating of AG connections).
 - 11KV AG feeder peak loading information, metered data for complete day / month with hourly/30 min interval records.
 - Usage of accurate Equipment database / technical parameters for performing network analysis on AG feeders.

-
- A. **Survey & Data Collection:** MSEDCL gathered detailed electrical network data for creation of complete AG feeder model in software as mentioned above. This network data is fed, validated and verified for its correctness. All collected network data including connected AG consumers, their names, consumer numbers connected load rating in HP and connectivity to respective LT pole no. is available with MSEDCL in Excel sheets & PDF file format.
- B. **Network Modeling in CYMDIST Software:** MSEDCL have prepared detailed equipment library as per the OEM technical datasheet & available IEEE, IS & IEC standard data of various equipment. These technical parameters are being used to perform analysis. Using CYMDIST Software each AG feeder network model is created and respective data of each consumer is entered to software as Spot Loads (Connected KVA). Water pump HP Ratings are converted to KVA.
- C. **Loading of AG Feeders – Peak & MDAS (Profile):** MSEDCL have system in place to measure and record the peak loading and loading at scheduled interval of each 11KV feeders. MSEDCL have decided to use this actual recorded data to compute actual technical and energy losses in the system. The Peak loading data of each AG feeder is used to perform load demand allocation. The data used is Peak (Amp & PF) during that month.

It is also decided to use hourly, or 30 min scheduled interval measurement data of AG feeder for performing load demand allocation. For detailed calculations daily and monthly Load profiles data is used. MDAS (Meter Data Acquisition System) provided continuous load profiles over time. This system is instrumental in gathering real-time and historical data on feeder loads, voltage levels, and energy consumption patterns. We incorporated this dynamic load profile data to analyze the actual load variation across different time intervals.

- D. **Analysis – Load Demand allocation:** The best worldwide technically proven methodology for power distribution network analysis is used. The Load demand allocation on measured load demand and connected load or consumptions KWH. In this case since each consumer do not have specific energy meter installed, the HP rating of each consumer is considered as Connected KVA load and load demand allocation is performed based on Connected KVA method. Initially Peak load demand is allocated to the network by “Connected KVA” methodology and after performing power flow analysis losses are computed.

After that each interval record of 30 Min is used to perform load demand allocation in Time series form and then losses are computed.

E. Analysis – Power Flow with Profile Data: In this case CYMDIST provides option to perform Time-series analysis for 1 day (24 hours) or for week or for month or any selected range of date and time as per the profile data. We used monthly data for these AG feeders and perform Power/Load Flow analysis with Profiles to compute energy loss of that AG feeder.

Table 6 Abstract of Loss calculations

Feeder Technical Losses	Below 3%	3% to 6%	6% to 8%	8% to 10%	10% to 12%	12% to 15%	15% to 18%	Above 18%	Grand Total
Count of feeders	33	159	108	57	72	49	30	27	535
%	6.2%	29.7%	20.2%	10.7%	13.5%	9.2%	5.6%	5.0%	100%

The reasons for high technical loss are examined few are as follows:

- Lengthy feeders
- Overloaded DTs
- Under rated conductors

The reasons analyzed for high technical loss will be addressed by Network and Planning and the losses will be reduced to the appropriate level. Also, the technical loss less than 2% are due to incorrect data, the same is scrutinized and will be corrected.

2.5.7 DT metering on MERC selected feeders

As per Hon'ble Commission's directives, work of DTC metering on MERC AG feeder has been started. Feeders where 100% work is completed and are as follows. The balance work will be completed within short period of time. The comparison of losses of the feeder loss till DTC (as per metering and reading received) and the complete feeder loss as per CYMDIST is verified. The losses are seen in range.

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Table 7 DT metering status

Zone	Circle	Substation Name	Feeder Name	Total Metered DTC	HT Length	LT Length	% Feeder Technical losses	% Feeder Loss (Up to DTC)
Amravati	Amravati	33 KV TONDGAON	11KV Tondgaon	67	24	80	4.3	3%
Baramati	Solapur	33/11KV KHANDALI SUB STATION	11KV DATTANAGAR	28	10	13	2.8	1%
Kolhapur	Sangli	33/11 KV NAGAON	11 KV POKHARNI AG	33	12	52	11.1	8%
Nasik	Malgaon	GAVANDGAON SUB STATION	11 KV KAUTKHEDA	25	10	19	6.4	4%
Nasik	Ahmednagar	33/11 KV PUNTAMBA	11KV BAJARANG	19	10	27	10.6	6%

2.5.8 Calculation of AG sales Estimation

MSEDCL submits that, consideration of Feeder Input based AG index including Additional Feeders. From the above average technical losses of 535 feeders as per CYMDIST software comes to be 9.1% as against 18% considered by Commission. Hence it is requested to consider the 9.1% technical loss for Feeder Input based AG Index methodology.

Table 8 AG Index as per 9.1% Technical loss for FY2022-23 & FY 2023-24

MERC feeders		
	18% Loss	9.1% loss
FY 2022-23	1,189	1,319
MERC + Additional feeders		
FY 2023-24	1,368	1,518

2.5.9 Selection of additional AG feeder for feeder input based AG index methodology

2.5.9.1 As per directives of Hon'ble MERC, MSEDCL had planned to extend feeder index methodology for all feeders. Initially 5000 AG feeders were considered for AG feeder index billing methodology with selection criteria based on Hon'ble MERC's 502 feeder selection methodology as followed by AG Working Group.

2.5.9.2 The methodology of selecting additional feeder is as below.

- All AG Feeders including Mix feeders are considered for initial selection. The total AG feeders considered are 11001 nos.
- The Initial outliers of 500 to 4000 working Hrs criteria are applied on these

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feeders. The feeders outside the criteria are excluded. The no of feeders selected are 10380 nos.

- These feeders are arranged in descending order of total AG sale on these feeders.
- Then after these feeders are split into 04 quartile with 2595 feeders in each quartile.
- Then % share of AG Sale, AG Consumers and AG Load in each quartile is calculated as Ag intensity.
- For Example, if 5000 no. feeder to considered for selection then 2131 no. of Quartile 1 feeders are to be considered for selection. In this manner every 06th feeder is excluded from the selection in quartile 1. Likewise for all other quartile.
- After this selection, it is seen that the data of such selected feeders is not received through AMR/MRI sources. From the selected feeder only 577 nos. of feeder have consistent data through AMR/MRI source. Hence 577 nos. of feeder are selected for feeder index Billing. These feeders are in addition to 524 nos. of Initial selected MERC feeders.
- Other than these 577 nos. of selected feeders, to increase the scope of Feeder index Billing further for AG consumers additional 616 nos. of Ag feeders are proposed that are having data consistency through AMR/MRI sources.
- In total 1193 nos. of AG feeders are hereby proposed for Feeder index billing in addition to present 524 no. of AG feeders. In Total 1717 no. of feeders are to be considered for AG feeder index billing from next AG Billing cycle.
- After confirmation from Field offices, 1168 additional feeders are finally considered for Feeder index methodology.
- The data of above feeders is displayed on website.

Table 9 AG feeder details

Total AG Feeders	Quartile 1	Quartile 2	Quartile 3	Quartile 4	Total
Total AG Feeders					
RURAL-LTAGD	674	670	732	668	2744
RURAL-LTSDT	1146	934	748	431	3259
RURAL-LTSPP	709	905	960	805	3379
RURAL-MIX	66	86	155	691	998
Total Feeders	2595	2595	2595	2595	10380
Ag Intensity					
Consumers Total AG	1677300	1175039	893188	453040	4198567

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Total AG Feeders	Quartile 1	Quartile 2	Quartile 3	Quartile 4	Total
Load AG (HP)	8730426	5917266	4457650	2160017	21265359
Sale MU(AG)	15374	9163	5953	2313	32803
Average %AG Intensity	42.62%	27.92%	20.13%	9.33%	100%
Sample Size (5000 Feeders)	2131	1396	1006	467	5000
4936 sample feeders					
RURAL-LTAGD	562	335	294	112	1303
RURAL-LTSDT	955	467	300	72	1794
RURAL-LTSPP	591	453	384	135	1563
RURAL-MIX	55	43	62	116	276
Grand Total	2163	1298	1040	435	4936

Table 10 AG index billing feeder status as on Mar 24

Zone	Initial MERC feeders	Bifurcated MERC feeders	Additional Feeders	Grand Total
Akola Zone	34	1	11	46
Amravati Zone	23	2	44	69
Baramati Zone	94	6	299	399
CH. Sambhajinagar	33		31	64
Chandrapur			51	51
Gondia	3	1	12	16
Jalgaon	60	3	88	151
Kolhapur	38	3	202	243
Latur	63		61	124
Nagpur	12	3	70	85
Nanded	30	1	40	71
Nasik	107	7	208	322
Pune	5		51	56
Total	502	27	1168	1697

The details of AG feeders are attached as Annexure 2.1 to this petition

2.6 Energy Balance for FY 2022-23 & FY 2023-24

2.6.1 The quantum of sales as shown in the table below in MUs, represents the sales of MSEDCL including the sales in the areas served by Distribution Franchisees. As per the methodology adopted by the Hon'ble Commission for calculating energy balance of MSEDCL as a whole, the sale to the consumers within the Distribution Franchisee area has also been considered. Therefore, energy available for sale for FY 2022-23 & FY 2023-24 are computed as below:

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Table 11 Energy Sales for FY 2022-23 & FY 2023-24

Particulars	FY 2022-23 (Approved)	FY 2022-23 (Actual)	Deviation	FY 2023-24 (Approved)	FY 2023-24 (Actual)	Deviation
Total Excl DF	116,719.00	120,446.27	3,727.27	119,217.30	129,026.21	9,808.91
Add: Energy Sales in DF						
a. Bhiwandi	3,364.62	3,555.09	190.47	3,425.38	3,541.62	116.25
b. Malegaon	741.32	782.88	41.56	754.21	831.88	77.67
c. Thane	545.76	522.47	(23.29)	558.32	590.05	31.73
Total Sales Incl. DF	121,370.70	125,306.71	3,936.02	123,955.20	133,989.76	10,034.56
Add: OA Sales (Conventional)	4,631.00	4,353.64	(277.36)	4,863.00	4,505.94	(357.06)
Add: OA Sales (Renewable)	1,988.00	1,992.12	4.12	2,825.00	3,072.36	247.36
Add: Solar Offset Units	0	159.65	159.65	(0.38)	202.66	203.04
Total Energy Sales MSEDCL	127,989.70	131,812.12	3,822.43	131,642.82	141,770.73	10,127.90

2.6.2 MSEDCL submits that the total actual energy sales for FY 2022-23 & FY 2023-24 are 1,31,812.12 MUs and 1,41,770.73 MUs respectively as compared to 127,989.70 MUs & 131,642.82 MUs which was approved by the Hon'ble Commission in MTR Order dated 31st Mar 2023, order no. 226 of 2022.

2.6.3 MSEDCL further submits that it is procuring power from various sources including MSPGCL, CGS including nuclear power plants, Traders, IPPs and Renewable Sources. It would be very difficult to differentiate which power is coming from which source at the transmission periphery. Hence, an average Inter-State loss for the whole year is considered for power sourced from outside the State of Maharashtra.

2.6.4 MSEDCL also submits that data of metered energy is available at 3 points: at bus-bar of the generating station, at T <> D interface i.e., at Distribution Periphery and sales at consumer end. It is further submitted that MSEDCL considers metered energy to calculate Distribution Loss.

2.6.5 MSEDCL submits that power purchased or scheduled from Inter State Transmission network is scheduled by Western Region Load Dispatch Centre. The power purchase from Inter State networks can be grouped under following categories.

Table 12 Category of Power Generators

Type	Purchase Include power from
ISGS (Inter State Generating Station)	NTPC, NPCIL, SSP, Pench, CGPL
Long Term Access (LTA) i.e., IPP	EMCO

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Type	Purchase Include power from
Short Term Open Access (STOA)	Short term bilateral power purchase, Power purchase through Power Market like IEX, Banking Arrangement

- 2.6.6 MSEDCL submits that based on the power scheduled at generator bus for Maharashtra, the power is Full schedule on WRLDC web-based scheduling software. Similarly, power scheduled at Maharashtra state periphery is available as Net schedule on WRLDC web-based scheduling software.
- 2.6.7 Tarapur Atomic Power Station of NPCIL (TAPS 1&2) which is considered as ISGS station, however, is connected to Maharashtra State STU network for power evacuation. Hence, for scheduling of power to Maharashtra no PoC / scheduling loss is considered. Similarly, EMCO Warora is located in Maharashtra, but this generating station is connected to ISTS network. Hence, power is scheduled by WRLDC.
- 2.6.8 For interstate loss computation, power scheduled from ISGS station, CGPL, EMCO, SSP, Pench & short-term procurement through Inter-state network i.e. scheduling done by RLDC is taken into consideration.
- 2.6.9 MSEDCL also purchased power from power market mainly Indian Energy Exchange as per the requirement to meet the demand or for cost optimization. The power purchase from Indian Energy Exchange is at regional periphery and drawal losses are applicable for energy purchased from IEX to compute energy available at Maharashtra State periphery.
- 2.6.10 Further, MSEDCL also had agreements for banking of power from states like Haryana, Himachal Pradesh, Punjab. In banking arrangement, transactions are settled at regional periphery and concerned DISCOMs has to bear drawal loss when receiving power from other DISCOM and has to bear injection loss when delivering power to other DISCOM.
- 2.6.11 MSEDCL submits that the surplus power traded at Exchange is billed at regional periphery and bilateral power traded is billed at STU periphery. The quantum of 1,394 MUs & 536.73 MUs shown under 'Surplus Energy Traded' is the actual energy traded by MSEDCL at STU periphery during FY 2022-23 & FY 2023-24.
- 2.6.12 Considering the energy at ex bus bar and energy received at STU periphery from these reports, MSEDCL has considered the inter-state transmission losses as 3.57%

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for FY 2022-23 and 3.54% for FY 2023-24.

2.6.13 MSEDCL further submits that the MSLDC computes the Intra-State Transmission System (InSTS) Grid Loss based on the Energy Input and Energy Output. This is grid loss for the Maharashtra Transmission System and not for MSEDCL. Hence, considering the fact that Grid Loss cannot be same for all Distribution Licensees, MSEDCL has computed Intra-State Transmission losses separately at 3.22% for FY 2022-23 and 3.19% for FY 2023-24.

2.6.14 MSEDCL submits that it has considered an interstate transmission loss for Maharashtra System as 3.22% for computing the input for OA consumption.

2.6.15 Considering the energy available for sale for FY 2022-23 & FY 2023-24, the energy balance for MSEDCL is calculated as shown in the table below. The following table shows the energy balance for FY 2022-23 & FY 2023-24.

Table 13 Energy Balance for FY 22-23

Sr. No	Particulars	Calculation	UoM	FY 2022-23
1	LT Agriculture Sales (Including D.F)	a	MU	36,634.99
2	LT Sales excluding Agriculture Sales (Including D.F)	b	MU	44,915.45
3	HT Sales excluding EHV level sales (Including D.F)	c	MU	31,136.11
4	Total Sales including D.F (Excluding EHV Sales)	d=a+b+c	MU	1,12,686.55
5	OA Sales (Renewables)	e	MU	1,992.12
6	OA Sales (Conventional)	f	MU	4,353.64
7	Retail Energy Sale to Consumers (Excluding EHV Sales)	A=d+e+f	MU	1,19,032.31
8	Sale due to Surplus Energy Traded	B=1%*(d+t)	MU	1,394.09
9	Retail Energy Sale including surplus traded (Excluding EHV Sales)	C=A+B	MU	1,20,426.40
10	Total Power Purchase	D=g+h	MU	1,55,095.74
11	Power Purchase Quantum from Intra-State sources	g	MU	98,956.96
12	Power Purchase Quantum from Inter-State sources	h	MU	56,138.78
13	Inter-State Losses	i	%	3.57%
14	Power Purchase Quantum from Inter-State sources at MS Periphery	j=h*(1-i)	MU	54,134.84
	Add: FBSM		MU	
15	Power Quantum handled at Maharashtra Periphery	k=g+j	MU	1,53,091.80
16	Infirm Non-PPA Wind Power	l=e/(1-q)	MU	2,058.36
17	Input for OA Consumption	m=f/(1-q)	MU	4,498.40

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Sr. No	Particulars	Calculation	UoM	FY 2022-23
18	Total Power Purchase Quantum Handled	$n=k+l+m-v$	MU	1,59,648.56
19	Surplus Power Traded	$o=B$	MU	1,394.09
20	Energy Requirement at G<>T Periphery	$p=n-o$	MU	1,58,254.47
21	Intra-State Transmission Loss	q	%	3.22%
22	Intra-State Transmission Loss	$r=p*q$	MU	5,092.86
23	Net Energy requirement at T<>D Periphery	$s=p-r$	MU	1,53,161.61
24	EHV Sales	t	MU	12,779.81
25	Net Energy Available for Sale at 33kV	$u=s-t$	MU	1,40,381.80
26	Energy injected and drawn at 33kV	v	MU	1,105.96
27	Total Energy Available for Sale at 33kV	$E=u+v$	MU	1,41,487.76
28	Energy Available for Sale including Surplus traded (excluding OA Sales)	$F=E-l-m$	MU	1,34,931.00
29	Distribution Loss (Excl. EHV Sales and OA Sales)	$G=F-d$	MU	22,244.45
30	Distribution Loss (Excl. EHV Sales and OA Sales)	$H=G/F$	%	16.49%

Table 14 Energy Balance for FY 2023-24

Sr. No	Particulars	Calculation	UoM	FY 2023-24
1	LT Agriculture Sales (Including D.F)	a	MU	39,560.62
2	LT Sales excluding Agriculture Sales (Including D.F)	b	MU	48,022.22
3	HT Sales excluding EHV level sales (Including D.F)	c	MU	32,794.95
4	Total Sales including D.F (Excluding EHV Sales)	$d=a+b+c$	MU	1,20,377.79
5	OA Sales (Renewables)	e	MU	3,072.36
6	OA Sales (Conventional)	f	MU	4,505.94
7	Retail Energy Sale to Consumers (Excluding EHV Sales)	$A=d+e+f$	MU	1,27,956.09
8	Sale due to Surplus Energy Traded	$B=1%*(d+t)$	MU	-
9	Retail Energy Sale including surplus traded (Excluding EHV Sales)	$C=A+B$	MU	1,27,956.09
10	Total Power Purchase	$D=g+h$	MU	1,66,970.40
11	Power Purchase Quantum from Intra-State sources	g	MU	1,09,954.95
12	Power Purchase Quantum from Inter-State sources	h	MU	57,015.45
13	Inter-State Losses	i	%	3.54%
14	Power Purchase Quantum from Inter-State sources at MS Periphery	$j=h*(1-i)$	MU	54,997.68
	Add: FBSM		MU	-
15	Power Quantum handled at Maharashtra Periphery	$k=g+j$	MU	1,64,952.62

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Sr. No	Particulars	Calculation	UoM	FY 2023-24
				-
16	Infirm Non-PPA Wind Power	$l=e/(1-q)$	MU	3,268.47
17	Input for OA Consumption	$m=f/(1-q)$	MU	4,793.56
18	Total Power Purchase Quantum Handled	$n=k+l+m$	MU	1,73,014.65
19	Surplus Power Traded	$o=B$	MU	536.73
20	Energy Requirement at G<->T Periphery	$p=n-o$	MU	1,72,677.92
				-
21	Intra-State Transmission Loss	q	%	3.19%
22	Intra-State Transmission Loss	$r=p*q$	MU	5,509.14
23	Net Energy requirement at T<->D Periphery	$s=p-r$	MU	1,67,168.78
24	EHV Sales	t	MU	13,611.97
25	Net Energy Available for Sale at 33kV	$u=s-t$	MU	1,53,556.81
26	Energy injected and drawn at 33kV	v	MU	1,212.01
27	Total Energy Available for Sale at 33kV	$E=u+v$	MU	1,54,768.82
28	Energy Available for Sale including Surplus traded (excluding OA Sales)	$F=E-l-m$	MU	1,46,706.79
				-
29	Distribution Loss (Excl. EHV Sales and OA Sales)	$G=F-d$	MU	26,329.00
30	Distribution Loss (Excl. EHV Sales and OA Sales)	$H=G/F$	%	17.95%

2.6.16 MSEDCL requests the Hon'ble Commission to approve the Energy Balance for FY 2022-23 & FY 2023-24 as submitted by MSEDCL in the table above.

2.7 Power Purchase Expenses for FY 2022-23 & FY 2023-24

2.7.1 MSEDCL procures power from following sources of firm power to meet the power requirement for its customers:

- Maharashtra State Power Generation Company Limited (MSPGCL)
- Purchase from Central Generating Stations
- IPPs (JSW (Ratnagiri), CGPL, Adani Power Limited, RattanIndia Limited, Emco Power Limited, Sai Wardha, etc.)

2.7.2 MSEDCL also buys power from other sources such as Sardar Sarovar and Pench Hydro project, renewable sources including Hydro, Wind, Bagasse, MSW, and Solar.

2.7.3 In addition to the above sources, in case of any shortfall from approved sources, when demand exceeds availability or for cost optimization, MSEDCL sources power

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from exchange/Traders or other sources at the market price through competitive bidding in accordance with the Guidelines of MoP.

2.7.4 Following table summarizes the source wise power purchase done by MSEDCL during the FY 2022-23.

Table 15 Power Purchase Expenses for FY 2022-23

Source of Power	PP Quantum (Mus)			PP Cost (Rs)			PP Cost (Rs/kwh)		
	Approved in MYT Order	Actual	Deviation	Approved in MYT Order	Actual	Deviation	Approved in MYT Order	Actual	Deviation
MAHAGENCO	60,026.5	53,351.4	(6,675.2)	26,139.4	28,310.3	2,171.0	4.35	5.31	0.95
NTPC	30,044.5	38,050.69	8,155.1	12,858.1	16,577.53	3,785.7	4.28	4.36	0.08
NPCIL	4,233.1	4,434.6	201.6	1,331.7	2,054.2	722.5	3.15	4.63	1.49
SSP	1,213.3	1,180.5	(32.7)	248.7	242.0	(6.7)	2.05	2.05	(0.00)
Pench	136.9	117.9	(19.0)	28.1	24.2	(3.9)	2.05	2.05	0.00
Dodson		19.3	19.3	9.5	9.5	0.0		4.91	4.91
JSW		647.2	647.2	82.6	464.8	382.2		7.18	7.18
CGPL	3,507.8	1,481.9	(2,025.9)	1,935.3	1,139.0	(796.2)	5.52	7.69	2.17
Adani Power	13,288.7	21,349.4	8,060.7	8,051.1	15,571.0	7,520.0	6.06	7.29	1.23
EMCO Power	1,373.8	1,509.0	135.2	535.8	654.5	118.7	3.90	4.34	0.44
Rattan India	9,794.5	8,387.6	(1,406.9)	3,928.6	3,716.5	(212.1)	4.2	4.43	0.42
Sai Wardha		1,644.51	1644.51		745.51	745.51		4.53	4.53
Renewables	19,881.6	20,259.9	378.2	9,121.6	8,945.5	(176.1)	4.59	4.42	(0.17)
REC			-			-			-
Short Term	1,823.9	4,073.8	2,249.9	1,075.0	1,808.5	733.6	5.89	4.44	(1.45)
FBSM	23.0	(1,570.9)	(1,593.9)	1.9	(219.2)	(221.1)	0.83	1.40	0.57
MPEB	4.2	10.1	5.9	3.0	8.8	5.8	7.14	8.70	1.56
PGCIL Charges			-	3,661.9	3,801.8	139.9			-
Other			-		14.9	14.9			-
Total	145,351.8	155,095.7	9,743.9	69,012.0	83,935.8	14,923.7	4.75	5.41	0.66

2.7.5 In the following paragraphs, the detailed reasons for variation in the approved versus actual power purchase quantum and cost are provided.

- MSPGCL: Due to blending of imported coal as per Ministry of Power's notification dated 28th April 2022 (to import at least 10% of requirement of coal for blending), the cost of power from MSPGCL's generating station has increased. Therefore, as per MoD principles, the MSPGCL's generating station with high energy charges rate was out of MoD, mainly Bhusawal 4&5,

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Khaparkheda - 1 to 4, Nashik- 3,4 & 5 and GTPS Uran. Thus, even though, MSEDCL has purchased less power than approved from these stations, the power purchase cost is higher than approved cost.

- Central Sector: The peak demand for FY 2022-23 had reached upto 25,144 MW due to increase in heat wave and increase in Agricultural pumping demand. Around 4,200 MW generation capacity were under outages due to coal shortage/ forced/ planned outages. To cater to the shortfall during peak demand period, on request of MSEDCL to Govt. of Maharashtra and Ministry of Power, 672.99 MW power from the surrendered shares of original beneficiaries from Gadarwara STPS, Mauda-I STPS & Solapur STPS was reallocated to MSEDCL for the period from 28th March 2022 to 15th June 2022. MSEDCL has also filed a petition vide Case no. 68/MP/2022 for in-principle approval for procurement of the re-allocated power by MOP, GOI from NTPC power stations to Maharashtra for short term period. Hon'ble Commission, vide its Order dated 25th April 2022, had accorded approval for the same.

RE power (particularly solar power) was available during solar hours i.e. in day time. Due to non-availability of solar power during the evening peak and night hours, the demand is majorly catered by thermal power plants.

Moreover, MSEDCL was deprived power from TAPS 1 & 2 which were under shutdown from 8th January 2020 to till date. Thus, MSEDCL had to purchase power from the plants even though the plants are not part of approved MOD stack leading to higher power purchase cost.

- CGPL (Coastal Gujarat Power Limited): CGPL was also included by MoP in its notification released under Section 11 of EA 2003. Vide MoP notification dated 05th May 2022, MoP had constituted a committee under the Chairmanship of Chairperson CEA with representative from MoP, NTPC, CERC for finalization of Energy Charge Rate (ECR) under section 11 for imported coal plant. Same was continued vide notification dated 22nd February 2023 and continued till 31st December 2024 as per notification dated 15th October 2024. The rates decided by committee under Section 11 were considerably higher as compared to the rates under PPA and accordingly, stood higher at MoD stack and accordingly was scheduled. Hence, the power scheduled from CGPL was lower than estimated and accordingly paid lesser.
- JSW: JSW units were under shut down during initial year of 2022 (shutdown from 2nd September 2021 to 26th August 2022). However, the units were revived

after onset of direction of MoP under Section 11 of EA 2003. Accordingly energy was purchased from JSW at the rate decided by committee formed as directed by MoP under Section 11 of EA 2003 and the rates were more than the rates under PPA. Accordingly cost was also increased as compared to approved cost.

- Adani Power Maharashtra Limited (APML) : The Hon'ble Supreme Court has passed following Judgments in matters related to coal shortfall:
SC order dated 3rd March 2023 in Civil Appeal No. 684 of 2021 (New Coal Distribution Policy as a change in law)

SC order dated 20th March 2023 in Civil appeal no.677-678 of 2020 (Scheme of harnessing and allocating koyala (coal) transparently in India (SHAKTI) policy as a change in law) and

SC order dated 20th April 2023 in Civil appeal no. 687-688 of 2020 (De-allocation of LOHARA coal block as a change in law) & directed MSEDCL to pay 50% of claimed amount (Rs. 7,708 Crores).

During the FY 2022-23, MSEDCL has considered Rs 7,791 Crores towards Change In Law for Domestic Coal Shortfall including Rail not GCV equivalence of APL as per aforesaid orders.

Accordingly in FY 2022-23, MSEDCL has paid against domestic coal shortfall claims of APML. Increased price of alternate coal (Imported coal) and shortfall in domestic coal has led to excess burden beyond approved cost.

- EMCO Power (GMR): Payment of Rs. 13.95 Crores on account of new change in law event such as Transportation of fly ash for manufacturing of bricks, construction of roads, banking of rivers, cement manufacturing, backfilling of mines, etc and bearing the cost of such transportation upto 300 kms distance from the power plant by the generator as per CERC order dt. 22nd October 2021 in Petition No. 174/MP/2020 , various Taxes and Duties on coal such as Royalty, GST compensation cess, surface transportation charges, sizing charges along with transportation charges, coal shortfall due to change in NCDP policy from 2007 to 2013 in terms of reduced assured coal quantum from the earlier 100% assured coal quantum by MoP. [KS1] Further, an amount of Rs 34 Crores paid towards taxes and duties on coal due to ARB GCV (Supreme Court Order dated. 3rd March 2023 in Civil Appeal No. 6927/2021). The deviation in scheduled units is due to increased demand.

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- RattanIndia Power Ltd. (India Bulls) RPL: Due to the decrease in quoted non-escapable energy charges, RPL has been ranked lower than other generators and has been scheduled for more units in comparison to them. Further payment of Rs 312.15 Crores in Hon'ble Supreme Court order dated 14th February 2022 in CA No.1805 of 2021 (Issue of NCDP SHAKTI coal shortfall as mentioned above & Taxes and duties towards change in law due to change in Royalty , District Mineral Foundation (DMF), National Mineral Exploration Trust (NMET), introduction of Clean Energy Cess/GST Compensation Cess, changes in Paryavaran Upkar & Vikas Upkar, and GST), payment of RS 101.41 Crores in A.No.118 of 2021 (Evacuation Facility charges imposed by Coal India Ltd. by its price notification dated 19th December 2017 at rate of RS 60/Ton) and payment of Rs 27.77 Crores as per MERC order dated 06th February 2023 in MA (Diary No.257 of 2022) due to changes in Paryavaran Upkar & Vikas Upkar has been made to RPL.
- SWPGL (Sai Wardha Power Generation Private Limited): The deviation in the power purchase cost is attributed to a payment of Rs 10.40 Crores made in compliance with the MERC order dated 09th June 2022 (Case No. 150 of 2021) and Rs 14.24 Crores paid towards alternate coal costs as per the MoP's blending circular.
- Short Term: In FY 2022-23, a significant rise in electricity demand was observed as the economy rebounded in the post-COVID period. In the summer, peak demand reached an unprecedented 25,144 MW, marking the highest level recorded to date. This surge in demand coincided with reduced generation availability from contracted generators due to coal supply issues. During the monsoon season, intermittent dry spells caused additional demand spikes, particularly in agricultural and residential areas. Consequently, the overall rise in demand, coupled with reduced generation capacity, compelled MSEDCL to procure a higher quantum of power from the short-term market to maintain supply stability.

2.7.6 Following table summarizes the source wise power purchase done by MSEDCL during the FY 2023-24.

Table 16 Power Purchase Expenses for FY 2023-2024

Source	Power Purchase Quantum(Mus)			Power Purchase Cost(in Rs. Crores)			Power Purchase Cost (Rs./Unit)		
	Approved in MTR order	Actual	Deviation	Approved in MTR order	Actual	Deviation	Approved in MTR order	Actual	Deviation

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Source	Power Purchase Quantum(Mus)			Power Purchase Cost(in Rs. Crores)			Power Purchase Cost (Rs./Unit)		
	Approved in MTR order	Actual	Deviation	Approved in MTR order	Actual	Deviation	Approved in MTR order	Actual	Deviation
MSPGCL	58,087.51	57,146.78	-940.73	29,567.31	29,110.14	1,052.99	5.09	5.09	0.27
NTPC	27,474.68	39,003.97	11,529.29	11,224.71	16,294.57	5,069.86	4.09	4.18	0.09
NPCIL	4,372.41	5,226.91	1,006.23	1,389.40	1,969.50	646.12	3.18	3.77	0.61
SSP	1,213.26	921.69	-291.56	248.75	188.95	-59.80	2.05	2.05	0.00
Pench	136.89	122.35	-14.54	28.06	25.08	-2.98	2.05	2.05	0.00
Dodson	116.04	23.47	-92.57	27.68	19.01	-8.67	2.39	8.10	5.71
JSW	-	1,831.05	1,831.05	164.67	926.00	761.33	-	5.06	5.06
CGPL	1,518.07	4,404.53	2,886.46	1,189.97	2,206.49	1,016.52	7.84	5.01	-2.83
Adani Power	10,750.55	20,095.74	9,784.09	6,811.56	11,401.89	4,590.33	6.34	5.67	-0.66
EMCO Power	1,373.82	1,548.97	175.15	551.03	727.41	176.38	4.01	4.70	0.69
Rattan India	8,242.91	8,975.78	732.88	3,319.58	3,257.13	-62.45	4.03	3.63	-0.40
Sai Wardha	1,551.61	1,967.50	415.89	748.53	836.77	88.25	4.82	4.25	-0.57
Subhansari Hydro	774.75	-	-774.75	348.64	-	-348.64	4.50	-	-4.50
Renewable Power	30,767.78	19,781.58	-10,986.19	13,810.36	8,697.32	-4,483.05	4.28	4.40	0.11
PGCIL Charges	-	-	-	3,845.01	3,539.07	-305.94	-	-	-
FBSMDSM		-1,967.00	-1,967.00		-272.44	-272.44	-	1.39	1.39
MPEB		10.68	10.68		8.50	8.50	-	7.96	7.96
Short Term Power Purchase		7,724.53	7,724.53		4,357.31	4,357.31	-	5.64	5.64
Other		-	-	-	-1.56	-1.56	-	-	-
Total Power Purchase	146,380.37	166,970.40	20,590.02	72,645.25	84,867.33	12,222.08	4.96	5.08	0.12

2.7.7 In the following paragraphs, the detailed reasons for variation in the power purchase quantum and cost are provided.

- **MSPGCL:** Due to blending of imported coal as per Ministry of Power's notifications (dated 9th January, 2023 regarding blending of imported coal by 6% (by weight), and notification dated 1st September 2023 for 4% blending (by weight), the cost of power from MSPGCL's generating station has increased. Further, due to reduced rates declared by MoP under Section 11 of EA, 2003 in compared with estimated approved rates of CGPL and JSW, MSEDCL has availed power from these stations as per MoD principles. Thus, MSEDCL has to purchase power from the plants even though the plants

are not part of approved MOD stack basis of actual MoD rates.

- Central Sector: The peak demand for FY 2023-24 reached upto 25,410 MW. Due to lower than normal rainfall and increase in Agricultural pumping demand and lesser availability of MSPGCL's generation capacity and shutdown of TAPS 1 & 2 units (shutdown from 8th January 2020 to till date). Further, MSEDCL is availing power from newly commissioned KAPS 3&4 as per MoP's allocation dated 29th May 2023. MSEDCL has also filed a petition before Hon'ble Commission seeking approval to sign PPA for procurement of power from KAPS 3&4 vide Petition No. 2/AP/2024 dated 29th December 2023. The Hon'ble Commission has released its order in the said Petition vide Order 11th November 2024 according its approval for procurement of power from KAPS.

Availability of power from renewable energy sources are unpredictable due to atmospheric & seasonal variations. RE power (particularly solar power) was available during solar hours i.e. in day time. Due to non-availability of solar power during the evening peak and night hours, the demand is majorly catered by thermal power plants.

Moreover, water availability in Koyna dam was less than the previous years' water availability and Govt. of Maharashtra planned to restrict utilization of Koyna water for generation and divert this restricted quantum of water to irrigation and drinking purpose. Hence, MSEDCL restricted the utilization of Koyna water (i.e. saved Koyna water) for generation and kept maximum available water quota reserved for generation to meet out the summer seasons peak demand.

- JSW: The units were revived after onset of direction of MoP under Section 11 of EA, 2003 (notification dated 5th May 2022) and JSW was continuously available and scheduled considering demand and paid at a rate decided by committee under Section11 of EA 2003.
- Coastal Gujarat Power Limited (CGPL): Considering the demand position, schedule of CGPL was increased and accordingly cost was also increased.
- Adani Power Maharashtra Limited (APML): SC passed judgment on 3rd March 2023 in Civil Appeal No. 684 of 2021, on 2nd April 2021 in Civil Appeal No. 677-678 of 2021 and on 20th April 2021 in Civil Appeal No. 687-688 of 2021 for payments against domestic coal shortfall. Accordingly MSEDCL has made payment in FY 2023-24 against domestic coal shortfall. Increased price of

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alternate coal (Imported coal) and shortfall in domestic coal has lead to excess burden than approved cost. Further, Supreme Court passed judgment in Civil Appeal No. 5005 and 4089 of 2022 in EFC matter and MSEDCL made payment towards Evacuation Facility Charges in FY 2023-24.

During the FY 2023-24, MSEDCL has considered Rs 3,594 Crores towards Change In Law for Domestic Coal Shortfall including Rail not GCV equivalence of APL.

- EMCO Power (GMR): An amount of Rs. 80.43 Crores paid towards utilization of As-Is-Where-Is-Basis coal and Washery coal as an alternate coal to compensate NCDP coal shortfall (CERC order dt. 17th May 2024 in Petition No. 25/MP/2020). The deviation in scheduled units is due to increased demand.

- RattanIndia Power Ltd (RPL) (IndiaBulls): The deviation in scheduled units is due to increased demand.

Rs 263.84 Crores was paid on 27th March 2023 (CA No. 1805 of 2021) to address the NCDP & SHAKTI coal shortfall and taxes under the "Change in Law" clause, covering adjustments for Royalty, District Mineral Foundation (DMF), National Mineral Exploration Trust (NMET), Clean Energy Cess, GST Compensation Cess, Paryavaran Upkar, Vikas Upkar, and GST.

Rs 43.69 Crores was paid in Case No. 26 of 2021 for capacity charges related to Unit-1.

Rs 26.08 Crores was paid as per Supreme Court order dated 20th April 2023 (CA No. 4089 of 2022) for Evacuation Facility charges imposed by Coal India Ltd. at Rs 60/Ton, as per notification on 19th December 2017.

Rs 55.27 Crores was paid for CG PU and CG VU, covering "Change in Law" costs incurred before the Scheduled Commercial Operation Date (SCOD) as per Hon'ble MERC order dated 06th Feb 2023 in Miscellaneous Application (Diary No 257 of 2022) and APTEL judgement in A. No. 341 of 2023.

Despite these payments, cost deviations arose and actual cost reduced due to reduction in quoted non-escalable energy charges from Rs 0.5 to RS 0.4 and 0% escalation rate for domestic coal from 01.04.2023 to 30.09.2023."

- SWPGL (Sai Wardha Power Generation Private Limited): Payment of Rs 2.46 Crores was made to SWPGL as per the MERC order dated 4th December 2023 in Case No. 77/AD/2023, along with Rs 79 Crores towards change in law-related taxes and duties, and Rs 8.27 Crores for open market coal costs. The deviation

in scheduled units is due to increased demand.

- Short Term: In 2023-24, the delayed onset of the monsoon led to an increase in electricity demand, which was further amplified by several intermittent dry spells during the season. Additionally, due to inadequate rainfall, the water level in the Koyna Dam fell below the Minimum Drawdown Level (MDDL), imposing restrictions on the use of Koyna's hydroelectric generation. Consequently, considering all these factors, a higher quantum of power had to be procured from the short-term market to meet the demand.

2.8 Transmission constraints leading to increase in the power purchase cost

2.8.1 Use of Koyana for mitigating transmission constraints - MSEDCL would like to submit to the Hon'ble Commission that the State Load Dispatch Center (SLDC) has been utilizing Koyna hydro generation to mitigate transmission constraints such as line loading and low voltages. Thermal generation is often backed-Down during such transmission constraints, leading to an unnecessary strain on the Koyna resources. MSEDCL makes plan in advance to utilize Koyna , preferably in peak hours and in peak season as only 67.5 TMC water is available during the water year. However ,MSEDCL's low cost power is utilized by others, compelling MSEDCL to procure more power from other costly resources, whenever required. No compensation is available to MSEDCL for such use of Koyna.

2.8.2 Normally Line Constraints are on following transmission lines

400kV Talegaon-Chakan
400kV Talegon-Lonikand
400kV Talegaon-Kharghar
400kV Talegaon-Kalwa
400kV Padghe-Kalwa
220kV Nasik-Bhabhaleswar

2.8.3 Continued reliance on Koyna for mitigating transmission constraints is unsustainable and poses significant risks to both energy security and ecological balance. MSEDCL is incurring continuous burden against additional cost of water from Koyna Hydro generating station due to this transmission constraint. MSEDCL pleads to the Hon'ble Commission to take effective measures to address the transmission constraints effectively.

2.8.4 Issue of Overloading of 220 kV double circuit Babhaleshwar-Nasik line -

- Due to the constraint on Babhaleshwar-Nasik line, either forced load shedding is implemented in Nashik area or MSEDCL needs to schedule costly power from Nashik TPS to meet load demand in Nashik Area. This results in MOD violation as well as financial burden on MSEDCL and in turn end consumers. Constraint is also observed on pumping mode of the 2 units of Ghatghar, particularly during day time.
- MSEDCL request the Hon'ble Commission to direct STU to take appropriate measures to develop required infrastructure to overcome the transmission constraint, so that pumping mode operation of all 4x125 MW machines will be possible during any time of the day.

2.9 RPO Compliance for FY 2022-23 and FY 2023-24

2.9.1 As per MERC RPO regulation 2019 (Clause 7.1), RPO target to be achieved for FY 2022-23 is 8% for Solar & 11.5% for Non-Solar (out of its total procurement of electricity from all sources excluding energy from Hydro power in a year).

2.9.2 Approved RPO target for FY 2023-24 is 10.5% for Solar and 11.5% for Non-Solar technology. Further, Regulation 3.1 of MERC RPO regulation, 2019 stipulates that the RPO target is calculated on the basis of total consumption of electricity within the area of Distribution licensee.

2.9.3 MSEDCL's consumption is inclusive of energy consumption by open access consumers. MSEDCL has considered Gross Energy Consumption (GEC) for FY 2022-23 after excluding Hydro and Open Access units.

Table 17 Details of Gross Energy Consumption for FY 2022-23 (as per MSLDC report)

Sr. No.	Particular	MUs
1	MSEDCL GEC for FY 2022-23 at T<->D interface (Mus)	1,52,532
2	MSEDCL GEC for FY 2022-23 at G<->T interface (Mus)	1,57,669
3	Less Conventional Open Access Units (Mus)	4,658
4	Less RE Open Access Units at G<->T interface (Mus)	2,071
5	Less Major Hydro Generation units (Mus)	5,249
6	Net GEC of MSEDCL (Mus) for FY 2022-23	1,45,690

2.9.4 Considering the Net GEC of 1,45,690 Mus for FY 2022-23, the Solar and Non Solar

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RPO obligation is arrived as below. A comparison of target versus actual RPO (solar and non-solar) compliance is provided in the table below.

Table 18 RPO Target for FY 2022-23

Particulars	Gross Energy Consumption	Solar		Non-Solar		Total	
	MUs	%	MUs	%	MUs	%	MUs
Target	1,45,690.3	8.00%	11,655.22	11.50%	16,754.38	19.50%	28,409.61
Actual		7.19%	10,481.00	8.61%	12,539.00	15.80%	23,020.00
Shortfall		0.81%	1,174.22	2.89%	4,215.38	3.70%	5,389.61

2.9.5 MSEDCL would like to submit to the Hon'ble Commission, that it was taken its earnest efforts towards meeting the RPO compliance. The total RE purchase in FY 2022-23, via various RE technology is provided in the table below.

Table 19 Bifurcation of RE Sources for FY 2022-23

Sr. No.	Source	FY 2022-23	
		Quantum (MU)	Cost (in Rs. Crore)
1	Wind	6,206.67	2,787.22
2	Hydro (NCE)	886.63	263.34
3	Bagasse based Cogen.	4,736.87	2,793.53
4	Biomass	234.43	143.70
5	MSW	0.45	0.22
6	Non-Solar RECs	-	-
7	Total Non - Solar	12,065.05	5,988.00
8	Solar (SPV)	8,080.47	2,889.89
9	Solar Thermal	-	-
10	Procurement from Solar PV under Net-metering (Solar Rooftop)	114.34	37.60
11	Solar REC	-	-
12	Total Solar	8,194.81	2,927.48
13	Mini/Macro Hydro	-	-
14	Total RE	20,259.86	8,915.48

2.9.6 Reasons for shortfall and efforts taken in meeting the RPO targets (FY 2022-23):

2.9.6.1 Solar RPO targets:

- As per the CUF specified by Hon'ble Commission, the Solar Capacity required for fulfilment of RPO (11,655 Mus) is 4,752 MW (@ 28% CUF). MSEDCL, as on

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31st March 2023, has contracted 5,933 MW Solar Power, against which 4,159 MW power has been commissioned.

- Further, in its endeavour towards meeting the Solar RPO targets of FY 2022-23, MSEDCL had floated tenders in FY 2018-19 to 2021-22 for capacity around 12,100 MW for procurement of Solar Power. Against the same 3,361 MW Solar Power were contracted by MSEDCL and against this 2,151 MW capacity has been commissioned as on 31st March 2022. Further, during this period from 2018-19 to 2021-22, 862 MW PPA were terminated due to non compliance of the Bid terms.
- Apart from this, the Solar Rooftop capacity installed as on 31st March 2023 is 1,437 MW.
- MSEDCL submits to the Hon'ble Commission that it has contracted the required Solar Capacity to meet the Solar RPO for FY 2022-23.

2.9.6.2 Non-Solar RPO targets :

- The required Non-Solar Capacity for fulfilment of RPO is 6,375 MW (@ 30% CUF-weighted average). MSEDCL, as on 31st March 2023, has contracted 6,820 MW Non-Solar Power, against which 6,485 MW power capacity has been commissioned.
- MSEDCL would like to submit to the Hon'ble Commission that the contracted capacity of RE sources for Solar & Non-solar RPO was well sufficient for fulfilment of Non-Solar RPO Compliance. However, due to natural factors beyond control of MSEDCL viz. changes in climate and operational factors of RE Generators, the actual resulting CUF / PLF is not at par with the normative CUF / PLF, which eventually affects the actual generation from non-solar RE-sources and leads towards shortfall in meeting RPO target.
- Following table shows the contracted and commissioned non-solar capacity and expected generation vs actual generation -

Table 20 Reason for Non-Compliance of Non-Solar Capacity for FY 2022-23

Sr. No.	Source	Contracted Capacity in MW as on 31.03.2023	Commissioned capacity in MW as on 31.03.2023	CUF specified by MERC	Expected generation as per commissioned capacity (in MUs)	Actual Generation received at T<D (in MUs)
1	Wind	3,478	3,605	25%	7,895	6,124
2	Bagasse	2,631	2,488	35%	5,016	4,807
3	Biomass	77	77	80%	540	239

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Sr. No.	Source	Contracted Capacity in MW as on 31.03.2023	Commissioned capacity in MW as on 31.03.2023	CUF specified by MERC	Expected generation as per commissioned capacity (in MUs)	Actual Generation received at T<=>D (in MUs)
4	Small Hydro	317	311	30%	817	559
5	Municipal Solid waste	17	4	78.90%	28	0.45
6	Wind-Solar Hybrid	300	0	30%	0	0
TOTAL Non-Solar		6,820	6,485		14,295	11,729

- From the table above, MSEDCL would like to submit that the actual generation received is lesser than the expected generation as per CUF specified by MERC. The expected generation is 14,295 MUs, however only 11,729 MUs received. Hence, there is shortfall of 2,566 MUs for fulfilling the Non-Solar RPO targets.
- Further, this is to submit that, since 2019, MSEDCL has floated post expiry to EPA tenders for procurement of wind power for the capacity of 1,400 MW @ Rs 2.52 to 2.65/kWh. However, only 386 MW capacity received and contracted against these tenders.
- Further, MSEDCL executed Power Sale Agreement with SECI for procurement of 500 MW wind power, out of which only 58 MW is been receiving against the said PSA. Balance 442 MW of wind power was terminated by SECI. Also, only 274 MW wind power projects are commissioned against MSEDCL's 500 MW wind tender, balance capacity of 226 MW is not commissioned and under litigation. Despite MSEDCL's effort, the RE Power could not be procured due to delay/non-commissioning/no or poor response to the bid floated by MSEDCL.
- In addition to above, it is submitted that, the O & M contract disputes, Right of Way (ROW) issues, low wind & major breakdown are primary reasons for reduced generation from wind dry outs.
- MSEDCL would also like to bring to the notice of the Hon'ble Commission, that it had awarded 300 MW and 200 MW to ACME Solar Holdings Pvt. Ltd (ASHPL) and Renew respectively. Hon'ble Commission vide its Order dated 27th December 2023, approved the termination of PPAs on account of Force Majeure events under Article 8.8.2 (a) of PPA due to MSETCL's failure to grant unconditional NOC for using CTUs' ISTS network for power evacuation.

2.9.7 Reasons for shortfall and efforts taken in meeting the RPO targets (FY 2023-24):

- As per MERC RPO regulation 2019 (Clause 7.1), approved RPO target to be

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achieved for FY 2023-24 is 10.5% for Solar & 11.5% for Non-Solar technology. Further, Regulation 3.1 of MERC RPO regulation, 2019 stipulates that the RPO target is calculated on the basis of total consumption of electricity within the area of Distribution licensee. MSEDCL's consumption is inclusive of energy consumption by open access consumers. MSEDCL has considered Gross Energy Consumption (GEC) for FY 2023-24 after excluding Hydro and Open Access units.

Table 21 Gross Energy Consumption Report - FY 2023-24

Sr. No.	Particular	MUs
1	MSEDCL GEC for FY 2023-24 at T<->D interface (MUs)	1,66,406
2	MSEDCL GEC for FY 2023-24 at G<->T interface (Mus) (Loss adjusted)	1,72,034
3	Less Conventional Open Access Units (MUs)	4,817
4	Less RE Open Access Units at G<->T interface (MUs)	3,193
5	Less Major Hydro Generation units (MUs)	4,364
6	Net GEC of MSEDCL (MUs) for FY 2023-24	1,59,660

2.9.8 Considering the Net GEC of 1,59,660 MUs for FY 2023-24, the Solar and Non Solar RPO obligation is arrived as below:

Table 22 RPO Compliance Target for FY 2023-24

Particulars	Gross Energy Consumption	Solar		Non-Solar		Total	
	MUs	%	MUs	%	MUs	%	MUs
Target	1,59,660	10.50%	16,764.30	11.50%	18,360.90	22.00%	35,125.20
Actual		7.29%	11,640.00	6.96%	11,113.00	14.25%	22,753.00
Shortfall		3.21%	5,124.30	4.54%	7,247.90	7.75%	12,372.20

2.9.9 As per the CUF specified by Hon'ble Commission, the Solar Capacity required for fulfilment of RPO is 6,835 MW (@ 28% CUF) and Non-Solar Capacity required will be 6,987 MW (@ 30% CUF-weighted average).

2.9.10 Actual RE procurement done in FY 2023-24 via various RE technologies is provided in the table below:

Table 23 RE procurement bifurcation FY 23-24

Sr. No.	Source	FY 2023-24	
		Quantum (in MU)	Cost (in Rs. Crore)
1	Wind	5,992.10	2,752.29

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Sr. No.	Source	FY 2023-24	
		Quantum (in MU)	Cost (in Rs. Crore)
2	Hydro (NCE)	783.75	246.59
3	Bagasse based Cogen.	3,733.23	2,284.44
4	Biomass	264.55	200.84
5	MSW	0.28	0.13
6	Non-Solar RECs	0	0
7	Total Non - Solar	10,773.89	5,484.30
8	Solar (SPV)	8,856.35	3,162.33
9	Solar Thermal	0	0
10	Procurement from Solar PV under Net-metering (Solar Rooftop)	151.35	50.69
11	Solar REC	0	0
12	Total Solar	9,007.69	3,213.02
13	Mini/Macro Hydro	0	0
14	Total RE	19,781.59	8,697.32

2.9.11 Reasons for shortfall and efforts taken in meeting the RPO targets:

2.9.11.1 Solar RPO targets:-

- MSEDCL, as on 31st March 2024, has contracted 8,724 MW Solar Power, against which 4,331 MW power has been commissioned. Further, for meeting Solar RPO targets of FY 2023-24, MSEDCL had floated tenders in FY 2021-22 to 2022-23 for capacity around 12,050 MW for procurement of Solar Power. Against the same 1,499 MW Solar Power were contracted by MSEDCL and 25.66 MW capacity has been commissioned as on 31st March 2023. Further, during FY 2022-23, 3,250 MW tenders were cancelled due to discovery of high tariff rate.
- Apart from this, the Solar Rooftop capacity installed as on 31st March 2024 is 1,951 MW.

2.9.11.2 Non-Solar RPO targets:

- MSEDCL, as on 31st March 2024, has contracted 8,382 MW Non-Solar Power, against which 6,669 MW power has been commissioned. The contracted capacity of RE sources for Non-solar RPO is well sufficient for fulfilment of Non-Solar RPO Compliance. However, due to natural factors beyond the control of MSEDCL viz. Changes in climate and operational factors of RE Generators, the actual resulting CUF / PLF is not at par with the normative CUF / PLF, which

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eventually affects the actual generation from non-solar RE-sources and leads towards shortfall in meeting RPO target.

- Following table shows the contracted and commissioned non-solar capacity and expected generation vs actual generation:

Table 24 Actual Vs expected generation from Non-Solar Capacity for FY 2023-24

Sr. No.	Source	Contracted Capacity in MW	Commissioned capacity in MW	CUF	Generation as per commissioned capacity	Actual Generation received at T<>D
		as on 31.03.2024	as on 31.03.2024		MUs	
1	Wind	3,451	3,623	25%	7,935	5,947
2	Bagasse	2,791	2,690	35%	5,424	3,733
3	Biomass	37	37	80%	259	265
4	Small Hydro	317	314	30%	826	783
5	Municipal Solid waste	17	4	78.90%	28	0.28
6	Wind-Solar Hybrid	300	0	30%	0	0
7	RTC/Storage	1,468	0		0	0
TOTAL Non-Solar		8,382	6,669		14,471	10,728

- From above table, it is to submit that the actual generation received is lesser than the expected generation as per CUF specified by MERC. The expected generation is 14,471 MUs, however only 10,728 MUs is received. Hence, there is shortfall of 3,743 MUs for fulfilling the Non-Solar RPO targets.
- Further, MSEDCL executed Power Sale Agreement with SECI for procurement of 500 MW wind power, out of which only 58 MW is been received against the said PSA. Remaining balance wind power of 442 MW is terminated by SECI. Also, only 274 MW wind power projects are commissioned against MSEDCL's 500 MW wind tender, balance capacity of 226 MW is not commissioned. Despite MSEDCL's effort, the RE Power could not be injected due to delay/non-commissioning/no or poor response and infirm nature of RE sources to the bid floated by MSEDCL.

2.9.11.3 Cumulative shortfall for FY 2023 & 2024

Table 25 RE Contracted and Commissioned Capacity as on Nov 2024

Particulars	Standalone Shortfall		Cumulative RPO (Surplus)/ Short fall till end of FY (in MUs)
	Solar (in MUs)	Non-Solar (in MUs)	

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Particulars	Standalone Shortfall		Cumulative RPO (Surplus)/ Short fall till end of FY (in MUs)
	Solar (in MUs)	Non-Solar (in MUs)	
(Surplus)/ Shortfall Till FY 2019-20	4,321	6,115	10,436
FY 2020-21	60	3,883	14,379
FY 2021-22	1,177	3,838	19,394
FY 2022-23	1,174	4,216	24,784
FY 2023-24	5,124	7,248	37,156
Total (in MUs)	11,856	25,300	37,156
In MW	4,834	12,034	16,868

- From above table, it is to submit that, there is cumulative shortfall of 37,156 MUs towards fulfilment of RPO targets. Out of 37,156 MUs, there is shortfall of 11,856 MUs towards fulfilment of Solar RPO targets and shortfall of 25,300 MUs towards fulfilment of Non-Solar RPO targets. Hence, the required capacity for fulfilment of Solar RPO shortfall is 4,834 MW (calculated at 28% CUF, as determined by Hon'ble Commission) and Non-Solar RPO shortfall is 12,034 MW (calculated at Avg 24% CUF for Non-Solar).
- Accordingly, MSEDCL has contracted sufficient RE power for fulfilment of cumulative RPO shortfall.

Table 26 MSEDCL's RE capacity contracted and commissioned as of Nov' 2024

Sr. No.	Source	Contracted Capacity (MW)	Commissioned Capacity (MW)
1	Wind	3,386	2,759
2	Bagasse based Co-generation	2,827	2,690
3	Biomass	37	37
4	Small Hydro	307	304
5	Solar (Centralized)	14,206	3,706
	Solar (MSKVY)	1,531	614
	Solar (Kusum A)	196	4
	Solar (Kusum C)	108	89
	Solar (MSKVY 2.0)	8,150	55
	Total Solar	24,191	4,468
6	Wind-Solar Hybrid	4,331	225
7	RTC/Storage	1,468	0
8	Municipal Solid waste	17	4
Total A		36,564	10,487

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- In view of above MSEDCL submits that the sufficient RE power i. e. 36,564 MW is contracted till Nov'24. Further, this is to submit that, apart from above, PPA signing of 6,027 MW capacity under MKKVY 2.0 is under process. Also, the power generated from Solar pumps (till Oct'24 374 MW capacity) and rooftop solar (till Oct'24 2,562 MW capacity) is also considered for fulfilment of Distributed RPO target.
- The contracted capacity of RE sources for Non-solar RPO is well sufficient for fulfilment of Non-Solar RPO Compliance. However, due to natural factors beyond the control of MSEDCL viz. Changes in climate and operational factors of RE Generators, the actual resulting CUF / PLF is not at par with the normative CUF / PLF, which eventually affects the actual generation from non-solar RE-sources and leads towards shortfall in meeting RPO target.

2.9.12 MSEDCL requests the Hon'ble Commission to approve power purchase expenses as per Audited Accounts and to allow fulfilment of this past period cumulative shortfall till 31.03.2030 due to the above stated reasons.

2.10 Intra-State Transmission Charges for FY 2022-23 & FY 2023-24

2.10.1 MSEDCL submits the actual transmission charges and SLDC charges paid to MSETCL and MSLDC as summarized in following table.

Table 27 Transmission Charges for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23 (Approved)	FY 2022-23 (Actual)	Deviation	FY 2023-24 (Approved)	FY 2023-24 (Actual)	Deviation
Intra-State Transmission Charges	5,885.89	6,038.18	152.29	8,562.96	8,640.34	77.38
MSLDC Charges	29.18	29.18	-	30.76	26.43	(4.33)
Total Transmission Charges	5,915.07	6067.35	152.29	8,593.72	8,666.77	73.05

2.10.2 MSEDCL submits that it pays the transmission charges to STU as per the InSTS Order issued by Hon'ble Commission from time to time. Further, there were some additional bills raised by MSETCL to MSEDCL during FY 2022-23 and FY 2023-24. The additional charges pertains to banking charges, DSM charges, reactive charges, other miscellaneous charges, etc. The Transmission charges as claimed above are in line with the actual charges paid to MSETCL and MSLDC. MSEDCL requests the Hon'ble Commission to approve the actual Transmission and MSLDC charges as per the Audited Accounts as shown in above table.

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2.10.3 MSEDCL submits to the Hon'ble Commission that for FY 2022-23, the Intra-state Transmission charges have increased by Rs 152.29 Crore due to raising of Additional Transmission Charges by STU, which results due to real time- rise in demand above base TCR, which is not in control of MSEDCL. Therefore, MSEDCL requests the Hon'ble Commission to kindly approve the actual Transmission and MSLDC charges as per the Audited Accounts as shown in above table.

2.10.4 Similarly for FY 2023-24, It is submitted that the Intra-state Transmission charges have increased by Rs 77.38 Crores:

- Rs 73.12 Crores due to declaration of deemed COD by M/s KVTL (Kharghar Vikroli Transmission Line), and the same was considered in provision. However, the payment is not yet done as the matter is under adjudication.
- Rs 4.26 Crores due to raising of Additional Transmission Charges by STU, which results due to real time-rise in demand above base TCR, which is not in control of MSEDCL. Therefore, MSEDCL requests the Hon'ble Commission to kindly approve the actual Transmission and MSLDC charges as per the Audited Accounts as shown in above table.

2.10.5 PGCIL charges are paid on actual basis as per bills received.

2.11 Fixed Costs for FY 2022-23 & FY 2023-24

2.11.1 Based on the Capital Cost and the consequent Capitalized Expenditure, Equity Component and Normative Debt, the fixed cost of MSEDCL for FY 2022-23 & FY 2023-24 (excluding fixed components of PP cost) has been determined in accordance with the provisions of MYT Regulations, 2019 outlined thereof. As outlined under the regulations, the fixed cost for MSEDCL has been determined under the following major heads:-

- Operation and Maintenance Expenses
- Depreciation
- Interest and Finance Charges
- Interest on Working Capital
- Income Tax
- Return on Equity

2.11.2 Net Aggregate Revenue Requirement has been computed after netting off Expenses

capitalized.

2.11.3 Head wise comparison has been made between the values approved by the Hon'ble Commission vide MYT Order dated 31st March 2023 in Case no. 226 of 2022 for FY 2022-23 & FY 2023-24 and the values as per the audited accounts.

2.12 Actual Operation & Maintenance Expenses for FY 2022-23 & FY 2023-24

2.12.1 Operations and Maintenance (O&M) Expenses of the company consists of the following elements viz. Employee Expenses, Administrative and General Expenses and Repairs and Maintenance Expenses.

2.12.2 The following table provides the actual O&M Expenses (net of Capitalization) of MSEDCL for the FY 2022-23 and FY 2023-24 as per the regulatory form and as per the audited account.

Table 28 Actual O&M Expenses for FY 2022-23 & FY 2023-24 as per Regulatory form & Annual Accounts

Particulars	FY 2022-23 (Rs Cr.)	FY 2023-24 (Rs Cr.)
Actuals as per Regulatory form	8,277.66	10,426.02
Actuals as per Accounts	8,276.26	11,011.14

*Excluding Opex & Wage Revision

2.12.3 MSEDCL conducted a reconciliation of O&M expenses as per the Audited Accounts and as per the Actuals submitted in the Regulatory formats in FY 2022-23, the actuals claimed is higher than the Audited figure because of additional claims in the Regulatory formats for FY 2022-23:

Table 29 O&M expenses as per Accounts

Sr. No.	Particular	FY 2022-23
1	Employee Expense as per Accounts	6,213.82
1.1	Add: Other Comprehensive Income	55.49
1.2	Add: Employee Cost Previous years	3.82
	Total as per MYT Format	6,273.12
2	Admin & General Expense as per Accounts	924.40
2.1	Add: Lease related payments	47.19
2.2	Less: Opex considered in Format 3.5	60.57
2.3	Less: A& G Expenses previous year	35.01
2.4	Less: Rent to Mula Pravara	12.00

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Sr. No.	Particular	FY 2022-23
	Total as per MYT Format	864.01
3	Repair & Maintenance as per Accounts	1138.03
3.1	Less: .19 Crores in Opex	-0.19
3.2	Add: R&M Expenses Prior Period	2.5
	Total as per MYT Format	1140.34

Note: Employee Expense:

1) Pay Fixation not applicable for FY 2022-23

2) Employee cost for previous year is added back as true up already done for FY 2021-22.

2.12.4 The reconciliation of O&M expenses as per the Audited Accounts and as per the Actuals submitted in the Regulatory formats for FY 2023-24 is provided below. The difference in the Employee and A&G expenses have together contributed to the variation in the Audited O&M expenses and Actuals submitted in the formats.

2.12.5 Employee expense- Other comprehensive income and outsourcing expenses from A&G amounting Rs 432.25 Crores and Rs 619.28 Crores (Re-allocation of Outsourcing Expenses from A&G to Employee) respectively have been added to arrive at the Employee expense for the formats.

Table 30 Employee expense as per Accounts

Particular	Amount (in Rs. Crores)
Total employee expenses as per Accounts	7,643.44
Add: Other Comprehensive Income	432.25
Add: Outsourcing Expenses from A&G	619.28
Total as per MYT formats	8,694.97

2.12.6 In A&G expenses, total amount as per audited account is Rs 1575.95 Crores while as per MYT format it is only Rs 935.56 Crores. Reconciliation for above difference is in below table:

Table 31 Details of A&G Expenses as per Accounts

Particular	Amount (in Rs. Crores)
Total A&G expense as per Audited Accounts	1,575.95
Add: Expenditure shown separately in MYT (in accounts considered as reduction from sales)	
Add: Lease related payments	46.18
Less: Payment of rent to Mula Pravara	12.00
Less: Opex considered in Format 3.5	48.41

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Particular	Amount (in Rs. Crores)
Less: Incentive to Distribution Franchisee considered in Format 6B	6.89
Less: Outsourcing charges considered in Employee Cost	619.28
Total as per MYT format	935.56

2.12.7 The R&M expense as per audited accounts is Rs. 1791.75 Crores which is same as per MYT formats.

2.12.8 There is an overall increase of O&M Expenses of Rs. 3,131.56 Crores from FY 2022-23 to FY 2023-24. Significant increase in O&M expenses in FY 2023-24 was primarily due to Pay revision arrears settled in FY 2023-24. The Pay revision impact in FY 2023-24, on standalone basis is Rs 996.36 Crores.

2.12.9 Following Table summarises the reasons for change in major components of O&M Expenses for FY 2023-24 over FY 2022-23 and FY 2022-23 over FY 2021-22.

Table 32: Reasons for change in major components of O&M expenses for FY 2022-23 over FY 2021-22

Sr. No.	Particulars	FY 21-22	FY 22-23	Difference	Remark
1	Employee Cost				
1.1	Basic Salary	2,965.99	2,795.42	-170.57	Basic salary decreased in FY 2022-23 due to increase no of retirements in FY 22-23 , expenditure on salary is reduced in FY 22-23 as compared to FY 21-22. {Pay Revision Agreement attached as Annexure 2.2 to this petition}
1.2	Dearness Allowance (DA)	656.58	1,028.20	371.62	Rate of DA increased from 17% in FY 21-22 to 34% in FY 22-23. {DA circulars attached as Annexure 2.3 to this petition}
1.3	Earned Leave Encashment	414.90	266.57	-148.33	Claims for Earned Leave Encashment for regular employees for FY 22-23 were released in the upcoming financial year, i.e. FY 23-24. Hence, the claims were considered in the next year's budget.
1.4	Provident Fund Contribution	694.62	460.71	-233.91	In FY 2021-22, provision for Investment Loss of CPF Board amounting Rs 285.18 cr. was made. But no such provision was made in FY 2022-23. Hence reduction observed.

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Table 33 Reasons for change in major components of O&M expenses for FY 2023-24 over FY 2022-23

Sr. No.	Particulars	FY 22-23	FY 23-24	Difference	Remark
1	Employee Cost				
1.1	Basic Salary	2,795.42	3,329.03	533.61	Provision made for Pay Fixation Arrears in FY 2023-24. Provision for Basic arrears is Rs 513.40 Crores
1.2	Dearness Allowance (DA)	1,028.20	1,486.75	458.55	DA Rate has increased from 34% to 46% in FY 23-24. {DA circulars attached as Annexure 2.4 to this petition}
1.3	Earned Leave Encashment	266.57	1,161.60	895.03	Leave encashment claims were not released in FY 22-23 due to Covid Period. Later in FY 23-24 , it was released. Amount includes retirement leave encashment.
1.4	Provident Fund Contribution	460.71	668.52	207.81	Provision made for Pay Fixation Arrears of Rs 87.73 Crores In FY 2023-24. Also provision made for shortfall of Interest earned on CPF Trust Investment & Interest payable on CPF contributions to employees of Rs 89.02 Crores

2.12.10 MSEDCL requests the Hon'ble Commission to allow the actual O&M expenses for FY 2022-23 and FY 2023-24 as provided in the Regulatory Formats.

2.12.11 MSEDCL's rationale for claiming Other Comprehensive Income as part of Employee Expenses is as follows:

2.12.12 MSEDCL's Financial Statements have been prepared in accordance with the provisions of the Companies Act, 2013, the Indian Accounting Standards (Ind AS) notified under the Companies (Indian Accounting Standards) Rules, 2015 issued by Ministry of Corporate Affairs in respect of sections 133 read with section 469 of the Companies Act, 2013 (18 of 2013). MSEDCL has to apply the principles, requirements as included in the relevant accounting standard (Ind AS) for accounting of different incomes, expenses and assets, liabilities for inclusion in its financial statements.

2.12.13 As per Ind AS 1 – Presentation of Financial Statements, other comprehensive income comprises items of income and expenses (including reclassification adjustments) that are not recognised in profit or loss or permitted by other Ind ASs. The components of other comprehensive income include remeasurement of defined benefit plans (Ind AS 19 Employee Benefits). Total Comprehensive income

comprises all components of “profit or loss” and “other comprehensive income”. Thus, Ind AS creates a split in the presentation of the earnings of the company, wherein certain incomes and/or expenses, are presented separately, for better understanding for the reader of the financial statements. Such incomes/expenses are eventually included in the total comprehensive income for the year, which then gets added or reduced to/from the Equity of the company.

2.12.14 With regard to accounting for employment and retirement benefits provided by MSEDCL like Leave Encashment, Gratuity, Provident Fund etc, the Indian Accounting Standard (Ind AS) 19 – Employee Benefits is applicable. As per Ind AS 19, accounting for defined benefit plans (Gratuity, Provident Fund) is complex because actuarial assumptions are required to measure the obligation and the expense and there is a possibility of actuarial gains and losses. Moreover, the obligations are measured on a discounted basis because they may be settled many years after the employees render the related service. The actuarial assumptions may change from one period to another and can depend on a variety of both demographic and financial factors. Some of the actuarial assumptions include discounting rate, salary escalation rate, attrition rate, mortality rate, derivation of last drawn salary in the future, estimated year of retirement etc. When the assumptions of a defined benefit obligation plan undergo a change, this results in “Actuarial gains or losses” and these changes need to be disclosed in the financial statements of the company. As mentioned earlier, as per requirements of Ind AS 19, actuarial gains and losses have to be disclosed by the reporting entity, separately in Other Comprehensive Income (OCI) as re-measurement effect.

2.12.15 The Standard Setters have implicitly recognised that events/transactions which involve an interplay of different variables, involve experience adjustments relating to different years etc. should be accounted in a manner that they do not vitiate the operational performance of the company for the current year. At the same time, adherence to the fundamental principles of accrual should be ensured, and therefore the impact of such accounting requirements is included in the computation of the total profits or losses, earned/incurred by the company for the year. It is therefore pertinent that such actuarial gains or losses are considered in determining the revenue requirement of utilities, even though their presentation may be made separately from the related employee expense category, as such presentation is in compliance with the requirements of the Indian Accounting Standards (Ind AS).

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2.12.15.1 In compliance with the above-mentioned requirements of Ind AS 19, MSEDCL has accounted for and disclosed the actuarial gains or losses in the other comprehensive income, forming part of the statement of Profit and Loss for the year FY 2022-23 and FY 2023-24. The details of the same are provided in Note. No.39 – Additional Notes to Accounts (Note 39(9) – Ind AS 19 – Employee Benefits).

Table 34 Other Comprehensive Income for FY 2022-23 and FY 2023-24 (in Rs. Crores)

Particular	FY 2022-23	FY 2023-24
Other Comprehensive Income	55.49	432.25

2.12.15.2 MSEDCL hereby submits to the Hon’ble Commission to consider the Other Comprehensive Income as part of O&M expenses for FY 2022-23 and FY 2023-24.

2.13 Normative Operation & Maintenance Expenses for FY 2022-23 & FY 2023-24

2.13.1 MSEDCL submits that Regulation 75 and Regulation 84 of the MERC (MYT) Regulations, 2019 provides the methodology for computation of the O&M Expenses Norm for Distribution Wires Business and Retail Supply of electricity respectively.

2.13.2 As per the MERC (MYT) Regulations 2019.

2. “84.3 ...

3. Provided that, in the Truing-up of the Operation and Maintenance expenses for any particular year of the Control Period, an inflation factor with 30% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the past five financial years (including the year of Truing-up) and 70% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the past five financial years (including the year of Truing-up), as reduced by an efficiency factor of 1% or as may be stipulated by the Commission from time to time, shall be applied to arrive at the permissible Operation and Maintenance Expenses for that year.

4. Provided further that the efficiency factor shall be considered as zero, in case there is an increase in the number of consumers including Open Access consumers of at least 2 percent annually over the last 3 years.

5. Provided also that in case such increase in the number of consumers is lower than 2 percent annually over the last 3 years, then the reduction in

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efficiency factor shall be considered in proportion to the percentage growth in the number of consumers.”

2.13.3 Following table provides the year-on-year variations in CPI and WPI for the last five years. Considering the average WPI and CPI and provisions of the MERC (MYT) Regulations 2019, MSEDCL has calculated the escalation factor as shown in the following table.

Table 35 Calculation of Escalation Factor for FY 2022-23

Year	WPI	Annual Increase	CPI	Annual Increase
FY 2018-19	119.79	4.28%	299.92	5.45%
FY 2019-20	121.80	1.68%	322.50	7.53%
FY 2020-21	123.38	1.29%	338.69	5.02%
FY 2021-22	139.41	13.00%	356.06	5.13%
FY 2022-23	152.53	9.41%	377.62	6.05%
5 Year Avg.		5.93%		5.84%
Weightage	30%		70%	
Escalation Factor		5.86%		
Efficiency Factor = zero, in case of increase in the number of consumers including Open Access consumers of at least 2% annually over the last 3 years		0.00%		
Escalation Factor for FY 2022-23 net of Efficiency Factor		5.86%		

Table 36 Calculation of Escalation Factor for FY 2023-24

Year	WPI 2004-05	Annual Increase	CPI	Annual Increase
FY 2019-20	121.80	1.68%	322.50	7.53%
FY 2020-21	123.38	1.29%	338.69	5.02%
FY 2021-22	139.41	13.00%	356.06	5.13%
FY 2022-23	152.53	9.41%	377.62	6.05%
FY 2023-24	151.42	-0.73%	397.20	5.19%
5 Year Avg.		4.93%		5.78%
Weightage	30%	1.48%	70%	4.05%
Escalation Factor		5.53%		
Efficiency Factor = zero, in case of increase in the number of consumers including Open Access consumers of at least 2% annually over the last 3 years		0.00%		
Escalation Factor for FY 2023-24 net of Efficiency Factor		5.53%		

2.13.4 MSEDCL further submits that MYT Regulations, 2019 quoted above also provides that if the number of consumers of Distribution Licensee are increased by more than

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2% annually over the last 3 years, efficiency factor shall be considered as zero. Accordingly, considering the escalation factor without reducing efficiency factor, MSEDCL has computed the normative O&M expenses for FY 2022-23 and FY 2023-24. Detailed calculations are given in the Regulatory Formats.

Table 37 Consumer Growth Calculation for Efficiency Factor

Year	No. of consumers	Annual Gr. in 3 Yrs. (CAGR- 3 Yrs)
FY 2018-19	2,66,05,565	
FY 2019-20	2,77,84,310	
FY 2020-21	2,84,67,775	
FY 2021-22	2,88,73,266	
FY 2022-23	2,96,73,679	2.22%
FY 2023-24	3,07,93,968	2.65%

2.13.5 Considering the above escalation factor and O&M expenses for FY 2022-23 and FY 2023-24, MSEDCL has calculated the O&M Expenses after considering the impact of sharing of gains/ losses. Detailed calculations are given in the Regulatory Formats. MSEDCL submits that calculated O&M expenses are allocated between the Wires Business and Retail Supply Business (in the ratio of allocation matrix provided in the MYT Regulations, 2019), i.e., 65% to Wires Business and 35% to Supply Business. The same is shown in following table.

Table 38 O&M Expenses for Wires and Supply Business for FY 22-23 and FY 23-24 (in Rs. Crores)

Particulars	FY 2022-23 (Approved)	FY 2022-23 (Normative)	Deviation	FY 2023-24 (Approved)	FY 2023-24 (Normative)*	Deviation
O&M Expenditure for Wire Business	5,099.66	5,138.76	39.10	5,357.66	6,070.42	712.76
O&M Expenditure for Retail Supply Business	2,745.97	2,767.02	21.05	2,884.89	3,268.69	383.80
Total O&M Expenses	7,845.63	7,905.78	60.15	8,242.55	9,339.11	1,096.56

*Including wage revision of Rs. 996.36 Cr. in the FY 2023-24.

2.13.6 Further, as per Regulations 75.6 and 84.6 of the MYT Regulations, 2019 in case the expenditure on Repairs & Maintenance falls below 20% of total O&M expenses allowed under these Regulations, then such savings in R&M shall not be set off against other heads of O&M expenses. The relevant extract of the Regulations is reproduced below:

“75.6 In case the expenditure on Repairs & Maintenance falls below 20% of total O&M expenses allowed under these Regulations, then such

savings in Repairs & Maintenance shall not be set off against other heads of O&M expenses.

Provided that this limitation shall not be applicable for Deemed Distribution Licensees for the first five years after commencement of operations as a Distribution Licensee.”

2.13.7 MSEDCL respectfully submits that the Repair and Maintenance (R&M) expenses accounted for 13.6% (as a percentage of total O&M expense) in FY 2022-23 and have increased to 15.5% in FY 2023-24, reflecting a 2% growth in expenditure. MSEDCL intends to continue increasing R&M investments to ensure optimal infrastructure performance and service reliability going forward.

2.13.8 In view of these increased R&M commitments, MSEDCL requests the Hon'ble Commission to kindly relax the current regulatory constraints on R&M expenses for FY 2022-23 and FY 2023-24, as these regulations impacted a portion of the respective fiscal years.

2.14 Opex Schemes for FY 2022-23 & FY 2023-24

2.14.1 MSEDCL submits that as per the Regulation 75.7 and 84.7 of the MYT Regulations, 2019 the distribution licensee is allowed to undertake Opex schemes for wires and supply business for system automation, new technology and IT implementation etc. and such expenses may be allowed over and above normative O&M expenses. The relevant extract of the regulations is reproduced below:

“75.7 A Distribution Licensee may undertake Opex schemes for system automation, new technology and IT implementation, etc., and, such expenses may be allowed over and above normative O&M Expenses, subject to prudence check by the Commission:

Provided that the Distribution Licensee shall submit detailed justification, cost benefit analysis of such schemes as against capex schemes, and savings in O&M expenses, if any.

84.7 A Distribution Licensee may undertake Opex schemes for system automation, new technology and IT implementation, etc., and, such expenses may be allowed over and above normative O&M Expenses, subject to prudence check by the Commission:

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Provided that the Distribution Licensee shall submit detailed justification, cost benefit analysis of such schemes as against capex schemes, and savings in O&M expenses, if any.”

2.14.2 Based on the approval accorded in the MTR Order dated 31st March 2023 in Case No. 226 of 2022, MSEDCL has incurred actual expenses (under the Opex scheme expense) of Rs 60.57 Crores in FY 2022-23 as against Rs 70.06 Crores approved by Hon’ble Commission for FY 2022-23 and Rs. 48.41 Crores in FY 2023-24 as against Rs 84.85 Crores approved by Hon’ble Commission for FY 2023-24.

2.14.3 MSEDCL would like to submit that Hon’ble Commission considers the ATS and SMS charges under A&G and not under Opex schemes. However, these are charges paid to the OEM’s such as Oracle database, SAP etc. for providing support services to enhance MSEDCL performance in opex related activities. Even though these charges are recurring but are operational in nature and are incurred for delivery of online services to consumers to assist in recovery of timely bill payments. MSEDCL, therefore requests the Hon’ble Commission to allow such expenses as part of Opex schemes.

2.14.4 Following table shows the actual Opex Schemes expenses for FY 2022-23 & FY 2023-24.

Table 39 Opex Scheme Expenses for FY 2022-23 & 2023-24 (in Rs. Crores)

Particulars	FY 2022-23			FY 2023-24		
	Approved	Actual	Deviation	Approved	Actual	Deviation
OPEX Scheme for Wire and Supply business	70.05	60.57	(9.48)	84.45	48.41	(36.04)

2.14.5 Detailed justification, and cost benefit analysis of such schemes have been provided under chapter 15 of this petition.

Table 40 Opex wire business (in Rs. Crores)

Sr. No.	Particulars	FY 2022-23			FY 2023-24		
		MTR Order	April-March (Audited)	True-Up requirement	MTR Order	April-March (Audited)	True-Up requirement
		(a)	(b)	(c) = (b) - (a)	(d)	(e)	(f) = (e) - (d)
1	Substation Monitoring System (SMS)	21.30	5.23	(16.07)	36.00	0.75	(35.25)

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Sr. No.	Particulars	FY 2022-23			FY 2023-24		
		MTR Order	April-March (Audited)	True-Up requirement	MTR Order	April-March (Audited)	True-Up requirement
		(a)	(b)	(c) = (b) - (a)	(d)	(e)	(f) = (e) - (d)
2	MSEDCL Cloud Project	7.98	7.06	(0.92)	7.97	6.63	(1.35)
3	IT Application Redevelopment	-		-	-		-
4	Vehicle Tracking System	0.77	0.10	(0.68)	0.26	0.01	(0.25)
5	SMS services		7.32	7.32		2.89	2.89
6	Annual Technical Support of existing SAP/HANA(balance) licenses and Oracle Software Licenses		7.56	7.56		7.01	7.01
7	Total	30.05	27.26	(2.79)	44.23	17.28	(26.95)

Table 41 Opex for Supply business (in Rs. Crores)

Sr. No	Particulars	FY 2022-23			FY 2023-24		
		MTR Order	April-March (Audited)	True-Up requirement	MTR Order	April-March (Audited)	True-Up requirement
		(a)	(b)	(c) = (b) - (a)	(d)	(e)	(f) = (e) - (d)
1	Customer Care Center	26.46	9.75	(16.71)	27.20	14.50	(12.70)
2	RF-DCU (Expression of Interest & Tender)	4.80	1.53	(3.27)	4.80	0.10	(4.70)
3	MSEDCL Cloud Project	7.98	7.06	(0.92)	7.97	6.63	(1.35)
4	Vehicle Tracking System	0.77	0.10	(0.68)	0.26	0.01	(0.25)
5	SMS services		7.32	7.32		2.89	2.89
6	Annual Technical Support of existing SAP/HANA (balance) licenses and Oracle Software Licenses		7.56	7.56		7.01	7.01
7	Total	40.01	33.31	(6.70)	40.23	31.13	(9.10)

MSEDCL requests the Hon'ble Commission to allow the Opex Schemes Expenses as shown in table above.

2.15 Capitalisation for FY 2022-23 & FY 2023-24

2.15.1 MSEDCL has done capitalization of Rs 3,322.73 Crores in FY 2022-23 and Rs

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4,899.07 Crores in FY 2023-24 respectively as against Rs 3,532.32 Crores & Rs 3,618.64 Crores approved by Hon'ble Commission. Following table summarizes the actual versus approved capitalization in FY 2022-23 & FY 2023-24 (including consumer contribution & grants).

Table 42 Capitalisation for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Sr. No.	Particulars	FY 22-23 (Approved)	FY 22-23 (Actual)	Deviation	FY 23-24 (Approved)	FY 23-24 (Actual)	Deviation
1	DPR Scheme	3,431.43	2,683.21	(748.22)	3,554.30	3,958.07	403.77
2	Non DPR Scheme						
2.1	DDF / Non-DDF Scheme	44.00	600.21	556.21	0	914.63	914.63
2.2	Other Non DPR Schemes	56.89	39.31	(17.58)	64.34	26.37	(37.97)
3	Total Capitalization	3,532.32	3,322.73	(209.59)	3,618.64	4,899.07	1,280.43
4	% of Non-DPR to DPR*	2.94%	1.46%		1.81%	0.67%	

* % Non- DPR schemes excluding DDF/ Non-DDF schemes

2.15.2 Further Regulation 24.7 of MYT Regulations, 2019 specifies limit on capitalisation of non-DPR schemes that are allowable.

“24.7 The cumulative amount of capitalisation against non-DPR schemes for any Year shall not exceed 20% or such other limit as may be stipulated by the Commission through an Order, of the cumulative amount of capitalisation approved against DPR schemes for that Year.

Provided that the Commission may allow capitalisation against non-DPR schemes for any Year in excess of 20% or such other limit as may have been stipulated by the Commission through Order, on a request made by the Generating Company or Licensee or MSLDC”

2.15.3 In FY 2022-23, the approved capitalization for DPR schemes was Rs 3,431.43 Crores, with actual capitalization totalling Rs 2,683.21 Crores The Non-DPR capitalization increased to Rs 639.52 Crores. Similarly, in FY 2023-24, the approved capitalization for DPR schemes was Rs 3,554.30 Crores, while actual capitalization reached Rs 3,958.07 Crores. However, non-DPR capitalization grew to Rs 941.0 crore. The DDF/ Non-DDF schemes are either consumer funded or investment is done on accrual basis as per the request from consumers. Therefore, if we exclude the DDF/ Non-DDF scheme from non-DPR schemes the ratio Non-DPR/ DPR is far below the limits specified by MERC. MSEDCL implements DDF/Non-DDF Scheme for individual or group of applicant/consumers that are on the same/contiguous

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premise/s and requesting power supply through Dedicated Distribution Facility (DDF) / Non DDF as per provisions of MERC Supply Code Regulations, 2021.

2.15.4 Regulation 24.7 of MYT regulation, 2019 provides the Hon'ble Commission with the discretion to allow capitalization against non-DPR schemes beyond the 20% threshold based on a justified request from the licensee. MSEDCL's request is aligned with this provision, given the necessity of these non-DPR expenditures in supporting uninterrupted power distribution across Maharashtra.

2.15.5 As per the Annual Accounts of FY 2022-23 & FY 2023-24 the addition to GFA is Rs 3,378.51 Crores & Rs 4,971.74 Crores respectively whereas in Form 4 MSEDCL has shown Capitalization as Rs 3,322.73 Crores & 4,899.07 Crores respectively. MSEDCL submits that in Form 4.2, only scheme wise details have been shown whereas in Annual Accounts the Addition to GFA is shown in totality including land and land rights, buildings, etc. The detail of which is shown in the following table.

Table 43 Addition to GFA as per Annual Accounts for FY2022-23 & FY 2023-24 (in Rs. Crores)

Sr. No.	Particulars	FY 2022-23	FY 2023-24
1	Capitalization as per Note of the Accounts	3,378.51	4,971.74
2	Capitalization as per Form 4	3,322.73	4,899.07
	Other Assets		
3	Land	21.22	3.11
4	Buildings	10.79	13.42
5	Vehicles	1.19	5.37
6	Furniture & Fixtures	4.24	5.28
7	General Assets	5.03	23.81
8	Other Civil Works	11.52	20.92
9	Computer Software		
10	Lease Hold Land	1.78	0.76
	Total (2 to 10)	3,378.51	4,971.74

2.15.6 MSEDCL further submits that the additional details of General Assets are summarized in the table below.

Table 44 General Assets as per Annual Accounts for FY2022-23 & FY 2023-24 (in Rs. Crores)

S.No	Particulars	FY 2022-23	FY 2023-24
1	Hydraulic Works	0.07	-
2	Batteries & Charging	0.21	0.03

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S.No	Particulars	FY 2022-23	FY 2023-24
3	Communication Equipments	0.51	0.90
4	IT Equipment	19.95	22.84
5	Office Equipment	-15.71	0.03
6	Total	5.03	23.81

2.15.7 Hon'ble Commission in its previous Orders has allowed the capitalization towards schemes not forming part of any specific scheme. MSEDCL further submits that Hon'ble Commission has accordingly revised the GFA to that extent as well. Therefore, MSEDCL requests the Hon'ble Commission to approve the capitalization as per the Audited Accounts and revise the GFA accordingly.

2.16 Depreciation for FY 2022-23 & FY 2023-24

2.16.1 The Opening GFA as per MSEDCL's Audited Accounts for FY 2022-23 & FY 2023-24 excludes the impact of Final Transfer Scheme/Restructuring Plan and subsequent revaluation. Accordingly, the depreciation has been reworked on a pro-rata basis on the revised Opening GFA for FY 2022-23 & FY 2023-24 for the purpose of True-Up which is summarized below.

Table 45 Depreciation for FY 2022-23 & FY 2023-24 (in Rs. Crores)

S.No	Particulars	FY 2022-23	FY 2023-24
1	Opening GFA (Actual)	70,864.95	74,243.46
2	Opening GFA as per MERC	58,869.77	60,514.50
3	Add: Capitalisation during the year	3,378.52	4,971.74
4	Less: Consumer Contribution & Grants	1,733.78	2,089.81
5	Net Opening GFA (Approved)	60,514.50	63,396.44
6	Depreciation (Actual)	3,333.85	3,343.70
7	Depreciation (Claimed in proportion to Actual)	2,769.53	2,725.39

2.16.2 Consumer Contribution and Grants has been deducted from GFA while working out depreciation as per the clause 26.2 (c). The relevant extract of the regulations is reproduced below:

"26.2 The expenses on such capital works shall be treated as follows :—

(a) normative O and M expenses as specified in these Regulations shall be allowed ;

(b) the debt-equity ratio, shall be considered in accordance with Regulation 27,

-
- after deducting the amount of such financial support received ;*
- (c) provisions related to depreciation, as specified in Regulation 28, shall not be applicable to the extent of such financial support received ;*
- (d) provisions related to return on equity, as specified in Regulation 29 shall not be applicable to the extent of such financial support received ;*
- (e) provisions related to interest on loan capital, as specified in Regulation 30 shall not be applicable to the extent of such financial support received.”*

2.16.3 MSEDCL requests the Hon'ble Commission to allow the Depreciation as computed in above table.

2.17 Funding Arrangement for FY 2022-23 & FY 2023-24

2.17.1 As per the Regulation 27.1 of MERC MYT Regulations, 2019, the debt-equity ratio as on the date of commercial operation shall be 70:30 of the amount of capital cost approved by the Commission. The said Regulation also provides that if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan for the Licensee for determination of Tariff. The relevant extract of the regulations is reproduced below:

“27.1 For a capital investment Scheme declared under commercial operation on or after 01st April 2020, debt-equity ratio as on the date of commercial operation shall be 70:30 of the amount of capital cost approved by the Commission under Regulation 24, after prudence check for determination of Tariff:

Provided also that if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan for the Generating Company or Licensee or MSLDC for determination of Tariff.”

Provided also that where equity actually deployed is less than 30% of the capital cost of the capitalised asset, the actual equity shall be considered for determination of Tariff.”

2.17.2 MSEDCL submits that the Hon'ble Commission has designed the formats for submission of data in respect of Capex and Capitalization on yearly basis. MSEDCL further submits that the information required by Hon'ble Commission is on yearly basis whereas capital expenditure and capitalization of project is a process which continues for 3 to 5 years. With such different timelines, there will be spill-over of

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capex and capitalization and hence it would be difficult to match the capex and capitalization and its funding on yearly basis. MSEDCL also submits that previously funding gap (if any) was shown as internal accrual and Hon'ble Commission has considered it as a part of normative equity or normative loan. It is pertinent to note that many times the Hon'ble Commission has restricted the equity to 30% if the equity portion of the funding is exceeded 30% and excess equity was treated as normative loan. Thus, Hon'ble Commission has already given the necessary effect for additional equity.

2.17.3 The funding pattern for FY 2022-23 & FY 2023-24 for the capitalization achieved by MSEDCL, in proportion to the funding pattern of capital Expenditure, is presented in the following table:-

Table 46 Funding of Capitalisation for FY 2022-23 & FY 2023-24 (in Rs. Crores)

S.No	Particulars	FY 2022-23	FY 2023-24
1	Total Capitalisation	3,322.73	4,899.07
2	Less: Consumer Contribution	730.62	639.86
3	Less: Grants	1,003.16	1,449.95
4	Balance to be funded	1,588.95	2,809.26
5	Equity	1,060.01	2,065.71
6	Debt	528.93	743.55
7	Equity	67%	74%
8	Debt	33%	26%

2.17.4 MSEDCL respectfully submits this petition for approval of the debt-equity ratio as per Regulation 27 of the MERC MYT Regulations, 2019. In accordance with this regulation, the debt-equity ratio for these schemes is to be maintained at 70:30 for the approved capital cost, after the Commission's prudence check for tariff determination. However, as per the financial records for FY 2022-23 and FY 2023-24, MSEDCL's equity deployment exceeds the normative 30% level, resulting in a debt-equity ratio of 33:67 for FY 2022-23 and 26:74 for FY 2023-24. MSEDCL requests the Hon'ble Commission to approve the capitalization structure with a debt-equity ratio exceeding the normative 30:70 limit and to consider the excess equity portion as normative debt for tariff determination.

2.18 Interest Expenses for FY 2022-23 & FY 2023-24

2.18.1 MSEDCL has computed the interest expenses on normative basis linked to the

normative opening loan and normative loan addition during the year.

2.18.2 MSEDCL submits that the Regulation 30.5 of the MYT Regulations 2019 provides that at the time of Truing-up, the weighted average rate of interest computed on the basis of the actual long term loan portfolio during the concerned year shall be considered as the rate of interest. The relevant extract of the regulations is reproduced below:

“30.5 The rate of interest shall be the weighted average rate of interest computed on the basis of the actual long-term loan portfolio at the beginning of each year:

Provided that at the time of Truing-up, the weighted average rate of interest computed on the basis of the actual long-term loan portfolio during the concerned year shall be considered as the rate of interest.”

2.18.3 Accordingly, for arriving at the interest rate, MSEDCL has considered the weighted average interest rate of actual long term loan portfolio of FY 2022-23 & FY 2023-24. The computation of weighted average interest rate of actual long term loan portfolio is shown in following table.

Table 47: Computation of weighted avg. interest rate for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	Formula	FY 2022-23	FY 2023-24
Outstanding loan at the start of the year	a	14,030.28	12,702.76
Loan drawal during the year	b	1,045.25	1,413.08
Loan repayment during the year	c	2,372.77	1,812.88
Balance outstanding at the end of the year	d=a+b-c	12,702.76	12,302.96
Average loan for the year	e= Avg (a,d)	13,366.52	12,502.86
Interest expense incurred during the year	f	1,262.82	1,189.00
Weighted average interest rate	g=f/e	9.45%	9.51%

2.18.4 Regulation 30.3 of the MERC (MYT) Regulations, 2019 provides for repayment during a year equal to depreciation allowed. The relevant extract is reproduced below:

“30.3 The repayment during each year of the Control Period from FY 2020-21 to FY 2024-25 shall be deemed to be equal to the depreciation allowed for that year.”

2.18.5 Considering the normative opening loan, normative loan addition during the year and

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loan repayment equal to depreciation and the weighted average interest rate of actual loan portfolio, MSEDCL has computed the interest expenses on normative basis as summarized in table below:

Table 48 Interest Expenses for FY 2022-23 (in Rs. Crores)

Particulars	FY 2022-23		
	Approved	Normative	Deviation
Normative Outstanding loan at the beginning of the year	10,235.87	10,235.87	-
Less: Reduction of Normative loan due to retirement of assets			-
Loan Drawal	1,480.82	1,112.26	(368.55)
Loan Repayment	2,688.58	2,769.53	80.96
Normative Balance Outstanding at the end of the year	9,028.11	8,578.60	(449.51)
Average Balance of Net Normative loan	9,631.99	9,407.24	(224.76)
Interest Rate	9.85%	9.45%	
Interest Expenses	948.70	888.76	(59.94)

Table 49 Interest Expenses for FY 2023-24 (in Rs. Crores)

Particulars	FY 2023-24		
	Approved	Normative	Deviation
Normative Outstanding loan at the beginning of the year	9,028.11	8,578.60	(449.51)
Less: Reduction of Normative loan due to retirement of assets			-
Loan Drawal	1,482.05	1,966.48	484.43
Loan Repayment	2,762.36	2,725.39	(36.97)
Normative Balance Outstanding at the end of the year	7,747.80	7,819.69	71.89
Average Balance of Net Normative loan	8,387.96	8,199.15	(188.81)
Interest Rate	9.85%	9.51%	
Interest Expenses	826.17	779.72	(46.45)

2.18.6 MSEDCL submits that Hon'ble Commission had approved Funding of Capitalization based on the approved capitalization in the MTR Order dated 31st March 2023 for FY 2022-23 & FY 2023-24. However, actual capitalization is lower than the approved capitalization for FY 2022-23 & FY 2023-24. The normative loan drawal is also lower than that approved in MTR Order.

2.18.7 MSEDCL requests the Hon'ble Commission to approve the normative interest expenses of Rs 888.76 Cr. & Rs 779.72 Crores for FY 2022-23 & FY2023-24 respectively as submitted in the above table.

2.19 Interest on Working Capital & Interest on Security Deposit for FY 2022-23 & FY 2023-24

2.19.1 MSEDCL submits that the Regulations 32.3 of the MERC (MYT) Regulations, 2019 provides for Interest on Working Capital for Wire business of electricity. Further, the MYT Regulations, 2019 also provides that for the purpose of Truing-up for any year, interest on working capital shall be allowed at a rate equal to the weighted average Base Rate prevailing during the concerned Year plus 150 basis points. The relevant extract is reproduced below:

“32.3 (a) The working capital requirement of the Distribution Wires Business shall cover:

(i) Normative Operation and maintenance expenses for one month;

(ii) Maintenance spares at one per cent of the opening Gross Fixed Assets for the Year; and

(iii) One and half months equivalent of the expected revenue from charges for use of Distribution Wires at the Tariff approved by the Commission for ensuing year/s;

minus

(iv) Amount held as security deposits in cash from Distribution System Users

32.3 (b)

Provided that for the purpose of Truing-up for any year, interest on working capital shall be allowed at a rate equal to the weighted average Base Rate prevailing during the concerned Year plus 150 basis points.”

2.19.2 In view of the MYT 2019, Base Rate is defined as one-year MCLR of SBI plus 150 basis points. The relevant extract is reproduced below:

“2.1 (11) “Base Rate” shall mean the one-year Marginal Cost of Funds-based Lending Rate (“MCLR”) as declared by the State Bank of India from time to time;”

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2.19.3 The detailed working of weighted average Base Rate is provided in following table.

Table 50 Working of weighted average Base Rate for FY 2022-23

From	To	Days	Rate	Days X Rate
01-04-22	15-04-22	15	7.00%	105%
16-04-22	15-05-22	30	7.10%	213%
16-05-22	15-06-22	31	7.20%	223%
16-06-22	15-07-22	30	7.40%	222%
16-07-22	15-08-22	31	7.50%	233%
16-08-22	15-09-22	31	7.70%	239%
16-09-22	15-10-22	30	7.70%	231%
16-10-22	15-11-22	31	7.95%	246%
16-11-22	15-12-22	30	8.05%	242%
16-12-22	15-01-23	31	8.30%	257%
16-01-23	15-02-23	31	8.40%	260%
16-02-23	15-03-23	28	8.50%	238%
16-03-23	31-03-23	16	8.50%	136%
Weighted Avg. Rate		365	7.79%	2845%
Plus 150 Basis Points			1.50%	
Total Weighted Avg. Rate			9.29%	

Table 51 Working of weighted average Base Rate for FY 2023-24

From	To	Days	Rate	Days X Rate
01-04-23	15-04-23	15	8.50%	128%
16-04-23	15-05-23	30	8.50%	255%
16-05-23	15-06-23	31	8.50%	264%
16-06-23	15-07-23	30	8.50%	255%
16-07-23	15-08-23	31	8.55%	265%
16-08-23	15-09-23	31	8.55%	265%
16-09-23	15-10-23	30	8.55%	257%
16-10-23	15-11-23	31	8.55%	265%
16-11-23	15-12-23	30	8.55%	257%
16-12-23	15-01-24	31	8.65%	268%
16-01-24	15-02-24	31	8.65%	268%
16-02-24	15-03-24	29	8.65%	251%
16-03-24	31-03-24	16	8.65%	138%
Weighted Avg. Rate		366	8.56%	31.347
Plus 150 Basis Points			1.50%	

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From	To	Days	Rate	Days X Rate
Total Weighted Avg. Rate			10.06%	

2.19.4 MSEDCL has calculated the interest on working capital at 9.29% and 10.06% for FY 2022-23 & FY 2023-24 respectively as computed in the above tables. MSEDCL further submits that the Regulation 30.11 of MYT Regulations, 2019 provides for Interest on Security Deposit at bank rate. The relevant extract is reproduced below:

“30.11 Interest shall be allowed only on the amount held in cash as security deposit from Transmission System Users, Distribution System Users and Retail consumers at the Bank Rate as on 1st April of the Year for which the interest is payable.:

Provided that at the time of Truing-up, the interest on the amount of security deposit for the year shall be considered on the basis of the actual interest paid by the Licensee during the year, subject to prudence check by the Commission.”

2.19.5 MSEDCL requests the Hon’ble Commission to allow the Interest on Working Capital along with the Interest on Security Deposit for wire business as shown in table below.

Table 52 Interest on Working Capital & Interest on SD for Wire business for FY 2022-23 (in Rs. Crores)

Particulars	FY 2022-23		
	Approved	Normative	Deviation
Computation of Working Capital (Wire Business)			
O&M expenses for a month	424.97	428.23	3.26
Maintenance spares at 1% of GFA	529.83	529.83	(0.00)
1.5 months of expected revenue from charges for use of Distribution wires	1,295.07	1,341.36	46.29
Less: Amount held as SD from Distribution System Users	(951.63)	(1,060.18)	(108.55)
Total Working Capital Requirement	1,298.25	1,239.24	(59.01)
Rate of Interest (% p.a)	9.55%	9.29%	-0.26%
Interest on Working Capital	123.98	115.18	(8.80)
Actual Working Capital Interest	-	268.29	268.29
Interest on Security Deposit			-
Rate of Interest (% p.a)	4.25%	4.23%	-0.02%
Interest on Security Deposit	40.44	44.80	4.36

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Table 53 Interest on Working Capital & Interest on SD for Wire business for FY 2023-24 (in Rs. Crores)

Particulars	FY 2023-24		
	Approved	Normative	Deviation
Computation of Working Capital (Wire Business)			
O&M expenses for a month	446.47	505.87	59.40
Maintenance spares at 1% of GFA	544.06	560.23	16.17
1.5 months of expected revenue from charges for use of Distribution wires	1,325.40	1,465.53	140.13
Less: Amount held as SD from Distribution System Users	(999.21)	(1,231.80)	(232.60)
Total Working Capital Requirement	1,316.73	1,299.82	(16.91)
Rate of Interest (% p.a)	9.55%	10.06%	0.51%
Interest on Working Capital	125.75	130.82	5.07
Actual Working Capital Interest		545.20	545.20
Interest on Security Deposit			-
Rate of Interest (% p.a)	4.25%	5.61%	1.36%
Interest on Security Deposit	42.47	69.09	26.62

2.19.6 MSEDCL has calculated the interest on working capital at 9.29% and 10.06% for FY 2022-23 & FY 2023-24 respectively as computed in the above tables. MSEDCL further submits that the Regulation 30.11 of MYT Regulations, 2019 provides for Interest on Security Deposit at bank rate. The relevant extract is reproduced below:

“30.11 Interest shall be allowed only on the amount held in cash as security deposit from Transmission System Users, Distribution System Users and Retail consumers at the Bank Rate as on 1st April of the Year for which the interest is payable.:”

“Provided that at the time of Truing-up, the interest on the amount of security deposit for the year shall be considered on the basis of the actual interest paid by the Licensee during the year, subject to prudence check by the Commission.”

2.19.7 MSEDCL further submits that Regulation 32.4 of the MERC MYT Regulations, 2019 provides for Interest on Working Capital for Retail Supply business of electricity. Further, the MYT Regulations, 2019 also provides that for the purpose of Truing-up for any year, interest on working capital shall be allowed at a rate equal to the weighted average Base Rate prevailing during the concerned Year plus 150 basis points. Base Rate is considered at one-year MCLR of SBI plus 150 basis points. The relevant extract is reproduced below:

“32.4 (a) The working capital requirement of the Retail Supply Business shall cover:

(i) Normative Operation and maintenance expenses for one month;

(ii) Maintenance spares at one per cent of the opening Gross Fixed Assets for the Year; and

(iii) One and half months equivalent of the expected revenue from sale of electricity at the Tariff approved by the Commission for ensuing year/s, and including revenue from cross-subsidy surcharge and additional surcharge, if any;

minus

(iv) Amount held as security deposits in cash from retail supply consumers;

(v) One month equivalent of cost of power purchased, including the Transmission Charges and SLDC Charges, based on the annual power procurement plan:

32.4 (b)

Provided that for the purpose of Truing-up for any year, interest on working capital shall be allowed at a rate equal to the weighted average Base Rate prevailing during the concerned Year plus 150 basis points.”

2.19.8 MSEDCL has calculated the interest on working capital at 9.29% & 10.06% for FY 2022-23 & FY 2023-24 respectively- as computed above and paid interest on security deposit at 4.23% & 5.61% for FY 2022-23 & FY 2023-24 respectively:

Table 54 Interest on Working Capital & Interest on SD for Retail Supply business for FY 2022-23 (in Rs. Crores)

Particulars	FY 2022-23		
	Approved	Normative	Deviation

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Particulars	FY 2022-23		
	Approved	Normative	Deviation
Computation of Working Capital (Supply Business)			
O&M expenses for a month	228.83	230.59	1.76
Maintenance spares at 1% of GFA	58.87	58.87	(0.00)
1.5 months of the expected revenue from sale of electricity at the prevailing tariff and including revenue from CSS and Additional Surcharge.	12,644.28	11,796.73	(847.55)
Less: Amount held as SD from Distribution System Users	(8,564.63)	(9,541.61)	(976.98)
Less: One month equivalent of cost of power purchase, transmission charges and MSLDC Charges	(6,247.16)	(7,500.26)	(1,253.10)
Total Working Capital Requirement	(1,879.81)	(4,955.68)	(3,075.87)
Rate of Interest (% p.a)	9.55%	9.29%	-0.26%
Interest on Working Capital			-
Actual Working Capital Interest		2,414.65	2,414.65
Interest on Security Deposit			-
Rate of Interest (% p.a)	4.25%	4.23%	-0.02%
Interest on Security Deposit	364.00	403.22	39.22

Table 55 Interest on Working Capital & Interest on SD for Retail Supply business for FY 2023-24 (in Rs. Crores)

Particulars	FY 2023-24		
	Approved	Normative	Deviation
Computation of Working Capital (Supply Business)			
O&M expenses for a month	240.41	272.39	31.98
Maintenance spares at 1% of GFA	60.45	62.25	1.80
1.5 months of the expected revenue from sale of electricity at the prevailing tariff and including revenue from CSS and Additional Surcharge.	11,425.40	14,314.74	2,889.34
Less: Amount held as SD from Distribution System Users	(8,992.86)	(11,086.24)	(2,093.38)
Less: One month equivalent of cost of power purchase, transmission charges and MSLDC Charges	(6,769.91)	(7,794.51)	(1,024.60)
Total Working Capital Requirement	(4,036.51)	(4,231.36)	(194.85)
Rate of Interest (% p.a)	9.55%	10.06%	0.51%
Interest on Working Capital			-
Actual Working Capital Interest		4,906.83	4,906.83
Interest on Security Deposit			-
Rate of Interest (% p.a)	4.25%	5.61%	1.36%
Interest on Security Deposit	382.20	621.84	239.64

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2.19.9 Interest rated for interest paid on security deposit for the financial year FY 2023 & FY 2024 is attached as Annexure 2.5 and Annexure 2.6 respectively to this petition.

2.19.10 MSEDCL requests the Hon'ble Commission to allow the Interest on working capital & Interest on Security Deposit for supply business as shown in the table above.

2.20 Other Finance Charges for FY 2022-23 & FY 2023-24

2.20.1 MSEDCL submits that the regulation 30.8 of the MYT Regulations, 2019 provides that the finance charges shall be allowed at the time of True-up. The relevant extract is reproduced below:-

“30.8 The finance charges incurred for obtaining loans from financial institutions for any Year shall be allowed by the Commission at the time of Truing-up, subject to prudence check.”

2.20.2 MSEDCL submits that it has incurred Other Finance Charges amounting to Rs 49.79 Crores & Rs. 43.71 Crores during the FY 2022-23 & FY 2023-24 respectively. These are the fund-raising charges i.e., Guarantee Charges, Finance Charges, Stamp Duty and Service Fee.

Table 56 Other Finance Charges for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Sr. No.	Particulars	FY 2022-23	FY 2023-24
1	Guarantee Charges (LC & BG)	19.48	31.07
2	Finance Charges (Note 1)	8.23	6.73
3	Stamp Duty	0.76	2.56
4	Service Fee (Fund-raising charges) (Note 2)	12.39	3.35
5	LC & BG Charges		
6	Total	40.86	43.71
7	Prior Period Interest & Finance Charges	8.93	
8	Total Interest Charges	49.79	43.71

Table 57 Note 1 for Other Finance Charges

Finance Charges	FY 2022-23	FY 2023-24
Other finance charges	0.34	0.38
Bank Charges for Remittances	2.45	1.86
Other Bank Charges	5.44	4.49
Total	8.23	6.73

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Table 58 Note 2 for Other Finance Charges

Service Fee (Fund-raising charges)	FY 2022-23	FY 2023-24
Funds Raising Charges	12.32	3.31
Legal Charges	0.07	0.04
Total	12.39	3.35

2.20.3 Material prior period errors are corrected retrospectively by restating the comparative amounts for the prior periods presented in which the error occurred. If the error occurred before the earliest period presented, the opening balances of assets, liabilities and equity for the earliest period presented, are restated. No restatement of prior period is made where the prior period errors are below the threshold of 0.5% of the turnover (As defined under Section 2(91) of the Companies Act, 2013). As per the said accounting policy, prior period errors of FY 2021-22 are restated in the comparative amount i.e. FY 2021-22 & for prior period errors of the period prior to FY 2021-22, the opening balances of assets, liabilities and equity for the earliest period presented, are restated. In Form 6A: Prior period Interest & Finance expenses pertaining to FY 2021- 22 of Rs.8.93 are restated in comparative amount in FY 2022-23 as per accounting policy.

Table 59 Interest & finance expenses

Particulars	Amounts (in Cr)
Interest on deposit from consumers	8.09
Other Interest	0.01
Bank charges for Remittances	0.2
LC & BG charges	0.63
Total	8.93

2.20.4 MSEDCL submits that Other Finance Charges depend on the no. of loans, LC required to be given to the Power Suppliers, documentation for availing long term and working capital loans. These charges are, thus, beyond reasonable control of MSEDCL and hence required to be allowed on actual basis. Therefore, MSEDCL humbly requests the Hon'ble Commission to allow the Other Finance Charges as per the Audited Accounts.

2.21 Provision for Bad & Doubtful Debts for FY 2022-23 & FY 2023-24

2.21.1 MSEDCL submits that bad debts are inseparable incidents of the business of electricity distribution and retail supply.

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2.21.2 Regulation 76 and 85 of the MYT Regulations, 2019 specifies that a provision of bad and doubtful debt may be allowed up to 1.5% of the amount shown as trade receivables or Receivables from Wheeling Charges in the latest Audited Accounts of the distribution licensee duly allocated for wires and supply business respectively. The relevant extract is reproduced below:

“76 Provision for Bad and Doubtful Debts

For each year of the control period, the Commission may allow for writing off bad and doubtful debts up to 1.5 % of the amount shown as Trade Receivables or Receivables from Wheeling Charges in the latest audited accounts of the Distribution Licensee in accordance with the procedure laid down by the licensee, subject to prudence check:

....”

“85 Provision for Bad and Doubtful Debts

The Commission may allow a provision for bad and doubtful debts up to 1.5 % of the amount shown as Trade Receivables or Receivables from Sale of Electricity in the audited accounts of the Distribution Licensee, subject to prudence check:

...”

2.21.3 MSEDCL submits that Provision of bad debt generally depends on the nature of the business and the risk involved in the business. A business typically estimates the amount of bad debt based on historical experience.

2.21.4 MSEDCL has written off Rs 905.88 Crores & Rs 983.71 Crores against the bad debt during the FY 2022-23 & FY 2023-24 respectively.

2.21.5 MSEDCL has computed the provision for bad and doubtful debts for FY 2022-23 & FY 2023-24 as per the provisions of the MYT Regulations, 2019 considering the receivables as per Audited Accounts.

Table 60 Provision for bad and doubtful debts for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23			FY 2023-24		
	Approved	Actual	Deviation	Approved	Actual	Deviation
Opening balance for Provision for bad and doubtful debts		1,395.02	-	210.88	1,780.64	

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Particulars	FY 2022-23			FY 2023-24		
	Approved	Actual	Deviation	Approved	Actual	Deviation
Receivables for the year	48,701.59	86,100.65	37,399.06	48,701.59	1,01,881.75	53,180.16
Provision for bad and doubtful debts during the year (1.5%)	1.50%	1.50%	-	1.50%	1.50%	-
Provision for bad and doubtful debts during the year (Cr)	730.52	1,291.51	560.99	730.52	1,528.23	797.70
Actual bad & doubtful debts written off	1,059.63	905.88	(153.75)	1,111.06	983.71	(127.35)
Closing balance for Provision for bad and doubtful debts	-	1,780.64	-	-	2,325.16	-
Closing balance as a percentage of receivables		2.07%			2.28%	

2.21.6 MSEDCL humbly requests the Hon'ble Commission to approve Rs 905.88 Cr. & Rs. 983.71 Crores towards the actual Bad Debts written off for FY 2022-23 & FY 2023-24 respectively.

2.22 Other Expenses for FY 2022-23 & FY 2023-24

2.22.1 The other expenses of MSEDCL comprise of the expenditure on account of interest to suppliers/contractors, Incentive to distribution franchisee and other expenses viz. compensation for injuries to staff and outsiders. MSEDCL accordingly submits the other expenses as shown in the table below.

Table 61 Other Expenses for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23			FY 2023-24		
	Approved	Actual	Deviation	Approved	Actual	Deviation
Compensation for injuries, death of staff	1.45	2.92	1.47	1.53	0.38	(1.15)
Compensation for injuries, death of others	17.62	16.21	(1.41)	18.50	14.96	(3.54)
Loss on obsolescence of fixed assets	1.90		(1.90)	1.99		(1.99)
Sundry debt balance written off	2.09		(2.09)	2.19		(2.19)
Non-Moving items	19.56		(19.56)	20.53		(20.53)
Provision for Non-Moving items	8.97	59.77	50.80		151.58	151.58
Other Sundry Expenses		337.77	337.77	9.41	94.74	85.33
Other Expenses (Payable to DSL towards damage in terms of Arbitral Award)						
Incentive to Distribution Franchisee						
Interest to Supplier/Contractors						
Other Interest & Charges		34.50	34.50		14.12	14.12
Interest on security deposit on bill collection agency						
Interest on income tax						

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Particulars	FY 2022-23			FY 2023-24		
	Approved	Actual	Deviation	Approved	Actual	Deviation
Incentive payable to vendor						
Other Expenses for previous years	6.39	144.89	138.50	6.70		(6.70)
Write-off of WDV of scrapped assets		0.05	0.05		0.84	0.84
Less: Provision for Bad & doubtful debts for others		344.03	344.03		44.69	44.69
Total	57.98	252.07	194.09	60.85	231.93	171.08

2.22.2 MSEDCL humbly requests the Hon'ble Commission to approve Rs. 252.07 Cr. For FY 2022-23 and Rs 231.93 Cr. for FY 2023-24.

2.23 Contribution to Contingency Reserves for FY 2022-23 & FY 2023-24

2.23.1 Regulation 35.1 of MERC MYT Regulation, 2019 allows the licensee to claim Contribution to Contingency reserve basis the following Regulation:

Regulation 35.1 “ Where the Licensee has made a contribution to the Contingency Reserve, a sum not less than 0.25 per cent and not more than 0.5 per cent of the original cost of fixed assets shall be allowed annually towards such contribution in the calculation of Aggregate Revenue Requirement: Provided that where the amount of such Contingency Reserves exceeds five (5) per cent of the original cost of fixed assets, no further contribution shall be allowed: Provided further that such contribution shall be invested in securities authorised under the Indian Trusts Act, 1882 within a period of six months of the close of the Year”.

2.23.2 MSEDCL submits that it has invested Rs 96.11 Crores and Rs. 174.29 Crores towards contribution to contingency reserves for the FY 2022-23 & FY 2023-24 respectively. Accordingly, the same is being claimed in FY 2022-23 & FY 2023-24.

Table 62 Contingency Reserve for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23			FY 2023-24		
	Approved	Actual	Deviation	Approved	Actual	Deviation
Contribution to Contingency Reserve	-	96.11	96.11	-	174.29	174.29

2.23.3 MSEDCL further submits that the investment proof for the said amount is attached as an Annexure 2.7 for FY 22-23 & Annexure 2.8 for FY 2023-24 to this Petition. The investment for FY 2022-23 was made on dated 16th Oct 2023. Delay was attributable to the peculiar financial position of the company. MSEDCL requests the Hon'ble Commission to condone the delay and allow the contribution to contingency reserves

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as submitted in above table.

2.24 Income Tax for FY 2022-23 & FY 2023-24

2.24.1 MSEDCL submits that it has availed the option of taxation of domestic companies at lower rate u/s 115BAA of the Income Tax Act 1961, hence, there is no tax payable for FY 2022-23 & FY 2023 -24 (AY 2023-24 & AY 2024-25).

2.25 Incentives and Discounts for FY 2022-23 & FY 2023-24

2.25.1 MSEDCL submits that during FY 2022-23 & FY 2023-24, it has paid Rs 477.3 Cr. and 561.63 Cr. respectively of incentives/discounts to the consumers for timely and digital payment of bills as against Rs. 367.37 Crores & Rs. 385.73 Crores approved for FY 2022-23 and FY 2023-24 respectively by Hon'ble Commission in its MYT Order dated 31st March 2023.

Table 63 Incentives/discounts for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23			FY 2023-24		
	Approved	Actual	Deviation	Approved	Actual	Deviation
Incentive/Discount	367.37	477.37	110.0	385.73	561.63	175.90

Table 64 Breakup for Incentive/Discount paid to be consumers in FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23	FY 2023-24
Discount to consumers for timely payment of bills	433.31	505.96
Covid 19 Discount to Consumer	0.12	-
Incentive to prepaid Consumers	0.02	(0.02)
Go Green Discount to Consumers	3.96	4.89
Digital Payment Discount	32.30	41.30
1.5% REBATE TO DISTRIBUTION FRANCHISE	7.67	9.51
Total	477.38	561.66

2.25.2 Detailed break-up of Incentives & discounts of Rs. 477.38 Crores is as under. It is included in Rs. 1521.03 Crores under Note 30 in Audited accounts under head Prompt Payment & discounts –

Table 65 Detailed break-up of Incentives & discounts

Particulars	Rs in Cr
Discount to consumers for timely payment of bills	433.31

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Particulars	Rs in Cr
Covid 19 Discount to Consumer	0.12
Incentive to prepaid Consumers	0.02
Go Green Discount to Consumers	3.96
Digital Payment Discount	32.30
1.5% REBATE TO DISTRIBUTION FRANCHISE	7.67
Total	477.38

2.25.3 MSEDCL requests the Hon'ble Commission to allow the incentives/discounts as per the Audited Accounts for FY 2022-23 & FY 2023-24.

2.26 RLC Refund for FY 2022-23 & FY 2023- 24

2.26.1 MSEDCL has made RLC a refund of Rs 1.42Cr. and Rs. 2.77Cr. for FY 2022-23 and FY 2023-24 respectively. MSEDCL requests the Hon'ble Commission to allow the RLC Refund for FY 2022-23 & FY 2023-24 as per Audited Accounts.

2.27 Return on Equity for FY 2022-23 & FY 2023-24

2.27.1 MSEDCL submits that Regulation 29.1 of the MYT Regulations, 2019, provides for Return on Equity (RoE) for Distribution Licensee for both Wire and Supply Business which is reproduced as under:

“29.1 Return on Equity for the Generating Company, Transmission Licensee, Distribution Wires Business and MSLDC shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put to use, at the rate of up to 15.5 per cent per annum in Indian Rupee terms, and for the Retail Supply Business, Return on Equity shall be allowed on the amount of equity capital determined in accordance with Regulation 27 at the rate of up to 17.5 per cent per annum in Indian Rupee terms:

Provided that Return on Equity shall be allowed in two parts viz. Base Return on Equity, and Additional Return on Equity linked to actual performance:

Provided further that Additional Return on Equity shall be allowed at time of truing up for respective year based on actual performance, after prudence check of the Commission

29.2 Base Return on Equity for the Generating Company, Transmission Licensee, Distribution Wires Business and MSLDC shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put

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to use, at the rate of 14 per cent per annum in Indian Rupee terms, and for the Retail Supply Business, Return on Equity shall be allowed on the amount of equity capital determined in accordance with Regulation 27 at the rate of 15.5 per cent per annum in Indian Rupee terms:

Provided that in case the Generation Company or Licensee or MSLDC claims Return on Equity at a rate lower than the normative rate specified above for any particular year, then such claim for lower Return on Equity shall be unconditional:

Provided further that such claim for lower Return on Equity shall be allowed subject to the condition that the reduction in Return on Equity shall be foregone permanently for that year and shall not be allowed to be recouped at the time of Mid-Term Review or true-up as applicable

29.3 The Base Return on Equity shall be computed in the following manner:

(a) Return at the allowable rate as per this Regulation, applied on the amount of equity capital at the commencement of the Year; plus

(b) Return at the allowable rate as per this Regulation, applied on 50 per cent of the equity capital portion of the allowable capital cost, for the investments put to use in Generation Business or Transmission Business or Distribution Business or MSLDC, for such Year:

Provided that Base Return on Equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in Law or revised emission standards, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system.

...

2.27.2 The return on equity capital is allocated in the ratio of Fixed Assets between the Wires and Retail Supply Business, i.e. 90% to Wires Business and 10% to Supply Business. Therefore, the capital expenditure, grants, equity and capitalisation is divided into wires and supply business in the ratio of 90:10.

2.27.3 MSEDCL further submits that it has not reduced the equity corresponding to the assets retired in FY 2022-23 & FY 2023-24 since retirement against only land and

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vehicles is seen and accordingly, claimed the ROE on entire equity.

2.27.4 Considering the provisions of the MYT Regulations 2019, MSEDCL has computed the Return on Equity as shown in following tables.

Table 66 RoE for wires business for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23			FY 2023-24		
	Approved	Actual	Deviation	Approved	Actual	Deviation
Return on Equity (Wire Business)						
Regulatory Equity at the beginning of the year	12,239.34	12,239.34	-	12,330.07	12,668.36	338.29
Equity portion of Assets Capitalisation	90.72	429.02	338.30	59.38	758.47	699.10
Equity portion of Assets Depreciated			-			
Regulatory Equity at the end of the year	12,330.07	12,668.36	338.29	12,389.44	13,426.83	1,037.39
Return on Computation			-			
Return on Regulatory Equity at the beginning of the year	1,713.51	1,713.51	-	1,726.21	1,773.57	47.36
Return on Normative Equity Portion of Assets Capitalisation	6.35	30.03	23.68	4.16	53.09	48.94
Total Return on Equity	1,719.86	1,743.54	23.68	1,730.37	1,826.67	96.30

2.27.5 For Additional Return on Equity, as per clause 29.8 of MYT Regulation 2019, an additional Return on Equity shall be allowed on wires availability at the time of True-up. The relevant extract is as below:

“29.8 In case of Distribution Wires Business, an additional rate of Return on Equity shall be allowed on Wires Availability at the time of true-up as per the following schedule:

a) The target Wires Availability for recovery of base rate of return on equity shall be 95 percent for MSEDCL and 98% for other Distribution Licensees;

b) For every 0.50% over-achievement in Wires Availability, rate of return shall be increased by 0.50%, subject to ceiling of additional rate of Return on Equity of 1.50%;

c) Wires Availability shall be computed in accordance with the following formula:

$$\text{Wires Availability} = (1 - (\text{SAIDI} / 8760)) \times 100:$$

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Provided that the System Average Interruption Duration Index (SAIDI) shall be calculated in accordance with the definition specified in Maharashtra Electricity Regulatory Commission (Standards of Performance of Distribution Licensees, Period for Giving Supply and Determination of Compensation) Regulations, 2014, as amended from time to time.

Table 67 Additional ROE for Wire Business for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Sr. No.	Particulars	Unit	FY 2022-23	FY 2023-24
1	Wires Availability above 98% (95% for MSEDCL)	%	99.98	99.99
2	Additional Rate of Return on Equity for Wire Availability (a)	%	1.50%	1.50%
	Additional Return on Equity Computation			
3	Return on Regulatory Equity at the beginning of the year	Rs Crore	183.59	190.03
4	Return on Regulatory Equity addition during the year	Rs Crore	3.22	5.69
	Total Additional Return on Equity	Rs Crore	186.81	195.71

2.27.6 MSEDCL achieved wires availability of 99.98% in FY 2022-23 and 99.99% in FY 2023-24, significantly surpassing the 95% target and reflecting our commitment to providing uninterrupted and high-quality service to consumers. This performance represents a marked improvement over FY 2021-22, where availability was 97.47%. Given the objective data and consistent improvement in performance, MSEDCL requests the Hon'ble Commission to approve the additional RoE based on our demonstrated wires availability. Hon'ble Commission's favorable consideration of this request would provide necessary support to MSEDCL's efforts in enhancing distribution network reliability and service quality.

2.27.7 Hon'ble commission vide its order dated 31st March 2023 in Case No 226 of 2022 directed MSEDCL to submit the protocol for automated measurement and reporting of supply availability across various Circles / Divisions. Accordingly, MSEDCL submits that for computation of supply availability, the data of interruptions received through AMR, MRI, Mobile app & NDM System of respective feeders and is processed at MSEDCL centralized IT system.

2.27.8 For receiving data of interruptions without manual intervention, the work of installation of smart meters to all the feeders is in process. LOA details of the work is as below:

2.27.8.1 M/s Adani Energy Solutions Ltd, Ahmedabad.

- MMD/T-NSC-05/0323/24021 dated 07.08.2023 (Bhandup, Kalyan and Kokan

Zone)

- MMD/T-NSC-06/0323/24022 dated 07.08.2023 (Pune and Baramati Zone)
- Amendment -1 MMD/T-NSC-05/0323/additional scope/7965 dated 11.03.2027 (Kolhapur Zone)

2.27.8.2 M/s NCC Ltd, Hyderabad

- MMD/T-NSC-08/0323/24023 dated 07.08.2023 (Nasik and Jalgaon Zone)
- MMD/T-NSC-08/0323/24024 dated 07.08.2023 (Latur, Nanded and CSN Zone)

2.27.8.3 M/s Montecarlo Ltd Ahmedabad

- MMD/T-NSC-08/0323/24025 dated 07.08.2023 (Nagpur, Chandrapur and Gondia Zone)

2.27.8.4 M/s Genus Power Solutions Pvt Ltd. Jaipur

- MMD/T-NSC-08/0323/24025 dated 07.08.2023 (Akola and Amaravati Zone)

2.27.9 The status of installation of smart meters on respective feeders as on date is below:

Table 68 Status of installation of smart meters on respective feeders

Particulars	Numbers
Total No of feeders	27826
No of feeders with smart meters installed	24145
Balance no of feeders for smart meters to be installed	3681

2.27.10 MSEDCL submits that smart meters on the balance 3681 feeders will be installed by Dec 2024. After installation of smart meters to all the feeders, supply availability will be measured automatically without manual intervention. After completion of the activity of installation of feeder meters, software / program will be developed after checking and verification of all technical possibilities and accordingly, automated measurement and reporting of supply availability across various Circles / Divisions will be carried out.

2.27.11 In accordance with the submissions made above, MSEDCL requests the Hon'ble Commission to approve the additional ROE claimed above for FY 2022-23 and FY 2023-24.

2.27.12 MSEDCL has computed the RoE for retail supply Business as shown in following

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tables:

Table 69 RoE for Supply business for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23			FY 2023-24		
	Approved	Actual	Deviation	Approved	Actual	Deviation
Return on Equity (Supply Business)						
Regulatory Equity at the beginning of the year	1,380.04	1,380.04	-	1,390.12	1,427.71	37.59
Capitalization During the year	158.16	158.89	0.73	154.80	280.92	126.13
Equity portion of Assets Capitalisation	10.08	47.67	37.59	6.60	84.27	77.68
Equity portion of Assets Depreciated			-			-
Regulatory Equity at the end of the year	1,390.12	1,427.71	37.59	1,396.72	1,511.99	115.27
Return on Equity Computation			-			-
Return on Regulatory Equity at the beginning of the year	213.91	213.91	-	215.47	221.30	5.83
Return on Normative Equity Portion of Assets Capitalization	0.78	3.69	2.91	0.51	6.53	6.02
Total Return on Equity (RoE)	214.69	217.60	2.91	215.98	227.83	11.85

2.27.13 In case of retail supply business Additional ROE is calculated as per clause 29.9 of MYT regulation 2019. The relevant extract is as below:

“29.9 In case of Retail Supply Business, an additional rate of Return on Equity shall be allowed at the time of true-up, as per the following schedule:

a) If the percentage of assessed bills is less than 1.5% of the total number of bills issued during the year, then rate of return shall be increased by 1%;

b) If the percentage of assessed bills is more than 1.5% of the total number of bills issued during the year, for every 0.5% reduction in the percentage of assessed billing, rate of return shall be increased by 0.25%, subject to ceiling of additional rate of Return on Equity of 1.00%.

c) If overall collection efficiency for the year is above 99 %, then rate of return shall be increased by 1%;

d) If overall collection efficiency for the year is below 99 %, for every 0.5% improvement in the overall collection efficiency, rate of return shall be increased by 0.25%, subject to ceiling of additional rate of Return on Equity of 1.00%.”

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Table 70 Additional ROE for Supply Business for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Sr. No.	Particulars	Unit	FY 2022-23	FY 2023-24
1	% of Assessed bills with respect to total bills issued during the year	%	14.10%	12.40%
2	Additional Rate of Return on Equity for Assessment of bills (a)	%	0.00%	0.85%
3	Collection Efficiency for the year	%	98.33	95.82
4	Additional Rate of Return for collection efficiency (b)	%	0.00%	0.00%
5	Total Additional Return on Equity (c) = (a) + (b)	%	0.00%	0.85%
	Additional Return on Equity Computation			
6	Return on Regulatory Equity at the beginning of the year	Rs. Crore	-	12.14
7	Return on Regulatory Equity addition during the year	Rs. Crore	-	0.36
	Total Additional Return on Equity	Rs. Crore	-	12.49

2.27.14 MSEDCL requests the Hon'ble Commission to allow the RoE as computed above.

2.28 Sharing of Efficiency Gains & Losses for FY 2022-23 & FY 2023-24

2.28.1 Regulations 9, 10 and 11 of the MYT Regulations, 2019 specify the controllable and uncontrollable factors, mechanism of pass-through of gains and losses on account of uncontrollable factors, and the mechanism for their sharing on account of controllable parameters as follows:

“11.1 The approved aggregate gain to the Generating Company or Licensee or MSLDC on account of controllable factors shall be dealt with in the following manner:

(a) Two-third of the amount of such gain shall be passed on as a rebate in Tariff over such period as may be stipulated in the Order of the Commission under Regulation 8.4;

(b) The balance amount of such gain shall be retained by the Generating Company or Licensee or MSLDC.

11.2 The approved aggregate loss to the Generating Company or Licensee or MSLDC on account of controllable factors shall be dealt with in the following manner:

(a) One-third of the amount of such loss may be passed on as an additional charge in Tariff over such period as may be stipulated in the Order of the Commission under Regulation 8.4;

(b) The balance amount of such loss shall be absorbed by the Generating Company or Licensee or MSLDC.”

2.28.2 Parameters such as O&M Expenses, Distribution Loss Interest on Working Capital for which specific norms have been specified in the MYT Regulations, have been calculated on normative basis.

2.28.3 As these parameters need to be treated as controllable under the MYT Regulations 2019, any variation in the actual expenses as against the permissible normative levels has been shared between MSEDCL and consumers.

2.28.4 O&M Expenses

2.28.4.1 The actual O&M Expenses as per the Audited Accounts for FY 2022-23 and FY 2023-24 are higher than that on normative basis.

2.28.4.2 Impact of Pay revision has been excluded while considering the computation of efficiency gains and loss as per the below provisions of MERC MYT Regulations 2019:

75.4 The impact of Wage Revision, if any, may be considered at the time of true-up for any Year, based on documentary evidence and justification to be submitted by the Petitioner:

Provided that if actual employee expenses are higher than normative expenses on this account, then no sharing of efficiency losses shall be done to that extent

2.28.4.3 The summary of sharing of efficiency gains/(loss) on account of O&M Expenses is shown in the Table below:

Table 71 Sharing of Efficiency Gains/(Losses) on O&M for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Sr. No	Particulars	Revised Normative	Actual	Gains/(Loss)	2/3 of Efficiency gains/Losses	1/3 of Efficiency Gains/Losses	Net Entitlement after sharing
1	O&M Expenses for FY 22-23	7,905.78	8,277.66	(371.88)	(247.92)	(123.96)	8,029.74
2	O&M Expenses for FY 23-24	8,342.76	10,426.02	(2,083.26)	(1,388.84)	(694.42)	9,037.18

2.28.5 Interest on Working Capital

2.28.5.1 The actual loWC expense as per the Audited Accounts for FY 2022-23 & FY 2023-24 is higher than that on normative basis primarily due to short term payments for LPS and payments against Change in Law (New Coal Distribution Policy, Shakti Policy, De-allocation of LOHARA coal block etc.)

2.28.5.2 MSEDCL would like to submit to the Hon'ble Commission that loWC is higher than approved loWC in FY 2022-23 and FY 2023-24, broadly due to the following:

- Non-recovery from categories such as Agriculture, Public Water Works, Street Light, and Govt. departments and short recovery of demand reflects MSEDCL's inability to convert revenue booked into cash inflow of the company.
- Fast mounting of arrears from AG Consumers.
- Payment obligations of old disputed power purchase liabilities.
- Disallowances of certain expenses by the Commission like Delayed Payment Charges and excess interest on working capital.
- Implementation of LPS Scheme for liquidation of arrears of State Power Generator & Transmission Company.
- Time lag in realization of Regulatory Gap.

2.28.5.3 Due to above reasons, MSEDCL was forced to raise working capital loan in order to mitigate shortfall for smooth functioning.

2.28.5.4 MSEDCL would like to bring to the notice of the Hon'ble Commission that the Electricity (Late Payment Surcharge & Related Matters) Rules, 2022 was notified by Ministry of Power (MoP) on 03rd June 2022. Clause no 5 of the notification reads as follows:

1. The total outstanding dues including Late Payment Surcharge up to the date of the notification of these rules shall be rescheduled and the due dates redetermined for payment by a distribution licensee in the following maximum number of equated monthly instalments :-

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<i>Outstanding dues amount (in Rs.Crore)</i>	<i>Maximum no. of equated monthly instalments (months)</i>
<i>Upto 500</i>	<i>12</i>
<i>501-1,000</i>	<i>20</i>
<i>1,001-2,000</i>	<i>28</i>
<i>2,001-4,000</i>	<i>34</i>
<i>4,001-10,000</i>	<i>40</i>
<i>>10,000</i>	<i>48</i>

Provided further that the distribution licensee may make payment in a month more than the equated monthly instalment for the month.

Provided also that the first due date for payment of equated monthly instalment shall be the fifth day of the immediate month that comes after forty five days from notification of these rules and due date for all subsequent equated monthly instalments shall be due on fifth day of date the subsequent months.

2.28.5.5 Accordingly, MSEDCL has adopted LPS rules for payment of outstanding dues of MSPGCL and MSETCL from August 2022 onwards and monthly payment released against LPS rules is Rs.400 Cr. p.m. This payment is released through the loan from PFC / REC/ FI. Hence the corresponding interest portion has increased.

2.28.5.6 The summary of sharing of efficiency gains/(loss) on account of loWC is shown in the Table below:

Table 72 Sharing of Efficiency Gains/(Losses) on loWC for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Sr. No.	Particulars	Revised Normative	Actual	Gains/ (Loss)	2/3 of Efficiency gains/Losses	1/3 of Efficiency Gains/Losses	Net Entitlement after sharing
1	loWC for FY 22-23	115.18	2,682.94	(2,567.76)	(1,711.84)	(855.92)	971.10
2	loWC for FY 23-24	130.82	5,452.03	(5,321.21)	(3,547.47)	(1,773.74)	1,904.56

2.28.6 Distribution Loss

2.28.6.1 The actual distribution loss (excluding EHV Sales) for FY 2022-23 & FY 2023-24 is higher than that approved in the MTR Order.

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2.28.6.2 The summary of sharing of efficiency gains/(loss) on account of Distribution Losses is shown in the Table below:

Table 73 Efficiency Gains/(Losses) due to lower Distribution Loss in FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23	FY 2023-24
	Actual	Actual
Actual Distribution Loss	16.49%	17.95%
MYT approved Loss	14.00%	13.00%
Sales Excl. EHV sales in Mus	1,12,686.55	1,20,377.79
EHV Sales in Mus	12,779.81	13,611.97
Total Sales in Mus	1,25,466.36	1,33,989.76
IntraSTS loss	3.22%	3.19%
Power Requirement at Ex-Bus Periphery (Actual) in Mus	1,52,622.42	1,65,602.16
Power Requirement at Ex-Bus Periphery (Normative) in Mus	1,48,592.61	1,56,985.74
Additional/ (lower) Power purchase due to higher distribution loss in Mus	4,029.81	8,616.42
Rate of PP (At average Variable Cost) Rs./kWh	3.56	3.50
Additional/(Lower) Power purchase Cost due to higher distribution loss	1,433.96	3,017.11
Efficiency gain/(loss) to be borne by MSEDCL(Rs Cr)	(955.97)	(2,011.41)
Efficiency gain/(loss) to be borne by the consumers (Rs Cr)	(477.99)	(1,005.70)

2.28.7 The total impact of sharing of efficiency gains and losses of various components have been summarized in the Table below:

Table 74 Impact of sharing of gains and losses for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23	FY 2023-24
Sharing of O&M	123.96	694.42
Sharing of IoWC	855.92	1,773.74
Sharing of Dist. Losses	(955.97)	(2,011.41)
TOTAL	23.90	456.75

2.28.8 MSEDCL requests the Hon'ble Commission to allow the sharing of gains and losses as submitted in above table.

2.29 Impact of payment to MPECS for FY 2022-23 & FY 2023-24

2.29.1 Hon'ble commission has approved Rs 31.14 Crores and Rs. 28.13 Crores for FY 2022-23 & FY 2023-24 respectively. MSEDCL has claimed Rs 31.39 Crores & Rs 28.38 Crores towards the actual payments to MPECS for FY 2022-23 as per the Audited accounts.

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2.29.2 The reconciliation regarding impact of payment to MPECS for the financial year 2023 and FY 2024 is attached as Annexure 2.9 and Annexure 2.10 respectively to this petition.

Table 75 Impact of Payment of MPECS for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23			FY 2023-24		
	Approved	Actual	Deviation	Approved	Actual	Deviation
Impact of Payment to MPECS	31.14	31.39	0.25	28.13	28.38	0.25

2.30 Incremental and Consumption and Bulk Consumption Rebate for FY 2022-23 & FY 2023-24

2.30.1 Hon'ble Commission in the MTR Order dated 31st March 2023 has approved cost towards incremental rebate.

2.30.2 MSEDCL has claimed Rs.1043.67 Crores and Rs. 1030.40 Crores towards Incremental Consumption and Bulk consumption rebate for FY 2022-23 and FY 2023-24 as per the Audited Account as against Rs. 546.44Cr. and Rs. 426.45 Cr. as approved by the Hon'ble Commission for years FY 2022-23 and FY 2023-24 respectively.

Table 76 Incremental Consumption Rebate for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23			FY 2023-24		
	Approved	Actual	Deviation	Approved	Actual	Deviation
Incremental Consumption Rebate	546.44	1,043.67	497.23	426.45	1030.40	603.95

2.31 Aggregate Revenue Requirement for FY 2022-23 & FY 2023-24

2.31.1 Considering the parameters discussed above, the Aggregate Revenue Requirement (ARR) of MSEDCL for Wires Business for the FY 2022-23 & FY 2023-24 is as follows:

Table 77 ARR for Wires Business for FY 2022-23 (in Rs. Crores)

Sr. No.	Particulars	FY 2022-23		
		MTR Order	Actual	True-Up requirement
		(a)	(b)	(c) = (b) - (a)
1	Operation & Maintenance Expenses	5,099.66	5,138.76	39.10
2	Depreciation	2,419.72	2,492.58	72.86
3	Interest on Loan Capital	853.83	799.89	(53.94)

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Sr. No.	Particulars	FY 2022-23		
		MTR Order	Actual	True-Up requirement
		(a)	(b)	(c) = (b) - (a)
4	Interest on Working Capital	123.98	115.18	(8.80)
5	Interest on deposit from Consumers and Distribution System Users	40.44	44.80	4.36
6	Other Finance Charges		4.98	4.98
7	Provision for bad and doubtful debts	73.05	90.59	17.54
8	Opex Schemes	30.05	27.26	(2.79)
9	Contribution to contingency reserves		86.50	86.50
10	Income Tax		-	-
11	Return on Equity Capital	1,719.86	1,930.35	210.49
12	Aggregate Revenue Requirement from Wire	10,360.59	10,730.88	370.29

Table 78 ARR for Wires Business for FY 2023-24 (in Rs. Crores)

Sr. No.	Particulars	FY 2023-24		
		MTR Order	Actual	True-Up requirement
		(d)	(e)	(f) = (e) - (d)
1	Operation & Maintenance Expenses	5,357.66	6,070.42	712.76
2	Depreciation	2,486.12	2,452.85	(33.27)
3	Interest on Loan Capital	743.55	701.75	(41.80)
4	Interest on Working Capital	125.75	130.82	5.08
5	Interest on deposit from Consumers and Distribution System Users	42.47	69.09	26.63
6	Other Finance Charges		4.37	4.37
7	Provision for bad and doubtful debts	73.05	98.37	25.32
8	Opex Schemes	44.23	17.28	(26.95)
9	Contribution to contingency reserves		156.86	156.86
10	Income Tax		-	-
11	Return on Equity Capital	1,730.37	2,022.38	292.01
12	Aggregate Revenue Requirement from Wire	10,603.19	11,724.20	1,121.00

2.31.2 MSEDCL submits that considering the parameters discussed above, the Aggregate Revenue Requirement (ARR) for Supply Business for the FY 2022-23 & FY 2023-24 is as follows

Table 79 ARR for Supply Business for FY 2022-23 (in Rs. Crores)

Sr. No.	Particulars	FY 2022-23		
		MTR Order	April-March (Audited)	True-Up requirement

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		(a)	(b)	(c) = (b) - (a)
1	Power Purchase Expenses (including Inter-State Transmission Charges)	69,050.90	83,935.75	14,884.85
2	Operation & Maintenance Expenses	2,745.97	2,767.02	21.05
3	Depreciation	268.86	276.95	8.09
4	Interest on Loan Capital	94.87	88.88	(5.99)
5	Interest on Working Capital		-	-
6	Interest on Consumer Security Deposit	364.00	403.22	39.22
7	Other Finance Charges		44.81	44.81
8	Provision for bad and doubtful debts	657.47	815.29	157.82
9	Other Expenses	57.97	252.07	194.10
10	Income Tax		-	-
11	Intra-State Transmission Charges	5,915.07	6,067.35	152.28
12	Incentives/Discounts	367.37	477.37	110.00
13	Contribution to contingency reserves		9.61	9.61
14	DSM Expenses		-	-
15	Return on Equity Capital	214.69	217.60	2.91
16	RLC refund		1.42	1.42
17	Additional Surcharge Refund	180.00	163.82	16.18
18	Effect of sharing of gains/losses		23.90	23.90
19	Past Period Surplus		-	-
20	Revenue Gap Recovery Allowed	4,018.00	4,018.00	-
21	Impact of payment to MPECS in future years	31.14	31.39	0.25
22	Opex Scheme	40.01	33.31	(6.70)
23	Incremental Consumption Rebate	546.44	1,043.67	497.23
24	Total Revenue Expenditure	84,552.74	1,00,671.45	16,118.71

Table 80 ARR for Supply Business for FY 2023-24 (in Rs. Crores)

Sr. No.	Particulars	FY 2023-24		
		MTR Order	April-March (Audited)	True-Up requirement
		(d)	(e)	(f) = (e) - (d)
1	Power Purchase Expenses (including Inter-State Transmission Charges)	72,645.22	84,867.33	12,222.11
2	Operation & Maintenance Expenses	2,885.00	3,268.69	383.69
3	Depreciation	276.24	272.54	(3.70)
4	Interest on Loan Capital	82.62	77.97	(4.64)
5	Interest on Working Capital		-	-
6	Interest on Consumer Security Deposit	382.20	621.84	239.64
7	Other Finance Charges		39.34	39.34

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Sr. No.	Particulars	FY 2023-24		
		MTR Order	April-March (Audited)	True-Up requirement
		(d)	(e)	(f) = (e) - (d)
8	Provision for bad and doubtful debts	657.47	885.34	227.86
9	Other Expenses	60.87	231.93	171.06
10	Income Tax		-	-
11	Intra-State Transmission Charges	8,593.72	8,666.77	73.05
12	Incentives/Discounts	385.73	561.63	175.90
13	Contribution to contingency reserves		17.43	17.43
14	DSM Expenses		-	-
15	Return on Equity Capital	215.98	240.32	24.34
16	RLC refund		2.77	2.77
17	Additional Surcharge Refund	180.00	168.13	(11.87)
18	Effect of sharing of gains/losses		456.75	456.75
19	Past Period Surplus		4,925.00	4,925.00
20	Revenue Gap Recovery Allowed	5,585.00	5,585.00	-
21	Impact of payment to MPECS in future years	28.13	28.38	0.25
22	Opex Scheme	40.23	31.13	(9.10)
23	Incremental Consumption Rebate	426.45	1,030.40	603.95
24	Total Revenue Expenditure	92,444.74	1,11,978.68	19,533.93

2.32 Revenue from sale of electricity for FY 2022-23 & FY 2023-24

2.32.1 MSEDCL has considered the revenue for FY 2022-23 & FY 2023-24 based on the Audited Accounts as shown in following table.

Table 81 Revenue from Sale of power for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23 (Approved)	FY 2022-23 (Actual)	Deviation	FY 2023-24 (Approved)	FY 2023-24 (Actual)	Deviation
Revenue from Sale of Power	1,00,328.63	93,201.33	(7,127.30)	1,06,990.00	1,13,373.15	6,383.15

2.32.2 The Annual Accounts of MSEDCL shows the revenue from various revenue operations including regulatory income. However, being not part of revenue from sale of power at retail tariff and as per practice in vogue, MSEDCL has shown certain items of revenue separately.

2.32.3 The category-wise revenue from for FY 2022-23 and FY 2023-24 is shown in the table below –

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Table 82 Category wise Revenue from Sale of Power for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Category	FY 2022-23 (Actual)	FY 2023-24 (Actual)
LT-I BPL & Domestic	18,727.94	23,127.74
LT II Commercial	7,345.58	8,801.03
LT III PWW	463.01	585.07
LT IV Agriculture	12,843.01	18,475.02
LT V Industrial	7,795.52	9,125.82
LT-IV(A) - Grampanchayat Street Light	855.08	986.99
LT VII -(B)Temporary Others	(0.00)	0.00
LT VIII Advertisement & Hoarding	-	-
LT IX Crematorium & Burila Grounds	-	-
LT X -(A)Public Service	660.57	833.97
LT XI Charging Station	1.64	7.39
HT II Commercial	2,576.19	3,135.06
HT I Industrial	32,188.29	38,239.04
HT III Railway Traction	118.42	173.38
HT IV PWW	1,560.07	1,840.74
HT V Agriculture	643.15	1,296.86
HT VI Group Housing/Commercial Complex	190.99	245.85
HT VIII Temporary Supply Religious	-	-
HT VIII Temporary Supply Others	-	-
HT IX Public Service	1,355.59	1,641.44
HT-Electric Vehicle	30.11	71.93
HT Auxiliary Consumer	(1.29)	(0.04)
Open Access Category	94.35	270.85
Recoveries from Theft of Power/Malpractice	273.17	266.31
Sale of traders	310.04	288.51
Sale of energy to Distribution Franchisee	3,452.38	3,776.89
Standby charges	396.01	459.84
Miscellaneous charges from consumers	299.79	363.31
Total Calculated	92,179.59	1,14,013.01

2.32.4 MSEDCL humbly requests to the Hon'ble Commission to consider the revenue from sale of power as shown in above table and true up the same.

2.33 Non-Tariff Income for FY 2022-23 & FY 2023-24

2.33.1 MSEDCL has certain sources of non-tariff income viz. interest on arrears of

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consumers, delayed payment charges, interest on staff loans and advances, sale of scrap, interest on investment etc.

2.33.2 MSEDCL has claimed a Non-Tariff Income of Rs. 652.85 Crores as against Rs. 317.96 Crores for FY 2022-23 & Rs 504.92 Crores as against Rs. 333.86 Crores for FY 2023-24 as approved by the Hon'ble Commission.

2.33.3 As provided in the Regulation 37.3 of the MYT Regulations 2019, delayed Payment Charge and Interest on Delayed Payment is not considered under Non-Tariff Income.

Table 83 Non-Tariff Income for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Sr. No.	Particulars	FY 2022-23 Approved	FY 2022-23 Actual	Deviation	FY 2023-24 Approved	FY 2023-24 Actual	Deviation
1	Rents	0.96	1.08	0.12	1.00	1.10	0.1
2	Other/Miscellaneous receipts	240.41	390.15	149.74	252.43	360.74	108.31
3	Interest on Other investments		26.01	26.01		29.05	29.05
4	Interest from power generators		77.17	77.17		-	
5	Sale of Scrap	43.74	45.75	2.01	45.93	25.20	20.73
6	sale of Tender forms	4.95	8.70	3.75	5.19	15.04	9.85
7	Revenue from subsidy & grant	0.50		(0.50)	0.53	73.79	73.26
8	Interest on Contingency Reserve investments	27.41		(27.41)	28.78		(28.78)
9	Total	317.97	548.86	230.89	333.86	504.92	171.06
10	Add : Prior Period Other Income		104.00	104		-	
11	Total Non Tarriff Income	317.97	652.85	334.88	333.86	504.92	171.06

2.34 Income from Open Access Charges for FY 2022-23 & FY 2023-24

2.34.1 MSEDCL has an income from Open Access Charges of Rs.157.17 Crores as against Rs.216.69 Crores for FY 2022-23 & Rs. 270.85 Crores as against for Rs. 214.76 Crores for FY 2023-24 as approved by the Hon'ble Commission.

Table 84 Income from Open Access Charges for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23			FY 2023-24		
	Approved	Actual	Deviation	Approved	Actual	Deviation
Income from Open Access Charges	216.69	157.17	(59.52)	214.76	270.85	56.10

2.34.2 Details of income from Open Access charges are provided in the following Table.

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Table 85 Details of Income Open Access Charges for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23	FY 2023-24
Energy Charges Open Access	3.96	2.54
F.C.A Charges Open Access	0.22	(0.04)
Additional Charges Open Access	0.41	0.44
Adjustment to past billing Open Access	(64.85)	(37.83)
Cross Subsidy Surcharge Open Access	77.71	102.29
Wheeling Charge Open Access	117.56	175.54
Transmission Charge Open Access	-	
Operating Charges Open Access	20.04	26.84
Additional Surcharge Open Access	1.32	
Threshold penalty Open Access	0.72	1.09
Penal Charges Open Access	0.08	
Income from Open Access Charges	157.17	270.85

2.34.3 Hence, MSEDCL humbly requests to the Hon'ble Commission to approve the Income from Open Access Charges as per the Audited Accounts.

2.35 Income from Trading of Surplus Power for FY 2022-23 & FY 2023-24

2.35.1 MSEDCL has an Income of Rs 310.04 Crores & Rs. 288.51 Crores for FY 2022-23 & FY 2023-24 respectively from trading of surplus power as provided in following table.

Table 86 Income from Trading of Surplus Power for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23			FY 2023-24		
	Approved	Actual	Deviation	Approved	Actual	Deviation
Income from Trading of Surplus Power	175.49	310.04	134.55	-	288.51	288.51

2.35.2 MSEDCL humbly requests to the Hon'ble Commission to approve the income from sale of surplus power as shown in above table.

2.36 Income from Additional Surcharge for FY 2022-23 & FY 2023-24

2.36.1 MSEDCL has an income from additional surcharge of Rs. 52.46 Crores & 80.50 Crores during FY 2022-23 & FY 2023-24 respectively.

Table 87 Income from Additional Surcharge for FY 2022-23 & FY 2023-24 (in Rs. Crores)

Particulars	FY 2022-23			FY 2023-24		
	Approved	Actual	Deviation	Approved	Actual	Deviation

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Particulars	FY 2022-23			FY 2023-24		
	Approved	Actual	Deviation	Approved	Actual	Deviation
Income from Additional Surcharge	115.52	52.46	(63.06)	112.63	80.50	(32.14)

2.36.2 MSEDCL humbly requests the Hon'ble Commission to approve the income from additional surcharge as per the Audited Accounts.

2.37 ARR Summary for revenue Gap/(Surplus) for FY 2022-23 & FY 2023-24

2.37.1 Based on the above submissions, the summary of ARR (after sharing of efficiency gains & losses) for the Wires Business and Supply Business, as per Audited Account and as approved by the Hon'ble Commission, for FY 2022-23 & FY 2023-24 is presented in the Table below.

Table 88 ARR Summary for Revenue Gap/Surplus for FY 2022-23 (in Rs. Crores)

Sr. No.	Particulars	FY 2022-23		
		MTR Order	April-March (Audited)	True-Up Requirement
		(a)	(b)	(c) = (b) - (a)
1	Power Purchase Expenses	69,050.90	83,935.75	14,884.85
2	Operation & Maintenance Expenses	7,845.63	7,905.78	60.15
3	Depreciation Expenses	2,688.58	2,769.53	80.95
4	Interest on Loan Capital	948.70	888.76	(59.94)
5	Interest on Working Capital	123.98	115.18	(8.80)
6	Interest on Consumers Security Deposit	404.44	448.02	43.58
7	Other Finance Charges		49.79	49.79
8	Provision for bad and doubtful debts	730.52	905.88	175.36
9	Other Expenses	57.97	252.07	194.10
10	Income Tax		-	-
11	Intra-State Transmission Charges MSLDC charge	5,915.07	6,067.35	152.28
12	Incentives/Discounts	367.37	477.37	110.00
13	Contribution to Contingency Reserves		96.11	96.11
14	Opex Scheme	70.05	60.57	(9.48)
15	DSM expenses		-	-
16	Return on Equity Capital	1,934.55	2,147.95	213.40
17	RLC refund		1.42	1.42
18	Additional Surcharge Refund	180.00	163.82	(16.18)
19	Effect of sharing of gains/losses		23.90	23.90
20	Past Period Adjustment by Commission		-	-

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Sr. No.	Particulars	FY 2022-23		
		MTR Order	April-March (Audited)	True-Up Requirement
		(a)	(b)	(c) = (b) - (a)
21	Revenue Gap Recovery Allowed	4,018.00	4,018.00	-
22	Add: Impact of payment to MPECS in future years	31.14	31.39	0.25
23	Incremental and Bulk Consumption Rebate	546.44	1,043.67	497.23
24	Aggregate Revenue Requirement	94,913.34	1,11,402.33	16,489.00
25	Revenue from Sale of Power	1,00,328.63	93,201.33	(7,127.30)
26	Non-Tariff Income	317.96	652.85	334.89
27	Income from Open Access Charges	216.69	157.17	(59.52)
28	Income from Trading of Surplus Power	175.49	310.04	134.55
29	Income from Wheeling Charges	-	-	-
30	Income from Additional Surcharge	115.52	52.46	(63.06)
31	Total Revenue	1,01,154.28	94,373.85	(6,780.44)
32	Revenue Gap/(Surplus)	(6,240.94)	17,028.48	23,269.43

Table 89 ARR Summary for Revenue Gap/Surplus for FY 2023-24 (in Rs. Crores)

Sr. No.	Particulars	FY 2023-24		
		MTR Order	April-March (Audited)	True-Up Requirement
		(d)	(e)	(f) = (e) - (d)
1	Power Purchase Expenses	72,645.22	84,867.33	12,222.11
2	Operation & Maintenance Expenses	8,242.55	9,339.11	1,096.56
3	Depreciation Expenses	2,762.36	2,725.39	(36.97)
4	Interest on Loan Capital	826.17	779.72	(46.45)
5	Interest on Working Capital	125.75	130.82	5.08
6	Interest on Consumers Security Deposit	424.66	690.93	266.27
7	Other Finance Charges		43.71	43.71
8	Provision for bad and doubtful debts	730.52	983.71	253.18
9	Other Expenses	60.87	231.93	171.06
10	Income Tax		-	-
11	Intra-State Transmission Charges MSLDC charge	8,593.72	8,666.77	73.05
12	Incentives/Discounts	385.73	561.63	175.90
13	Contribution to Contingency Reserves	-	174.29	174.29
14	Opex Scheme	84.45	48.41	(36.04)
15	DSM expenses		-	-
16	Return on Equity Capital	1,946.35	2,262.70	316.35
17	RLC refund	-	2.77	2.77

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Sr. No.	Particulars	FY 2023-24		
		MTR Order	April-March (Audited)	True-Up Requirement
		(d)	(e)	(f) = (e) - (d)
18	Additional Surcharge Refund	180.00	168.13	(11.87)
19	Effect of sharing of gains/losses	-	456.75	456.75
20	Past Period Adjustment by Commission	4,925.00	4,925.00	-
21	Revenue Gap Recovery Allowed	5,585.00	5,585.00	-
22	Add: Impact of payment to MPECS in future years	28.13	28.38	0.25
23	Incremental and Bulk Consumption Rebate	426.45	1,030.40	603.95
24	Aggregate Revenue Requirement	1,07,972.93	1,23,702.87	15,729.94
25	Revenue from Sale of Power	1,06,990.00	1,13,373.15	6,383.15
26	Non-Tariff Income	333.86	504.92	171.06
27	Income from Open Access Charges	214.76	270.85	56.10
28	Income from Trading of Surplus Power	-	288.51	288.51
29	Income from Wheeling Charges	-	-	-
30	Income from Additional Surcharge	112.63	80.50	(32.14)
31	Total Revenue	1,07,651.25	1,14,517.93	6,866.68
32	Revenue Gap/(Surplus)	321.68	9,184.94	8,863.26

2.37.2 The Hon'ble Commission in its MTR Order dated 31st March 2023 has approved Aggregate Revenue Requirement of Rs 94,913.34 Crores and Rs. 1,07,972.93 Crores for FY 2022-23 & FY 2023-24 respectively. MSEDCL submits actual ARR of Rs 1,11,402.33 and Rs 1,23,702.88 Cr. with a deviation of Rs 16,489.00 Cr. And Rs. 15,729.94 Cr. for FY 2022-23 & FY 2023-24 respectively. Considering the impact of revenue and other income, the truing up requirement works out to be Rs 23,269.42 Cr. And Rs 8,863.26 Cr. for FY 2022-23 & FY 2023-24 respectively. MSEDCL requests the Hon'ble Commission to allow MSEDCL the true up requirement as submitted above.

3 PROVISIONAL TRUE UP OF FY 2024-25

3.1 Preamble

3.1.1 This section outlines the performance of MSEDCL for the FY 2024-25 in line with the provisions of the MERC (MYT) Regulations, 2019. MSEDCL hereby submits detailed Provisional Truing-up for FY 2024-25 comparing the estimated expenditures for FY 2024-25 based on latest available information vis-à-vis the forecast approved by the Hon'ble Commission vide MTR order dated 31st March 2023 in Case No. 226 of 2022.

3.2 Principles of Truing-up for FY 2024-25

3.2.1 MSEDCL submits that Regulation 5.1 c(ii) of MERC (Multi Year Tariff) Regulations, 2019 specifies that the Provisional Truing up for FY 2024-25 has to be carried out based on the provisions of the MERC (Multi Year Tariff) Regulations, 2019.

3.2.2 In line with the provisions of MERC (Multi Year Tariff) Regulations, 2019, MSEDCL has computed this Provisional Truing-up for FY 2024-25.

3.2.3 Accordingly, based on the latest available information, the estimated Aggregate Revenue Requirement, revenue and gap for FY 2024-25 are discussed in detail in the following paragraphs.

3.3 Category Wise Sales for FY 2024-25

3.3.1 MSEDCL submits that it has estimated the sales of FY 2024-25 considering 6 months actuals (H1 sales) and 6 months projections (H2 sales). 6 months projections for H2 is based on 5 year CAGR growth rate for historical sales for H2.

3.3.2 Category wise estimated sales for FY 2024-25 for MSEDCL excluding all Distribution Franchisee have been summarized in the following table:

Table 90 Category wise Sales for FY 2024-25

Category-Wise Sales	Sales (Mus)		
	FY 2024-25 (Approved)	FY 2024-25 (Projected)	Deviation
HT Category			
HT-I Industries			

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Category-Wise Sales	Sales (Mus)		
	FY 2024-25 (Approved)	FY 2024-25 (Projected)	Deviation
HT-IND 11 KV	6,177.46	6,394.74	217.28
HT-IND 22 KV	10,414.49	9,865.10	-549.39
HT-IND 33 KV	11,234.03	11,000.78	-233.25
HT-IND EHV	12,740.22	11,840.19	-900.03
Sub HT Industries	40,566.20	39,100.81	-1465.39
HT-SEASONAL 11 KV	162.53	145.07	-17.46
HT-SEASONAL 22 KV	0.00	-	-0.00
HT-SEASONAL 33 KV	7.69	10.53	2.84
HT-SEASONAL EHV	1.41	1.39	-0.01
Total : HT-I Industries	40,737.83	39,257.80	-1,480.03
HT-II Commercial			-
HT-COMM 11 KV	823.15	734.17	-88.98
HT-COMM 22 KV	1,036.35	961.30	-75.05
HT-COMM 33 KV	100.20	77.06	-23.13
HT-COMM EHV	49.79	96.07	46.28
Total : HT-II Commercial	2,009.49	1,868.60	-140.88
HT-III RAILWAYS/Metro/Mono			-
HT RAILWAY/METRO/MONO 11 KV	67.54	64.31	-3.23
HT RAILWAY/METRO/MONO 22 KV	14.89	13.27	-1.62
HT RAILWAY/METRO/MONO 33 KV	7.93	10.49	2.56
HT RAILWAY/METRO/MONO EHV	24.28	58.67	34.39
Total : HT-III RAILWAYS/Metro/Mono	114.64	146.74	32.10
HT-IV Public Water Works (PWW)			-
HT-PWW 11 KV	623.78	631.63	7.85
HT-PWW 22 KV	656.51	639.82	-16.69
HT-PWW 33 KV	499.20	487.31	-11.89
HT-PWW EHV	115.40	123.35	7.95
Total HT-IV Public Water Works (PWW)	1,894.90	1,882.12	-12.78
HT-V Agricultural			-
HT-AGRICULTURE 11 KV	143.78	199.05	55.27
HT-AGRICULTURE 22 KV	16.54	53.13	36.60
HT-AGRICULTURE 33 KV	154.23	224.70	70.47
HT-AGRICULTURE EHV	489.19	930.02	440.83
Total : HT -V AGRICULTURE	803.74	1,406.90	603.17
HT-VI GROUP HOUSING SOCIETY			-
HT-GROUP HOUSING 11 KV	153.30	138.95	-14.35

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Category-Wise Sales	Sales (Mus)		
	FY 2024-25 (Approved)	FY 2024-25 (Projected)	Deviation
HT-GROUP HOUSING 22 KV	69.76	70.98	1.21
HT-GROUP HOUSING 33 KV	11.49	11.30	-0.19
HT-GROUP HOUSING EHV	-	-	-
Total : HT-VI GROUP HOUSING SOCIETY	234.54	221.22	-13.32
HT VIII - Temporary Supply			-
HT VIII A-Temp Supply- Religious			-
HT TEMPORARY RELIGIOUS 11 KV	-	-	-
HT TEMPORARY RELIGIOUS 22 KV	-	-	-
HT TEMPORARY RELIGIOUS 33 KV	-	-	-
HT TEMPORARY RELIGIOUS EHV	-	-	-
Total : HT VIII A-Temp Supply- Religious	-	-	-
HT VIII B-Temp Supply- Others			-
HT TEMPORARY OTHERS 11 KV	-	-	-
HT TEMPORARY OTHERS 22 KV	-	-	-
HT-TEMPORARY OTHERS 33 KV	-	-	-
HT-TEMPORARY OTHERS EHV	-	-	-
Total : HT VIII B-Temp Supply- Others	-	-	-
Total : HT VIII-Temporary Supply	-	-	-
HT-IX Public Services			-
HT-IX A Public Services- Govt.			-
HT-PUBLIC SER.-GOVT 11 KV	193.71	170.77	-22.95
HT-PUBLIC SER.-GOVT 22 KV	128.96	132.47	3.51
HT-PUBLIC SER.-GOVT 33 KV	30.87	52.49	21.62
HT-PUBLIC SER.-GOVT EHV	-	-	-
Total : HT-IX A Public Services-Govt	353.54	355.73	2.18
HT-IX B Public Services- Others			-
HT-PUBLIC SER.-OTHER 11 KV	460.35	476.74	16.39
HT-PUBLIC SER.-OTHER 22 KV	247.33	265.26	17.93
HT-PUBLIC SER.-OTHER 33 KV	87.22	150.52	63.30
HT-PUBLIC SER.-OTHER EHV	104.02	-	-104.02
Total : HT-IX B Public Services- Others	898.92	892.52	-6.40
Total : HT-IX Public Services	1,252.47	1,248.25	-4.22
HT-XV MSPGCL AUX SUPPLY		-	-
HT-MSPGCL AUX.SUPPLY 11 KV	6.61	5.16	-1.45
HT-MSPGCL AUX.SUPPLY 22 KV	0.32	0.05	-0.27
HT-MSPGCL AUX.SUPPLY 33 KV	0.36	0.51	0.15

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Category-Wise Sales	Sales (Mus)		
	FY 2024-25 (Approved)	FY 2024-25 (Projected)	Deviation
HT-MSPGCL AUX.SUPPLY EHV	391.23	380.48	-10.76
Total : HT-XV MSPGCL AUX SUPPLY	398.52	386.20	-12.32
HT AG Others (Poultry)		-	-
HT-AGRICULTURE OTHERS 11 KV	121.00	82.68	-38.32
HT-AGRICULTURE OTHERS 22 KV	125.72	74.43	-51.29
HT-AGRICULTURE OTHERS 33 KV	31.46	14.92	-16.54
HT-AGRICULTURE OTHERS EHV	-	-	-
Total:HT AG Others (Poultry)	278.19	172.03	-106.16
H.T. EV CHARGING STATIONS 11 KV	5.63	26.43	20.81
H.T. EV CHARGING STATIONS 22 KV	58.07	83.79	25.72
TOTAL HT Category	47,788.02	46,700.11	-1,087.92
LT Category			-
LT-I (A): LT- BPL	64.69	33.54	-31.15
LT-I (B) : LT-Residential(Other than BPL)	26,761.78	25,978.55	-783.23
1-100 Units	17,332.18	13,697.10	-3,635.08
101-300 Units	7,138.32	9,031.88	1,893.56
301-500 Units	1,095.47	1,461.26	365.80
Above 500 Units	1,195.81	1,788.30	592.50
Sub Total Domestic	26,826.47	26,012.09	-814.38
LT-II : LT- Non Residential		-	-
0-20 KW	5,152.01	5,064.89	-87.13
0-200 Units		-	-
Above 200 units		-	-
>20-<=50 KW	943.07	1,084.63	141.56
>50 KW	906.63	1,090.52	183.90
Sub Total Non Domestic (LT-2)	7,001.72	7,240.04	238.33
LT-III : LT-Public Water Works		-	-
0-20 KW	698.50	686.80	-11.70
20-<=40 KW	110.19	144.45	34.26
> 40 KW	154.60	141.35	-13.24
Sub Total PWW	963.28	972.60	9.31
LT-IV: LT-Agriculture		-	-
*** LT-AG-Unmetered (Pumpsets)	8,717.76	12,374.32	3,656.56
Zone 1 0-5 HP	2,336.50	3,337.13	1,000.63
Zone 1 5-7.5 HP	335.31	493.27	157.95
Zone 1 >7.5 HP	60.28	88.68	28.40

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Category-Wise Sales	Sales (Mus)		
	FY 2024-25 (Approved)	FY 2024-25 (Projected)	Deviation
Zone 2 0-5 HP	5,205.41	7,407.45	2,202.04
Zone 2 5-7.5 HP	743.94	994.38	250.44
Zone 2 >7.5 HP	36.31	53.41	17.10
LT-AG Metered (Pumpsets)	18,797.92	25,031.45	6,233.53
LT-AG Metered (Others)	252.50	218.47	-34.03
Sub Total Agriculture	27,768.18	37,624.24	9,856.06
LT V(A) : LT Industry- Power Looms		-	-
0-20 KW (Upto & including 27 HP)	418.11	394.41	-23.71
Above 20 KW (above 27 HP)	1,608.26	1,698.74	90.48
Sub Total LT V(A) : LT Industry- Power Looms	2,026.38	2,093.14	66.77
LT V(B) : LT Industry- General		-	-
0-20 KW (Upto & including 27 HP)	3,120.30	3,352.21	231.91
Above 20 KW (above 27 HP)	4,806.08	5,966.95	1,160.87
Sub Total LT V(B) : LT Industry- General	7,926.38	9,319.16	1,392.78
Total LT Industrial	9,952.75	11,412.30	1,459.55
Street Light (LT-VI)		-	-
Grampanchayat A, B & C Class Municipal Council	553.03	744.02	190.99
Municipal corporation Area	343.30	373.49	30.19
Sub Total Street Light	896.33	1,117.50	221.18
Temporary Connection (LT-VII)			-
Temporary Connection (Religious)	-		-
Temporary Connection (Other Purposes)	-		-
Sub Total Temporary	-		-
LT-VIII : LT-Advertisements & Hoardings	-		-
LT-IX : LT-Crematorium and Burial Grounds	-		-
LT X - Public services - Govt			-
0-20 KW	59.94	74.03	14.08
0-200 Units	-	-	-
>200 units	-	-	-
>20-50 kW	13.13	16.21	3.08
>50 kW	16.51	14.78	-1.74
LT X - Public services - Other			-
0-20 KW	358.65	398.60	39.95
0-200 Units	-	-	-
>200 units	-	-	-
>20-50 kW	134.89	194.89	60.00

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Category-Wise Sales	Sales (Mus)		
	FY 2024-25 (Approved)	FY 2024-25 (Projected)	Deviation
>50 kW	192.41	181.17	-11.24
Subtotal - LT Public services	775.54	879.67	104.13
L.T. EV Charging Stations	2.47	12.77	10.30
Total LT Category	74,186.73	85,271.21	11,084.48
MSEDCL Excl. Fran. Total sales	1,21,974.76	1,31,971.32	9,996.56

3.3.3 Details of month wise sales are given in Form 1 of the Regulatory Formats. MSEDCL hereby requests the Hon'ble Commission to approve the Sales for FY 2024-25 as submitted as part of this Petition.

3.3.4 MSEDCL hereby requests the Hon'ble Commission to approve the Sales for FY 2024-25 as submitted as part of this Petition.

3.4 Distribution Losses for FY 2024-25

3.4.1 In the MTR order dated 31st March 2023 in Case No. 226 of 2022, the Hon'ble Commission had approved distribution loss of 11.96% (excluding EHV Sales and OA Sales) for FY 2024-25.

3.4.2 The actual Distribution loss recorded for H1 of FY 2024-25 is 16.09%. The Distribution loss for H2 is derived from the estimated Energy Balance of H2 of FY 2024-25. MSEDCL has accordingly estimated the Distribution Loss of 16.71% for FY 2024-25 as shown in the following table.

Table 91 Distribution Losses FY 2024-25

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Actual)	Deviation
Distribution Loss (excluding EHV)	11.96%	16.71%	4.75%

3.4.3 MSEDCL requests the Hon'ble Commission to approve the Distribution Losses for FY 2024-25 as per the above table.

3.5 Energy Balance for FY 2024-25

3.5.1 The quantum of sales as shown in above para represents the sales of MSEDCL excluding the sales in the area served by Distribution Franchisees in FY 2024-25.

3.5.2 Further, while calculating energy balance of MSEDCL as a whole, the sale to the

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consumers of the Distribution Franchisee area has also been considered. Since, the Distribution Franchisee is an agent to MSEDCL as per the Franchisee Agreement, MSEDCL has to consider the loss within the Franchisee area for Energy balance. Therefore, estimated energy balance for FY 2024-25 is computed as below:

Table 92 Energy Sales for MSEDCL for FY 2024-25 (in MUs)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Sales excl. DF	1,21,975.00	1,31,971.00	9,996.56
Sales (Bhiwandi DF)	3,492.00	3,589.63	97.63
Sales (Malegaon DF)	767	862.32	95.32
Sales (Thane DF)	571	612.84	41.84
Total Sales	1,26,805.00	1,37,035.79	10,230.79
Add: OA Sales (Conventional)	5,106.00	4,019.00	-1,087.00
Add: OA Sales (Non-Conventional)	3,826.00	3,744.00	-82.00
Add: Energy Sales due to surplus	-0.13	-	
Total Energy Sales	1,35,736.87	1,44,798.79	9,061.92

3.5.3 MSEDCL submits that the total energy sales estimates for FY 2024-25 is 1,44,798.79 MUs as compared to 1,35,736.87 MUs which was approved by the Hon'ble Commission in MTR order dated 31st March 2023. The Hon'ble Commission is requested to allow the same.

3.5.4 Considering the principles discussed in energy balance for FY 2022-23 and FY 2023-24 MSEDCL has computed the energy balance for FY 2024-25 as summarised in the following table.

Table 93 Energy balance for FY 2024-25

Sr. No.	Particulars	Calculation	UOM	FY 2024-25 (Approved)	FY 2024-25 (Actual)
1	LT Agriculture Sales (Including D.F)	a	MU	27,533.29	37,647.63
2	LT Sales excluding Agriculture Sales (Including D.F)	b	MU	50,640.13	51,870.99
3	HT Sales excluding EHV level sales (Including D.F)	c	MU	34,446.31	33,822.34
4	Total Sales including D.F (Excluding EHV Sales)	d=a+b+c	MU	1,12,619.73	1,23,340.96
5	OA Sales (Renewables)	e	MU	3,826.00	3,744.03
6	OA Sales (Conventional)	f	MU	5,106.00	4,019.15
7	Retail Energy Sale to Consumers (Excluding EHV Sales)	A=d+e+f	MU	1,21,551.73	1,31,104.14
8	Sale due to Surplus Energy Traded	B=1%*(d+t)	MU	-0.13	-
9	Retail Energy Sale including surplus traded (Excluding	C=A+B	MU	1,21,551.60	1,31,104.14

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Sr. No.	Particulars	Calculation	UOM	FY 2024-25 (Approved)	FY 2024-25 (Actual)
	EHV Sales)				
10	Total Power Purchase	D=g+h	MU	1,48,136.57	1,68,448.00
11	Power Purchase Quantum from Intra-State sources	g	MU	1,12,458.55	1,15,500.46
12	Power Purchase Quantum from Inter-State sources	h	MU	35,678.02	52,947.54
13	Inter-State Losses	i	%	3.55%	3.55%
14	Power Purchase Quantum from Inter-State sources at MS Periphery	$j=h*(1-i)$	MU	34,411.45	51,067.90
15	Add: FBSM		MU	826.00	-827.00
16	Power Quantum handled at Maharashtra Periphery	k=g+j	MU	1,47,696.00	1,66,568.36
17	Infirm Non-PPA Wind Power	$l=e/(1-q)$	MU	3,953.57	3,875.00
18	Input for OA Consumption	$m=f/(1-q)$	MU	5,273.63	4,159.75
19	Total Power Purchase Quantum Handled	n=k+l+m-v	MU	1,56,923.20	1,74,603.11
20	Surplus Power Traded	$o=B$	MU	-0.13	-
21	Energy Requirement at G<>T Periphery	p=n-o	MU	1,56,923.33	1,74,603.11
22	Intra-State Transmission Loss	q	%	3.18%	3.38%
23	Intra-State Transmission Loss	$r=p*q$	MU	4,987.91	5,901.59
24	Net Energy requirement at T<>D Periphery	$s=p-r$	MU	1,51,935.42	1,68,701.52
25	EHV Sales	t	MU	14,185.42	13,691.69
26	Net Energy Available for Sale at 33kV	$u=s-t$	MU	1,37,750.00	1,55,009.83
27	Energy injected and drawn at 33kV	v	MU	904.61	1,105.96
28	Total Energy Available for Sale at 33kV	E=u+v	MU	1,36,845.39	1,56,115.79
29	Energy Available for Sale including Surplus traded (excluding OA Sales)	# F=E-l-m+o	MU	1,27,913.39	1,48,081.04
30	Distribution Loss (Excl. EHV Sales and OA Sales)	# G=E-A	MU	15,293.66	24,740.08
31	Distribution Loss (Excl. EHV Sales and OA Sales)	H=G/F	%	11.96%	16.71%

3.5.5 MSEDCL requests the Hon'ble Commission to approve the Energy Balance as shown in the table above.

3.6 Power Purchase Expenses for FY 2024-25

3.6.1 MSEDCL submits that it has considered the actual power purchase till September 2024 and estimated the power purchase for remaining 6 months of FY 2024-25 based on Monthly Merit Order Despatch Principle. The total estimated power

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purchase expense for FY 2024-25 is Rs. 80,747.35 Crores

3.6.2 Following table summarizes the source wise power purchase estimated by MSEDCL for FY 2024-25.

Table 94 Source wise estimated Power Purchase for FY 2024-25

Source of Power	PP Quantum (Mus)			PP Cost (Rs Crs)			PP Cost (Rs/Kwh)		
	Approved in MTR Order	Estimated	Deviation	Approved in MTR Order	Estimated	Deviation	Approved in MTR Order	Estimated	Deviation
MAHAGENCO	52,553.19	56,194.00	3,640.81	28,734.86	31,453.00	2,718.14	5.47	6.26	0.79
NTPC	25,475.68	38,226.00	12,750.32	10,519.27	15,874.00	5,354.73	4.13	5.57	1.44
NPCIL	4,945.95	7,632.00	2,686.05	1,618.92	2,736.00	1,117.08	3.27	2.88	(0.39)
SSP	1,213.26	1,135.90	(77.36)	248.75	232.86	(15.89)	2.05	2.05	(0.00)
Pench	136.89	134.68	(2.21)	28.06	27.61	(0.45)	2.05	2.05	0.00
Dodson	116.04	99.57	(16.47)	32.96	24.29	(8.67)	2.84	2.44	(0.40)
JSW	-	2,052.39		192.64	1,019.35	826.71		4.97	4.97
CGPL		5,014.96	5,014.96		2,414.19	2,414.19		4.81	4.81
Adani Power	12,053.60	17,689.00	5,635.40	7,793.72	10,351.00	2,557.28	6.47	7.48	1.01
EMCO Power	1,373.82	1,490.64	116.82	556.25	624.80	68.55	4.05	6.72	2.67
Rattan India	8,242.91	8,668.00	425.09	3,383.31	3,141.00	(242.31)	4.10	3.62	(0.48)
Sai Wardha	1,551.61	1,851.50	299.89	756.88	801.72	44.84	4.88	4.33	(0.55)
Renewables	35,398.91	20,451.00	(14,947.91)	14,541.62	9,024.00	(5,517.62)	4.11	5.16	1.05
Hydro	4,285.91	3,639.04	(646.87)	835.79	796.82	(38.97)	1.95	2.19	0.24
Subhansari Hydro	774.75	183.17	(591.58)	348.64	91.58	(257.06)		5.00	5.00
Short Term		2,579.15	2,579.15		1,638.27	1,638.27		6.35	6.35
IEPL		1,406.36	1,406.36		496.85	496.85		3.53	3.53
MPEB			-			-			-
Traders			-			-			-
REC			-			-			-
Other Adjustments			-			-			-
PGCIL Charges			-	4,037.00		(4,037.00)			-
FBSM			-			-			-
Total Power Purchase	1,48,122.52	1,68,447.36	20,324.84	73,628.67	80,747.35	7,118.68	4.97	4.79	(0.18)

3.6.3 MSEDCL requests the Hon'ble Commission to approve the power purchase as submitted in the above table.

3.6.4 MSEDCL submits that details of RE Purchase for FY 2024-25 are provided in following table.

Table 95 RE Purchase for FY 2024-25

Generator Name	Energy Purchase at Bus Bar (MU)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
Solar	10,575.86	3,881.34	3.67

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Generator Name	Energy Purchase at Bus Bar (MU)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
Wind	5,202.02	2,335.71	4.49
Bagasse based Co-gen	3,855.61	2,413.61	6.26
Biomass	125.30	104.48	8.34
Small Hydro	317.83	106.15	3.34
MSW	374.45	182.73	4.88
Total	20,451.07	9,024.02	4.41

3.7 Transmission Charges for FY 2024-25

3.7.1 The Commission has approved MSEDCL's share of InSTS Charges and MSLDC Charges for FY 2024-25 based on the respective MTR Orders of the Commission approving the InSTS Charges in Case No. 284 of 2022 and the AFC of MSLDC in Case No. 233 of 2022.

3.7.2 MSEDCL has considered the InSTS charges same as approved by the Commission for FY 2024-25 in the MTR Order for InSTS and the AFC of MSLDC.

3.7.3 Based on the above submission, the comparison of the approved and the estimated transmission charges for FY 2024-25 is as shown below:

Table 96 Estimated Transmission Charges paid to Transmission Licensee for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Intra-State Transmission Charges	8,605.77	8,605.77	-
MSLDC Charges	33.01	33.01	-
Total	8,638.78	8,638.78	-

3.7.4 MSEDCL requests the Hon'ble Commission to approve the intra State transmission charges as submitted in the above table.

3.8 Fixed Costs for FY 2024-25

3.8.1 Based on the Capital Cost and the consequent Capitalized Expenditure, Equity Component and Normative Debt, the fixed cost of MSEDCL for FY 2024-25 (excluding fixed component of PP cost) has been determined in accordance with the provisions of the MYT Regulations, 2019 outlined thereof. As outlined under the regulations, the fixed cost for MSEDCL has been determined under the following major heads along with other items of expenditure:

- Operation and Maintenance Expenses
- Depreciation
- Interest and Finance Charges
- Interest on Working Capital
- Return on Equity

3.8.2 Net Aggregate Revenue Requirement has been computed after netting off Expenses capitalized.

3.8.3 Head wise comparison has been made between the values approved by the Hon'ble Commission vide MTR order dated 31st March 2023 in case no. 226 of 2022 and the estimates for FY 2024-25.

3.9 Normative Operation & Maintenance Expenses for FY 2024-25

3.9.1 MSEDCL submits that Regulation 75 and Regulation 84 of the MERC (MYT) Regulations, 2019 provides for the O&M Expenses norms for Distribution Wires Business and Retail Supply of electricity respectively.

3.9.2 As per the said Regulations relating to the Truing-up of O&M expenses:

“75.2 The Operation and Maintenance expenses shall be derived on the basis of the average of the Trued-up Operation and Maintenance expenses after adding/deducting the share of efficiency gains/losses, for the three Years ending 31st March 2019, excluding abnormal Operation and Maintenance expenses, if any, subject to prudence check by the Commission:

Provided that the average of such Operation and Maintenance expenses shall be considered as Operation and Maintenance expenses for the Year ended 31st March 2018, and shall be escalated at the respective escalation rate for FY 2018-19 and FY 2019-20, to arrive at the Operation and Maintenance expenses for the base year ending 31st March 2020:

Provided further that the escalation rate for FY 2018-19 and FY 2019-20 shall be computed by considering 30% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the respective past five financial years as per the Office of Economic Advisor of Government of India and 70% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the

respective past five financial years as per the Labour Bureau, Government of India:

....

75.3 The Operation and Maintenance expenses for each subsequent year shall be determined by escalating these Base Year expenses of FY 2019-20 by an inflation factor with 30% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the respective past five financial years as per the Office of Economic Advisor of Government of India and 70% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the past five financial years as per the Labour Bureau, Government of India, as reduced by an efficiency factor of 1% or as may be stipulated by the Commission from time to time, to arrive at the permissible Operation and Maintenance expenses for each year of the Control Period:

...

Provided further that the efficiency factor shall be considered as zero, in case there is an increase in the number of consumers including Open Access consumers connected to the Distribution Wires of at least 2 percent annually over the last 3 years:

Provided also that in case such increase in the number of consumers is lower than 2 percent annually over the last 3 years, then the reduction in efficiency factor shall be considered in proportion to the percentage growth in the number of consumers.”

- 3.9.3 For computation of revised normative O&M expenses for FY 2024-25, revised normative O&M expenses for FY 2023-24 has been escalated by the escalation factor of 5.53% derived for FY 2023-24. Detailed calculations are given in the Regulatory Formats.
- 3.9.4 MSEDCL submits that calculated O&M expenses are allocated between the Wires Business and Retail Supply Business in the ratio of allocation matrix provided in the MYT Regulations, 2019, i.e., 65% to Wires Business and 35% to Supply Business. The same is shown in following table.

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Table 97 Normative O&M Expenses for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
O&M Expenditure for Wires Business	5,628.71	6,405.95	777.24
O&M Expenditure for Supply Business	3,030.84	3,449.36	418.52
Operation & Maintenance Expenses	8,659.55	9,855.31	1,195.76

3.9.5 MSEDCL requests the Hon'ble Commission to allow the O&M Expenses as computed in above table.

3.10 Opex Schemes for FY 2024-25

3.10.1 MSEDCL submits that as per the Regulation 75.7 and 84.7 of the MYT Regulations, 2019 the distribution licensee is allowed to undertake Opex schemes for wires and supply business for system automation, new technology and IT implementation etc. and such expenses may be allowed over and above normative O&M expenses. The relevant extract of the regulations is reproduced below:

“75.7 A Distribution Licensee may undertake Opex schemes for system automation, new technology and IT implementation, etc., and, such expenses may be allowed over and above normative O&M Expenses, subject to prudence check by the Commission:

Provided that the Distribution Licensee shall submit detailed justification, cost benefit analysis of such schemes as against capex schemes, and savings in O&M expenses, if any.

84.7 A Distribution Licensee may undertake Opex schemes for system automation, new technology and IT implementation, etc., and, such expenses may be allowed over and above normative O&M Expenses, subject to prudence check by the Commission:

Provided that the Distribution Licensee shall submit detailed justification, cost benefit analysis of such schemes as against capex schemes, and savings in O&M expenses, if any.”

3.10.2 MSEDCL submits that it has considered the expenses till September 2024 (provisional) and projected expenses for remaining six months of FY 2024-25 as against Rs 120.45 Cr. approved by Hon'ble Commission. Further, MSEDCL is also proposing certain new schemes for inclusion under the Opex schemes. MSEDCL submits that the details of Opex Schemes are provided under chapter Opex.

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Following table shows the estimated Opex Schemes expenses for FY 2024-25.

Table 98 Opex Scheme Expenses for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
OPEX schemes (Wire business)			
Substation Monitoring System (SMS)	72.00	2.84	(69.16)
MSEDCL Cloud Project	7.97	10.86	2.89
Annual technical Support of SAP/HANA/Oracle		3.50	3.50
Vehicle Tracking System	0.26	1.13	0.87
Demand forecasting		1.21	1.21
GIS		3.00	3.00
Network Analysis			-
SAP H4 Hana		11.79	11.79
SD Wan		0.25	0.25
IT Application redevelopment		0.75	0.75
SMS Services		12.37	12.37
Sub-Total	80.23	47.69	(32.54)
OPEX schemes (Retail Supply business)			-
Customer Care Center	27.20	20.68	(6.52)
RF DCU (Expression of interest of tender)	4.80		(4.80)
MSEDCL Cloud Project	7.97	10.86	2.89
Annual technical Support of SAP/HANA/Oracle		3.50	3.50
VTS (Vehicle Tracking System)	0.26	1.13	0.87
Demand forecasting		1.21	1.21
GIS		3.00	3.00
Network Analysis			-
SAP H4 Hana		11.79	11.79
SD Wan		0.25	0.25
IT Application Redevelopment		0.75	0.75
SMS Services		12.37	12.37
Sub-Total	40.23	65.53	25.30
Total	120.46	113.22	(7.24)

3.10.3 MSEDCL requests the Hon'ble Commission to allow the Opex Schemes expenses as shown in table above.

3.11 Capitalisation for FY 2024-25

3.11.1 Following table shows the estimated capitalization in FY 2024-25.

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Table 99 Capitalisation for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25(Approved)	FY 2024-25(Estimated)	Deviation
Total Capitalization	2,386.54	12,673.90	10,287.36

3.11.2 Total Capitalization of Rs. 12,673.90 Crores includes Rs. 11,639.70 Crores of DPR schemes and Rs. 1034.20 Crores of Non DPR schemes. Major schemes covered under DPR includes DPDC schemes, RDSS Loss reduction schemes, RDSS system strengthening & Modernisation schemes, System Strengthening (MSKVY 2) etc. Scheme wise details of the capitalisation are provided in the Regulatory Formats.

3.11.3 MSEDCL would like to submit to the Hon'ble Commission that out of total Rs 1034.20 crores of Non-DPR schemes, Rs. 928.84 crores is against the DDF/ Non DDF schemes.

3.11.4 MSEDCL further submits that it has estimated the capitalization of other assets such as land and lease hold land, buildings, etc for estimating the capitalization for FY 2024-25. MSEDCL requests the Hon'ble Commission to approve the capitalisation as estimated above.

3.11.5 Hon'ble Commission in its previous Orders has allowed the capitalization towards schemes not forming part of any specific scheme. MSEDCL further submits that Hon'ble Commission has accordingly revised the GFA to that extent as well. Therefore, MSEDCL requests the Hon'ble Commission to approve the capitalization as per the estimates of the GFA submitted above.

3.12 Depreciation for FY 2024-25

3.12.1 Considering the Opening GFA for FY 2024-25 without grants and consumer contribution, MSEDCL has estimated the depreciation for FY 2024-25 summarised in the following table.

Table 100 Depreciation for FY 2024-25 (in Rs. Crores)

Depreciation for FY 2024-25	Approved	Estimated
Net opening GFA (regulatory)	61,999.42	63,396.34
Depreciation (excluding consumer contribution & grants)	2,820.60	3,603.44
% Depreciation (Excluding consumer contribution & grants)	4.56%	5.6%

3.12.2 MSEDCL requests the Hon'ble Commission to allow the Depreciation as computed

in above table.

3.13 Funding Pattern for FY 2024-25

3.13.1 As per the Regulation 27.1 of the MERC MYT Regulations, 2019, the debt-equity ratio as on the date of commercial operation shall be 70:30 of the amount of capital cost approved by the Commission. The said Regulation also provides that if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan for the Licensee for determination of Tariff.

3.13.2 The funding pattern for FY 2024-25 for the capitalization estimated by MSEDCL, in proportion to the funding pattern of capital Expenditure, is presented in the following table:-

Table 101 Funding Pattern of Capitalization for FY 2024-25 (in Rs. Crores)

Particular	Amount
Total capitalization	12,673.90
Less : Consumer Contribution	519.81
Less : Grants	5,081.34
Balance to be funded	7,072.75
Equity	1,132.78
Debt	5,939.97
Equity	16%
Debt	84%

3.13.3 MSEDCL requests the Hon'ble Commission to allow the funding pattern as submitted in above table.

3.14 Interest Expenses for FY 2024-25

3.14.1 MSEDCL has computed the interest expenses on normative basis linked to the normative opening loan and normative loan addition during the year.

3.14.2 Further, MSEDCL has considered the weighted average interest rate of actual long term loan portfolio of FY 2023-24 for the computation of estimated Interest expense for FY 2024-25 as shown in Table below.

3.14.3 Regulation 30.3 of the MERC MYT Regulations, 2019 provides for loan repayment during a year equal to depreciation allowed. The relevant extract is reproduced

below:

“30.3 The loan repayment during each year of the Control Period from FY 2020-21 to FY 2024-25 shall be deemed to be equal to the depreciation allowed for that year.”

3.14.4 Considering the normative opening loan, normative loan addition during the year and loan repayment equal to depreciation and the weighted average interest rate of actual loan portfolio for FY2023-24, MSEDCL has computed the interest expenses on normative basis as summarized in table below:

Table 102 Interest Expenses for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Normative Outstanding loan at the start of the year	7,747.80	7,819.69	71.82
Less : Reduction of normative Loan due to retirement of assets		-	-
Loan drawl	932.00	5,939.97	5,007.92
Loan repayment	2,820.60	3,603.44	782.84
Normative Balance outstanding at the end of the year	5,859.20	10,156.20	4,296.90
Average Balance Outstanding at the end of the year	6,803.52	8,987.90	2,184.40
Interest Rate	9.85%	9.51%	
Interest Expenses	670.11	854.73	184.62

3.14.5 MSEDCL requests the Hon'ble Commission to approve the interest expenses as submitted in above table.

3.15 Interest on Working capital & Interest on SD for FY 2024-25

3.15.1 MSEDCL submits that Regulations 32.3 of the MERC MYT Regulations, 2019 provides for Interest on Working Capital for Wire business of electricity. Further, the said Regulations also provides that the Normative Rate of interest on working capital shall be Base Rate as on the date of filing of Petition plus 150 basis points. The relevant extract is reproduced below:

“32.3 (a) The working capital requirement of the Distribution Wires Business shall cover:

(i) Normative Operation and maintenance expenses for one month;

(ii) Maintenance spares at one per cent of the opening Gross Fixed Assets for

the Year; and

(iii) One and half months equivalent of the expected revenue from charges for use of Distribution Wires at the Tariff approved by the Commission for ensuing year/s;

minus

(iv) Amount held as security deposits in cash from Distribution System Users

32.3 (b)

“2.11 (10) “Base Rate” shall mean the one-year Marginal Cost of Funds based Lending Rate (‘MCLR’) as declared by the State Bank of India from time to time;

...

32.3 (b) Rate of interest on working capital shall be on normative basis and shall be equal to the Base Rate as on the date on which the Petition for determination of Tariff is filed, plus 150 basis points:”

3.15.2 Accordingly, MSEDCL has calculated the interest on working capital for FY 2024-25 at 10.24% (8.74% + 1.50%) for wire business.

3.15.3 MSEDCL further submits that the Regulation 30.11 of MYT Regulations, 2019 provides for Interest on Security Deposit at Bank Rate. The relevant extract is reproduced below:

“30.11 Interest shall be allowed only on the amount held in cash as security deposit from Transmission System Users, Distribution System Users and Retail consumers at the Bank Rate as on 1st April of the Year for which the interest is payable:”

3.15.4 MSEDCL submits that it has estimated the security deposit considering a nominal growth of 8% over previous year. Accordingly, MSEDCL has calculated interest on consumer security deposit for FY 2024-25 @ 6.75% for wires business.

3.15.5 MSEDCL requests the Hon'ble Commission to allow the Interest on Working capital

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along with the interest on security deposit for wire business as shown in table below.

Table 103 Interest on Working Capital & Interest on Security Deposit for Wire business for FY 2024-25 (in Rs. Crores)

Particulars	Approved	Estimated	Deviation
Computation of Working Capital (Wire Business)			
O&M expenses for a month	469.06	533.83	64.77
Maintenance spares at 1% of GFA	557.99	604.98	46.99
1.5 months of expected revenue from charges for use of Distribution wires	1,353.79	1,617.08	263.19
Less: Amount held as SD from Distribution System Users	(1,049.00)	(1,334)	(285)
Total Working Capital Requirement	1,331.68	1,422.05	90.27
Rate of Interest (% p.a)	9.55%	10.24%	
Interest on Working Capital	127.18	145.64	18.45
Actual Working Capital Interest		869.34	
Interest on Security Deposit			
Rate of Interest (% p.a)	4.25%	6.75%	
Interest on Security Deposit	44.59	90.03	45.44

3.15.6 MSEDCL further submits that Regulation 32.4 of the MERC MYT Regulations, 2019 provides for Interest on Working Capital for Retail Supply business of electricity. Further, the said Regulations also provides that the Normative Rate of interest on working capital shall be Base Rate as on the date of filing of Petition plus 150 basis points. The relevant extract is reproduced below:

“32.4 (a) The working capital requirement of the Retail Supply Business shall cover:

(i) Normative Operation and maintenance expenses for one month;

(ii) Maintenance spares at one per cent of the opening Gross Fixed Assets for the Year; and

(iii) One and half months equivalent of the expected revenue from sale of electricity at the Tariff approved by the Commission for ensuing year/s, and including revenue from cross-subsidy surcharge and additional surcharge, if any;

minus

(iv) Amount held as security deposits in cash from retail supply consumers;

(v) One month equivalent of cost of power purchased, including the

Transmission Charges and SLDC Charges, based on the annual power

procurement plan:

32.4 (b)Rate of interest on working capital shall be on normative basis and shall be equal to the Base Rate as on the date on which the Petition for determination of Tariff is filed, plus 150 basis points:"

3.15.7 Accordingly, MSEDCL has calculated the interest on working capital for FY 2024-25 at 10.24% (8.74% + 1.50%) for supply business.

3.15.8 MSEDCL submits that is has estimated the security deposit considering a nominal growth of 8% over previous year. MSEDCL has calculated interest on consumer security deposit for FY 2024-25 is 6.75 % for supply business.

3.15.9 MSEDCL requests the Hon'ble Commission to allow the Interest on Working capital along with the interest on security deposit for Supply business as shown in table below.

Table 104 Interest on Working capital & Interest on Security Deposit for Supply business for FY 2024-25 (in Rs. Crores)

Particulars	Approved	Estimated	Deviation
Computation of Working Capital (Retail Supply Business)			
O&M expenses for a month	252.57	287.45	34.88
Maintenance Spares at 1% of Opening GFA	62.00	67.22	5.22
One and half months equivalent of the expected revenue from sale of electricity including revenue from CSS and Additional Surcharge	11,628.94	16,300.20	4,671.26
Less: Amount held as security deposit	(9,442.50)	(12,005)	(2,562.08)
Less: One month equivalent of cost of power purchase, transmission charges and MSLDC Charges	(6,855.64)	(7,743.73)	(888.08)
Total Working Capital Requirement	(4,354.63)	(3,093.43)	1,261.20
Interest Rate (% p.a.)	9.55%	10.24%	
Interest on Working Capital	-	-	-

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Particulars	Approved	Estimated	Deviation
Actual Working Capital Interest		7,824.08	7,824.08
Interest on Security Deposit			-
Interest Rate (%) - Bank Rate	4.25%	6.75%	2.50%
Interest on Security Deposit	401.31	810.31	409.00

3.16 Other Finance Charges for FY 2024-25

3.16.1 MSEDCL submits that the regulation 30.8 of the MYT Regulations, 2019 provides that the finance charges shall be allowed at the time of True-up. The relevant extract is reproduced below:

“30.8 The finance charges incurred for obtaining loans from financial institutions for any Year shall be allowed by the Commission at the time of Truing-up, subject to prudence check.”

3.16.2 Hon'ble Commission in the MTR order dated 31st March 2023 in case no. 226 of 2022 also ruled that it shall consider the Other Finance Charges at the time of truing-up of the respective years of the 4th Control Period. Therefore, in line with the above regulations, MSEDCL is not projecting any finance charges for FY 2024-25 and will claim the same during true-up.

3.17 Provision for Bad Debts for FY 2024-25

3.17.1 MSEDCL submits that bad debts are inseparable incidents of the business of electricity distribution and retail supply.

3.17.2 Regulation 76 and 85 of the MYT Regulations, 2019 specifies that a provision of bad and doubtful debt may be allowed up to 1.5% of the amount shown as trade receivables or receivables in the Audited Accounts of the distribution licensee duly allocated for wires and supply business respectively. The relevant extract is reproduced below:

“76 Provision for Bad and Doubtful Debts

In the MYT Order, for each Year of the Control Period, the Commission may allow a provision for writing off of bad and doubtful debts up to 1.5% of the amount shown as Trade Receivables or Receivables from Wheeling Charges in the latest Audited Accounts of the Distribution Licensee in accordance with the procedure laid down by the Licensee, subject to prudence check:

Provided that the Commission shall true up the bad debts written off in the Aggregate Revenue Requirement, based on the actual write off of bad debts during the year, subject to the above ceiling of 1.5% of the amount shown as Trade Receivables or Receivables from Wheeling Charges in the audited accounts of the Distribution Licensee for that Year, after prudence check:

...

Provided also that for Distribution Licensees having agricultural sales in excess of 20 percent of their total sales, the ceiling of cumulative provisioning in the above proviso shall be 7.5 per cent of the amount shown as Trade Receivables or Receivables from Wheeling Charges in the audited accounts of the Distribution Licensee.”

“85 Provision for Bad and Doubtful Debts

In the MYT Order, for each Year of the Control Period, the Commission may allow a provision for writing off of bad and doubtful debts up to 1.5% of the amount shown as Trade Receivables or Receivables from Sale of Electricity in the latest Audited Accounts of the Distribution Licensee in accordance with the procedure laid down by the Licensee, subject to prudence check:

Provided that the Commission shall true up the bad debts written off in the Aggregate Revenue Requirement, based on the actual write off of bad debts during the year, subject to the above ceiling of 1.5% of the amount shown as Trade Receivables or Receivables from Sale of Electricity in the audited accounts of the Distribution Licensee for that Year, after prudence check:

...

Provided also that for Distribution Licensees having agricultural sales in excess of 20 percent of their total sales, the ceiling of cumulative provisioning in the above proviso shall be 7.5 per cent of the amount shown as Trade Receivables or Receivables from Sale of Electricity in the audited accounts of the Distribution Licensee.”

3.17.3 MSEDCL submits that Provision of bad debt generally depends on the nature of the business and the risk involved in the business. A business typically estimates the amount of bad debt based on historical experience.

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3.17.4 MSEDCL has computed the provision for bad and doubtful debts for FY 2024-25 as per the provisions of the MYT Regulations, 2019 considering the estimated receivables for FY 2024-25. The receivables are taken as per provisional till September 2024 in order to arrive at the receivables for FY 2024-25. For the interest part a y-o-y rise of 2% and 10% is taken for Non-Ag and Ag respectively. MSEDCL further submits that the provision estimated for FY 2024-25 shall be written off after the approval of the Hon'ble Commission.

3.17.5 MSEDCL for estimation purpose has presently considered provisioning @1.50%. However, MSEDCL reserves its right to seek claim on bad-debts at the time of truing-up as per the provisions of the MYT Regulations, 2019. The computation of provision for bad debt for FY 2024-25 is shown in following table.

Table 105 Computation of Provision for bad and doubtful debts (Distribution Wires+Supply) business for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Opening Balance of provision for bad and doubtful debts		2,325.16	2,325.16
Receivables for the year	4,8701.59	1,01,308.33	52,606.74
Provision for bad and doubtful debts during the year (in %)	1.50%	1.50%	-
Provision for bad and doubtful debts during the year	730.52	1,519.62	789.10
Actual bad and doubtful debts written off	1165.80	1,056.01	(109.79)
Closing balance of Provision for bad and doubtful debts		2,788.78	2,788.78
Closing balance as a % of receivables	1.50%	2.75%	1.25%

3.17.6 MSEDCL submits that the above computed provision for Bad Debts is further allocated between the Wires Business and Retail Supply Business (in the ratio of allocation matrix provided in the MYT Regulation, 2019), i.e., 10% to Wires Business and 90% to Supply Business.

3.17.7 The provision for Bad Debts for Distribution Wires Business is shown in following table.

Table 106 Computation of Provision for bad and doubtful debts for Distribution Wires business for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Opening Balance of provision for bad and doubtful debts		232.52	232.52
Receivables for the year	4,870.16	10,130.83	5,260.67

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Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Provision for bad and doubtful debts during the year (in %)	1.50%	1.50%	-
Provision for bad and doubtful debts during the year	73.05	151.96	78.91
Actual bad and doubtful debts written off	116.58	105.60	10.98
Closing balance of Provision for bad and doubtful debts		278.88	278.88
Closing balance as a % of receivables	1.50%	2.75%	1.25%

3.17.8 The provision for Bad Debts for supply Business is shown in following table:

Table 107 Computation of Provision for bad and doubtful debts for Supply business for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Opening Balance of Provision for bad and doubtful debts	0.00	2,092.65	2,092.65
Receivables for the year	43,831.43	91,177.50	47,346.07
Opening Balance of Provision of bad and doubtful debt as % of Receivables	1.50%	1.50%	0.00
Provision for bad & doubtful debts during the year	657.47	1,367.66	710.19
Actual bad and doubtful debts written off	1,049.22	950.41	-98.81
Closing Balance of Provision for bad and doubtful debts	0.00	2,509.90	2,509.90

3.17.9 MSEDCL requests the Hon'ble Commission to allow provision for Bad Debt as shown in above table.

3.18 Other Expenses for FY 2024-25

3.18.1 The other expenses of MSEDCL comprise of the expenditure on account of Non-Moving items written off, interest to suppliers/contractors, Incentive to distribution franchisee and other expenses viz. compensation for injuries to staff and outsiders. MSEDCL has estimated the other expenses for FY 2024-25 considering provisional figures for the first six months and projections for the remaining six months for FY 2024-25 as shown in the table below.

Table 108 Other Expenses FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Compensation for injuries, death to staff	1.6	0.40	(1.20)
Compensation for injuries, death to others	19.43	15.71	(3.72)
Sundry debit balances written off	2.3	-	(2.30)
Provision for Non moving items	21.56	159.16	137.60

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Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Other Sundry Expenses	9.88	99.48	89.60
Other Expenses (Payable to DSL towards damages in terms of Arbitral Award dt. 18.06.2004)		-	-
Other Interest and Charges		14.82	14.82
Write-off of WDV of scrapped assets	2.09	0.88	(1.21)
TOTAL		290.46	290.46
Add : Prior Period Other Expenses	7.04	-	(7.04)
Less: Provision for Bad & Doubtful Debts for others			-
Total Other Expenses	63.91	290.46	226.55

3.18.2 MSEDCL hereby requests the Hon'ble Commission to allow the Other expenses as shown in above table.

3.19 Contribution to Contingency Reserves for FY 2024-25

3.19.1 MSEDCL submits that Regulation 35 of the MYT Regulation, 2019 provides for appropriation to Contingency Reserves of not less than 0.25 per cent and not more than 0.5 per cent of the original cost of Fixed Assets annually towards in the calculation of ARR. The relevant extract is reproduced below:

“35 *Contribution to Contingency Reserves*

35.1 Where the Licensee has made a contribution to the Contingency Reserve, a sum not less than 0.25 per cent and not more than 0.5 per cent of the original cost of fixed assets shall be allowed annually towards such contribution in the calculation of Aggregate Revenue Requirement:

Provided that where the amount of such Contingency Reserves exceeds five (5) per cent of the original cost of fixed assets, no further contribution shall be allowed:

Provided further that such contribution shall be invested in securities authorised under the Indian Trusts Act, 1882 within a period of six months of the close of the Year:

Provided also that if the Licensee does not invest the amount of contribution to Contingency Reserves in authorised securities within a period of six months of the close of the Year, then the contribution allowed in the calculation of Aggregate Revenue Requirement shall be disallowed at the time of true-up:

Provided also that if the Licensee does not invest the amount of contribution to Contingency Reserves in authorised securities for two consecutive Years, then the contribution to Contingency Reserves shall not be allowed in the calculation of Aggregate Revenue Requirement from the subsequent Year onwards.”

3.19.2 MSEDCL submits that due to financial crunch owing to COVID-19 pandemic, MSEDCL had not made any investment during last two consecutive years which attracts the implementation of the above proviso of Regulation 35.1 of MYT Regulations 2019. Accordingly, the Commission did not allow any amount towards Contribution to contingency reserves. As regulations in case of non-investment of amount of contribution to contingency reserves in authorised securities for two consecutive years, then the contribution to contingency reserves shall not be allowed in calculation of ARR from the subsequent year onwards.

The Commission did not approve any Contribution to Contingency Reserve for FY 2023-24 and FY 2024-25 respectively. The Commission mentioned that same shall be considered at time of truing up of FY 2023-24 and FY 2024-25 respectively subject to be prudence check. MSEDCL has now invested Rs. 96.11 Crores and Rs. 174.29 Crores for FY 2022-23 and FY 2023-24 respectively as per the provisions.

3.19.3 Accordingly, MSEDCL requests the Hon’ble Commission to allow the contribution to contingency reserves for FY 2024-25 by invoking its power to relax under Regulation 105 of the MYT Regulation, 2019.

3.19.4 MSEDCL humbly requests the Hon’ble Commission to allow provision for contribution to contingency reserves for FY 2024-25. Once the approval is available, MSEDCL shall make the necessary investments.

Table 109 Contingency Reserve for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Contribution to contingency reserve	Nil	198.04	198.04

3.19.5 Accordingly, MSEDCL requests the Hon’ble Commission to allow the contribution to contingency reserves as shown in above table.

3.20 Income Tax for FY 2024-25

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3.20.1 MSEDCL submits that Regulation 34 of the MYT Regulations, 2019 provides for Income Tax. Since there is no income tax claimed in FY 2022-23 and FY 2023-24, MSEDCL on similar lines has not claimed any Income Tax for FY 2024-25 and hence it has not grossed up the return on equity by income tax. MSEDCL submits that in case there is tax liability for FY 2024-25 and any income tax is paid, it requests Hon'ble Commission to allow claim on grossing up of return on equity by effective tax rate as per the provisions of the MYT Regulations, 2019.

3.21 Incentives and Discounts for FY 2024-25

3.21.1 MSEDCL has estimated the incentives and Discounts of Rs. 589.71 Cr. for FY 2024-25, with additional deviation of Rs. 184.69 Cr., as compared to Rs. 405.02 Cr. As approved by hon'ble commission for FY 2024-25.

Table 110 Incentives/Discount for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Incentives and Discounts	405.02	589.71	184.69

3.21.2 MSEDCL requests the Hon'ble Commission to allow the incentives/discounts as shown in above table.

3.22 Return on Equity for FY 2024-25

3.22.1 MSEDCL submits that Regulation 29.1 of the MYT Regulations, 2019, provides for Return on Equity (RoE) for Distribution Licensee for both Wire and Supply Business which is reproduced as under:

“29.1 Return on Equity for the Generating Company, Transmission Licensee, Distribution Wires Business and MSLDC shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put to use, at the rate of up to 15.5 per cent per annum in Indian Rupee terms, and for the Retail Supply Business, Return on Equity shall be allowed on the amount of equity capital determined in accordance with Regulation 27 at the rate of up to 17.5 per cent per annum in Indian Rupee terms:

Provided that Return on Equity shall be allowed in two parts viz. Base Return on Equity, and Additional Return on Equity linked to actual performance:

Provided further that Additional Return on Equity shall be allowed at time of trueing up for respective year based on actual performance, after prudence check of the Commission

29.2 Base Return on Equity for the Generating Company, Transmission Licensee, Distribution Wires Business and MSLDC shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put to use, at the rate of 14 per cent per annum in Indian Rupee terms, and for the Retail Supply Business, Return on Equity shall be allowed on the amount of equity capital determined in accordance with Regulation 27 at the rate of 15.5 per cent per annum in Indian Rupee terms:

Provided that in case the Generation Company or Licensee or MSLDC claims Return on Equity at a rate lower than the normative rate specified above for any particular year, then such claim for lower Return on Equity shall be unconditional:

Provided further that such claim for lower Return on Equity shall be allowed subject to the condition that the reduction in Return on Equity shall be foregone permanently for that year and shall not be allowed to be recouped at the time of Mid-Term Review or true-up as applicable

29.3 The Base Return on Equity shall be computed in the following manner:

(a) Return at the allowable rate as per this Regulation, applied on the amount of equity capital at the commencement of the Year; plus

(b) Return at the allowable rate as per this Regulation, applied on 50 per cent of the equity capital portion of the allowable capital cost, for the investments put to use in Generation Business or Transmission Business or Distribution Business or MSLDC, for such Year:

Provided that Base Return on Equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in Law or revised emission standards, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system.

...”

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3.22.2 MSEDCL submits that the return on equity capital is allocated in the ratio of Fixed Assets between the Wires and Retail Supply Business, i.e. 90% to Wires Business and 10% to Supply Business. Therefore, the capital expenditure, grants, equity and capitalisation is divided into wires and supply business in the ratio of 90:10.

3.22.3 The return on equity has been computed as per the methodology specified in the MYT Regulations, 2019. Accordingly, MSEDCL has computed the RoE for Wires Business as shown in following tables:

Table 111 RoE for Wires Business for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Return on Equity (Wire Business)			
Regulatory Equity at the beginning of the year	12,389.44	13,426.86	1,037.42
Capitalisation during the year	844.64	6,365.47	5,520.83
Equity portion of capitalization during the year	5.80	1,019.50	1,013.70
Regulatory Equity at the end of the year	12,395.25	14,446.34	2,051.09
Return on Computation			-
Return on Regulatory Equity at the beginning of the year	1,734.52	1,879.76	145.24
Return on Normative Equity Portion of Assets Capitalisation - $14\% \times (2)/2$	0.41	71.37	70.96
Interest on Equity Portion above 30% Equity			-
Total Return on Equity	1,734.93	1,951.12	216.19

3.22.4 Accordingly, MSEDCL has computed the RoE for retail supply Business as shown in following tables:

Table 112 RoE for Retail Supply Business for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Return on Equity (Supply Business)			
Regulatory Equity at the beginning of the year	1,396.72	1,511.99	115.27
Capitalisation during the year	93.85	707.27	613.43
Equity portion of capitalisation during the year #	0.64	113.28	112.63
Reduction in Equity Capital on account of retirement / replacement of assets			
Regulatory Equity at the end of the year	1,397.36	1,625.26	227.90
Return on Regulatory Equity at the beginning of the year	216.49	234.36	17.87
Return on Regulatory Equity addition during the year	0.05	8.78	8.73
Total Return on Equity	216.54	243.14	26.60

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3.22.5 MSEDCL requests the Hon'ble Commission to allow the RoE as computed above.

3.23 Revenue Gap Recovery Allowed for FY 2024-25

3.23.1 MSEDCL submits that in the MYT Order, Hon'ble Commission has allowed revenue recovery as shown in the following table. MSEDCL has considered the same.

Table 113 Revenue Recovery allowed in MTR for FY 2024-25 (in Rs. Crores)

Particulars	Formula	FY 2024-25
ARR approved by Hon'ble commission	A	1,16,029.35
Approved Revenue at existing tariff	B	1,16,358.61
Approved Revenue Gap	C=A-B	(329.26)
Projected Revenue at approved tariff	D	1,30,401.63
Additional Recovery from approved tariff	E=D-B	14,043.02
Previous Revenue Gap recovery allowed after adjustment of current year revenue Gap	F=E-C	14,372.28

3.24 Impact of payment to MPECS for FY 2024-25

3.24.1 As Directed by Hon'ble APTEL and Hon'ble Commission under various directives, MSEDCL has been paying Rs. 100 Lakhs Crores to MPECS as user charges and depositing balance payments to MERC together with interest accrued thereon be released to MPECS and consequently adjusted as user charges.

3.24.2 MSEDCL has paid Rs. 7 crores to MPECS and Rs. 8.02 crores to MERC (during the period April 24 to October 2024). MSEDCL has estimated a total payout of Rs. 21.14 crores for FY 2024-25 against user charges to MPECS.

3.24.3 Accordingly, MSEDCL requests the Hon'ble Commission to approve its claim of Rs. 21.14 Crores Towards the payments to MPECS for FY 2024-25.

3.25 Incremental Consumption and Bulk Consumption Rebate for FY 2024-25

3.25.1 Hon'ble Commission in the MTR order dated 31st March, 2023, has approved cost towards incremental rebate.

3.25.2 MSEDCL has estimated the Incremental Consumption and Bulk consumption rebate at the same level as actuals for FY 2023-24.

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Table 114 Incremental Consumption Rebate for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Incremental and Bulk Consumption Rebate	548.77	1,081.92	533.15

3.26 Additional Surcharge refund for FY 2024-25

3.26.1 As stated in previous chapter, MSEDCL has stopped levy of additional surcharge to group captive consumers from since January 2022 and it has adopted methodology for refund of ASC.

3.26.2 MSEDCL is refunding the ASC in every month to eligible consumers to the tune of Rs 15 Crores. The refund burden will be Rs 168.13 Crores annually. Accordingly, the same is being claimed in the ARR and the Hon'ble Commission is requested to approve the same.

3.27 Aggregate Revenue Requirement for FY 2024-25

3.27.1 Considering the parameters discussed above, the Aggregate Revenue Requirement (ARR) of MSEDCL for Wires Business for the FY 2024-25 is as follows:

Table 115 ARR for Distribution Wires for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Operation & Maintenance Expenses	5,628.71	6,405.95	777.25
Depreciation	2,538.54	3,243.10	704.55
Interest on Loan Capital	603.10	769.30	166.20
Interest on Working Capital	127.18	145.63	18.46
Interest on deposit from Consumers and Distribution System Users	44.59	90.03	45.44
Other Finance Charges		-	-
Provision for bad and doubtful debts	73.05	105.60	32.55
Opex Schemes	80.23	47.68	(32.54)
Contribution to contingency reserves	-	178.23	178.23
Income Tax			-
Return on Equity Capital	1,734.93	1,951.12	216.19
Aggregate Revenue Requirement	10,830.32	12,936.63	2,106.30

3.27.2 Considering the parameters discussed above, the Aggregate Revenue Requirement (ARR) of MSEDCL for Supply Business for the FY 2024-25 is as follows:

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Table 116 ARR for Supply Business for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Power Purchase Expenses (including Inter-State Transmission Charges)	73,628.95	84,285.92	10,656.97
Operation & Maintenance Expenses	3,030.84	3,449.36	418.52
Depreciation	282.06	360.34	78.28
Interest on Loan Capital	67.01	85.47	18.46
Interest on Working Capital	-	-	-
Interest on Consumer Security Deposit	401.31	810.31	409.00
Other Finance Charges		-	-
Provision for bad and doubtful debts	657.47	950.41	292.94
Other Expenses	63.91	290.46	226.55
Income Tax		-	-
Intra-State Transmission Charges	8,638.78	8,638.78	-
Incentives/Discounts	405.02	589.71	184.69
Contribution to contingency reserves	-	19.80	19.80
DSM Expenses		-	-
Return on Equity Capital	216.54	243.14	26.60
RLC refund		16.68	16.68
Additional Surcharge Refund	180.00	168.13	-11.87
Effect of sharing of gains/losses		-	-
Past Period Surplus		10,000.00	10,000.00
Revenue Gap Recovery Allowed	7,017.00	7,017.00	-
Impact of payment to MPECS in future years	21.14	21.14	-
Opex Scheme	40.23	65.53	25.30
Incremental Consumption Rebate	548.77	1,081.92	533.15
STU Charges			
Total Revenue Expenditure	95,199.03	1,18,094.10	22,895.08

3.28 Revenue from sale of electricity for FY 2024-25

3.28.1 MSEDCL has estimated the revenue for FY 2024-25 based on the available information up to September 2024 and projection for balance six months of FY 2024-25 as shown in following table.

Table 117 Revenue from Sale of Power for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Revenue from Sale of Power	1,15,682.00	1,29,458.45	13,776.45

3.28.2 MSEDCL humbly requests to the Hon'ble Commission to consider the revenue from sale of power as shown in above table.

3.29 Non-Tariff Income for FY 2024-25

3.29.1 MSEDCL has certain sources of non-tariff income viz. interest on arrears of consumers, delayed payment charges, interest on staff loans and advances, sale of scrap, interest on investment etc.

3.29.2 Considering the available information for the first six months of FY 2024-25 and projections for the last six months, the Non-Tariff Income for FY 2024-25 has been estimated as given in the table below:

Table 118 Non-Tariff Income for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Rent of land or buildings	1.05	1.16	0.11
Sale of Scrap	48.23	26.46	(21.77)
Income on investments			-
Income from Sale of tender documents	5.45	15.79	10.34
Prompt payment discount from REC/PFC			-
Other /misc. receipts	265.05	378.77	113.72
Revenue from subsidy / grants	0.55	77.48	76.93
Interest on contingency reserves	30.21	30.51	0.30
Non-tariff Income	350.55	530.17	179.62

3.29.3 As provided in the Regulation 37.3 of the MYT Regulations, 2019, delayed Payment Charge and Interest on Delayed Payment is not considered under Non-Tariff Income.

3.29.4 MSEDCL has not considered income from grants and contribution reported under non-tariff income, as the treatment to the same is already considered while computing the depreciation for the FY 2024-25.

3.29.5 MSEDCL humbly requests to the Hon'ble Commission to consider the Non-Tariff Income as shown in above table.

3.30 Income from Open Access Charges for FY- 2024-25

3.30.1 Considering the available information, MSEDCL has estimated the Income from

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Open Access same as that approved by the Hon'ble Commission for FY 2024-25.

Table 119 Income from Open Access Charges for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Income from Open Access Charges	216.60	300.00	83.40

3.30.2 MSEDCL humbly requests the Hon'ble Commission to allow the Income from Open Access Charges as per actuals and estimated basis.

3.31 Income from Additional Surcharge for FY 2024-25

3.31.1 Considering the available information, MSEDCL has estimated the Income from Additional Surcharge for FY 2024-25 as shown in the table below.

Table 120 Income from Additional Surcharge for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Income from Additional Surcharge	109.46	0.14	(109.32)

3.31.2 MSEDCL submits that as per amendment to Regulation 14 in MERC(Distribution Open Access) Second Amendment Regulation 2023 provides that additional surcharge shall not be applicable for Green Energy Open Access consumers, if fixed charges are being paid by such consumer. MSEDCL has accordingly estimated only Rs. 0.14 Crores as income from Additional Surcharge for FY 2024-25.

3.31.3 MSEDCL humbly requests to the Hon'ble Commission to approve the Income from Additional Surcharge as shown in above table.

3.32 Revenue Gap/(Surplus) for FY 2024-25

3.32.1 Based on the above analysis, the summary of ARR for the Wires Business and Supply Business, estimated and as approved by the Hon'ble Commission for FY 2024-25 is presented in the Table below.

Table 121 ARR for Wires and Supply Business for FY 2024-25 (in Rs. Crores)

Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Power Purchase Expenses	73,628.95	84,285.92	10,656.97
Operation & Maintenance Expenses	8,659.55	9,855.31	1,195.76
Depreciation Expenses	2,820.60	3,603.44	782.84

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Particulars	FY 2024-25 (Approved)	FY 2024-25 (Estimated)	Deviation
Interest on Loan Capital	670.11	854.73	184.62
Interest on Working Capital	127.18	145.64	18.47
Interest on Consumers Security Deposit	445.90	900.34	454.45
Other Finance Charges		-	-
Provision for bad and doubtful debts	730.52	1,056.01	325.49
Other Expenses	63.91	290.46	226.55
Income Tax		-	-
Intra-State Transmission Charges MSLDC charge	8,638.78	8,638.78	-
Incentives/Discounts	405.02	589.71	184.69
Contribution to Contingency Reserves	-	198.04	198.04
Opex Scheme	120.45	113.21	-7.24
DSM expenses			-
Return on Equity Capital	1,951.47	2,194.26	242.79
RLC refund	-	16.68	16.68
Additional Surcharge Refund	180.00	168.13	-11.87
Effect of sharing of gains/losses	-	-	-
Past Period Adjustment by Commission	10,000.00	10,000.00	-
Revenue Gap Recovery Allowed	7,017.00	7,017.00	-
Add: Impact of payment to MPECS in future years	21.14	21.14	-
Incremental and Bulk Consumption Rebate	548.77	1,081.92	533.15
STU Charges			
Aggregate Revenue Requirement	1,16,029.35	1,31,030.73	15,001.38
Revenue from Sale of Power	1,15,682.00	1,29,458.45	13,776.45
Non-Tariff Income	350.55	530.17	179.62
Income from Open Access Charges	216.60	300.00	83.40
Income from Trading of Surplus Power	-	112.87	112.87
Income from Wheeling Charges	-		-
Income from Additional Surcharge	109.46	0.14	-109.32
Total Revenue	1,16,358.61	1,30,401.63	14,043.02
Revenue Gap/(Surplus)	-329.26	629.10	958.36

3.32.2 The Hon'ble Commission in its MTR Order dated 31st March 2023 has approved Aggregate Revenue Requirement of Rs 116,029.35 Crores for FY 2024-25. MSEDCL submits estimated ARR of Rs 1,31,030.73 Crores with a deviation of Rs. 15,001.38 Crores Considering the impact of revenue and other income, the truing up requirement works out to be Rs 958.36 Crores MSEDCL requests the Hon'ble Commission to allow the true up requirement as submitted above.

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4 AGGREGATE REVENUE REQUIREMENT FOR FY 2025-26 TO FY 2029-30

4.1 Preamble

- 4.1.1 Hon'ble Commission has notified the MERC (Multi Year Tariff) Regulations 2024 (hereinafter to be referred as MYT Regulations 2024) on 19th August 2024 which are applicable for the period FY 2025-26 to FY 2029-30 (the 5th Control Period).
- 4.1.2 Regulation 5.1 of MYT Regulations, 2024 requires the Distribution licensee to file MYT Petition for the 5th Control Period by November 30, 2024, including the Aggregate Revenue Requirement (ARR) for each year of the Control Period under the principles laid down in MYT Regulations, 2024.
- 4.1.3 This Chapter summarizes the Aggregate Revenue Requirement (ARR) for the 5th Control Period from FY 2025-26 to FY 2029-30. The projections for the period from FY 2025-26 to FY 2029-30 have been made considering the provisions of the MERC (MYT) Regulations, 2024.

4.2 Approach for Sales Projection for Control Period

- 4.2.1 MSEDCL's business interests serve the major consumer categories; Domestic, Commercial, LT Industries, HT Industries, Public Water Works (PWW), Streetlight, and Agriculture. Historically the Annual Demand for MSEDCL has been growing at ~ 4.8% (10 Year CAGR) and at a rate of ~ 4.7% (10 year CAGR) for Peak demand.
- 4.2.2 MSEDCL has projected sales for the Control Period based on the Short-term and Medium-term Distribution Resource Adequacy Plans (ST-DRAP and MT-DRAP) (hereinafter referred to as RA Plan), submitted to the Hon'ble Commission on October 15, 2024, in accordance with the MERC (Framework for Resource Adequacy) Regulations, 2024. The RA Plan outlines a framework to ensure reliable power supply for consumers for the 5th Control Period (FY 2025-26 to FY 2029-30).
- 4.2.3 The Resource Adequacy plan submitted to the Hon'ble Commission provides a comprehensive analysis of MSEDCL's demand forecast, generation resources, capacity credits, and strategies to meet Resource Adequacy Requirement (RAR) over the short-term and medium-term horizons, including integration of renewable energy source and compliance with Renewable Purchase Obligations (RPO).

4.2.4 Regulation 6.1. of the MERC Resource Adequacy Regulations, 2024 entails the scope of demand forecasting for MSEDCL. Following Regulation 6.4 of the MERC Resource Adequacy Regulations, 2024, the demand forecasting is conducted by utilizing the category wise consumption data for various categories. The category-wise demand has been projected based on a combination of SARIMA and econometric methodologies.

4.2.5 The RA plan has envisaged MSEDCL’s overall consumption to grow at a CAGR of 5.07%. Individual consumer category wise CAGR considered for forecasting the consumption is provided in the table below.

Table 122 CAGR for annual forecasted category consumption for Individual consumer category

CAGR	Domestic	Commercial	Agriculture	LT industries	HT Industries	PWW	Streetlight / Others	Total
FY 25-35	4.31%	3.50%	4.17%	7.23%	6.14%	3.18%	2.05%	5.07%

4.3 Sales Projections for Control Period

4.3.1 MSEDCL submits that Regulation 101.1 of the MERC (MYT) Regulations, 2024 provides that the Distribution Licensee is required to submit a month-wise forecast of the expected sales of electricity to each tariff category/ sub-category and to each Tariff slab within such Tariff category / sub-category. The relevant extracts of the regulation are reproduced below.

“101.1 The Distribution Licensee shall submit a month-wise forecast of the expected sales of electricity to each Tariff category/sub-category and to each Tariff slab within such Tariff category/sub-category to the Commission for approval along with the Multi-Year Tariff Petition, as specified in these Regulations:

Provided that the Distribution Licensee shall submit relevant details regarding category-wise sales separately for each Distribution Franchisee area within its Licence area, as well as the aggregated category-wise sales in its Licence area.”

4.3.2 MSEDCL has considered the sales projected in the RA Plan as the base for projecting the sales for the MYT Control Period. The sales projected in the RA Plan is inclusive of Open Access sales, which has been excluded to arrive at the projected sales for the MYT Petition purpose.

4.3.3 Further, the sales projected in the RA plan did not include the sales against EVs, Solar Roof top and Solar Pump sets. MSEDCL has accordingly included the sales against EVs, Solar Rooftop and Solar Pump sets in the sales projected for RA Plan to arrive at the sales projection for MYT Petition. The adjustments against EVs, Solar Rooftop and Solar Pump sets have been adjusted/ corrected against the sales of various consumer categories wherever it is observed that the trend is unreasonable or there is any recent developments which may require such adjustments, so that the total Sales (excluding OA) as per RA Plan is aligned with the Sales projected for MYT Petition.

4.3.4 MSEDCL would like to submit, that it has envisaged growth in specific consumer category driven by following factors:

4.3.4.1 Residential: Going forward MSEDCL envisages an overall increase of ~4% in the Residential sector sales. However, driven by going green ambitions, the higher slab residential consumer (consumers in the slab 301-500 units and above 500 units) is expected to migrate to solar roof top renewable energy procurement schemes.

4.3.4.2 Commercial: MSEDCL has envisaged a marginal increase in the sales trajectory for Commercial sector (~ 1.5% in HT Commercial and ~3.8% in LT Commercial), driven by growth in economic activities in the future.

4.3.4.3 Industrial: MSEDCL has taken efforts towards rationalising the Tariffs for Industrial customers to retain its existing Industrial customer base and tap the additional potential with sunshine Industries. Subsequent to segregation AG customer base from non-AG (including Industries), MSEDCL expects a decent rise in the Industrial sales (~5%) in this Control Period.

4.3.4.4 Agriculture: MSEDCL has not envisaged any new consumer addition in the Agriculture sector. The projected sales growth in the sector is the organic growth from the existing Agriculture customers.

4.3.5 Accordingly, the Sales projections for the HT Category (ex. DF) as considered in the MYT Petition is shown in the following table:

Table 123 Sales Projections (HT category ex DF) for the Control Period (MUs)

Category	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
HT-I Industries	43,594	45,974	48,334	50,751	53,246

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Category	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
HT-II Commercial	2,060	2,132	2,168	2,190	2,193
HT III Railways	139	142	145	148	151
HT IV-PWW	2,012	2,092	2,173	2,254	2,336
HT V Agricultural	2,011	2,114	2,206	2,291	2,381
HT VI Bulk Supply (Housing Complex)	240	251	260	268	275
HT Temporary	-	-	-	-	-
HT-IX Public services	1,245	1,265	1,287	1,309	1,332
MSPGCL AUX SUPPLY	357	365	373	380	388
HT EV Charging Stations	998	1,606	2,414	3,574	5,116
Total -HT Sales	52,656	55,941	59,359	63,166	67,418

4.3.6 Based on the above growth trajectory, it is estimated that HT category will witness a CAGR growth of ~6% during the Control Period.

4.3.7 The sales projections of LT Categories (ex. DF) for the fifth control period are shown in the following table:

Table 124 Sales Projections (LT Category ex. DF) for the Control Period (in MUs)

Category	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
LT I -BPL	38	40	42	44	46
LT I Domestic	28,715	30,324	31,686	32,804	33,692
LT II Non Domestic	8,035	8,535	8,868	9,132	9,330
LT III PWW	999	1,034	1,070	1,105	1,141
LT IV Agriculture	38,076	38,470	38,784	39,043	39,837
LT V Powerloom	2,135	2,178	2,221	2,266	2,311
LT V Industrial General	11,415	12,949	14,483	16,048	17,668
LT VI Streetlight	1,132	1,158	1,183	1,208	1,234
LT VII- Temporary Connection	-	-	-	-	-
LT VIII Advertisement & Hoardings	-	-	-	-	-
LT Public Services	836	854	872	890	907
LT XI EV Charging Stations	234	386	587	877	1,262
Total LT Sales	91,616	95,928	99,796	1,03,417	1,07,427
Total Sales	1,44,271	1,51,869	1,59,155	1,66,583	1,74,846

4.3.8 Based on the above growth rate, it is estimated that LT category as well as overall sales will witness a CAGR growth of ~5% during the Control Period.

4.3.9 MSEDCL further submits that the Hon'ble Commission had introduced kVAh based billing for HT consumers with effect from 1st April 2020. In view of the same, for the purpose of determination of revenue from proposed kVAh based tariff, MSEDCL has converted the kWh sales into kVAh sales for HT category considering category wise power factors.

4.4 Sales projections for Distribution Franchisees for Control Period

4.4.1 MSEDCL has taken a strategic decision to appoint a Distribution Franchisee for a certain period in the specific area having high distribution losses, less electricity bill recovery rate, need to improve the distribution system and all other inclusive aspects. MSEDCL has three Distribution Franchise:

4.4.2 Bhiwandi DF

M/s. Torrent Power Ltd. (TPL) had been appointed as Distribution Franchise for Bhiwandi circle and Distribution Franchise Agreement (DFA) was signed between MSEDCL & M/s TPL on 20 December 2006. Distribution operations of Bhiwandi circle were handed over to M/s TPL on 26th January 2007. The initial term of agreement was ten years and got expired on 26th January 2017. As per article 3.2 of DFA, the said agreement has been renewed and extended for 10 Years i.e. up to 25th January 2027. Currently, MSEDCL envisages to continue its partnership with TPL for the Bhiwandi area going forward.

MSEDCL, however, requests the Hon'ble Commission to allow them to revisit the decision on renewal of DF agreement at the time of Mid-Term Review for the Control Period.

4.4.3 Thane DF SMK area

M/s. Torrent Power Ltd. (TPL) has been appointed as Distribution Franchise for Shil, Mumbra & Kalwa (SMK) sub-divisions under Thane Urban Circle. DFA dated 11th February 2019 is effective for the period commencing from 1 March 2020 to 1st March 2040. Distribution operations of designated DF area were handed over to M/s. TPL on 1st March 2020.

4.4.4 Malegaon DF

M/s. CESC Limited has been appointed as Distribution Franchise for Malegaon area comprising Malegaon Urban-I, II and III Sub-divisions and 5 villages of Malegaon Rural sub-divisions under Malegaon Circle. DFA dated 29th May 2019 is effective for the period commencing from 1st March 2020 to 1 March 2040. Distribution operations of designated DF area were handed over the M/s. CESC on 1 March 2020.

4.4.5 MSEDCL further submits that in Form “F1 MSEDCL Yearly Sales Forecast”, MSEDCL has shown category wise sales of MSEDCL including Distribution Franchisee. The category wise sales for Distribution Franchisee have been calculated in the respective form using the same methodology and CAGR for respective category used for MSEDCL.

4.4.6 Considering the projected sales and estimated loss levels, MSEDCL has projected the input level sales of said DFs for the Control Period is shown in following table.

Table 125 Input Sales for DF Area for the Control Period (in MUs)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Energy Sales by MSEDCL	1,44,271	1,51,869	1,59,155	1,66,583	1,74,846
Add: Category wise sales in DF area (Bhiwandi)	3,639	3,691	3,745	3,801	3,859
Add: Category wise sales in DF area (Malegaon)	894	927	961	997	1,034
Add: Category wise sales in DF area (Thane)	637	661	687	714	742
Energy Sales including DF	1,49,441	1,57,148	1,64,549	1,72,094	1,80,481
Add: OA Sales (Conventional)	4,026	4,034	4,042	4,049	4,057
Add: OA Sales (Non-Conventional)	4,941	6,196	7,313	8,332	9,154
Total Energy Sales	1,58,408	1,67,379	1,75,904	1,84,475	1,93,692

4.4.7 An incremental growth is projected for OA (non-conventional) sales keeping in view the availability of cheaper power fuelled by significant capital investment envisaged in renewable energy sector in the forth coming years coupled with the increasing environmental and corporate compliances guidelines.

4.4.8 MSEDCL requests the Hon’ble Commission to approve the input sales for the Distribution Franchisee for the Control Period.

4.5 Approach for No. of Consumers Projection for Control Period

4.5.1 MSEDCL has adopted the historical trend method for projecting category wise no. of consumers of MSEDCL. The Break-up of category wise no. of consumers and the 5-year CAGR growth rate is for the period between FY 2018-19 & FY 2023-24 while the 3-year CAGR growth rate is for the period between FY 2020-21 & FY 2023-24 whereas year on year is for FY 2023-24 over FY 2022-23. Wherever it is observed that the trend is unreasonable or unsustainable, the growth factors have been corrected to arrive at more realistic projections.

4.5.2 Historical trend in No. of Consumers in HT Category for MSEDCL (incl. Distribution Franchisee) is given in following table.

Table 126 Historical Growth and CAGR No. of Consumers (HT Category)

Category	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	5 Year	3 Year	Y-oY
							CAGR	CAGR	Growth
HT-I Industries	14,353	14,614	14,954	14,945	15,228	15,494	1.54%	1.19%	<1.75%
HT-II Commercial	3,165	3,242	3,125	3,076	3,185	3,204	0.2%	0.8%	0.6%
HT III Railways	82	88	93	101	113	116	7.2%	7.6%	2.7%
HT IV-PWW	983	1,004	1,026	1,027	1,033	1,077	1.8%	1.6%	4.3%
HT V Agricultural	1,446	1,463	1,468	1,419	1,408	1,375	-1%	-2%	-2.3%
HT VI Bulk Supply (Housing Com	266	266	265	262	361	369	6.8%	11.7%	2.2%
HT Temporary	11	29	-	-	-	-	-100%		
HT-IX Public services	1,357	1,405	1,479	1,517	1,563	1,644	3.9%	3.6%	5.2%
MSPGCL AUX SUPPLY	27	27	28	28	29	30	2.1%	2.3%	3.4%
HT EV Charging Stations	2	3	5	6	14	25	66%	71%	79%
Total -HT Consumers	21,692	22,141	22,443	22,381	22,934	23,334	1.5%	1.3%	1.7%

4.5.3 Historical trend in No. of Consumers in LT Category for MSEDCL (incl. Distribution Franchisee) is given in following table.

Table 127 Historical Growth and CAGR No. of Consumers (LT Category)

Category	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	5 Year	3 Year	Y-oY
							CAGR	CAGR	Growth
LT I: LT -	1,97,78,094	2,07,52,910	2,12,89,251	2,15,43,082	2,20,75,938	2,29,30,466	3%	2.5%	3.9%

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Category	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	5 Year	3 Year	Y-oY
							CAGR	CAGR	Growth
Residential Total									
LT II: LT - Non-Residential	19,04,557	19,88,489	20,44,058	20,56,116	21,50,250	22,58,153	3.5%	3.4%	5%
LT III PWW	52,808	54,880	56,057	56,108	56,778	58,939	2.2%	1.7%	3.8%
LT IV Agriculture	42,44,685	43,20,830	43,82,159	45,12,918	46,48,925	47,76,168	2.4%	2.9%	2.7%
LT V (A) Powerloom	67,653	57,644	58,491	56,864	56,036	57,810	-3.1%	-0.4%	3.2%
LT V (B) Industrial General	3,15,673	3,45,753	3,72,968	3,81,297	3,91,509	4,05,334	5.1%	2.8%	3.5%
LT VI Streetlight	96,466	99,322	1,01,296	1,02,641	1,04,601	1,05,979	1.9%	1.5%	1.3%
LT VII- Temporary Connection	6,028	10,748	-	-	-	-	-100%		
LT VIII: LT - Advertisements and Hoardings	2,742	3,163	-	-	-	-	-100%		
LT IX: LT - Crematorium and Burial Grounds	229	268	-	-	-	-	-100%		
LT X- Public Services – Total	1,04,129	1,18,667	1,28,319	1,34,260	1,59,517	1,70,017	10%	10%	7%
LT XI – Electric Vehicle Charging Station	-	28	66	145	455	1,590		189%	249%
LT Prepaid	10,809	9,467	12,670	7,454	6,736	6,178	-10.6%	-	-8.3%
Total LT Consumers	2,65,83,873	2,77,62,169	2,84,45,335	2,88,50,885	2,96,50,745	3,07,70,634	3%	2.7%	3.8%
Total Consumers	2,66,05,565	2,77,84,310	2,84,67,778	2,88,73,266	2,96,73,679	3,07,93,968	3%	2.7%	3.8%

4.6 CAGR considered for Projection of Nos. Consumer for Control Period

4.6.1 MSEDCL has considered CAGR methodology for projections. Wherever it is observed that the trend is unreasonable or unsustainable, the growth factors have been corrected to arrive at more realistic projections considering year on year growth rate.

4.6.2 Following table provides the CAGRs considered for projecting the number of

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consumers for fifth control period:-

Table 128 CAGR considered for HT Consumer Projection

Category	CAGR Considered	Reason or Justification
HT-I Industries		
HT-IND 11 KV	1 %	Total 3 Yr CAGR of category as whole is considered
HT-IND 22 KV	1 %	Total 3-Yr CAGR of category as whole is considered
HT-IND 33 KV	1 %	Total 3 Yr CAGR of category as whole is considered
HT-IND EHV	1 %	Total 3 -Yr CAGR category as whole is considered
HT-SEASONAL 11 AND 22 KV	1 %	As Y-o-Y growth is in -ve
HT-SEASONAL 22 KV	1 %	Realistic Since CAGR is -ve
HT-SEASONAL 33 KV	1 %	Realistic Since CAGR is -ve
HT-SEASONAL EHV	1 %	Realistic Since CAGR is -ve
HT-II Commercial	1 %	
HT-COMM 11 KV	1 %	Total 3-Yr CAGR
HT-COMM 22 KV	1 %	3-Yr CAGR
HT-COMM 33 KV	1 %	Total 3-Yr CAGR
HT-COMM EHV	1 %	3-Yr CAGR
HT-III RAILWAYS/Metro/Mono		
HT RAILWAY/METRO/MONO 11 KV	5 %	Realistic CAGR 3 year
HT RAILWAY/METRO/MONO 22 KV	5 %	Realistic CAGR 3 year
HT RAILWAY/METRO/MONO 33 KV	5 %	Realistic CAGR 3 year
HT RAILWAY/METRO/MONO EHV	5 %	Realistic CAGR 3 year
HT-IV Public Water Works (PWW)		
HT-PWW 11 KV	2 %	5-year CAGR
HT-PWW 22 KV	2 %	5-year CAGR
HT-PWW 33 KV	2 %	5-year CAGR
HT-PWW EHV	2 %	CAGR is zero, realistic growth of 2% is taken
HT-V Agricultural		
HT-AGRICULTURE 11 KV	0 %	-ve CAGR, hence realistic growth taken
HT-AGRICULTURE 22 KV	0 %	-ve CAGR, hence realistic growth taken
HT-AGRICULTURE 33 KV	0 %	-ve CAGR, hence realistic growth taken
HT-AGRICULTURE EHV	0 %	-ve CAGR, hence realistic growth taken
HT-AGRICULTURE OTHERS 11 KV	0 %	-ve CAGR, hence realistic growth taken
HT-AGRICULTURE OTHERS 22 KV	0 %	-ve CAGR, hence realistic growth taken
HT-AGRICULTURE OTHERS 33 KV	0 %	-ve CAGR, hence realistic growth taken
HT-VI GROUP HOUSING SOCIETY		
HT-GROUP HOUSING 11 KV	2 %	Y-o-Y growth

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Category	CAGR Considered	Reason or Justification
HT-GROUP HOUSING 22 KV	2 %	Y-o-Y growth
HT-GROUP HOUSING 33 KV	2 %	Y-o-Y growth
HT-IX A Public Services- Govt.		
HT-PUBLIC SER.-GOVT 11 KV	2 %	3 year CAGR
HT-PUBLIC SER.-GOVT 22 KV	2 %	3 year CAGR
HT-PUBLIC SER.-GOVT 33 KV	2 %	3 year CAGR
HT-IX B Public Services- Others		
HT-PUBLIC SER.-OTHER 11 KV	2 %	Realistic considered, 5 year CAGR taken
HT-PUBLIC SER.-OTHER 22 KV	2 %	Realistic considered, 5 year CAGR taken
HT-PUBLIC SER.-OTHER 33 KV	2 %	Realistic considered, 5 year CAGR taken
HT-PUBLIC SER.-OTHER EHV	2 %	Realistic considered, 5 year CAGR taken
HT-XV MSPGCL AUX SUPPLY		
HT-MSPGCL AUX.SUPPLY 11 KV	2 %	5 year CAGR
HT-MSPGCL AUX.SUPPLY 22 KV	2 %	5 year CAGR
HT-MSPGCL AUX.SUPPLY 33 KV	2 %	5 year CAGR
HT-MSPGCL AUX.SUPPLY EHV	2 %	5 year CAGR
HT-EV CHARGING STATIONS 11 KV	10 %	Realistic 10% growth taken
HT-EV CHARGING STATIONS 22 KV	10 %	Realistic 10% growth taken

Table 129 CAGR considered for LT Category

Category	CAGR Considered	Reason or Justification
LT Category		
LT-I (A): LT- BPL	-5 %	Realistic CAGR considered
LT-I (B) : LT-Residential(Other than BPL)	3 %	5-yr CAGR
LT-II : LT- Non Residential		
0-20 KW	3 %	Total 5-yr CAGR
>20-<=50 KW	3 %	Total 5-yr CAGR
>50 KW	3 %	Total 5-yr CAGR
LT-III : LT-Public Water Works		
0-20 KW	2 %	5-yr CAGR
20-<=40 KW	2 %	5-yr CAGR
> 40 KW	2 %	5-yr CAGR
LT-IV: LT-Agriculture		
*** LT-AG-Unmetered (Pumpsets)	0 %	Realistic CAGR considered
LT-AG Metered (Pumpsets)	2 %	5-yr CAGR
LT V(A) : LT Industry- Power Looms		
0-20 KW (Upto & including 27 HP)	1 %	Realistic CAGR considered

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Category	CAGR Considered	Reason or Justification
Above 20 KW (above 27 HP)	1 %	Realistic CAGR considered
LT V(B) : LT Industry- General		
0-20 KW (Upto & including 27 HP)	4 %	Total 5-yr CAGR
Above 20 KW (above 27 HP)	4 %	Total 5-yr CAGR
Street Light (LT-VI)		
Grampanchayat A, B & C Class Municipal Council	2 %	Total 3-yr CAGR
Municipal corporation Area	2 %	Total 3-yr CAGR
LT X - Public services – Govt		
0-20 KW	10 %	Total Y-O-Y Growth
>20-50 kW	10 %	Total Y-O-Y Growth
>50 kW	10 %	Total Y-O-Y Growth
LT X - Public services – Other		
0-20 KW	10 %	3 year CAGR
>20-50 kW	10 %	3 year CAGR
>50 kW	10 %	3 year CAGR
LT EV Charging	10 %	Realistic CAGR considered
LT Prepaid	-5 %	Realistic CAGR considered

4.7 Number of Consumer Projections for Control Period

4.7.1 MSEDCL submits that it has considered FY 2023-24 for the base numbers for projection of number of consumers (ex. DF) for the fifth control period FY 2025-26 to FY 2029-30. Details of no. of consumers, connected load, and contract demand are provided in the Regulatory Formats. Based on the number of consumers for FY 2023-24 and the CAGR as shown in the above tables, MSEDCL has projected the number of consumers (excluding DF) for various categories for the control period as shown in the following tables:

Table 130 No. of Consumers Projections (HT category) for the Control Period FY 2025-26 to FY 2029-30

Category	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
HT-I Industries	15,821	15,986	16,153	16,321	16,492
HT-II Commercial	3,264	3,294	3,324	3,354	3,384
HT III Railways	132	141	150	159	168
HT IV-PWW	1,117	1,137	1,158	1,179	1,201
HT V Agricultural	1,375	1,375	1,375	1,375	1,375
HT VI Group Housing Society	389	399	409	419	430

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Category	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
HT Temporary	-	-	-	-	-
HT-IX Public services	1,713	1,748	1,783	1,819	1,855
MSPGCL AUX SUPPLY	38	42	46	50	54
HT EV Charging Stations	33	37	41	46	52
Total -HT Consumers	23,882	24,140	24,439	24,722	25,011

Table 131 No. of Consumers Projections (LT category) for 5th the Control Period

Category	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
LT I: LT - Domestic Total	2,44,03,785	2,51,77,212	2,59,76,162	2,68,01,425	2,76,53,820
LT II: LT - Non-Domestic	24,17,340	25,01,093	25,87,748	26,77,405	27,70,168
LT III PWW	61,334	62,568	63,827	65,111	66,421
LT IV Agriculture	48,77,782	49,29,850	49,82,777	50,36,577	50,91,265
LT V (A) Powerloom	58,974	59,565	60,162	60,764	61,372
LT V (B) Industrial General	4,37,194	4,54,051	4,71,558	4,89,740	5,08,623
LT VI Streetlight	1,09,223	1,10,882	1,12,566	1,14,276	1,16,011
LT VII- Temporary Connection	-	-	-	-	-
LT VIII: LT - Advertisements and Hoardings	-	-	-	-	-
LT IX: LT - Crematorium and Burial Grounds	-	-	-	-	-
LT X- Public Services	2,05,102	2,25,274	2,47,427	2,71,760	2,98,486
LT XI – Electric Vehicle Charging Station	1,924	2,117	2,329	2,562	2,819
LT Prepaid	5,577	5,299	5,035	4,784	4,545
Total LT Consumers	3,25,78,235	3,35,27,911	3,45,09,591	3,55,24,404	3,65,73,530
Total Consumers (Ex.Franchisee)	3,26,02,117	3,35,52,051	3,45,34,030	3,55,49,126	3,65,98,541

4.8 Approach for Connected Load/ Contract Demand Projection for Control Period

4.8.1 MSEDCL submits that, similar to its projections for number of consumers, it has considered the CAGR approach, to project the connected load and contract demand for the fifth control period.

4.8.2 MSEDCL has projected the connected load/contract demand for various categories (excluding Distribution Franchisees) for the period as shown in the following table:

Table 132 Connected load/contract demand Projections (HT category) for the Control Period

Category	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
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Category	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
HT Category (Billing Demand in kVA)					
HT-I Industries					
HT-IND 11 KV	20,67,821	21,49,176	22,33,731	23,21,613	24,12,953
HT-IND 22 KV	27,47,414	28,55,506	29,67,851	30,84,616	32,05,974
HT-IND 33 KV	23,00,854	23,91,377	24,85,461	25,83,247	26,84,880
HT-IND EHV	32,86,214	34,15,504	35,49,881	36,89,544	38,34,702
HT-SEASONAL 11 AND 22 KV	1,04,438	1,08,547	1,12,818	1,17,257	1,21,871
HT-SEASONAL 22 KV	-	-	-	-	-
HT-SEASONAL 33 KV	7,379	7,670	7,972	8,286	8,612
HT-SEASONAL EHV	526	547	569	592	616
Total : HT-I Industries	1,05,14,646	1,09,28,327	1,13,58,283	1,18,05,155	1,22,69,608
HT-II Commercial					
HT-COMM 11 KV	2,71,725	2,79,364	2,87,218	2,95,293	3,03,595
HT-COMM 22 KV	3,42,049	3,51,665	3,61,552	3,71,717	3,82,167
HT-COMM 33 KV	25,213	25,922	26,651	27,401	28,172
HT-COMM EHV	30,406	31,261	32,140	33,044	33,973
Total : HT-II Commercial	6,69,393	6,88,212	7,07,561	7,27,455	7,47,907
HT-III RAILWAYS/Metro/Mono					
HT RAILWAY/METRO/MONO 11 KV	17,361	18,230	19,142	20,100	21,105
HT RAILWAY/METRO/MONO 22 KV	4,527	4,754	4,992	5,242	5,505
HT RAILWAY/METRO/MONO 33 KV	3,452	3,625	3,807	3,998	4,198
HT RAILWAY/METRO/MONO EHV	17,395	18,265	19,179	20,138	21,145
Total : HT-III RAILWAYS/Metro/Mono	42,735	44,874	47,120	49,478	51,953
HT-IV Public Water Works (PWW)					
HT-PWW 11 KV	1,48,950	1,51,929	1,54,968	1,58,068	1,61,230
HT-PWW 22 KV	1,19,462	1,21,852	1,24,290	1,26,776	1,29,312
HT-PWW 33 KV	80,272	81,878	83,516	85,187	86,891
HT-PWW EHV	16,883	17,221	17,566	17,918	18,277
Total HT-IV Public Water Works (PWW)	3,65,567	3,72,880	3,80,340	3,87,949	3,95,710
HT-V Agricultural					
HT-AGRICULTURE 11 KV	1,01,820	1,02,839	1,03,868	1,04,907	1,05,957
HT-AGRICULTURE 22 KV	3,168	3,200	3,232	3,265	3,298
HT-AGRICULTURE 33 KV	81,993	82,813	83,642	84,479	85,324
HT-AGRICULTURE EHV	2,73,915	2,76,655	2,79,422	2,82,217	2,85,040
HT-AGRICULTURE OTHERS 11 KV	47,583	48,059	48,540	49,026	49,517
HT-AGRICULTURE OTHERS 22 KV	30,057	30,358	30,662	30,969	31,279
HT-AGRICULTURE OTHERS 33 KV	6,852	6,921	6,991	7,061	7,132

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Category	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
HT-AGRICULTURE OTHERS EHV	-	-	-	-	-
HT-POULTRY 11 KV					
HT-POULTRY 22 KV					
HT-POULTRY 33 KV					
HT-POULTRY EHV					
HT-AG HIGHTECH 11 AND 22 KV					
HT-AG HIGHTECH 33 KV					
HT-AG HIGHTECH EHV					
HT-AG (COLD STORAGE) 11 AND 22 KV					
HT-AG (COLD STORAGE) 33 KV					
HT-AG (COLD STORAGE) EHV					
Total : HT -V AGRICULTURE	5,45,388	5,50,845	5,56,357	5,61,924	5,67,547
HT-VI GROUP HOUSING SOCIETY					
HT-GROUP HOUSING 11 KV	39,289	39,682	40,079	40,480	40,885
HT-GROUP HOUSING 22 KV	16,508	16,674	16,841	17,010	17,181
HT-GROUP HOUSING 33 KV	3,032	3,063	3,094	3,125	3,157
HT-GROUP HOUSING EHV	-	-	-	-	-
Total : HT-VI GROUP HOUSING SOCIETY	58,829	59,419	60,014	60,615	61,223
HT VIII - Temporary Supply					
HT VIII A-Temp Supply- Religious	-	-	-	-	-
HT TEMPORARY RELIGIOUS 11 KV	-	-	-	-	-
HT TEMPORARY RELIGIOUS 22 KV	-	-	-	-	-
HT TEMPORARY RELIGIOUS 33 KV	-	-	-	-	-
HT TEMPORARY RELIGIOUS EHV	-	-	-	-	-
Total : HT VIII A-Temp Supply- Religious	-	-	-	-	-
HT VIII B-Temp Supply- Others	-	-	-	-	-
HT TEMPORARY OTHERS 11 KV	-	-	-	-	-
HT TEMPORARY OTHERS 22 KV	-	-	-	-	-
HT-TEMPORARY OTHERS 33 KV	-	-	-	-	-
HT-TEMPORARY OTHERS EHV	-	-	-	-	-
Total : HT VIII B-Temp Supply- Others	-	-	-	-	-
Total : HT VIII-Temporary Supply	-	-	-	-	-
HT-IX Public Services					
HT-IX A Public Services- Govt.					
HT-PUBLIC SER.-GOVT 11 KV	52,176	54,785	57,525	60,402	63,423
HT-PUBLIC SER.-GOVT 22 KV	28,134	29,541	31,019	32,570	34,199
HT-PUBLIC SER.-GOVT 33 KV	10,802	11,343	11,911	12,507	13,133

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Category	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
HT-PUBLIC SER.-GOVT EHV	-	-	-	-	-
Total : HT-IX A Public Services-Govt	91,112	95,669	1,00,455	1,05,479	1,10,755
HT-IX B Public Services- Others					
HT-PUBLIC SER.-OTHER 11 KV	1,54,296	1,62,011	1,70,112	1,78,618	1,87,549
HT-PUBLIC SER.-OTHER 22 KV	84,246	88,459	92,882	97,527	1,02,404
HT-PUBLIC SER.-OTHER 33 KV	46,624	48,956	51,404	53,975	56,674
HT-PUBLIC SER.-OTHER EHV	-	-	-	-	-
Total : HT-IX B Public Services- Others	2,85,166	2,99,426	3,14,398	3,30,120	3,46,627
Total : HT-IX Public Services	3,76,278	3,95,095	4,14,853	4,35,599	4,57,382
HT-XV MSPGCL AUX SUPPLY					
HT-MSPGCL AUX.SUPPLY 11 KV	2,361	2,432	2,505	2,581	2,659
HT-MSPGCL AUX.SUPPLY 22 KV	33	34	36	38	40
HT-MSPGCL AUX.SUPPLY 33 KV	592	610	629	648	668
HT-MSPGCL AUX.SUPPLY EHV	2,84,806	3,13,287	3,44,616	3,79,078	4,16,986
Total : HT-XV MSPGCL AUX SUPPLY	2,87,792	3,16,363	3,47,786	3,82,345	4,20,353
HT: Port					
HT-EV CHARGING STATIONS 11 KV	88,270	1,18,856	1,34,871	1,46,071	1,64,799
HT-EV CHARGING STATIONS 22 KV	2,59,165	3,39,773	4,30,871	5,33,743	6,56,620
TOTAL HT Category	1,32,08,063	1,38,14,644	1,44,38,056	1,50,90,334	1,57,93,102

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Table 133 Connected load/contract demand Projections (LT category) for the Control Period

Category	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
LT Category (Connected Load in kW)					
LT-I (A): LT- BPL	18,659	17,727	16,841	15,999	15,200
LT-I (B) : LT-Residential(Other than BPL)	2,83,05,152	2,96,08,445	3,09,71,747	3,23,97,821	3,38,89,558
1-100 Units					
101-300 Units					
301-500 Units					
501-1000 Units					
Above 1000 Units					
Sub Total Domestic	2,83,23,811	2,96,26,172	3,09,88,588	3,24,13,820	3,39,04,758
LT-II : LT- Non Residential					
0-20 KW	47,95,645	50,13,463	52,41,174	54,79,228	57,28,094
0-200 Units	-	-	-	-	-
Above 200 units	-	-	-	-	-
>20-<=50 KW	4,42,712	4,62,820	4,83,842	5,05,819	5,28,794
>50 KW	3,98,934	4,17,054	4,35,997	4,55,800	4,76,503
Sub Total Non Domestic (LT-2)	56,37,291	58,93,337	61,61,013	64,40,847	67,33,391
LT-III : LT-Public Water Works					
0-20 KW	1,26,220	1,32,531	1,39,158	1,46,116	1,53,422
20-<=40 KW	39,358	41,326	43,390	45,563	47,842
> 40 KW	54,987	57,737	60,624	63,656	66,839
Sub Total PWW	2,20,565	2,31,594	2,43,175	2,55,335	2,68,103
LT-IV: LT-Agriculture (Connected Load in HP)					
*** LT-AG-Unmetered (Pumpsets)	86,21,982	86,21,982	86,21,982	86,21,982	86,21,982
Zones with (Above 1318 Hrs/HP/Annum)					
0-5 HP	32,61,196	32,61,196	32,61,196	32,61,196	32,61,196
>5 - 7.5 HP	7,69,932	7,69,932	7,69,932	7,69,932	7,69,932
Above 7.5 HP	-	-	-	-	-
Zones with (Below 1318 Hrs/HP/Annum)					
0-5 HP	34,26,948	34,26,948	34,26,948	34,26,948	34,26,948
>5 - 7.5 HP	11,63,905	11,63,905	11,63,905	11,63,905	11,63,905
Above 7.5 HP	-	-	-	-	-

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Category	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
LT-AG Metered (Pumpsets)	1,57,54,204	1,59,11,747	1,60,70,865	1,62,31,574	1,63,93,890
LT-AG Metered (Others)	1,47,496	1,54,871	1,62,615	1,70,746	1,79,284
LT Poultry/Hightech					
Sub Total Agriculture	2,45,23,682	2,46,88,600	2,48,55,462	2,50,24,302	2,51,95,156
LT V(A) : LT Industry- Power Looms					
0-20 KW (Upto & including 27 HP)	1,78,895	1,80,684	1,82,491	1,84,316	1,86,160
Above 20 KW (above 27 HP)	3,24,019	3,39,905	3,56,570	3,74,052	3,92,391
Sub Total LT V(A) : LT Industry- Power Looms	5,02,914	5,20,589	5,39,061	5,58,368	5,78,551
LT V(B) : LT Industry- General					
0-20 KW (Upto & including 27 HP)	40,19,527	41,80,309	43,47,522	45,21,423	47,02,280
Above 20 KW (above 27 HP)	27,50,366	28,60,381	29,74,797	30,93,789	32,17,541
Sub Total LT V(B) : LT Industry- General	67,69,893	70,40,690	73,22,319	76,15,212	79,19,821
Total LT Industrial	72,72,807	75,61,279	78,61,380	81,73,580	84,98,372
Streetlight (LT-VI)					
Grampanchayat A, B & C Class Municipal Council	2,87,705	3,00,625	3,14,125	3,28,231	3,42,971
Municipal corporation Area	2,51,291	2,62,576	2,74,367	2,86,688	2,99,562
Sub Total Street Light	5,38,996	5,63,201	5,88,492	6,14,919	6,42,533
Temporary Connection (LT-VII)					
Temporary Connection (Religious)	-	-	-	-	-
Temporary Connection (Other Purposes)	-	-	-	-	-
Sub Total Temporary	-	-	-	-	-
LT-VIII: LT-Advertisements & Hoardings	-	-	-	-	-
LT-IX: LT-Crematorium and Burial Grounds	-	-	-	-	-
LT X - Public services – Govt					
0-20 KW	88,932	95,158	1,01,820	1,08,948	1,16,575
0-200 Units	-	-	-	-	-
>200 units	-	-	-	-	-

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Category	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
>20-50 kW	7,970	8,528	9,125	9,764	10,448
>50 kW	7,761	8,305	8,887	9,510	10,176
LT X - Public services – Other					
0-20 kW	3,24,432	3,50,387	3,78,418	4,08,692	4,41,388
0-200 Units	-	-	-	-	-
>200 units	-	-	-	-	-
>20-50 kW	71,876	77,627	83,838	90,546	97,790
>50 kW	90,296	97,520	1,05,322	1,13,748	1,22,848
Subtotal - LT Public services	5,91,267	6,37,525	6,87,410	7,41,208	7,99,225
LT EV Charging	3,06,203	2,63,224	2,71,112	2,88,282	3,22,086
Total LT	6,74,14,622	6,94,64,932	7,16,56,632	7,39,52,293	7,63,63,624

4.8.3 For the purpose of Revenue Estimation, MSEDCL has considered the total of no. of consumers, connected load, billing demand of the year end since the consumers get added throughout the year.

4.9 Segregation of Wires and Supply Business for Control Period

4.9.1 MSEDCL submits that Regulation 89 of the MYT Regulations 2024 provides that Aggregate Revenue Requirement of the Distribution Licensee shall be apportioned between the Distribution Wires Business and Retail Supply Business in accordance with the allocation matrix.

4.9.2 The relevant extract of the regulation is reproduced below.

“89.. Separation of Accounts of Distribution Licensee

Every Distribution Licensee shall maintain separate accounting records for the Distribution Wires Business and Retail Supply Business and shall prepare an Allocation Statement to enable the Commission to determine the Tariff separately for:

Distribution Wires Business;

Retail Supply of electricity;

Provided that in case complete accounting segregation has not been done between the Distribution Wires Business and Retail Supply Business of the

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Distribution Licensee, the Aggregate Revenue Requirement of the Distribution Licensee shall be apportioned between the Distribution Wires Business and Retail Supply Business in accordance with the following Allocation Matrix:

.....

.....

Provided further that the above Allocation Matrix shall be applied for all or any of the heads of expenditure and revenue, where actual accounting separation has not been done between the Distribution Wires Business and Retail Supply Business:

Provided also that the Commission may require the Distribution Licensee to file separate Petitions for determination of Tariff for the Distribution Wires Business and Retail Supply Business.

4.9.3 MSEDCL has segregated the expenses based on the allocation matrix as provided in the MYT Regulations 2024 which is reproduced below for ready reference.

Table 134 Segregation for Retail Supply and Wires Business Expenses

Particulars	Distribution Wires Business (%)	Retail Supply Business (%)
Power Purchase Expenses	0%	100%
Intra-State Transmission Charges	0%	100%
Operation & Maintenance Expenses	65%	35%
Depreciation	90%	10%
Interest on Long-term Loan Capital	90%	10%
Interest on Working Capital	10%	90%
Interest on Consumer Security Deposits	10%	90%
Provision for Bad & Doubtful Debts	10%	90%
Income Tax	90%	10%
Contribution to Contingency Reserves	90%	10%
Return on Equity	90%	10%
Non-Tariff Income	10%	90%

4.10 Estimation of ARR for Control Period

4.10.1 MSEDCL submits that the components for the calculation of total expenses for the Annual Revenue Requirement for the period FY 2025-26 to FY 2029-30 are as

follow:

- Power Purchase Cost.
- Intra State Transmission Charges
- Operation & Maintenance Expenses.
- Interest on Loan and Financial Charges.
- Depreciation.
- Interest on Working Capital.
- Contribution to Contingency Reserves
- Provision for Bad Debts.
- Income Tax
- Return on Equity.

4.10.2 Power Purchases Expenses for Control Period: MSEDCL has following primary sources of firm power viz.

- Maharashtra State Power Generation Company Limited (MSPGCL)
- Purchase from Central Generating Stations
- JSW (RATNAGIRI)
- Mundra UMPP CGPL
- Adani Power Ltd.
- Rattan India (Previously India Bulls Ltd.)
- EMCO Power Ltd. etc.

4.10.3 In addition to the above sources, MSEDCL buys power from Sardar Sarovar Project (SSP) and Pench Hydro project, renewable energy sources including co-generation, wind and solar. MSEDCL may also purchase the power from the Power trading Companies, Power exchanges in case of shortfall from regular sources or increase in demand depending on the availability.

4.10.4 The future portfolio for MSEDCL is a detailed capacity planning consisting of the current contracted capacities. The optimal generation mix will add capacities required by MSEDCL over and above these contracted capacities. The planned portfolio has been curated considering the existing and the contracted capacities for the future as provided in the RA Plan.

4.10.5 The RA Plan for MSEDCL is developed through rigorous studies and analyses,

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leveraging the methodologies specified in the current regulations and guidelines issued by Hon'ble Commission and CEA. The detailed Resource Adequacy Report of MSEDCL is annexed herewith as Annexure 4.1 and a Brief Note on RA Plan as Annexure 4.2 to this petition.

4.10.6 The table below shows the planned portfolio for MSEDCL (As provided for RA Plan) till FY 2029-30.

Table 135 Planned portfolio for MSEDCL (As provided for RA Study)

Resource	Commissioned Capacity as of FY 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Thermal	21891	660	-	-	-	228	855*
Nuclear	1191	-	-	-	-	-	-
Large-Hydro	2642	183	-	109*	313*	104*	-
PSP-Storage	250	-	-	-	-	-	324
Wind	2823	-	-	-	-	-	-
Solar	4331	2095	9605	4475*	-	-	-
Hybrid	-	-	300	2580*	-	-	-
FDRE	-	-	-	1468	-	-	-
Bagasse	2731	180	-	345**	345**	-	-
Small Hydro	314	3	-	-	-	-	-
Total	36173	3121	9905	8977	658	332	1179

Note: - Resource Adequacy Study is done based on the above capacity addition plan (Already Contracted but not commissioned and consent given capacities)

*Consent Given

** 690MW of biomass tender will be phased out in two years FY 2026-'27 and FY 2027-28

4.11 Assumptions for projecting power purchase for the MYT Control Period

4.11.1 MSEDCL submits that it procures power from different sources on Merit Order Dispatch Principle for optimum utilization of the sources at least cost. For estimating the power purchase cost, merit order despatch principles have been considered. As per the Resource Adequacy Report, 2024 submitted by MSEDCL to commission on 15th Oct 2024, MSEDCL has projected the hourly power requirement using the monthly sales projections and applying hourly MOD.

4.11.2 The key advantages of this approach include enhanced accuracy in power

procurement quantum estimation, more precise power purchase cost projections, and improved operational flexibility.

4.11.3 For projection of availability, MSEDCL has considered the entire power available from all the tied-up sources during this period to meet the demand. The actual availability and tariff rates provided in the MYT Petition of MSPGCL for the 5th Control Period has been considered for running the Merit Order Dispatch.

4.11.4 Significant influx of Renewable Energy has been envisaged in the overall energy portfolio of MSEDCL in this Control Period. Driven by the recent thrust of the government towards RE and the RE achieving price parity as compared to conventional power, MSEDCL has plans to add significant capacity of RE in its overall portfolio by 2029-30. This has also facilitated MSEDCL to bring down its APPC rate in the control period.

4.11.5 For power procurement from competitive bidding route, the tariff has been considered based on the rate quoted as per the terms of the PPA with the escalation based on the CERC rates, wherever applicable.

4.11.6 Considering the capacity available and the demand projection, no power procurement from Traders or power exchange is projected for the period FY 2025-26 to FY 2029-30.

4.11.7 Trading of surplus power in the control Period: MSEDCL envisages to be energy surplus in each year of the Control Period due to constraints in operating the generating plants below the Technical minimum level. MSEDCL intends to sell the surplus energy over Energy Exchanges. MSEDCL envisages to sell 40% of the surplus energy over exchange in the initial three years of the Control Period (FY 2025-26 to FY 2027-28) and progressively increase it to 60% in FY 2028-29 to 100% in FY 2029-30 as shown in the table below:

Table 136 Trading of surplus power in the control Period

Year	Gen Ex bus	ISTS Loss	Gen State periphery	Dem - (Inclusive of Banking)	Storage Loss	Unmet	Excess	Trading Surplus %	Surplus trade rate	Rev. from trading Surplus
FY26	186,938.15	1,357.27	185,580.88	179,802.45	158.41	79.94	5,699.96	40%	3.00	684.00
FY27	217,895.37	2,400.55	215,494.82	187,652.99	324.34	118.55	27,636.05	40%	3.00	3,316.33
FY28	229,172.56	2,493.96	226,678.59	196,113.05	324.34	192.34	30,433.54	40%	3.00	3,652.03

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Year	Gen Ex bus	ISTS Loss	Gen State periphery	Dem - (Inclusive of Banking)	Storage Loss	Unmet	Excess	Trading Surplus %	Surplus trade rate	Rev. from trading Surplus
FY29	237,834.27	2,694.80	235,139.46	204,714.82	1,511.58	274.56	29,187.62	60%	3.00	5,253.77
FY30	243,099.29	2,695.33	240,403.96	214,281.24	2,826.94	42.40	23,338.18	100%	3.00	7,001.45

4.11.8 We have assumed sale of surplus power as 40% for first 3 years, which is based on Buy-Bid to Sale-Bid ratio recorded in power exchange in FY 2023-24. For the last two years we have gradually increased it to 60% and then 100%. However, this could be revisited at the time of MTR based on actual performance of MSEDCL to sell surplus power and buy bid to sell bid ratio in exchange.

4.11.9 Inter State Transmission Charges: The PGCIL charges have been increasing considerably in last 4-5 years after implementation of POC mechanism. MSEDCL has projected the PGCIL charges for FY 2025-26 to FY 2029-30 considering a growth of 5% per annum over the estimated charges for FY 2023-24.

4.11.10 Power Purchase from Short Term Markets: MSEDCL submits that during the higher demand or shortage from regular sources due to various reasons including break downs, fuel shortage etc., MSEDCL may require to purchase power from exchanges and through short term power purchase tenders throughout the year. Hence it is submitted that, considering the volatile nature of short-term power market and uncertainty in supply of power from long term sources on account of various reasons, MSEDCL requests the Hon'ble Commission to accord in principle approval for procurement of power on DEEP e-bidding portal/ power exchange based on the projected average power purchase rate. MSEDCL also requests the Hon'ble Commission to revise the ceiling rate for procurement of power on DEEP e-bidding portal/ power exchange considering the projected power purchase rate during the Control Period.

4.11.11 Following tables provide the summary of source wise power purchase quantum and cost for the Period FY 2025-2026 to FY 2029-30.

Table 137 Source wise Power Purchase quantum and cost for FY 2025-26 to FY 2027- 28

Source of Power (Station wise)	FY 2025-26			FY 2026-27			FY 2027-28		
	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)
Long Term Supply									
Renewable - Solar intra	28,628	9,158	3.20	45,816	13,909	3.04	45,816	13,909	3.04
Renewable - Solar inter (Loss not applicable)	4,366	1,690	3.87	4,366	1,690	3.87	4,366	1,690	3.87
Renewable - Solar inter	-	-	-	11,345	3,029	2.67	13,495	3,590	2.66
Renewable - Wind	5,916	2,642	4.47	5,916	2,585	4.37	5,916	2,585	4.37
Renewable - Bagasse based Co-gen	3,843	2,311	6.01	4,305	2,383	5.54	4,767	2,484	5.21
Renewable - Biomass	50	43	8.65	50	45	9.07	50	47	9.48
Renewable - Small Hydro	656	219	3.34	656	219	3.34	656	219	3.34
Renewable - MSW	5	3	4.88	5	3	4.88	5	3	4.88
Renewable - Hybrid Intra	636	163	2.56	636	163	2.56	7,552	2,658	3.52
Renewable - Hybrid Inter	-	-	-	1,995	684	3.43	1,995	684	3.43
Renewable - FDRE	-	-	-	9,990	4,456	4.46	9,990	4,456	4.46
Renewable - BESS	-	-	-	-	197	2.31	-	197	2.32
Renewable - PHSP (JSW, Torrent, SSP PHSP & Ghatghar)	-	-	-	-	-	-	-	-	-
KAPP	1,045	419	4.01	1,045	433	4.15	1,045	449	4.29
KAPP 3 & 4	3,138	1,258	4.01	3,138	1,302	4.15	3,138	1,347	4.29
TAPP 1 & 2	1,122	516	4.60	1,122	534	4.76	1,122	553	4.93
TAPP 3 & 4	3,042	1,124	3.69	3,042	1,151	3.78	3,042	1,179	3.88

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Source of Power (Station wise)	FY 2025-26			FY 2026-27			FY 2027-28		
	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)
Bhusawal - 3	357	403	11.29	186	332	17.85	220	450	20.50
Bhusawal - 4 & 5	6,170	3,792	6.15	5,387	3,375	6.27	5,119	3,827	7.48
Bhusawal - 6	4,518	3,259	7.21	4,442	3,270	7.36	4,223	3,218	7.62
Khaparkheda - 1 to 4	4,116	2,833	6.88	3,282	2,497	7.61	3,505	2,816	8.04
Khaparkheda - 5	3,349	1,820	5.43	3,348	1,881	5.62	3,337	1,947	5.84
Nashik- 3,4 & 5	854	1,002	11.74	474	867	18.30	803	1,119	13.93
Chandrapur - 3 to 7	7,614	5,007	6.58	5,257	4,251	8.09	6,173	4,960	8.03
Chandrapur - 8 & 9	6,603	4,040	6.12	6,493	4,129	6.36	5,678	3,950	6.96
Paras - 3 & 4	3,070	1,818	5.92	3,099	1,920	6.20	3,060	2,109	6.89
Parli - 6 & 7	103	695	67.55	106	728	68.58	249	853	34.31
Parli Replacement U 8	128	533	41.60	31	480	153.69	158	573	36.40
Koradi - 6	1,206	827	6.85	1,206	855	7.09	1,206	907	7.52
Koradi - 8 to 10	11,275	6,434	5.71	11,304	6,653	5.89	11,308	7,236	6.40
GTPS Uran	2,339	1,482	6.34	2,339	1,482	6.34	2,339	1,502	6.42
KSTPS	4,740	1,193	2.52	4,495	1,207	2.68	4,491	1,263	2.81
KSTPS III	935	266	2.85	885	264	2.98	885	269	3.04
VSTP I	3,120	988	3.17	2,992	981	3.28	2,995	1,002	3.35
VSTP II	2,503	692	2.76	2,385	679	2.85	2,383	690	2.89
VSTP III	2,077	623	3.00	1,981	611	3.08	1,979	617	3.12
VSTP IV	2,236	796	3.56	2,129	798	3.75	2,125	823	3.87
VSTP V	1,203	505	4.20	1,146	519	4.53	1,142	545	4.77
KhSTPS-II	1,047	405	3.87	1,001	406	4.06	994	419	4.21
SIPAT TPS 1	4,255	1,349	3.17	4,052	1,348	3.33	4,041	1,387	3.43
SIPAT TPS 2	2,058	664	3.23	1,960	663	3.38	1,953	682	3.49
SIPAT TPS 3	-	-	-	-	-	-	-	-	-

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Source of Power (Station wise)	FY 2025-26			FY 2026-27			FY 2027-28		
	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)
Mauda I	2,840	1,637	5.77	2,715	1,621	5.97	2,673	1,636	6.12
Mauda II	3,830	2,086	5.45	3,741	2,123	5.67	3,617	2,143	5.93
NTPC Solapur	1,779	1,895	10.65	982	1,570	15.99	1,345	1,840	13.68
Lara	2,125	565	2.66	2,026	609	3.01	2,024	676	3.34
Lara - 2	-	-	-	-	-	-	-	-	-
Gadarwara	761	382	5.03	660	357	5.42	608	352	5.78
Gadarwara - 2	-	-	-	-	-	-	-	-	-
Khargone	654	382	5.84	473	362	7.65	481	446	9.27
MBPL	-	-	-	-	-	-	-	-	-
NVVNL Coal	72	33	4.60	36	17	4.76	52	26	4.93
Kawas	216	399	18.52	264	460	17.42	222	412	18.58
Gandhar	211	429	20.29	253	482	19.05	213	438	20.53
JSW	1,159	756	6.52	755	584	7.73	763	611	8.01
CGPL	5,326	2,263	4.25	5,326	2,339	4.39	5,326	2,415	4.53
APML 125 MW	837	491	5.87	785	471	6.00	833	478	5.74
APML 1320 MW	9,870	5,199	5.27	9,334	5,107	5.47	9,289	5,230	5.63
APML 1200 MW	8,213	4,602	5.60	7,607	4,396	5.78	7,985	4,629	5.80
APML 440 MW	2,564	1,567	6.11	2,497	1,482	5.93	2,637	1,570	5.95
Adani 1600 MW	-	-	-	-	-	-	-	-	-
GMR Energy	1,512	653	4.32	1,460	643	4.41	1,450	647	4.46
RIPL 450 MW	3,416	1,160	3.40	3,297	1,142	3.46	3,281	1,152	3.51
RIPL 750 MW	5,693	1,934	3.40	5,495	1,904	3.46	5,469	1,921	3.51
SWPGL 240 MW	1,730	776	4.49	1,727	776	4.50	1,724	777	4.51
Koyna Stage I to IV Hydro	2,946	693	2.35	2,946	710	2.41	2,946	720	2.44
Bhira	312	16	0.51	312	16	0.53	312	17	0.54

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	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)
Tillari	99	28	2.85	99	29	2.97	99	30	3.05
Vaitarna	99	19	1.88	99	19	1.88	99	19	1.88
SSP	926	190	2.05	926	190	2.05	926	190	2.05
Pench	128	26	2.05	128	26	2.05	128	26	2.05
Dodson II	132	24	1.85	132	25	1.86	132	25	1.89
Subhansari Hydro	433	217	5.00	433	217	5.00	433	217	5.00
Pakaldul HEP	-	-	-	-	-	-	237	101	4.28
Rattle Hydroelectric Project	-	-	-	-	-	-	504	198	3.92
Kwar HEP	-	-	-	-	-	-	-	-	-
Dugar HE Project	-	-	-	-	-	-	-	-	-
Kiru HE Project	-	-	-	258	120	4.64	258	120	4.64
Sawalkot HE Project	-	-	-	-	-	-	-	-	-
Dibang Multipurpose Project	-	-	-	-	-	-	-	-	-
PGCIL Charges	-	3,902	-	-	4,097	-	-	4,302	-
Total		-	-		-	-		-	-
Medium Term Supply	-	-	-		-	-		-	-
Source 1	-	-	-		-	-		-	-
Source 2	-	-	-		-	-		-	-
Short Term Supply	-	-	-		-	-		-	-
Short Term	1,008	661	6.55	-	-	-	-	-	-
Banking Power	-1,011	-	-		-	-		-	-
... ..	-	-	-		-	-		-	-
Total Energy Availability	1,86,203	93,956	5.05	2,18,172	1,04,871	4.81	2,29,387	1,12,578	4.91

Source of Power (Station wise)	FY 2025-26			FY 2026-27			FY 2027-28		
	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)

Table 138 Source wise Power Purchase quantum and cost for FY 2028-29 to FY 2029- 30

Source of Power (Station wise)	FY 2028-29			FY 2029-30		
	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)
Long Term Supply						
Renewable - Solar intra	45,816	13,909	3.04	45,816	13,909	3.04
Renewable - Solar inter (Loss not applicable)	4,366	1,690	3.87	4,366	1,690	3.87
Renewable - Solar inter	19,947	5,326	2.67	19,947	5,326	2.67
Renewable - Wind	5,916	2,585	4.37	5,916	2,585	4.37
Renewable - Bagasse based Co-gen	4,767	2,407	5.05	4,767	2,334	4.90
Renewable - Biomass	50	48	9.77	50	51	10.22
Renewable - Small Hydro	656	219	3.34	656	219	3.34
Renewable - MSW	5	3	4.88	5	3	4.88
Renewable - Hybrid Intra	7,552	2,658	3.52	7,552	2,658	3.52
Renewable - Hybrid Inter	1,995	684	3.43	1,995	684	3.43
Renewable - FDRE	9,990	4,456	4.46	9,990	4,456	4.46
Renewable - BESS	-	197	2.47	-	197	2.56
Renewable - PHSP (JSW, Torrent, SSP PHSP & Ghatghar)	-	1,475	3.61	-	3,081	3.86
KAPP	1,045	464	4.44	1,045	481	4.60
KAPP 3 & 4	3,138	1,394	4.44	3,138	1,443	4.60
TAPP 1 & 2	1,122	572	5.10	1,122	592	5.28
TAPP 3 & 4	3,042	1,208	3.97	3,042	1,238	4.07
Bhusawal - 3	98	391	39.82	70	387	55.53

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Source of Power (Station wise)	FY 2028-29			FY 2029-30		
	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)
Bhusawal - 4 & 5	4,876	3,847	7.89	3,720	3,386	9.10
Bhusawal - 6	4,159	3,236	7.78	3,791	3,103	8.18
Khaparkheda - 1 to 4	3,248	2,783	8.57	2,587	2,533	9.79
Khaparkheda - 5	3,349	2,015	6.02	3,288	2,056	6.25
Nashik- 3,4 & 5	462	956	20.69	297	888	29.90
Chandrapur - 3 to 7	4,336	4,221	9.73	2,864	3,590	12.53
Chandrapur - 8 & 9	6,573	4,171	6.35	6,498	4,033	6.21
Paras - 3 & 4	2,982	2,160	7.24	2,575	2,043	7.94
Parli - 6 & 7	263	908	34.61	62	798	128.83
Parli Replacement U 8	129	561	43.37	63	512	81.39
Koradi - 6	1,190	969	8.14	1,035	928	8.96
Koradi - 8 to 10	11,148	7,152	6.42	10,921	6,506	5.96
GTPS Uran	2,339	1,522	6.51	2,339	1,542	6.59
KSTPS	4,510	1,327	2.94	4,556	1,400	3.07
KSTPS III	888	276	3.11	897	284	3.17
VSTP I	3,008	1,026	3.41	3,040	1,055	3.47
VSTP II	2,394	703	2.94	2,418	719	2.97
VSTP III	1,988	626	3.15	2,008	637	3.17
VSTP IV	2,138	852	3.99	2,159	886	4.10
VSTP V	1,151	575	5.00	1,161	608	5.24
KhSTPS-II	1,006	438	4.35	1,016	457	4.50
SIPAT TPS 1	4,062	1,435	3.53	4,103	1,491	3.63
SIPAT TPS 2	1,970	708	3.59	1,988	736	3.70
SIPAT TPS 3	-	-	-	916	356	3.89
Mauda I	2,715	1,686	6.21	2,684	1,707	6.36

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Source of Power (Station wise)	FY 2028-29			FY 2029-30		
	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)
Mauda II	3,724	2,267	6.09	3,252	2,126	6.54
NTPC Solapur	810	1,620	20.00	351	1,418	40.38
Lara	2,032	755	3.71	2,054	849	4.13
Lara - 2	-	-	-	1,584	556	3.51
Gadarwara	615	373	6.06	567	367	6.47
Gadarwara - 2	-	-	-	64	41	6.31
Khargone	365	502	13.75	231	591	25.61
MBPL	-	-	-	3,325	1,697	5.11
NVVNL Coal	60	31	5.10	43	22	5.28
Kawas	247	445	18.04	380	608	15.99
Gandhar	243	477	19.64	371	635	17.09
JSW	603	546	9.06	362	381	10.54
CGPL	5,326	2,501	4.70	5,326	2,588	4.86
APML 125 MW	897	515	5.74	859	505	5.88
APML 1320 MW	8,336	5,073	6.09	7,327	4,520	6.17
APML 1200 MW	8,597	4,973	5.78	8,503	4,996	5.88
APML 440 MW	2,888	1,711	5.93	2,848	1,715	6.02
Adani 1600 MW	4,583	2,663	5.81	10,990	6,386	5.81
GMR Energy	1,468	661	4.50	1,480	677	4.57
RIPL 450 MW	3,312	1,174	3.54	3,339	1,196	3.58
RIPL 750 MW	5,520	1,957	3.54	5,566	1,994	3.58
SWPGL 240 MW	1,728	779	4.51	1,729	781	4.52
Koyna Stage I to IV Hydro	2,946	711	2.41	2,946	750	2.55
Bhira	312	18	0.59	312	20	0.63
Tillari	99	31	3.17	99	33	3.30

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Source of Power (Station wise)	FY 2028-29			FY 2029-30		
	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)	Quantum (MU)	Total (Rs Crore)	Rate (Rs/kWh)
Vaitarna	99	19	1.88	99	19	1.88
SSP	926	190	2.05	926	190	2.05
Pench	128	26	2.05	128	26	2.05
Dodson II	132	28	2.12	132	28	2.14
Subhansari Hydro	433	217	5.00	433	217	5.00
Pakaldul HEP	237	101	4.28	237	101	4.28
Rattle Hydroelectric Project	504	198	3.92	504	198	3.92
Kwar HEP	128	57	4.44	128	57	4.44
Dugar HE Project	118	53	4.46	118	53	4.46
Kiru HE Project	258	120	4.64	258	120	4.64
Sawalkot HE Project	-	-	-	-	-	-
Dibang Multipurpose Project	-	-	-	-	-	-
PGCIL Charges		4,517	-		4,743	-
Total		-	-		-	-
Medium Term Supply		-	-		-	-
Source 1		-	-		-	-
Source 2		-	-		-	-
Short Term Supply		-	-		-	-
Short Term	-	-	-	-	-	-
Banking Power		-	-		-	-
... ..		-	-		-	-
Total Energy Availability	2,38,063	1,19,149	5.00	2,43,337	1,24,790	5.13

4.11.12 MSEDCL requests the Hon'ble Commission to allow the power purchase as shown in the tables above.

4.12 Intra State Transmission Charges

4.12.1 MSEDCL submits that Mumbai Utilities are already benefitted due to present transmission infrastructure. N-2 mechanism is basically to strengthen the network from reliability point of view. This will enhance the power supply & will only be benefitting to Mumbai Utilities. Therefore, the transmission charges considered for strengthening of Infrastructure for Mumbai Utilities need to be recovered from Mumbai Consumers only and should not be burdened on MSEDCL.

4.12.2 However, as directed by Hon'ble Commission, MSEDCL has considered the MSEDCL share in the Total transmission System Cost (TTSC) as submitted by the State Transmission Utility as summarized in following table.

Table 139 Intra State Transmission charges for Control Period (Rs. Cr.)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Intra State Transmission Charges	9,778.24	10,155.85	11,865.84	13,288.80	14,407.50

4.12.3 MSEDCL requests the Hon'ble Commission to allow the Intra State Transmission charges as may be approved in the InSTS Order after prudence check of InSTS Petition as filed by STU.

4.13 Distribution Loss for the Control Period

4.13.1 As per the Resource Adequacy Report, 2024 submitted by MSEDCL to the commission on 15th October 2024, Distribution loss percentage is forecasted from FY 2024-25 to FY 2034-35 based on the Time Series Model (SARIMA) trained on monthly data of distribution losses from FY 2010-11 to FY2023-24, excluding the covid-19 Years. Furthermore, the RA projections are aggregated with EHV sales. For the 5th control period MSEDCL has projected losses at distribution level utilizing only distribution sales which exclude EHV sales.

Table 140 Proposed Distribution Loss for the Control Period

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Distribution Losses (ex. EHV sales)	15.06%	14.98%	14.78%	14.54%	14.30%

4.13.2 MSEDCL requests the Hon'ble Commission to approve the Distribution Loss (EHV Less) for the Control Period as shown in above table.

4.14 Energy Balance for Control Period

4.14.1 MSEDCL submits that the quantum of sales in MUs shown in the table below represent the sales of MSEDCL excluding the sales in the area served by Distribution Franchisees. As per the methodology adopted by Hon'ble Commission for calculating energy balance of MSEDCL as a whole, the sale to the consumers in the Distribution Franchisee area has also been considered. Therefore, total energy sale for the Control Period is computed as below:

Table 141 Total Energy Sales for MSEDCL for FY 2025-26 to FY 2029-30 (in MUs)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Energy Sales by MSEDCL (incl. DF)	1,49,441	1,57,148	1,64,549	1,72,094	1,80,481
Add: OA Sales (Conventional)	4,026	4,034	4,042	4,049	4,057
Add: OA Sales (Non-Conventional)	4,941	6,196	7,313	8,332	9,154
Total Energy Sales	1,58,408	1,67,379	1,75,904	1,84,475	1,93,692

4.14.2 The Energy Balance for FY 2025-26 to FY 2027-28 is summarised in following table.

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Table 142 The Energy Balance for FY 2025-26 to FY 2027-28

Sr. No.	Particulars	Calculation	UoM	FY 2025-26	FY 2026-27	FY 2027-28
				Projection	Projection	Projection
				(a)	(b)	(c)
1	LT Agriculture Sales (Including D.F)	a	MU	38,100	38,494	38,808
2	LT Sales excluding Agriculture Sales (Including D.F)	b	MU	57,866	61,889	65,551
3	HT Sales excluding EHV level sales (Including D.F)	c	MU	38,249	41,051	43,947
4	Total Sales including D.F (Excluding EHV Sales)	d=a+b+c	MU	1,34,215	1,41,434	1,48,306
5	OA Sales (Renewables)	e	MU	4,941	6,196	7,313
6	OA Sales (Conventional)	f	MU	4,026	4,034	4,042
7	Retail Energy Sale to Consumers (Excluding EHV Sales)	A=d+e+f	MU	1,43,182	1,51,665	1,59,661
8	Sale due to Surplus Energy Traded	B=1%*(d+t)	MU	0	0	0
9	Retail Energy Sale including surplus traded (Excluding EHV Sales)	C=A+B	MU	1,43,182	1,51,665	1,59,661
10	Total Power Purchase	D=g+h	MU	1,86,203	2,18,172	2,29,387
11	Power Purchase Quantum from Intra-State sources	g	MU	1,32,998	1,43,914	1,52,202
12	Power Purchase Quantum from Inter-State sources	h	MU	53,205	74,258	77,185
13	Inter-State Losses	i	%	3.55%	3.55%	3.55%
14	Power Purchase Quantum from Inter-State sources at MS Periphery	j=h*(1-i)	MU	51,316	71,622	74,445
	Add: FBSM		MU	-5,869	-27,785	-30,434
15	Power Quantum handled at Maharashtra Periphery	k=g+j	MU	1,78,445	1,87,751	1,96,213
16	Infirm Non-PPA Wind Power	l=e/(1-q)	MU	5,108	6,405	7,558
17	Input for OA Consumption	m=f/(1-q)	MU	4,163	4,170	4,177
18	Total Power Purchase Quantum Handled	n=k+l+m-v	MU	1,87,716	1,98,326	2,07,948
19	Surplus Power Traded	o=B	MU	0	0	0
20	Energy Requirement at G<>T Periphery	p=n-o	MU	1,87,716	1,98,326	2,07,948
21	Intra-State Transmission Loss	q	%	3.28%	3.26%	3.24%
22	Intra-State Transmission Loss	r=p*q	MU	6,157	6,465	6,738
23	Net Energy requirement at T<>D Periphery	s=p-r	MU	1,81,406	1,91,542	2,00,888
24	EHV Sales	t	MU	15,224	15,712	16,241
25	Net Energy Available for Sale at 33kV	u=s-t	MU	1,66,183	1,75,830	1,84,648
26	Energy injected and drawn at 33kV	v	MU	1,106	1,106	1,106
27	Total Energy Available for Sale at 33kV	E=u+v	MU	1,67,289	1,76,936	1,85,753
28	Energy Available for Sale including Surplus traded (excluding OA Sales)	# F=E-l-m+o	MU	1,58,017	1,66,361	1,74,018
	Without Excess Power Without EHV					
29	Distribution Loss (Excl. EHV Sales and OA Sales)	# G=E-A	MU	23,802	24,926	25,713
30	Distribution Loss (Excl. EHV Sales and OA Sales)	H=G/F	%	15.06%	14.98%	14.78%

4.14.3 The Energy Balance for FY 2028-29 to FY 2029-30 is summarised in following table.

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Table 143 The Energy Balance for FY 2028-29 to FY 2029-30

Sr. No.	Particulars	Calculation	UoM	FY 2028-29	FY 2029-30
				Projection	Projection
1	LT Agriculture Sales (Including D.F)	a	MU	39,068	39,862
2	LT Sales excluding Agriculture Sales (Including D.F)	b	MU	69,025	72,358
3	HT Sales excluding EHV level sales (Including D.F)	c	MU	47,175	50,736
4	Total Sales including D.F (Excluding EHV Sales)	d=a+b+c	MU	1,55,267	1,62,956
5	OA Sales (Renewables)	e	MU	8,332	9,154
6	OA Sales (Conventional)	f	MU	4,049	4,057
7	Retail Energy Sale to Consumers (Excluding EHV Sales)	A=d+e+f	MU	1,67,648	1,76,167
8	Sale due to Surplus Energy Traded	B=1%*(d+t)	MU	0	0
9	Retail Energy Sale including surplus traded (Excluding EHV Sales)	C=A+B	MU	1,67,648	1,76,167
10	Total Power Purchase	D=g+h	MU	2,38,063	2,43,337
11	Power Purchase Quantum from Intra-State sources	g	MU	1,54,459	1,54,478
12	Power Purchase Quantum from Inter-State sources	h	MU	83,604	88,860
13	Inter-State Losses	i	%	3.55%	3.55%
14	Power Purchase Quantum from Inter-State sources at MS Periphery	j=h*(1-i)	MU	80,636	85,705
	Add: FBSM		MU	-29,160	-23,546
15	Power Quantum handled at Maharashtra Periphery	k=g+j	MU	2,05,936	2,16,637
16	Infirm Non-PPA Wind Power	l=e/(1-q)	MU	8,608	9,453
17	Input for OA Consumption	m=f/(1-q)	MU	4,184	4,189
18	Total Power Purchase Quantum Handled	n=k+l+m-v	MU	2,18,728	2,30,279
19	Surplus Power Traded	o=B	MU	0	0
20	Energy Requirement at G<>T Periphery	p=n-o	MU	2,18,728	2,30,279
21	Intra-State Transmission Loss	q	%	3.21%	3.16%
22	Intra-State Transmission Loss	r=p*q	MU	7,021	7,277
23	Net Energy requirement at T<>D Periphery	s=p-r	MU	2,10,204	2,20,209
24	EHV Sales	t	MU	16,825	17,522
25	Net Energy Available for Sale at 33kV	u=s-t	MU	1,93,379	2,02,686
26	Energy injected and drawn at 33kV	v	MU	1,106	1,106
27	Total Energy Available for Sale at 33kV	E=u+v	MU	1,94,485	2,03,792
28	Energy Available for Sale including Surplus traded (excluding OA Sales)	# F=E-l-m+o	MU	1,81,693	1,90,150
	Without Excess Power Without EHV				
29	Distribution Loss (Excl. EHV Sales and OA Sales)	# G=E-A	MU	26,426	27,194
30	Distribution Loss (Excl. EHV Sales and OA Sales)	H=G/F	%	14.54%	14.30%

4.14.4 MSEDCL requests the Hon'ble Commission to approve the Energy Balance for the period FY 2025-26 to FY 2029-30 as submitted by MSEDCL in above tables.

4.15 Operation & Maintenance Expenses for Control Period

4.15.1 MSEDCL submits that Regulation 93 and 103 of the MERC (Multi Year Tariff) Regulations, 2024 provides for the procedure/ methodology to calculate O&M Expenses for Distribution Wires Business and Retail Supply of electricity

respectively. As per MYT Regulation, 2024.

“93.1 The Distribution Licensees shall be permitted to recover Operation and Maintenance expenses relating to the Distribution Wires Business as specified in the norms below for each year of the Control Period:

Explanation: For the purpose of applying normative O&M expenses with respect to Gross Fixed Assets (GFA) growth under these Regulation, the average GFA pertaining to Distribution Wires Business (in INR Crore) shall be multiplied by the O&M Norms in terms of “percentage of Average GFA”, for the respective years.

93.2 For applying normative O&M expenses with respect to Consumer’s growth, the O&M Norms in terms of “INR Lakhs/’000 Consumers” or “INR Lakhs/’00 Consumers” (in case of Deemed Distribution Licensees) shall be multiplied by the closing total Wheeling Consumers inclusive of full Open Access Consumers, if any, of the Distribution Wires Business, during the respective financial year.

Provided that the Partial Open Access consumers are embedded within the Wheeling Consumers of the Distribution Wires Business, hence, no separate addition of such Partial Open Access consumers will be allowed to avoid double accounting:

Provided further that the Distribution Licensee shall submit the details of its consumer base having the break-up of its direct consumers, Partial Open Access consumers and Full Open Access consumers for the respective years at the time of filing MYT Petition for Distribution Wires Business.

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
O&M (% of Average GFA - Wires)	9.66%	10.10%	10.55%	11.03%	11.52%
O&M (INR Lakhs/’000 Consumers)	2.16	2.25	2.35	2.46	2.57

“103.1..

The Distribution Licensees shall be permitted to recover Operation and Maintenance expenses relating to the Retail Supply of electricity as specified in the norms below for each year of the Control Period:

Explanation: For the purpose of applying normative O&M expenses with respect to Gross Fixed Assets (GFA) growth under these Regulation, the average GFA pertaining to Retail Supply Business (in INR Crore) shall be multiplied by the O&M Norms in terms of “percentage of Average GFA”, for the respective years.

103.2..

For applying normative O&M expenses with respect to Consumer’s growth, the O&M Norms in terms of “INR Lakhs/’000 Consumers” or “INR Lakhs/’00 Consumers” (in case of Deemed Distribution Licensees) shall be multiplied by the closing total Retail Supply Consumers, if any, of the Retail Supply Business, for the respective financial year.

Provided that the Partial Open Access consumers are embedded within the Retail Supply Consumers of the Retail Supply Business, hence, no separate addition of such Partial Open Access consumers will be allowed to avoid double accounting:

Provided further that the Distribution Licensee shall submit the details of its consumer base having the break-up of its direct consumers and Partial Open Access consumers for the respective years at the time of filing MYT Petition for its Retail Supply Business.

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
O&M (% of Average GFA – Retail Supply)	5.20%	5.44%	5.68%	5.94%	6.20%

O&M (INR Consumers)	Lakhs/'000	10.44	10.91	11.4	11.92	12.45
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4.15.2 The Normative O&M Expenses for the Control Period are summarized in following table.

Table 144 Normative O&M Expenses for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
O&M Expenditure (Wires Business)	8,669.76	11,008.93	12,896.22	14,492.56	15,893.85
O&M Expenditure (Supply Business)	3,880.09	4,274.19	4,659.80	5,052.32	5,450.71
Total O&M Expenditure	12,549.85	15,283.12	17,556.02	19,544.88	21,344.57

4.15.3 MSEDCL requests the Hon'ble Commission to allow the O&M Expenses as shown in above table.

4.16 OPEX for the Control Period

4.16.1 MSEDCL submits that the Regulation 93.5 and 103.5 of the MYT Regulations 2024 provide that the Licensee may undertake Opex schemes for wires and supply business respectively for system automation, new technology and IT implementation, etc. and such expenses may be allowed over and above normative O&M Expenses. Key Excerpts from the Regulation is provided as below:

“ 103.5...

The Distribution Licensee may undertake Opex schemes for system automation, new technology and IT implementation, etc., and such expenses may be allowed over and above normative O&M Expenses, subject to prudence check by the Commission:

Provided that the Distribution Licensee shall submit detailed justification, cost

benefit analysis, and life-cycle cost analysis of such schemes as against capex

schemes, and savings in O&M expenses, if any.

4.16.2 The said Regulations also provide that the Licensee shall submit the detailed justification, cost benefit analysis of such schemes as against capex schemes, and savings in O&M expenses, if any. MSEDCL submits that the details of Opex Schemes are provided in the Chapters 15 of this petition.

4.16.3 The revenue expenditure against the Opex Schemes is summarised in following table.

Table 145 Opex Schemes for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Wire Business					
Substation Monitoring System (SMS)	35.62	33.26	33.26	33.26	33.26
MSEDCL Cloud Project	10.86	10.86	11.95	11.95	11.95
IT Application Redevelopment	0.44	-	-	-	-
Vehicle Tracking System	-	-	-	-	-
Demand forecasting	1.21	1.21	1.21	1.21	1.21
GIS	3.00	3.00	3.00	3.00	3.00
Network analysis					
SAP s4 HANA	11.79	11.79	11.79	11.79	11.79
SD wan	0.58	0.58	0.58	0.58	0.58
RDSS (Smart Metering)					
SMS services	6.98	6.98	6.98	6.98	6.98
Annual Technical Support of existing SAP/HANA(balance) licenses and Oracle Software Licenses	3.50	3.50	3.50	3.50	3.50
Sub Total	73.96	71.16	72.25	72.25	72.25
Supply Business					
Customer Care Center	25.20	25.20	25.20	25.20	25.20
RF-DCU (Expression of Interest & Tender)					
MSEDCL Cloud Project	10.86	10.86	11.95	11.95	11.95
IT Application Redevelopment	0.44	-	-	-	-
Vehicle Tracking System	-	-	-	-	-
Demand forecasting	1.21	1.21	1.21	1.21	1.21
GIS	3.00	3.00	3.00	3.00	3.00
Network analysis					
SAP s4 HANA	11.79	11.79	11.79	11.79	11.79
SD wan	0.58	0.58	0.58	0.58	0.58
RDSS (Smart Metering)					

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
SMS services	6.98	6.98	6.98	6.98	6.98
Annual Technical Support of existing SAP/HANA(balance) licenses and Oracle Software Licenses	3.50	3.50	3.50	3.50	3.50
Sub Total	63.54	63.10	64.19	64.19	64.19
Total	137.50	134.26	136.43	136.43	136.43

4.16.4 MSEDCL requests the Hon'ble Commission to allow the Opex expenses for the MYT Control Period as shown in the above table.

4.17 Capex and Capitalisation for Control Period

4.17.1 MSEDCL submits that the projected capitalisation of MSEDCL from FY 2025-26 to FY 2029-30 is summarized below. The scheme wise details of capital expenditure and capitalisation for the Control Period is shown in a separate form of the Regulatory Formats.

Table 146 Capital expenditure and capitalization for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Capital Expenditure	23,016.32	17,508.01	9,339.01	9,534.92	3,472.97
Capitalization	23,454.75	18,913.43	10,023.94	9,791.78	4,294.74

4.17.2 MSEDCL requests the Hon'ble Commission to allow the capitalisation as shown in above table.

4.18 Funding Pattern of the Capitalisation for Control Period

4.18.1 As per the Regulation 27.1 of MERC (MYT), 2024, for a capital investment scheme, the debt-equity ratio as on the date of commercial operation shall be 70:30 of the amount of capital cost approved by the Hon'ble Commission. The said Regulation also provides that if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan for the Licensee for determination of Tariff. The relevant extract of the regulations is reproduced below:

“27.1 For a capital investment Scheme declared under commercial operation on or after April 1, 2020, debt-equity ratio as on the date of

commercial operation shall be 70:30 of the amount of capital cost approved by the Commission under Regulation 24, after prudence check for determination of Tariff:

Provided also that if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan for the Generating Company or Licensee or MSLDC for determination of Tariff.”

Provided also that where equity actually deployed is less than 30% of the capital cost of the capitalised asset, the actual equity shall be considered for determination of Tariff.”

4.18.2 The funding pattern of the proposed capitalisation is presented in the following table:

Table 147 Funding Pattern of the Capitalization for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Funding pattern of capital expenditure					
Total Capital Expenditure	23,016.32	17,508.01	9,339.01	9,534.92	3,472.97
Consumer Contribution	250.00	250.00	250.00	250.00	250.00
Grants received during the year	9,627.97	8,046.98	5,491.19	5,687.11	2,101.36
Equity	3,157.58	2,430.62	521.78	521.78	521.61
Debt	9,980.77	6,780.42	3,076.03	3,076.03	600.00
Funding pattern of capitalisation	-	-	-	-	-
Total Capitalisation	23,454.75	18,913.43	10,023.94	9,791.78	4,294.74
Consumer Contribution	254.76	270.07	268.34	256.73	309.15
Grants received during the year	9,811.37	8,692.93	5,893.92	5,840.31	2,598.59
Balance to be funded	13,388.62	9,950.43	3,861.68	3,694.73	1,387.00
Equity amount	3,217.73	2,625.73	560.05	535.84	645.03
Debt amount	10,170.89	7,324.70	3,301.63	3,158.90	741.97
Equity (%)	24%	26%	15%	15%	47%
Debt (%)	76%	74%	85%	85%	53%

4.18.3 MSEDCL requests the Hon'ble Commission to approve the funding pattern as submitted in above table.

4.19 Depreciation for Control Period

4.19.1 MSEDCL submits that Regulation 28 of the MERC (MYT) Regulations, 2024 provides for recovery of Depreciation. As per Regulation 28.1(c) of MYT Regulation 2024, the individual asset is to be depreciated to the extent of 70% on the straight-line basis as per the rates specified in the annexure II to these Regulations and remaining depreciable value as on 31st March of the year closing shall be spread over the balance Useful Life of the asset. The relevant extract is reproduced below:

“28.1 (b) Depreciation shall be computed annually based on the straight-line method at the rates specified in the Annexure I to these Regulations:

Provided that the Generating Company or Licensee or MSLDC shall ensure that once the individual asset is depreciated to the extent of seventy percent, remaining depreciable value as on 31st March of the year closing shall be spread over the balance Useful Life of the asset including the Extended Life, as provided in this Regulation.”

“28.1 (c) Depreciation for the New capital Schemes or New Assets shall be computed annually based on the straight-line method at the rates specified in the Annexure II to these Regulations:

Provided that the Generating Company or Licensee or MSLDC or STU or ESSD shall ensure that once the individual asset is depreciated to the extent of seventy percent, remaining depreciable value as on 31st March of the year closing after the period of fifteen years from the Commercial Operation Date or the date of Assets Capitalised shall be spread over the balance Useful Life of the asset including the Extended Life, as provided in this Regulation.”

4.19.2 MSEDCL submits that depreciation has been calculated taking into consideration the opening balance of assets in the beginning of the year and the projected capitalization. Hon’ble Commission has been applying the weighted average rate of depreciation on opening GFA. Considering the actual weighted average rate of depreciation for FY 2023-24, MSEDCL has computed the depreciation which is shown in the following table:

Table 148 Depreciation for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Opening GFA	70,469.09	83,857.71	93,808.14	97,669.82	1,01,364.55

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Depreciation	3,987.62	3,720.42	3,446.54	3,332.68	3,190.58
% Depreciation	5.66%	4.44%	3.67%	3.41%	3.15%

MSEDCL submits that the Calculation of Asset wise Depreciation is attached as Annexure 4.3 to this petition.

4.19.3 MSEDCL requests the Hon'ble Commission to approve the depreciation as submitted in above table.

4.20 Interest on Long Term Loan for Control Period

4.20.1 MSEDCL submits that the interest expenditure on account of long-term loans depends on the outstanding loan, repayments, and prevailing interest rates on the outstanding loans. Further, the projected capital expenditure and the funding of the same also have a major bearing on the long-term interest expenditure.

4.20.2 Regulation 30.3 of the MYT Regulations 2024 states that

“30.3 The loan repayment during each year of the Control Period from FY 2025-26 to FY 2029-30 shall be deemed to be equal to the depreciation allowed for that year.”

4.20.3 As per clause 30.5 of MYT regulation, 2024, Interest rate shall be the weighted average rate of interest computed on the basis of actual long term loan portfolio at the beginning of the year. Relevant extract of the regulation is reproduced below:

“30.5 The rate of interest shall be the weighted average rate of interest computed on the basis of the actual long-term loan portfolio at the beginning of each year:

Provided that at the time of Truing-up, the weighted average rate of interest computed on the basis of the actual long-term loan portfolio during the concerned year shall be considered as the rate of interest.”

4.20.4 Considering the normative opening loan, normative loan addition during the year and loan repayment equal to depreciation and the weighted average interest rate

of actual loan portfolio for FY 2023-24. MSEDCL has computed the interest expenses on normative basis for the Control Period as summarized in table below:

Table 149 Interest Expenses on Long Term Loan for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Opening Balance of Net Normative Loan	10,156.15	16,339.42	19,943.71	19,798.80	19,625.01
Addition of Normative Loan due to capitalisation during the year	10,170.89	7,324.70	3,301.63	3,158.90	970.90
Repayment of Normative loan during the year	3,987.62	3,720.42	3,446.54	3,332.68	3,190.58
Closing Balance of Net Normative Loan					
Closing Balance of Gross Normative Loan	16,339.42	19,943.71	19,798.80	19,625.01	17,405.34
Average Balance of Net Normative Loan	13,247.79	18,141.56	19,871.25	19,711.91	18,515.17
Weighted average Rate of Interest on actual Loans (%)	9.51%	9.51%	9.51%	9.51%	9.51%
Interest Expenses	1,259.84	1,725.23	1,889.72	1,874.57	1,760.76
Financing Charges					
Total Interest & Financing Charges	1,259.84	1,725.23	1,889.72	1,874.57	1,760.76

4.20.5 MSEDCL requests the Hon'ble Commission to approve the interest expenses as submitted in above table.

4.21 Interest on Working Capital for Control Period

4.21.1 MSEDCL submits that Regulation 32 of the MYT Regulations 2024 provides for Interest on Working Capital. Regulation 32.3 (a) of the said Regulations provides for the norms of computation of Working Capital for Distribution Wires Business. Relevant extract from the regulation is reproduced below:

“32.3 (a)..The working capital requirement of the Distribution Wires Business shall cover:

(i) Normative Operation and maintenance expenses for one month;

(ii) Maintenance spares at one per cent of the opening Gross Fixed Assets for the Year; and

(iii) One and half month equivalent of the expected revenue from charges for use of Distribution Wires at the Tariff approved by the Commission for ensuing year(s);

minus

(iv) Amount held as security deposits in cash from Distribution System Users:

Provided further that for the purpose of Truing-up for any year, the working capital requirement shall be re-computed on the basis of the actual Revenue from sale of electricity excluding incentive, if any, and other components of working capital approved by the Commission in the Truing-up before sharing of gains and losses;”

4.21.2 MSEDCL further submits that Regulation 32.3 (b) of the said Regulations provides that the normative rate of interest on working capital shall be equal to Base Rate as on the date on which the Petition for determination of Tariff is filed, plus 150 basis points. The relevant extract of the said Regulations is reproduced below:

“32.3 (b) Rate of interest on working capital shall be on normative basis and shall be equal to the Base Rate as on the date on which the Petition for determination of Tariff is filed, plus 150 basis points.”

4.21.3 Accordingly, MSEDCL has calculated Interest on Working Capital for the control period @ 10.24% for Wires Business.

4.21.4 MSEDCL further submits that Regulation 30.11 of the MYT Regulations 2024 provides that the interest on security deposit shall be Bank Rate as on 1st April of the Year for which the interest is payable. The relevant extract of the said Regulations is reproduced below:

“30.11 Interest shall be allowed only on the amount held in cash as security deposit from Transmission System Users, Distribution System Users and Retail consumers at the Bank Rate as on 1st April of the Year for which the interest is payable.”

4.21.5 Accordingly, MSEDCL has calculated Interest on Security Deposit for the control period @ 6.75% for Wires Business. MSEDCL has projected the security deposit considering a growth of 5% per annum.

4.21.6 Detailed computation of Interest on Working Capital and Security Deposit for Wire Business is provided in the following table:

Table 150 Interest on Working Capital and SD for Wires Business for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Computation of Working Capital Requirement					
O&M expenses for a month	679.78	827.84	950.95	1,058.68	1,156.16
Maintenance Spares at 1% of Opening GFA	668.64	789.13	878.69	913.44	946.69
One and half months equivalent of the expected revenue from charges for use of Distribution Wires	2,003.27	2,312.19	2,523.14	2,686.40	2,818.09
Less: Amount held as Security Deposit from Distribution System Users	(1,490.48)	(1,639.53)	(1,803.48)	(1,983.83)	(2,182.22)
Total Working Capital Requirement	1,861.20	2,289.63	2,549.29	2,674.69	2,738.73
Computation of Working Capital Interest					
Interest Rate (%) - SBI Base Rate +150 basis points	10.24%	10.24%	10.24%	10.24%	10.24%
Interest on Working Capital	190.62	234.50	261.09	273.93	280.49
Computation of Interest on Security Deposit					
Interest Rate (%) - Bank Rate	6.75%	6.75%	6.75%	6.75%	6.75%
Interest on Security Deposit	100.61	110.67	121.74	133.91	147.30

4.21.7 MSEDCL requests the Hon'ble Commission to allow the Interest on Working capital along with the interest on security deposit for wires business as shown in above table.

4.21.8 MSEDCL submits that Regulation 32 of the MYT Regulations 2024 provides for Interest on Working Capital. Regulation 32.4 (a) of the said Regulations provides for the norms of computation of Working Capital for Retail Supply Business. Relevant extract from the regulation is reproduced below:

“32.4 (a)..

(a) The working capital requirement of the Retail Supply Business shall cover:

(i) Normative Operation and maintenance expenses for one month;

(ii) Maintenance spares at one per cent of the opening Gross Fixed Assets for the Year; and

(iii) One and half months equivalent of the expected revenue from sale of electricity at the Tariff approved by the Commission for ensuing year/s, and including revenue from cross-subsidy surcharge and additional surcharge, if any;

minus

(iv) Amount held as security deposits in cash from retail supply consumers;

(v) One month equivalent of cost of power purchased, including the Transmission Charges, MSLDC Charges and STU Charges, based on the annual power procurement plan:

Provided that in case of power procurement from own Generating Stations of the Retail Supply Business, no amount shall be reduced from working capital requirement towards payables, to the extent of supply of power by the Generation Business to the Retail Supply Business, in the computation of working capital in accordance with these Regulations:

Provided further that for the purpose of Truing-up for any year, the working capital requirement shall be re-computed on the basis of actual Revenue from sale of electricity excluding incentive, if any, and other components of working capital approved by the Commission in the Truing-up before sharing of gains and losses;

MSEDCL further submits that Regulation 32.3 (b) of the said Regulations provides that the normative rate of interest on working capital shall be equal to Base Rate as on the date on which the Petition for determination of Tariff is filed, plus 150 basis points. The relevant extract of the said Regulations is reproduced below:

“32.3 (b) Rate of interest on working capital shall be on normative basis and shall be equal to the Base Rate as on the date on which the Petition for determination of Tariff is filed, plus 150 basis points.”

4.21.9 Accordingly, MSEDCL has calculated Interest on Working Capital for the control period @ 10.24% for Retail Supply Business.

4.21.10 MSEDCL further submits that Regulation 30.11 of the MYT Regulations 2024 provides that the interest on security deposit shall be Bank Rate as on 1st April of the Year for which the interest is payable. The relevant extract of the said Regulations is reproduced below:

“30.11 Interest shall be allowed only on the amount held in cash as security deposit from Transmission System Users, Distribution System Users and Retail consumers at the Bank Rate as on 1st April of the Year for which the interest is payable.”

4.21.11 Accordingly, MSEDCL has calculated Interest on Security Deposit for the control period @ 6.75% for Retail Supply Business. MSEDCL has projected the Security Deposit considering a growth of 5% per annum.

4.21.12 Deposit for Retail Supply Business is provided in the following table:

Table 151 Interest on Working Capital and SD for Supply Business for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Computation of working capital Requirement					
O&M expenses for a month	366.04	445.76	512.05	570.06	622.55
Maintenance Spares at 1% of Opening GFA	74.29	87.68	97.63	101.49	105.19
One and half months equivalent of the expected revenue from sale of electricity including revenue from CSS and Additional Surcharge	16,983.74	18,227.74	19,126.57	20,165.09	21,223.09
Less: Amount held as security deposit	(13,414)	(14,756)	(16,231)	(17,854)	(19,640)
Less: One month equivalent of cost of power purchase, transmission charges and MSLDC Charges	(8,644.56)	(9,585.54)	(10,370.32)	(11,036.45)	(11,599.75)
Total Working Capital Requirement	(4,634.84)	(5,580.14)	(6,865.42)	(8,054.30)	(9,288.87)
Computation of Working Capital Interest					
Interest Rate (%) - SBI Base Rate +150 basis points	10.24%	10.24%	10.24%	10.24%	10.24%
Interest on Working Capital	-	-	-	-	-
Actual Working Capital Interest					
Interest on Security Deposit					
Interest Rate (%) - Bank Rate	6.75%	6.75%	6.75%	6.75%	6.75%

Interest on Security Deposit	905.47	996.02	1,095.62	1,205.18	1,325.70
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4.21.13 MSEDCL requests the Hon'ble Commission to allow the Interest on Working capital along with the interest on security deposit for retail supply business as shown in above table.

4.22 Other Finance Charges for Control Period

4.22.1 MSEDCL submits that Regulation 30.8 of MYT Regulations, 2024 provides that the finance charges shall be allowed at the time of true-up. The relevant extract of the Regulations is reproduced below.

“30.8 The finance charges incurred for obtaining loans from financial institutions for any Year shall be allowed by the Commission at the time of Truing-up, subject to prudence check.”

4.22.2 Therefore, in line with the above regulations, MSEDCL is not projecting any finance charges for the control period and will claim the same during true-up of the respective years.

4.23 Provision for Bad Debts for Control Period

4.23.1 MSEDCL submits that Regulation 94 and 105 of the MYT Regulations, 2024 specifies that a provision for bad and doubtful debt may be allowed up to 1.5% of the amount shown as trade receivables or receivables from sale of electricity in the audited accounts of the distribution licensee duly allocated for wires and supply business. The relevant extract is reproduced below:

“94.1 Provision for Bad and Doubtful Debts

For each year of the control period, the Commission may allow for writing off bad and doubtful debts up to 1.5 % of the amount shown as Trade Receivables or Receivables from Wheeling Charges in the latest audited accounts of the Distribution Licensee in accordance with the procedure laid down by the licensee, subject to prudence check:

....”

“105.1 Provision for Bad and Doubtful Debts

The Commission may allow a provision for bad and doubtful debts up to 1.5 % of the amount shown as Trade Receivables or Receivables from

*Sale of Electricity in the audited accounts of the Distribution Licensee,
subject to prudence check:*

..."

4.23.2 MSEDCL submits that for the projection of the receivables it has adopted the following approach:

- For interest part a y-o-y rise of 2% and 10% is taken for Non-AG and AG respectively, and for the principal part a y-o-y rise of 1% / 2% and 5% is taken for Non-AG and AG respectively.
- MSEDCL has consider collection efficiency at the rate of 98% for Non-AG Consumers and 95% for AG Consumers. As per instructions of GOM, MSEDCL is implementing Mukhyamanti Baliraja Mofat Vij Yojana 2024 and Pradhan Mantri Kisan Urja Suraksha Evam Utthan Mahabhiyan Yojana & Magel Tyala Saur Krishi Pump Yojana. The Schemes are implemented for installation of off-grid Solar Agricultural pumps in Maharashtra. The GOM/ Company expects that the solar pumps will reduce the burden on MSEDCL for power supply to AG consumers resulting in reduction of overall electricity bills as well as arrears. Due to this collection efficiency of AG consumers is considered at 95%.

4.23.3 The projections for the control period is as shown below:

Table 152 AG sales projections for the control period FY 2025-26 to FY 2029-30 (Rs. Cr.)

Sr. No.	Period	Particulars	Principle	Interest	Total
1	Upto 31.03.2026 (Projected)	Non AG	13,435.89	6,106.65	19,542.54
		AG	60,089.86	27,412.60	87,502.46
		Total	73,525.75	33,519.25	1,07,045.00
2	Upto 31.03.2027 (Projected)	Non AG	13,570.24	6,228.78	19,799.03
		AG	63,094.35	30,153.86	93,248.21
		Total	76,664.60	36,382.64	1,13,047.24
3	Upto 31.03.2028 (Projected)	Non AG	13,705.95	6,353.36	20,059.31
		AG	66,249.07	33,169.24	99,418.32
		Total	79,955.02	39,522.60	1,19,477.62
4	Upto 31.03.2029 (Projected)	Non AG	13,843.01	6,480.43	20,323.43
		AG	69,561.53	36,486.17	1,06,047.69
		Total	83,404.53	42,966.59	1,26,371.13

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Sr. No.	Period	Particulars	Principle	Interest	Total
5	Upto 31.03.2030 (Projected)	Non AG	13,981.44	6,610.03	20,591.47
		AG	73,039.60	40,134.78	1,13,174.39
		Total	87,021.04	46,744.82	1,33,765.86

4.23.4 MSEDCL further submits that it will be writing off the provision of the bad debts approved for the year as per the provisions of the MYT Regulations.

4.23.5 MSEDCL has considered the provision for bad and doubtful debts as 1.5% of the projected receivables for the Control Period as given below:

Table 153 Provision for Bad and Doubtful Debt for Wires Business for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Opening Balance of Provision for bad and doubtful debts	278.88	329.16	383.73	443.01	507.46
Receivables for the year	10,704.50	11,304.72	11,947.76	12,637.11	13,376.59
Opening Balance of Provision of bad and doubtful debt as % of Receivables	1.50%	1.50%	1.50%	1.50%	1.50%
Provision for bad & doubtful debts during the year	160.57	169.57	179.22	189.56	200.65
Actual bad and doubtful debts written off	110.29	115.00	119.93	125.11	130.53
Closing Balance of Provision for bad and doubtful debts	329.16	383.73	443.01	507.46	577.58

Table 154 Provision for Bad and Doubtful Debt for Supply Business for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Opening Balance of Provision for bad and doubtful debts	2,509.90	2,962.41	3,453.57	3,987.13	4,567.18
Receivables for the year	96,340.50	1,01,742.52	1,07,529.86	1,13,734.01	1,20,389.27
Opening Balance of Provision of bad and doubtful debt as % of Receivables	1.50%	1.50%	1.50%	1.50%	1.50%
Provision for bad & doubtful debts during the year	1,445.11	1,526.14	1,612.95	1,706.01	1,805.84
Actual bad and doubtful debts written off	992.60	1,034.97	1,079.39	1,125.96	1,174.78
Closing Balance of Provision for bad and doubtful debts	2,962.41	3,453.57	3,987.13	4,567.18	5,198.23

4.23.6 MSEDCL requests the Hon'ble Commission to allow the provision for bad and

doubtful debt as shown in above tables.

4.24 Other Expenses for Control Period

4.24.1 MSEDCL submits that the other expenses of MSEDCL comprise of the expenditure on account of interest to suppliers/contractors, rebate to consumers and other expenses viz. compensation for injuries to staff and outsiders.

4.24.2 Nature of Other expenses is summarised below -

- Interest to Supplies / Contractors: This amount represents the interest expense on security deposits collected from collection agencies.
- Non-Moving items written off: These are items of stores which are lying as non-moving as in inventory in case of emergency maintenance works for distribution system.
- Incentive to distribution franchisee: This is the incentive given to the distribution franchisee for recovery of MSEDCL's arrears from Live & PD Consumers.

4.24.3 The projections for the control period have been made on the basis of an annual 5% increase over the previous year based on the 5% increase considered by the Hon'ble Commission in previous MYT (case no 322/19) & MTR (case no 226/22) Orders.

4.24.4 Other Expenses projected for the Control Period is summarised in the following table.

Table 155 Other Expenses for the Control Period (in Rs Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Other Expenses	304.98	320.23	336.24	353.05	370.70

4.24.5 The Detail break up of other expenses is given in the Form No. 6B of the Regulatory Formats. MSEDCL requests the Hon'ble Commission to allow the other expenses as submitted above.

4.25 Contribution to Contingency Reserves for Control Period

4.25.1 MSEDCL submits that Regulation 35.1 of MYT Regulations, 2024 provides for

contribution to Contingency Reserve. The relevant extract of the Regulations is reproduced below:

“35.1

Where the Licensee has made a contribution to the Contingency Reserve, a sum not less than 0.25 per cent of the original cost of fixed assets shall be allowed annually towards such contribution in the calculation of Aggregate Revenue Requirement:

Provided that where the amount of such Contingency Reserves exceeds five (5) per cent of the original cost of fixed assets, no further contribution shall be allowed: Provided further that such contribution shall be invested in securities authorised under the Indian Trusts Act, 1882 such as Treasury Bills, Sovereign Bonds, Zero Coupon Bonds or similar kind of financial instruments, within a period of six months of the close of the Year:

Provided also that if the Licensee does not invest the amount of contribution to Contingency Reserves in authorised securities within a period of six months of the close of the Year, then the contribution allowed in the calculation of Aggregate Revenue Requirement shall be disallowed at the time of true-up:

Provided also that if the Licensee does not invest the amount of contribution to Contingency Reserves in authorised securities for two consecutive Years, then the contribution to Contingency Reserves shall not be allowed in the calculation of Aggregate Revenue Requirement from the subsequent Year onwards: ”

4.25.2 Accordingly, MSEDCL has considered 0.25% of the Gross Fixed Assets (incl. consumer contribution and grants) and computed contribution to contingency reserve.

4.25.3 The expenses towards contribution to contingency reserve are allocated in ratio of fixed assets between wires and retail supply business. i. e. 90% to Wires Business and 10% to Supply Business.

4.25.4 The contribution to contingency reserve for the Control Period is summarised in following table.

Table 156 Contribution to contingency reserve for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Contribution to Contingency Reserves (Wire Business)	206.93	259.89	302.66	325.45	347.74
Contribution to Contingency Reserves (Supply Business)	22.99	28.88	33.63	36.16	38.64
Total contribution to Contingency Reserves	229.92	288.77	336.29	361.61	386.37

4.25.5 MSEDCL requests the Hon'ble Commission to allow the contribution to the contingency reserves as submitted above.

4.26 Incentives and Discounts for Control Period

4.26.1 MSEDCL submits that the Incentives and discounts are projected for the fifth control period considering a nominal rise of 5% over previous year based on the 5% increase considered by the Hon'ble Commission in previous MYT (case no 322/19) & MTR (case no 226/22) Orders.

4.26.2 The incentives and discounts for the Control Period is summarised in following table.

Table 157 Incentives/Discounts for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Incentives/ Discounts	619.20	650.16	682.67	716.80	752.64

4.26.3 MSEDCL requests the Hon'ble Commission to allow the incentives/discounts as submitted above.

4.27 Income Tax for Control Period

4.27.1 MSEDCL submits that Regulation 34 of the MYT Regulations 2024 provides for the Income Tax.

“34.1. The Income Tax for the Generating Company or Licensee or MSLDC for the regulated business shall be allowed on Return on Equity, including Additional Return on Equity through the Tariff charged to the Beneficiary/ies, subject to the conditions stipulated in Regulations 34.2 to 34.5:.....

34.2 The rate of Return on Equity, including additional rate of Return on Equity as allowed by the Commission under Regulation 29 of these Regulations shall be grossed up with the actual tax paid for the previous year:

34.3 The rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

Rate of pre-tax return on equity = Rate of Return on Equity / (1-t), Where "t" is the actual tax rate including surcharge and cess

34.4 Variation between the Income Tax estimated by the Commission for future year during MYT Order and Mid Term Review Order and the Income Tax approved by the Commission for the respective Year after truing up for respective year, shall be allowed for recovery as part of the Aggregate Revenue Requirement at the time of Mid-term Review or Truing-up, subject to prudence check: "

4.27.2 MSEDCL submits that it has not paid Income Tax in FY 2023-24, it may not pay the Income Tax during the Control Period. Hence, it has not grossed up the return on equity by income tax. However, MSEDCL reserves its rights for claiming the Income Tax on actual basis during the Mid Term Review.

4.28 Return on Equity for Control Period

4.28.1 MSEDCL submits that Regulation 29.2 of MYT Regulations, 2024, provides for Return on Equity (RoE) for Distribution Licensee for both Wire and Supply Business which is reproduced as under:

"29.1 (i) Return on equity for the Generating Company having thermal, gas or hydro plants, Transmission Licensee and Distribution Wire Business, shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put to use, at the rate of 15.50 (base rate – 14 + performance linked -1.50) per cent per annum in Indian Rupee terms."

“29.2 (ii) Return on equity for Retail Supply Business shall be allowed on the amount of equity capital determined in accordance with Regulation 27 for the assets put to use, at the rate of 17.50 (base rate – 15.50 + performance linked -2.00) per cent per annum in Indian Rupee terms.

4.28.2 MSEDCL submits that the return on equity capital is allocated in the ratio of Fixed Assets between the Wires and Retail Supply Business, i.e., 90% to Wires Business and 10% to Supply Business. Therefore, the capital expenditure, grants, equity and capitalisation is divided into wires and supply business in the ratio of 90:10.

4.28.3 MSEDCL submits that in Form 4.4 of the Regulatory Formats, MSEDCL has shown the details of year wise funding for various schemes wherein the debt: equity portion is arranged. However, there can be few capital works which can be funded by consumers through consumer contribution which are reconciled at the time of finalization of accounts. MSEDCL submits that it will be difficult to project and allocate the consumer contribution to any particular scheme. Therefore, MSEDCL has not shown the consumer contribution in Form 4.4. However, for the purpose of computation of RoE, MSEDCL has projected the consumer contribution based on actual contribution, past experience and projected capital expenditure.

4.28.4 The return on equity has been computed as per the methodology specified in the MYT Regulations 2024.

4.28.5 Accordingly, the RoE for wires business for the Control Period is projected as under:

Table 158 ROE for wires business for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Regulatory Equity at the beginning of the year	14,446.34	17,342.29	19,705.45	20,209.49	20,691.74
Capitalisation during the year	12,049.76	8,955.39	3,475.51	3,325.26	1,248.30
Equity portion of capitalisation during the year	2,895.96	2,363.16	504.04	482.25	374.49
Reduction in Equity Capital on account of retirement / replacement of assets					
Regulatory Equity at the end of the year	17,342.29	19,705.45	20,209.49	20,691.74	21,066.23

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Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Return on Equity Computation					
Base Rate of Return on Equity					
Pretax Return on Equity after considering effective Tax rate					
Return on Regulatory Equity at the beginning of the year	2,239.18	2,688.06	3,054.34	3,132.47	3,207.22
Return on Regulatory Equity addition during the year	224.44	183.14	39.06	37.37	29.02
Total Return on Equity	2,463.62	2,871.20	3,093.41	3,169.85	3,236.24

4.28.6 Further the RoE for retail supply business for the Control Period is projected as under:

Table 159 ROE for Retail Supply business for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Regulatory Equity at the beginning of the year	1,625.26	1,947.04	2,209.61	2,265.61	2,319.20
Capitalisation during the year	1,338.86	995.04	386.17	369.47	138.70
Equity portion of capitalisation during the year	321.77	262.57	56.00	53.58	41.61
Reduction in Equity Capital on account of retirement / replacement of assets					
Regulatory Equity at the end of the year	1,947.04	2,209.61	2,265.61	2,319.20	2,360.81
Return on Equity Computation					
Base Rate of Return on Equity					
Pretax Return on Equity after considering effective Tax rate					
Return on Regulatory Equity at the beginning of the year	284.42	340.73	386.68	396.48	405.86
Return on Regulatory Equity addition during the year	28.16	22.98	4.90	4.69	3.64
Total Return on Equity	312.58	363.71	391.58	401.17	409.50

4.28.7 MSEDCL requests the Hon'ble Commission to approve the return on equity for wheeling and supply business as projected in above tables.

4.29 Demand Side Management

- 4.29.1 The Maharashtra Electricity Regulatory Commission (MERC) has introduced regulations known as the “Maharashtra Electricity Regulatory Commission (Demand Flexibility and Demand Side Management – Implementation Framework, Cost-effectiveness Assessment; and Evaluation, Measurement and Verification) Regulations, 2024.” These regulations are designed to apply throughout the State of Maharashtra and affect all existing and future distribution licensees operating within the state.
- 4.29.2 Under these regulations, every distribution licensee is required to integrate Demand Flexibility (DF) and Demand Side Management (DSM) into their daily operations. This involves planning, designing, and executing DF and DSM programs that are measurable, replicable, and beneficial for smooth grid operations.
- 4.29.3 MERC has directed to Distribution licensee to submit its existing level of own energy consumption and provide the trajectory for the reduction of such own energy consumption. MSEDCL is in planning replacement Conventional pumps by BEE-5 star (BLDC) efficient fan to MSEDCL offices. Conventional Fan uses Brushes for Motor Commutation. Due to brushes, wear and tear comes in the motor. Because of mechanical contact in an exceedingly brushed motor the commentators will endure wear and tear. Conventional Fan uses electric motors. No such advantage in conventional Fans. Conventional Fan Motors are less Efficient than BLDC motors.
- 4.29.4 BLDC uses a mix of Permanent Magnets, no brushes are used. No wear and tear as only electronic components are there. Long Life & Long run Use of fan motor, due to no commutation. A synchronous electric motor powered by direct-current (DC) electricity and having an electronic commutation system, rather than a mechanical commutator and brushes.
- 4.29.5 Advantages – (i) Higher efficiency and reliability, reduced noise, longer lifetime (no brush and commutator erosion), elimination of ionizing sparks from the commutator, more power, and overall reduction of electromagnetic interference (EMI). (ii) More efficient at converting electricity into mechanical power than brushed AC or DC motors. This improvement is largely due to the electronic commutation and absence of electrical and friction losses from the brushless design

4.29.6 The estimated project cost and cost benefit is detailed as below:

MSEDCL offices	Nos. of offices	Fans per office	Total Fans	Total Cost
Regional offices	4	25	100	270,000
Zone	16	25	400	1,080,000
Circle offices	44	20	880	2,376,000
Division offices	188	15	2,820	7,614,000
Subdivision offices	668	10	6,680	18,036,000
Section offices	2,984	2	5,968	16,113,600
Total	3,904	97	16,848	45,489,600
Total in Rs Cr				4.54

Assumptions:

Cost for BEE fan 5 star rated pump:

Cost for 28 watt BEE 5 star rated fan: Rs 2700

4.29.7 MSEDCL requests the Hon'ble Commission to consider the total cost/ capex of Rs. 2.92 crores while approving the MYT for FY

Table 160 Cost benefits of Projects

Particular	Unit	Amount
Power Consumption of Conventional Fans (in weighted average)	Watt	75
Daily fan hours per day	Hrs / Day	12
Power consumed per equipment per day	Watt	900
Running days of fan in a year	Days / Year	300
Power consumed per equipment per year	kWhr	270
Power Consumption of BEE star rated fans	Watt	30
Power saving per fan	Watt	108
% of power savings	%	162
Energy savings from efficiency improvement in end use power consumption	kWh / Fan / Day	16,848
Annual energy savings from efficiency improvement (300days/10 months)	kWh / Fan / Year	2.73
Fans offered for exchange under this scheme	Number	9.92
Energy saved under the scheme per annum	Million kWhr	2.7
Average cost of an unit	Rs. / kWh	4.5
Total saving in monetary terms	Rs. Crores	1.7
Project cost	Rs	75
Payback period	Rs. Crores	12

4.29.8 In this way MSEDCL is planning to save in own consumption by replacing conventional fan by Cen BEE 5 star rated fan.

4.29.9 The trajectory for MSEDCL own consumption is as below:

FY	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
MSEDCL own consumption (MUs)	403	383	391	399	408	415
Energy saving in Mus due to BLDC fan DSM program in (MUs)		5.58	5.58	5.58	5.58	5.58
MSEDCL own consumption after saving in (MUs)		377	386	394	402	410

4.29.10 MSEDCL request the Hon'ble Commission to approve all the DSM expense in this petition.

4.30 Revenue from sale of electricity for Control Period

4.30.1 MSEDCL has considered the projected sales, no. of consumers and connected load/contract/Billing demand for the Control Period and tariff prevailing as on date of submission of the Petition.

4.30.2 Year wise Revenue for the Control Period is summarised in the following table.

Table 161 Revenue from Sale of Power at Existing Tariff for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Revenue from Sale of Power at Existing Tariff	1,34,277	1,41,500	1,48,255	1,54,866	1,61,471

4.30.3 MSEDCL requests the Hon'ble Commission to allow the revenue from sale of power at proposed tariff for the Control Period.

4.31 Non-Tariff Income for Control Period

4.31.1 MSEDCL has certain sources of non-tariff income viz. interest on arrears of consumers, interest on staff loans and advances, sale of scrap, interest on investment etc. Annual increase of 5% over previous year is considered for the heads covered under non-tariff income based on the 5% increase considered by the Honb'le Commission in previous MYT (case no 322/19) & MTR (case no 226/22) Orders.

4.31.2 Regulation 37.3 of the MERC MYT Regulations, 2024 provides for non-inclusion of the Delayed Payment Charge and Interest on Delayed Payment in Non-Tariff

Income. The relevant Regulation is reproduced below for reference:

37.3 Such Delayed Payment Charge and Interest on Delayed Payment earned by the Generating Company or the Licensee shall not be considered under its Non-Tariff Income.

4.31.3 Accordingly, MSEDCL has not projected any Delayed Payment Charge and Interest on Delayed Payment in Non-Tariff Income. MSEDCL further has not projected the deferred income since the consumer contribution and grants is being getting subtracted from opening GFA.

4.31.4 Following table shows the projected non-tariff income for the control period FY 2025-26 to 2029-30.

Table 162 Non-Tariff Income for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Rents of land or buildings	1.22	1.28	1.34	1.41	1.48
Other/Miscellaneous receipts	397.71	417.60	438.48	460.40	483.42
Interest on Contingency Reserve Investments	32.03	33.63	35.32	37.08	38.94
Sale of Scrap	27.78	29.17	30.63	32.16	33.77
Sale of Tender forms	16.58	17.41	18.28	19.19	20.15
Revenue from subsidy & grant	81.35	85.42	89.69	94.17	98.88
Total Non-Tariff Income	556.68	584.51	613.73	644.42	676.64

4.31.5 MSEDCL requests the Hon'ble Commission to approve the Non-Tariff Income as per above projections.

4.32 Income from Open Access Charges for Control Period

4.32.1 MSEDCL submits that the income from Open Access Charges (including CSS, Transmission Charges, Operating Charges etc.) which is inclusive of the income from Wheeling charges has been computed as per the provisions of MYT Regulations 2024. The following table summarises the income from Open Access Charges for the Control Period.

Table 163 Income from Open Access Charges for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
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	Projected	Projected	Projected	Projected	Projected
Income from Open Access Charges	325.35	390.18	466.98	510.59	562.65

4.32.2 MSEDCL requests the Hon'ble Commission to approve the income from open access charges as per above projections.

4.33 Income from Additional Surcharge for Control Period

The income from additional surcharge has been computed as per the DOA Regulations. Further, taking into consideration the levy of Green Energy Open Access Regulations, 2023, which exempts Green Energy Open Access consumers paying Demand charges to pay Additional Surcharge, MSEDCL has not envisaged any income from Levy of Additional surcharge from the Green Energy Open Access customers in the Control Period. MSEDCL has envisaged the levy of such Additional surcharge only from the conventional IPP Open Access customers. The summary of projected income from Additional Surcharge for the Control Period is summarised in following table:

Table 164 Income from Additional Surcharge for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Income from Additional Surcharge	0.14	0.14	0.15	0.15	0.16

4.33.1 MSEDCL requests the Hon'ble Commission to approve the income from Additional Surcharge as per above projections.

4.34 Aggregate Revenue Requirement for Control Period

4.34.1 Based on the parameters discussed above, the Aggregate Revenue Requirement for the Control Period for Wire Business is summarised in following Table:

Table 165 ARR for Wires Business for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
Operation & Maintenance Expenses	8,157.40	9,934.03	11,411.41	12,704.17	13,873.97
Depreciation	3,588.86	3,348.37	3,101.89	2,999.42	2,871.52
Interest on Loan Capital	1,133.86	1,552.71	1,700.75	1,687.11	1,584.68
Interest on Working Capital	190.62	234.50	261.09	273.93	280.49
Interest on deposit from Consumers	100.61	110.67	121.74	133.91	147.30

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Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projected	Projected	Projected	Projected	Projected
and Distribution System Users					
Other Finance Charges	-	-	-	-	-
Provision for bad and doubtful debts	110.29	115.00	119.93	125.11	130.53
Opex Schemes	73.96	71.16	72.25	72.25	72.25
Contribution to contingency reserves	206.93	259.89	302.66	325.45	347.74
Income Tax					
Return on Equity Capital	2,463.62	2,871.20	3,093.41	3,169.85	3,236.24
Aggregate Revenue Requirement	16,026.14	18,497.53	20,185.12	21,491.18	22,544.72

4.34.2 The Aggregate Revenue Requirement for the Control Period for Supply Business is summarised in the following table:

Table 166 ARR for Supply Business for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projections	Projections	Projections	Projections	Projections
Power Purchase Expenses (including Inter-State Transmission Charges)	93,956.50	1,04,870.68	1,12,577.95	1,19,148.55	1,24,789.52
Operation & Maintenance Expenses	4,392.45	5,349.09	6,144.61	6,840.71	7,470.60
Depreciation	398.76	372.04	344.65	333.27	319.06
Interest on Loan Capital	125.98	172.52	188.97	187.46	176.08
Interest on Working Capital	-	-	-	-	-
Interest on Consumer Security Deposit	905.47	996.02	1,095.62	1,205.18	1,325.70
Other Finance Charges	-	-	-	-	-
Provision for bad and doubtful debts	992.60	1,034.97	1,079.39	1,125.96	1,174.78
Other Expenses	304.98	320.23	336.24	353.05	370.70
Income Tax	-	-	-	-	-
Intra-State Transmission Charges	9,778.24	10,155.85	11,865.84	13,288.80	14,407.50
Incentives/Discounts	619.20	650.16	682.67	716.80	752.64
Contribution to contingency reserves	22.99	28.88	33.63	36.16	38.64
DSM Expenses	4.54	-	-	-	-
Return on Equity Capital	312.58	363.71	391.58	401.17	409.50
RLC refund	16.68	16.68	16.68	16.68	16.68
Additional Surcharge Refund	168.13	168.13	145.24	-	-
Effect of sharing of gains/losses	-	-	-	-	-
Past Period Surplus	-	-	-	-	-

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Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projections	Projections	Projections	Projections	Projections
Revenue Gap Recovery Allowed	-	-	-	-	-
Impact of payment to MPECS in future years	-	-	-	-	-
Opex Scheme	63.54	63.10	64.19	64.19	64.19
Incremental Consumption Rebate	1,136.02	1,192.82	1,252.46	1,315.08	1,380.83
STU Charges	7.42	7.82	7.93	8.11	8.12
Aggregate Revenue Requirement	1,13,201.52	1,25,762.69	1,36,227.64	1,45,041.16	1,52,704.54

**Additional surcharge and RLC refund has been projected keeping the reference of FY 24-25.*

4.34.3 Based on the Wire and Supply Business ARR discussed above, the stand alone Revenue gap (combined for wires and supply) for Control Period is summarised in following Table: -

Table 167 Combined ARR for Supply and Wires Business for the Control Period (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projections	Projections	Projections	Projections	Projections
Power Purchase Expenses	93,956.50	1,04,870.68	1,12,577.95	1,19,148.55	1,24,789.52
Operation & Maintenance Expenses	12,549.85	15,283.12	17,556.02	19,544.88	21,344.57
Depreciation Expenses	3,987.62	3,720.42	3,446.54	3,332.68	3,190.58
Interest on Loan Capital	1,259.84	1,725.23	1,889.72	1,874.57	1,760.76
Interest on Working Capital	190.62	234.50	261.09	273.93	280.49
Interest on Consumers Security Deposit	1,006.08	1,106.68	1,217.35	1,339.09	1,473.00
Other Finance Charges	-	-	-	-	-
Provision for bad and doubtful debts	1,102.89	1,149.97	1,199.33	1,251.07	1,305.32
Other Expenses	304.98	320.23	336.24	353.05	370.70
Income Tax	-	-	-	-	-
Intra-State Transmission Charges MSLDC charge	9,778.24	10,155.85	11,865.84	13,288.80	14,407.50
Incentives/Discounts	619.20	650.16	682.67	716.80	752.64
Contribution to Contingency Reserves	229.92	288.77	336.29	361.61	386.37
Opex Scheme	137.50	134.26	136.43	136.43	136.43
DSM Expense	4.54				
Return on Equity Capital	2,776.20	3,234.91	3,484.99	3,571.02	3,645.74
RLC refund	16.68	16.68	16.68	16.68	16.68

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Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Projections	Projections	Projections	Projections	Projections
Additional Surcharge Refund	168.13	168.13	145.24	-	-
Effect of sharing of gains/losses	-	-	-	-	-
Past Period Adjustment by Commission					
Revenue Gap Recovery Allowed					
Add: Impact of payment to MPECS in future years					
Incremental and Bulk Consumption Rebate	1,136.02	1,192.82	1,252.46	1,315.08	1,380.83
STU Charges	7.42	7.82	7.93	8.11	8.12
Aggregate Revenue Requirement	1,29,227.66	1,44,260.22	1,56,412.76	1,66,532.34	1,75,249.26
Revenue from Sale of Power	1,34,276.89	1,41,500.33	1,48,254.95	1,54,866.37	1,61,471.21
Non-Tariff Income	556.68	584.51	613.73	644.42	676.64
Income from Open Access Charges	325.35	390.18	466.98	510.59	562.65
Income from Trading of Surplus Power	710.84	3,346.77	3,676.76	5,299.16	7,074.04
Income from Wheeling Charges					
Income from Additional Surcharge	0.14	0.14	0.15	0.15	0.16
Total Revenue	1,35,869.89	1,45,821.93	1,53,012.58	1,61,320.69	1,69,784.70
Revenue Gap/(Surplus)	(6,642.23)	(1,561.71)	3,400.18	5,211.66	5,464.56

4.34.4 MSEDCL envisages to be energy surplus in each year of the Control Period due to constraints in operating the generating plants below the Technical minimum level. MSEDCL intends to sell the surplus energy over Energy Exchanges. MSEDCL envisages to sell 40% of the surplus energy over exchange in the initial three years of the Control Period (FY 2025-26 to FY 2027-28) and progressively increase it to 60% in FY 2028-29 to 100% in FY 2029-30.

4.34.5 MSEDCL requests the Hon'ble Commission to allow the expenditure and revenue gap as shown in the above table.

5 ADDITIONAL CLAIMS AND NET RECOVERY FROM TARIFF

5.1 Impact of Review Order

5.1.1 It is submitted that MSEDCL had filed a Review Petition seeking review of MTR Order (226 of 2022) dated 31st March 2023.

5.1.2 The Hon'ble Commission in its order 102 of 2023 dated 31.12.2024 had allowed a financial impact of Rs. 398.15 crores to be claimed in the MYT filing for the 5th Control Period with the applicable carrying cost. Details of the issues allowed in the Review Order (102 of 2023) is provided in the table below.

5.1.3 Further, Hon'ble Commission has approved INR 36.38 Crores as "Other Scheme expenses" as part of A&G expenses.

Table 168 Financial impact of Review Order (102 of 2023)

Sr. No.	Particulars	Amount
		(Rs. Crores)
1	Impact on account of Revised quantum of MSPGCL stations as per Hon'ble MERC MTR Order for MSPGCL and Power Purchase cost of Bhusawal 4 & 5 and Khaparkheda 1 to 4 Stations of MSPGCL for FY 2022-23	0
2	Review on account of additional InSTS charges to be allowed for FY 21-22 as per Hon'ble MERC MTR Order for STU	0
3	Review of Additional cost to be allowed in InSTS (True-up) (FY 19-20 & FY 20-21)	23.97
4	Review of normative O&M and actual O&M expenses for FY 2019-20 to FY 2024-25	122.86
5	Non-consideration of finance expense in Other expenses for FY 2020-21 and FY 2021-22	8.43
6	Error in consideration of the trade receivables as per audited accounts for calculating provision for Bad Debt for FY 2019-20	0
7	Difference in computation of Debt: Equity ratio and its impact on Computation of Interest Expenses for FY 2021-22 and onwards	4.29
8	Withholding of claim of additional Return in Equity for Wires Business for FY 20-21 and FY 21-22	0
9	Disallowance of consumer contribution and grants in opening GFA for working out maintenance spares under working capital provisions for FY 2020-21 to FY 2024-25	0
10	Error in consideration of Interest on Security Deposit as per audited accounts for FY 2020-21	0.44
11	Non-Consideration of additional consumer security deposit for FY 2022-23 to FY 2024-25	0
12	Interest on Working Capital for FY 2019-20 to FY 2021-22	0
13	Depreciation for FY 2019-20 and FY 2022-23 to FY 2024-25	238.16
	Total approved impact in the review order	398.15
	Other Scheme expense (to be approved as part of Review Order*)	36.38
	Total	434.53

5.1.4 MSEDCL has currently considered the impact of Rs. 398.14 cr (as approved by the Hon'ble Commission in the Review Order) for the purpose of revenue gap computation in the subsequent paragraphs. MSEDCL humbly requests the Hon'ble Commission to consider the additional claim of Rs. 36.38 Crores (which though in principle approved by the Hon'ble Commission, was not considered in the total gap computation) while allowing the overall impact in its MYT Order.

5.2 Carrying Cost in previous Gap and other Claims

5.2.1 Hon'ble Commission has been allowing carrying cost/ holding cost on the revenue gap/ surplus respectively. MSEDCL request the Hon'ble Commission to allow the carrying cost on the previous gaps.

5.2.2 The revenue gap is determined at the end of the financial year in which the expenditure is incurred. However, the under or over recovery is the resultant of the cost and revenue spread throughout the year. Similarly, the revenue gap of the past year is recovered throughout the year in which its recovery is allowed. Therefore, the carrying cost on revenue gap as a result of true up for a financial year should be calculated from the mid of that year in which such revenue gap is allowed to be recovered.

5.2.3 Hon'ble Commission has already followed the similar principle in its prior Orders. MSEDCL requests the Hon'ble Commission to allow the carrying cost on same principle to avoid any legitimate revenue loss.

5.2.4 MSEDCL submits that details of carrying cost on the revenue gap of FY 2022-23 to FY 2024-25 along with the additional claims is given in following table. The Interest Rate is taken as per the rate on Interest on Working Capital for the respective year.

Table 169 Calculation of carrying cost on previous claims (in Rs. Crores)

Particulars	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	Total
Impact of Review Order	369.17	20.32	8.65	-	-	-		398.15
Revenue Gap				23,269.43	8,863.26			32,132.69
Total	369.17	20.32	8.65	23,269.43	8,863.26	-	-	32,530.83
Interest Rate	9.66%	8.57%	8.50%	9.29%	10.06%	10.24%	10.24%	

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Particulars	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	Total
From	01-10-2019	01-10-2020	01-10-2021	01-10-2022	01-10-2023	01-10-2024		
To	31-03-2025	31-03-2025	31-03-2025	31-03-2025	31-03-2025	31-03-2025		
FY 19-20	17.83							
FY 20-21	31.65	0.87						
FY 21-22	31.38	1.73	0.37					
FY 22-23	34.31	1.89	0.80	1,081.41				
FY 23-24	37.16	2.05	0.87	2,342.01	446.03			
FY 24-25	37.81	2.08	0.89	2,383.18	907.75			
FY 25-26	18.90	1.04	0.44	1,191.59	453.87			
Total	209.04	9.65	3.37	6,998.18	1,807.65	-		9,027.89

5.3 Carrying Cost on unrecovered revenue gap during

5.3.1 MSEDCL submits that it has computed the carrying cost on the unrecovered revenue gap as shown in following table.

Table 170 Carrying Cost on Unrecovered Revenue Gap (in Rs. Crores)

Revenue Recovery	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
Total Revenue Gap for previous years	32,531	10,490	(6,259)	(14,460)	(9,248)	
Revenue Gap for current year	(6,642)	(1,562)	3,400	5,212	5,465	5,872
Total Revenue Gap upto current year	25,889	8,929	(2,859)	(9,248)	(3,784)	
Recovery from Addl CSS						
Recovery from Addl AS	0	0	0	0	0	
Net Revenue Gap upto current year	25,889	8,929	(2,858)	(9,248)	(3,783)	
Less: Recovery from Tariff hike	15,398	15,187	11,602	-	-	42,187
Revenue gap to be carried forward	10,490	(6,259)	(14,460)	(9,248)	(3,783)	
Interest Rate	10.24%	10.24%	10.24%	10.24%	10.24%	
Carrying Cost on unrecovered Gap	1,666	1,074	(641)	(1,481)	(947)	(329)
Carrying Cost on previous claims till FY 24-25	9,028					
Total Carrying Cost	10,694	1,074	-641	-1,481	-947	8,699

5.4 Net Recovery from Tariff

5.4.1 Considering the above, MSEDCL has computed the net recovery from tariff as shown in following table.

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Table 171 Net recovery from tariff (in Rs. Crores)

Particulars	Amount Rs. Cr
Final True Up Requirement for FY22-23	23,269
Final True Up Requirement for FY 23-24	8,863
Provisional True Up Requirement for FY 24-25	958
Projected Revenue Gap for FY 25-26	(6,642)
Projected Revenue Gap for FY 26-27	(1,562)
Projected Revenue Gap for FY 27-28	3,400
Projected Revenue Gap for FY 28-29	5,212
Projected Revenue Gap for FY 29-30	5,465
Impact of Review Order on MTR Order	398
Total Revenue Gap for the MYT Period	39,361
Carrying Cost for previous gaps/impact and unrecovered gaps during Control Period	8,699
Net recovery from Tariff	48,060
MYT Period Gap	5,872
Revenue gap excluding MYT period	42,187

5.4.2 MSEDCL requests the Hon'ble Commission to approve the net recovery from tariff as computed above.

6 TARIFF DESIGN & METHODOLOGY

6.1 Background

6.1.1 Hon'ble Commission is required to determine tariff to be charged by distribution licensee for wheeling and retail tariff of electricity as per clause (c) and (d) of Clause 62 (1) of Electricity Act, 2003. Further, in accordance with Clause 61 of the said Act, Hon'ble Commission is guided by following principles and policies while determining the tariff:

- Factors encouraging competition, efficiency, economical use of the resources, good performance and optimum investments;
- Safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;
- Multi year tariff principles;
- Tariff progressively reflects the cost of supply of electricity and also, reduces cross-subsidies

6.1.2 Electricity sector is critical input for development of the state as well as important factor for improving living conditions of general public. In Maharashtra, electricity sector is having one of the highest financial allocation from the state government pertaining to subsidy as well as capital expenditure. MSEDCL accordingly requests Hon'ble Commission to consider these factors before determining retail tariff for MSEDCL which is the largest state-owned distribution utility in India.

6.2 Recovery of Revenue Gap

6.2.1 MSEDCL submits that it has calculated revenue gap accrued during past years, as well as expected to be incurred during next Control Period from FY 2025-26 to FY 2029-30 in above chapters. It requests Hon'ble Commission to allow for full cost recovery by way of revised retail tariff as prescribed in Regulation 111.3 of MERC MYT Regulations, 2024 which is reproduced below:

“111.3 The retail supply tariff for different consumer categories shall be determined on the basis of the Average Cost of Supply, computed as the ratio of the Aggregate Revenue Requirement of the Distribution Licensee for the Year determined in accordance with Regulation 100, and including unrecovered revenue gaps of previous years to the extent proposed to be recovered, to the total sales of the Distribution Licensee for the respective Year.:

6.2.2 MSEDCL humbly submits that for many of the past years, Hon'ble Commission had disapproved justified revenue gap (along with carrying cost) as calculated by MSEDCL due to various reasons. This has resulted into non-recovery of justified expenditure incurred by MSEDCL for those years. The same can be observed as difference of revenue gap as submitted by MSEDCL and as approved by Hon'ble Commission in the table below:

Table 172 Difference in Revenue Gap between MSEDCL submission and MERC approval

Financial Year	Calculated Revenue Gap (Rs. Crore)	Approved Revenue Gap (Rs. Crore)	Disapproval (Rs. Crore)
MTR Case no. 195 of 2017	34,646	20,651	13,995
MYT Order Case no. 322 of 2019	60,313	(22,242)	82,555
MTR Case no. 226 of 2022	67,643	39,567	28,076

6.2.3 It can be seen from above table that revenue gap disapproved by Hon'ble Commission for successive petitions is increasing at a fast pace in subsequent MYT/MTR Orders. Resultantly, MSEDCL is not able to make-up for cash deficit suffered in past years. This compels MSEDCL to take working capital loans from banks/FIs and commit evergreening of losses. This is not a sustainable practice for business and at some point MSEDCL would need to have some cash neutral/surplus to be able to function as going concern without Government support.

6.2.4 MSEDCL would further like to submit that revenue from sales as projected for future years by Hon'ble Commission in Tariff Orders is often on higher side than actuals. This leads to MSEDCL having less revenue as compared to its expenditure for those years even after accounting for FAC. This leads to cash deficit from operating activities and MSEDCL has to depend on working capital loans from bank to finance its losses. At time of true-up the resultant deficit along with carrying cost also gets added to projected revenue gap of future years thereby inflating requirement of tariff increase.

6.2.5 Accordingly, MSEDCL requests Hon'ble Commission to approve revenue gap with carrying costs for True-up years and also estimate revenue from sale of power cautiously in present MYT order for fifth Control Period so that MSEDCL should not suffer from incremental cash deficit and also it doesn't lead to accumulation of revenue gap during next MTR order.

6.2.6 MSEDCL would also like to draw attention of Hon'ble Commission to Clause

8.2.2 of National Tariff Policy which has discouraged practice of suspending tariff increase by creation of regulatory assets. Regulatory assets strain the liquidity profile of distribution licensee and even consumers have to pay for the unrecovered gap at a later date along with carrying cost.

6.2.7 MSEDCL also humbly request the Hon'ble Commission to evolve a methodology for fifth Control Period to ensure financial viability of the Licensee, avoid financial losses and at the same time protect the consumer interests. MSEDCL in instant tariff proposal has also submitted a few proposals in line with MYT Regulations, 2024 which it believes are in line with provisions of Electricity Act 2003, National Tariff Policy and MERC MYT Regulations, for approval of Hon'ble Commission.

6.3 Rationalization of Fixed Cost

6.3.1 Since start of regulatory regime in Maharashtra, Hon'ble Commission's has principally agreed that fixed cost of distribution licensees should be recovered through a Fixed/Demand charges applicable to the consumers (to the extent possible). Hon'ble Commission in its first Tariff Order dated 5th May, 2000 while determining the fixed charge component of the tariff ruled that the recovery of fixed costs should come from fixed charges and also observed that the fixed charge component of tariff needs to be gradually increased in due course to cover the actual fixed cost incurred.

6.3.2 Hon'ble Commission in its MYT Order dated 30th March 2020 accepted request of MSEDCL to increase the fixed charges to be recovered from consumers. However, even after the said increase as against the ratio of fixed cost to total ARR of 55%, the revenue recovery through Fixed/Demand charges was less than 15%. In initial years of 4th Control Period, due to COVID-19 induced lockdown the sales quantum to consumers reduced very steeply which led to under recovery of allowed ARR of MSEDCL as more than 85% of the total revenue was to be recovered through variable charges. This under-recovery has led to inadequacy of funds for MSEDCL as it couldn't recover its fixed cost due to fall in sales and consequently it led to increased revenue gap.

6.3.3 MSEDCL submits that out of the total ARR, major expenses are fixed in nature and need to be incurred irrespective of any amount of power sales done by the distribution licensee. Example of such expense items include, fixed charges paid to power generators, transmission cost, depreciation, employee cost, A&G

expenses, etc. Ideally these fixed expenses should be recovered by a combination of Fixed & Demand Charges. The below table provides detail of fixed cost of MSEDCL as percentage of total ARR:

Table 173 Fixed Expense (Rs. Crore) of MSEDCL as percentage of ARR

Year	FY 20-21	FY 21-22	FY 22-23	FY 23-24
Fixed Cost	39,663.07	42,599.05	55,335.27	63,704.01
ARR	76,046.12	91,985.70	1,11,402	1,23,702
Fixed Expenses as a % of ARR	52%	46%	50%	51%

6.3.4 MSEDCL hereby provides percentage of revenue recovered by it through fixed charges from FY 2020-21 onwards since when Hon'ble Commission has agreed for increase in fixed/demand charges:

Table 174 Historic recovery of revenue (Rs. Crore) from fixed/demand charges for MSEDCL

Year	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25 (till Sep'24)
Revenue from Fixed/Demand Charges	7,967.18	10,738.27	12,104.14	14,254.21	7,962.45
Total Revenue from Sale of Power	73,309.04	85,903.28	93,721.00	1,14,013.01	61,428.69
%age of revenue from Fixed/ Demand Charges	10.9%	12.5%	12.9%	12.5%	13.0%

6.3.5 From Table 173 and Table 174 above it can be inferred that MSEDCL only recovers a part of its fixed cost through demand/fixed charges. The below table provides the ratio of fixed cost recovered through fixed/demand charges in past few years:

Table 175 Historic recovery of fixed expense (Rs Crore) from fixed/demand charges for MSEDCL

Year	FY 20-21	FY 21-22	FY 22-23	FY 23-24
Revenue from Fixed/ Demand Charges (Rs Crore)	7,967.18	10,738.27	12,104.14	14,254.21
Fixed Expense	39,663.07	42,599.05	59,100.39	73,142.34
%age Fixed Expense from Fixed/ Demand Charges	20%	25%	20%	19%

6.3.6 It can be seen from above table that MSEDCL has to rely on energy sales to recover 75% to 80% of its fixed expense. Hence any fall in energy sales leads to under recovery of fixed expense. The same has also been noted by Hon'ble Commission and the principle of recovery of fixed cost through demand/fixed charges has now been codified in Regulation 112.1 of MERC MYT Regulations 2024 as reproduced here-under:

“The Commission shall determine the consumer category wise Demand/Fixed Charges for the respective Distribution Retail Supply Licensee based on the Contracted Capacity (in kVA or kW) and number of Connections for the respective financial year of the Control Period:

Provided that such Demand/Fixed Charges shall be gradually increased year-on year basis to recover Fixed Cost of the Licensee from such Demand/Fixed Charges.”

6.3.7 MSEDCL would like to submit that it has also studied revenue structure of Discoms in other states by going through Petition or Orders. MSEDCL found out that in Delhi, Tata power Delhi Distribution Limited has earned 16.80% of its revenue from fixed charges in FY 2021-22. Similarly in Karnataka, and Bangalore Electricity Supply Company is projecting to earn 23.04% of its revenue from fixed charges in FY 2024-25 which is around 10% higher than MSEDCL share from fixed charges. This shows that the percentage of revenue in Maharashtra from fixed charges is much lower than other progressive states.

6.3.8 In view of the submissions in forgoing paragraphs, MSEDCL has proposed increasing the Fixed/Demand Charges for various categories of consumers every year as a step towards gradual balancing the fixed charges recovery with fixed charges obligation. Accordingly, as per tariff proposed for FY 2025-26 the recovery from demand/fixed charges would be 16.4% of the revenue and the same would reach 20% of revenue in FY 2029-30. The below table provides projected fixed cost as percentage of total ARR of MSEDCL and project recovery of revenue from fixed/demand charges.

Table 176 Projected revenue from fixed/demand charges vs Fixed Cost of MSEDCL

Year	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
%age of revenue from Fixed/ Demand Charges	16.0%	16.1%	16.4%	16.5%	16.7%
Fixed Expense as ratio of ARR	47%	46%	46%	47%	49%

6.4 Time of Day Tariff

6.4.1 MSEDCL in its Petition for final True Up for FY 2017-18 & FY 2018-19, provisional True Up for FY 2019-20 and MYT for FY 2020-21 to FY 2024-25 in case no. 322 of 2019 had submitted that as per existing Time of Day (ToD) tariff structure, rebate or penalty is same in all months irrespective of load pattern, surplus & shortfall in availability. Further, MSEDCL submitted that there is no

consideration of impact of RE generation which will be one of important change in generation mix and as per the RPO Targets set for Utilities by Hon'ble Commission, tremendous rise in RE generation is expected. MSEDCL also informed Hon'ble Commission that major rise would be in solar generation which has typical shape of inverted hyperbola and there would be no or very less generation during specific time period of a day; particularly during 06:00 to 09:00 and during 17:00 to 19:00 Hrs. Considering the demand pattern and expected Solar Generation, MSEDCL has proposed revision in ToD tariff /rates with further revisions to be proposed in ToD slabs and tariffs during MTR petition based on the existing and upcoming renewable capacity additions and the demand-supply scenario.

- 6.4.2 However, Hon'ble Commission in its Order dated 31st March 2020 on the said Petition didn't approve any deviation in the ToD slabs and tariff and observed the following:

"8.25.7 In the past the Commission has followed centralized MoD approach and standardized ToD timeslots and rates. The Commission upon analysing the same observed that, the existing ToD structure matches with the rates prevalent in the Power Exchange, i.e., ToD rate is high when Power Exchange power is costly and ToD rate is low when Power Exchange power is cheaper. From 1 April 2020, the State is shifting to decentralized MoD under the DSM framework, and each DISCOM must plan its power procurement as per its load curve. Hence, the ToD structure can be different for each DISCOM. If proposed changes in ToD rates are accepted, it will result into consumer shift from DISCOM to RE plants. Penalising consumers in such a manner will result into loss of consumers for DISCOMs.

8.25.8 In addition, RPO Regulations for the next Control Period envisages substantial increase in Solar power, which will be helping the load curve as it shall be contributing to meet the daytime peak load requirement. Such RE projects would be commissioned in the next couple of years. Hence, at the time of MTR, it would be appropriate to revisit and revise, if necessary, the ToD timeslots and rates as per DISCOM's power procurement planning. The Commission may also consider having seasonal ToD rate in order to assist the DISCOMs to absorb seasonal variation in RE generation which as per RPO Regulations, 2019 would be 25% in FY 2024-25

8.25.9 Thus, in view of above, the Commission has decided to continue with the existing structure of ToD slots and applicable charges and directs MSEDCL to submit a detailed proposal at the time of MTR.”

6.4.3 Subsequently, Central Government has also notified the Electricity (Rights of Consumers) Amendment Rules, 2023 on 14th June 2023. As per section 8 (A) of the rules the central government has laid down following rules to be followed by State Commissions regarding Time-of-Day Tariff

“(8A) Time of Day Tariff.-The Time of Day tariff for Commercial and Industrial consumers having maximum demand more than ten Kilowatt shall be made effective from a date not later than 1st April, 2024 and for other consumers except agricultural consumers, the Time of Day tariff shall be made effective not later than 1st April, 2025 and a Time of Day tariff shall be made effective immediately after installation of smart meters, for the consumers with smart meters:

Provided that, the Time of Day Tariff specified by the State Commission for Commercial and Industrial consumers during peak period of the day shall not be less than 1.20 times the normal tariff and for other consumers, it shall not be less than 1.10 times the normal tariff:

Provided further that, tariff for solar hours of the day, specified by the State Commission shall be atleast twenty percent less than the normal tariff for that category of consumers:

Provided also that the Time of Day Tariff shall be applicable on energy charge component of the normal tariff:

Provided also that the duration of peak hours shall not be more than solar hours as notified by the State Commission or State Load Despatch Centre.

Explanation:- For the purposes of this rule, the expression “solar hours” means the duration of eight hours in a day as specified by the State Commission.”

6.4.4 MSEDCL would like to submit that at present Hon'ble Commission hasn't notified solar hours officially. Therefore, MSEDCL would like to propose time slot of 09:00 to 17:00 hours as solar hours. The same is based on study of solar generation profile all across the year.

- 6.4.5 MSEDCL would like to submit that Hon'ble Commission in its MYT Order dated 30th March 2020 in case no. 322 of 2019 had retained existing ToD structure where for part of solar hours (i.e. from 09:00 a.m-12:00 p.m.) tariff is higher than the normal time. However, now with notification of Electricity (Rights of Consumers) Amendment Rules, 2023 and major increase in renewable portfolio, MSEDCL again requests Hon'ble Commission to effect required changes in ToD slots and charges incorporating role played by increasing solar quantum.
- 6.4.6 MSEDCL would like to state the basic philosophy behind application of ToD Rebates/Charges which it has used to draft its proposal. Further, it is describing developments in power sector which would lead to restructuring of current ToD slabs and charges/rebates.
- 6.4.7 ToD Rebates and Charges act as a signal to consumer to shift its demand from time when there is lower supply vis-à-vis demand or incremental supply comes from a source with costly variable cost to a time when there is surplus supply vis-à-vis demand or incremental supply comes from source with cheaper incremental variable cost. It is assumed that ToD charges encourages consumers to consume less during such a period and shift its load to a time period when there is applicability of ToD rebate. The amount of demand shift depends upon flexible nature of demand, fungibility and convenience level of consumer.
- 6.4.8 MSEDCL has projected to add abundant solar capacity (more than 20 GW) in its power portfolio within span of next few years both as a step towards India's climate goal as well as in view of their cheaper costs. Solar plant is a 'Must-Run' Source hence it would generate at maximum capacity during daytime which has to be absorbed by MSEDCL. However, during the morning and evening peak solar generation would be low and for partial time and further it would drop to zero during night-time. In order to utilize excess solar power during daytime, MSEDCL has procured storage solutions like Battery Energy Storage System (BESS) and Pumped storage hydro (PSP). The excess energy generated from solar power plants during daytime would be stored in such storage solutions and would be discharged during other time slots. However, due to cost and technical constraints it would not be possible for MSEDCL to store sufficient power in BESS/PSP to meet entire power demand during non-solar hours. Therefore, MSEDCL has to depend mainly on thermal sources for meeting its demand during non-solar hours. As per results obtained from Resource Adequacy study the percentage of generation contributed from thermal sources during various

time slots are provided in table below:

Table 177 Contribution of thermal sources in different time slabs for fifth Control Period

Time Slot/Year	10 pm to 6 am	6 am -9 am	9 am-5 pm	5 pm-10 pm
FY 25-26	84%	74%	49%	82%
FY 26-27	79%	61%	33%	74%
FY 27-28	77%	59%	31%	72%
FY 28-29	76%	57%	29%	68%
FY 29-30	76%	57%	28%	65%

6.4.9 Further, as thermal power plants can't be fully backed down on daily basis because of high cost levied for each start-stop operation (as per CERC IEGC Regulations), hence, to make sure the thermal power plants are available during non-solar hours, MSEDCL has also to schedule thermal power plants during solar hours as well. Due to already high solar generation during solar hours, these thermal plants would only be scheduled at technical minimum (i.e. the minimum capacity at which a thermal power can operate ~55%). As can be seen from above table that in the ultimate year, contribution from thermal plant would drop to 28% during solar hours and the operational thermal power plants would be generating at technical minimum. Therefore, the schedule of power plants during solar hours would be governed by their technical minimum rather than Merit Order Dispatch.

6.4.10 Further during months with high demand (March to June and October) most of the thermal power plants would be operational, however during months with low demand level (July to August and December to January) only thermal power plants with lower variable cost would be operated and power plants with higher variable cost would remain fully backed down. It is however clarified that hourly generation pattern of generating plant would follow similar trend whenever they are operational i.e. generating at technical minimum during solar hours and near their maximum capacity during non-solar hours.

6.4.11 From above paragraph it can be concluded that it would be beneficial for MSEDCL to reduce its demand during non-solar hours as it would have following impact on MSEDCL power procurement outcomes:

- Reduction in requirement of energy storage or firm sources to meet demand during non-solar hours

- Reduction in power scheduling from costly thermal power plants which are generating near their maximum capacity

6.4.12 ToD tariff is a operational intervention and hence it would not be suitable to assume that it would impact requirement of energy storage and firm sources on medium/long-term basis. It is submitted that power sources such as RE, nuclear, Fixed and Dispatchable Renewable Energy (FDRE) must run and hence they have to be scheduled as per their availability, hence the implication of demand shift due to TOD tariff would be primarily result in change in thermal power plant generation schedule. Therefore, in order to formulate ToD tariff, MSEDCL has assessed impact of demand shifting on power scheduled from thermal power plants and cost implication of same.

6.4.13 It is submitted that during non-solar hours (morning peak, evening peak and night) when operational thermal plants would be generating close to their peak capacity, any reduction in demand (due to ToD charges) would result in less schedule from thermal plants which are lower in Merit Order dispatch or in other words have higher variable cost. However, thermal power plants can't be completely switched-off as a result of temporary demand reduction as it would be very costly to re-start thermal plant, and they are to be compensated for secondary oil consumption by beneficiary/ies whose action led to closing down of the generation. Hence reduction in demand (due to TOD charges) would result in MSEDCL reducing power schedule from costliest thermal power plant to the lowest limit it can generate without violating its technical minimum. In case ToD charges lead to decrease in demand which is more than possible reduction in generation from one power plant, MSEDCL would have to reduce schedule from other thermal plant which are next higher in Merit order and so on. Therefore, reduction in demand during non-solar hours would lead to reduction in generation from costlier generating plants leading to corresponding higher reduction in variable cost.

6.4.14 Conversely, during solar hours operational thermal plants would be generating close to their technical minimum. Hence any demand shift from non-solar hours due to ToD rebates to solar hour would either lead to reduction in excess generation with MSEDCL or increase generation from thermal plants which are on top of merit order dispatch or in other words have the lowest variable cost. If increase in demand due to ToD shift cannot be completely catered by thermal plant on top of MoD, the MSEDCL would increase schedule of thermal plant with

next higher variable cost and so on. As the additional generation during solar hours would be from thermal plants with significantly lower variable cost (as compared to thermal power plants whose schedules are reduced during non-solar hours), MSEDCL would be saving on variable cost on net basis even if the net impact of ToD charges/rebates on overall demand is zero/insignificant.

6.4.15 MSEDCL has utilized actual data received from resource adequacy study to test the theoretical framework described above. Based on past information regarding shift of energy consumption resulting from introduction/removal of ToD slab, it has considered that during non-solar hours demand of industrial and commercial would reduce by 5% and the reduction in demand during non-solar hours would be compensated by rise in demand by same quantum during solar hours. The change in demand would lead to change in generation after being grossed up for losses. Accordingly, MSEDCL has adjusted demand and on basis of merit order dispatch has calculated cost savings in variable cost in below table:

Table 178 Cost impact of shift of demand due to ToD charges and rebates

Time Slot	10 pm to 6 am	6 am to 9 am	9 am to 5 pm	5 pm to 10 pm	Total
FY 2025-26					
ToD impact on Generation (MUs)	-1090	-378	2247	-779	0.00
Avg. Variable cost of power plant impacted (Rs/kWh)	4.53	4.48	2.19	4.53	
Total cost impact (Rs crore)	-493.51	-169.41	492.59	-352.96	-523.29
FY 2026-27					
ToD impact on Generation (MUs)	-1174	-403	2416	-838	0.00
Avg. Variable cost of power plant impacted (Rs/kWh)	4.73	4.35	2.11	4.71	
Total cost impact (Rs crore)	-554.91	-175.73	509.55	-394.75	-615.84
FY 2027-28					
ToD impact on Generation (MUs)	-1256	-428	2579	-895	0.00
Avg. Variable cost of power plant impacted (Rs/kWh)	4.88	4.54	2.18	4.93	
Total cost impact (Rs crore)	-613.17	-194.20	561.65	-441.80	-687.51
FY 2028-29					
ToD impact on Generation (MUs)	-1350	-454	2762	-958	0.00
Avg. Variable cost of power plant impacted (Rs/kWh)	4.93	4.67	2.27	4.93	
Total cost impact (Rs crore)	-665.19	-211.98	628.04	-472.29	-721.43
FY 2029-30					
ToD impact on Generation (MUs)	-1453	-481	2960	-1026	0.00

Time Slot	10 pm to 6 am	6 am to 9 am	9 am to 5 pm	5 pm to 10 pm	Total
Avg. Variable cost of power plant impacted (Rs/kWh)	4.80	4.60	2.23	4.74	
Total cost impact (Rs crore)	-698.08	-221.32	660.92	-486.75	-745.23

6.4.16 From the above table it is clear that moving demand from non-solar hours to solar hours would be beneficial for MSEDCL and its consumers as the same would lead to reduction in power procurement cost which would also reduce impact on consumer tariff. Based on the understanding, MSEDCL has designed category-wise ToD charges and rebates on following principle:

- Half of the difference in average incremental cost during solar hours and other time slots provide the broad range of ToD charge that can be levied during respective non-solar timeslots.
- While determining ToD rebate during solar hours, MSEDCL need to ensure that total revenue foregone due to reduced energy charge during solar hours doesn't exceed sum of projected reduction in power procurement cost resulting from demand shift and extra revenue recovered from ToD charges during non-solar hours.
- Consumers having roughly uniform consumption all across the day (e.g.: steel mills, continuous process industries, mobile towers etc) should neither be incentivized nor penalized due to ToD charges or rebates.

6.4.17 The below table provides time-slot wise difference between average variable cost of thermal power plants whose generation are projected to be impacted due to demand shifting resulting from ToD charges/rebates during solar hours and non-solar hours. Half the difference in incremental variable cost between solar hours and other time slots has then been used to determine maximum range of ToD charge that can be applied on consumers in respective non-solar time slots (Morning peak, Evening peak and night slot):

Table 179 Calculation of ToD charge for respective time slots

Time Slot	10 pm to 6 am	6 am to 9 am	9 am to 5 pm	5 pm to 10 pm
FY 2025-26				
Average Incremental Variable Cost (Rs/kWh)	4.53	4.48	2.19	4.53
Maximum TOD Charge (Rs/unit)	1.17	1.14	-	1.17
Sales on which TOD charges applied (MUs)	18957.08	6574.75	23372.81	13559.08
Total impact on revenue (Rs crore)	2,214.17	752.71	-	1,583.44

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Time Slot	10 pm to 6 am	6 am to 9 am	9 am to 5 pm	5 pm to 10 pm
FY 2026-27				
Average Incremental Variable Cost (Rs/kWh)	4.73	4.35	2.11	4.71
Maximum TOD Charge (Rs/unit)	1.31	1.12	-	1.30
Sales on which TOD charges applied (MUs)	20417.68	7025.51	25199.99	14583.56
Total impact on revenue (Rs crore)	2,672.67	787.38	-	1,895.05
FY 2027-28				
Average Incremental Variable Cost (Rs/kWh)	4.88	4.54	2.18	4.93
Maximum TOD Charge (Rs/unit)	1.35	1.18	-	1.38
Sales on which TOD charges applied (MUs)	21847.57	7444.00	26967.59	15570.04
Total impact on revenue (Rs crore)	2,953.40	878.26	-	2,146.65
FY 2028-29				
Average Incremental Variable Cost (Rs/kWh)	4.93	4.67	2.27	4.93
Maximum TOD Charge (Rs/unit)	1.33	1.20	-	1.33
Sales on which TOD charges applied (MUs)	23483.91	7898.38	28923.65	16669.15
Total impact on revenue (Rs crore)	3,115.28	945.62	-	2,212.37
FY 2029-30				
Average Incremental Variable Cost (Rs/kWh)	4.80	4.60	2.23	4.74
Maximum TOD Charge (Rs/unit)	1.29	1.18	-	1.26
Sales on which TOD charges applied (MUs)	25278.13	8367.80	31016.66	17847.52
Total impact on revenue (Rs crore)	3,248.98	990.59	-	2,240.67

6.4.18 Accordingly, MSEDCL has determined sum of revenue earned from ToD charges during non-solar hours as well as saving in power procurement cost. The resultant sum provides maximum amount of ToD rebate to be offered during solar hours. The year-wise calculation of the same is tabulated below:

Table 180 Calculation of maximum ToD Rebate during Solar hours

Financial Year	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Saving in Power procurement cost (Rs Crore)	523.29	615.84	687.51	721.43	745.23
Revenue from ToD charges (Rs Crore)	4,550.32	5,355.11	5,978.31	6,273.27	6,480.24
Maximum Rebate to be offered during solar hours (Rs Crore)	5,073.61	5,970.94	6,665.81	6,994.69	7,225.46
Sales During ToD hours (MUs)	23372.81	25199.99	26967.59	28923.65	31016.66
Maximum ToD rebate (Rs/unit)	2.17	2.37	2.47	2.42	2.33

6.4.19 Accordingly, MSEDCL has calculated ToD charges and (rebates) for each year of the control period using above methodology as submitted above:

Table 181 Calculated ToD Charges and Rebates (Rs/unit)

Time Slot	10 pm to 6 am	6 am to 9 am	9 am to 5 pm	5 pm to 10 pm
FY 2025-26	1.17	1.14	(2.17)	1.17
FY 2026-27	1.31	1.12	(2.37)	1.30
FY 2027-28	1.35	1.18	(2.47)	1.38
FY 2028-29	1.33	1.20	(2.42)	1.33
FY 2029-30	1.29	1.18	(2.33)	1.26

6.4.20 MSEDCL further submits that it has observed demand profile of industrial and commercial segments based on feeder data and have observed that during non-solar hours, each consumer category has its distinct peak demand period. The same has been tabulated below:

Table 182 Time block wise consumption pattern (as %age of average demand)

Time Slot	Industrial	Commercial
10 pm to 6 am	91%	87%
6 am to 9 am	84%	86%
9 am to 5 pm	112%	111%
5 pm to 10 pm	104%	111%

6.4.21 As it can be observed from above table that in case of industrial, as well as commercial category evening peak (5:00 pm to 10:00 pm) has highest demand and accordingly, should have highest ToD charges. Further, in case of commercial category demand is very low during night hours and hence ToD charges during night would not have significant impact on demand profile. Even for industrial category despite high present ToD rebate the demand during night is lowest. Hence ToD charges need to be restructure accordingly to have maximum impact on demand profile. MSEDCL, accordingly proposes following ToD charges and rebates on various categories for the Control Period:

Table 183 Calculated ToD Charges and Rebates for Industrial Category (Rs/unit)

Time Slot	10 pm to 6 am	6 am to 9 am	9 am to 5 pm	5 pm to 10 pm
FY 2025-26	1.00	1.15	(2.15)	1.30
FY 2026-27	1.15	1.10	(2.35)	1.45
FY 2027-28	1.20	1.20	(2.45)	1.55

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Time Slot	10 pm to 6 am	6 am to 9 am	9 am to 5 pm	5 pm to 10 pm
FY 2028-29	1.20	1.20	(2.40)	1.50
FY 2029-30	1.15	1.20	(2.35)	1.40

Table 184 Calculated ToD Charges and Rebates for Commercial Category (Rs/unit)

Time Slot	10 pm to 6 am	6 am to 9 am	9 am to 5 pm	5 pm to 10 pm
FY 2025-26	0.90	1.25	(2.15)	1.40
FY 2026-27	1.05	1.20	(2.35)	1.55
FY 2027-28	1.10	1.30	(2.45)	1.65
FY 2028-29	1.10	1.30	(2.40)	1.60
FY 2029-30	1.05	1.30	(2.35)	1.50

6.4.22 For remaining categories on which ToD charges and slabs are applied at near about calculated value with slight rounding off:

Table 185 Calculated ToD Charges and Rebates for other categories with ToD tariff (Rs/unit)

Time Slot	10 pm to 6 am	6 am to 9 am	9 am to 5 pm	5 pm to 10 pm
FY 2025-26	1.15	1.15	(2.15)	1.15
FY 2026-27	1.30	1.10	(2.35)	1.30
FY 2027-28	1.35	1.20	(2.45)	1.40
FY 2028-29	1.35	1.20	(2.40)	1.35
FY 2029-30	1.30	1.20	(2.35)	1.25

6.4.23 ToD rebate should be offered to domestic consumers who opt for ToD meters. The same has been designed to incentivize domestic category which form majority of MSEDCL's consumers to opt for ToD enabled meters.

Table 186 Calculated ToD Charges and Rebates for Domestic Category (Rs/unit)

Time Slot	10 pm to 6 am	6 am to 9 am	9 am to 5 pm	5 pm to 10 pm
FY 2025-26	-	-	(0.80)	-
FY 2026-27	-	-	(0.85)	-
FY 2027-28	-	-	(0.90)	-
FY 2028-29	-	-	(0.95)	-
FY 2029-30	-	-	(1.00)	-

6.4.24 MSEDCL submits that the ToD tariff has been proposed on the premise that the energy transition as planned would be successful. However, as Hon'ble Commission is aware that there are many issues/ roadblocks which may lead to

MSEDCL not achieving complete target for energy transition. The success of ToD mechanism also would depend on consumers shifting their demand pattern in desired direction. This would again depend on multiple factors including psychology, convenience factor, etc. In view of these uncertainties MSEDCL requests Hon'ble Commission to allow MSEDCL to approach itself every subsequent year before 30th November with revised proposal of ToD charge/rebate for subsequent years.

6.5 Grid Support Charges

6.5.1 MSEDCL would like to submit that it recognises focus on renewable energy in general and solar power in particular by Government of India (GoI) in order to meet its stated climate goals. Hon'ble Commission has also supported the resolve of GoI by adopting RPO trajectory specified by GoI and also adopting provisions of Green Open Access Rules as notified by GoI, in its Open Access Regulations. MSEDCL has also taken multiple steps to ensure success of energy transition by aiming of installing more than 16,000 MW distributed solar power for agricultural use under MSKVY 2.0 and also procuring more solar power under various tender floated by itself for aggregators like SECI. Hence, MSEDCL is providing renewable power to its consumer as per specified by Hon'ble Commission in its RPO regulations.

6.5.2 MSEDCL submits that Hon'ble Commission has notified MERC Grid Interactive Rooftop Renewable Energy Generating Systems Regulations, 2019 along with MERC Grid Interactive Rooftop Renewable Energy Generating Systems (First Amendments) Regulations, 2023 has provided for levy of Grid Support Charges on the generated energy under Net Metering systems. The excerpts of the relevant regulations are given below:

“11.5 The Commission may determine in the retail Tariff Order such Grid Support Charges to be levied on the generated energy under Net Metering systems which shall cover balancing, banking and wheeling cost after adjusting RPO benefits, avoided distribution losses and any other benefits accruing to the Distribution Licensee. These Grid Support Charges would be determined consumer tariff category wise, based on the proposal of the Distribution Licensee in its retail supply Tariff Petition, supported by adequate justification:

Provided that the consumers of all Categories having Sanctioned Load up to 10 kW shall be exempted from payment of Grid Support Charges for Net Metering systems.”

“Provided further that the Grid Support Charges shall not be levied till installations under rooftop arrangement in the State reach 5000 MW:

Provided also that till the Grid Support Charges as envisaged in the Regulations stay exempted, Distribution Licensees may approach the Commission with specific Petition for recovery of banking charges, and in case, the recovery of banking charges have already been approved by the Commission prior to notification of these Regulations, the same shall continue.”

6.5.3 MSEDCL would like to inform Hon’ble Commission that it has implemented guidelines for Implementation of Phase-II Grid connected Rooftop Solar Program issued by MNRE and recently announced PM Surya Ghar: Muft Bijli Yojana with reasonable success. The RTS capacity added in MSEDCL license area under various schemes are tabulated hereunder:

Table 187 RTS capacity installed by MSEDCL

Scheme	Target	Installed Rooftop Solar (Nos.)	Installed Rooftop Solar Capacity (MW)
Rooftop solar 25 MW Tender	25 MW	651	2.52
Rooftop solar 50 MW Tender	100 MW	6874	32
National Portal		38,914	188.12
PM Surya Ghar: Muft-Bijli Yojana		57,390	228.31
Non subsidy scheme		1,04,971	2,094.62
Total		2,08,800	2,545.56

6.5.4 Additionally, other distribution licensees have installed 90 MW RTS in their license area taking the total RTS capacity to 2,635 MW in Maharashtra. MSEDCL would like to submit that RTS capacity in its license area in last few years is growing at very high rate as provided below:

Table 188 Growth in RTS capacity in MSEDCL license area

Financial Year	FY 19	FY 20	FY 21	FY22	FY 23	FY 24	As on date
Installed capacity (MW)	288.79	511.49	696.85	1016.38	1436.96	1995.1	2545.56
% Increase over last year		77%	36%	46%	41%	39%	28%

6.5.5 MSEDCL would like to submit that it has taken multiple measures to promote consumers to install rooftop solar plants under PM Surya ghar yojna, including making a portal where consumers can submit their request and check their status, empanelling agencies and assisting consumers with getting finance and required connections. Currently the total roof top solar installation in its license area has already reached more than 2,500 MW. Therefore, it is very well expected that cumulative rooftop solar (RTS) capacity in MSEDCL license area would exceed 5,000 MW and hence as such Hon'ble Commission should approve grid support charges so that they made applicable once total RTS capacity reaches 5,000 MW.

6.5.6 Hon'ble Commission in its MYT Order dated 30th March 2020 had provided approval the proposal of MSEDCL to levy Grid Support charges (GSC) as per principles specified in Net Metering Regulations, 2019. GSC would be calculated on basis of parameters such as balancing cost, banking and wheeling cost giving due adjustment for parameters such as RPO benefits, avoided distribution losses and any other benefits accruing to the distribution licensee. Based on the Regulations, Hon'ble Commission stipulated formulation for determination of Grid Support Charges separately for HT category of consumers and LT category as below:

Grid Support Charges (HT)	$GSC (HT) = BC+CB+WC(HT)-(RREB+ADL(HT))$
Grid Support Charges (LT)	$GSC (LT) = BC+CB+WC(LT)-(RREB+ADL(LT))$

Where,

'BC' shall mean the Balancing Cost,

'CB' shall mean the Cost of availing Banking facility,

'WC (HT) & WC (LT)' shall mean the Wheeling Charges for HT & LT categories respectively,

'RREB' shall mean the Rooftop RE benefit accrued to the Distribution Licensee

'ADL (HT) & ADL (LT)' shall mean the Avoided Distribution Loss for HT & LT categories respectively,

6.5.7 MSEDCL submits that it has considered following method for calculation of

individual parameters:

- BC – Average Fixed Cost of Thermal Generating Stations which will act as Standby or balancing support for respective FYs.
- CB – Difference in ToD charges during morning peak and evening peak as calculated in section 6.4
- WC (HT) & WC (LT)- Wheeling charge as determined in HT and LT network in this Order for respective years
- RREB - Equiv. RPO Non-compliance Charge (Rs/Unit) – Rs 0.10/unit
- ADL (HT) = Marginal Variable Cost / (-HT Loss%) - Marginal Variable Cost
- ADL (LT) = Marginal Variable Cost / (1-LT Loss%) - Marginal Variable Cost
- HT Loss = Tx. Loss + WC (HT)
- LT Loss = Tx. Loss + WC (HT)

6.5.8 Based on the description and calculation methodology of above parameters as provided by Hon'ble Commission in its MYT Order in case no. 322 of 2019 MSEDCL has calculated respective value of the parameters for each year of next control period. The same is calculated below:

Table 189 Calculation of GSC Charges for fifth Control Period

Sr. No	Parameter	Reference	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
A	Power Purchase Quantum	Form F2	1,86,203	2,18,172	2,29,387	2,38,063	2,43,337
B	Fixed Cost (Rs Crore)	Form F2	22415.32	22970.06	24581.88	27587.73	31866.94
C	Balancing Cost (B/A)*10 (Rs/unit)		1.20	1.05	1.07	1.16	1.31
D	TOD Charge Morning Peak (D)	Section 6.4	1.14	1.12	1.18	1.20	1.18
E	TOD Charge Evening Peak (E)		1.17	1.30	1.38	1.33	1.26
F	Cost of Banking (E-D) (Rs/unit)		0.02	0.18	0.20	0.13	0.07
G	Wheeling Charges (HT) (Rs/unit)	Form F14	0.76	0.83	0.86	0.88	0.87
H	Wheeling Charges (LT) (Rs/unit)	Form F14	1.46	1.60	1.67	1.71	1.71
I	Rooftop RE Benefit (Rs/unit)		0.1	0.1	0.1	0.1	0.1
J	Variable Cost (Rs Crore)		67,150.66	77,309.04	83,200.26	86,569.73	87,714.76
K	Marginal Variable Cost (C*10/A)(Rs/kWh)		3.61	3.54	3.63	3.64	3.60
L	HT Loss (%)	MYT Petition	10.78%	10.76%	10.74%	10.71%	10.66%
M	LT Loss (%)	MYT Petition	15.28%	15.26%	15.24%	15.21%	15.16%
N	Avoided Dist. Loss (HT) K/(1-L)-K		0.44	0.43	0.44	0.44	0.43
O	Avoided Dist. Loss (LT) K/(1-LM)-K		0.65	0.64	0.65	0.65	0.64
P	GSC(HT) (Rs/unit) =C+F+G-I-N		1.44	1.53	1.59	1.63	1.72

Sr. No	Parameter	Reference	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Q	GSC(LT) (Rs/unit) =C+F+H-I-O		1.93	2.09	2.19	2.25	2.35

6.5.9 MSEDCL submits that it has to face multiple commercial and technical challenges due to increased ingress of RTS. Some of them are described in following paragraphs:

6.5.10 As fixed cost of MSEDCL is majorly recovered through Energy Charge, hence consumers not availing their full energy consumption from MSEDCL leads to revenue shortfall as against approved ARR. This leads to revenue gap for MSEDCL during true-up of relevant year which further results in tariff increase which puts undue burden on other consumers. The tariff increase would again encourage more consumers to opt for RTS capacity and the same would distort power market in the state as MSEDCL would only be responsible for morning/evening peak and nighttime power supply. However, it would have to pay fixed cost to generating plants for whole day. There would also be issues with ramping up and ramping down of thermal power plants along with decrease or increase in solar generation.

6.5.11 MSEDCL would further submit that solar energy is generated during daytime and after self-consumption by the consumer the balance energy is fed into the grid. Due to its combined impact, the utility has to back down thermal generation but is obligated to pay the same fixed cost to generators. When there is no Solar Generation (evening, seasonal change, technical problem in system etc.), the consumer draws full power as per requirement from the grid and utility has to keep network and generators on bar ready to feed this demand. The consumer is using the grid as a storage system for his solar rooftop arrangement under net metering and at the same time loading the balance costs on other consumers of the distribution utility such as generators fixed cost, infrastructure cost recovery, CSS, etc.

6.5.12 MSEDCL further submits that Grid Support Charges are applicable on consumers with above 10 kW sanctioned load which are generally high-end LT/ HT consumers which are cross-subsidizing consumers and reduction in energy sales to such high tariff consumers would lead to reduction in Average Billing Rate. The exponential rise in the use of RTS by such consumers would disrupt cross subsidy mechanism inbuilt in the tariff structure. MSEDCL has estimated total cost of cross subsidy using pessimistic assumption that ultimately 10% of

total energy sales to cross subsidising category would be met through RTS. The total loss in cross subsidy in such a scenario (considering FY 24-25 rates) is calculated in table below:

Table 190 Estimated loss of Cross Subsidy due to RTS installation

Category	Annual Sales (Mus)	Loss of Sales to RTS (MUs)	ABR (Rs./unit)	ACoS (Rs./unit)	Cross - Subsidy (Rs./unit)	Loss of Cross Subsidy (Rs. Crores)
HT Category						
HT Industry	30,588	3,059	10.09	8.94	1.15	351.76
HT Commercial	1,486	149	15.58	8.94	6.64	98.67
HT Railway/ Metro/ Monorail Traction	102	10	10.11	8.94	1.17	1.19
HT Public Services Government	839	84	12.09	8.94	3.15	26.43
Total HT	33,015	3,302				478.05
LT Category						
Domestic (>300)	5,830	583				495.54
301-500 Units	3,435	343.5	16.9	8.94	7.96	273.43
501-1000 Units	1,416	141.6	18.21	8.94	9.27	131.26
Above 1000 Units	980	98	18.21	8.94	9.27	90.85
LT Commercial	6,351	635				209.45
0-20 KW	4988	498.8	12.05	8.94	3.11	155.13
>20<=50 KW	699	69.9	16.61	8.94	7.67	53.61
>50 KW	662	66.2	18.6	8.94	9.66	0.71
LT PS Government	90	9				1.73
0-200 Units	21	2.1	9.3	8.94	0.36	0.08
>200 units	47	4.7	9.3	8.94	0.36	0.17
>20-50 kW	11	1.1	10.09	8.94	1.15	0.13
>50 kW	11	1.1	12.01	8.94	3.07	0.34
LT PS Others	224	22.4				9.32
>20-50 kW	90	9	13.13	8.94	4.19	3.77
>50 kW	134	13.4	13.08	8.94	4.14	5.55
LT Power loom						
Above 20 KW	1,230	123	10.74	8.94	1.8	22.14
LT Industry-General						
Above 20 KW	3,819	381.9	9.64	8.94	0.7	26.73
Total HT	17,544	1,754				765
Grand Total	50,559	5,056				1,243

6.5.13 However, MSEDCL would have only got a part of the lost cross subsidy through

Grid Support charge at the approved GSC by Hon'ble Commission in case no. 322 of 2019. The calculation of the same is provided in the table below:

Table 191 Estimated revenue from approved Grid Support Charge

Voltage Level	Approved GSC (Rs/unit)	RTS consumption (MU)	Total Revenue from GSC (Rs Crore)
LT	1.16	3,302	383.03
HT	0.72	1,754	126.29
Total		5,056	509.32

6.5.14 Therefore, MSEDCL requests Hon'ble Commission to approve the calculated GSC as against approved in previous MYT Order.

6.5.15 Further, Hon'ble Commission has amended Regulation 2.1 (j) through MERC (Grid Interactive Rooftop Renewable Energy Generating Systems) (First Amendment) Regulations, 2023 in which it has increased limit of capacity of RTS for net metring arrangement from 1 MW to 5 MW for net metering arrangement. This would further lead to cross subsidising categories meeting their energy requirement from RTS and not from MSEDCL. Accordingly, MSEDCL has preferred a Petition (W.P. S.T 22665 of 2024) before Hon'ble High Court over various amendments proposed in the MERC (Grid Interactive Rooftop Renewable Energy Generating Systems) (First Amendment) Regulations, 2023. MSEDCL requests Hon'ble Commission to provide required relief in case the final judgement of Hon'ble High court is in its favor.

6.5.16 Hon'ble Commission in MERC Grid Interactive Rooftop Renewable Energy Generating Systems (First Amendments) Regulations, 2023 has already specified that till GSS stay exempted, Distribution Licensees may approach the Commission with specific Petition for recovery of banking charges, and in case, the recovery of banking charges have already been approved by Hon'ble Commission prior to notification of these Regulations, the same shall continue. MSEDCL would like to submit that Hon'ble Commission has already specified banking charges of 8% in MERC Distribution Open Access Regulations 2016 along with slot wise restriction of using the banked energy. MSEDCL submits that the same principle should be made applicable for energy banked by grid interactive RTS systems as well for consumers above 10 kW connected. However, the banking charges shall reflect the distribution loss for HT and LT consumers respectively.

6.6 Change in application of telescopic tariff for Domestic consumers with RTS

6.6.1 MSEDCL would like to submit that LT I (B) – Residential consumers are billed on telescopic tariff. In such a scenario, residential consumers who have installed RTS system under net-metering arrangement are billed on net input energy i.e. total energy consumed subtracted by energy generated by RTS. This results in the consumer being billed at lower consumption slab rather than the actual consumption slab under which it would have otherwise fallen (based on gross consumption). MSEDCL would further like to submit that most of the general public from economically weaker sections falls in 0-100 units consumption slab as they have limited electrical appliances installed in their household. Therefore, in order to protect their financial interest, MSEDCL has proposed ABR for the 0-100 units consumption slab significantly lower than its ACoS, so as to protect interest of economically weaker section. The lower ABR is cross subsidised by other consumer categories. However, due to netting-off energy generated by RTS, it is plausible that consumers which are not intended beneficiary of lower telescopic tariff (0-100 units slab) would also get undue advantage of the same, thereby increasing pressure of cross subsidy on industrial and commercial categories. Hence, it is essential to develop a mechanism for net-metering that ensures that LT I (B) consumers with higher energy consumption, don't get benefit of lower telescopic tariff.

6.6.2 Hon'ble Commission in its MTR Order in case no. 226 of 2022 dated 31st March 2023 has also directed MSEDCL to submit proposal for review of tariff structure/design for domestic category including review of telescopic tariff design. The relevant extract is reproduced below:

“Further, the Commission opines that there is urgent need to review/revisit the tariff structure for domestic categories including need for continuation of the telescopic benefits, particularly for higher end consumption slabs. With proliferation of rooftop/prosumer operations, introduction of the smart meters, encouraging and enabling demand response techniques is necessary. In the next tariff review exercise, MSEDCL should undertake study and assess impact of such various measures and submit its proposal for review of tariff structure/design for domestic category including review of telescopic tariff design.”

6.6.3 MSEDCL therefore requests Hon'ble Commission to approve that energy generated by RTS system should be adjusted against lowest consumption slabs

and the consumer should be billed at highest consumption slab of its gross energy consumption. The same is explained with help of an example in below table (using proposed tariff for FY 2025-26):

Table 192 Proposed Methodology for adjustment of RTS Generation from LT I (B) Generation(B)

Particulars	Existing Methodology	Proposed Methodology
Total monthly energy consumed by LT I (B) category in billing cycle (kWh)	520	520
Energy Generated by RTS (kWh)	400	400
Net Energy to be billed	120	120
Telescopic Tariff (for FY 2025-26)	Consumption Slab	
	Energy Charge (Rs/kWh)	
	1-100 units	4.37
	101-300 units	11.14
	301-500 units	15.49
	Above 500 units	17.63
Calculation of Energy Charge	100 units @ 4.37/kWh (1-100 units) 20 units @ Rs 11.14/kWh (101-300 units consumption slab)	100 units @ 15.49/kWh (301 – 500 units consumption slab) 20 units @ 17.63/kWh (Above 500 units)
Energy Charge (Rs)	659.80	1,901.60

6.6.4 Further, in instant Petition, MSEDCL has proposed higher fixed charges for consumers falling in higher consumption slab, to partially offset benefits available to them due to telescopic tariff. MSEDCL requests Hon'ble Commission to allow it to review applicability of telescopic tariff for consumers falling in higher consumption slab and submit proposal for their removal during MTR Petition or

during MYT Petition for next Control Period. Further, in Section 6.4 it has proposed ToD tariff for Domestic consumers as well.

6.7 kVAh based billing

6.7.1 MSEDCL in its MYT Petition for 04th Control Period in case no. 322 of 2019 had requested Hon'ble Commission for introduction of kVAh based billing for HT consumers so that consumers maintain their power factor at unity level. It also provided rationale in form of report by Forum of Regulators (FoR), tariff regulations of Hon'ble Commission, judgement by Hon'ble ATE and also provided examples of kVAh based billing as implemented by other states. MSEDCL in its Petition also informed Hon'ble Commission regarding the status of kVAh billing meter replacement for HT consumers as well as LT consumers above sanctioned load of 20 kW. MSEDCL requested the Hon'ble Commission to allow gradual implementation of kVAh billing consisting of the first stage of rollout to HT consumers and to remove applicability of power factor incentive and penalty for HT Category consumers.

6.7.2 Hon'ble Commission in its Order dated 30th March 2020 in case no. 322 of 2019 took a note of the MSEDCL's submissions and acknowledges the detailed rationale provided by MSEDCL for implementing the kVAh based billing as well as its preparedness status for rolling out kVAh billing in case of HT consumers. On basis of the same, Hon'ble Commission allowed MSEDCL to implement kVAh based billing for HT Consumers. For LT consumers above 20 kW Hon'ble Commission directed MSEDCL to complete its meter conversion process along with other system modifications for such consumer categories. Hon'ble Commission decided to conduct a feasibility study for adoption of kVAh billing for LT consumers with load less than 20kW and said that adoption of kVAh billing for these consumers can be done in a phased manner based on result of the study.

6.7.3 Hon'ble Commission in its MYT order dated 31st March 2023 in case no. 226 of 2022, noted that implementation of kVAh metering for LT category above 20 kW would not be possible under fourth control period, as installation of complete metering for eligible consumer will be completed not before January 2024. Hon'ble Commission directed MSEDCL to complete this exercise within one year from date of issuance of MYT Order and also submit six monthly status report. Hon'ble Commission desired that kVAh based meter data for LT category (above 20 kW) should be available for period of at least one year before next tariff

exercise.

- 6.7.4 MSEDCL submits that the purpose of the kVAh billing is to encourage the consumers to maintain near unity Power factor to achieve loss reduction, improve system stability, power quality and improve voltage profile. Introduction of kVAh billing would encourage the consumers to invest for improving Power Factor and it will be benefited by reduced electricity bills.
- 6.7.5 Further, Power Factor incentive and penalty as approved by Hon’ble Commission for LT category consumers shall be withdrawn after starting of kVAh billing. Regarding abolition of PF incentive, MSEDCL submits that the Hon’ble APTEL has already ruled that “kVAh billing which provides inbuilt incentive for the Appellant’s category, which will automatically take care of power factor incentive and disincentive for the high and low power factor respectively”. MSEDCL further submits that the principle of revenue neutrality is being followed in implementing the kVAh tariff so that both the licensee as well as consumers are not burdened unnecessarily and that kVAh billing system is a more accurate and cost-effective system to extend uniform incentives/ penalties on account of low or good power factor.
- 6.7.6 MSEDCL further submits that consumer’s consumption may get reduced due to improvement of Power Factor and kVAh billing will be correspondingly reduced in turn improving system voltage. The improvement in Power Factor will reduce the licensee’s expenditure on Power Purchase and thereby the consumers will be benefited with lower tariff. If in case, the Power Factor is less than unity, the consumption recorded in respect of kVAh would be high compared to kWh consumption. Thus, the kVAh based billing will drive the consumers to reach unity power factor. Ultimately, kVAh billing will provide inbuilt incentive which will automatically take care of power factor incentive and disincentive.
- 6.7.7 MSEDCL further submits that kVAh billing for LT consumers have already been adopted in some of the states in India as per orders of respective SERCs . Some examples of such orders along with applicability of kVAh based billing have been provided below:

Table 193 Applicability of kVAH based billing in various states

Category	Andhra Pradesh	Delhi	Haryana	Madhya Pradesh	Uttarakhand	Gujarat	Bihar
Domestic	X	X	X	X	X	X	X

Category	Andhra Pradesh	Delhi	Haryana	Madhya Pradesh	Uttarakhand	Gujarat	Bihar
Non domestic/ Commercial	✓ *	✓	✓ \$	✓ *	✓ £	X	X
PWW	✓	✓	X	X	✓	X	✓ °
Agriculture	X α	X	X	✓ ^	X	X	X
Industrial	✓ #	✓	✓	✓	✓	✓ °	✓
Street Light	X	✓	X	X	✓	X	X
Advertising Hoardings	✓	✓	✓ \$	✓	✓	X	X
EV / Charging Stations	✓	X	✓	X	X	X	X
Tariff Order	APERC Order dated 25.03.2023	Order dated in 28.08.2020	HERC Order dated 15.02.2023	MPERC Order dated 28.03.2023	UERC Order dated 30.03.2023	GERC Order dated 31.03.2023	BERC Order dated 23.03.2023

\$ - >20 kW/20 kVA

* - > 10kW

- > 15kW

° - >40 kW up to 100 kW

^ - up to 25 HP

O - up to 74 kW

£ - >25kW

α - For Agriculture others category (Floriculture, Aquaculture etc.) kVAh billing is implemented.

6.7.8 Accordingly, MSEDCL is proposing kVAh based billing for LT consumers above 20 kW from fifth Control Period (FT 2025-26 to FY 2029-30).

6.8 Standby Charges for SEZs and Deemed Licensees

6.8.1 MSEDCL in its MYT Petition in Case no. 322 of 2019 submitted that many of the SEZ and deemed Licensees in Maharashtra which forms pocket within MSEDCL's license area do not have standby arrangement and in case their main power supply fails such licensees draw power from grid to provide uninterrupted power supplies to its consumers. In such a scenario there is a financial impact of penalty on MSEDCL as per Deviation Settlement mechanism. MSEDCL further submitted that there is no mechanism to ensure whether these SEZ/deemed

licensees have standby arrangement in the form of DG sets within their SEZ/Deemed licensee area and even if such arrangement exists it can't be monitored that at the time of failure of the source generator such DG sets are used or not. Therefore, in order to maintain the grid discipline and to avoid the financial impact of penalty of overdrawl on itself, MSEDCL requested Hon'ble Commission that SEZ/deemed licensees must have a standby arrangement with MSEDCL and should pay standby charges to it.

6.8.2 In the said Petition, MSEDCL further submitted records of power drawl by M/S Gigaplex (SEZ) and Indian Railways during time blocks time during which schedule of the source generator of M/S Gigaplex (SEZ) was Zero. During such time blocks their power withdrawal resulted in DSM charges for MSEDCL. MSEDCL argued that if M/s. Gigaplex and M/s. Indian Railways were having their own standby arrangement, they would not have drawn power from the grid during the unavailability/ curtailed availability of source generator. This clarifies the fact that some or all the SEZs/ deemed licensees don't have their own standby arrangement. Accordingly, MSEDCL reiterated that such instances are not only detrimental to the stability of the grid but also burdens MSEDCL consumers with undue financial burden for no fault on their part and therefore it requested Hon'ble Commission to approve standby charges for SEZs/ deemed license and Indian Railways.

6.8.3 Hon'ble Commission, in its MYT Order dated 30th March 2020 in case no. 322 of 2019 stated that many of the deemed distribution licensees have their own Stand-by arrangements, where the demand is fulfilled by DG Sets installed in different premises of their Licensee area and hence such deemed licensees have not shown their concerns or requirement for the Stand-by arrangement. However, Hon'ble Commission acknowledged that some of the deemed licensees do draw from the grid, when their generators fail to supply. However, it put onus on SLDC to direct the deemed licensee to curtail its load as per generation available. Hon'ble Commission also clarified that such exceptional circumstances cannot be the ground for mandating SEZs to pay Stand-by Charges to MSEDCL.

6.8.4 In the said Order, Hon'ble Commission also stated that SEZs/deemed licensees, being Transmission System Users (TSUs) are also participants in the deviation pool account and be subjected to scheduling/despatch regime and rules for deviation settlement mechanisms and would attract deviation charges/additional

deviation charges as per MERC DSM Regulations, 2019 and procedures formulated therein. Further, they would also have to pay additional deviation charges for exceeding their volume limits under DSM regime. Hon'ble Commission further suggested MSEDCL, to sell its power at Short-Term Rates inclusive of other applicable charges to the Licensee in case of power sales failure.

6.8.5 MSEDCL would like to submit that the said Order of Hon'ble Commission fails to acknowledge that SEZs/deemed distribution licensee have still not given any proof of them having standby DG sets till date. Moreover, MSEDCL has reviewed the respective order of Hon'ble Commission, providing license to respective SEZs and only two licensees have specified any condition regarding provision of DG as reserve power. The details of the order granting license to the respective SEZs are tabulated hereunder:

Table 194 Provision of backup generation in licensee Orders/Regulations of SEZs

Name of SEZ	License Order	License Regulations
EON Phase I	100% DG back up	No mention
EON Phase II		No mention
Mindspace	N+1 capacity of DG sets for 100% back up	No mention
Gigaplex	No mention	No mention
KRC	No mention	No mention
JNPT	No mention	No mention
Laxmipati Balaji	No mention	No mention

6.8.6 It is further submitted that even after directive by Hon'ble Commission in its MYT order in case no. 322 of 2019 to SLDC asking it to direct SEZs/ deemed licensee to curtail its load as per available generation the same has not been followed and still there have been instances of time blocks when despite no generation sources deemed license/SEZ continue to draw power from the grid.

6.8.7 Further, MSEDCL has also analysed MTR and MYT order for such SEZs and during True-up it has been found that these entities have drawn or injected unscheduled energy as a considerable percentage (ranging from -73% to +7%) of their total energy requirement. If such licensees deviate from their scheduled drawl in a considerable basis this leads to complications for MSEDCL as onus of grid stabilization falls on it. MSEDCL has to without it or its consumers getting anything in return.

6.8.8 Accordingly, MSEDCL again requests Hon'ble Commission to make standby arrangement compulsory. The standby charges from SEZs or Deemed Licensees should be recovered by MSEDCL as per following conditions:

- 25% of the Applicable Demand Charges as applicable to HT Industrial category for months when standby capacity is not utilized.
- Demand Charges at the rate of 100% of Demand Charges as applicable to HT Industrial category for months when standby capacity is used under planned or un-planned shutdown of power sources from where SEZ/deemed licensee takes power

6.9 Proposal for Green Tariff as per MERC Case No. 134 of 2020

6.9.1 Hon'ble Commission has determined Green Power Tariff to the consumers opting for meeting its 100% of power requirement through RE sources in the Case No. 134 of 2020 dated 22.03.2021 at Rs. 1.33/unit. However, Hon'ble Commission levied only 50% of charge determined above i.e. 0.66/unit as Green Power Tariff to the consumer opting for meeting its 100% of power requirement through RE sources in addition to regular tariff approved in MYT Order. Hon'ble Commission in its Order further specified that Distribution Licensee would be able to use such power consumed by consumers towards fulfilment of its RPO target.

6.9.2 MSEDCL in its MTR Petition in case no. 226 of 2022 proposed DISCOM specific year wise different green tariff since power purchase expenses of each DISCOM is different and it would be important for each DISCOM to recover its additional cost to be incurred towards additional RE Purchase. It determined Rs. 0.59/unit and Rs. 0.51/unit as Green Power Tariff to the consumer opting for meeting its 100% of power requirement through RE sources for FY 2023-24 and FY 2024-25 respectively (50% of calculated green tariff).

6.9.3 Hon'ble Commission in its MTR Order dated 31st March 2023 in case no. 226 of 2022 specified that as per 'Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022' it has been mandated to determine Green Power Tariff. Due to prevailing circumstances during the time of issuance of order, such as introduction of GDAM/GTAM and REC multiplier etc, Hon'ble Commission opined that change in mechanism of Green Tariff would not be desirable at this stage and hence retained the Green Tariff of Rs 0.66/unit for remaining period of

4th Control Period (i.e. FY 2023-24 and FY 2024-25). Hon'ble Commission specified following conditions for green tariff in its MTR Order (in accordance with the MoP rules):

“All consumers (Extra High Voltage, High Voltage and Low Voltage) shall be eligible for opting RE power on payment of Green Power Tariff.

The consumers who have opted for Open Access can also requisition for RE Power on payment of Green Power Tariff for balance power supplied by Distribution Licensee.

If the Obligated Entity wants to meet its RPO by requisitioning RE Power from the Distribution Licensee, then such entity shall pay additional Rs 0.50 /kWh for the Green Power Tariff i.e., the Obligated entity shall pay total Green Power Tariff of Rs 1.16/kWh. Since the obligated entity also has the option to meet RPO by purchasing REC and is currently being traded at Rs 1/kWh, the green tariff is proposed with slight premium to REC Price.

Revenue earned through Green Power Tariff shall be treated as tariff income of Supply Business and thereby be fully accounted for reduction in ARR of supply business.

If the consumer is not an obligated entity under RPO Regulations, then that energy shall be counted towards RPO fulfilment of Distribution Licensee.

The Consumer will have option to select the quantum of green power to be purchased in steps of 25% and going up to 100% of the consumption.

Such an option will also be available for Open Access consumer for its balance consumption from the Distribution Licensee.

The Distribution Licensee will levy Green Power Tariff only for percentage of consumption opted by the Consumer.

Distribution Licensee shall issue Annual certificate to consumers stating percentage of power requirement of such consumer has been sourced through RE sources.

Any requisition for green energy from a distribution licensee shall be for a minimum period of one year.

Distribution Licensee shall process the request of Consumer for Green Power Tariff not later than 30 days from the receipt of the request or next billing cycle, whichever is earlier. Distribution Licensee shall provide the facility of requesting for Green Power Tariff through its Web Portal, Mobile App or any other digital mode for convenience of consumers.

Temporary Consumers can also opt of Green Tariff as per methodology specified above and Distribution Licensee shall issue certificate specifying that power requirement has been sourced through RE sources after receipt of payment.”

6.9.4 MSEDCL requests Hon’ble Commission to consider revised green tariff of Rs. 0.25/KWh. This is considering that weighted average price of Renewable Energy Certificates (REC) is around 197/REC (~Rs. 0.20/kWh), plus there is additional cost and hassle to purchase REC for retail consumer.

6.9.5 MSEDCL proposes green RTC power to sunshine industries like data centers and semi-conductor at proposed Industrial tariff without any additional green tariff i.e. these industries will not be charged with additional green tariff.

6.10 Rebate for Incremental Consumption

6.10.1 In MYT Petition submitted by MSEDCL in case no. 322 of 2019 MSEDCL had proposed rebate for incremental consumption for HT consumers on basis of Regulation 81.4 of MERC MYT Regulations 2019. The relevant extract of the Regulation is reproduced hereunder:

“81.4 The Distribution Licensee may propose other rebates for inter-alia, taking supply at higher voltages, bulk consumption, power factor, etc., as a part of their Petition, and the revenue impact of rebates shall be passed on through the Aggregate Revenue Requirement and tariffs, subject to the Commission’s approval.”

6.10.2 MSEDCL in its Petition proposed to provide incentive to HT consumers for incremental consumption with a rebate of Rs. 1/kVAh in energy charges for additional consumption over a fixed threshold however clarified that the consumers would have to pay the fixed and wheeling charges as may be applicable to that category.

6.10.3 Hon’ble Commission in its MYT Order noted that as MSEDCL has surplus contracted energy available at its disposal, it should attempt to increase its sales

within its distribution area as well as opportunities of surplus trading of power through power exchanges and inter-utility exchange within state. In addition, any incremental consumption by existing or future consumers would help MSEDCL gainfully utilise surplus /stranded power generation/contracted capacity available with it instead of backing down as long as the opportunity for revenue recovery from such sources exceed the variable/incremental cost of sourcing of such power, it would only benefit MSEDCL to reduce burden of surplus/stranded power capacity. Accordingly, Hon'ble Commission also supported offer of rebate for incremental consumption to direct consumers as well as open access consumers to increase incremental consumption/sale by Licensee.

6.10.4 Therefore, Hon'ble Commission in MYT Order in case no. 322 of 2019 approved the proposal of incremental consumption rebate and allowed the same @ Rs 0.75/KVAh.

6.10.5 MSEDCL again in its MTR Petition in case no. 226 of 2022 proposed continuation of such rebate reasoning that the opportunity for revenue recovery from additional sales would exceed the variable/incremental cost of sourcing of such power, and it would benefit MSEDCL to reduce burden of surplus/stranded power capacity. However, MSEDCL noticed trend of some consumer merging their two connections to avail benefit of the rebate on incremental consumption and availing benefit of incremental consumptions rebate. MSEDCL submitted that, it is submitted that consumers increasing their demand by merger, amalgamation of existing connections should not get benefit of Rebate on Incremental Consumption to full extent. Further MSEDCL in order to encourage timely payments by defaulting consumers, proposed that this rebate should only be provided, if the consumer has no arrears with the Distribution Licensee, and payment is made within seven days from the date of electricity bill. Further MSEDCL also proposed that in case of HT Industrial and HT Commercial consumers revising their Contract Demand more than 2 times the consumer shall not be eligible for rebate on incremental consumption.

6.10.6 Hon'ble Commission in its Order dated 31st March 2023 on MTR Petition noted the practices followed by some consumers upon amalgamation/merging of entity/load with permanent disconnection of the load of one of the entities and then claiming rebate for incremental consumption. In order to prevent the same, Hon'ble Commission ordered that the formulation for determination of incremental consumption in such cases shall be applicable on aggregate

consumption of such merged or amalgamated load for the surviving (or amalgamated entity) as the case may be. However, Hon'ble Commission rejected other suggestions of MSEDCL regarding linking of rebate on incremental consumption with payment status and revision in contract load. Hon'ble Commission in its order further approved the rebate for incremental consumption @ Rs 0.75/kVAh and opined that conditions and operational modalities for the rebate are laid out clearly to avoid any discrimination and potential litigations are minimal.

6.10.7 MSEDCL would like to submit that as per Regulation 100.4 of MERC MYT Regulations 2024 Hon'ble Commission has retained the provision of rebate in consumer tariff. The relevant Regulation is reproduced below:

“100.4 The Distribution Licensee may propose other rebates for inter-alia, taking supply at higher voltages, bulk consumption, power factor, etc., as a part of their Petition, and the revenue impact of rebates shall be passed on through the Aggregate Revenue Requirement and tariffs, subject to the Commission's approval.”

6.10.8 Further, Hon'ble Commission in its MTR Order also suo-moto separately approved rebate for incremental consumption for LT-Industry, LT-Commercial and LT-Public Service) categories at the rate @ Rs 0.75 unit for remaining period of 4th Control Period (i.e. FY 2023-24 and FY2024-25) and laid down detailed modalities for operationalization of rebate for incremental consumption during remaining period of 4th Control Period (i.e. for FY 2023-24 and FY2024-25)

6.10.9 MSEDCL requests Hon'ble Commission to continue Incremental consumption rebate as approved in case no. 226 of 2022 for HT as well as LT consumers at the same terms and conditions. MSEDCL has conducted cost benefit analysis of the proposed rebate which is tabulated below:

Table 195 Net impact of incremental consumption by LT consumers

Cost Benefit analysis	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Sales due to incremental consumption (MkVAh)	822.20	863.31	906.48	951.80	999.39
Average Billing Rate of LT Consumers (Rs/kVAh)	8.82	9.02	8.95	8.13	8.06
Rebate Given for Incremental Consumption (Rs/kVAh)	0.75	0.75	0.75	0.75	0.75
Net ABR for LT Consumers (Rs/kVAh)	8.07	8.27	8.20	7.38	7.31
Total revenue from incremental sales (Rs Crore)	663.64	714.24	743.58	702.73	730.30
Purchase quantum for incremental sales (Mus)	951.12	998.68	1048.61	1101.04	1156.09

Cost Benefit analysis	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Marginal Variable Cost of Power Purchase (Rs/kWh)	3.60	3.55	3.63	3.64	3.60
Total Cost for incremental sales (Rs Crore)	342.71	354.18	380.57	400.54	416.53
Net Benefit (Rs Crore)	320.93	360.06	363.01	302.19	313.77

Table 196 Net impact of incremental consumption by HT consumers

Cost Benefit analysis	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Sales due to incremental consumption (MU)	3757.54	3945.42	4142.69	4349.82	4567.31
Average Billing Rate of HT Consumers (Rs/Unit)	11.11	11.56	11.68	11.09	10.96
Rebate Given for Incremental Consumption (Rs/ Unit)	0.75	0.75	0.75	0.75	0.75
Net ABR for HT Consumers (Rs/ Unit)	10.36	10.81	10.93	10.34	10.21
Total revenue from incremental sales (Rs Crore)	3894.57	4266.55	4526.77	4498.31	4663.66
Purchase quantum for incremental sales (MUs)	4158.85	4366.79	4585.13	4814.38	5055.10
Marginal Variable Cost of Power Purchase (Rs/ kWh)	3.60	3.55	3.63	3.64	3.60
Total Cost for incremental sales (Rs Crore)	1,498.52	1,548.69	1,664.07	1,751.38	1,821.30
Net Benefit (Rs Crore)	2,396.06	2,717.86	2,862.70	2,746.93	2,842.36

6.10.10 Further, MSEDCL proposes to retain other modalities for operationalization of rebate for incremental consumption as specified by Hon'ble Commission in its MTR order in case no. 226 of 2022 during the 5th Control Period. The modalities are described below:

- The rebate for incremental consumption shall be applicable for HT industries, HT commercial, HT public services, HT-PWW, HT Railways/Metro/Mono and HT-Group Housing Society (Residential) including EHV consumers in these categories.
- Further, the rebate for incremental consumption shall also be applicable for LT industries (incl powerloom), LT commercial and LT public services.
- The rebate shall be given to eligible consumers including partial open access consumers falling under above consumer categories to the extent of procurement from MSEDCL.
- The rebate shall be applicable for the first 3 years of 5th Control Period (i.e. for FY 2025-26 and FY2027-28) subject to reconsideration during the MTR Tariff Order.
- The rebate shall be allowed to eligible consumers who consume power above threshold limit.
- The 3-year average monthly consumption by consumer from FY 2022-23 to FY 2024-25 shall be considered as baseline consumption (or monthly

threshold consumption) for determination of incremental consumption by such eligible consumers.

- In case of a consumer registered into system for duration lower than 3 years (new consumer in this control period), such consumer shall be eligible for availing incremental rebate from the next billing cycle upon completion of 3-year period. Average monthly consumption for past three years shall be considered as its baseline consumption (or monthly threshold consumption) in such cases for determination of their incremental consumption for the purpose of rebate.
- In case continuation of such incremented consumption rebate mechanism is found necessary and proposed by MSEDCL during next MTR Petition (i.e. beyond FY 2027-28), baseline consumption (or monthly threshold consumption) shall be reset based on 3-year average from FY 2025-26 to FY 2027-28 or such other benchmark, upon following due consultation process and upon prudence check.
- The billing at the reduced rates after allowing the rebate shall be done on monthly basis subject to condition that net entitlement for the rebate under this head of incremental consumption shall be determined on annual basis (April to March) equal to energy units consumption in excess of baseline consumption (i.e. annual threshold consumption). The adjustment for shortfall/excess in case cumulative monthly consumption for the yearly consumption vis-à-vis its baseline consumption (i.e. annual threshold consumption) shall be affected in the last monthly (for March) billing period. No carry-forward of shortfall/excess shall be allowed from one year to next year.
- Provided that such adjustment of rebate for yearly incremental consumption vis-à-vis baseline consumption (i.e. annual threshold consumption) shall be undertaken in the last month (ie March) of respective financial years i.e. FY2023-24 and FY2024-25.
- For example, If a consumer's 3-year average annual consumption was 12,000 units, the consumer shall be entitled for the rebate of Rs.0.75/kVAh for consumption exceeding its monthly threshold consumption (not below the baseline consumption of 1,000 units per month). However, in case its cumulative monthly consumption for the yearly period falls short of annual threshold consumption of 12,000 units then, consumer shall not be entitled for incremental consumption rebate for that financial year and shortfall (or rebate already availed by consumer in earlier months, if any) shall be

adjusted for recovery in monthly billing period for March.

- The rebate shall be over and above the existing rebates subject to the fact that the consumer's total variable charges after accounting for all applicable rebates should not be less than Average power purchase cost (including transmission charges) of MSEDCL as approved by Hon'ble Commission in its Order on instant petition .
- In case of amalgamation/merging of entity/load with permanent disconnection of the load of one of the entity, incremental consumption in such cases shall be applicable on aggregate consumption of such merged or amalgamated load for the surviving (or amalgamated entity) as the case may be.
- Period of Temporary Disconnection (TD) shall be excluded from computation of baseline consumption.
- In case Permanently Disconnected (PD) consumer is reconnected, it shall be treated as new consumer and its computation prior to PD shall not be used for computing baseline consumption.
- The rebates would also be applicable to Open Access consumers, subject to conditions outlined above.

6.11 Bulk Consumption Rebate

6.11.1 Hon'ble Commission in its MYT Order dated 30th March, 2020 observed that Regulation 81.4 of the MERC MYT Regulations, 2019 suo-moto approved 'Rebate for Bulk consumption' within HT- Industrial category. The rebate was structured in manner of reverse telescopic slab and was applicable to HT-Industrial consumers with consumption in excess of 1 lakh units per month (0.1 MU per month). Bulk consumption rebate is applied on the Energy Charge component including FAC of the bill excluding taxes and duty. The applied rebates are as following:

"For monthly consumption (> 1 Lakh units to 1 MU) per month: 2%

For monthly consumption (> 1 MU to 5 MU) per month: 1.5%

For monthly consumption (> 5 MU) per month: 1%."

6.11.2 MSEDCL concurs with the suo-moto order of Hon'ble Commission and in its MTR Petition in case no. 226 of 222 requested Hon'ble Commission to continue the bulk consumption rebate. Hon'ble Commission in its MTR order on the said

Petition decided to continue with bulk consumption rebate for remaining period of 4th Control Period (ie FY 2023-24 and FY2024-25) as per the terms and conditions as stipulated under MYT Order in Case 322 of 2019. Further, Hon'ble Commission specified Partial Open Access consumer shall also be eligible for Bulk Consumption Rebate to the extent of electricity consumption from MSEDCL.

6.11.3 MSEDCL requests Hon'ble Commission to further continue the bulk consumption rebate for first three years of next MYT period (FY 2025-26 to FY 2027-28) on same terms and conditions. MSEDCL would further in its next MTR Petition would request Hon'ble Commission regarding the continuation of the rebate for remaining years of 5th Control Period. However, in order to promote consumption during solar hour, consumers in order to avail bulk consumption rebate should consume at-least 50% of their overall consumption during solar hours (0900 am to 0500 pm) during the billing cycle.

6.12 Discount in Demand Charges for Single Shift operation of HT-Industry

6.12.1 Hon'ble Commission in its MTR Order dated 31st March 2023 in case no. 226 of 2022 had allowed discount in Demand Charges for Single Shift operation of HT-Industry. The relevant extract of the Order is reproduced below:

“In case of industrial consumer under HT-Industry with single shift operation, Demand Charges at the rate of 60% of applicable Demand Charges as per Tariff Schedule shall be levied, subject to following conditions

a. Single shift operation means running of operations at a stretch for maximum 10 Hrs. For illustration, a consumer running 4hrs.in one stretch and 6hrs.in another stretch cannot be considered as running in a single shift. However, a maximum of three instances of running beyond 10hrs up to 12hrs is permitted in a billing cycle.

b. Consumer must declare in advance about one shift operation. In absence of such declaration, it shall be billed as per the applicable demand charges.

c. Billing will be done based on MRI/AMR Data.”

6.12.2 MSEDCL would like to submit that it is proposing the continuance of discount in demand charge for fifth Control Period as its consumer consuming in only one

shift doesn't lead to loading of distribution system and requirement of power during other time intervals. However, due to high solar power addition, MSEDCL would have excess supply during solar hours and during non-solar hours it would have to depend on thermal plants with costly variable cost. MSEDCL therefore proposes to add the condition that the discount in demand charge should only be applicable if out of 10 hours of the operation of the industry at-least 8 hours are during solar hours (9 am to 5 pm). Further the other terms & condition approved by Hon'ble Commission in MTR Order dated 31st March 2023 for the discount in demand charge are proposed to be continued in fifth Control Period.

6.13 Miscellaneous and General Charges, Rebates and Penalties

6.13.1 Hon'ble Commission in its MTR Order dated 31st March 2023 in case no. 226 of 2022 had approved following charges, rebates and arrears under heading 'MISCELLANEOUS AND GENERAL CHARGES':

- Prompt Payment Discount
- Discount for digital payment
- Load Factor Incentive
- Rate of Interest on Arrears
- Rebate for On-time regular payment for LT-AG, LT-PWW and LT-Streetlight
- Penalty for exceeding contract demand
- Additional Demand Charges for Consumers having Captive Power Plant

6.13.2 MSEDCL requests Hon'ble Commission to continue these rebates, penalties and charges for fifth Control Period (FY 2025-26 to FY 2029-30) as well on the same terms and conditions as was allowed in the earlier order.

6.14 Rebates for consumers who avail their complete requirement from MSEDCL

6.14.1 MSEDCL proposes that various rebates/incentives which are offered to consumers as per Regulation 81.4 of MERC MYT Regulations 2019 should only be applicable to consumers who avail their complete requirement from MSEDCL. This would be deemed justifiable as these consumers are bearing full cost of MSEDCL ARR and also cross-subsidising other categories and hence should have first right over applicable discounts/rebates.

6.14.2 Hence, MSEDCL requests Hon'ble Commission to approve that following rebates

be only provided to consumers who avail their full electricity requirement from MSEDCL:

- Bulk Consumption Rebate
- Load Factor incentive
- Prompt Payment Discount
- Discount in Demand Charges for Single Shift operation of HT-Industry
- Discount for digital payment

6.14.3 Further, MSEDCL submits that partial open access consumer should get Incremental Consumption Rebate on energy quantum it has consumed from MSEDCL and units consumed from open access route should not be considered for calculation of the rebate.

6.15 Compensation wheeling charges due to non-establishment of EHV network by MSETCL

6.15.1 As per the MYT Order dated 30.03.2020 in Case No. 322 of 2019 passed by this Hon'ble Commission, it has been held that wheeling charges applicable to consumers would be based on the Billing Demand recorded, provided the requisite Billing Demand is met for at least 9 months in a financial year. The relevant para of the said order is reproduced herein below:

“2.4.10...the Commission rules that in such cases only (non availability of EHV or requisite voltage level), the wheeling charges to the consumer shall be applicable as per the Billing Demand recorded. To avoid misuse of this concession, the applicability shall be subject to MSEDCL internally certifying the non availability of the requisite voltage level and further that the billing demand shall be as per the requisite voltage level is met by the consumer for at least 9 months in a financial year.”

6.15.2 Clause 4.2 of the MERC Supply Code & SoP Regulations, 2021 mandates that the cost of network for providing connection to EHV consumers is to be borne by the Transmission Licensee. The relevant clause of the said clause is reproduced herein below:

“Clause 4.2...the cost of network for providing connection to a EHT Consumer shall be borne by the Transmission Licensee and the Consumer may be charged according to the Schedule of Charges.”

6.15.3 Further, this Hon'ble Commission vide the Order dated 02.09.2022 passed in Case Nos. 62, 63 & 64 of 2022 in M/s. Surya Ferrous alloys Pvt. Ltd, held that MSETCL herein is responsible for setting up the necessary infrastructure, and further held that in terms of the SoP Regulations, the cost of network if incurred by the Consumer, shall be reimbursed by the Transmission Licensee to the Distribution Licensee within Seven (7) days of assets being handed over to Transmission Licensee after deducting applicable charges as per approved Schedule of Charges. The relevant para of the said order is reproduced herein below:

17.4. As stated earlier, apart from the mandate of planning and development of the transmission infrastructure in the State, transfer scheme notified under the EA, 2003 has statutory force and hence needs to be complied with. Accordingly, the Commission rules that development of EHV infrastructure for providing connection to consumer is responsibility of MSETCL.

....

18.11. The Commission notes, the Supply Code Regulations, 2021 have clearly provided the necessity of bearing the EHV infrastructure cost on a transmission licensee. The Regulation further provides that the cost of network if incurred by the Consumer, shall be reimbursed by the Transmission Licensee to the Distribution Licensee within Seven (7) days of assets being handed over to Transmission Licensee after deducting applicable charges as per approved Schedule of Charges.

6.15.4 High voltage (HV) and extra high voltage (EHV) are terms used to describe different levels of electrical voltage in power distribution and transmission systems. High voltage (HV) typically refers to voltage levels in the range of 11KV or 11000 Volts, 22KV (22000Volts) and 33KV or 33000 volts. HV is commonly used for Power distribution from Substation to HT (High Tension) Consumer to meet its Contract Demand (CD) above 200KVA upto 20 MVA on different voltage levels (11/22/33 KV). Extra high voltage (EHV) refers to voltage levels above those of HV and is typically used for bulk power transmission over very long distances. EHV voltage levels generally vary from 100KV, 132KV, 220KV & 400KV. As per MERC (Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations 2021, EHV is to be used to provide power supply to HT consumers having contract demand 20000KVA (or 20MVA). It allows for efficient power transfer over longer

distances, reducing transmission losses.

6.15.5 In terms of supplying power to high tension consumers, such as large industrial or commercial facilities, both HV and EHV can be used. The choice depends on various factors, including the distance from the power source, load requirements, infrastructure availability, and cost considerations. Power loss in transmission lines (Line Loss) is proportional to the square of the current, so reducing current significantly reduces line losses. Extra Higher voltages result in very lower currents, reducing power loss caused by line resistance.

6.15.6 Presently, many consumers which are eligible to be connected on EHV level are connected on 33 kV/22 KV level. However as per Supply Code, these consumers are eligible to be connected on EHV level (above 33kv). At HV level (33 or 22 kv) the current drawl by these consumers is more as compared with current drawl at EHV level (above 33 kv level). So the line loss is more if same consumer is connected on HV level instead of eligible EHV level. The line loss for HV voltage level (33, 22 or 11kv) is 7.5% & on EHV voltage level (above 33kv) is in the range of 3.16%-3.28%. These consumers are connected at HV level which is having higher losses around 7.5% as compared with the EHV level losses i.e. in the range of 3.16%-3.28%. Due to this, the amount of electricity needed at HV level would increase compared to the total input units required at the EHV level.

6.15.7 According to the billing data from Oct 2024, eight consumers are using a total of 106.85 million units (MUs) of electricity per month. These consumers are connected at HV level which is having higher losses around 7.5% as compared with the EHV level losses is in the range of 3.16%-3.28%. Due to this, the amount of electricity needed at HV level would increase by about 5.15 MUs per month compared to the total input units required at the EHV level. Taking into account the current industrial unit rate of Rs. 8.12, the increase in units results in financial burden on the MSEDCL of approximately Rs. 4.18 crore per month or Rs. 50.22 crore per year. This burden is a result of the Maharashtra State Electricity Transmission Company Limited's (MSETCL) inefficiency in establishing the necessary extra high voltage (EHV) infrastructure to meet the demands of these consumers.

6.15.8 Additionally, the financial burden on MSEDCL is further compounded by the exemption of wheeling charges. This exemption leads to an additional burden of approximately Rs. 6.41 crore per month or Rs. 76.93 crore per year, based on

the consumption of 106.85 million units (MUs) per month (as per Oct 2024 billing data) and a wheeling charge rate of Rs. 0.6 per unit. Therefore, the total financial burden on MSEDCL resulting from line losses and exemption of wheeling charges amounts to Rs. 10.59 crore per month or Rs. 127.15 crore per year.

6.15.9 Due to the said financial burden, MSEDCL has already challenged and on 29.11.2023 filed an Appeal (DFR No. 667/2023) before the Hon'ble APTEL against the order dated 31.03.2023 in Case No. 226 of 2022 passed by this Hon'ble Commission regarding the levy of Wheeling Charges. Being a revenue neutral entity, MSEDCL is being constrained to pass on the burden (as highlighted hereinabove) to its consumers. It is submitted that MSEDCL and its consumers cannot be unjustifiably burdened because of the inefficiency of MSETCL in establishing the necessary EHV infrastructure. As MSETCL is not establishing necessary EHV infrastructure within sufficient time period & MSEDCL is unable to sustain such financial burden due to line loss & exemption of wheeling charges for long period. In view of the above MSEDCL humbly requests Hon'ble Commission to allow MSEDCL to recover this financial burden from MSETCL, if MSETCL fails to establish necessary EHV infrastructure.

6.16 Reactive Charge from RE generators and Open Access Consumers

6.16.1 MSEDCL would like to submit that there has been exponential increase in open access sales as well as renewable generators connected to MSEDCL grid. These consumers as well as generators, consumes as well as generates reactive power which lead to voltage drop or rise (more than the standard limit). This leads to increase in technical losses, as well as damage to equipment.

6.16.2 Hon'ble Commission has notified the Maharashtra Electricity Regulatory Commission (Distribution Open Access) Regulations, 2016, where-in it has specified guidelines for determining reactive charges applicable to open access consumers and renewable generators connected to distribution grid. The relevant extract is reproduced below:

"21.1 The methodology for payment for the reactive energy charges by an Open Access Consumer, Generating Station or Licensee with load of 5 MW or more shall be in accordance with the State Grid Code and the Regulations of the Commission governing Multi-Year Tariff or relevant orders of the Commission.

21.2. The reactive energy charges in respect of Open Access Consumers with load less than 5 MW shall be calculated on Power Factor basis as may be specified in relevant orders of the Commission.

21.3. The reactive energy charges in respect of Renewable Energy Generating Stations shall be in accordance with the charges approved by the Commission in its relevant Tariff Orders.”

6.16.3 Hon'ble Commission in its order dated 29.04.2011 in case no. 39 of 2011 for determination of renewable tariff has determined reactive energy charges to be levied on Renewable Energy Generating Stations. The relevant extract is reproduced below:

“0.10/RkVAh shall apply for reactive energy consumption upto 10% of the active energy delivered to the grid by the Generators. The reactive energy consumption in excess of 10% of active energy delivered to the grid shall be payable at the rate of Rs 0.25/RkVAh.

In case of biomass power projects and non-fossil fuel-based co-generation projects, the Project will supply reactive power (RkVAh) equivalent to at least 36% of the active power (kWh) supplied to the grid on a monthly basis. In case of failure to do so, the STU/Licensee shall charge the shortfall at the rate of Rs 0.25/RkVAh, or such other rate as may be stipulated by the Commission from time to time.”

6.16.4 There has been no escalation in reactive charges applicable to renewable energy generators for more than a decade after the said order as the same can be affected through tariff orders. Reactive energy charges act as a penalty for grid participants which makes economic sense for them to limit their VAR drawl/generation. If the charges are not revised for a long duration, its efficacy in inducing grid participants to limit their VAR drawl/generation would decrease as the cost of implementing the required changes would become more than the reactive energy charges. Hence it is pertinent to regularly increase the reactive energy charges so as to maintain their efficacy as a restraining mechanism.

6.16.5 In this regard it is submitted that the reactive energy rates have not been revised for more than a decade. As per Maharashtra Electricity Regulatory Commission (state grid code) Regulations 2020 which outlines mechanism for accounting and settlement of reactive energy charges for Intra-State Entities, the following charges and escalation have been specified for injection/drawl of reactive

charges for open access consumer, generating station or Licensee with load of 5 MW:

“4.2. The charge for kVArh (injection / drawl) to be levied shall be 13.00 paise/kVArh or such other rate as may be stipulated by Commission from the date of applicability of implementation of reactive power compensation mechanism in the state and the same shall be escalated by 0.50 paise/kVArh annually in subsequent years unless otherwise revised by the Commission.”

6.16.6 Further, MSEDCL is planning to procure large quantum of solar capacity and reactive energy charges should also be made applicable upon them to deter them from consuming reactive power. Accordingly, MSEDCL proposed that the escalation of 0.50 paise/kVArh should also be made applicable in case of reactive energy drawl by all RE generating plants (including solar and wind). The base reactive charge of Rs 0.10/KVArh for reactive energy consumption upto 10% of the active energy and Rs 0.25/KVArh for reactive energy consumption above 10% should be considered for FY 2011-12 and thereafter escalation of 0.50 paise/kVArh should be applied till FY 2025-26. This would yield rate of Rs. 0.17/KVArh for reactive energy consumption upto 10% of the active energy and Rs 0.32/KVArh for reactive energy consumption above 10% for FY 2025-26.

6.16.7 MSEDCL would like to further submit that open access consumers whose power factor are poor pay in kVAH terms, but they are not penalised for the voltage drop and damage they cause to the distribution network. Accordingly, MSEDCL requests Hon’ble Consumer to apply penal reactive charges of Rs 0.32/kVArh for OA consumers consuming reactive energy more than 10% of active energy as requested for RE generators.

6.16.8 The revised reactive charges for relevant grid participants is tabulated below:

Table 197 Proposed Reactive charge for different grid participants

Grid Participant	Reactive Charges specified in	Rate for FY 2024-25	Proposed Reactive Charge
Open Access Consumer, Generating Station or Licensee with load of 5 MW	State Grid Code/MYT Regulations	Rs 0.17/RkVAh	Rs 0.17/RkVAh
Open Access Consumers with load less than 5 MW	Relevant Orders of MERC	NA	Rs. 0.32/kVArh for reactive energy consumption in excess of 10% of active energy

Grid Participant	Reactive Charges specified in	Rate for FY 2024-25	Proposed Reactive Charge
Renewable Energy Generating Stations	RE Tariff Order in case no. 39 of 2011	0.10/RkVAh (Rs. 0.25/kVAh for reactive energy consumption in excess of 10% of active energy)	0.17/RkVAh (Rs. 0.32/kVAh for reactive energy consumption in excess of 10% of active energy)

6.17 Multiple Sources of Supply

6.17.1 Hon'ble Commission has notified the Maharashtra Electricity Regulatory Commission (Electricity Supply Code and Standards of Performance of Distribution Licensee including Power Quality) Regulations, 2021, wherein enabling provision for recovery of additional fixed charges from Consumers availing additional/multiple sources of supply has been specified. The relevant extract is reproduced below:

“3.2 Except where otherwise previously approved by the Authority, the classification of installations shall be as follows: -

...

Provided further the Distribution Licensee, having regard to the nature of supply and purpose for which supply is required, may adopt special system of supply including multiple sources of supply for specific Consumers, if it is demanded by the Consumer and if the same is technically feasible. However, additional cost towards such special system of supply over and above the cost towards applicable system of supply shall be borne by the concerned Consumers:

...

Provided further that Consumer having multiple sources of supply may be subjected to additional fixed charges as determined by the Commission from time to time based on Distribution Licensee's proposal in Tariff Petition.” (Emphasis added)

6.17.2 MSEDCL submits that presently under its jurisdiction there are 205 nos. of HT&EHV consumers who are availing double / multiple feeder supply of electricity. In FY 2023-24 they paid Rs 690.71 crore as demand charges. MSEDCL further submits that, the said double /multiple feeder supply arrangement has been provided on the specific request of the consumer.

6.17.3 MSEDCL in MTR Petition filed on 29th November 2022 in Case no. 226 of 2022 regarding Final True Up for FY 2019-20, FY 2020-21 & FY 2021-22, Provisional True Up of ARR for FY 2022-23 and Revised ARR & Tariff for FY 2023-24 to FY 2024-25 requested Hon'ble Commission to levy additional demand charges on consumers availing multiple sources of supply for each additional feeder. MSEDCL submitted that demand rate approved by Hon'ble Commission for single feeder consumer should be applied additionally for each extra feeder.

6.17.4 However, Hon'ble Commission in its MTR Order dated 31st March 2023 on the said Petition rejected additional demand charges on consumers availing multiple sources of supply and passed following order:

MSEDCL has neither provided any justification for additional demand charges at the rate of regular demand charges for each additional feeder nor potential computation of additional revenue by levy of such demand charges for these consumers with double/multiple feeder connections. Further, double/multiple feeder connections provide additional reliability for such consumers, however the recovery of additional demand charges should be reflective of such incremental cost that utility incur on maintaining (cost of setting up such arrangement is already recovered) such double/multiple feeder connections as also consumers should be able to clearly understand the impact of levy of such additional demand charges on its ABR/Tariff.

6.17.5 MSEDCL submits that consumers availing multiple sources of supply reserve additional feeder (at 11 kV or 33 kV) for their own use for gaining additional reliability, even if they may not be using the same for their regular supply. This forces MSEDCL to lay down network and capacity at-least twice of what would be required for normal consumers. For example a consumer at 11 kV level opts for two nos. 11 kV feeders; MSEDCL would have to add upstream network and capacity from 33 kV level downwards to 11 kV feeder either at present or sometime in future when load connected to the additional feeders saturates. The construction of additional network element would lead to addition capex cost elements such as depreciation, interest on loan, return on equity and also repair & maintenance cost. These costs on an average contribute towards 17% of total ARR of MSEDCL in next Control Period. In comparison, revenue generated by demand/fixed charges is projected to increase from 20% to 30% in next Control Period. Therefore, in order to cater the additional cost of providing a consumer with multiple MSEDCL proposed to levy 50% additional fixed cost from

consumers multiple sources of supply.

6.17.6 MSEDCL submits that the additional demand charge levied by MSEDCL on consumers availing multiple sources of supply would be added to revenue from sale of supply and the sum would be subtracted from ARR to arrive at Revenue gap. In case the additional demand charge is not levied on applicable customer, the revenue gap would be higher and resultantly higher tariff increase for all consumers in general would be required to cater the cost of additional capex for consumer availing multiple sources of supply. MSEDCL submits that this scenario would be unfair to other consumer specially as consumers availing multiple sources of supply are resourceful and need not require socialization of cost attributable to them. Hence Hon'ble Commission should approve levy of additional demand charges for consumers availing multiple sources of supply.

6.18 Tariff for LT and HT– Electric Vehicle (EV) Charging Stations

6.18.1 To reach stated climate goals and for making Bharat 'net zero' by 1970, Government of India is encouraging EV sales. The same would also reduce crude oil import by India. Towards the same, Gol has notified the National mobility mission 2020, and Govt. of Maharashtra has declared Maharashtra Electric Vehicle Policy 2018 which was further updated and published EV policy 2021 on dt. 23.07.2021. In the policy GoM has declared many incentives and relaxations for purchasing EVs and setting-up of charging stations.

6.18.2 It is widely accepted fact that in order to promote EVs, accessible and economical charging stations should be installed throughout the state. MSEDCL further submits GoM has designated it as the State Nodal Agency (SNA) for Maharashtra for disbursal for incentive of EV charging stations. MSEDCL as SNA has issued Operational guidelines on 02.09.2021 for incentive disbursement of EV Charging stations.

6.18.3 MSEDCL submits that it has commissioned 63 no of EV station at various prime locations of Maharashtra including Thane, Navi Mumbai, Nagpur, Nashik, Aurangabad, Pune, Solapur, Kolhapur, Amravati, Sangli and Mumbai. It has also set-up first Roof top solar integrated EV charging station at Pune. Under GoM EV Policy -2021, MSEDCL has received funds of Rs 2.89 crore for incentive disbursement and released incentive of Rs 2.09 crore to 65 nos of applicants.

6.18.4 Hon'ble Commission in its MTR Order dated 31st March 2023 has determined separate tariff for LT VIII: LT – Electric Vehicle (EV) Charging Stations and HT IX: HT – Electric Vehicle (EV) Charging Stations for supplying power to charging stations at LT level and HT level. The tariff determined for these categories for FY 24-25 by Hon'ble Commission are provided below:

*LT -VIII Energy charges Rs.6.58/kWh and KVA (MD) charges Rs.80/
KVA/month*

*HT-IX Energy charges Rs.7.4/kVAh and KVA (MD) charges Rs.80/
KVA/month*

ToD Charges

During time slot 22.00 to 6.00 Hrs- discount of Rs -1.5/unit

During time slot 06.00 to 9.00 Hrs& 12.00 to 18.00 Hrs- base tariff

During time slot 09.00 to 12.00 Hrs- additional charges of Rs 0.80/unit

During time slot 18.00 to 22.00 Hrs- additional charges of Rs 1.10/unit

6.18.5 Gol has issued guidelines for installation and operation of Electric Vehicle Charging Infrastructure -2024 dated 17 Sept 2024. The extract of the guideline regarding the electricity tariff for charging station is reproduced below:

“(1) The tariff for supply of electricity to EV Charging Stations shall be single part and shall not exceed "Average Cost of Supply" till 31st March 2028.

(2) The Distribution Licensee will charge 0.7 times the Average Cost of Supply (ACoS) during solar hours (9:00 AM to 4:00 PM) and 1.3 times ACoS during non-solar hours (remaining hours of the day).

(3) Each EV charging station must have separate metering arrangements to accurately record consumption and apply the appropriate tariff.

(4) Distribution Licensee may provide sub metering for EV charger, behind-the-meter of an existing HT connection.”

6.18.6 Accordingly, MSEDCL is submitting single part tariff proposal for following categories (i) LT VIII: LT – Electric Vehicle (EV) Charging Stations and (ii) HT IX:

HT – Electric Vehicle (EV) Charging Stations for approval of Hon'ble Commission.

6.19 Billing Demand

6.19.1 Hon'ble Commission in its MTR Order in case no. 226 of 2022 had determined billing demand for HT and LT consumers as following:

“Billing Demand - LT tariff categories

Billing Demand for LT Non-Residential / Commercial [LT: II (B) , LT II (C)] , LT III: Public Water Works [LT: III (B) , LT III (C)], LT V (A) (ii): Industry - Power Looms (above 20 kW) , LT V (B) (ii): Industry - General (above 20 kW), LT VII (A) Public Services - Government Owned Educational Institutes and Hospitals [LT VII (A) (ii) and LT VII (A) (iii)] , LT VII (B) Public Services - Others [LT VII (B) (ii) and LT VII (B) (iii)] and LT VIII – Electric Vehicle Charging Station categories having MD based Tariff:-

Monthly Billing Demand will be the higher of the following:

- a) 65% of the actual Maximum Demand recorded in the month during 0600 hours to 2200 hours;*
- b) 40% of the Contract Demand.*

Note:

- Only the Demand registered during the period 0600 to 2200 Hrs. will be considered for determination of the Billing Demand.

- In case of a change in Contract Demand, the above period will be reckoned from the month following the month in which the change in Contract Demand is effected.

Billing Demand - HT tariff categories

Billing Demand for HT I: Industry, HT II: Commercial, HT III Railway/Metro/Monorail, HT IV: Public Water Works, HT V: Agriculture, HT VI: Group Housing Society (Residential), HT VIII: Public Services and HT IX: HT – Electric Vehicle Charging Station

Monthly Billing Demand will be the higher of the following:

a. Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours;

b. 75% of the highest Billing Demand recorded during the preceding eleven months, subject to the limit of Contract Demand;

*c. 70% of the Contract Demand.**

**For FY 2024-25: 75%*

Note:

- Only the Demand registered during the period 0600 to 2200 Hrs. will be considered for determination of the Billing Demand.

- In case of a change in Contract Demand, the above period will be reckoned from the month following the month in which the change of Contract Demand is effected.

HT Seasonal Category (HT I)

During Declared Season, Monthly Billing Demand will be the higher of the following:

i. Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours

ii. 75% of the Contract Demand

iii. 50 kVA.

During Declared Off-season, Monthly Billing Demand will be the following:

i. Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours

During Declared Off-season, Monthly Billing Demand will be the following:

i. Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours

The Billing Demand for the consumers with CPP will be governed as per the CPP Order in Case No. 55 and 56 of 2003”

6.19.2 In this regards MSEDCL submits that earlier as night time had high excess supply hence demand recorded during night (2200 to 0600) was not considered for determining billing demand for both LT as well as HT consumers. However, as of now it is projected that during night, MSEDCL would not have excess supply as most of supply addition is happening in solar. Therefore, the demand recorded during night should also be considered for determining billing demand.

6.19.3 Further as submitted in para 6.3 there is requirement of recovery of more fixed charges from consumers and bring them to at-least 60% of fixed expense. Hence MSEDCL requests Hon’ble Commission to increase the applicable percentage of maximum demand recorded as well as applicable percentage of contract demand for determination of billing demand. The proposed revision in applicable percentages for LT and HT consumer categories are submitted in table below:

Table 198 Proposed changes in modality for determination of Billing Charges

Monthly Billing Demand	Percentage of Maximum Demand Recorded	Percentage of Contract Demand	Highest Billing Demand recorded during the preceding eleven months
LT Category			
Existing (MTR Order)	65%	40%	NA
Proposed	75%	60%	NA
HT Category			
Existing (MTR Order)	100%	75%	75%
Proposed	100%	85%	85%

6.19.4 Furthermore, within LT category, as MSEDCL has proposed demand charges for LT- II (A); LT (V) (i); LT VII (A) (i); and LT VII (B) (i) from 5th Control Period, billing demand of consumers of those categories should also be calculated in provided manner.

6.20 Modification in Tariff Applicability

6.20.1 Applicability of BPL category tariff

6.20.1.1 MSEDCL in its Petition MTR Petition filed on 29th November 2022 in Case no. 226 of 2022 regarding Final True Up for FY 2019-20, FY 2020-21 & FY 2021-22, Provisional True Up of ARR for FY 2022-23 and Revised ARR & Tariff for FY 2023-24 to FY 2024-25 submitted following regarding applicability of BPL tariff:

“MSEDCL submits that as per the exhaustive eligibility criteria prescribed by the Hon’ble Commission, applicability of BPL category will have to be assessed at the end of each financial year. MSEDCL submits that such assessment at the end of each financial year is not justified because if a consumer consumes more than 360 units cumulatively at the end of any billing cycle, then such consumer should be billed at LTI (B) - Residential tariff for the remaining period. Since the objective of the BPL category is to supply electricity at subsidised rates to the needy persons in society, then this creates a situation in which benefits of such tariff may get passed on to underserving consumers. Hence, it is proposed to add a constraint on applicability of BPL category such that eligibility of such consumer will be reassessed regularly cumulatively at the end of each billing cycle in a financial year. Further, Revenue loss at current energy charge of Rs. 3.55/unit and at Rs. 77/connection/month will not get cross-subsidised.”

6.20.1.2 However, Hon’ble Commission in its Order dated 31st March 2023 rejected the proposal of MSEDCL citing reason that MSEDCL has not cited any instances or misuse of this provision by consumer below poverty line necessitating review of this provision for assessment more frequently on every billing cycle on cumulative basis rather than financial year basis. Hon’ble Commission noted that total consumption reported under this BPL category is less than 60 MU. Accordingly, it was ordered that assessment of energy consumption for BPL consumers should continue at the end of each financial year rather than on cumulative billing cycle basis as proposed by MSEDCL. MSEDCL in instant Petition hereby submits instances of BPL consumers exceeding their quota of 360 units in middle of year and the extra revenue which would have been generated had they been shifted to LT I (B) category.

Table 199 Energy and Revenue Billed to BPL consumers after breaching consumption limit

Consumer breaching annual consumption in	Energy Consumed in remaining months of FY (MU)	Revenue Billed in remaining months (Rs Crores)	Corresponding Revenue in LT I (B) category (Rs Crores)	Revenue Loss (Rs Crores)
April	0.14	0.03	0.10	0.06
May	0.22	0.05	0.16	0.11
June	0.33	0.07	0.23	0.16
July	0.38	0.09	0.27	0.18
August	0.43	0.10	0.32	0.22
September	0.44	0.11	0.34	0.23
October	0.45	0.12	0.36	0.24
November	0.37	0.10	0.30	0.19
December	0.32	0.09	0.26	0.18
January	0.18	0.05	0.15	0.10
February	0.10	0.03	0.09	0.06
Total	3.37	0.84	2.58	1.73

6.20.1.3 MSEDCL submits that the loss in revenue is passed on to other consumers in form of tariff hike who pay their tariff as per correct category. This is unfair to them and at the same time consumers wrongfully availing BPL category are unfairly benefited. Hence MSEDCL again humbly requests Hon'ble Commission to add a constraint on applicability of BPL category such that eligibility of such consumer will be reassessed regularly cumulatively at the end of each billing cycle in a financial year.

6.20.2 LT I (B)- LT Residential

6.20.2.1 Tariff applicability 'Telephone booths owned/operated by Persons with Disabilities/Handicapped persons' is proposed to be replaced by 'Stalls certified by Local Government owned/operated by Persons with Disabilities/Handicapped persons having UDID Card'. The proposed changes would expand the definition of the applicability as well enable MSEDCL staff to identify eligible consumers falling under the category.

6.20.2.2 In tariff applicability for LT I (B): -LT Residential, 'teachers' is proposed to be added to list of professionals whose residential premise should be billed under LT I (B): -LT Residential category. This would provide clarity for billing of teachers who use their premise for tuitions. Further if a residential premise is being used as office it ideally should be billed under LT-II: LT- Non residential and not as LT I (B): -LT Residential. The revised applicability clause would be as follows:

“Residential premises used by professionals like Teachers, Lawyers, Doctors, Engineers, Chartered Accountants, etc., in furtherance of their professional activities, but not including Offices, Nursing Homes and Surgical Wards or Hospitals;”

6.20.2.3 Tariff applicability, “Single-phase household Flour Mills (Ghar-ghanti) used only for captive purposes” is proposed to be replaced by “Single-phase household Flour Mills (Ghar-ghanti) used only for captive purposes without any display or advertise for commercial purpose”. The proposed changes would expand the definition of the applicability as well enable MSEDCL staff to identify eligible consumers falling under the category.

6.20.2.4 As per present tariff applicability in case of residential LT consumer with consumption up to 500 units per month (current month of supply) who undertakes construction or renovation activity in his existing premises is not required to apply for a separate temporary connection, and would be billed at this Residential tariff rate. However MSEDCL proposes that consumer who demolishes existing structure/building and is making a new structure/building should apply for temporary connection and should be billed under 'LT-II: LT Non-Residential' category as the same is not being used for residential purposes. Accordingly, the revised tariff applicability is proposed to be put as follows:

“A residential LT consumer with consumption up to 500 units per month (current month of supply) who undertakes construction or renovation activity in his existing premises excluding redevelopment activity: such consumer shall not require a separate temporary connection, and would be billed at this Residential tariff rate”

6.20.2.5 Tariff applicability “Home-stay facilities at tourist destinations and religious places” is proposed to be modified as “Home-stay facilities registered under MTDC Niwas Nyahari Yojana at tourist destinations and religious places”. This again would enable MSEDCL staff to identify eligible consumers falling under the category.

6.20.3 LT II: LT – Non-Residential or Commercial

6.20.3.1 Tariff applicability “Milk Collection Centres; Standalone milk refrigeration, storage centres” is proposed to be modified to Milk Collection Centres and/or Standalone milk refrigeration (for sale), storage centres operated by private entity; All milk collection centres and stand alone chilling plants operated by local govt bodies will be billed at industrial tariff. This change is proposed to differentiate tariff of government owned milk collection centre which are generally run as ‘Not for Profit’ enterprise as compared to privately run ‘Milk Collection Centre’ which is run for profit on profit basis.

6.20.3.2 Tariff applicability “Sewage Treatment Plants/ Common Effluent Treatment Plants for Commercial Complexes not covered under the LT – Public Water Works or LT – Industry categories” is proposed to be modified to “Sewage Treatment Plants/ Common Effluent Treatment Plants for Commercial Complexes”. This would be inline with practice of Hon'ble Commission to not promote sub-metering and categorisation of tariff as per the dominant load of a consumer.

6.20.4 LT III: LT-Public Water Works (PWW) and Sewage Treatment Plants

6.20.4.1 In order to enhance clarity, the tariff applicability for the category should be modified as follows:

“This tariff category is applicable for electricity / power supply at Low / Medium Voltage for pumping of water, purification of water and allied activities relating to Public Water Supply Schemes, Sewage Treatment Plants and Waste Processing Units, provided they are either owned/operated/managed or operated by designated operator appointed by Local Self-Government Bodies (Gram Panchayats, Panchayat Samitis, Zilla Parishads, Municipal Councils and Corporations, etc.), or by Maharashtra Jeevan Pradhikaran (MJP), Maharashtra Industries Development Corporation (MIDC), CIDCO, Cantonment Boards, Housing Societies/complexes operated by developers in integrated township

projects, Water ATM (RO/UV/UF) Water Purifier Plants which are operated by Gram panchayat / local body or women's self-help groups. Pumping of water from remote location for drinking purpose for religious purposes to temples, gurudwaras, churches, mosques, etc.;

All other Public Water Supply Schemes and Sewage Treatment Plants (including allied activities) shall be billed under the respective tariff category tariff, as the case may be."

6.20.5 LT IV-(C): LT-Agriculture Others

6.20.5.1 Applicability "Aquaculture, Sericulture, Cattle Breeding Farms, etc" is proposed to be modified as "Aquaculture, Sericulture, Cattle Breeding Farms, Livestock Farming, Indoor Vertical Farming etc" to expand scope of the sub-category suitably

6.20.5.2 Applicability "Tabela, which involves no associated industrial/commercial activity of sales counter, milk processing or Dairy/Chilling plant: is proposed to be modified as "Tabela, which does not involves associated industrial/commercial activity of sales counter, milk processing or Dairy/Chilling plant" for better clarity for MSEDCL staff as well as consumers.

6.20.6 LT V: LT-Industry

6.20.6.1 Applicability for the category is proposed to be modified as follows:

"This tariff category is applicable for electricity for Industrial use, at Low/Medium Voltage, for purposes of manufacturing and processing, including electricity used within such premises for general lighting, heating/cooling, Research & Development, manufacturing, Processing, Melting, Blending, Mixing, Refining, Printing, Product Testing, Packing, etc.

It is also applicable for use of electricity / power supply for Administrative Offices / Canteens, Recreation Hall / Sports Club or facilities / Health Club or facilities/ Gymnasium / Swimming Pool exclusively meant for employees of the industry; lifts, water pumps, fire-fighting pumps and equipment, street and common area lighting; Research and Development units, Testing Laboratories exclusively utilized for self use etc.

Provided that all such facilities are situated within the same industrial premises and supplied power from the same point of supply; and exclusively utilized for self use;

This tariff category shall also be applicable for use of electricity / power supply by an Information Technology (IT) or IT-enabled Services (ITeS) Unit as defined in the applicable IT/ITeS Policy of Government of Maharashtra.

This Tariff Category shall be also applicable to the Independent / Standalone units providing Logistics services including Common Facilities but excluding Business and Commercial Facilities situated in integrated logistics parks under Government of Maharashtra Policy, 2018.

It shall also be applicable for use of electricity / power supply for (but not limited to) the following purposes:

a.....”

6.20.6.2 The proposed changes would also include functions like testing (for own product), associated activities, packaging and logistic services under industrial category thereby expanding the scope of category and would also lead to single metering as per dominant usage which is in accordance with directives of Hon'ble Commission also.

6.20.6.3 Applicability “Ice Factory, Ice-cream manufacturing units, Milk Processing and Chilling Plants (Dairy)” is proposed to be modified to “Ice Factory, Ice-cream manufacturing units, Milk Processing or Chilling Plants (Dairy)” to provide clarity to staff as well as consumers.

6.20.6.4 Applicability “Biotechnology Industries covered under the Biotechnology Policy of Government of Maharashtra” is proposed to be modified as “Biotechnology Industries covered under the Biotechnology Policy of Government of India and Government of Maharashtra”. This would put biotechnology industries under Government of Maharashtra and that of Government of India at equal pedestal.

6.20.7 LT VI: LT- Street Light

6.20.7.1 Hon'ble Commission in its MTR Order in case no. 226 of 2022 has revised applicability of the above category as following:

“This category is also applicable for use of electricity / power supply at Low / Medium Voltage or at High Voltage for (but not limited to) the following purposes, irrespective of who owns, operates or maintains these facilities:

a. Lighting in Public Gardens (i.e. which are open to the general public free of charge);

.....

d. Such other public places open to the general public free of charge.”

6.20.7.2 However, Hon'ble APTEL in case of M/s Dilip Buildcon Limited vs MERC and MSEDCL the matter of reclassification of Street Lighting at toll collection plazas under LT VI (Street Light) tariff instead of LT-II (Non-Residential or Commercial) has provided judgement that street light for toll plaza roads are to billed under LT VI category. Accordingly in order to provide effect to Hon'ble APTEL order the applicability clause is proposed to be modified as follows:

“This category is also applicable for use of electricity / power supply at Low / Medium Voltage or at High Voltage for (but not limited to) the following purposes, irrespective of who owns, operates or maintains these facilities:

a. Lighting in Public Gardens (i.e. which are open to the general public free of charge);

.....

d. Such other public places open to the general public free of charge.

e. Street lights on National Highway”

6.20.8 LT VII (A): LT - Government Educational Institutions and Hospitals

6.20.8.1 The applicability under the above category is proposed to be modified as follows:

“This tariff category is applicable for electricity supply at Low/Medium Voltage for Educational Institutions, such as Schools and Colleges; Health Care facilities, such as Hospitals, Dispensaries, Clinics, Primary Health Care Centres, Diagnostic Centres, Blood Bank and Pathology Laboratories; Libraries and public reading rooms - of the State or Central Government or Local Self-Government bodies such as Municipalities, Zilla Parishads, Panchayat Samitis, Gram Panchayats, and owned and operated by charitable trust etc;

.....”

6.20.8.2 MSEDCL submits that as hospitals and educational institutes operated and owned by charitable trust are operated on no profit and no loss basis and many people donate for the same, hence they should get benefit of lower tariff under LT VII (A) category.

6.20.9 LT VII (B): LT - Public Services – Others

6.20.9.1 Following applicability is required to be added to the category to provide clarity to MSEDCL staff and expand scope of applicability of the category:

p. Independent Pay and Parks

q. Check Posts excluding commercial activities.

6.20.9.2 MSEDCL submits that as per Hon'ble Commission's Order in Case No. 32 of 2023 Border Check Posts to be categorized under Public Service – Others category and other commercial activities are to be billed as per relevant tariff category

6.20.10 HT I (A): HT- Industrial

6.20.10.1 Applicability for the category is proposed to be modified as follows:

“This tariff category is applicable for electricity for Industrial use at High Voltage for purposes of manufacturing and processing, including electricity used within such premises for general lighting, heating/cooling, Research & Development, manufacturing, Processing, Melting, Blending, Mixing, Refining, Printing, Product Testing, Packing, etc.

It is also applicable for use of electricity / power supply for Administrative Offices / Canteen, Recreation Hall / Sports Club or facilities / Health Club or facilities/ Gymnasium / Swimming Pool exclusively meant for employees of the industry; lifts, water pumps, fire-fighting pumps and equipment, street and common area lighting; Research and Development units, etc. –

Provided that all such facilities are situated within the same industrial premises and supplied power from the same point of supply.

This tariff category shall be applicable for use of electricity / power supply by an Information Technology (IT) or IT-enabled Services (ITeS) Unit as defined in the applicable IT/ITeS Policy of Government of Maharashtra.

This Tariff Category shall be also applicable to the Independent / Standalone units providing Logistics services including Common Facilities but excluding Business and Commercial Facilities situated in integrated logistics parks under Government of Maharashtra Policy, 2018.

It shall also be applicable for use of electricity / power supply for (but not limited to) the following purposes:

6.20.10.2 The proposed changes would also include functions like testing (for own product), associated activities, packaging and logistic services under industrial category thereby expanding the scope of category and would also lead to single metering as per dominant usage which is in accordance with directives of Hon'ble Commission also.

6.20.10.3 Applicability "Ice Factory, Ice-cream manufacturing units, Milk Processing and Chilling Plants (Dairy)" is proposed to be modified to "Ice Factory, Ice-cream manufacturing units, Milk Processing, Milk Chilling Plants" to provide clarity to staff as well as consumers.

6.20.10.4 Applicability "Biotechnology Industries covered under the Biotechnology Policy of Government of Maharashtra" is proposed to be modified as "Biotechnology Industries covered under the Biotechnology Policy of Government of India and Government of Maharashtra". This would put biotechnology industries under Government of Maharashtra and that of Government of India at equal pedestal.

6.20.11 HT-II: HT-Commercial

6.20.11.1 Applicability "Milk Collection Centres, standalone milk refrigeration and storage centres" is proposed to be modified as "Milk Collection Centres and or Standalone milk refrigeration for sale; storage centres" in order to provide clarity to MSEDCL staff as well as consumers.

6.20.12 HT VI: HT - Group Housing Society (Residential)

6.20.12.1 The existing note to applicability for HT VI category is proposed to be modified as following for better clarity:

Note: 20% reduction in Energy Charge (incl. FAC) shall be applicable for Serving Armed Forces/Paramilitary forces residential establishments including allied services such as Canteen/ Mess/ Street lighting/Sport Club/ Water Supply covered under the HT-Group Housing category.

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

7 SEPARATION OF AGRICULTURAL AND NON-AGRICULTURAL SUPPLY

7.1 Historic Background

7.1.1 MSEDCL has high number of agricultural consumers (around ~47 lakhs) which are highest in the country and forming 16% of its total consumer base. In FY 2023-24, ~28% of the total energy sales by MSEDCL was attributable to agricultural category. The below table provides segregation of annual number of agricultural consumers and sales:

Table 200 Number of agriculture consumers and sales

Parameters	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
LT-Agriculture metered consumers (Nos.)	2,907,770	2,952,394	3,007,760	3,054,088
LT-Agriculture un-metered consumers (Nos.)	1,474,389	1,560,524	1,641,165	1,722,080
LT-Agriculture metered sales (MUs.)	21,541	23,136	23,555	27,140
LT-Agriculture un-metered sales (MUs.)	11,592	12,264	13,080	12,209

7.1.2 MSEDCL would like to submit that agricultural consumers are highly cross subsidized by other high paying categories such as 'Industrial' and 'Non-Residential/Commercial'. As per MTR Order dated 31st March 2023 their average billing rate is 57% of ACOS determined for FY 2024-25. This leads to higher tariff for cross subsidizing categories such as industries and commercial which are critical for development of state. As electricity cost is a major cost head for commercial & industrial establishments, the higher electricity tariff act as a barrier for their entry and expansion into the state and in some circumstances may also lead to their exodus to other states.

7.1.3 It is further submitted that in addition to cross subsidy, the state government of Maharashtra also provides direct subsidy to agricultural consumers and annually government provides almost Rs 17700 crore as agricultural subsidy. The amount of subsidy is slated to increase post the notification of Chief Minister Baliraja Free Electricity Scheme-2024 under which state government has mandated provision of free electricity to agricultural pump customers with up to 7.5 HP capacity, from April 2024 onwards. The state government is providing the total subsidy against electricity tariff determined by Hon'ble Commission under Section 65 of Electricity Act 2003.

7.1.4 Additionally, due to multiplicity of social, political and financial reasons; farmers have not been able to inculcate payment discipline. It is submitted that as per

latest data, MSEDCL has accrued more than Rs. 60,000 crore receivables from agricultural consumers as of date. MSEDCL would like to submit that the high level of arrears are despite Rs 10,420 crore of arrears written off under AG policy 2020. The high level of arrears leads to MSEDCL taking high amount of working capital loan to make up for cash deficit. This has led to very precarious financial condition of MSEDCL and has raised liquidity concerns.

7.1.5 MSEDCL also submits that Hon'ble Commission since past many years has also been disapproving agricultural sales as submitted by MSEDCL for True-up years. This leads to calculation of higher T&D loss for such years and leads to disallowance of power procurement cost. This also leads to financial loss for MSEDCL. The power sales as disallowed by Hon'ble Commission and resultant disapproval of power procurement cost is tabulated below:

Table 201 Agricultural sales submitted vs approved

Parameters	FY 20-21	FY 21-22
LT-Agricultural Sales submitted (MUs)	33,271	35,543
LT-Agricultural Sales Approved (MUs)	26,549	26,775
Incremental change in T&D loss due to sales disapproval	5.81%	7%
Power Procurement Cost disallowed (Rs Crore)	2,482	4,278

7.1.6 In view of issues cited above, Hon'ble Commission under Section 86(2) of Electricity Act, 2003 has rendered advice to Government of Maharashtra through its letter dated 05 January 2022 for undertaking study of MSEDCL's operations and laying down time bound plan for performance improvement. In the said advisory Hon'ble Commission suggested short-term and long-term measures towards the same. As part of long-term measures Hon'ble Commission have rooted for structural changes in MSEDCL as an organization, which include carving out a separate company to supply power to agricultural consumers. Hon'ble Commission identified separate agricultural feeders along with cheaper distributed solar power for agricultural use; a key enablers for the proposed restructuring. Hon'ble Commission opined that this would create win-win situation for all consumers and also address chronic issues of cash shortage being faced by MSEDCL.

7.1.7 Further, Hon'ble Commission in its MTR Order dated 31st March 2023 has directed MSEDCL for pursuing the option of carving separate agricultural company. The directive of Hon'ble Commission is reproduced hereunder:

“The Commission vide its letter dated 05 January 2022 advised to GoM for undertaking study of MSEDCL’s operations and laying down time bound plan for performance improvement. In the said advisory one of the options suggested is with regards formation of new Company for Agricultural consumers. This has become urgent need of the hour as the tariff for industrial and commercial category consumers have reached to level with very high level of cross-subsidy. Further, accounting of the energy consumption as well as quality of power supply to agriculture consumers/feeders require dedicated and focused efforts. Formation of separate agriculture company would enable monitoring and ensuring accountability towards both these category of consumers with two separate organizations, as their mandate would drive such focused efforts necessary at this stage. In view of above, the Commission directs MSEDCL to pursue this option and chart out the modalities for implementation of the same expeditiously.”

- 7.1.8 MSEDCL would like to submit that it understands the rationale behind the suggestion of Hon’ble Commission to the state government. Joining the dots retrospectively the actions of segregating agricultural feeders from goathan feeders and providing solar power to agricultural feeders under MSKVY 2.0 at 11 kV level were steps towards a separate agricultural company.
- 7.1.9 **Segregation of agricultural feeders** would facilitate separate energy accounting for power supply to agricultural consumers at 11 kV level. The separate company would also be able to carry out R&M activities on agricultural feeder without any interference from MSEDCL (only security clearance would be needed to take). The agricultural supply company would have complete responsibility metering, billing and collection from consumers connected to the segregated feeder and responsibility of all type of technical losses and commercial losses would fall upon the new company.
- 7.1.10 **Reduction in ACOS.** MSEDCL also submitted that average tariff discovered for MSKVY 2.0 solar plants is under Rs 3.06/kWh which is significantly below present Average Power Procurement Cost of MSEDCL. Generally, power procurement cost is the largest component of ACOS for any power distribution company. Provision of cheaper solar power to agricultural consumers would therefore lead to lower power procurement cost for agricultural supply company thereby also leading to lower ACOS. It is also worthwhile to mention that agricultural load is not time dependent and requires supply for only 8 hours a day

which is in line with solar power generation which generally is available for 8 hours during a day. Additionally, as solar plant would be co-located with agricultural pump, therefore during sunny days (non-rainy days) when irrigation happens through agricultural pumps, it can be expected that there would be sufficient solar power. All these factors would significantly reduce the requirement of energy storage techniques like BESS or pumped hydro and other firm generating source for integration of infirm solar power with consumer load pattern. This would mitigate additional cost incurred by new entity generally required towards banking arrangements or other sources of power for meeting consumer demand.

7.2 Contours and timelines of Segregation of Agricultural Company

7.2.1 MSEDCL respectfully submits that it being a government owned company has no control over its bifurcation or the mode through which it may happen, however still upon directive of hon'ble Commission it is detailing the methodology of carving out a separate agricultural company along with respective roles and responsibilities. It is also proposing broad terms & condition of commercial transactions between itself and the new agricultural supply company. The same is only of suggestive nature and the final decision would be taken by state government or Hon'ble Commission as per their respective powers under Electricity Act 2003 and other relevant laws.

7.2.2 The new agricultural company may be structured as a subsidiary of MSEDCL holding company like MSEDCL itself. It would be owner and operator of 11 kV agricultural feeders emanating from 2,752 existing sub-station as well as those emanating from new sub-stations being constructed (under schemes such as RDSS or other multilateral funded projects) and further downstream network. MSEDCL would like to suggest that small number of agricultural consumers connected to mixed feeders may be retained with itself as separate energy accounting and maintenance related functions by a separate company would be difficult as well as would have potential for dispute. MSEDCL would coordinate with the new company to maximize the availability of sub-stations as well as provide required feeder on/off operations from centralized control centre on request of agricultural supply company.

7.2.3 **Preparatory activities for segregation.** Based upon approval received from Hon'ble Commission and go-ahead by relevant departments of state

government, MSEDCL would start process of carving out a separate agricultural company starting from April 2025. Generally, MSEDCL would try that segregation is effective on or before 01 April 2028 so that in next MTR order, Hon'ble Commission can give effect to separate tariff order for both the distribution licensees. It would undertake following steps towards the same:

- 7.2.3.1 Asset Register.** MSEDCL would prepare an asset register with comprehensive details of 11 kV agricultural feeders and connected downstream network including GFA, age, accumulated depreciation, etc. This includes conductors, support structure, guard wire, insulators, distribution transformers & associated equipment, LT lines, service wire, meters, meter boxes, fuses, etc. Most of the agricultural feeders have been constructed under schemes such as Maharashtra Rural HVDS Expansion Program and RDSS which have high grant component. Hence, MSEDCL would also account the GFA amount created by grants and amount attributable to debt and equity. This would later stage also assist Hon'ble Commission to segregate approved GFA, equity and debt value between MSEDCL and new agricultural company. Once a separate asset register for agricultural feeders and downstream network is connected in next stage it would prepare asset register for MSEDCL as a whole.
- 7.2.3.2 Employee matters.** MSEDCL and/or state government would require estimating designation-wise and function-wise employees to be retained in MSEDCL and those to be transferred to new entity based on estimated network length/capacity and number of consumers to be allocated new company. MSEDCL would also prepare staffing norms and work norms to determine proportion of employees retained in MSEDCL and transferred to new entity. MSEDCL and/or state government would also be expected to conduct stakeholder consultations with employee unions and engineers' unions regarding the bifurcation as multiple aspects such as service conditions, transferability and seniority list would be impacted due to transfer of employees from one organization to another. MSEDCL would need to find solution to satisfaction of all and compensate employees being impacted by the said transfer.

- 7.2.3.3 Commercial and Financial transactions.** MSEDCL would also need to evolve protocol for recording commercial transactions between itself and new agricultural supply company, including recording energy input at 11 kV agricultural feeders along with extra energy being fed back through power sub-station and GSS by distributed solar power. MSEDCL would also need to bifurcate existing assets, loan and equity into books of new entity as per transfer scheme approved by state government. Existing PPAs and contract with vendors would also need to be shifted to new utility as per their overall purpose and functional area.
- 7.2.3.4 Governance structure.** During the preparatory stage for bifurcation i.e. from FY 2025-26 to FY 2027-28, the existing BoD of MSEDCL would be in complete charge of bifurcation activity and along with Energy Department, Government of Maharashtra it would be taking key decisions in consonance with directions (if any) provided by Hon'ble Commission in its Order against instant petition.
- 7.2.4 Regulatory requirement for segregation.** As per timelines provided in clause (b) of Regulation 5.1 of MERC MYT Regulations 2024, distribution licensees need to file mid-term review Petition by November 30, 2027. As the segregation is expected to be completed by 01 April 2028, MSEDCL would file two separate Petitions; (i) True-up for FY 2024-25, FY 2025-26, FY 2026-27; provisional True-up for FY 2027-28 ; for complete MSEDCL & revised forecast of ARR, expected revenue gap and category-wise revised tariff for FY 2028-29 and FY 2029-30 and (ii) Calculation of ARR and tariff for new agricultural supply company for FY 2028-29 and FY 2029-30. Following steps would be required for the same:
- 7.2.4.1 Amendment in MYT Regulations.** Hon'ble Commission may also need to provide amendments to Regulation 93.2 and Regulation 103.2 of MERC MYT Regulations 2024 for specifying normative O&M cost for new agricultural supply company or may adopt the same norms as applicable to MSEDCL as per its discretion.

7.2.4.2 **MTR Order.** Hon'ble Commission is expected to come up with MTR Order on or before 01 April 2028. In the said order, based on provisional True-up of FY 2027-28, closing balance of GFA, normative debt and equity would be approved by Hon'ble Commission for MSEDCL as a whole. For FY 2028-29 onwards, Hon'ble Commission would need to bifurcate the closing value of the said parameters between MSEDCL as well as new agricultural supply company on basis of asset register and the detail of grants received under respective schemes. The bifurcated value of approved GFA, normative debt and equity which would form basis of depreciation cost, interest on debt and RoE respectively for both MSEDCL and the new entity for subsequent years. Hon'ble Commission would also need to segregate energy balance and power procurement quantum and cost on basis of transfer of PPA to new entity and anticipated sales to consumers connected to agricultural feeders. On basis of separate cost elements thus approved, Hon'ble Commission may come up with separate tariff orders for MSEDCL as well as new agricultural supply company.

7.2.5 **Segregation and Post segregation activities.** MSEDCL would target that all the preparatory activity for segregation may be completed on or before November 2027. Thereafter following steps may be taken for actual segregation:

7.2.5.1 **Transfer Scheme.** Section 131 of Electricity Act 2003 which was prepared for reorganisation of State Electricity Board can also be used for horizontal unbundling of power distribution company. Government of Maharashtra would prepare a transfer scheme detailing assets, work in progress, interest in property and liabilities to be shifted to separate agricultural company. The date on which the transfer would be made effective would be known as 'effective day'. Immediately before the effective date all assets, interest in properties and liabilities which belonged to MSEDCL would vest in state government. Thereafter on effective date all assets, interest in properties and liabilities vested in the State Government shall be re-vested by the State Government in MSEDCL and new agricultural supply company in accordance with the transfer scheme.

7.2.5.2 **Preparation of Balance Sheet.** Based on asset register and transfer scheme, MSEDCL would prepare two separate balance sheets for itself as well as the new agricultural supply company as on 31 March 2028. The balance sheet would bifurcate existing assets and liabilities between MSEDCL and new agricultural supply company as per actuals or ratio specified in the transfer scheme.

7.2.5.3 Employee Transfer Scheme. Based on activities specified above, selected employees would be transferred to the new entity. Generally, all the departments of MSEDCL at headquarter level would also be created for new entity. However, at field level the new entity would function in only those areas where there are agricultural feeders thereby excluding urban centres and circles where there are no separate agriculture feeder. To minimize overhead cost, offices at 'Region' level may be done away with in case of new entity and offices at 'zone' level would directly report to headquarter. The hierarchy of staff in various department and offices for the new entity would be same as in MSEDCL. The number of staff would be employed in proportion to the network length, geographical area and number of consumers in accordance with staffing norms and work norms prepared earlier.

7.2.5.4 Board of Directors. Initially in the first year both the companies would have same Board of Directors and headed by same CMD. This would be carried out to minimize chances of conflict and lack of coordination in the first year of the transfer. However, second year onwards both the companies would have separate BoD and headed by different CMDs to ensure independence and non-conflict of interest.

7.3 Inter-utility transactions

7.3.1 MSEDCL would like to submit that although after carving separate agricultural supply company, both the utilities would be acting as independent utility, however as agricultural company would be connected to upstream network belonging to MSEDCL there will be dependency for energy accounting as well as taking security clearance for R&M activities. Additionally, for power procurement from sources other than distributed solar power (connected directly to 11 kV feeder) the power would be needed to be wheeled from MSEDCL's network above 11 kV.

7.3.2 Power Procurement

7.3.2.1 Generally, power generated by solar power set-up under MSKVY 2.0 would be used to provide power to agricultural consumers. However, there may be scenarios when there may not be sufficient demand from agricultural consumers to consume the power generated by solar plants set-up under MSKVY 2.0. Similarly, there may scenarios when there is agricultural demand but there is not sufficient solar power generation. In order to cover-up for such scenarios, other cheaper sources of solar power will be allocated to Agri business.

7.3.2.2 Further, in those months when little or no agricultural consumption is expected for farmers connected to a sub-station, excess power during that period will be allocated to non-Agri business of MSEDCL.

7.3.3 Repair & Maintenance

7.3.3.1 The new entity would be responsible for repair & maintenance 11 kV agricultural feeder and associated downstream network. However, the responsibility of keeping the upstream network available would be of MSEDCL. Hon'ble Commission its Regulation/Order may mandate MSEDCL to keep sub-station (supplying power to agricultural feeders) available more than an optimum level. MSEDCL would like to submit that it already is executing sub-station monitoring system to ensure maximizing of the availability of such sub-stations.

7.3.3.2 MSEDCL would also be responsible for providing security clearance for starting R&M work on agricultural feeder. For this MSEDCL would develop a protocol with the agricultural supply company to apply and receive work clearance/permit. It is also to be noted that there is feeder switch-off operation possible from central headquarter as a module of sub-station monitoring system.

7.3.3.3 It is also proposed that for cost optimisation there may be common stores for both MSEDCL and agricultural supply company in areas with agricultural feeders and the new entity can store its equipment/ tools/ inventory in the store with separate tag in lieu of suitable rent to be determined by Hon'ble Commission.

7.3.4 Services and Vendors

7.3.4.1 MSEDCL has also developed or purchased multiple IT based system and integrated with Operational Technology (OT) system. MSEDCL based on usage would share all such systems with Agricultural supply company and would bifurcate cost of customization and future maintenance on basis of users or consumers, as suitable.

7.3.4.2 The contract of vendors responsible for Metering Billing Collection (MBC) activity and/or Engineering Procurement and Commissioning (EPC) contractors working in agricultural feeders would also be transferred to the new entity.

7.4 Separate ACoS for Agricultural Consumers

7.4.1 MSEDCL would like to submit that under MSKVY and other distributed solar schemes such as PM-KUSUM 16,520 MW of solar plants are expected to be commissioned by end of FY 2026-27. But, for FY 2025-26, cheaper power from other solar sources along with conventional sources will be allocated to agri business of MSEDCL. The large capacity of solar plants being set-up under MSKVY 2.0 would result in lower power procurement cost for consumers connected to solarised agricultural feeders resulting in lower 'Cost of Supply' (CoS) for such consumers.

7.4.2 It is further submitted that both Ministry of Renewable Energy (MNRE), Government of India and Government of Maharashtra are paying huge capital subsidy (30% of capital cost) for solar plants being set-up under MSKVY 2.0 for agricultural consumers. Without the capital subsidy the tariff discovered would have been much more than ceiling level (of Rs 3.1/kWh) determined by Hon'ble Commission and therefore Hon'ble Commission would have not approved the PPA. As both MNRE and Government of Maharashtra subsidy is towards agricultural consumers, the reduced cost from these power plants should be linked with consumers connected to the solarised agriculture feeder. Hon'ble Commission need not wait till FY 2028-29 for determining separate tariff for separate agricultural company but can start with separate CoS for such consumers from FY 2025-26 onwards. MSEDCL in instant petition is submitting calculations for CoS of LT- IV agricultural consumers and all other remaining consumer categories to bring out the impact of cheaper solar power. The reduced CoS for agricultural consumers should lead to lower tariff for them. This would also reduce tariff subsidy payable by Government of Maharashtra for agricultural consumption which already has allocated around 10,000 crore

amount for VGF to solar plants under MSKVY 2.0.

7.4.3 In order to determine separate CoS for agricultural consumers, MSEDCL has separately determined retail charges attributable to agricultural consumers. Towards the same it has adopted following approach for bifurcating following cost items:

7.4.3.1 **Power Procurement Cost:** Agricultural consumption pattern is flexible within span of a day and hence can be easily integrated with solar power. Furthermore, decentralised solar plants are co-located in vicinity of agricultural pumps and hence generate sufficient solar power when it is not raining and sunny thereby leading to requirement of irrigation by agricultural pumps. MSEDCL has therefore considered existing de-centralized solar plants (MSKVY, PM-KUSUM) as well as new de-centralized solar coming in the future years (MSKVY 2.0) for purpose of supply against agricultural consumption. Furthermore in order to cater to remaining demand (after allocating power from decentralised solar plants), MSEDCL had also tagged other PPAs with inter and intra solar power plant with agricultural consumption. The power procurement cost of the solar power have been considered as per rate specified in the PPA or power procurement cost discovered during competitive bidding. The below table details generation as well as their respective costs from solar plants under various schemes/developers and matches the same with overall agricultural demand:

Table 202 Power Purchased & Overall Cost for FY 2025-26

Power Generation Sources	Total Energy Sent Out (ESO) from the station (MU)	Per Unit Rate (Rs. / Unit)
Renewable - Solar intra	28,627.90	3.20
Renewable - Solar inter (Loss not applicable)	4,365.85	3.87
Conventional Sources	11,882.26	
Lara	2,094.95	2.68
KSTPS III	915.12	2.87
KSTPS	4,683.47	2.53
SIPAT TPS 1	4,188.72	3.19
Total Power	44,876.01	3.16

Table 203 Power Purchased & Overall Cost for FY 2026-27

Name of Sources	Quantum Purchased (MUs)	Rate (Rs/kWh)	Overall Cost (Rs Crore)
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Name of Sources	Quantum Purchased (MUs)	Rate (Rs/kWh)	Overall Cost (Rs Crore)
Existing De-Centralized Solar	1,759.03	3.20	562.83
Upcoming De-Centralised Solar			-
MSKVY -1	542.97	3.10	168.32
KUSUM-A	64.50	3.30	21.29
KUSUM-C	160.72	3.10	49.82
MSKVY 2.0 - phase-I	19,859.65	3.08	6,116.77
MSKVY 2.0 - phase-II	11,026.62	3.05	3,357.61
KUSUM-A	92.30	3.30	30.46
MSKVY 2.0 - phase-II	2,373.86	3.10	735.90
Inter/Intra State Solar			-
M/s.Avaada MH Sustainable Pvt.Ltd	509.45	2.45	124.82
Maharashtra State Power Generation Co.Ltd	509.45	2.58	131.44
Grid connected solar (Interstate) (NHPC)	2,895.12	2.60	752.73
SJVNL	146.15	2.60	38.00
SECI -tranche -XIII	85.25	2.63	22.42
M/s.MH Technique Solaire India Pvt. Ltd	40.76	2.71	11.04
Gird connected inter-state (NTPC)	3,140.47	2.72	854.21
M/s.Avaada Sunce Energy Pvt.Ltd	713.23	2.75	196.14
Solar (Inter/Intra) Tender phase-11	75.87	2.75	20.86
ACME Heergarh Powertech Private Limited	611.34	2.77	169.34
M/s.Renew Sun Bright Pvt.Ltd	611.34	2.77	169.34
Solar Tender Phase-X Intra	815.13	2.79	227.42
M/s. ACME Chittorgarh Solar Energy Pvt. Ltd	509.45	2.89	147.23
TP Kirnali Ltd	203.78	2.90	59.10
Total	46,746.45		13,967.09

Table 204 Power Purchased & Overall Cost for FY 2027-28

Name of Sources	Quantum Purchased (MUs)	Rate (Rs/kWh)	Overall Cost (Rs Crore)
Existing De-Centralised Solar	1,783.21	3.20	570.57
Upcoming De-Centralised Solar			
MSKVY -1	550.43	3.10	170.63
KUSUM-A	65.39	3.30	21.58
KUSUM-C	162.93	3.10	50.51
MSKVY 2.0 - phase-I	20,132.60	3.08	6,200.84
MSKVY 2.0 - phase-II	11,178.17	3.05	3,403.75
KUSUM-A	93.57	3.30	30.88
MSKVY 2.0 - phase-II	2,406.49	3.10	746.01

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Name of Sources	Quantum Purchased (MUs)	Rate (Rs/kWh)	Overall Cost (Rs Crore)
Inter/Intra State Solar			
M/s.Avaada MH Sustainable Pvt.Ltd	525.44	2.45	128.73
Maharashtra State Power Generation Co.Ltd	525.44	2.58	135.56
Grid connected solar (Interstate) (NHPC)	2,985.99	2.60	776.36
SJVNL	2,429.28	2.60	631.61
SECI -tranche -XIII	1,417.08	2.63	372.69
M/s.MH Technique Solaire India Pvt. Ltd	42.04	2.71	11.39
Gird connected inter-state(NTPC)	3,239.04	2.72	881.02
M/s.Avaada Sunce Energy Pvt.Ltd	735.62	2.75	202.30
Solar (Inter/Intra) Tender phase-11	315.27	2.75	86.70
ACME Heergarh Powertech Private Limited	630.53	2.77	174.66
M/s.Renew Sun Bright Pvt.Ltd	630.53	2.77	174.66
Solar Tender Phase-X Intra	840.71	2.79	234.56
M/s. ACME Chittorgarh Solar Energy Pvt. Ltd	525.44	2.89	151.85
TP Kirnali Ltd	210.18	2.90	60.95
Total	51,425.39	2.96	15,218

Table 205 Power Purchased & Overall Cost for FY 2028-29

Name of Sources	Quantum Purchased (MUs)	Rate (Rs/kWh)	Overall Cost (Rs Crore)
Existing De-Centralised Solar	1,783.21	3.20	570.57
Upcoming De-Centralised Solar			-
MSKVY -1	550.43	3.10	170.63
KUSUM-A	65.39	3.30	21.58
KUSUM-C	162.93	3.10	50.51
MSKVY 2.0 - phase-I	20,132.60	3.08	6,200.84
MSKVY 2.0 - phase-II	11,178.17	3.05	3,403.75
KUSUM-A	93.57	3.30	30.88
MSKVY 2.0 - phase-II	-	-	-
Inter/Intra State Solar	2,406.49	3.10	746.01
M/s.Avaada MH Sustainable Pvt.Ltd	525.44	2.45	128.73
Maharashtra State Power Generation Co.Ltd	525.44	2.58	135.56
Grid connected solar (Interstate) (NHPC)	2,985.99	2.60	776.36
SJVNL	2,429.28	2.60	631.61
SECI -tranche -XIII	1,417.08	2.63	372.69
M/s.MH Technique Solaire India Pvt. Ltd	42.04	2.71	11.39
Gird connected inter-state(NTPC)	3,239.04	2.72	881.02
M/s.Avaada Sunce Energy Pvt.Ltd	735.62	2.75	202.30

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Name of Sources	Quantum Purchased (MUs)	Rate (Rs/kWh)	Overall Cost (Rs Crore)
Solar (Inter/Intra) Tender phase-11	315.27	2.75	86.70
ACME Heergarh Powertech Private Limited	630.53	2.77	174.66
M/s.Renew Sun Bright Pvt.Ltd	630.53	2.77	174.66
Solar Tender Phase-X Intra	840.71	2.79	234.56
M/s. ACME Chittorgarh Solar Energy Pvt. Ltd	525.44	2.89	151.85
TP Kernali Ltd	210.18	2.90	60.95
Total	51,425.39	2.96	15,217.82

Table 206 Power Purchased & Overall Cost for FY 2029-30

Name of Sources	Quantum Purchased (MUs)	Rate (Rs/kWh)	Overall Cost (Rs Crore)
Existing De-Centralised Solar	1,783.21	3.20	570.57
Upcoming De-Centralised Solar			-
MSKVY -1	550.43	3.10	170.63
KUSUM-A	65.39	3.30	21.58
KUSUM-C	162.93	3.10	50.51
MSKVY 2.0 - phase-I	20,132.60	3.08	6,200.84
MSKVY 2.0 - phase-II	11,178.17	3.05	3,403.75
KUSUM-A	93.57	3.30	30.88
MSKVY 2.0 - phase-II	2,406.49	3.10	746.01
Inter/Intra State Solar			
M/s.Avaada MH Sustainable Pvt.Ltd	525.44	2.45	128.73
Maharashtra State Power Generation Co.Ltd	525.44	2.58	135.56
Grid connected solar (Interstate) (NHPC)	2,985.99	2.60	776.36
SJVNL	2,429.28	2.60	631.61
SECI -tranche -XIII	1,417.08	2.63	372.69
M/s.MH Technique Solaire India Pvt. Ltd	42.04	2.71	11.39
Gird connected inter-state (NTPC)	3,239.04	2.72	881.02
M/s.Avaada Sunce Energy Pvt.Ltd	735.62	2.75	202.30
Solar (Inter/Intra) Tender phase-11	315.27	2.75	86.70
ACME Heergarh Powertech Private Limited	630.53	2.77	174.66
M/s.Renew Sun Bright Pvt.Ltd	630.53	2.77	174.66
Solar Tender Phase-X Intra	840.71	2.79	234.56
M/s. ACME Chittorgarh Solar Energy Pvt. Ltd	525.44	2.89	151.85
TP Kernali Ltd	210.18	2.90	60.95
Total	51,425.39	2.96	15,217.82

7.4.3.2 Inter and Intra State Transmission Charges. Transmission charges and losses would not be applicable on generation from de-centralized solar power systems. In case of inter-state solar power generations as per Ministry of Power (MoP) rules charges are not applicable on solar power commissioned before June 2025. However intra-state transmission charges and losses would be applicable on intra state solar power generator.

7.4.3.3 Depreciation, Interest on Loan and Return on Equity. As per clause 1.2 of Annexure-3 of MERC MYT Regulations 2024, following assets have been identified as ‘Supply dedicated assets’:

“All consumer meters and associated metering accessories including CT/PT, meter reading devices and instruments, AMR infrastructure including remote meter communication assets and facilities, meter housing, meter boards and including board wiring. It is clarified that this shall not include meters installed at various locations on the distribution grid, along with their associated metering accessories, wiring and housing.

All assets related to consumption analysis and audit, billing and payment facilities such as IT hardware and software for consumption analysis, billing, etc., cash collection centers, automated payment kiosks, consumer care centers, etc.

Apps for allocation of meter readers, for billing and payment, if any.

All these assets are dependent on number of consumers and hence MSEDCL proposes to bifurcate GFA between LT IV Agriculture’ consumers and all other consumer categories in the ratio of number of consumers in those categories. As depreciation, interest on loan and ROE are directly proportional to GFA. MSEDCL has used the ratio of consumers to bifurcate these cost elements between agriculture and other categories.

Table 207 Calculation of Depreciation (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY2027-28	FY 2028-29	FY 2029-30
Depreciation for Retail Supply Business	398.76	372.04	344.65	333.27	319.06
LT Agri Consumer/Total Consumer Ratio	15.0%	14.7%	14.4%	14.2%	13.9%
Depreciation for Agri Supply Business	59.66	54.66	49.73	47.22	44.38

Table 208 Calculation of Return on Equity (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY2027-28	FY 2028-29	FY 2029-30
ROE for Retail Supply Business	312.58	363.71	391.58	401.17	409.50
LT Agri Consumer/Total Consumer Ratio	15.0%	14.7%	14.4%	14.2%	13.9%
ROE for Agriculture Supply Business	46.77	53.44	56.50	56.84	56.97

Table 209 Calculation of Interest on Loan (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY2027-28	FY 2028-29	FY 2029-30
Interest on Loan of Total MSEDCL	1,259.84	1,725.23	1,889.72	1,874.57	1,760.76
Opening GFA of MSEDCL/Opening GFA of Agriculture supply business	1.5%	1.5%	1.4%	1.4%	1.4%
Interest on Loan for Agriculture Supply Business	18.85	25.35	27.27	26.56	24.49

7.4.3.4 Operation and Maintenance Expenses. Regulation 103.2 of MERC MYT Regulations 2024 specifies normative O&M expense in terms of number of consumers as well as average GFA. MSEDCL has calculated normative O&M expenditure of LT-IV agricultural and other categories by considering projected number of consumers in each category. Further it has apportioned projected average GFA for each year into ratio of number of consumers of both categories as submitted above. Thereafter it has used the formulation provided in Regulation 103.2 to calculate O&M expense for retail supply as provided in below table:

Table 210 O&M Calculation

Particulars	FY 2025-26	FY 2026-27	FY2027-28	FY 2028-29	FY 2029-30
O&M (% of Average GFA - Retail Supply)	5.2%	5.4%	5.7%	5.9%	6.2%
O&M (INR Lakhs/'000 Consumers)	10.44	10.91	11.40	11.92	12.45
Average GFA - Agriculture Supply	1,370.80	1,657.47	1,836.39	1,943.58	2,006.33
No. of LT Consumers ('000 consumers)	4,877.78	4,929.85	4,982.78	5,036.58	5,091.27
O&M Cost (Rs Crores)	580.52	628.01	672.34	715.81	758.26

7.4.3.5 Interest on consumer deposit. MSEDCL has considered historic numbers of security deposit separately for LT-IV agriculture and other categories and applied 10% CAGR to project the consumer security deposit for next Control Period. Further, it has calculated interest on security deposit for LT-IV agriculture as well as other as per MYT Regulation, 2024.

Table 211 Interest on consumer deposit

Particulars	UOM	FY 2025-26	FY 2026-27	FY2027-28	FY 2028-29	FY 2029-30
Agriculture Supply Business	Rs Cr	1,160.18	1,276.19	1,403.81	1,544.19	1,698.61
Interest rate on security deposit	%	5.6%	5.6%	5.6%	5.6%	5.6%
Interest on security deposit	Rs Cr	65.08	71.58	78.74	86.62	95.28

7.4.3.6 Provision of bad debts. As per clause 94.1 of MYT Regulation, 2024, commission may allow a provision for writing of bad and doubtful debt up to 1.5% of the Trade Receivables. MSEDCL has considered ratio of receivables (as on 31st March 2024) for LT-IV agriculture and other categories and accordingly segregated the overall provision of bad debts for retail business into both these categories.

Table 212 Ratio of Receivables

Particulars	UOM	Value
Total Receivables for FY 24	Rs Cr	101,881.75
Agriculture receivables for FY 24	Rs Cr	60,000
Ratio of Agriculture Receivables of Total Receivables	%	59%

Table 213 Provision for bad and doubtful debt (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY2027-28	FY 2028-29	FY 2029-30
Receivables for the year for MSEDCL	107,045.00	113,047.24	119,477.62	126,371.13	133,765.86
Receivables for the year for Agriculture Supply as per sales ratio	63,040.73	66,575.56	70,362.53	74,422.24	78,777.13
Opening Balance of Provision of bad and doubtful debt as % of Receivables	1.50%	1.50%	1.50%	1.50%	1.50%
Provision for bad & doubtful debts during the year as per Sales ratio	945.61	998.63	1,055.44	1,116.33	1,181.66

7.4.4 Interest on Working Capital: MSEDCL submits that Regulation 34 of the MYT Regulations 2024 provides for Interest on Working Capital. Regulation 32.4 (a) of the said Regulations provides for the norms of computation of Working Capital for Retail Supply Business. Relevant extract from the regulation is reproduced below:

“32.4 (a)..

(a) The working capital requirement of the Retail Supply Business shall cover:

(i) Normative Operation and maintenance expenses for one month;

(ii) Maintenance spares at one per cent of the opening Gross Fixed Assets for the Year; and

(iii) One and half months equivalent of the expected revenue from sale of electricity at the Tariff approved by the Commission for ensuing year/s, and including revenue from cross-subsidy surcharge and additional surcharge, if any;

minus

(iv) Amount held as security deposits in cash from retail supply consumers;

(v) One month equivalent of cost of power purchased, including the

Transmission Charges, MSLDC Charges and STU Charges, based on

the annual power procurement plan:

Provided that in case of power procurement from own Generating Stations of the Retail Supply Business, no amount shall be reduced from working capital requirement towards payables, to the extent of supply of power by the Generation Business to the Retail Supply Business, in the computation of working capital in accordance with these Regulations.”

Table 214 Interest on working capital (in Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
O&M Expenses for Month	48.38	52.33	56.03	59.65	63.19
Maintenance Spares at 1% of Opening GFA	11.12	12.88	14.09	14.38	14.63
One and half months equivalent of the expected revenue from sale of electricity	2,404.75	2,322.68	2,218.02	1,886.70	1,930.00
Less: Amount held as Security Deposit	(1,160.18)	(1,276.19)	(1,403.81)	(1,544.19)	(1,698.61)
Less: One month equivalent of cost of power purchase	(1,115.86)	(1,071.01)	(1,077.76)	(1,084.00)	(1,103.49)

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Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Total Working Capital Requirement	188.21	40.70	(193.44)	(667.46)	(794.28)
Computation of Working Capital Interest					
Interest Rate (%) - SBI Base Rate +150 basis points	10.2%	10.2%	10.2%	10.2%	10.2%
Interest on Working Capital	19.28	4.17	-	-	-

Based on the above parameters as calculated for LT IV agricultural and other categories, MSEDCL is calculating Working capital requirement for LT-IV agriculture and other categories as per below table:.

7.4.4.1 **Other Expense:** MSEDCL submits that the other expenses of MSEDCL comprise of the expenditure on account of interest to suppliers/contractors, rebate to consumers and other expenses viz. compensation for injuries to staff and outsiders.

7.4.4.2 The Other Expense for Agriculture supply business is calculated on the ratio of other expense to ARR of previous four years and bases on the average ratio of last four-year MSEDCL has projected other expenses for next four financial years.

Table 215 Other Expenses Ratio for Past Years

Particulars	UOM	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
Other Expenses	Rs. Crores	37.93	445.51	252.07	231.93	967.44
ARR	Rs. Crores	76,046.12	91,985.70	111,162.97	123,500.54	402,695.33
Other Expenses to ARR ratio	Rs. Crores	0.05%	0.48%	0.23%	0.19%	0.24%

Table 216 Other Expenses for Agri Supply Business

Particulars	UOM	FY 2025-26	FY 2026-27	FY2027-28	FY 2028-29	FY 2029-30
ARR	Rs. Crores	19,236.18	18,579.71	17,742.92	15,093.61	15,439.97
Other Expenses for Agri Supply Business	Rs. Crores	46.21	44.64	42.63	36.26	37.09

7.4.4.3 Based on approach defined in above paragraphs, MSEDCL has calculated ARR separately for LT-IV Agriculture category and other categories and divide the same by respective sales to the categories to arrive at CoS for (i) LT-IV Agriculture consumers; and (ii) other categories. The below table provides breakup of supply ARR for both these headings:-

Table 217 Retail ARR for LT Agricultural and Other Categories for FY 2025-26 (in Rs. Crores)

Particulars	LT IV Agriculture	Non-Agriculture
Power Purchase Expenses	13,390.27	80,566.22
Operation & Maintenance Expenses	580.52	11,969.33
Depreciation Expenses	59.66	3,927.96
Interest on Loan Capital	18.85	1,240.99
Interest on Working Capital	19.28	171.34
Interest on Consumers Security Deposit	65.08	941.00
Provision for bad and doubtful debts	945.61	157.28
Other Expenses	46.22	258.76
Return on Equity Capital	46.77	2,729.43
Other ARR Components		12,093.10
Aggregate Revenue Requirement	15,172.25	1,14,055.41
Past period carrying cost recovery	4,063.96	11,334.48
Net ARR	19,236.18	1,25,389.92
Other Income	-	1,593.00
Net ARR to be recovered	19,236.18	1,23,796.92

Table 218 Retail ARR for LT Agricultural and Other Categories for FY 2026-27

Particulars	LT IV Agriculture	Non-Agriculture
Power Purchase Expenses	12,852.07	92,018.61
Operation & Maintenance Expenses	628.01	14,655.11
Depreciation Expenses	54.66	3,665.75
Interest on Loan Capital	25.35	1,699.88
Interest on Working Capital	4.17	230.33
Interest on Consumers Security Deposit	71.58	1,035.10
Provision for bad and doubtful debts	998.63	151.34
Other Expenses	44.64	275.59
Return on Equity Capital	53.44	3,181.47
Other ARR Components		12,614.48
Aggregate Revenue Requirement	14,732.56	1,29,527.65

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Particulars	LT IV Agriculture	Non-Agriculture
Past period carrying cost recovery	3,847.17	11,340.33
Net ARR	18,579.71	1,40,868.01
Other Income	-	4,321.60
Net ARR to be recovered	18,579.71	1,36,546.41

Table 219 Retail ARR for LT Agricultural and Other Categories for FY 2027-28

Particulars	LT IV Agriculture	Non-Agriculture
Power Purchase Expenses	12,933.14	99,644.81
Operation & Maintenance Expenses	672.34	16,883.68
Depreciation Expenses	49.73	3,396.81
Interest on Loan Capital	27.27	1,862.46
Interest on Working Capital	-	261.09
Interest on Consumers Security Deposit	78.74	1,138.61
Provision for bad and doubtful debts	1,055.44	143.89
Other Expenses	42.63	293.61
Return on Equity Capital	56.50	3,428.49
Other ARR Components		14,443.53
Aggregate Revenue Requirement	14,915.78	1,41,496.98
Past period carrying cost recovery	2,827.14	8,774.42
Net ARR	17,742.92	1,50,271.40
Other Income	-	4,757.63
Net ARR to be recovered	17,742.92	1,45,513.77

Table 220 Retail ARR for LT Agricultural and Other Categories for FY 2028-29

Particulars	LT IV Agriculture	Non-Agriculture
Power Purchase Expenses	13,007.98	1,06,140.57
Operation & Maintenance Expenses	715.81	18,829.07
Depreciation Expenses	47.22	3,285.47
Interest on Loan Capital	26.56	1,848.01
Interest on Working Capital	-	273.93
Interest on Consumers Security Deposit	86.62	1,252.47
Provision for bad and doubtful debts	1,116.33	134.73
Other Expenses	36.26	316.79

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Particulars	LT IV Agriculture	Non-Agriculture
Return on Equity Capital	56.84	3,514.18
Other ARR Components		15,843.51
Aggregate Revenue Requirement	15,093.61	1,51,438.73
Past period carrying cost recovery	-	-
Net ARR	15,093.61	1,51,438.73
Other Income	-	6,454.32
Net ARR to be recovered	15,093.61	1,44,984.41

Table 221 Retail ARR for LT Agricultural and Other Categories for FY 2029-30

Particulars	LT IV Agriculture	Non-Agriculture
Power Purchase Expenses	13,241.85	1,11,547.68
Operation & Maintenance Expenses	758.26	20,586.31
Depreciation Expenses	44.38	3,146.20
Interest on Loan Capital	24.49	1,736.27
Interest on Working Capital	-	280.49
Interest on Consumers Security Deposit	95.28	1,377.72
Provision for bad and doubtful debts	1,181.66	123.66
Other Expenses	37.09	333.61
Return on Equity Capital	56.97	3,588.78
Other ARR Components		17,088.58
Aggregate Revenue Requirement	15,439.97	1,59,809.28
Past period carrying cost recovery		
Net ARR	15,439.97	1,59,809.28
Other Income	-	8,313.49
Net ARR to be recovered	15,439.97	1,51,495.79

7.4.5 Accordingly, the total Cost of supply for LT-IV agricultural consumer is Rs. 19,236.18 crore (wire + retail ARR) for FY 2025-26, 18,579.71 crore for FY 2026-27, Rs. 17,742.92 crore for FY 2027-28, Rs. 15,093.61 crore for FY 2028-29 and Rs. 15,439.97 crore for FY 2029-30. Accordingly, the ACoS for LT-IV agricultural consumers and other consumers for FY 2026-27 and FY 2027-28 is submitted in below table:

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Table 222 AcoS for LT-Agricultural and Other Categories for FY 2025-26

Particulars	Before Segregation	After Segregation	
	Total MSEDCL	Total MSEDCL (Excluding LT Agri)	LT IV Agriculture
Power Purchase Cost (Rs Crs)	93,956.50	80,566.22	13,390.27
Energy Requirement (Mus)	1,86,203.15	1,43,896.39	42,306.77
Power Purchase Cost (Rs/Kwh)	5.05	5.60	3.17
Total ARR to be recovered (Rs Crore)	1,43,033	1,23,797	19,236
Energy Sales (Mus)	1,51,418.80	1,13,342.71	38,076.09
ACoS (Rs/kWh)	9.45	10.92	5.05
Revenue from sale of Excess power	710.84	710.84	
Net PP cost (New)	93,245.66	79,855.38	13,390.27
APPC net	5.01	5.55	3.17

Table 223 AcoS for LT-Agricultural and Other Categories for FY 2026-27

Particulars	Before Segregation	After Segregation	
	Total MSEDCL	Total MSEDCL (Excluding LT Agri)	LT IV Agriculture
Power Purchase Cost (Rs Crs)	1,04,870.68	92,018.61	12,852.07
Energy Requirement (Mus)	2,18,171.57	1,75,426.96	42,744.61
Power Purchase Cost (Rs/Kwh)	4.81	5.25	3.01
Total ARR to be recovered (Rs Crore)	1,55,126	1,36,546	18,580
Energy Sales (Mus)	1,59,174.59	1,20,704.45	38,470.15
ACoS (Rs/kWh)	9.75	11.31	4.83
Revenue from sale of Excess power	3,346.77	3,346.77	
Net PP cost (New)	1,01,523.91	88,671.84	12,852.07
APPC net	4.65	5.05	3.01

Table 224 AcoS for LT-Agricultural and Other Categories for FY 2027-28

Particulars	Before Segregation	After Segregation	
	Total MSEDCL	Total MSEDCL (Excluding LT Agri)	LT IV Agriculture
Power Purchase Cost (Rs Crs)	1,12,577.95	99,644.81	12,933.14
Energy Requirement (Mus)	2,29,386.89	1,86,293.73	43,093.16

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Particulars	Before Segregation	After Segregation	
	Total MSEDCL	Total MSEDCL (Excluding LT Agri)	LT IV Agriculture
Power Purchase Cost (Rs/Kwh)	4.91	5.35	3.00
Total ARR to be recovered (Rs Crore)	1,63,257	1,45,514	17,743
Energy Sales (Mus)	1,66,624.46	1,27,840.6149	38,783.84
ACoS (Rs/kWh)	9.80	11.38	4.57
Revenue from sale of Excess power	3,676.76	3,676.76	
Net PP cost (New)	1,08,901.19	95,968.05	12,933.14
APPC net	4.75	5.15	3.00

Table 225 AcoS for LT-Agricultural and Other Categories for FY 2028-29

Particulars	Before Segregation	After Segregation	
	Total MSEDCL	Total MSEDCL (Excluding LT Agri)	LT IV Agriculture
Power Purchase Cost (Rs Crs)	1,19,148.55	1,06,140.57	13,007.98
Energy Requirement (Mus)	2,38,063.35	1,94,682.33	43,381.02
Power Purchase Cost (Rs/Kwh)	5.00	5.45	3.00
Total ARR to be recovered (Rs Crore)	1,60,078	1,44,984	15,094
Energy Sales (Mus)	1,74,166.36	1,35,123.4453	39,042.92
ACoS (Rs/kWh)	9.19	10.73	3.87
Revenue from sale of Excess power	5,299.16	5,299.16	
Net PP cost (New)	1,13,849.40	1,00,841.42	13,007.98
APPC net	4.78	5.18	3.00

Table 226 AcoS for LT-Agricultural and Other Categories for FY 2029-30

Particulars	Before Segregation	After Segregation	
	Total MSEDCL	Total MSEDCL (Excluding LT Agri)	LT IV Agriculture
Power Purchase Cost (Rs Crs)	1,24,789.52	1,11,547.68	13,241.85
Energy Requirement (Mus)	2,43,337.32	1,99,073.50	44,263.82
Power Purchase Cost (Rs/Kwh)	5.13	5.60	2.99
Total ARR to be recovered (Rs Crore)	1,66,936	1,51,496	15,440
Energy Sales (Mus)	1,82,669.86	1,42,832.42	39,837.44

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Particulars	Before Segregation	After Segregation	
	Total MSEDCL	Total MSEDCL (Excluding LT Agri)	LT IV Agriculture
ACoS (Rs/kWh)	9.14	10.61	3.88
Revenue from sale of Excess power	7,074.04	7,074.04	
Net PP cost (New)	1,17,715.48	1,04,473.64	13,241.85
APPC net	4.84	5.25	2.99

7.4.6 MSEDCL in this petition proposes separate ACoS for Agri and Non-Agri and accordingly has proposed the category wise tariff and CSS. The modalities of forming a separate Agri company will be based on directions from GoM.

8 WHEELING CHARGES

8.1 Network Cost of MSEDCL

8.1.1 Hon'ble Commission in Annexure III to MERC MYT Regulations, 2024 has stipulated guidelines for allocation of assets and cost between Distribution Wires Business and Retail Supply Business subjected to separate accounting records for both these businesses. However, in absence of separate accounting records for Distribution Wires Business and Retail Supply Business; Hon'ble Commission in first proviso to Regulation 89.2 of MERC MYT Regulations, 2024 has specified allocation matrix for bifurcation of ARR of the distribution licensee between these two businesses. The same has been provided below for ready reference.

Table 227 Segregation matrix of Retail Supply and Wires Business Expenses

Particulars	Distribution Wires Business (%)	Retail Supply Business (%)
Power Purchase Expenses	0%	100%
Inter-State Transmission Charges	0%	100%
Intra-State Transmission Charges	0%	100%
Operation & Maintenance Expenses	65%	35%
Depreciation	90%	10%
Interest on Long-term Loan Capital	90%	10%
Interest on Working Capital	10%	90%
Interest on Consumer Security Deposits	10%	90%
Provision for Bad & Doubtful Debts	10%	90%
Income Tax	90%	10%
Contribution to Contingency Reserves	90%	10%
Return on Equity	90%	10%
Non-Tariff Income	10%	90%

8.1.2 It is submitted that MSEDCL has not been able to segregate accounts for its Wires Business and Retail Supply Business. Therefore, it would utilize above allocation matrix for segregating its ARR into these two business heads. Based on the ARR projected for FY 2025-26 to FY 2029-30 the Network cost for MSEDCL from FY 2025-26 to FY 2029-30 is tabulated here under:

Table 228 Network cost for MSEDCL from FY 2025-26 to FY 2029-30 (Rs. Crores)

S. No.	Particulars	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
1	Operation &	6,406	8,157	9,934	11,411	12,704	13,874

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S. No.	Particulars	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Maintenance Expenses						
2	Depreciation	3,243	3,589	3,348	3,102	2,999	2,872
3	Interest on Loan Capital	769	1,134	1,553	1,701	1,687	1,585
4	Interest on Working Capital	146	191	234	261	274	280
5	Interest on deposit from Consumers and Distribution System Users	90	101	111	122	134	147
6	Other Finance Charges	-	-	-	-	-	-
7	Provision for bad and doubtful debts	106	110	115	120	125	131
8	Opex Schemes	48	74	71	72	72	72
9	Contribution to contingency reserves	178	207	260	303	325	348
10	Income Tax	-	-	-	-	-	-
11	Return on Equity Capital	1,951	2,464	2,871	3,093	3,170	3,236
12	Total Revenue Expenditure	12,937	16,026	18,498	20,185	21,491	22,545

8.1.3 MSEDCL submits that the Regulation 97.1 of the MERC MYT Regulations, 2024 provides for computation of wheeling charges separately for LT voltage, and HT voltage for the Distribution Wires Business as per following formulae:

“Wheeling Charges for HT Consumers

$$(INR/kVAh) = W_{ARR (HT)} * 10 / EW_{HT}$$

Where,

$W_{ARR (HT)}$ = ARR of Distribution Wires Business pertaining to HT level in INR Crore.

EW_{HT} = Projected Wheeling Energy pertaining to HT level in Million kVAh or MkVAh.

Wheeling Charge for LT Consumers

$$(INR/kWh) \text{ or } (INR/kVAh) = W_{ARR (LT)} * 10 / EW_{LT}$$

Where,

$W_{ARR(LT)}$ = ARR of Distribution Wires Business pertaining to LT level in INR Crore.

EW_{LT} = Projected Wheeling Energy pertaining to LT level in Million kWh or MU or MVAh as the case may be.

Provided that in case the Commission adopts the kVAh based Tariff at LT level, the Wheeling Charges for LT Consumers shall then be determined in INR/kVAh.”

8.1.4 MSEDCL would like to admit that it has not been able to segregate its LT and HT assets as per guidelines stipulated in Annexure-III of MYT Regulations 2024. MSEDCL would like to submit that it is exploring the possibilities to bifurcate the voltage wise assets to the extent possible and requests the Hon’ble Commission to consider the same. Therefore, it is currently unable to allocate ARR of distribution wire business between HT and LT voltage level on basis of the same. Hon’ble Commission in MTR Order dated 31st March, 2023 in Case No. 226 of 2022 has derived ratio of Wheeling cost for LT and HT level on basis of voltage wise GFA ratio which was again calculated considering HT/LT circuit km, Substation Capacity (HT/LT), Number of DTCs/DT capacity, Voltage-wise sales at HT/LT, Energy Units handled at HT/LT etc. Hon’ble Commission segregated wheeling cost between HT and LT level in following ratio as tabulated below:

Table 229 Allocation of Wheeling Cost for FY 2025-26 to FY 2029-30

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
HT (Excl EHV)	60%	60%	60%	60%	60%
LT Level	40%	40%	40%	40%	40%

8.1.5 Network cost has been apportioned between HT and LT voltage level based on the ratio as provided in the table above. The segregated Network cost is provided in the table below.

Table 230 Network cost apportioned between HT and LT Voltage for FY 2025-26 to FY 2029-30 (Rs. Crores)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
HT (Excl EHV)	9,616	11,099	12,111	12,895	13,527
LT Level	6,410	7,399	8,074	8,596	9,018

8.1.6 MSEDCL has considered the voltage wise consumption (in kVAh also) as projected for the fifth Control Period i.e., from FY 2025-26 to FY 2029-30 for determining the wheeling charges. The projected consumption at different voltage levels is shown below:

Table 231 Voltage Wise Consumption for FY 2025-26 to FY 2029-30 (in kVAh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
HT (Excl EHV) (Million kVAh)	38,110	40,937	43,858	47,115	50,707
LT Level (MU)	91,616	95,928	99,796	1,03,417	1,07,427

8.1.7 The wheeling charge gap for True-up years as well as FY 2024-25 also needed to be considered and added to wheeling cost for next control period. The resultant wheeling charge gap of present Control Period has been spread uniformly over the fifth Control Period and added to annual wheeling cost. The revised annual wheeling cost has been apportioned in the same ratio between HT and LT level as considered above. The calculation of wheeling energy gap of present Control Period is provided in following table:

Table 232 Wheeling energy gap of present Control Period (Rs. Cr)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
ARR from Wires Business	10,731	11,724	12,937
Income from OA	157	271	300
Wheeling ARR	10,574	11,453	12,637
Wheeling Revenue	11,032	10,858	11,236
Recovery Allowed	-458	595	1,400
Total Gap		1,537	
Average Gap for Next Control Period		307	

8.1.8 Accordingly revised wheeling charge of MSEDCL for next Control Period along with gap is calculated below:

Table 233 Calculation of Wheeling Cost for FY2025-26

Particulars	Network Cost (Rs. Cr.)	Sales (MU)	% of Sales	Wheeling Cost (Rs. Cr.)
HT (Excl EHV)	9,616	38,110	29%	2,825
LT Level	6,410	91,616	71%	13,201
Total	16,026	1,29,726	100%	16,026

Table 234 Calculation of Wheeling Cost for FY2026-27

Particulars	Network Cost (Rs. Cr.)	Sales (MU)	% of Sales	Wheeling Cost (Rs. Cr.)
HT (Excl EHV)	11,099	40,937	30%	3,320
LT Level	7,399	95,928	70%	15,178
Total	18,498	1,36,866	100%	18,498

Table 235 Calculation of Wheeling Cost for FY2027-28

Particulars	Network Cost (Rs. Cr.)	Sales (MU)	% of Sales	Wheeling Cost (Rs. Cr.)
HT (Excl EHV)	12,111	43,858	31%	3,698
LT Level	8,074	99,796	69%	16,488
Total	20,185	1,43,654	100%	20,185

Table 236 Calculation of Wheeling Cost for FY2028-29

Particulars	Network Cost (Rs. Cr.)	Sales (MU)	% of Sales	Wheeling Cost (Rs. Cr.)
HT (Excl EHV)	12,895	47,115	31%	4,036
LT Level	8,596	1,03,417	69%	17,455
Total	21,491	1,50,531	100%	21,491

Table 237 Calculation of Wheeling Cost for FY2029-30

Particulars	Network Cost (Rs. Cr.)	Sales (MU)	% of Sales	Wheeling Cost (Rs. Cr.)
HT (Excl EHV)	13,527	50,707	32%	4,337
LT Level	9,018	1,07,427	68%	18,207
Total	22,545	1,58,135	100%	22,545

8.1.9 To arrive at the cost of wheeling at various voltage levels, MSEDCL has apportioned the total wire network cost (as computed above) between HT (Excluding EHV) and LT in the ratio of sales at respective voltage levels. The calculation of same is provided below:

Table 238 Proposed Wheeling Charges for FY 2025-26 to FY 2029-30

Particulars	Units	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Wheeling Cost						
HT (Excl EHV)	Rs Cr	2,915	3,412	3,791	4,132	4,436
LT Level	Rs Cr	13,418	15,393	16,701	17,667	18,416
Wheeled Units						
HT (Excl EHV)	MkVAh	38,110	40,937	43,858	47,115	50,707
LT Level	MU	91,616	95,928	99,796	1,03,417	1,07,427

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Particulars	Units	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
PU Wheling Charges						
HT (Excl EHV)	Rs/kVAh	0.76	0.83	0.86	0.88	0.87
LT Level	Rs/kWh	1.46	1.60	1.67	1.71	1.71

8.1.10 Hon'ble Commission in MTR Order in case no. 226 of 2022 dated 31st March 2023 has approved Wheeling Loss of 7.5% at HT and 12% at LT. MSEDCL for the purpose of commercial settlement, proposed to continue aforementioned Wheeling Losses which are already approved in last control period for the next control period. MSEDCL requests the Hon'ble Commission to approve the wheeling charges as proposed above.

9 TARIFF RECOVERY MECHANISM

9.1 Background

9.1.1 As discussed in previous Chapter, MSEDCL has considered the following while proposing the revised tariff for the MYT 5th Control Period i.e., FY 2025-26 to FY 2029-30

- Rationalization of Fixed Charges to ensure appropriate recovery of fixed costs through fixed charges.
- Continuation of existing rebate with its linking to payment discipline
- Tariff applicability related suggestions

9.1.2 MSEDCL submits that the National Tariff Policy envisages that the consumer tariff should progressively reflect the cost of supply of electricity.

9.1.3 MSEDCL submits that Regulation 6.5 of the MERC (MYT) Regulations, 2024 provides for forecast of expected revenue from Tariff and Charges. The relevant provisions are reproduced below for reference:

“6.5 The forecast of expected revenue from Tariff and charges shall be based on the following:

(a) ...

(b) ...

(c) In the case of a Distribution Licensee, estimates of quantum of electricity to be supplied to consumers and wheeled on behalf of Distribution System Users for each year of the Control Period:

Provided that the Distribution Licensee shall submit relevant details of category-wise sales separately for each Distribution Franchisee area, including the Input Energy and the Input Rate;

(d) Prevailing Tariff as on the date of filing of the Petition.”

9.1.4 Accordingly, MSEDCL has projected the revenue at existing tariff considering the Prevailing Tariff as on the date of filing of the MYT Petition which is based on the

MTR Order 226 of 2022.

9.1.5 Therefore, MSEDCL has shown the prevailing tariff (including wheeling charges) as on the date of filing the MYT Petition and compared the proposed tariff with the same.

9.2 Rationale of Tariff Revision

9.2.1 MSEDCL submits that there was a huge reduction in approved revenue gap vis-à-vis the revenue gap sought by MSEDCL in MTR Order 226 of 2022. MSEDCL further submits that with approved tariffs it is difficult to sustain its operations due to intrinsic rise in all expenditure heads due to inflationary pressures, deferred recovery of power purchase variations due to monthly cap of 20% of variable component of approved tariff, and consistent rise in power purchase costs coupled with energy demands. The obligation to be met under Central or State Policies adding burden on the operations of MSEDCL. This has compelled MSEDCL to seek revision in Tariffs so as to meet bare minimum requirement in order to remain financially viable and to meet the financial obligations for discharging its liabilities so as to effectively discharge its duties towards consumer services.

9.2.2 Accordingly, MSEDCL in the current Petition filed under Section 45, 46, 61, 62, 64 and 86 of the Electricity Act, 2003, has proposed revised tariff for the 5th Control Period FY 2025-26 to FY 2029-30 considering increase in various costs.

9.2.3 MSEDCL has proposed a revision in fixed and energy charges for various categories in order to bridge revenue gap. The tariff revision is necessary for meeting additional costs due to increase in generation and transmission costs and legitimate expenses of MSEDCL. The revenue gap has emerged due to additional costs, which are beyond the control of MSEDCL.

9.2.4 A comparison of detailed Category/ Sub-category wise Existing and Proposed Fixed and Demand Charges and Energy Charges (Excluding Wheeling Charges) is shown in tables below and based on below principles:

- Separate ACOS has been calculated for LT Agriculture and all other consumers (Non-Agri). This has been done to reduce the cross-subsidy burden of other consumers.
- Allocation of low-cost renewable energy power to LT Agriculture. This has

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- been done to keep the LT Agriculture cost low and thereby their tariffs in check while not burdening other consumers.
- Industrial tariffs have been set at Non-Agri ACoS to reduce their cross-subsidy burden. While cross-subsidy for most of consumer category have been gradually reduced to bring it close to Non-Agri ACoS.

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Category	FY 25-26 (Proposed)					FY 25-26 (% Increase)					FY 25-26 (Revenue)					
	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ToD	Total
	Rs./kVA/M	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs./kVA/M			Rs./Unit	Rs./Unit	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.
HT I HT - Industry																
HT	600	8.71	0.76	9.47	11.09	9.29%	4.15%	28.55%	-1.21%	0.55%	5,124	26,622	2,339	28,961	-162	33,923
EHV	600	8.71	-	8.71	10.50	9.29%	4.15%		-3.00%	0.10%	2,366	11,520	-	11,520	-	13,886
HT I (A) (i): HT - Industry Sub-total	-	-	-	-	10.91					0.42%	7,490	38,143	2,339	40,481	-162	47,809
HT I (B): HT - Industry (Seasonal)																
HT	600	8.71	0.76	9.47	13.00	9.29%	0.31%	28.55%	-5.67%	-9.93%	81	198	17	215	-0	295
EHV	600	8.71	-	8.71	11.05	9.29%	0.31%		-6.34%	-4.49%	0	1	-	1	-0	2
HT I (B): HT - Industry (Seasonal) Sub-total	-	-	-	-	12.98					-9.86%	81	199	17	217	-0	297
HT I : HT - Industry Total	-	-	-	-	10.92					0.39%	7,571	38,342	2,356	40,698	-163	48,106
HT II: HT - Commercial																
HT	600	14.03	0.76	14.80	16.88	9.29%	6.21%	28.55%	0.16%	-0.85%	460	2,843	155	2,998	-38	3,420
EHV	600	14.03	-	14.03	18.13	9.29%	6.21%		-0.33%	13.34%	22	76	-	76	0	98
HT II : HT - Commercial Total	-	-	-	-	16.91					-0.35%	482	2,919	155	3,074	-38	3,518
HT III : HT - Railways/Metro/Monorail Traction																
HT	600	8.76	0.76	9.53	11.59	9.29%	16.43%	28.55%	8.83%	9.90%	18	78	7	84	-	103
EHV	600	8.76	-	8.76	11.19	9.29%	16.43%		10.32%	14.34%	13	45	-	45	-	58
HT III : HT - Railways/Metro/Monorail Traction Total	-	-	-	-	11.44					11.72%	31	123	7	130	-	160
HT IV: HT - Public Water Works																
HT	600	8.32	0.76	9.08	10.41	9.29%	7.17%	28.55%	1.79%	4.08%	251	1,568	144	1,712	-1	1,962
EHV	600	8.32	-	8.32	9.14	9.29%	7.17%		0.08%	2.01%	12	122	-	122	-0	134
HT IV : HT - Public Water Works (PWW) Total	-	-	-	-	10.32					3.87%	263	1,690	144	1,834	-1	2,097
HT V(A): HT - Agriculture Pumpsets																
HT	115	7.28	0.76	8.05	8.55	18.56%	25.93%	28.55%	19.02%	19.10%	26	376	39	415	-	441
EHV	115	7.28	-	7.28	7.56	18.56%	25.93%		19.07%	17.58%	38	998	-	998	-	1,036
HT V(A): HT - Agriculture Pumpsets Total	-	-	-	-	7.83					17.16%	64	1,374	39	1,414	-	1,477
HT V(B): HT - Agriculture - Others																
HT	115	10.05	0.76	10.82	11.24	18.56%	25.77%	28.55%	18.59%	16.07%	12	279	21	300	-	312
EHV	115	10.05	-	10.05	-	18.56%	25.77%		25.77%		-	-	-	-	-	-
HT V(B): HT - Agriculture Others Total	-	-	-	-	11.24					16.07%	12	279	21	300	-	312
HT V: HT - Agriculture Total	-	-	-	-	8.27					18.28%	75	1,653	61	1,714	-	1,789
HT VI: HT - Group Housing Societies (Residential)																
HT	520	8.65	0.76	9.41	10.92	18.72%	20.78%	28.55%	13.11%	12.72%	37	210	19	229	-	265
EHV	520	8.65	-	8.65	-	18.72%	20.78%		11.68%		-	-	-	-	-	-
HT VI: HT - Group Housing Societies (Residential) Total	-	-	-	-	10.92					12.72%	37	210	19	229	-	265
HT VIII: HT - Public Services																
HT VIII(A): HT - Public Services-Govt. Edu. Institutions and Hospitals																
HT	600	10.42	0.76	11.19	12.88	9.29%	3.94%	28.55%	-1.49%	0.39%	66	374	27	401	-5	462
EHV	600	10.42	-	10.42	-	9.29%	3.94%		3.94%		-	-	-	-	-	-
HT VIII(A): HT - Public Services-Government Total	-	-	-	-	12.88					0.39%	66	374	27	401	-5	462
HT VIII(B): HT - Public Services-Others																
HT	600	11.34	0.76	12.11	14.29	9.29%	3.71%	28.55%	-1.96%	0.46%	205	1,019	69	1,088	-9	1,284
EHV	600	11.34	-	11.34	-	9.29%	3.71%		3.71%		-	-	-	-	-	-
HT VIII(B): HT - Public Services-Others Total	-	-	-	-	14.29					0.46%	205	1,019	69	1,088	-9	1,284
HT VIII : HT - Public Services Total	-	-	-	-	13.88					0.44%	271	1,393	96	1,489	-14	1,746
HT - MSPGCL-Aux Supply																
HT	-	-	-	-	-						-	-	-	-	-	-
EHV	-	-	-	-	-						-	-	-	-	-	-
HT - MSPGCL-Aux Supply Total	-	-	-	-	-						-	-	-	-	-	-
HT IX: HT - Electric Vehicle Charging Station																
HT	-	8.83	0.76	9.59	9.59	-100.00%	19.27%	28.55%	12.46%	8.00%	-	890	77	967	-	967
EHV	-	8.83	-	8.83	-	-100.00%	16.13%		16.13%		-	-	-	-	-	-
HT IX: HT - Electric Vehicle Charging Station Total	-	-	-	-	9.59					8.00%	-	890	77	967	-	967
HT Total					11.00					0.70%	8,729	47,220	2,915	50,134	-216	58,648

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Category	FY 26-27 (Proposed)					FY 26-27 (% Increase)					FY 26-27 (Revenue)						
	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ToD	Total	
	Rs./kVA/M	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs./kVA/M			Rs./Unit	Rs./Unit	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	
HT I HT - Industry																	
HT	675	8.85	0.83	9.69	11.48	12.50%	1.67%	8.95%	2.26%	3.44%	5,991	28,829	2,714	31,543	-160	37,374	
EHV	675	8.85	-	8.85	10.89	12.50%	1.67%		1.67%	3.74%	2,767	12,065	-	12,065	7	14,839	
HT I (A) (i): HT - Industry Sub-total	-	-	-	-	11.30					3.57%	8,757	40,894	2,714	43,608	-152	52,213	
HT I (B): HT - Industry (Seasonal)																	
HT	675	8.85	0.83	9.69	13.55	12.50%	1.67%	8.95%	2.26%	4.26%	94	215	20	235	-0	329	
EHV	675	8.85	-	8.85	11.42	12.50%	1.67%		1.67%	3.40%	0	2	-	2	-0	2	
HT I (B): HT - Industry (Seasonal) Sub-total	-	-	-	-	13.54					4.26%	95	216	20	237	-0	331	
HT I : HT - Industry Total	-	-	-	-	11.31					3.57%	8,852	41,111	2,734	43,845	-152	52,544	
HT II: HT - Commercial																	
HT	675	14.75	0.83	15.58	17.82	12.50%	5.14%	8.95%	5.34%	5.60%	532	3,097	175	3,272	-63	3,741	
EHV	675	14.75	-	14.75	19.31	12.50%	5.14%		5.14%	6.55%	25	80	-	80	-0	105	
HT II : HT - Commercial Total	-	-	-	-	17.86					5.62%	557	3,177	175	3,352	-63	3,846	
HT III : HT - Railways/Metro/Monorail Traction																	
HT	675	9.33	0.83	10.17	12.55	12.50%	6.49%	8.95%	6.69%	8.27%	22	85	8	92	-	114	
EHV	675	9.33	-	9.33	12.14	12.50%	6.49%		6.49%	8.47%	15	49	-	49	-	64	
HT III : HT - Railways/Metro/Monorail Traction Total	-	-	-	-	12.39					8.34%	36	134	8	141	-	178	
HT IV: HT - Public Water Works																	
HT	675	9.12	0.83	9.96	11.43	12.50%	9.69%	8.95%	9.62%	9.78%	288	1,781	163	1,943	-1	2,230	
EHV	675	9.12	-	9.12	9.98	12.50%	9.69%		9.69%	9.21%	14	147	-	147	-0	161	
HT IV: HT - Public Water Works (PWW) Total	-	-	-	-	11.31					9.68%	302	1,928	163	2,091	-1	2,392	
HT V(A): HT - Agriculture Pumpsets																	
HT	145	8.02	0.83	8.86	9.46	26.09%	10.15%	8.95%	10.04%	10.65%	33	437	45	483	-	515	
EHV	145	8.02	-	8.02	8.35	26.09%	10.15%		10.15%	10.53%	48	1,161	-	1,161	-	1,209	
HT V(A): HT - Agriculture Pumpsets Total	-	-	-	-	8.66					10.57%	81	1,598	45	1,644	-	1,725	
HT V(B): HT - Agriculture - Others																	
HT	145	11.09	0.83	11.92	12.44	26.09%	10.29%	8.95%	10.20%	10.74%	15	314	24	338	-	353	
EHV	145	11.09	-	11.09	-	26.09%	10.29%		10.29%		-	-	-	-	-	-	
HT V(B): HT - Agriculture Others Total	-	-	-	-	12.44					10.74%	15	314	24	338	-	353	
HT V: HT - Agriculture Total	-	-	-	-	9.13					10.43%	96	1,913	69	1,982	-	2,077	
HT VI: HT - Group Housing Societies (Residential)																	
HT	580	8.85	0.83	9.68	11.31	11.54%	2.31%	8.95%	2.85%	3.57%	41	224	21	245	-	286	
EHV	580	8.85	-	8.85	-	11.54%	2.31%		2.31%		-	-	-	-	-	-	
HT VI: HT - Group Housing Societies (Residential) Total	-	-	-	-	11.31					3.57%	41	224	21	245	-	286	
HT VIII: HT - Public Services																	
HT VIII(A): HT - Public Services-Govt. Edu. Institutions and Hospitals																	
HT	675	10.52	0.83	11.35	13.32	12.50%	0.93%	8.95%	1.47%	3.42%	77	385	31	416	-5	488	
EHV	675	10.52	-	10.52	-	12.50%	0.93%		0.93%		-	-	-	-	-	-	
HT VIII(A): HT - Public Services-Government Total	-	-	-	-	13.32					3.42%	77	385	31	416	-5	488	
HT VIII(B): HT - Public Services-Others																	
HT	675	11.42	0.83	12.25	14.80	12.50%	0.66%	8.95%	1.19%	3.58%	243	1,041	76	1,117	-10	1,350	
EHV	675	11.42	-	11.42	-	12.50%	0.66%		0.66%		-	-	-	-	-	-	
HT VIII(B): HT - Public Services-Others Total	-	-	-	-	14.80					3.58%	243	1,041	76	1,117	-10	1,350	
HT VIII : HT - Public Services Total	-	-	-	-	14.37					3.53%	320	1,426	107	1,533	-16	1,837	
HT - MSPGCL-Aux Supply																	
HT	-	-	-	-	-						-	-	-	-	-	-	
EHV	-	-	-	-	-						-	-	-	-	-	-	
HT - MSPGCL-Aux Supply Total	-	-	-	-	-						-	-	-	-	-	-	
HT IX: HT - Electric Vehicle Charging Station																	
HT	-	9.24	0.83	10.07	10.07		4.66%	8.95%	5.00%	5.00%	-	1,498	135	1,634	-	1,634	
EHV	-	9.24	-	9.24	-		4.66%		4.66%		-	-	-	-	-	-	
HT IX: HT - Electric Vehicle Charging Station Total	-	-	-	-	10.07					5.00%	-	1,498	135	1,634	-	1,634	
HT Total	-	-	-	-	11.44					3.99%	10,205	51,411	3,411	54,822	-232	64,794	

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Category	FY 27-28 (Proposed)					FY 27-28 (% Increase)					FY 27-28 (Revenue)					
	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ToD	Total
	Rs./kVA/M	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs./kVA/M			Rs./Unit	Rs./Unit	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.
HT I HT - Industry																
HT	720	8.78	0.86	9.64	11.53	6.67%	-0.82%	3.73%	-0.43%	0.49%	6,642	30,279	2,981	33,261	-128	39,775
EHV	720	8.78	-	8.78	10.98	6.67%	-0.82%		-0.82%	0.84%	3,067	12,359	-	12,359	29	15,455
HT I (A) (i): HT - Industry Sub-total	-	-	-	-	11.37					0.62%	9,709	42,638	2,981	45,619	-99	55,229
HT I (B): HT - Industry (Seasonal)																
HT	720	8.78	0.86	9.64	13.69	6.67%	-0.82%	3.73%	-0.43%	1.07%	104	226	22	248	-0	353
EHV	720	8.78	-	8.78	11.48	6.67%	-0.82%		-0.82%	0.51%	0	2	-	2	-0	2
HT I (B): HT - Industry (Seasonal) Sub-total	-	-	-	-	13.68					1.07%	105	228	22	250	-0	355
HT I : HT - Industry Total	-	-	-	-	11.38					0.62%	9,814	42,866	3,004	45,869	-99	55,584
HT II: HT - Commercial																
HT	720	15.10	0.86	15.96	18.40	6.67%	2.36%	3.73%	2.44%	3.22%	584	3,225	185	3,409	-64	3,928
EHV	720	15.10	-	15.10	20.15	6.67%	2.36%		2.36%	4.35%	28	82	-	82	-0	109
HT II : HT - Commercial Total	-	-	-	-	18.44					3.25%	611	3,306	185	3,491	-65	4,037
HT III : HT - Railways/Metro/Monorail Traction																
HT	720	10.10	0.86	10.97	13.58	6.67%	8.25%	3.73%	7.88%	8.21%	24	94	8	102	-	126
EHV	720	10.10	-	10.10	13.18	6.67%	8.25%		8.25%	8.57%	17	54	-	54	-	71
HT III : HT - Railways/Metro/Monorail Traction Total	-	-	-	-	13.43					8.34%	41	148	8	156	-	197
HT IV: HT - Public Water Works																
HT	720	9.08	0.86	9.95	11.51	6.67%	-0.42%	3.73%	-0.07%	0.74%	313	1,834	175	2,009	2	2,324
EHV	720	9.08	-	9.08	9.95	6.67%	-0.42%		-0.42%	-0.25%	15	160	-	160	0	175
HT IV: HT - Public Water Works (PWW) Total	-	-	-	-	11.38					0.62%	329	1,994	175	2,169	2	2,499
HT V(A): HT - Agriculture Pumpsets																
HT	180	8.85	0.86	9.71	10.43	24.14%	10.26%	3.73%	9.65%	10.29%	41	505	49	554	-	595
EHV	180	8.85	-	8.85	9.24	24.14%	10.26%		10.26%	10.64%	60	1,341	-	1,341	-	1,401
HT V(A): HT - Agriculture Pumpsets Total	-	-	-	-	9.57					10.54%	102	1,845	49	1,895	-	1,996
HT V(B): HT - Agriculture - Others																
HT	180	12.26	0.86	13.13	13.77	24.14%	10.61%	3.73%	10.13%	10.66%	19	355	25	380	-	399
EHV	180	12.26	-	12.26	-	24.14%	10.61%		10.61%		-	-	-	-	-	-
HT V(B): HT - Agriculture Others Total	-	-	-	-	13.77					10.66%	19	355	25	380	-	399
HT V: HT - Agriculture Total	-	-	-	-	10.08					10.43%	120	2,200	74	2,275	-	2,395
HT VI: HT - Group Housing Societies (Residential)																
HT	630	8.79	0.86	9.66	11.38	8.62%	-0.64%	3.73%	-0.26%	0.62%	45	231	23	253	-	299
EHV	630	8.79	-	8.79	-	8.62%	-0.64%		-0.64%		-	-	-	-	-	-
HT VI: HT - Group Housing Societies (Residential) Total	-	-	-	-	11.38					0.62%	45	231	23	253	-	299
HT VIII: HT - Public Services																
HT VIII(A): HT - Public Services-Govt. Edu. Institutions and Hospitals																
HT	720	10.34	0.86	11.21	13.39	6.67%	-1.67%	3.73%	-1.27%	0.52%	87	387	32	419	-5	501
EHV	720	10.34	-	10.34	-	6.67%	-1.67%		-1.67%		-	-	-	-	-	-
HT VIII(A): HT - Public Services-Government Total	-	-	-	-	13.39					0.52%	87	387	32	419	-5	501
HT VIII(B): HT - Public Services-Others																
HT	720	11.20	0.86	12.06	14.89	6.67%	-1.90%	3.73%	-1.52%	0.66%	272	1,037	80	1,117	-9	1,379
EHV	720	11.20	-	11.20	-	6.67%	-1.90%		-1.90%		-	-	-	-	-	-
HT VIII(B): HT - Public Services-Others Total	-	-	-	-	14.89					0.66%	272	1,037	80	1,117	-9	1,379
HT VIII : HT - Public Services Total	-	-	-	-	14.46					0.61%	358	1,424	112	1,536	-15	1,880
HT - MSPGCL-Aux Supply																
HT	-	-	-	-	-						-	-	-	-	-	-
EHV	-	-	-	-	-						-	-	-	-	-	-
HT - MSPGCL-Aux Supply Total	-	-	-	-	-						-	-	-	-	-	-
HT IX: HT - Electric Vehicle Charging Station																
HT	-	9.71	0.86	10.57	10.57		5.11%	3.73%	5.00%	5.00%	-	2,367	211	2,578	-	2,578
EHV	-	9.71	-	9.71	-		5.11%		5.11%		-	-	-	-	-	-
HT IX: HT - Electric Vehicle Charging Station Total	-	-	-	-	10.57					5.00%	-	2,367	211	2,578	-	2,578
HT Total	-	-	-	-	11.56					1.04%	11,318	54,536	3,791	58,327	-176	69,469

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Category	FY 28-29 (Proposed)					FY 28-29 (% Increase)					FY 28-29 (Revenue)						
	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ToD	Total	
	Rs./kVA/M	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs./kVA/M			Rs./Unit	Rs./Unit	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	
HT I HT - Industry																	
HT	730	8.10	0.88	8.98	10.87	1.39%	-7.73%	1.45%	-6.91%	-5.75%	6,999	29,491	3,193	32,683	-109	39,573	
EHV	730	8.10	-	8.10	10.34	1.39%	-7.73%		-7.73%	-5.79%	3,232	11,816	-	11,816	39	15,087	
HT I (A) (i): HT - Industry Sub-total	-	-	-	-	10.72					-5.74%	10,231	41,306	3,193	44,499	-70	54,660	
HT I (B): HT - Industry (Seasonal)																	
HT	730	8.10	0.88	8.98	13.02	1.39%	-7.73%	1.45%	-6.91%	-4.91%	110	221	24	245	0	355	
EHV	730	8.10	-	8.10	10.80	1.39%	-7.73%		-7.73%	-5.91%	1	2	-	2	0	2	
HT I (B): HT - Industry (Seasonal) Sub-total	-	-	-	-	13.01					-4.92%	110	222	24	246	0	357	
HT I : HT - Industry Total	-	-	-	-	10.73					-5.74%	10,341	41,528	3,217	44,745	-70	55,017	
HT II: HT - Commercial																	
HT	730	15.53	0.88	16.41	18.93	1.39%	2.86%	1.45%	2.78%	2.92%	608	3,352	189	3,542	-63	4,087	
EHV	730	15.53	-	15.53	20.87	1.39%	2.86%		2.86%	3.59%	29	83	-	83	-0	111	
HT II : HT - Commercial Total	-	-	-	-	18.98					2.93%	637	3,435	189	3,625	-64	4,198	
HT III : HT - Railways/Metro/Monorail Traction																	
HT	730	11.10	0.88	11.97	14.69	1.39%	9.83%	1.45%	9.17%	8.23%	26	105	8	113	-	139	
EHV	730	11.10	-	11.10	14.30	1.39%	9.83%		9.83%	8.54%	18	61	-	61	-	79	
HT III : HT - Railways/Metro/Monorail Traction Total	-	-	-	-	14.55					8.34%	43	166	8	174	-	218	
HT IV: HT - Public Water Works																	
HT	730	8.42	0.88	9.30	10.87	1.39%	-7.31%	1.45%	-6.55%	-5.59%	324	1,757	183	1,940	3	2,267	
EHV	730	8.42	-	8.42	9.26	1.39%	-7.31%		-7.31%	-6.99%	16	161	-	161	0	177	
HT IV: HT - Public Water Works (PWW) Total	-	-	-	-	10.73					-5.74%	340	1,917	183	2,100	4	2,444	
HT V(A): HT - Agriculture Pumpsets																	
HT	215	9.39	0.88	10.27	11.10	19.44%	6.16%	1.45%	5.74%	6.44%	50	558	52	610	-	660	
EHV	215	9.39	-	9.39	9.85	19.44%	6.16%		6.16%	6.58%	73	1,482	-	1,482	-	1,554	
HT V(A): HT - Agriculture Pumpsets Total	-	-	-	-	10.19					6.54%	123	2,039	52	2,092	-	2,214	
HT V(B): HT - Agriculture - Others																	
HT	215	13.04	0.88	13.92	14.68	19.44%	6.39%	1.45%	6.06%	6.63%	22	386	26	412	-	434	
EHV	215	13.04	-	13.04	-	19.44%	6.39%		6.39%	-	-	-	-	-	-	-	
HT V(B): HT - Agriculture Others Total	-	-	-	-	14.68					6.63%	22	386	26	412	-	434	
HT V: HT - Agriculture Total	-	-	-	-	10.73					6.46%	145	2,425	78	2,503	-	2,648	
HT VI: HT - Group Housing Societies (Residential)																	
HT	635	8.15	0.88	9.02	10.73	0.79%	-7.32%	1.45%	-6.53%	-5.74%	46	220	24	244	-	290	
EHV	635	8.15	-	8.15	-	0.79%	-7.32%		-7.32%	-	-	-	-	-	-	-	
HT VI: HT - Group Housing Societies (Residential) Total	-	-	-	-	10.73					-5.74%	46	220	24	244	-	290	
HT VIII: HT - Public Services																	
HT VIII(A): HT - Public Services-Govt. Edu. Institutions and Hospitals																	
HT	730	9.44	0.88	10.32	12.61	1.39%	-8.70%	1.45%	-7.91%	-5.81%	92	360	33	394	-5	481	
EHV	730	9.44	-	9.44	-	1.39%	-8.70%		-8.70%	-	-	-	-	-	-	-	
HT VIII(A): HT - Public Services-Government Total	-	-	-	-	12.61					-5.81%	92	360	33	394	-5	481	
HT VIII(B): HT - Public Services-Others																	
HT	730	10.19	0.88	11.07	14.05	1.39%	-9.00%	1.45%	-8.25%	-5.68%	289	959	82	1,041	-9	1,321	
EHV	730	10.19	-	10.19	-	1.39%	-9.00%		-9.00%	-	-	-	-	-	-	-	
HT VIII(B): HT - Public Services-Others Total	-	-	-	-	14.05					-5.68%	289	959	82	1,041	-9	1,321	
HT VIII : HT - Public Services Total	-	-	-	-	13.63					-5.72%	382	1,319	116	1,435	-14	1,803	
HT - MSPGCL-Aux Supply																	
HT	-	-	-	-	-												
EHV	-	-	-	-	-												
HT - MSPGCL-Aux Supply Total	-	-	-	-	-												
HT IX: HT - Electric Vehicle Charging Station																	
HT	-	9.85	0.88	10.73	10.73		1.50%	1.45%	1.49%	1.49%	-	3,558	317	3,874	-	3,874	
EHV	-	9.85	-	9.85	-		1.50%		1.50%	-	-	-	-	-	-	-	
HT IX: HT - Electric Vehicle Charging Station Total	-	-	-	-	10.73					1.49%	-	3,558	317	3,874	-	3,874	
HT Total	-	-	-	-	11.02					-4.64%	11,935	54,569	4,132	58,701	-144	70,492	

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Category	FY 29-30 (Proposed)					FY 29-30 (% Increase)					FY 29-30 (Revenue)						
	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ToD	Total	
	Rs./kVA/M	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs./kVA/M			Rs./Unit	Rs./Unit	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	
HT I HT - Industry																	
HT	750	7.97	0.87	8.84	10.74	2.74%	-1.65%	-0.25%	-1.52%	-1.17%	7,473	30,505	3,350	33,855	-191	41,137	
EHV	750	7.97	-	7.97	10.24	2.74%	-1.65%		-1.65%	-0.97%	3,451	12,114	-	12,114	11	15,576	
HT I (A) (i): HT - Industry Sub-total	-	-	-	-	10.60					-1.10%	10,925	42,619	3,350	45,969	-181	56,713	
HT I (B): HT - Industry (Seasonal)																	
HT	750	7.97	0.87	8.84	12.92	2.74%	-1.65%	-0.25%	-1.52%	-0.75%	117	228	25	253	-0	370	
EHV	750	7.97	-	7.97	10.69	2.74%	-1.65%		-1.65%	-1.03%	1	2	-	2	-0	2	
HT I (B): HT - Industry (Seasonal) Sub-total	-	-	-	-	12.91					-0.75%	118	230	25	255	-0	373	
HT I : HT - Industry Total	-	-	-	-	10.61					-1.10%	11,043	42,849	3,375	46,224	-181	57,085	
HT II: HT - Commercial																	
HT	750	15.64	0.87	16.52	19.18	2.74%	0.72%	-0.25%	0.67%	1.29%	643	3,384	189	3,573	-67	4,148	
EHV	750	15.64	-	15.64	21.38	2.74%	0.72%		0.72%	2.42%	31	82	-	82	-1	112	
HT II : HT - Commercial Total	-	-	-	-	19.23					1.32%	673	3,466	189	3,655	-68	4,260	
HT III : HT - Railways/Metro/Monorail Traction																	
HT	750	12.15	0.87	13.02	15.89	2.74%	9.46%	-0.25%	8.75%	8.18%	28	117	8	126	-	153	
EHV	750	12.15	-	12.15	15.53	2.74%	9.46%		9.46%	8.62%	19	68	-	68	-	87	
HT III : HT - Railways/Metro/Monorail Traction Total	-	-	-	-	15.76					8.34%	47	185	8	194	-	241	
HT IV: HT - Public Water Works																	
HT	750	8.31	0.87	9.18	10.76	2.74%	-1.33%	-0.25%	-1.23%	-1.01%	340	1,790	188	1,978	-0	2,317	
EHV	750	8.31	-	8.31	9.11	2.74%	-1.33%		-1.33%	-1.64%	16	171	-	171	-0	187	
HT IV: HT - Public Water Works (PWW) Total	-	-	-	-	10.61					-1.10%	356	1,960	188	2,149	-0	2,504	
HT V(A): HT - Agriculture Pumpsets																	
HT	230	9.27	0.87	10.14	11.01	6.98%	-1.33%	-0.25%	-1.24%	-0.86%	54	573	54	628	-	681	
EHV	230	9.27	-	9.27	9.74	6.98%	-1.33%		-1.33%	-1.09%	79	1,523	-	1,523	-	1,602	
HT V(A): HT - Agriculture Pumpsets Total	-	-	-	-	10.09					-1.03%	132	2,096	54	2,151	-	2,283	
HT V(B): HT - Agriculture - Others																	
HT	230	12.86	0.87	13.74	14.54	6.98%	-1.38%	-0.25%	-1.31%	-0.94%	24	388	26	415	-	439	
EHV	230	12.86	-	12.86	-	6.98%	-1.38%		-1.38%	-	-	-	-	-	-	-	
HT V(B): HT - Agriculture Others Total	-	-	-	-	14.54					-0.94%	24	388	26	415	-	439	
HT V: HT - Agriculture Total	-	-	-	-	10.61					-1.10%	157	2,485	81	2,565	-	2,722	
HT VI: HT - Group Housing Societies (Residential)																	
HT	640	8.04	0.87	8.92	10.61	0.79%	-1.27%	-0.25%	-1.17%	-1.10%	47	223	24	247	-	294	
EHV	640	8.04	-	8.04	-	0.79%	-1.27%		-1.27%	-	-	-	-	-	-	-	
HT VI: HT - Group Housing Societies (Residential) Total	-	-	-	-	10.61					-1.10%	47	223	24	247	-	294	
HT VIII: HT - Public Services																	
HT VIII(A): HT - Public Services-Govt. Edu. Institutions and Hospitals																	
HT	750	9.17	0.87	10.04	12.46	2.74%	-2.90%	-0.25%	-2.68%	-1.21%	100	357	34	391	-6	485	
EHV	750	9.17	-	9.17	-	2.74%	-2.90%		-2.90%	-	-	-	-	-	-	-	
HT VIII(A): HT - Public Services-Government Total	-	-	-	-	12.46					-1.21%	100	357	34	391	-6	485	
HT VIII(B): HT - Public Services-Others																	
HT	750	9.87	0.87	10.74	13.89	2.74%	-3.16%	-0.25%	-2.93%	-1.09%	312	944	84	1,028	-11	1,329	
EHV	750	9.87	-	9.87	-	2.74%	-3.16%		-3.16%	-	-	-	-	-	-	-	
HT VIII(B): HT - Public Services-Others Total	-	-	-	-	13.89					-1.09%	312	944	84	1,028	-11	1,329	
HT VIII : HT - Public Services Total	-	-	-	-	13.48					-1.13%	412	1,301	118	1,418	-16	1,814	
HT - MSPGCL-Aux Supply																	
HT	-	-	-	-	-						-	-	-	-	-	-	
EHV	-	-	-	-	-						-	-	-	-	-	-	
HT - MSPGCL-Aux Supply Total	-	-	-	-	-						-	-	-	-	-	-	
HT IX: HT - Electric Vehicle Charging Station																	
HT	-	9.74	0.87	10.61	10.61		-1.18%	-0.25%	-1.10%	-1.10%	-	5,032	452	5,484	-	5,484	
EHV	-	9.74	-	9.74	-		-1.18%		-1.18%	-	-	-	-	-	-	-	
HT IX: HT - Electric Vehicle Charging Station Total	-	-	-	-	10.61					-1.10%	-	5,032	452	5,484	-	5,484	
HT Total	-	-	-	-	10.90					-1.10%	12,734	57,502	4,436	61,937	-266	74,405	

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Category	FY 25-26 (Proposed)					FY 25-26 (% Increase)					FY 25-26 (Revenue)						
	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ToD	Total	
		Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit		Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.
LT Residential																	
LT I(A): LT - Residential-BPL	35	1.48		1.48	3.14	2.94%	-5.30%		-15.26%	-14.46%	6	6	-	6	-	12	
LT I(B): LT - Residential																	
1-100 units	130	4.37	1.46	5.84	7.65	1.56%	-7.15%	24.88%	-7.58%	-6.03%	2,621	6,230	2,086	8,316	-39	10,898	
101-300 units	135	11.14	1.46	12.60	13.49	5.47%	8.23%	24.88%	3.04%	1.89%	988	12,094	1,590	13,684	-30	14,643	
301-500 units	140	15.49	1.46	16.96	17.99	9.38%	6.50%	24.88%	1.11%	1.16%	167	2,442	231	2,673	-4	2,836	
Above 500 units	145	17.63	1.46	19.09	19.37	13.28%	5.93%	24.88%	0.86%	0.74%	63	3,590	298	3,888	-6	3,945	
Three Phase Charges	-	-	-	-	-	-100.00%					-	-	-	-	-	-	
LT I: LT - Residential Total	-	-	-	-	11.25					0.33%	3,845	24,361	4,206	28,567	-78	32,333	
LT II: LT - Non-Residential																	
(A) (i): 0 – 20 kW	550	8.53	1.46	9.99	12.96	6.38%	0.06%	24.88%	-4.49%	-2.43%	1,571	4,491	771	5,262	-9	6,824	
(B): >20 kW and ≤ 50 kW	570	13.10	1.46	14.57	16.75	10.25%	0.72%	24.88%	-5.29%	-6.06%	303	1,848	207	2,054	4	2,362	
(C): >50 kW	570	15.62	1.46	17.08	19.10	10.25%	1.56%	24.88%	3.21%	1.75%	273	2,120	199	2,319	0	2,592	
LT II: LT - Non-Residential Total	-	-	-	-	14.66					-0.87%	2,147	8,458	1,177	9,635	-4	11,777	
LT III: LT - Public Water Works (PWW)																	
(A): 0-20 kW	150	4.58	1.46	6.05	6.37	16.28%	12.12%	24.88%	8.11%	8.54%	23	328	105	432	-	455	
(B): > 20 kW and ≤ 40 kW	180	7.16	1.46	8.63	9.22	15.38%	13.17%	24.88%	8.04%	8.83%	9	103	21	124	-	132	
(C): > 40 kW	220	9.56	1.46	11.03	12.06	13.40%	13.83%	24.88%	8.56%	9.44%	15	134	21	155	-	170	
LT III: LT - Public Water Works (PWW) Total	-	-	-	-	7.58					8.23%	46	565	146	711	-	757	
LT IV: LT - Agriculture																	
LT IV(A): LT - AG Un-metered - Pumpsets																	
<i>Category 1 Zones (Above 1318 Hrs/HP/Annum)</i>																	
(a) 0-5 HP	498	-	146.46	146.46	7.56	-11.61%		25.18%	-16.47%	-12.74%	1,949	-	573	573	-	2,522	
(b) Above 5 HP - 7.5 HP	548	-	146.46	146.46	13.40	-9.79%		25.18%	-31.98%	-13.05%	506	-	135	135	-	641	
(c) Above 7.5 HP	613	-	146.46	146.46	-	-10.16%		25.18%	-34.03%		-	-	-	-	-	-	
<i>Category 2 Zones (Below 1318 Hrs/HP/Annum)</i>																	
(a) 0-5 HP	398	-	146.46	146.46	3.01	-8.45%		25.18%	12.38%	-3.97%	1,638	-	602	602	-	2,240	
(b) Above 5 HP - 7.5 HP	438	-	146.46	146.46	7.69	-7.88%		25.18%	-2.57%	-12.57%	612	-	205	205	-	817	
(c) Above 7.5 HP	508	-	146.46	146.46	-	-7.80%		25.18%	-2.57%		-	-	-	-	-	-	
LT IV(B): LT - Agriculture Metered Tariff - Pumpsets	60	3.14	1.46	4.61	5.05	15.38%	-7.22%	24.88%	-5.20%	-3.72%	1,134	7,983	3,721	11,704	-	12,838	
LT IV(C): LT - Agriculture Metered – Others	200	7.86	1.46	9.32	10.92	40.85%	37.65%	24.88%	25.73%	28.30%	35	174	32	207	-	242	
LT IV: LT - Agriculture Total	-	-	-	-	5.07					-5.46%	5,874	8,157	5,269	13,426	-	19,301	
LT V (A): LT - Industry - Powerlooms																	
(i): 0-20 kW	650	6.85	1.46	8.31	9.33	11.49%	14.04%	24.88%	8.03%	8.28%	41	276	59	334	-	375	
(ii): Above 20 kW	415	7.91	1.46	9.37	10.31	6.96%	11.11%	24.88%	4.64%	7.59%	161	1,370	254	1,624	2	1,787	
LT V (A): LT - Industry - Powerlooms Total	-	-	-	-	10.13					7.71%	202	1,646	313	1,959	2	2,163	
LT V (B): LT - Industry - General																	
(i): 0-20 kW	650	7.10	1.46	8.57	9.24	11.49%	15.28%	24.88%	9.12%	7.84%	278	2,942	607	3,548	-	3,826	
(ii): Above 20 kW	415	9.04	1.46	10.50	11.89	6.96%	23.79%	24.88%	14.90%	6.32%	1,370	6,572	1,065	7,637	-363	8,644	
LT V (B): LT - Industry - General Total	-	-	-	-	10.92					6.69%	1,647	9,513	1,672	11,185	-363	12,470	
LT V: LT - Industry Total	-	-	-	-	10.80					7.07%	1,849	11,159	1,985	13,144	-361	14,632	
LT VI: LT - Street Light																	
(A): Grampanchayat: A B & C Class Municipal Council	160	7.96	1.46	9.42	10.16	12.68%	16.51%	24.88%	9.95%	10.38%	55	600	110	710	-	765	
(B): Municipal corporation Area	160	9.72	1.46	11.18	12.46	12.68%	16.93%	24.88%	9.99%	10.58%	48	368	55	423	-	472	
LT VI: LT - Street Light Total	-	-	-	-	10.92					10.46%	103	968	166	1,133	-	1,237	
LT VII (A) - Public Services – Govt.																	
(i): ≤ 20 kW	450	4.04	1.46	5.50	11.69	5.39%	-5.89%	24.88%	-8.75%	5.12%	44	28	10	39	-	82	
(ii): >20 - ≤ 50 kW	450	7.03	1.46	8.49	10.25	5.39%	13.71%	24.88%	4.59%	-0.72%	4	10	2	13	-2	15	
iii): >50 kW	450	8.70	1.46	10.17	12.10	5.39%	12.31%	24.88%	13.96%	6.65%	4	12	2	14	-2	17	
LT VII (A) - Public Services - Government Total	-	-	-	-	11.53					4.54%	52	51	15	65	-3	114	
LT VII (B) - Public Services - Others																	
(i): ≤ 20 kW	550	5.86	1.46	7.33	9.29	18.53%	-5.12%	24.88%	-7.08%	-0.49%	75	225	56	281	-	356	
(ii): >20 - ≤ 50 kW	550	10.21	1.46	11.68	14.12	18.53%	4.46%	24.88%	-0.76%	3.91%	47	145	21	166	-13	200	
iii): >50 kW	550	10.54	1.46	12.00	14.04	18.53%	4.01%	24.88%	-0.16%	-3.35%	60	223	31	254	-16	297	
LT VII (B) - Public Services - Others Total	-	-	-	-	11.59					-0.31%	182	593	108	701	-29	854	
LT VII - Public Services - Total	-	-	-	-	11.58					0.24%	234	644	123	767	-32	969	
LT VIII – Electric Vehicle Charging Station	-	9.86	1.46	11.33	10.92	-100.00%	49.86%	24.88%	33.72%	6.86%	-	231	34	265	-9	256	
LT Total					8.87					1.71%	14,099	54,543	13,105	67,648	-485	81,262	

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Category	FY 26-27 (Proposed)					FY 26-27 (% Increase)					FY 26-27 (Revenue)					
	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ToD	Total
	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit		Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.
LT Residential																
LT I(A): LT - Residential-BPL	40	1.58		1.58	3.30	14.29%	7.16%		7.16%	5.11%	7	6	-	6	-	13
LT I(B): LT - Residential																
1-100 units	140	4.16	1.60	5.76	7.70	7.69%	-4.93%	9.56%	-1.29%	0.65%	2,913	6,160	2,377	8,537	-43	11,407
101-300 units	145	11.35	1.60	12.96	13.84	7.41%	1.90%	9.56%	2.79%	2.64%	1,096	13,573	1,919	15,492	-35	16,553
301-500 units	150	15.37	1.60	16.97	18.10	7.14%	-0.79%	9.56%	0.10%	0.63%	184	2,454	256	2,711	-5	2,891
Above 500 units	155	17.63	1.60	19.24	19.56	6.90%	0.04%	9.56%	0.77%	0.98%	69	3,447	314	3,761	-6	3,824
Three Phase Charges	-	-	-	-	-						-	-	-	-	-	-
LT I: LT - Residential Total	-	-	-	-	11.42					1.59%	4,269	25,641	4,866	30,507	-88	34,688
LT II: LT - Non-Residential																
(A) (i): 0 – 20 kW	575	8.88	1.60	10.49	13.54	4.55%	4.18%	9.56%	4.97%	4.49%	1,699	4,866	879	5,745	-28	7,416
(B): >20 kW and ≤ 50 kW	600	13.75	1.60	15.36	17.41	5.26%	4.95%	9.56%	5.41%	3.94%	333	2,141	250	2,391	-14	2,710
(C): >50 kW	600	16.39	1.60	17.99	19.87	5.26%	4.91%	9.56%	5.31%	4.05%	300	2,458	241	2,698	-19	2,980
LT II: LT - Non-Residential Total	-	-	-	-	15.36					4.76%	2,333	9,464	1,370	10,834	-61	13,106
LT III: LT - Public Water Works (PWW)																
(A): 0-20 kW	173	4.96	1.60	6.57	6.94	15.33%	8.26%	9.56%	8.58%	9.00%	28	367	119	486	-	513
(B): > 20 kW and ≤ 40 kW	207	7.75	1.60	9.36	10.05	15.00%	8.28%	9.56%	8.50%	9.02%	10	115	24	139	-	149
(C): > 40 kW	253	10.34	1.60	11.95	13.15	15.00%	8.16%	9.56%	8.35%	9.05%	18	151	23	174	-	191
LT III: LT - Public Water Works (PWW) Total	-	-	-	-	8.26					9.01%	55	633	166	799	-	854
LT IV: LT - Agriculture																
LT IV(A): LT - AG Un-metered - Pumpsets																
Category 1 Zones (Above 1318 Hrs/HP/Annum)																
(a) 0-5 HP	454	-	160.47	160.47	7.20	-8.80%		9.56%	9.56%	-4.70%	1,777	-	628	628	-	2,405
(b) Above 5 HP - 7.5 HP	500	-	160.47	160.47	12.73	-8.80%		9.56%	9.56%	-5.00%	462	-	148	148	-	610
(c) Above 7.5 HP	559	-	160.47	160.47	-	-8.80%		9.56%	9.56%		-	-	-	-	-	-
Category 2 Zones (Below 1318 Hrs/HP/Annum)																
(a) 0-5 HP	363	-	160.47	160.47	2.90	-8.80%		9.56%	9.56%	-3.94%	1,494	-	660	660	-	2,154
(b) Above 5 HP - 7.5 HP	400	-	160.47	160.47	7.36	-8.80%		9.56%	9.56%	-4.28%	558	-	224	224	-	782
(c) Above 7.5 HP	464	-	160.47	160.47	-	-8.80%		9.56%	9.56%		-	-	-	-	-	-
LT IV(B): LT - Agriculture Metered Tariff - Pumpsets	70	2.71	1.60	4.31	4.83	16.67%	-13.82%	9.56%	-6.39%	-4.40%	1,337	6,983	4,138	11,121	-	12,457
LT IV(C): LT - Agriculture Metered – Others	230	7.81	1.60	9.42	11.31	15.00%	-0.62%	9.56%	0.98%	3.61%	43	176	36	212	-	255
LT IV: LT - Agriculture Total	-	-	-	-	4.85					-4.30%	5,670	7,158	5,834	12,993	-	18,663
LT V (A): LT - Industry - Powerlooms																
(i): 0-20 kW	720	7.32	1.60	8.93	10.04	10.77%	6.95%	9.56%	7.41%	7.66%	46	301	66	366	-	412
(ii): Above 20 kW	445	8.50	1.60	10.10	11.15	7.23%	7.46%	9.56%	7.79%	8.07%	182	1,502	284	1,786	3	1,970
LT V (A): LT - Industry - Powerlooms Total	-	-	-	-	10.94					8.00%	227	1,803	349	2,152	3	2,382
LT V(B): LT - Industry - General																
(i): 0-20 kW	720	7.34	1.60	8.94	9.62	10.77%	3.31%	9.56%	4.38%	4.15%	319	3,454	756	4,210	-	4,529
(ii): Above 20 kW	445	9.37	1.60	10.97	12.28	7.23%	3.66%	9.56%	4.48%	3.34%	1,527	7,720	1,322	9,042	-446	10,123
LT V(B): LT - Industry - General Total	-	-	-	-	11.31					3.57%	1,847	11,174	2,078	13,252	-446	14,652
LT V: LT - Industry Total	-	-	-	-	11.26					4.27%	2,074	12,976	2,427	15,404	-443	17,034
LT VI: LT - Street Light																
(A): Grampanchayat: A B & C Class Municipal Council	175	8.09	1.60	9.70	10.52	9.38%	1.68%	9.56%	2.90%	3.55%	63	623	124	747	-	810
(B): Municipal corporation Area	175	9.88	1.60	11.48	12.91	9.38%	1.65%	9.56%	2.69%	3.61%	55	383	62	445	-	500
LT VI: LT - Street Light Total	-	-	-	-	11.31					3.57%	118	1,006	186	1,192	-	1,310
LT VII (A) - Public Services – Govt.																
(i): ≤ 20 kW	450	4.15	1.60	5.75	12.40	0.00%	2.73%	9.56%	4.55%	6.09%	48	30	12	41	-	89
(ii): >20 - ≤ 50 kW	450	7.23	1.60	8.83	10.61	0.00%	2.80%	9.56%	3.97%	3.47%	5	11	2	13	-2	16
iii): >50 kW	450	8.94	1.60	10.54	12.50	0.00%	2.72%	9.56%	3.71%	3.34%	4	13	2	15	-2	18
LT VII (A) - Public Services - Government Total	-	-	-	-	12.14					5.34%	57	53	16	70	-4	123
LT VII (B) - Public Services - Others																
(i): ≤ 20 kW	625	5.62	1.60	7.22	9.62	13.64%	-4.18%	9.56%	-1.44%	3.56%	94	220	63	283	-	377
(ii): >20 - ≤ 50 kW	625	9.95	1.60	11.56	14.60	13.64%	-2.57%	9.56%	-1.05%	3.36%	58	144	23	167	-14	212
iii): >50 kW	625	10.35	1.60	11.95	14.48	13.64%	-1.81%	9.56%	-0.42%	3.17%	73	224	35	259	-18	313
LT VII (B) - Public Services - Others Total	-	-	-	-	11.98					3.38%	225	588	121	709	-32	902
LT VII - Public Services - Total	-	-	-	-	12.00					3.61%	282	642	137	779	-36	1,025
LT VIII – Electric Vehicle Charging Station	-	10.14	1.60	11.74	11.31		2.83%	9.56%	3.70%	3.57%	-	391	62	453	-17	437
LT Total					9.08					2.38%	14,802	57,911	15,048	72,959	-644	87,117

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Category	FY 27-28 (Proposed)					FY 27-28 (% Increase)					FY 27-28 (Revenue)					
	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ToD	Total
	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.
LT Residential																
LT I(A): LT - Residential-BPL	48	1.59		1.59	3.46	20.00%	0.61%		0.61%	4.89%	8	7	-	7	-	14
LT I(B): LT - Residential																
1-100 units	145	3.38	1.67	5.05	7.04	3.57%	-18.79%	4.29%	-12.36%	-8.56%	3,114	5,203	2,578	7,781	-47	10,848
101-300 units	150	11.53	1.67	13.20	14.08	3.45%	1.59%	4.29%	1.92%	1.71%	1,170	14,905	2,163	17,068	-40	18,199
301-500 units	155	15.58	1.67	17.26	18.53	3.33%	1.41%	4.29%	1.68%	2.40%	197	2,349	252	2,601	-5	2,793
Above 500 units	160	17.89	1.67	19.56	19.93	3.23%	1.42%	4.29%	1.66%	1.86%	74	3,300	309	3,608	-6	3,676
Three Phase Charges	-	-	-	-	-						-	-	-	-	-	-
LT I: LT - Residential Total	-	-	-	-	11.20					-1.97%	4,563	25,763	5,303	31,066	-97	35,532
LT II: LT - Non-Residential																
(A) (i): 0 – 20 kW	600	9.18	1.67	10.85	13.98	4.35%	3.32%	4.29%	3.47%	3.29%	1,834	5,228	953	6,182	-50	7,966
(B): >20 kW and ≤ 50 kW	625	14.18	1.67	15.86	18.02	4.17%	3.13%	4.29%	3.25%	3.51%	363	2,290	270	2,560	-14	2,909
(C): >50 kW	625	16.91	1.67	18.58	20.56	4.17%	3.19%	4.29%	3.28%	3.48%	327	2,632	261	2,893	-19	3,201
LT II: LT - Non-Residential Total	-	-	-	-	15.87					3.36%	2,524	10,150	1,484	11,634	-82	14,076
LT III: LT - Public Water Works (PWW)																
(A): 0-20 KW	200	5.45	1.67	7.12	7.56	15.61%	9.85%	4.29%	8.49%	8.97%	33	417	128	545	-	579
(B): > 20 kW and ≤ 40 kW	238	8.47	1.67	10.15	10.95	14.98%	9.28%	4.29%	8.42%	8.99%	12	130	26	156	-	168
(C): > 40 kW	290	11.26	1.67	12.94	14.34	14.62%	8.91%	4.29%	8.29%	9.03%	21	170	25	195	-	216
LT III: LT - Public Water Works (PWW) Total	-	-	-	-	9.00					8.99%	67	717	179	896	-	963
LT IV: LT - Agriculture																
LT IV(A): LT - AG Un-metered - Pumpsets																
Category 1 Zones (Above 1318 Hrs/HP/Annum)																
(a) 0-5 HP	410	-	167.35	167.35	6.80	-9.79%		4.29%	4.29%	-5.53%	1,603	-	655	655	-	2,258
(b) Above 5 HP - 7.5 HP	451	-	167.35	167.35	11.99	-9.79%		4.29%	4.29%	-5.79%	416	-	155	155	-	571
(c) Above 7.5 HP	505	-	167.35	167.35	-	-9.79%		4.29%	4.29%		-	-	-	-	-	-
Category 2 Zones (Below 1318 Hrs/HP/Annum)																
(a) 0-5 HP	328	-	167.35	167.35	2.75	-9.79%		4.29%	4.29%	-4.89%	1,348	-	688	688	-	2,036
(b) Above 5 HP - 7.5 HP	360	-	167.35	167.35	6.98	-9.79%		4.29%	4.29%	-5.17%	503	-	234	234	-	737
(c) Above 7.5 HP	418	-	167.35	167.35	-	-9.79%		4.29%	4.29%		-	-	-	-	-	-
LT IV(B): LT - Agriculture Metered Tariff - Pumpsets	80	2.31	1.67	3.99	4.58	14.29%	-14.59%	4.29%	-7.56%	-5.28%	1,543	6,053	4,380	10,434	-	11,976
LT IV(C): LT - Agriculture Metered – Others	270	7.41	1.67	9.08	11.38	17.39%	-5.20%	4.29%	-3.58%	0.62%	53	169	38	207	-	260
LT IV: LT - Agriculture Total	-	-	-	-	4.60					-5.19%	5,466	6,222	6,150	12,372	-	17,838
LT V (A): LT - Industry - Powerlooms																
(i): 0-20 kW	780	7.55	1.67	9.22	10.42	8.33%	3.08%	4.29%	3.30%	3.74%	50	316	70	386	-	436
(ii): Above 20 kW	480	8.76	1.67	10.44	11.61	7.87%	3.12%	4.29%	3.31%	4.15%	205	1,580	302	1,882	6	2,093
LT V (A): LT - Industry - Powerlooms Total	-	-	-	-	11.38					4.08%	255	1,896	372	2,268	6	2,529
LT V(B): LT - Industry - General																
(i): 0-20 kW	780	7.37	1.67	9.04	9.72	8.33%	0.41%	4.29%	1.10%	1.06%	359	3,885	883	4,767	-	5,127
(ii): Above 20 kW	480	9.36	1.67	11.03	12.34	7.87%	-0.13%	4.29%	0.52%	0.44%	1,713	8,615	1,541	10,156	-508	11,362
LT V(B): LT - Industry - General Total	-	-	-	-	11.38					0.62%	2,073	12,500	2,424	14,924	-508	16,488
LT V: LT - Industry Total	-	-	-	-	11.38					1.10%	2,328	14,396	2,795	17,191	-502	19,017
LT VI: LT - Street Light																
(A): Grampanchayat: A B & C Class Municipal Council	190	7.99	1.67	9.67	10.58	8.57%	-1.20%	4.29%	-0.29%	0.59%	72	629	132	761	-	833
(B): Municipal corporation Area	190	9.74	1.67	11.41	12.99	8.57%	-1.42%	4.29%	-0.62%	0.66%	63	385	66	452	-	514
LT VI: LT - Street Light Total	-	-	-	-	11.38					0.62%	134	1,015	198	1,213	-	1,347
LT VII (A) - Public Services – Govt.																
(i): ≤ 20 kW	450	3.96	1.67	5.64	12.78	0.00%	-4.45%	4.29%	-2.01%	3.09%	53	29	12	41	-	94
(ii): >20 - ≤ 50 kW	450	7.10	1.67	8.78	10.65	0.00%	-1.69%	4.29%	-0.60%	0.45%	5	11	3	14	-2	17
(iii): >50 kW	450	8.80	1.67	10.47	12.54	0.00%	-1.55%	4.29%	-0.66%	0.32%	5	13	2	15	-2	18
LT VII (A) - Public Services - Government Total	-	-	-	-	12.43					2.35%	62	53	17	70	-4	129
LT VII (B) - Public Services - Others																
(i): ≤ 20 kW	625	5.42	1.67	7.10	9.68	0.00%	-3.49%	4.29%	-1.76%	0.57%	103	217	67	284	-	387
(ii): >20 - ≤ 50 kW	625	9.73	1.67	11.40	14.65	0.00%	-2.25%	4.29%	-1.34%	0.35%	63	144	25	169	-15	217
(iii): >50 kW	625	10.13	1.67	11.80	14.51	0.00%	-2.12%	4.29%	-1.26%	0.15%	79	224	37	261	-19	320
LT VII (B) - Public Services - Others Total	-	-	-	-	12.02					0.38%	245	584	129	713	-34	924
LT VII - Public Services - Total	-	-	-	-	12.07					0.61%	307	637	146	783	-38	1,052
LT VIII – Electric Vehicle Charging Station	-	10.14	1.67	11.82	11.38		0.02%	4.29%	0.61%	0.62%	-	596	98	694	-25	669
LT Total	-	-	-	-	9.07					-0.15%	15,390	59,496	16,354	75,850	-745	90,495

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Category	FY 28-29 (Proposed)					FY 28-29 (% Increase)					FY 28-29 (Revenue)						
	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ToD	Total	
	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit		Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	
LT Residential																	
LT I(A): LT - Residential-BPL	55	1.69		1.69	3.63	14.58%	6.02%		6.02%	5.00%	9	7	-	7	-	16	
LT I(B): LT - Residential																	
1-100 units	145	2.52	1.71	4.23	6.20	0.00%	-25.33%	2.08%	-16.25%	-11.90%	3,215	4,040	2,737	6,777	-52	9,940	
101-300 units	150	9.55	1.71	11.25	12.09	0.00%	-17.22%	2.08%	-14.77%	-14.12%	1,208	13,253	2,372	15,625	-45	16,788	
301-500 units	155	15.32	1.71	17.03	18.55	0.00%	-1.71%	2.08%	-1.34%	0.11%	203	1,995	223	2,218	-4	2,417	
Above 500 units	160	16.69	1.71	18.39	18.84	0.00%	-6.70%	2.08%	-5.95%	-5.46%	76	2,660	272	2,933	-5	3,003	
Three Phase Charges	-	-	-	-	-						-	-	-	-	-	-	
LT I: LT - Residential Total	-	-	-	-	9.79						-12.57%	4,710	21,956	5,604	27,560	-106	32,164
LT II: LT - Non-Residential																	
(A) (i): 0 – 20 kW	600	9.55	1.71	11.26	14.38	0.00%	4.06%	2.08%	3.75%	2.81%	1,898	5,658	1,012	6,670	-50	8,518	
(B): >20 kW and ≤ 50 kW	625	14.67	1.71	16.38	18.62	0.00%	3.41%	2.08%	3.27%	3.34%	379	2,393	279	2,672	-13	3,039	
(C): >50 kW	625	17.47	1.71	19.17	21.23	0.00%	3.30%	2.08%	3.19%	3.26%	342	2,750	269	3,019	-18	3,343	
LT II: LT - Non-Residential Total	-	-	-	-	16.32						2.80%	2,619	10,802	1,560	12,362	-81	14,899
LT III: LT - Public Water Works (PWW)																	
(A): 0-20 kW	230	6.02	1.71	7.73	8.24	15.00%	10.47%	2.08%	8.50%	8.98%	40	476	135	611	-	652	
(B): > 20 kW and ≤ 40 kW	270	9.30	1.71	11.01	11.94	13.45%	9.78%	2.08%	8.51%	9.01%	15	148	27	175	-	190	
(C): > 40 kW	335	12.28	1.71	13.99	15.64	15.52%	9.04%	2.08%	8.14%	9.05%	26	191	27	218	-	243	
LT III: LT - Public Water Works (PWW) Total	-	-	-	-	9.81						9.00%	81	815	189	1,004	-	1,084
LT IV: LT - Agriculture																	
LT IV(A): LT - AG Un-metered - Pumpsets																	
<i>Category 1 Zones (Above 1318 Hrs/HP/Annum)</i>																	
(a) 0-5 HP	308	-	170.83	170.83	5.71	-24.73%		2.08%	2.08%	-16.03%	1,207	-	669	669	-	1,875	
(b) Above 5 HP - 7.5 HP	339	-	170.83	170.83	10.01	-24.73%		2.08%	2.08%	-16.55%	313	-	158	158	-	471	
(c) Above 7.5 HP	380	-	170.83	170.83	-	-24.73%		2.08%	2.08%		-	-	-	-	-	-	
<i>Category 2 Zones (Below 1318 Hrs/HP/Annum)</i>																	
(a) 0-5 HP	247	-	170.83	170.83	2.35	-24.73%		2.08%	2.08%	-14.72%	1,014	-	703	703	-	1,717	
(b) Above 5 HP - 7.5 HP	271	-	170.83	170.83	5.91	-24.73%		2.08%	2.08%	-15.29%	379	-	239	239	-	618	
(c) Above 7.5 HP	315	-	170.83	170.83	-	-24.73%		2.08%	2.08%		-	-	-	-	-	-	
LT IV(B): LT - Agriculture Metered Tariff - Pumpsets	64	1.69	1.71	3.40	3.87	-20.00%	2.08%	2.08%	-14.79%	-15.51%	1,247	4,486	4,538	9,024	-	10,271	
LT IV(C): LT - Agriculture Metered – Others	270	6.64	1.71	8.35	10.73	0.00%	-10.36%	2.08%	-8.07%	-5.74%	55	154	40	194	-	249	
LT IV: LT - Agriculture Total	-	-	-	-	3.89						-15.35%	4,215	4,640	6,346	10,985	-	15,200
LT V (A): LT - Industry - Powerlooms																	
(i): 0-20 kW	780	6.90	1.71	8.61	9.79	0.00%	-8.65%	2.08%	-6.70%	-6.05%	51	294	73	367	-	418	
(ii): Above 20 kW	480	8.03	1.71	9.74	10.95	0.00%	-8.35%	2.08%	-6.68%	-5.67%	215	1,477	314	1,791	7	2,014	
LT V (A): LT - Industry - Powerlooms Total	-	-	-	-	10.73						-5.74%	266	1,771	387	2,158	7	2,432
LT V (B): LT - Industry - General																	
(i): 0-20 kW	780	6.85	1.71	8.56	9.20	0.00%	-7.00%	2.08%	-5.32%	-5.40%	373	4,009	1,000	5,008	-	5,381	
(ii): Above 20 kW	480	8.69	1.71	10.40	11.61	0.00%	-7.06%	2.08%	-5.68%	-5.87%	1,782	8,865	1,742	10,607	-548	11,842	
LT V (B): LT - Industry - General Total	-	-	-	-	10.73						-5.74%	2,155	12,874	2,741	15,615	-548	17,223
LT V: LT - Industry Total	-	-	-	-	10.73						-5.74%	2,421	14,645	3,129	17,774	-540	19,654
LT VI: LT - Street Light																	
(A): Grampanchayat: A B & C Class Municipal Council	190	7.33	1.71	9.04	9.97	0.00%	-8.32%	2.08%	-6.52%	-5.76%	75	589	137	726	-	801	
(B): Municipal corporation Area	190	8.93	1.71	10.63	12.25	0.00%	-8.32%	2.08%	-6.80%	-5.70%	65	361	69	430	-	496	
LT VI: LT - Street Light Total	-	-	-	-	10.73						-5.74%	140	950	206	1,157	-	1,297
LT VII (A) - Public Services – Govt.																	
(i): ≤ 20 kW	450	2.96	1.71	4.67	12.36	0.00%	-25.27%	2.08%	-17.16%	-3.33%	58	22	13	35	-	93	
(ii): >20 - ≤ 50 kW	450	6.26	1.71	7.96	10.02	0.00%	-11.93%	2.08%	-9.26%	-5.90%	5	10	3	13	-2	16	
iii): >50 kW	450	7.81	1.71	9.52	11.78	0.00%	-11.19%	2.08%	-9.07%	-6.04%	5	11	2	14	-2	17	
LT VII (A) - Public Services - Government Total	-	-	-	-	11.93						-4.04%	68	44	18	62	-4	126
LT VII (B) - Public Services - Others																	
(i): ≤ 20 kW	625	4.63	1.71	6.34	9.12	0.00%	-14.56%	2.08%	-10.64%	-5.75%	113	189	70	259	-	372	
(ii): >20 - ≤ 50 kW	625	8.54	1.71	10.25	13.77	0.00%	-12.16%	2.08%	-10.07%	-5.99%	68	129	26	155	-15	208	
iii): >50 kW	625	8.97	1.71	10.67	13.61	0.00%	-11.47%	2.08%	-9.55%	-6.19%	85	202	38	241	-19	307	
LT VII (B) - Public Services - Others Total	-	-	-	-	11.31						-5.96%	267	520	134	654	-34	886
LT VII - Public Services - Total	-	-	-	-	11.38						-5.72%	335	563	152	715	-38	1,012
LT VIII – Electric Vehicle Charging Station	-	9.45	1.71	11.16	10.73		-6.85%	2.08%	-5.59%	-5.74%	-	829	150	979	-37	941	
LT Total	-	-	-	-	8.34						-8.02%	14,521	55,200	17,335	72,535	-803	86,253

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Category	FY 29-30 (Proposed)					FY 29-30 (% Increase)					FY 29-30 (Revenue)					
	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ABR	FC	EC	WC	VC	ToD	Total
		Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit		Rs./Unit	Rs./Unit	Rs./Unit	Rs./Unit	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.
LT Residential																
LT I(A): LT - Residential-BPL	65	1.72		1.72	3.82	18.18%	1.98%		1.98%	5.00%	10	8	-	8	-	17
LT I(B): LT - Residential																
1-100 units	145	2.20	1.71	3.91	5.87	0.00%	-12.80%	0.35%	-7.49%	-5.37%	3,318	3,664	2,857	6,521	-57	9,782
101-300 units	150	9.30	1.71	11.02	11.82	0.00%	-2.53%	0.35%	-2.09%	-2.25%	1,247	13,894	2,560	16,454	-51	17,650
301-500 units	155	15.59	1.71	17.31	19.50	0.00%	1.81%	0.35%	1.66%	5.10%	210	1,469	162	1,631	-3	1,837
Above 500 units	160	17.24	1.71	18.95	19.60	0.00%	3.32%	0.35%	3.04%	4.04%	78	1,988	198	2,186	-4	2,260
Three Phase Charges	-	-	-	-	-						-	-	-	-	-	-
LT I: LT - Residential Total	-	-	-	-	9.35					-4.51%	4,862	21,023	5,776	26,799	-115	31,547
LT II: LT - Non-Residential																
(A) (i): 0 – 20 kW	600	10.26	1.71	11.97	15.08	0.00%	7.45%	0.35%	6.37%	4.87%	1,964	6,323	1,056	7,379	-53	9,290
(B): >20 kW and ≤ 50 kW	625	15.61	1.71	17.33	19.69	0.00%	6.44%	0.35%	5.80%	5.72%	397	2,516	276	2,792	-16	3,172
(C): >50 kW	625	18.54	1.71	20.25	22.42	0.00%	6.15%	0.35%	5.63%	5.58%	357	2,885	267	3,151	-21	3,488
LT II: LT - Non-Residential Total	-	-	-	-	17.10					4.78%	2,718	11,723	1,599	13,323	-90	15,950
LT III: LT - Public Water Works (PWW)																
(A): 0-20 kW	270	6.59	1.71	8.30	8.91	17.39%	9.40%	0.35%	7.40%	8.14%	50	538	140	677	-	727
(B): > 20 kW and ≤ 40 kW	310	10.12	1.71	11.83	12.92	14.81%	8.75%	0.35%	7.44%	8.17%	18	166	28	194	-	212
(C): > 40 kW	385	13.28	1.71	15.00	16.92	14.93%	8.15%	0.35%	7.19%	8.22%	31	213	28	241	-	272
LT III: LT - Public Water Works (PWW) Total	-	-	-	-	10.61					8.17%	98	917	196	1,112	-	1,211
LT IV: LT - Agriculture																
LT IV(A): LT - AG Un-metered - Pumpsets																
Category 1 Zones (Above 1318 Hrs/HP/Annum)																
(a) 0-5 HP	325	-	171.43	171.43	5.73	5.36%		0.35%	0.35%	0.36%	1,271	-	671	671	-	1,942
(b) Above 5 HP - 7.5 HP	357	-	171.43	171.43	10.05	5.36%		0.35%	0.35%	0.46%	330	-	158	158	-	489
(c) Above 7.5 HP	400	-	171.43	171.43	-	5.36%		0.35%	0.35%		-	-	-	-	-	-
Category 2 Zones (Below 1318 Hrs/HP/Annum)																
(a) 0-5 HP	260	-	171.43	171.43	2.35	5.36%		0.35%	0.35%	0.10%	1,069	-	705	705	-	1,774
(b) Above 5 HP - 7.5 HP	286	-	171.43	171.43	5.92	5.36%		0.35%	0.35%	0.21%	399	-	239	239	-	639
(c) Above 7.5 HP	332	-	171.43	171.43	-	5.36%		0.35%	0.35%		-	-	-	-	-	-
LT IV(B): LT - Agriculture Metered Tariff - Pumpsets	64	1.69	1.71	3.41	3.88	0.00%	0.36%	0.35%	0.36%	0.25%	1,259	4,570	4,623	9,192	-	10,451
LT IV(C): LT - Agriculture Metered – Others	270	6.43	1.71	8.15	10.61	0.00%	-3.11%	0.35%	-2.40%	-1.10%	58	151	40	192	-	250
LT IV: LT - Agriculture Total	-	-	-	-	3.90					0.22%	4,387	4,721	6,437	11,158	-	15,544
LT V (A): LT - Industry - Powerlooms																
(i): 0-20 kW	780	6.76	1.71	8.48	9.65	0.00%	-1.95%	0.35%	-1.50%	-1.43%	51	294	75	369	-	420
(ii): Above 20 kW	480	7.90	1.71	9.61	10.84	0.00%	-1.64%	0.35%	-1.29%	-1.03%	226	1,482	322	1,803	3	2,033
LT V (A): LT - Industry - Powerlooms Total	-	-	-	-	10.61					-1.10%	277	1,776	396	2,172	3	2,453
LT V(B): LT - Industry - General																
(i): 0-20 kW	780	6.81	1.71	8.52	9.12	0.00%	-0.62%	0.35%	-0.43%	-0.80%	387	4,390	1,106	5,496	-	5,883
(ii): Above 20 kW	480	8.65	1.71	10.36	11.47	0.00%	-0.54%	0.35%	-0.39%	-1.23%	1,853	9,702	1,923	11,625	-609	12,869
LT V(B): LT - Industry - General Total	-	-	-	-	10.61					-1.10%	2,241	14,092	3,029	17,121	-609	18,752
LT V: LT - Industry Total	-	-	-	-	10.61					-1.10%	2,518	15,868	3,425	19,293	-606	21,205
LT VI: LT - Street Light																
(A): Grampanchayat: A B & C Class Municipal Council	190	7.19	1.71	8.90	9.86	0.00%	-1.92%	0.35%	-1.49%	-1.13%	78	590	141	731	-	809
(B): Municipal corporation Area	190	8.75	1.71	10.47	12.12	0.00%	-1.94%	0.35%	-1.57%	-1.06%	68	362	71	432	-	501
LT VI: LT - Street Light Total	-	-	-	-	10.61					-1.10%	146	952	212	1,163	-	1,310
LT VII (A) - Public Services – Govt.																
(i): ≤ 20 kW	450	2.55	1.71	4.26	12.54	0.00%	-13.98%	0.35%	-8.74%	1.44%	63	20	13	33	-	96
(ii): >20 - ≤ 50 kW	450	5.93	1.71	7.64	9.89	0.00%	-5.20%	0.35%	-4.01%	-1.35%	6	10	3	12	-2	16
iii): >50 kW	450	7.44	1.71	9.15	11.61	0.00%	-4.81%	0.35%	-3.88%	-1.50%	5	11	3	14	-2	17
LT VII (A) - Public Services - Government Total	-	-	-	-	12.01					0.69%	75	40	18	59	-4	129
LT VII (B) - Public Services - Others																
(i): ≤ 20 kW	625	4.31	1.71	6.02	9.02	0.00%	-7.03%	0.35%	-5.04%	-1.15%	125	179	71	250	-	375
(ii): >20 - ≤ 50 kW	625	8.07	1.71	9.78	13.57	0.00%	-5.56%	0.35%	-4.58%	-1.44%	73	124	26	150	-15	209
iii): >50 kW	625	8.51	1.71	10.22	13.38	0.00%	-5.11%	0.35%	-4.23%	-1.65%	92	195	39	235	-19	308
LT VII (B) - Public Services - Others Total	-	-	-	-	11.15					-1.39%	290	499	137	636	-35	891
LT VII - Public Services - Total	-	-	-	-	11.25					-1.13%	365	539	156	694	-38	1,021
LT VIII – Electric Vehicle Charging Station	-	9.34	1.71	11.05	10.61		-1.15%	0.35%	-0.92%	-1.10%	-	1,179	216	1,395	-55	1,340
LT Total	-	-	-	-	8.30					-0.53%	15,094	56,921	18,016	74,937	-904	89,127

9.3 Proposed Recovery from Tariff

9.3.1 Following table summarised the year on year increase in ACoS along with the recovery from revised tariff.

Table 239 year on year increase in ACoS

Tarif hike	Units	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Acos (in Rs./Unit)	Rs/unit	9.45	9.75	9.80	9.19	9.14
Y-O-Y rise in ACoS	Rs/unit	0.0%	3.17%	0.54%	-6.19%	-0.57%

10 PROPOSAL FOR SCHEDULE OF CHARGES

10.1 Background

10.1.1 Presently, MSEDCL is recovering various charges from the consumers for various services provided as per the Schedule of charges approved by Hon. Commission vide its Order dated 31 March, 2023 (Case No. 226 of 2022).

10.1.2 Basically these charges are for recovery of cost incurred for availing supply of electricity and various other services provided to the consumers. In order to shield regular consumers from consumer's service specific costs, provision for schedule of charges has been made.

10.1.3 The section 46 of the Electricity Act, 2003 herein after referred as the EA, 2003, provides that the Commission may authorize a Distribution Licensee to charge a person requiring a supply of electricity any expenses reasonably incurred in providing any electric line or electrical plant used for the purpose of giving that supply. Otherwise these costs will get passed on to regular consumers of MSEDCL.

10.1.4 The EA 2003 provides Distribution Licensees to recover charges incurred for supply of electricity from its consumers in accordance with tariff determined by the State Regulatory Commission. The charges to be recovered may include fixed charges in addition to charges for supply of electricity and rent or other charges for meter or other equipment provided by licensees.

Section 45 of EA 2003 reads as follows-

"(3) The charges for electricity supplied by a distribution licensee may include

(a) fixed charge in addition to the charge for the actual electricity supplied;

(b) rent or other charges in respect of any electric meter or electrical plant provided by the distribution licensee

(5) The charges fixed by the distribution licensee shall be in accordance with the provisions of this Act and the regulations made in this behalf by the concerned State Commission. "

10.1.5 In accordance with the provisions of EA 2003, Hon'ble Commission has notified

MERC (Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2021, herein after referred as MERC (Supply code and SOP including power quality) Regulations, 2021. MSEDCL submits that as per Regulation 19.1 of the MERC (Supply code and SOP including power quality) Regulation, 2021, Distribution Licensees are required to submit the proposal before Commission for approval of Schedule of Charges (SoC) for such matters required by the Distribution Licensee to fulfill its obligation to supply electricity to its consumers along with every application for determination of tariff under Section 64 of the Act together with such particulars as the Commission may require under the EA, 2003 and other relevant Regulations.

10.1.6 As per order in the Writ Petitions No. 6382/6383/6384 of 2020 decided on dated 22.01.2021, the Hon. High Court, Bombay, Aurangabad Bench has mentioned in Para 24 and 27 of the judgment that If the consumer has opted and agreed to bear the infrastructure cost and does accordingly then Distribution licensee cannot be said to be under any statutory obligation to refund the infrastructural cost.

The relevant ruling of Hon'ble High Court i.e. Para 24 and 27 of the said order are reproduced below for ready reference and consideration of Hon'ble Commission: -

*“....24 .As a logical and legal corollary, if a consumer agrees to purchase a meter, it cannot be said that such an agreement is unconscionable or against public policy merely because like in the present case, a proposal was made by the Distribution Licensee to provide electricity supply subject to various terms and conditions, including the one obligating the consumers in installing the electricity meters and developing necessary infrastructure for facilitating a DDF connection. Therefore, the submission of the learned Advocate for the Consumers that a consumer cannot be legally contracted out is fallacious. **As is demonstrated hereinabove, a DDF connection is a facility which has been duly recognized by Regulations of 2005 and if the Consumers have opted to have it, no statutory obligation is created in their favour to claim the refund. And***

..... 27. In this respect, it is also pertinent to note that although a Distribution Licensee is under statutory obligation to provide electricity supply, in a given case like the present ones, the Consumers have opted

*to succumb to the demand of the Distribution Licensee wherein by separate communications, terms and conditions were put to them subject to which they were supposed to enter into an agreement and receive electricity supply. The terms and conditions inter alia require them to bear the expenditure on a non-refundable basis. After having availed of the benefit, they cannot now be allowed to turn around and claim refund. They could have very well insisted for supply of electricity strictly in accordance with the provisions of the Electricity Act and the Regulations framed thereunder. **They having agreed to bear such infrastructural costs and agreed to purchase meters and metering cubicles, the Distribution Licensee cannot be said to be under any statutory obligation to refund the infrastructural cost and metering cubicles cost.....***

Accordingly if consumer opts or agrees to bear the infrastructure cost, then it has to bear the Infrastructure cost incurred at actual and the same cannot be claimed for refund in future. Hence MSEDCL humbly request the Hon'ble Commission to include the following provisions in Schedule of charges;

“If consumer opts or agrees to bear the charges of infrastructure including meter cost for getting electricity supply, then he will cease its right to claim the refund of the cost of infrastructure in future before any forum”.

10.1.7 MSEDCL submits that Schedule of Charges (SoC) represent the charges levied to consumers/ applicants for new connection and on existing consumers for various activities carried out by the Licensee such as load enhancement, change of name, category, etc., meter testing and various other miscellaneous activities required to be performed as a Distribution Licensee.

10.1.8 Income from these charges form a part of the non-tariff income of MSEDCL and such benefit is passed on to all the consumers of the State by way of reduced ARR.

10.1.9 The Service Connection Charges (SCC) will be discriminated based on the connected load, current carrying capacity of service line and standard construction norms for Service line setup. In metro and big cities, MSEDCL's infrastructure is mostly underground and service line setup offered to the prospective consumers is also underground. On the other hand, in rural areas the infrastructure is mostly overhead. The existing categorization of SCC has addressed all these issues.

10.1.10 It is submitted that, the existing Schedule of Charges has been enforced from 1st Apr-2023. Prices of metals, raw materials, energy, food, non-food items and inputs, supply disruptions, disruptions in the global supply chain and rising global freight prices pushed up the inflation. The same will be witnessed from increase in inflation indices viz. Wholesale Price Index (WPI) and Consumer Price Index (CPI). The rise in material prices is the one of the cause for revision in Schedule of Charges.

10.1.11 Further, as per clause no. 3.2 System of Supply and Classification of Consumers of MERC (Supply code and SOP including power quality) Regulations, 2021, maximum load to be released in the identified areas has been revised. Now maximum load of 160 kW/ 200 kVA can be supplied on Low Tension Supply. These modifications are also required to be addressed in the Schedule of Charges.

10.1.12 The relevant clauses of MERC (Supply code and SOP including Power Quality) Regulation, 2021 is summarized as under:

Sr. No	Board Head	Relevant Regulation	Provision in the Regulation
1.	Service Connection Charges	4.2(a), 4.3.1, 4.3.2, 4.3.3	<p>4.2. The charges that a Distribution Licensee is authorized to recover under these Regulations include-</p> <p>(a) recovery of such expenses as may be reasonably incurred by the Distribution Licensee in providing electric line or electrical plant used for the purpose of giving supply, in accordance with Regulation 4.3 below:</p> <p>Provided that the cost of network for providing connection to a EHT Consumer shall be borne by the Transmission Licensee and the Consumer may be charged according to the Schedule of Charges as specified in Regulation 19</p> <p>4.3.1 The Distribution Licensee shall recover the expenses referred to in Regulation 4.2 (a) above, in accordance with the principles contained in this Regulation 4.3 and based on the rates contained in the Schedule of Charges approved by the Commission under Regulation 19:</p> <p>4.3.2 The Distribution Licensee shall be authorised to recover expenses reasonably incurred on providing supply to the Applicant based on the Schedule of Charges approved by the Commission under Regulation 19.</p>

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Sr. No	Board Head	Relevant Regulation	Provision in the Regulation
			<p>4.3.3 Where an Applicant opts for DDF for his premises, the Distribution Licensee shall be authorized to recover all expenses reasonably incurred on such works from the Applicant.</p> <p>Provided that the Distribution Licensee may, with the approval of the Commission, in case of any category of Consumers, recover such expenses on the basis of an average or normative rate for providing the electric line or electrical plant for the purpose of giving supply.</p> <p>Provided further that the Distribution Licensee shall be entitled to use service-line setup for the Applicant to provide supply to any other Applicant, notwithstanding that all expenses reasonably incurred have been recovered in accordance with this Regulation 4.3, except if such supply is detrimental to the supply to the existing Consumer already connected therewith.</p>
2.	Charges for temporary supply	4.3.5	<p>4.3.5 Where an Applicant requires temporary supply, the Distribution Licensee shall be authorized to recover expenses reasonably incurred for the purpose of giving such temporary supply and for the purpose of discontinuance of such temporary supply based on the Schedule of Charges approved by the Commission under Regulation 19...</p>
3.	Supervision charges	4.3.7	<p>4.3.7 Where the Distribution Licensee permits an Applicant to carry out works under the Regulation 4.3 through a Licensed Electrical Contractor, the Distribution Licensee shall not be entitled to recover expenses relating to such portion of works so carried out by the Applicant:</p> <p>Provided however the Distribution Licensee shall be entitled to recover, from the Applicant, charges for supervision undertaken by the Distribution Licensee, at such rate, as may be approved in the Schedule of Charges under Regulation 19 not exceeding Fifteen (15) per cent of the cost of labour that would have been employed by the Distribution Licensee in carrying out such works...</p>
4.	Processing of applications	6.8, 5.4 (viii)	<p>6.8 Notwithstanding anything contained in these Regulations, an application shall be deemed to be received on the date of receipt of the duly completed application containing all the necessary information/ documents and payment of all approved charges of the Distribution Licensee in accordance with Regulation 5.4</p> <p>5.4 The Applicant shall provide the following information /</p>

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Sr. No	Board Head	Relevant Regulation	Provision in the Regulation
			<p><i>particulars / documents to the Distribution Licensee while making an application through hard copy (only for Rural Area) or on Web Portal or Mobile App for supply or for revision in load, shifting of service, extension of service or restoration of supply:.....</i></p> <p><i>viii. All applicable charges, based on the Schedule of Charges approved by the Commission under Regulation 19:</i></p>
5.	Charges for increases /reduction in contract demand/sanctioned load	7.6, 5.4 (viii)	<p><i>7.6 The Distribution Licensee shall revise (increase or decrease) the Contract Demand / Sanctioned Load of the Consumer upon receipt of an application for the same from the Consumer:</i></p> <p><i>.....</i></p> <p><i>Provided further that where such revision (increase or decrease) in Contract Demand/Sanctioned Load entails any works, the Distribution Licensee may recover expenses relating thereto in accordance with the principles specified in Regulation 4, based on the rates contained in the Schedule of Charges approved by the Commission under Regulation 19</i></p>
6.	Processing fee for change of name	12.2	<p><i>12.2 The application for change of name shall only be submitted online for Urban Area accompanied by such charges as are required under the approved Schedule of Charges of the Distribution Licensee.....</i></p>
7.	Cost of meter	15.3.4	<p><i>15.3.4. Except in the case of a burnt meter or a lost meter, the Distribution Licensee shall not be authorized to recover the price of the meter from the Consumer.</i></p>
8.	Meter testing charges	15.6.2, 15.2.5	<p><i>15.6.2. The Consumer may, upon payment of such testing charges as may be approved by the Commission under Schedule of Charges can request the Distribution Licensee to test the accuracy of the meter by applying to the Distribution Licensee .</i></p> <p><i>15.2.5 Distribution Licensee or a Consumer may install a check meter conforming to the technical specifications as laid down in the Central Electricity Authority (Installation & Operation of Meters) Regulations, 2006 as amended from time to time. This check meter shall be installed at the cost of the entity proposing such an installation. This check meter may be calibrated by the Distribution Licensee upon payment of prescribed fee as per the relevant Schedule of Charges as determined by the Commission from time to time. In both the cases, the Distribution Licensee shall be responsible for application of seals to the meters and monitoring the same</i></p>

Sr. No	Board Head	Relevant Regulation	Provision in the Regulation
9.	Charges for restoration of supply	17.2	<i>17.2. Where, upon settlement of any grievance or dispute in this regard, the Consumer is required to bear the costs of restoration, the Distribution Licensee shall restore supply to the Consumer upon payment by the Consumer of such charges, as approved by the Commission under Regulation 19</i>

Considering the above provisions, MSEDCL has proposed following revision in Schedule of charges:

10.2 In this Section, MSEDCL has provided the necessary calculation to rationalize the proposed charges.

10.2.1 While providing power supply to prospective consumer(s), the Discoms are entitled to recover the infrastructure costs to the extent of the Schedule of Charges (SoC) as determined by Hon'ble MERC. MERC had determined SoC applicable to MSEDCL vide its MTR Order in Case No. 226 of 2022 dated 31.03.2023.

10.2.2 While going through the existing Schedule of Charges being recovered from prospective consumer(s), it is observed that these are quite subnormal as compared to the actual expenditure incurred by MSEDCL in providing power supply to new consumers. MSEDCL has to therefore incur additional expenditure over and above the "Schedule of Charges" in providing power supply to the prospective consumer/s. Due to this, the overall CAPEX is increased exorbitantly causing to the rise in tariff.

10.2.3 The SoC for the consumers having load above 27 HP/ 20 kW is proposed at actual irrespective of jurisdiction whether it is urban or rural or industrial zone. This will help to mitigate the gap between SoC and the actual expenditure incurred by MSEDCL in providing the power supply. Especially, SoC (charges) while releasing power supply on EHV is very meagre. For e.g. a new applicant seeking power supply on EHV has to pay maximum Rs 5,00,000/-. The socialization of infrastructure cost being incurred in giving power supply to such consumer/s, unnecessarily burdens the consumers of Rural and other areas. This is great deal of injustice being done to the rest of the consumers, which needs to be addressed immediately.

10.2.4 Hence with such revision in SOC, MSEDCL will be in position of keeping the tariff hike to the bare minimum level on account of CAPEX. The Hon'ble Commission is therefore requested to kindly review the present level of SoC.

10.2.5 The Commission in its order in Case No. 322 of 2019 dated 30.03.2020 has estimated the service connection charges on the basis of 20 meters as the average length. MSEDCL in present proposal has followed the same estimation and worked out the service connection charges.

10.2.6 As per revision in cost data of FY 2024-25 and centages, the estimates are prepared to derive the Service Connection charges. In this proposal the loading-unloading and handling charges for meter, Contingencies, insurance of material & price variation/ escalation were taken into consideration. The centages over and above the total estimated cost of materials is 23.00%. All other things are kept unchanged such as supervision charges, variable charges etc.

10.2.7 While estimating charges for new HT Overhead connection, MSEDCL has considered all the legitimate expenditure for works of Gantry, Earthing, protection and metering etc. The same works has considered in case of HT underground below service connection. Accordingly, MSEDCL has proposed the new service connection charges based on all legitimate costs. The detail cost estimations are enclosed as Annexure 10.1 to this Petition.

10.2.8 In view of the above, MSEDCL has proposed following schedule of charges for approval of Hon'ble Commission to be made applicable for future years of this control period.

10.3 The proposed normative service connection charges are as below:

Table 240 Service Connection Charges for new Overhead & Underground Connection

Sr. No.	Particulars	Existing Charges (Rs.)	Proposed Charges (Rs.)
I) SERVICE CONNECTION CHARGES FOR NEW OVERHEAD CONNECTION			
	Low Tension (LT) Supply.		
	a. Single Phase		
1	i. For load up to 0.5kW	1,410.00	3,000.00
	ii. For load above 0.5kW and up to 7.5kW	1,840.00	3,800.00
	b. Three Phase		
	i. Motive power up to 27 HP or other loads up to 20 kW.	7,790.00	11,800.00

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Sr. No.	Particulars	Existing Charges (Rs.)	Proposed Charges (Rs.)
ii.	Motive power above 27 HP but up to 107 HP or other loads above 20 kW but up to 80 kW.	13,640.00	17,600.00
iii.	Motive power above 107 HP but up to 214 HP or other loads above 80 kW but up to 160 kW.	23,380.00	35,800.00
High Tension (HT) Supply			
2	i. 11kV Supply up to 1,000 kVA.	2,38,110.00	3,22,300.00
	ii. 11kV Supply above 1,000 kVA up to 5,000 kVA	2,79,230.00	3,72,700.00
	iii. 22kV Supply up to 1,000 kVA.	2,81,400.00	3,70,000.00
	iv. 22kV Supply above 1,000 kVA up to 10,000 kVA	3,43,090.00	4,44,000.00
	v. 33kV Supply up to 20,000 kVA.	3,98,290.00	4,79,900.00
	vi. EHV Supply and beyond SOP Cases	At actual	At actual
II) SERVICE CONNECTION CHARGES FOR NEW UNDERGROUND CONNECTION			
Low Tension (LT) Supply.			
a. Single Phase			
1	i. For load up to 0.5 kW	3,680.00	6,000.00
	ii. For loads above 0.5 kW & up to 7.5kW	8,230.00	9,700.00
b. Three Phase			
1	i. Motive power up to 27 HP or other loads up to 20 kW.	14,940.00	20,400.00
	ii. Motive power above 27 HP but up to 67 HP or for other loads above 20 kW but up to 50 kW	26,300.00	29,200.00
	iii. Motive power above 67HP but up to 134 HP or for other loads above 50 kW but up to 100 kW(150)	50,760.00	55,300.00
	iv. Motive power above 134HP but up to 214 HP or for other loads above 100 kW but up to 160 kW	76,950.00	80,600.00
High Tension (HT) & Extra High Voltage (EHV) Supply			
2	i. 11kV Supply up to 1,000 kVA.	2,73,820.00	4,06,500.00
	ii. 11kV Supply above 1,000 kVA up to 5,000 kVA	2,85,730.00	4,17,700.00
	iii. 22kV Supply up to 1,000 kVA.	3,30,100.00	4,71,400.00
	iv. 22kV Supply above 1,000 kVA up to 10,000 kVA	3,49,580.00	4,89,900.00
	v. 33kV Supply up to 20,000 kVA.	4,09,110.00	5,29,000.00
	vi. EHV Supply & beyond SOP Cases	At actual	At actual

Notes:

- In case MSEDCL permits an applicant to carry out the works through a Licensed Electrical Contractor (LEC), a rate of 1.30 % of the normative charges will be applicable towards supervision charges.
- In case of extension of load, the normative charges will be applicable on the total load (existing as well as additional load demanded) as per the

load slabs indicated above and the earlier recovered normative charges will be deducted from the same.

- The road opening charges vary from area to area hence will be levied on actual basis.
- In case of Applicant's load above 3 MVA which necessitates establishment of substation, if the applicant provides less than the required land or provided land nearby their project due to non-availability of land in the project, the applicant at their own cost has to carry out the establishment of required infrastructure viz. Sub-station with allied lines by paying the charges at a rate of 1.30 % of the expenditure required for the infrastructure development towards supervision charges.
- The GST will be levied extra as per applicable rates.

10.3.1 Cost of Meter, Metering Cubicle Etc.:

10.3.1.1 As per Maharashtra Electricity Regulatory Commission (Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2021 (hereinafter referred to as 'MERC (Supply code and SOP including power quality) Regulations, 2021'), at the time of releasing a new connection, the MSEDCL shall not recover any cost towards meter and allied equipment. The Consumer may opt to purchase the meter and allied equipment from the DISCOM or suppliers empanelled by the DISCOM, provided the same are of a specification approved by the Distribution Licensee from time to time. The consumer can also install the check meter as per specification approved by the technical specifications as laid down in the Central Electricity Authority (Installation & Operation of Meters) Regulations, 2006 as amended from time to time.

10.3.1.2 In the case of a burnt meter or a lost meter, the Distribution Licensee is authorized to recover the price of the meter from the Consumer in accordance with the clause 15.3 of the MERC (Supply code and SOP including power quality) Regulations, 2021.

10.3.1.3 In the case of a burnt meter or a lost meter, the Distribution Licensee is authorized to recover the price of the meter from the Consumer in accordance with the clause 15.3 of the MERC (Supply code and SOP including power quality) Regulations, 2021.

10.3.1.4 The metering rates are proposed based on the discovered rates in RDSS Smart Metering Tenders. The proposed rates are as under:

Table 241 Proposed charges for metering

Sr. No.	Particulars	Existing Charges (Rs.)	Proposed Charges (Rs.)
Applicable in case consumer opts to purchase the meter, metering Cabinet/ cubicle from MSEDCL & in case of Lost & Burnt Meter & metering Cabinet/ cubicle.			
1.	LT Single Phase		
a.	5-30A 6LoWPAN RF Meter without enclosure	820	695
b.	10-60A Smart Meter (including GPRS communication Module) as per IS:16444 Part-I	2,610	5,200
2.	LT Three Phase		
a.	10-40A 6LoWPAN RF Meters without enclosure	1,650	1,683.14
b.	10-60A Smart Meter (including GPRS communication Module) as per IS:16444 Part-I	4,050	8,666.10
3.	LT-CT Operated Three Phase Metering Unit		
a.	250/5 A Meter with CTs & MCCB	22,500	—
b.	40-200A CT embedded Meter	14,200	10,950
c.	300/5 A Smart Meter with CTs, Meter Box & MCCB	—	42,651
d.	i. LT-CT Operated Three Phase Smart Meter (including GPRS Communications Module) as per IS:16444 Part-2 with Accuracy Class 0.5S and current rating of -/5 A.	3,570	20,060
	ii. Supporting CTs and MCCB for LT-CT Operated Three Phase Smart Meters as above	18,750	19,430
4.	HT ToD Meter		
a.	5A rating with 0.5s accuracy class	2,420	3,015
b.	1A rating with 0.5s accuracy class	2,870	3,600
c.	1A & 5A rating with 0.2s accuracy class	6,420	6,899
d.	HT TOD Smart Meter as per IS:16444 Part-I	—	43072.88
5.	HT Metering cubical including C.T. & P.T.		
a.	For 11 kV Supply	91,500	1,08,000
b.	For 22 kV Supply	1,38,000	1,50,000
c.	For 33 kV Supply	2,01,500	2,12,280

Notes:

- In case of lost and burnt meter and metering cabinet/cubicle, the installation testing fees will be recovered from the consumer as per approved Schedule of Charges.
- Meter box will be provided by MSEDCL at its own cost.
- The GST will be levied extra as per applicable rates.

10.3.2 Application Registration and Processing Charges:

Most of the activities covered under this category are labour intensive viz. Application scrutiny & processing, written/e-mails, telephonic correspondence, web-based services for New connections/ Change of name/ Reduction or Enhancement of Load/ Shifting of service/ Temporary connection etc. Considering the inflation witnessed from the rise in WPI and CPI, 5.35% rise on existing charges is proposed.

Table 242 Application registration and processing charges

Sr. No.	Particulars	Existing Charges (Rs.)	Proposed Charges (Rs.)
1	Single Phase	120	130
2	Three Phase	170	180
3	LT (Agriculture)	170	180
4	HT Supply up to 33 kV	2,660	2,810
5	EHV Supply	5,400	5,690

Note: The GST will be levied extra as per applicable rates.

10.3.3 Processing fees for change of name/ change of ownership of generator

These charges were newly proposed as per the proposal submitted by the Commercial Section. The processing fees applicable to EHV consumer for Change in name was recovered from the generator for change in ownership and change in name as per schedule of Charges approved by Commission vide Case No 226 of 2022. The factors considered for proposing the said charges are as follows:

- Number of applications related to Change of Name/ Change of Ownership of generator is increased tremendously.
- MSEDCL is in process for development of online system for submission of application & documents related to Change of Name/ Change of Ownership of generator with online payment of application fee.
- MSEDCL has to pay service charges to service provider of online payment system.
- Generator has to upload required documents on which is having 50 to 100 MB Capacity. Thus, MSEDCL have to purchase additional storage space to save all the documents.
- Discrepancies in applications shall be communicated to applicants via

electronic media.

- Issuance of Periodical Covey letters.
- Processing fees of Change of Name/ Change of Ownership of generator not revised since last decade.

In view of aforementioned factors, Processing Fees for Change of Name/ Change of Ownership of generator are proposed as below:

Table 243 Processing fees for change of name/ change of ownership of generator

Generation Type	Proposed Charges
Wind	Rs. 10000/- per Application / windmill
Solar	
up to 5 MW	Rs. 10000/-
More than 5 MW and up to 20 MW	Rs. 15000/-
More than 20 MW	Rs. 30000/-

10.3.4 Charges for Open Access

The services involved in open access are application processing & scrutiny, preparation of agreement, maintenance of Web-Portal & billing software, up-gradation, data storage and jointly visits for meter reading & processing etc.

As per new RE Policy by GoI and GoM, new RE Sources are introduced such as Solar, small hydro. Also the number of open access consumers is increased. No. of Open access applications received per Month is 350 (Approx.). The processing fees and operating charges should be revised.

The reasons for revising the processing fees and the operating charges are below.

Processing Fees- Activities

- As per MERC Distribution Open Access Regulation 2016 a open access consumer can avail open access from Multiple generator and multiple sources. Thus, numbers of applications are increased.
- MSEDCL has developed online system for submission of OA application.
- MSEDCL has to pay service charges to service provider of online payment system.
- The numbers of consumers availing short term open access are more. These consumers apply every month for STOA and upload the required

documents having 50 to 100 MB Capacity. Thus, MSEDCL have to purchase additional storage space to save all the documents.

- Discrepancies in OA applications shall be communicated to applicants within three working days via electronic media.
- Issuance of Periodical Open Access permissions.
- Execution of Open Access Agreement.
- The information of open access consumers like list of open access applications, date of application, open access quantum, generating stations, period of open access, action taken and status is provided in downloadable format on internet web-site every month.
- The applicant wise details are to be made available on public domain.

Operating Charges- Activities

- Deployment of Engineers and staff.
- As per DOA Regulations 2019 Individual SEM installed for separate RE generator, hence collection of reading of generator meter increases.
- Testing of generation meter.
- Purchase of meter reading instruments and Laptops for meter reading.
- A multiple monthly joint meter reading is to be taken for consumers from multiple generators.
- Providing vehicle for monthly joint meter reading. The rate of fuel is almost doubled.
- Forwarding the metering data from the consumer end through electronic media.
- Monitoring of daily schedule of open access consumers.
- Keeping the track of schedules from WRLDC, MSLDC and Exchange website for billing.
- Compilation of consumer wise, date wise monthly schedule.
- Development in open access billing software as per changes in Regulations and MERC various Orders.
- Separate IT system and IT manpower for processing of open access bills.

As the volume of OA applications are increasing on day to day basis, the expenditure of MSEDCL has gone up with reference to the reasons cited under processing fees & operating fee activities.

The proposed processing fees and operating charges for the open access are as below:

Table 244 Charges for Open Access

Sr. No.	Particulars	Existing Charges (Rs.)	Proposed Charges (Rs.)
1.	Processing Fees per Application		
a.	Up to 1 MW	15,450	25,000
b.	More than 1 MW & up to 5 MW	23,440	35,000
c.	More than 5 MW & up to 20 MW	47,890	65,000
d.	More than 20 MW	79,920	1,00,000
2.	Operating Charges per month		
a.	Up to 1 MW	15,450	25,000
b.	More than 1 MW & up to 5 MW		
c.	More than 5 MW & up to 20 MW		
d.	More than 20 MW & up to 50 MW	29,830	40,000
e.	More than 50 MW		

Note: The GST will be levied extra as per applicable rates.

10.3.5 Miscellaneous and General Charges:

As most of the activities covered under this category are labour incentive and the schedule of charges determined in these proceedings will be applicable till FY 2029-30, it is necessary to consider the trends in inflation. These charges are proposed considering the escalation factor 5.78% devised from the five-year average Consumer Price Index (CPI).

10.3.5.1 Installation Inspection & Testing Charges:

The work of wiring at the premises of the consumer beyond the point of supply shall be carried out by the consumer and shall conform to the standards specified in the Indian Electricity Rules, 1956. As per Rule 53(1), the cost of first inspection and testing of a consumer's installation carried out in pursuance of the provisions of Rule 47 shall be borne by the supplier and the cost of every subsequent inspection and test shall be borne by the consumer.

The first inspection and testing of a consumer's installation will be free of cost as done currently for the release of new service connection. For every subsequent inspection and testing, following rates have been proposed applying escalation factor of 5.78% devised from the five-year average Consumer Price Index (CPI).

Table 245 Installation Inspection & Testing Charges

Sr. No.	Particulars	Existing Charges (Rs.)	Proposed Charges (Rs.)
a.	Low Tension Service		
i.	Single phase	120	130
ii.	Three phase	230	250
b.	High Tension Service		
i.	Agricultural Connection	600	640
ii.	Other than AG Connection	790	840
c.	Renewable Energy Installations with Net Metering features		
i	Single phase	500	530
ii	Three phase	1000	1060

Notes:

- Applicable only after first inspection & testing of a consumer's installation if done currently for the release of new service connection. Further, it is applicable for restoration of supply after burnt/ lost meter replacement, change of meter location in same premises, change of services etc. other than routine inspection activities of MSEDCL.
- The GST will be levied extra as per applicable rates.

10.3.5.2 Reconnection Charges:

The supply of electricity is disconnected on account of failure of the consumer to comply with his obligations under Electricity Act or MERC Regulations, the Distribution Licensee shall recover the costs for restoration of supply from the consumer.

Further, in case of HT consumers, more manpower as well as man-hours are required for reconnection of supply. Also, it may require outages on HT line which leads to unwanted interruptions to other consumers. This also results in financial loss to the company.

Hence the higher charges are proposed to encourage consumer for prompt payment and discourage from becoming a defaulter.

Table 246 Reconnection charges

Sr. No.	Particulars	Existing Charges (Rs.)	Proposed Charges (Rs.)
a.	Low Tension Service at Meter incoming main:		
i.	Single phase	210	250

Sr. No.	Particulars	Existing Charges (Rs.)	Proposed Charges (Rs.)
ii.	Three phase	420	500
b.	At overhead distributing main:		
i.	Single phase	310	350
ii.	Three phase	520	600
c.	At underground distributing main:		
i.	Single phase (cut out/ reinstallation of meter)	310	350
ii.	Three phase	520	600
d.	Re-installation of Cut out, Meter & Service cable	-	1,000
e.	High Tension Supply	3,150	5,000

Note: The GST will be levied extra as per applicable rates.

10.3.5.3 Changing location of meter within same premises on consumer's request:

The consumer may require change of meter location in reinstallation/ renovation of wiring in the premises. In such cases, the Distribution licensee entitles to recover the reasonable charges for this service. The material, labour, Tools & Plants and sundries required will be different for 1-phase, 3-phase, Overhead and Underground supply. The existing charges approved by commission are same for overhead as well as underground supply. For underground supply, the material, labour, Tools & Plants and sundries required are on higher side & hence proposed separately on notional basis.

Table 247 Charges for Changing location of meter within same premises on consumer's request

Sr. No.	Particulars	Existing Charges (Rs.)	Proposed Charges (Rs.)
a.	For Overhead Supply		
i.	Single phase supply	400	430
ii.	Three phase supply	1050	1120
b.	For Underground Supply		
i.	Single phase supply	400	700
ii.	Three phase supply	1050	1500

Note: The GST will be levied extra as per applicable rates.

10.3.5.4 Shifting of utility services/ Poles/ Lines etc. on consumer's request:

The consumer's request may not be limited to shifting of a single meter within the same meter cabin or another meter box, but may also require shifting of the entire meter box along with its service cable or shifting of poles. This may involve partial or complete removal of the existing service cable. It may also

involve relocation of the meter along with the service cable, fuse unit and other safety arrangements. In case of underground cable, if the cable is to be removed, it will require excavation which may be in private property or on public roads. Accordingly, reinstatement charges become applicable. Thus, additional manpower and resources are required which would vary from case to case considering consumer requirement and site conditions.

Further, due to development work, many consumers approach MSEDCL to shift the Utility Services viz. HT/LT Lines, DTC etc. in their premises. In many cases consumers are approaching MSEDCL to shift Poles/Lines (Utility) to secure non-agricultural (NA) land status. Also, various agencies such as PWD, Railway, NHAI, etc. are requesting for shifting the Utility Services viz. HT/LT Lines, DTC etc. for their development works.

The Commission in its Order in Case No.83 of 2014 dated 25 July, 2014 in the matter of Petition filed by Tata Power Company for review of Order dated 28 December, 2012 in Case No. 47 of 2012 in the matter of its Schedule of Charges for (a) Service Connection for ‘Switchover’ consumers (b) Service shifting and Meter shifting on the consumer’s request has accorded its approval to recover actual expenditure incurred in shifting of services.

In view of above, the charges for ‘Shifting of utility services/ Poles/ Lines etc. on consumer’s request’ are proposed as “At Actual”. Such charges will be different for case to case and will be appropriate to recover based on prevailing approved cost data of MSEDCL.

Table 248 Charges for Shifting of utility services/ Poles/ Lines etc. on consumer’s request

Sr. No.	Particulars	Existing Charges (Rs.)	Proposed Charges (Rs.)
a.	1-Phase (Overhead & Underground Supply)	At actual	At actual
b.	3-Phase (Overhead & Underground Supply)	At actual	At actual

Notes:

- In case MSEDCL permits an applicant to carry out the works through a Licensed Electrical Contractor (LEC), a rate of 1.30 % of the normative charges will be applicable towards supervision charges of such shifting.
- The GST will be levied extra as per applicable rates.

10.3.5.5 Charges for Temporary Supply:

The clause no. 4.3.5 of Supply Code Regulations 2021 stipulates that,

Where an Applicant requires temporary supply, the Distribution Licensee shall be authorized to recover expenses reasonably incurred for the purpose of giving such temporary supply and for the purpose of discontinuance of such temporary supply based on the Schedule of Charges approved by the Commission.

As per the aforementioned clause, if an applicant needs temporary electricity, the Distribution Licensee (electricity supplier) can recover the reasonable costs incurred for setting up the temporary supply. This includes costs for installation as well as discontinuance of the supply after the temporary period.

A temporary connection may require significant infrastructure, such as a substation, distribution transformer, high-tension (HT) line, and low-tension (LT) line which would vary from case to case considering consumer requirement and site conditions.

In view of above, the charges for ‘Temporary Supply’ are proposed as “At Actual”. Such charges will be different for case to case and will be appropriate to recover based on prevailing approved cost data of MSEDCL.

Table 249 Charges for Temporary Supply

Sr. No.	Particulars	Proposed Charges (Rs.)
a.	1-Phase (Overhead & Underground Supply)	At actual
b.	3-Phase (Overhead & Underground Supply)	At actual

Notes:

- In case MSEDCL permits an applicant to carry out the works through a Licensed Electrical Contractor (LEC), a rate of 1.30 % of the normative charges will be applicable towards supervision charges of such shifting.
- If the infrastructure is intended to be removed after the temporary supply ends, the applicant should pay the dismantling costs estimated by MSEDCL as per prevailing approved Cost Data.
- The road opening charges vary from area to area hence will be levied on actual basis.
- The Charges for Statutory Permissions, if required, shall be borne by the applicant.
- The GST will be levied extra as per applicable rates.

If the infrastructure remains useful to the Distribution Licensee (e.g., for future connections in the area), the Distribution Licensee may utilize the same, but this depends on local conditions.

In essence, the applicant for the temporary supply bears the majority of the costs for new infrastructure. This approach helps the Distribution Licensee manage resources effectively and avoids burdening other consumers with costs for infrastructure primarily serving a temporary purpose.

10.3.5.6 Inspection & Testing of Meters, metering equipment and others on request:

The Chief Engineer (Testing) has forwarded the proposal through email on Dt. 13.11.2024 for revision in charges for Inspection & Testing of Meters, metering equipment and others.

Category wise Justification for the said revision is as follows:

Table 250 Category wise justification for Inspection & Testing of Meters, metering equipment and others on request

Sr. No.	Particulars	Justification
1	Testing of Single Phase, Poly-phase, LTMD & Tri-vector Meters	<ul style="list-style-type: none"> Since 2019, no hike is proposed. Considering incremental expenditure (inflation rate) towards labour and maintenance cost, about 20% hike is proposed per load point. List of load points and expenditure incurred is attached.
2	Testing of Net Meters	<ul style="list-style-type: none"> Being bi-directional Meters the load points will get doubled. Since 2019 no hike is proposed. Considering incremental expenditure (inflation rate) towards labour and maintenance cost, about 20% hike is proposed per load point.
3	Testing of meters at TQA lab (NABL)	<ul style="list-style-type: none"> Considering other NABL lab charges and NABL lab expenses and also considering no hike from 2019, the rates with 20% hike is proposed for good competition for commercial utilization.
4	Testing of Summator Meters	<ul style="list-style-type: none"> Summator meters testing work require three to four days as per number of modules considering various load points. Summator meter cost is minimum 20 lakhs approx. The per load point rate is taken in line with existing approved ABT Meter Testing Rate and considering NABL lab expenses (sheet attached) 20% hike is proposed.
5	Calibration of Testing Equipment on Other Utilities'/ Agencies' request at TQA Laboratories	<ul style="list-style-type: none"> M/s YMPL, Udaipur charges Rs 1260 per load point. (Quotation attached), M/s Nishitronics Pune has charges of Rs 625 per load point. Considering NABL lab expenses and no revision in charges since 2019, the charges are revised in line with other labs rates.
6	Cable Testing and fault Detection & Testing of Distribution Transformer	<ul style="list-style-type: none"> Considering incremental expenditure towards staff, fuel and maintenance of vehicle and cable testing equipment the rates are increased by 20%.

Also, consumers do have option to test meters as well as equipment at NABL accredited TQA labs of MSEDCL. MSEDCL has procured CT PT Test Setup &

Dist. Transformer Test setup at its 06 nos. of NABL labs. On these setups, testing will be carried out on commercial basis after receipt of NABL accreditation for the said scope.

In view, some additional charges mentioned below are proposed to be incorporated in the proposal. (Sr. No. 7 in the Table below)

CT/PT & Dist. Transformer Testing Charges at NABL lab of MSEDCL:

- LT CT/ PT per unit Testing at MSEDCL NABL labs
- HT CT/ PT per unit Testing at MSEDCL NABL labs
- Dist. Transformer Testing at MSEDCL NABL Labs

The rates are proposed reasonable in line with MERC approved charges of the said materials and also considering NABL accreditation lab expenses

In view of above, the existing & proposed testing charges are as follows:

Table 251 Proposed charges for Inspection & Testing of Meters, metering equipment and others on request

Sr. No.	Particulars	Existing Charges (Rs.)	Proposed Charges (Rs.)
1.	Inspection & Testing of meters and metering equipments at site/ in Lab on Consumer's/ Generator's Request		
a.	Single Phase	220	270
b.	Poly-phase Meter/ RkVAh Meter	880	1,060
c.	LT MD Meters (With/ Without CTs)	1,100	1,320
d.	Tri-vector Meter	1,100	1,320
e.	LT Metering Equipment like CT/PT per Unit	1,000	1,000
f.	HT Metering equipment like CT/PT per Unit (up to and including 33kV)	3,000	3,000
g.	HT & EHV Metering equipment like CT/PT per Unit (above 33kV)	5,000	5,000
	Net Meter		
i.	i. Single Phase	500	600
	ii. Three Phase LT CT operated Bidirectional	1,100	1,320
	iii. Three Phase HT ToD Bidirectional	1,100	1,320
2.	Testing of Meters at NABL Accredited TQA Laboratories		
a.	Single Phase	2,000	2,400
b.	Three Phase	9,500	11,400
c.	LT CT Operated Meters	10,000	12,000
d.	HT ToD Meters	15,000	18,000

Sr. No.	Particulars	Existing Charges (Rs.)	Proposed Charges (Rs.)
e.	ABT/Apex Meters	20,000	24,000
3.	Summator meter – module		
a.	Two module + Summator	46,500	55,800
b.	Three module + Summator	68,200	81,840
c.	Four module + Summator	89,900	1,07,990
4.	Calibration of Testing Equipments on Other Utilities'/ Agencies' request at TQA Laboratories		
a.	Active/ Reactive Energy	400 per Load Point	700 per Load Point
b.	Active/ Reactive/ Apparent Power		
c.	Voltage	500 per Load Point	800 per Load Point
d.	Current		
e.	Power Factor		
f.	Frequency		
5.	Cable Testing and fault Detection on request		
a.	33/11KV cable fault location	12,000	14,400
b.	33/11KV cable Hi-pot	4,500	5,400
c.	33/11KV Cable Identification	4,500	5,400
d.	33/11KV Cable fault Identification	4,500	5,400
e.	LT U.G. Cable Fault location and identification	4,500	5,400
6.	Distribution Transformer	3,000	3,600
7.	CT/PT & Dist. Transformer Testing Charges at NABL lab of MSEDCL		
a.	LT CT/ PT per unit Testing at MSEDCL NABL labs	–	1200
b.	HT CT/ PT per unit Testing at MSEDCL NABL labs	–	3500
c.	Dist. Transformer Testing At MSEDCL NABL Labs	–	6000

Note: The GST will be levied extra as per applicable rates.

10.3.5.7 Administrative charges for cheque bouncing:

The revision in administrative charges for Cheque bouncing is proposed on notional basis to discourage willful defaulters.

Table 252 Administrative charges for cheque bouncing

Sr. No.	Particulars	Existing Charges (Rs.)	Proposed Charges (Rs.)
a.	Administrative charges for cheque bouncing	Rs. 750/- or Bank charges whichever is higher	Rs. 1000/- or Bank charges whichever is higher

Note: The GST will be levied extra as per applicable rates.

11 CROSS SUBSIDY SURCHARGE

11.1 Background

11.1.1 Section 2(47) of the Electricity Act, 2003 defines “Open Access”, while Section 42 of the said Act inter-alia mandates the Distribution Licensee to provide Open Access to eligible consumers, subject to payment of “Cross Subsidy Surcharge”, “Additional Surcharge” & other applicable charges.

11.1.2 MSEDCL further submits that Section 42(2) of the Act provides for levy of Cross Subsidy Surcharge (CSS). The relevant provision of the Act is reproduced below:

“Section 42. (Duties of distribution licensee and open access):-

...

(2) ...in determining the charges for wheeling, it shall have due regard to all relevant factors including such cross subsidies, and other operational constraints:

Provided that such open access shall be allowed on payment of a surcharge in addition to the charges for wheeling as may be determined by the State Commission:

Provided further that such surcharge shall be utilised to meet the requirements of current level of cross subsidy within the area of supply of the distribution licensee:

...”

11.1.3 Section 86(1)(a) of the said Act inter- alia mandates the Hon'ble Commission to determine the “Cross Subsidy Surcharge”, “Additional Surcharge” & other applicable charges payable by the consumers opting for Open Access

11.1.4 MSEDCL submits that the National Electricity Policy as stipulated by the Central Government provides that -

“5.8.3 Under sub-section (2) of Section 42 of the Act, a surcharge is to be levied by the respective State Commissions on consumers switching to alternate supplies under open access. This is to compensate the host distribution licensee serving such consumers who are permitted open

access under section 42(2), for loss of the cross-subsidy element built into the tariff of such consumers.”

11.1.5 The Central Government notified the revised National Tariff Policy (NTP) on 28th January, 2016 and has revised the “Surcharge Formula” as follows:

“8.5.1 ...

Surcharge formula:

$$S = T - [C / (1 - L/100) + D + R]$$

Where

S is the surcharge

T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation

C is the per unit weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation

D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level

L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level

R is the per unit cost of carrying regulatory assets.”

11.1.6 Further MERC MYT Regulations 2024 has specified Regulation 108.1 for determination of Cross Subsidy Surcharge

“The Cross-Subsidy Surcharge determined by the Commission as part of the MYT Tariff Order in accordance with the Regulation 14.7 of the MERC (Distribution Open Access) Regulations, 2016, as amended from time to time.

Provided that the Cross-Subsidy Surcharge determined by the Commission for the respective consumer categories shall not be exceeding the 20% (twenty percent) of the Average Cost of Supply approved by the Commission for the respective financial years over the Control Period.”

11.1.7 Accordingly, MSEDCL requests Hon'ble Commission to determine cross-subsidy surcharge considering the formula prescribed by the NTP 2016:

11.2 Computation of Cross Subsidy Surcharge for the Control Period

11.2.1 Computation of 'C'

11.2.1.1 Computation of 'C' is based on the projected power purchase quantum and price for the Control Period as submitted in Form 2 of the Regulatory Formats for the respective year. The definition/ explanation for 'C' has been revised in the Tariff Policy dated 28th January, 2016 with inclusion of renewable power purchase in the computation of 'C'.

11.2.1.2 Therefore, computation of 'C' can be taken as the total power purchase cost based on MOD principle to the total power purchase scheduled to be purchased as per MOD principle. Therefore, the 'C' computed for MSEDCL for FY 2023-24 to FY 2024-25 are shown in the following table.

Table 253 Computation of C for FY 2025-26 to FY 2029-30

Financial Year	Details of Power Purchase		
	MUs	Rs. Crores*	Rs./kWh
FY 2025-26	1,86,203	90,055	4.84
FY 2026-27	2,18,172	1,00,774	4.62
FY 2027-28	2,29,387	1,08,276	4.72
FY 2028-29	2,38,063	1,14,632	4.82
FY 2029-30	2,43,337	1,20,047	4.93

11.2.2 Computation of System Loss 'L'

11.2.2.1 The projected wheeling losses at the respective voltage level and the transmission losses are used to arrive at the grossed up total system losses for MSEDCL which is shown in the following table.

Table 254 Computation of System Loss for FY 2025-26 to FY 2029-30

Particulars (FY 2025-26)	EHV	HT	LT Level
Transmission Losses (%)	3.28%	3.28%	3.28%
Wheeling Losses (%)	0.00%	7.50%	12.00%
Total System Losses (%)	3.28%	10.53%	14.89%

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Particulars (FY 2026-27)	EHV	HT	LT Level
Transmission Losses (%)	3.26%	3.26%	3.26%
Wheeling Losses (%)	0.00%	7.50%	12.00%
Total System Losses (%)	3.26%	10.52%	14.87%

Particulars (FY 2027-28)	EHV	HT	LT Level
Transmission Losses (%)	3.24%	3.24%	3.24%
Wheeling Losses (%)	0.00%	7.50%	12.00%
Total System Losses (%)	3.24%	10.50%	14.85%

Particulars (FY 2028-29)	EHV	HT	LT Level
Transmission Losses (%)	3.21%	3.21%	3.21%
Wheeling Losses (%)	0.00%	7.50%	12.00%
Total System Losses (%)	3.21%	10.47%	14.82%

Particulars (FY 2029-30)	EHV	HT	LT Level
Transmission Losses (%)	3.16%	3.16%	3.16%
Wheeling Losses (%)	0.00%	7.50%	12.00%
Total System Losses (%)	3.16%	10.42%	14.78%

11.2.3 Computation of Wheeling Charge 'D'

11.2.3.1 The projected wheeling charges as shown in the Chapter 8 at the respective voltage levels for MSEDCL along with the per unit transmission charges (including PGCIL charges and Intra-State) are used for the parameter "D" in the computation of cross subsidy surcharge for the FY 2025-26 to FY 2029-30.

Table 255 Computation of Wheeling Charges and Transmission Charges for FY 2025-26 to FY 2029-30

Particulars	EHV	HT	LT Level
Wheeling Charges (Rs./Unit)			
FY 2025-26	-	0.76	1.46
FY 2026-27	-	0.83	1.60
FY 2027-28		0.86	1.67
FY 2028-29		0.88	1.71
FY 2029-30		0.87	1.71
Transmission Charges (Rs./Unit)			
FY 2025-26	0.95	0.95	0.95

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Particulars	EHV	HT	LT Level
FY 2026-27	0.94	0.94	0.94
FY 2027-28	1.02	1.02	1.02
FY 2028-29	1.07	1.07	1.07
FY 2029-30	1.10	1.10	1.10
Wheeling and Transmission Charges (Rs./Unit)			
FY 2025-26	0.95	1.71	2.41
FY 2026-27	0.94	1.77	2.54
FY 2027-28	1.02	1.88	2.69
FY 2028-29	1.07	1.95	2.78
FY 2029-30	1.10	1.97	2.81

11.2.4 Computation of Average Billing Rate “T”

11.2.4.1 ABR of MSEDCL has been taken as the effective average billing rate as per the proposed tariff for the FY 2025-26 to FY 2029-30

11.2.5 Computation of Cross Subsidy Surcharge “S”

The category wise CSS applicable to open access consumers arrived on consideration of the components ABR, C, L & D from the above referred respective sections is provided in tables below:

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Detailed computation of CSS for FY 2025-26 for HT Consumers

Consumer Category	T(ABR)	C	WL	TL	L	D = WL + Tx	CSS Computed	20% of ACoS	Proposed CSS
	Rs./Unit*		%	%	%		Rs./Unit*		
HT I HT - Industry									
HT	11.09	4.84	7.50%	3.28%	10.53%	1.71	3.98	2.18	2.18
EHV	10.50	4.84	0.00%	3.28%	3.28%	0.95	4.55	2.18	2.18
HT I (A) (i): HT - Industry Sub-total									
HT I (B): HT - Industry (Seasonal)									
HT	13.00	4.84	7.50%	3.28%	10.53%	1.71	5.88	2.18	2.18
EHV	11.05	4.84	0.00%	3.28%	3.28%	0.95	5.10	2.18	2.18
HT I (B): HT - Industry (Seasonal) Sub-total									
HT I : HT - Industry Total									
HT II: HT – Commercial									
HT	16.88	4.84	7.50%	3.28%	10.53%	1.71	9.76	2.18	2.18
EHV	18.13	4.84	0.00%	3.28%	3.28%	0.95	12.18	2.18	2.18
HT II (A): HT - Commercial Total									
HT III : HT - Railways/Metro/Monorail Traction									
HT	11.59	4.84	7.50%	3.28%	10.53%	1.71	4.47	2.18	2.18
EHV	11.19	4.84	0.00%	3.28%	3.28%	0.95	5.24	2.18	2.18
HT III (A): HT - Railways/Metro/Monorail Traction Total									
HT IV: HT - Public Water Works									
HT	10.41	4.84	7.50%	3.28%	10.53%	1.71	3.29	2.18	2.18
EHV	9.14	4.84	0.00%	3.28%	3.28%	0.95	3.19	2.18	2.18
HT IV: HT - Public Water Works (PWW) Total									
HT V(A): HT - Agriculture Pumpsets									
HT	8.55	4.84	7.50%	3.28%	10.53%	1.71	1.43	2.18	1.43
EHV	7.56	4.84	0.00%	3.28%	3.28%	0.95	1.61	2.18	1.61
HT V(A): HT - Agriculture Pumpsets Total									
HT V(B): HT - Agriculture - Others									
HT	11.24	4.84	7.50%	3.28%	10.53%	1.71	4.12	2.18	2.18
EHV	-	4.84	0.00%	3.28%	3.28%	0.95	-	2.18	-
HT V(B): HT - Agriculture Others Total									
HT V: HT - Agriculture Total									
HT VI: HT - Group Housing Societies (Residential)									
HT	10.92	4.84	7.50%	3.28%	10.53%	1.71	3.81	2.18	2.18
EHV	-	4.84	0.00%	3.28%	3.28%	0.95	-	2.18	-
HT VI: HT - Group Housing Societies (Residential) Total									
HT VIII(A): HT - Temporary Supply Religious (TSR)									
HT	-	4.84	7.50%	3.28%	10.53%	1.71	-	2.18	-
EHV	-	4.84	0.00%	3.28%	3.28%	0.95	-	2.18	-
HT VIII(A): HT - Temporary Supply Religious Total									
HT VIII(B): HT - Temporary Supply Others (TSO)									
HT	-	4.84	7.50%	3.28%	10.53%	1.71	-	2.18	-
EHV	-	4.84	0.00%	3.28%	3.28%	0.95	-	2.18	-
HT VIII(B): HT - Temporary Supply Others (TSO) Total									
HT VIII: HT - Temporary Supply Total									
HT IX: HT - Public Services									
HT IX(A): HT - Public Services-Govt. Edu. Institutions and Hospitals									
HT	12.88	4.84	7.50%	3.28%	10.53%	1.71	5.76	2.18	2.18
EHV	-	4.84	0.00%	3.28%	3.28%	0.95	-	2.18	-
HT IX(A): HT - Public Services-Government Total									
HT IX(B): HT - Public Services-Others									
HT	14.29	4.84	7.50%	3.28%	10.53%	1.71	7.17	2.18	2.18
EHV	-	4.84	0.00%	3.28%	3.28%	0.95	-	2.18	-
HT IX(B): HT - Public Services-Others Total									
HT IX : HT - Public Services Total									
HT - MSPGCL-Aux Supply									
HT	-	4.84	7.50%	3.28%	10.53%	1.71	-	2.18	-
EHV	-	4.84	0.00%	3.28%	3.28%	0.95	-	2.18	-
HT - MSPGCL-Aux Supply Total									
HT X: HT – Electric Vehicle Charging Station									
HT	9.59	4.84	7.50%	3.28%	10.53%	1.71	2.47	2.18	2.18

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Detailed computation of CSS for FY 2025-26 for LT Consumers

Consumer Category	T (ABR)	C	WL	TL	L	D = WL + Tx	CSS Computed	20% of ACoS	Proposed CSS
	Rs./Unit*		%	%	%		Rs./Unit*		
LT Residential									
LT I(A): LT - Residential-BPL	3.14	4.84	12.00%	3.28%	14.89%	2.41	-		-
LT I(B): LT - Residential									-
1-100 units	7.65	4.84	12.00%	3.28%	14.89%	2.41	-		-
101-300 units	13.49	4.84	12.00%	3.28%	14.89%	2.41	5.39	2.18	2.18
301-500 units	17.99	4.84	12.00%	3.28%	14.89%	2.41	9.89	2.18	2.18
Above 500 units	19.37	4.84	12.00%	3.28%	14.89%	2.41	11.28	2.18	2.18
Three Phase Charges									-
LT I: LT - Residential Total									-
LT II: LT - Non-Residential									-
(A) (i): 0 – 20 kW	12.96	4.84	12.00%	3.28%	14.89%	2.41	4.86	2.18	2.18
(B): >20 kW and ≤ 50 kW	16.75	4.84	12.00%	3.28%	14.89%	2.41	8.65	2.18	2.18
(C): >50 kW	19.10	4.84	12.00%	3.28%	14.89%	2.41	11.00	2.18	2.18
LT II: LT - Non-Residential Total									-
LT III: LT - Public Water Works (PWW)									-
(A): 0-20 kW	6.37	4.84	12.00%	3.28%	14.89%	2.41	-	2.18	-
(B): > 20 kW and ≤ 40 kW	9.22	4.84	12.00%	3.28%	14.89%	2.41	1.12	2.18	1.12
(C): > 40 kW	12.06	4.84	12.00%	3.28%	14.89%	2.41	3.96	2.18	2.18
LT III: LT - Public Water Works (PWW) Total									-
LT IV: LT - Agriculture									-
LT IV(A): LT - AG Un-metered - Pumpsets									-
Category 1 Zones (Above 1318 Hrs/HP/Annum)									-
(a) 0-5 HP	7.56	4.84	12.00%	3.28%	14.89%	2.41	-	2.18	-
(b) Above 5 HP - 7.5 HP	13.40	4.84	12.00%	3.28%	14.89%	2.41	5.30	2.18	2.18
(c) Above 7.5 HP	-	4.84	12.00%	3.28%	14.89%	2.41	-	2.18	-
Category 2 Zones (Below 1318 Hrs/HP/Annum)									-
(a) 0-5 HP	3.01	4.84	12.00%	3.28%	14.89%	2.41	-	2.18	-
(b) Above 5 HP - 7.5 HP	7.69	4.84	12.00%	3.28%	14.89%	2.41	-	2.18	-
(c) Above 7.5 HP	-	4.84	12.00%	3.28%	14.89%	2.41	-	2.18	-
LT IV(B): LT - Agriculture Metered Tariff - Pumpsets	5.05	4.84	12.00%	3.28%	14.89%	2.41	-	2.18	-
LT IV(C): LT - Agriculture Metered – Others	10.92	4.84	12.00%	3.28%	14.89%	2.41	2.83	2.18	2.18
LT IV: LT - Agriculture Total									-
LT V (A): LT - Industry - Powerlooms									-
(i): 0-20 kW	9.33	4.84	12.00%	3.28%	14.89%	2.41	1.23	2.18	1.23
(ii): Above 20 kW	10.31	4.84	12.00%	3.28%	14.89%	2.41	2.22	2.18	2.18
LT V (A): LT - Industry - Powerlooms Total									-
LT V(B): LT - Industry - General									-
(i): 0-20 kW	9.33	4.84	12.00%	3.28%	14.89%	2.41	1.23	2.18	1.23
(ii): Above 20 kW	10.31	4.84	12.00%	3.28%	14.89%	2.41	2.22	2.18	2.18
LT V(B): LT - Industry Total									-
LT VI: LT - Street Light									-
(A): Grampanchayat: A B & C Class Municipal Council	10.16	4.84	12.00%	3.28%	14.89%	2.41	2.06	2.18	2.06
(B): Municipal corporation Area	12.46	4.84	12.00%	3.28%	14.89%	2.41	4.36	2.18	2.18
LT VI: LT - Street Light Total									-
LT X (A) - Public Services – Govt.									-
(i): ≤ 20 kW	11.69	4.84	12.00%	3.28%	14.89%	2.41	3.59	2.18	2.18
(ii): >20 - ≤ 50 kW	-	4.84	12.00%	3.28%	14.89%	2.41	-	2.18	-
(iii): >50 kW	10.25	4.84	12.00%	3.28%	14.89%	2.41	2.15	2.18	2.15
LT X (A) - Public Services - Government Total									-
LT X(B) - Public Services - Others									-
(i): ≤ 20 kW	9.29	4.84	12.00%	3.28%	14.89%	2.41	1.20	2.18	1.20
(ii): >20 - ≤ 50 kW	-	4.84	12.00%	3.28%	14.89%	2.41	-	2.18	-
(iii): >50 kW	14.12	4.84	12.00%	3.28%	14.89%	2.41	6.03	2.18	2.18
LT X(B) - Public Services - Others Total		4.84	0.12	3.28%	0.148864	2.41		2.18	2.18
LT X - Public Services - Total									-
LT XI – Electric Vehicle Charging Station	10.92	4.84	12.00%	3.28%	14.89%	2.41	2.83	2.18	2.18

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Detail Computation of CSS for FY 2025-26 for HV Consumers

Consumer Category	T (ABR)	C	WL	TL	L	D = WL + Tx	CSS Computed	20% of ACoS	Proposed CSS
	Rs./Unit*		%	%	%		Rs./Unit*		
HT Category - EHV (66kV and Above)									
HT I (A) (i): HT - Industry	10.50	4.84	0.00%	3.28%	3.28%	0.95	4.55	2.18	2.18
HT I (B): HT - Industry (Seasonal)	11.05	4.84	0.00%	3.28%	3.28%	0.95	5.10	2.18	2.18
HT II (A): HT - Commercial	18.13	4.84	0.00%	3.28%	3.28%	0.95	12.18	2.18	2.18
HT III (A): HT - Railways/Metro/Monorail Traction	11.19	4.84	0.00%	3.28%	3.28%	0.95	5.24	2.18	2.18
HT IV: HT - Public Water Works (PWW)	9.14	4.84	0.00%	3.28%	3.28%	0.95	3.19	2.18	2.18
HT V(B): HT - Agriculture Others	-	4.84	-	3.28%	3.28%	0.95	-	2.18	-
HT VI: HT - Group Housing Societies (Residential)	-	4.84	0.00%	3.28%	3.28%	0.95	-	2.18	-
HT IX(B): HT - Public Services-Others	-	4.84	0.00%	3.28%	3.28%	0.95	-	2.18	-
HT Category - HT (33kV, 22kV and 11 kV)									
HT I (A) (i): HT - Industry	11.09	4.84	7.50%	3.28%	10.53%	1.71	3.98	2.18	2.18
HT I (B): HT - Industry (Seasonal)	13.00	4.84	7.50%	3.28%	10.53%	1.71	5.88	2.18	2.18
HT II (A): HT - Commercial	16.88	4.84	7.50%	3.28%	10.53%	1.71	9.76	2.18	2.18
HT III (A): HT - Railways/Metro/Monorail Traction	11.59	4.84	7.50%	3.28%	10.53%	1.71	4.47	2.18	2.18
HT IV: HT - Public Water Works (PWW)	10.41	4.84	7.50%	3.28%	10.53%	1.71	3.29	2.18	2.18
HT V(A): HT - Agriculture Pumpsets	8.55	4.84	0.08	0.03	0.11	1.71	1.43	2.18	1.43
HT V(B): HT - Agriculture Others	11.24	4.84	7.50%	3.28%	10.53%	1.71	4.12	2.18	2.18
HT VI: HT - Group Housing Societies (Residential)	10.92	4.84	7.50%	3.28%	10.53%	1.71	3.81	2.18	2.18
HT VIII(B): HT - Temporary Supply Others (TSO)									
HT IX(A): HT - Public Services-Govt. Edu. Institutions and Hospitals	12.88	4.84	7.50%	3.28%	10.53%	1.71	5.76	2.18	2.18
HT IX(B): HT - Public Services-Others	14.29	4.84	7.50%	3.28%	10.53%	1.71	7.17	2.18	2.18
HT X: HT - Electric Vehicle Charging Station	9.59	4.84	7.50%	3.28%	10.53%	1.71	2.47	2.18	2.18

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Detailed computation of CSS for FY 2026-27 for HT Consumers

Consumer Category	T(ABR)	C	WL	TL	L	D = WL + Tx	CSS	20% of	Proposed
	Rs./Unit*		%	%	%		Computed	ACoS	CSS
HT I HT - Industry									
HT	11.48	4.62	7.50%	3.26%	10.52%	1.77	4.54	2.26	2.26
EHV	10.89	4.62	0.00%	3.26%	3.26%	0.94	5.18	2.26	2.26
HT I (A) (i): HT - Industry Sub-total									-
HT I (B): HT - Industry (Seasonal)									-
HT	13.55	4.62	7.50%	3.26%	10.52%	1.77	6.62	2.26	2.26
EHV	11.42	4.62	0.00%	3.26%	3.26%	0.94	5.71	2.26	2.26
HT I (B): HT - Industry (Seasonal) Sub-total									-
HT I : HT - Industry Total									-
HT II: HT - Commercial									-
HT	17.82	4.62	7.50%	3.26%	10.52%	1.77	10.89	2.26	2.26
EHV	19.31	4.62	0.00%	3.26%	3.26%	0.94	13.60	2.26	2.26
HT II (A): HT - Commercial Total									-
HT III : HT - Railways/Metro/Monorail Traction									-
HT	12.55	4.62	7.50%	3.26%	10.52%	1.77	5.61	2.26	2.26
EHV	12.14	4.62	0.00%	3.26%	3.26%	0.94	6.42	2.26	2.26
HT III (A): HT - Railways/Metro/Monorail Traction Total									-
HT IV: HT - Public Water Works									-
HT	11.43	4.62	7.50%	3.26%	10.52%	1.77	4.49	2.26	2.26
EHV	9.98	4.62	0.00%	3.26%	3.26%	0.94	4.27	2.26	2.26
HT IV: HT - Public Water Works (PWW) Total									-
HT V(A): HT - Agriculture Pumpsets									-
HT	9.46	4.62	7.50%	3.26%	10.52%	1.77	2.52	2.26	2.26
EHV	8.35	4.62	0.00%	3.26%	3.26%	0.94	2.64	2.26	2.26
HT V(A): HT - Agriculture Pumpsets Total									-
HT V(B): HT - Agriculture - Others									-
HT	12.44	4.62	7.50%	3.26%	10.52%	1.77	5.51	2.26	2.26
EHV	-	4.62	0.00%	3.26%	3.26%	0.94	-	2.26	-
HT V(B): HT - Agriculture Others Total									-
HT V: HT - Agriculture Total									-
HT VI: HT - Group Housing Societies (Residential)									-
HT	11.31	4.62	7.50%	3.26%	10.52%	1.77	4.38	2.26	2.26
EHV	-	4.62	0.00%	3.26%	3.26%	0.94	-	2.26	-
HT VI: HT - Group Housing Societies (Residential) Total									-
HT VIII(A): HT - Temporary Supply Religious (TSR)									-
HT	-	4.62	7.50%	3.26%	10.52%	1.77	-	2.26	-
EHV	-	4.62	0.00%	3.26%	3.26%	0.94	-	2.26	-
HT VIII(A): HT - Temporary Supply Religious Total									-
HT VIII(B): HT - Temporary Supply Others (TSO)									-
HT	-	4.62	7.50%	3.26%	10.52%	1.77	-	2.26	-
EHV	-	4.62	0.00%	3.26%	3.26%	0.94	-	2.26	-
HT VIII(B): HT - Temporary Supply Others (TSO) Total									-
HT VIII: HT - Temporary Supply Total									-
HT IX: HT - Public Services									-
HT IX(A): HT - Public Services-Govt. Edu. Institutions and Hospitals									-
HT	13.32	4.62	7.50%	3.26%	10.52%	1.77	6.39	2.26	2.26
EHV	-	4.62	0.00%	3.26%	3.26%	0.94	-	2.26	-
HT IX(A): HT - Public Services-Government Total									-
HT IX(B): HT - Public Services-Others									-
HT	14.80	4.62	7.50%	3.26%	10.52%	1.77	7.86	2.26	2.26
EHV	-	4.62	0.00%	3.26%	3.26%	0.94	-	2.26	-
HT IX(B): HT - Public Services-Others Total									-
HT IX : HT - Public Services Total									-
HT - MSPGCL-Aux Supply									-
HT	-	4.62	7.50%	3.26%	10.52%	1.77	-	2.26	-
EHV	-	4.62	0.00%	3.26%	3.26%	0.94	-	2.26	-
HT - MSPGCL-Aux Supply Total									-
HT X: HT - Electric Vehicle Charging Station									-
HT	10.07	4.62	7.50%	3.26%	10.52%	1.77	3.14	2.26	2.26

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Detailed computation of CSS for FY 2026-27 for LT Consumers

Consumer Category	T	C	WL	TL	L	D = WL + Tx	CSS	20% of	Proposed
	(ABR)		%	%	%		Computed	ACoS	CSS
	Rs./Unit*						Rs./Unit*		
LT Residential									
LT I(A): LT - Residential-BPL	3.30	4.62	12.00%	3.26%	14.87%	2.54	-	-	-
LT I(B): LT - Residential									
1-100 units	7.70	4.62	12.00%	3.26%	14.87%	2.54	-	-	-
101-300 units	13.84	4.62	12.00%	3.26%	14.87%	2.54	5.87	2.26	2.26
301-500 units	18.10	4.62	12.00%	3.26%	14.87%	2.54	10.13	2.26	2.26
Above 500 units	19.56	4.62	12.00%	3.26%	14.87%	2.54	11.60	2.26	2.26
Three Phase Charges									-
LT I: LT - Residential Total									-
LT II: LT - Non-Residential									-
(A) (i): 0 – 20 kW	13.54	4.62	12.00%	3.26%	14.87%	2.54	5.57	2.26	2.26
(B): >20 kW and ≤ 50 kW	-	4.62	12.00%	3.26%	14.87%	2.54	-	2.26	-
(C): >50 kW	17.41	4.62	12.00%	3.26%	14.87%	2.54	9.44	2.26	2.26
LT II: LT - Non-Residential Total									-
LT III: LT - Public Water Works (PWW)									-
(A): 0-20 KW	6.94	4.62	12.00%	3.26%	14.87%	2.54	-	2.26	-
(B): > 20 kW and ≤ 40 kW	10.05	4.62	12.00%	3.26%	14.87%	2.54	2.08	2.26	2.08
(C): > 40 kW	13.15	4.62	12.00%	3.26%	14.87%	2.54	5.18	2.26	2.26
LT III: LT - Public Water Works (PWW) Total									-
LT IV: LT - Agriculture									-
LT IV(A): LT - AG Un-metered - Pumpsets									-
<i>Category 1 Zones (Above 1318 Hrs/HP/Annum)</i>									-
(a) 0-5 HP	7.20	4.62	12.00%	3.26%	14.87%	2.54	-	2.26	-
(b) Above 5 HP - 7.5 HP	12.73	4.62	12.00%	3.26%	14.87%	2.54	4.76	2.26	2.26
(c) Above 7.5 HP	-	4.62	12.00%	3.26%	14.87%	2.54	-	2.26	-
<i>Category 2 Zones (Below 1318 Hrs/HP/Annum)</i>									-
(a) 0-5 HP	2.90	4.62	12.00%	3.26%	14.87%	2.54	-	2.26	-
(b) Above 5 HP - 7.5 HP	7.36	4.62	12.00%	3.26%	14.87%	2.54	-	2.26	-
(c) Above 7.5 HP	-	4.62	12.00%	3.26%	14.87%	2.54	-	2.26	-
LT IV(B): LT - Agriculture Metered Tariff - Pumpsets	4.83	4.62	12.00%	3.26%	14.87%	2.54	-	2.26	-
LT IV(C): LT - Agriculture Metered – Others	11.31	4.62	12.00%	3.26%	14.87%	2.54	3.35	2.26	2.26
LT V (A): LT - Industry - Powerlooms									-
(i): 0-20 kW	10.04	4.62	12.00%	3.26%	14.87%	2.54	2.07	2.26	2.07
(ii): Above 20 kW	11.15	4.62	12.00%	3.26%	14.87%	2.54	3.18	2.26	2.26
LT V (A): LT - Industry - Powerlooms Total									-
LT V(B): LT - Industry - General									-
(i): 0-20 kW	9.62	4.62	12.00%	3.26%	14.87%	2.54	1.65	2.26	1.65
(ii): Above 20 kW	12.28	4.62	12.00%	3.26%	14.87%	2.54	4.32	2.26	2.26
LT V(B): LT - Industry - General Total									-
LT V: LT - Industry Total									-
LT VI: LT - Street Light									-
(A): Grampanchayat; A B & C Class Municipal Council	10.52	4.62	12.00%	3.26%	14.87%	2.54	2.55	2.26	2.26
(B): Municipal corporation Area	12.91	4.62	12.00%	3.26%	14.87%	2.54	4.94	2.26	2.26
LT X (A) - Public Services – Govt.									-
(i): ≤ 20 kW	12.40	4.62	12.00%	3.26%	14.87%	2.54	4.43	2.26	2.26
(ii): >20 - ≤ 50 kW	-	4.62	12.00%	3.26%	14.87%	2.54	-	2.26	-
(iii): >50 kW	10.61	4.62	12.00%	3.26%	14.87%	2.54	2.64	2.26	2.26
LT X (A) - Public Services - Government Total									-
LT X(B) - Public Services - Others									-
(i): ≤ 20 kW	1.60	4.62	12.00%	3.26%	14.87%	2.54	-	2.26	-
(ii): >20 - ≤ 50 kW	1.60	4.62	12.00%	3.26%	14.87%	2.54	-	2.26	-
(iii): >50 kW	1.60	4.62	12.00%	3.26%	14.87%	2.54	-	2.26	-
LT X(B) - Public Services - Others Total									-
LT X - Public Services - Total									-
LT XI – Electric Vehicle Charging Station	11.31	4.62	12.00%	3.26%	14.87%	2.54	3.35	2.26	2.26

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Detail computation of CSS for FY 2026-27 for HV Consumers

Consumer Category	T (ABR)	C	WL	TL	L	D = WL + Tx	CSS Computed	20% of ACoS	Proposed CSS
	Rs./Unit*		%	%	%		Rs./Unit*		
HT Category - EHV (66kV and Above)									
HT I (A) (i): HT - Industry	10.89	4.62	0.00%	3.26%	3.26%	0.94	5.18	2.26	2.26
HT I (B): HT - Industry (Seasonal)	11.42	4.62	0.00%	3.26%	3.26%	0.94	5.71	2.26	2.26
HT II (A): HT - Commercial	19.31	4.62	0.00%	3.26%	3.26%	0.94	13.60	2.26	2.26
HT III (A): HT - Railways/Metro/Monorail Traction	12.14	4.62	0.00%	3.26%	3.26%	0.94	6.42	2.26	2.26
HT IV: HT - Public Water Works (PWW)	9.98	4.62	0.00%	3.26%	3.26%	0.94	4.27	2.26	2.26
HT V(B): HT - Agriculture Others	-	4.62	-	3.26%	3.26%	0.94	-	2.26	-
HT VI: HT - Group Housing Societies (Residential)	-	4.62	0.00%	3.26%	3.26%	0.94	-	2.26	-
HT IX(B): HT - Public Services-Others	-	4.62	0.00%	3.26%	3.26%	0.94	-	2.26	-
HT Category - HT (33kV, 22kV and 11 kV)									
HT I (A) (i): HT - Industry	11.48	4.62	7.50%	3.26%	10.52%	1.77	4.54	2.26	2.26
HT I (B): HT - Industry (Seasonal)	13.55	4.62	7.50%	3.26%	10.52%	1.77	6.62	2.26	2.26
HT II (A): HT - Commercial	17.82	4.62	7.50%	3.26%	10.52%	1.77	10.89	2.26	2.26
HT III (A): HT - Railways/Metro/Monorail Traction	12.55	4.62	7.50%	3.26%	10.52%	1.77	5.61	2.26	2.26
HT IV: HT - Public Water Works (PWW)	11.43	4.62	7.50%	3.26%	10.52%	1.77	4.49	2.26	2.26
HT V(A): HT - Agriculture Pumpsets	9.46	4.62	0.08	0.03	0.11	1.77	2.52	2.26	2.26
HT V(B): HT - Agriculture Others	12.44	4.62	7.50%	3.26%	10.52%	1.77	5.51	2.26	2.26
HT VI: HT - Group Housing Societies (Residential)	11.31	4.62	7.50%	3.26%	10.52%	1.77	4.38	2.26	2.26
HT VIII(B): HT - Temporary Supply Others (TSO)									
HT IX(A): HT - Public Services-Govt. Edu. Institutions and Hospitals	13.32	4.62	7.50%	3.26%	10.52%	1.77	6.39	2.26	2.26
HT IX(B): HT - Public Services-Others	14.80	4.62	7.50%	3.26%	10.52%	1.77	7.86	2.26	2.26
HT X: HT - Electric Vehicle Charging Station	10.07	4.62	7.50%	3.26%	10.52%	1.77	3.14	2.26	2.26

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Detailed computation of CSS for FY 2027-28 for HT Consumers

Consumer Category	T(ABR)	C	WL	TL	L	D = WL + Tx	CSS	20% of	Proposed
	Rs./Unit*		%	%	%		Computed	ACoS	CSS
HT I HT - Industry									
HT	11.53	4.72	7.50%	3.24%	10.50%	1.88	4.38	2.28	2.28
EHV	10.98	4.72	0.00%	3.24%	3.24%	1.02	5.09	2.28	2.28
HT I (A) (i): HT - Industry Sub-total									-
HT I (B): HT - Industry (Seasonal)									-
HT	13.69	4.72	7.50%	3.24%	10.50%	1.88	6.54	2.28	2.28
EHV	11.48	4.72	0.00%	3.24%	3.24%	1.02	5.59	2.28	2.28
HT I (B): HT - Industry (Seasonal) Sub-total									-
HT I : HT - Industry Total									-
HT II: HT – Commercial									-
HT	18.40	4.72	7.50%	3.24%	10.50%	1.88	11.24	2.28	2.28
EHV	20.15	4.72	0.00%	3.24%	3.24%	1.02	14.26	2.28	2.28
HT II (A): HT - Commercial Total									-
HT III : HT - Railways/Metro/Monorail Traction									-
HT	13.58	4.72	7.50%	3.24%	10.50%	1.88	6.42	2.28	2.28
EHV	13.18	4.72	0.00%	3.24%	3.24%	1.02	7.28	2.28	2.28
HT III (A): HT - Railways/Metro/Monorail Traction Total									-
HT IV: HT - Public Water Works									-
HT	11.51	4.72	7.50%	3.24%	10.50%	1.88	4.36	2.28	2.28
EHV	9.95	4.72	0.00%	3.24%	3.24%	1.02	4.06	2.28	2.28
HT IV: HT - Public Water Works (PWW) Total									-
HT V(A): HT - Agriculture Pumpsets									-
HT	10.43	4.67	7.50%	3.24%	10.50%	1.50	3.71	2.28	2.28
EHV	9.24	4.67	0.00%	3.24%	3.24%	0.77	3.65	2.28	2.28
HT V(A): HT - Agriculture Pumpsets Total									-
HT V(B): HT - Agriculture - Others									-
HT	13.77	4.72	7.50%	3.24%	10.50%	1.88	6.61	2.28	2.28
EHV	-	4.72	0.00%	3.24%	3.24%	1.02	-	2.28	-
HT V(B): HT - Agriculture Others Total									-
HT V: HT - Agriculture Total									-
HT VI: HT - Group Housing Societies (Residential)									-
HT	11.38	4.72	7.50%	3.24%	10.50%	1.88	4.23	2.28	2.28
EHV	-	4.72	0.00%	3.24%	3.24%	1.02	-	2.28	-
HT VI: HT - Group Housing Societies (Residential) Total									-
HT VIII(A): HT - Temporary Supply Religious (TSR)									-
HT	-	4.67	7.50%	3.24%	10.50%	1.50	-	2.28	-
EHV	-	4.67	0.00%	3.24%	3.24%	0.77	-	2.28	-
HT VIII(A): HT - Temporary Supply Religious Total									-
HT VIII(B): HT - Temporary Supply Others (TSO)									-
HT	-	4.67	7.50%	3.24%	10.50%	1.50	-	2.28	-
EHV	-	4.67	0.00%	3.24%	3.24%	0.77	-	2.28	-
HT VIII(B): HT - Temporary Supply Others (TSO) Total									-
HT VIII: HT - Temporary Supply Total									-
HT IX: HT - Public Services									-
HT IX(A): HT - Public Services-Govt. Edu. Institutions and Hospitals									-
HT	13.39	4.72	7.50%	3.24%	10.50%	1.88	6.23	2.28	2.28
EHV	-	4.67	0.00%	3.24%	3.24%	1.02	-	2.28	-
HT IX(A): HT - Public Services-Government Total									-
HT IX(B): HT - Public Services-Others									-
HT	14.89	4.72	7.50%	3.24%	10.50%	1.88	7.74	2.28	2.28
EHV	-	4.72	0.00%	3.24%	3.24%	1.02	-	2.28	-
HT IX(B): HT - Public Services-Others Total									-
HT IX : HT - Public Services Total									-
HT - MSPGCL-Aux Supply									-
HT	-	4.72	7.50%	3.24%	10.50%	1.88	-	2.28	-
EHV	-	4.72	0.00%	3.24%	3.24%	1.02	-	2.28	-
HT - MSPGCL-Aux Supply Total									-
HT X: HT – Electric Vehicle Charging Station									-
HT	10.57	4.72	7.50%	3.24%	10.50%	1.88	3.42	2.28	2.28

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Detailed computation of CSS for FY 2027-28 for LT Consumers

Consumer Category	T (ABR)	C	WL	TL	L	D = WL + Tx	CSS Computed	20% of ACoS	Proposed CSS
	Rs./Unit*	%	%	%			Rs./Unit*		
LT Residential									
LT I(A): LT - Residential-BPL	3.46	4.62	12.00%	3.24%	14.85%	2.69	-		-
LT I(B): LT - Residential									
1-100 units	7.04	4.62	12.00%	3.24%	14.85%	2.69	-		-
101-300 units	14.08	4.62	12.00%	3.24%	14.85%	2.69	5.97	2.28	2.28
301-500 units	18.53	4.62	12.00%	3.24%	14.85%	2.69	10.42	2.28	2.28
Above 500 units	19.93	4.62	12.00%	3.24%	14.85%	2.69	11.81	2.28	2.28
Three Phase Charges									-
LT I: LT - Residential Total									-
LT II: LT - Non-Residential									-
(A) (i): 0 – 20 kW	13.98	4.62	12.00%	3.24%	14.85%	2.69	5.87	2.28	2.28
(B): >20 kW and ≤ 50 kW	-	4.62	12.00%	3.24%	14.85%	2.69	-	2.28	-
(C): >50 KW	18.02	4.62	12.00%	3.24%	14.85%	2.69	9.90	2.28	2.28
LT II: LT - Non-Residential Total									-
LT III: LT - Public Water Works (PWW)									-
(A): 0-20 KW	7.56	4.62	12.00%	3.24%	14.85%	2.69	-	2.28	-
(B): > 20 kW and ≤ 40 kW	10.95	4.62	12.00%	3.24%	14.85%	2.69	2.84	2.28	2.28
(C): > 40 kW	14.34	4.62	12.00%	3.24%	14.85%	2.69	6.22	2.28	2.28
LT III: LT - Public Water Works (PWW) Total		4.62	12.00%	3.24%	14.85%	2.69		2.28	2.28
LT IV: LT - Agriculture									-
LT IV(A): LT - AG Un-metered - Pumpsets									-
<i>Category 1 Zones (Above 1318 Hrs/HP/Annum)</i>									-
(a) 0-5 HP	6.80	4.62	12.00%	3.24%	14.85%	2.69	-	2.28	-
(b) Above 5 HP - 7.5 HP	11.99	4.62	12.00%	3.24%	14.85%	2.69	3.88	2.28	2.28
(c) Above 7.5 HP	-	4.62	12.00%	3.24%	14.85%	2.69	-	2.28	-
<i>Category 2 Zones (Below 1318 Hrs/HP/Annum)</i>									-
(a) 0-5 HP	2.75	4.62	12.00%	3.24%	14.85%	2.69	-	2.28	-
(b) Above 5 HP - 7.5 HP	6.98	4.62	12.00%	3.24%	14.85%	2.69	-	2.28	-
(c) Above 7.5 HP	-	4.62	12.00%	3.24%	14.85%	2.69	-	2.28	-
LT IV(B): LT - Agriculture Metered Tariff - Pumpsets	4.58	4.62	12.00%	3.24%	14.85%	2.69	-	2.28	-
LT IV(C): LT - Agriculture Metered – Others	11.38	4.62	12.00%	3.24%	14.85%	2.69	3.27	2.28	2.28
LT IV: LT - Agriculture Total									-
LT V (A): LT - Industry - Powerlooms									-
(i): 0-20 kW	10.42	4.62	12.00%	3.24%	14.85%	2.69	2.31	2.28	2.28
(ii): Above 20 kW	11.61	4.62	12.00%	3.24%	14.85%	2.69	3.50	2.28	2.28
LT V(B): LT - Industry - General Total									-
(i): 0-20 kW	9.72	4.62	12.00%	3.24%	14.85%	2.69	1.61	2.28	1.61
(ii): Above 20 kW	12.34	4.62	12.00%	3.24%	14.85%	2.69	4.22	2.28	2.28
LT V: LT - Industry Total									-
LT VI: LT - Street Light									-
(A): Grampanchayat: A B & C Class Municipal Council	10.58	4.62	12.00%	3.24%	14.85%	2.69	2.46	2.28	2.28
(B): Municipal corporation Area	12.99	4.62	12.00%	3.24%	14.85%	2.69	4.88	2.28	2.28
LT X (A) - Public Services – Govt.									-
(i): ≤ 20 kW	12.78	4.62	12.00%	3.24%	14.85%	2.69	4.67	2.28	2.28
(ii): >20 - ≤ 50 kW	-	4.62	12.00%	3.24%	14.85%	2.69	-	2.28	-
iii): >50 kW	10.65	4.62	12.00%	3.24%	14.85%	2.69	2.54	2.28	2.28
LT X (A) - Public Services - Government Total									-
LT X(B) - Public Services - Others									-
(i): ≤ 20 kW	9.68	4.62	12.00%	3.24%	14.85%	2.69	1.56	2.28	1.56
(ii): >20 - ≤ 50 kW	-	4.62	12.00%	3.24%	14.85%	2.69	-	2.28	-
(iii): >50 kW	14.65	4.62	12.00%	3.24%	14.85%	2.69	6.54	2.28	2.28
LT X(B) - Public Services - Others Total									-
LT X- Public Services - Total									-
LT XI – Electric Vehicle Charging Station	11.38	4.62	12.00%	3.24%	14.85%	2.69	3.27	2.28	2.28

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Detail computation of CSS for FY 2027-28 for HV Consumers

Consumer Category	T (ABR)	C	WL	TL	L	D = WL + Tx	CSS Computed	20% of ACoS	Proposed CSS
	Rs./Unit*	%	%	%			Rs./Unit*		
HT Category - EHV (66kV and Above)									
HT I (A) (i): HT - Industry	10.98	4.72	0.00%	3.24%	3.24%	1.02	5.09	2.28	2.28
HT I (B): HT - Industry (Seasonal)	11.48	4.72	0.00%	3.24%	3.24%	1.02	5.59	2.28	2.28
HT II (A): HT - Commercial	20.15	4.72	0.00%	3.24%	3.24%	1.02	14.26	2.28	2.28
HT III (A): HT - Railways/Metro/Monorail Traction	13.18	4.72	0.00%	3.24%	3.24%	1.02	7.28	2.28	2.28
HT IV: HT - Public Water Works (PWW)	9.95	4.72	0.00%	3.24%	3.24%	1.02	4.06	2.28	2.28
HT V(B): HT - Agriculture Others	-	4.72	-	3.24%	3.24%	1.02	-	2.28	-
HT VI: HT - Group Housing Societies (Residential)	-	4.72	0.00%	3.24%	3.24%	1.02	-	2.28	-
HT IX(B): HT - Public Services-Others	-	4.72	0.00%	3.24%	3.24%	1.02	-	2.28	-
HT Category - HT (33kV, 22kV and 11 kV)									
HT I (A) (i): HT - Industry	11.53	4.72	7.50%	3.24%	10.50%	1.88	4.38	2.28	2.28
HT I (B): HT - Industry (Seasonal)	13.69	4.72	7.50%	3.24%	10.50%	1.88	6.54	2.28	2.28
HT II (A): HT - Commercial	18.40	4.72	7.50%	3.24%	10.50%	1.88	11.24	2.28	2.28
HT III (A): HT - Railways/Metro/Monorail Traction	13.58	4.72	7.50%	3.24%	10.50%	1.88	6.42	2.28	2.28
HT IV: HT - Public Water Works (PWW)	11.51	4.72	7.50%	3.24%	10.50%	1.88	4.36	2.28	2.28
HT V(A): HT - Agriculture Pumpsets	10.43	4.67	0.08	0.03	0.10	1.50	3.71	2.28	2.28
HT V(B): HT - Agriculture Others	13.77	4.72	7.50%	3.24%	10.50%	1.88	6.61	2.28	2.28
HT VI: HT - Group Housing Societies (Residential)	11.38	4.72	7.50%	3.24%	10.50%	1.88	4.23	2.28	2.28
HT VIII(B): HT - Temporary Supply Others (TSO)									
HT IX(A): HT - Public Services-Govt. Edu. Institutions and Hospitals	13.39	4.72	7.50%	3.24%	10.50%	1.88	6.23	2.28	2.28
HT IX(B): HT - Public Services-Others	14.89	4.72	7.50%	3.24%	10.50%	1.88	7.74	2.28	2.28
HT X: HT - Electric Vehicle Charging Station	10.57	4.72	7.50%	3.24%	10.50%	1.88	3.42	2.28	2.28

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Detailed computation of CSS for FY 2028-29 for HT Consumers

Consumer Category	T	C	WL	TL	L	D = WL + Tx	CSS	20% of	Proposed
	(ABR)		%	%	%		Computed	ACoS	CSS
	Rs./Unit*						Rs./Unit*		
HT I HT - Industry									
HT	10.87	4.82	7.50%	3.21%	10.47%	1.95	3.55	2.15	2.15
EHV	10.34	4.82	0.00%	3.21%	3.21%	1.07	4.30	2.15	2.15
HT I (A) (i): HT - Industry Sub-total									-
HT I (B): HT - Industry (Seasonal)									-
HT	13.02	4.82	7.50%	3.21%	10.47%	1.95	5.70	2.15	2.15
EHV	10.80	4.82	0.00%	3.21%	3.21%	1.07	4.76	2.15	2.15
HT I (B): HT - Industry (Seasonal) Sub-total									-
HT I : HT - Industry Total									-
HT II: HT – Commercial									-
HT	18.93	4.82	7.50%	3.21%	10.47%	1.95	11.61	2.15	2.15
EHV	20.87	4.82	0.00%	3.21%	3.21%	1.07	14.83	2.15	2.15
HT II (A): HT - Commercial Total									-
HT III : HT - Railways/Metro/Monorail Traction									-
HT	14.69	4.82	7.50%	3.21%	10.47%	1.95	7.37	2.15	2.15
EHV	14.30	4.82	0.00%	3.21%	3.21%	1.07	8.26	2.15	2.15
HT III (A): HT - Railways/Metro/Monorail Traction Total									-
HT IV: HT - Public Water Works									-
HT	10.87	4.82	7.50%	3.21%	10.47%	1.95	3.54	2.15	2.15
EHV	9.26	4.82	0.00%	3.21%	3.21%	1.07	3.22	2.15	2.15
HT IV: HT - Public Water Works (PWW) Total									-
HT V(A): HT - Agriculture Pumpsets									-
HT	11.10	4.82	7.50%	3.21%	10.47%	1.95	3.78	2.15	2.15
EHV	9.85	4.82	0.00%	3.21%	3.21%	1.07	3.81	2.15	2.15
HT V(A): HT - Agriculture Pumpsets Total									-
HT V(B): HT - Agriculture - Others									-
HT	14.68	4.82	7.50%	3.21%	10.47%	1.95	7.36	2.15	2.15
EHV	-	4.82	0.00%	3.21%	3.21%	1.07	-	2.15	-
HT V(B): HT - Agriculture Others Total									-
HT V: HT - Agriculture Total									-
HT VI: HT - Group Housing Societies (Residential)									-
HT	10.73	4.82	7.50%	3.21%	10.47%	1.95	3.41	2.15	2.15
EHV	-	4.82	0.00%	3.21%	3.21%	1.07	-	2.15	-
HT VI: HT - Group Housing Societies (Residential) Total									-
HT VIII(A): HT - Temporary Supply Religious (TSR)									-
HT	-	4.82	7.50%	3.21%	10.47%	1.95	-	2.15	-
EHV	-	4.82	0.00%	3.21%	3.21%	1.07	-	2.15	-
HT VIII(A): HT - Temporary Supply Religious Total									-
HT VIII(B): HT - Temporary Supply Others (TSO)									-
HT	-	4.82	7.50%	3.21%	10.47%	1.95	-	2.15	-
EHV	-	4.82	0.00%	3.21%	3.21%	1.07	-	2.15	-
HT VIII(B): HT - Temporary Supply Others (TSO) Total									-
HT VIII: HT - Temporary Supply Total									-
HT IX: HT - Public Services									-
HT IX(A): HT - Public Services-Govt. Edu. Institutions and Hospitals									-
HT	12.61	4.82	7.50%	3.21%	10.47%	1.95	5.29	2.15	2.15
EHV	-	4.82	0.00%	3.21%	3.21%	1.07	-	2.15	-
HT IX(A): HT - Public Services-Government Total									-
HT IX(B): HT - Public Services-Others									-
HT	14.05	4.82	7.50%	3.21%	10.47%	1.95	6.72	2.15	2.15
EHV	-	4.82	0.00%	3.21%	3.21%	1.07	-	2.15	-
HT IX(B): HT - Public Services-Others Total									-
HT IX : HT - Public Services Total									-
HT - MSPGCL-Aux Supply									-
HT	-	4.82	7.50%	3.21%	10.47%	1.95	-	2.15	-
EHV	-	4.82	0.00%	3.21%	3.21%	1.07	-	2.15	-
HT - MSPGCL-Aux Supply Total									-
HT X: HT – Electric Vehicle Charging Station									-
HT	10.73	4.82	7.50%	3.21%	10.47%	1.95	3.41	2.15	2.15

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Detailed computation of CSS for FY 2028-29 for LT Consumers

Consumer Category	T	C	WL	TL	L	D = WL + Tx	CSS	20% of	Proposed
	(ABR)		%	%	%		Computed	ACoS	CSS
	Rs./Unit*						Rs./Unit*		
LT Residential									
LT I(A): LT - Residential-BPL	3.63	4.82	12.00%	3.21%	14.82%	2.78	-		-
LT I(B): LT - Residential									-
1-100 units	6.20	4.82	12.00%	3.21%	14.82%	2.69	-		-
101-300 units	12.09	4.82	12.00%	3.21%	14.82%	2.69	3.75	2.15	2.15
301-500 units	18.55	4.82	12.00%	3.21%	14.82%	2.69	10.21	2.15	2.15
Above 500 units	18.84	4.82	12.00%	3.21%	14.82%	2.69	10.50	2.15	2.15
Three Phase Charges									-
LT I: LT - Residential Total									-
LT II: LT - Non-Residential									-
(A) (i): 0 – 20 kW	14.38	4.82	12.00%	3.21%	14.82%	2.69	6.03	2.15	2.15
(B): >20 kW and ≤ 50 kW	-	4.82	12.00%	3.21%	14.82%	2.69	-	2.15	-
(C): >50 KW	18.62	4.82	12.00%	3.21%	14.82%	2.69	10.28	2.15	2.15
LT II: LT - Non-Residential Total									-
LT III: LT - Public Water Works (PWW)									-
(A): 0-20 KW	8.24	4.82	12.00%	3.21%	14.82%	2.69	-	2.15	-
(B): > 20 kW and ≤ 40 kW	11.94	4.82	12.00%	3.21%	14.82%	2.69	3.60	2.15	2.15
(C): > 40 kW	15.64	4.82	12.00%	3.21%	14.82%	2.69	7.29	2.15	2.15
LT III: LT - Public Water Works (PWW) Total									-
LT IV: LT - Agriculture									-
LT IV(A): LT - AG Un-metered - Pumpsets									-
Category 1 Zones (Above 1318 Hrs/HP/Annum)									-
(a) 0-5 HP	5.71	4.82	12.00%	3.21%	14.82%	2.69	-	2.15	-
(b) Above 5 HP - 7.5 HP	10.01	4.82	12.00%	3.21%	14.82%	2.69	1.66	2.15	1.66
(c) Above 7.5 HP	-	4.82	12.00%	3.21%	14.82%	2.69	-	2.15	-
Category 2 Zones (Below 1318 Hrs/HP/Annum)									-
(a) 0-5 HP	2.35	4.82	12.00%	3.21%	14.82%	2.69	-	2.15	-
(b) Above 5 HP - 7.5 HP	5.91	4.82	12.00%	3.21%	14.82%	2.69	-	2.15	-
(c) Above 7.5 HP	-	4.82	12.00%	3.21%	14.82%	2.69	-	2.15	-
LT IV(B): LT - Agriculture Metered Tariff - Pumpsets	3.87	4.82	12.00%	3.21%	14.82%	2.69	-	2.15	-
LT IV(C): LT - Agriculture Metered – Others	10.73	4.82	12.00%	3.21%	14.82%	2.69	2.39	2.15	2.15
LT IV: LT - Agriculture Total									-
LT V (A): LT - Industry - Powerlooms									-
(i): 0-20 kW	9.79	4.82	12.00%	3.21%	14.82%	2.69	1.45	2.15	1.45
(ii): Above 20 kW	10.95	4.82	12.00%	3.21%	14.82%	2.69	2.61	2.15	2.15
LT V (A): LT - Industry - Powerlooms Total									-
LT V(B): LT - Industry - General									-
(i): 0-20 kW	9.20	4.82	12.00%	3.21%	14.82%	2.69	0.85	2.15	0.85
(ii): Above 20 kW	11.61	4.82	12.00%	3.21%	14.82%	2.69	3.27	2.15	2.15
LT V: LT - Industry Total									-
LT VI: LT - Street Light									-
(A): Grampanchayat; A B & C Class Municipal Council	9.97	4.82	12.00%	3.21%	14.82%	2.69	1.63	2.15	1.63
(B): Municipal corporation Area	12.25	4.82	12.00%	3.21%	14.82%	2.69	3.91	2.15	2.15
LT X (A) - Public Services – Govt.									-
(i): ≤ 20 kW	12.36	4.82	12.00%	3.21%	14.82%	2.69	4.02	2.15	2.15
(ii): >20 - ≤ 50 kW	-	4.82	12.00%	3.21%	14.82%	2.69	-	2.15	-
iii): >50 kW	10.02	4.82	12.00%	3.21%	14.82%	2.69	1.68	2.15	1.68
LT X (A) - Public Services - Government Total									-
LT X(B) - Public Services - Others									-
(i): ≤ 20 kW	9.12	4.82	12.00%	3.21%	14.82%	2.69	0.78	2.15	0.78
(ii): >20 - ≤ 50 kW	-	4.82	12.00%	3.21%	14.82%	2.69	-	2.15	-
(iii): >50 kW	13.77	4.82	12.00%	3.21%	14.82%	2.69	5.43	2.15	2.15
LT X(B) - Public Services - Others Total									-
LT X - Public Services - Total									-
LT XI – Electric Vehicle Charging Station	10.73	4.82	12.00%	3.21%	14.82%	2.69	2.39	2.15	2.15

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Detail computation of CSS for FY 2028-29 for HV Consumers

Consumer Category	T (ABR)	C	WL	TL	L	D = WL + Tx	CSS Computed	20% of ACoS	Proposed CSS
	Rs./Unit*		%	%	%		Rs./Unit*		
HT Category - EHV (66kV and Above)									
HT I (A) (i): HT - Industry	10.34	4.82	0.00%	3.21%	3.21%	1.07	4.30	2.15	2.15
HT I (B): HT - Industry (Seasonal)	10.80	4.82	0.00%	3.21%	3.21%	1.07	4.76	2.15	2.15
HT II (A): HT - Commercial	20.87	4.82	0.00%	3.21%	3.21%	1.07	14.83	2.15	2.15
HT III (A): HT - Railways/Metro/Monorail Traction	14.30	4.82	0.00%	3.21%	3.21%	1.07	8.26	2.15	2.15
HT IV: HT - Public Water Works (PWW)	9.26	4.82	0.00%	3.21%	3.21%	1.07	3.22	2.15	2.15
HT V(B): HT - Agriculture Others	-	4.82	-	3.21%	3.21%	1.07	-	2.15	-
HT VI: HT - Group Housing Societies (Residential)	-	4.82	0.00%	3.21%	3.21%	1.07	-	2.15	-
HT IX(B): HT - Public Services-Others	-	4.82	0.00%	3.21%	3.21%	1.07	-	2.15	-
HT Category - HT (33kV, 22kV and 11 kV)									
HT I (A) (i): HT - Industry	10.87	4.82	7.50%	3.21%	10.47%	1.95	3.55	2.15	2.15
HT I (B): HT - Industry (Seasonal)	13.02	4.82	7.50%	3.21%	10.47%	1.95	5.70	2.15	2.15
HT II (A): HT - Commercial	18.93	4.82	7.50%	3.21%	10.47%	1.95	11.61	2.15	2.15
HT III (A): HT - Railways/Metro/Monorail Traction	14.69	4.82	7.50%	3.21%	10.47%	1.95	7.37	2.15	2.15
HT IV: HT - Public Water Works (PWW)	10.87	4.82	7.50%	3.21%	10.47%	1.95	3.54	2.15	2.15
HT V(A): HT - Agriculture Pumpsets	11.10	4.82	0.08	0.03	0.10	1.95	3.78	2.15	2.15
HT V(B): HT - Agriculture Others	14.68	4.82	7.50%	3.21%	10.47%	1.95	7.36	2.15	2.15
HT VI: HT - Group Housing Societies (Residential)	10.73	4.82	7.50%	3.21%	10.47%	1.95	3.41	2.15	2.15
HT VIII(B): HT - Temporary Supply Others (TSO)									
HT IX(A): HT - Public Services-Govt. Edu. Institutions and Hospitals	12.61	4.82	7.50%	3.21%	10.47%	1.95	5.29	2.15	2.15
HT IX(B): HT - Public Services-Others	14.05	4.82	7.50%	3.21%	10.47%	1.95	6.72	2.15	2.15
HT X: HT - Electric Vehicle Charging Station	10.73	4.82	7.50%	3.21%	10.47%	1.95	3.41	2.15	2.15

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Detailed computation of CSS for FY 2029-30 for HT Consumers

Consumer Category	T	C	WL	TL	L	D = WL + Tx	CSS	20% of	Proposed
	(ABR)		%	%	%		Computed	ACoS	CSS
	Rs./Unit*						Rs./Unit*		
HT I HT - Industry									
HT	10.74	4.93	7.50%	3.16%	10.42%	1.97	3.27	2.12	2.12
EHV	10.24	4.93	0.00%	3.16%	3.16%	1.10	4.05	2.12	2.12
HT I (A) (i): HT - Industry Sub-total									-
HT I (B): HT - Industry (Seasonal)									-
HT	12.92	4.93	7.50%	3.16%	10.42%	1.97	5.45	2.12	2.12
EHV	10.69	4.93	0.00%	3.16%	3.16%	1.10	4.50	2.12	2.12
HT I (B): HT - Industry (Seasonal) Sub-total									-
HT I : HT - Industry Total									-
HT II: HT – Commercial									-
HT	19.18	4.93	7.50%	3.16%	10.42%	1.97	11.70	2.12	2.12
EHV	21.38	4.93	0.00%	3.16%	3.16%	1.10	15.19	2.12	2.12
HT II (A): HT - Commercial Total									-
HT III : HT - Railways/Metro/Monorail Traction									-
HT	15.89	4.93	7.50%	3.16%	10.42%	1.97	8.42	2.12	2.12
EHV	15.53	4.93	0.00%	3.16%	3.16%	1.10	9.34	2.12	2.12
HT III (A): HT - Railways/Metro/Monorail Traction Total									-
HT IV: HT - Public Water Works									-
HT	10.76	4.93	7.50%	3.16%	10.42%	1.97	3.28	2.12	2.12
EHV	9.11	4.93	0.00%	3.16%	3.16%	1.10	2.92	2.12	2.12
HT IV: HT - Public Water Works (PWW) Total									-
HT V(A): HT - Agriculture Pumpsets									-
HT	11.01	4.93	7.50%	3.16%	10.42%	1.97	3.53	2.12	2.12
EHV	9.74	4.93	0.00%	3.16%	3.16%	1.10	3.55	2.12	2.12
HT V(A): HT - Agriculture Pumpsets Total									-
HT V(B): HT - Agriculture - Others									-
HT	14.54	4.93	7.50%	3.16%	10.42%	1.97	7.07	2.12	2.12
EHV	-	4.93	0.00%	3.16%	3.16%	1.10	-	2.12	-
HT V(B): HT - Agriculture Others Total									-
HT V: HT - Agriculture Total									-
HT VI: HT - Group Housing Societies (Residential)									-
HT	10.61	4.93	7.50%	3.16%	10.42%	1.97	3.14	2.12	2.12
EHV	-	4.93	0.00%	3.16%	3.16%	1.10	-	2.12	-
HT VI: HT - Group Housing Societies (Residential) Total									-
HT VIII(A): HT - Temporary Supply Religious (TSR)									-
HT	-	4.93	7.50%	3.16%	10.42%	1.97	-	2.12	-
EHV	-	4.93	0.00%	3.16%	3.16%	1.10	-	2.12	-
HT VIII(A): HT - Temporary Supply Religious Total									-
HT VIII(B): HT - Temporary Supply Others (TSO)									-
HT	-	4.93	7.50%	3.16%	10.42%	1.97	-	2.12	-
EHV	-	4.93	0.00%	3.16%	3.16%	1.10	-	2.12	-
HT VIII(B): HT - Temporary Supply Others (TSO) Total									-
HT VIII: HT - Temporary Supply Total									-
HT IX: HT - Public Services									-
HT IX(A): HT - Public Services-Govt. Edu. Institutions and Hospitals									-
HT	12.46	4.93	7.50%	3.16%	10.42%	1.97	4.98	2.12	2.12
EHV	-	4.93	0.00%	3.16%	3.16%	1.10	-	2.12	-
HT IX(A): HT - Public Services-Government Total									-
HT IX(B): HT - Public Services-Others									-
HT	13.89	4.93	7.50%	3.16%	10.42%	1.97	6.42	2.12	2.12
EHV	-	4.93	0.00%	3.16%	3.16%	1.10	-	2.12	-
HT IX(B): HT - Public Services-Others Total									-
HT IX : HT - Public Services Total									-
HT - MSPGCL-Aux Supply									-
HT	-	4.93	7.50%	3.16%	10.42%	1.97	-	2.12	-
EHV	-	4.93	0.00%	3.16%	3.16%	1.10	-	2.12	-
HT - MSPGCL-Aux Supply Total									-
HT X: HT – Electric Vehicle Charging Station									-
HT	10.61	4.93	7.50%	3.16%	10.42%	1.97	3.14	2.12	2.12

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Detailed computation of CSS for FY 2029-30 for LT Consumers

Consumer Category	T	C	WL	TL	L	D = WL + Tx	CSS	20% of	Proposed
	(ABR)		%	%	%		Computed	ACoS	CSS
	Rs./Unit*						Rs./Unit*		
LT Residential									
LT I(A): LT - Residential-BPL	3.82	4.93	12.00%	3.16%	14.78%	2.81	-		-
LT I(B): LT - Residential									-
1-100 units	5.87	4.93	12.00%	3.16%	14.78%	2.81	-		-
101-300 units	11.82	4.93	12.00%	3.16%	14.78%	2.81	3.22	2.12	2.12
301-500 units	19.50	4.93	12.00%	3.16%	14.78%	2.81	10.90	2.12	2.12
Above 500 units	19.60	4.93	12.00%	3.16%	14.78%	2.81	11.00	2.12	2.12
Three Phase Charges									-
LT I: LT - Residential Total									-
LT II: LT - Non-Residential									-
(A) (i): 0 – 20 kW	15.08	4.93	12.00%	3.16%	14.78%	2.81	6.48	2.12	2.12
(B): >20 kW and ≤ 50 kW	-	4.93	12.00%	3.16%	14.78%	2.81	-	2.12	-
(C): >50 KW	19.69	4.93	12.00%	3.16%	14.78%	2.81	11.09	2.12	2.12
LT II: LT - Non-Residential Total									-
LT III: LT - Public Water Works (PWW)									-
(A): 0-20 KW	8.91	4.93	12.00%	3.16%	14.78%	2.81	0.31	2.12	0.31
(B): > 20 kW and ≤ 40 kW	12.92	4.93	12.00%	3.16%	14.78%	2.81	4.32	2.12	2.12
(C): > 40 kW	16.92	4.93	12.00%	3.16%	14.78%	2.81	8.32	2.12	2.12
LT III: LT - Public Water Works (PWW) Total									-
LT IV: LT - Agriculture									-
LT IV(A): LT - AG Un-metered - Pumpsets									-
Category 1 Zones (Above 1318 Hrs/HP/Annum)									-
(a) 0-5 HP	5.73	4.93	12.00%	3.16%	14.78%	2.81	-	2.12	-
(b) Above 5 HP - 7.5 HP	10.05	4.93	12.00%	3.16%	14.78%	2.81	1.45	2.12	1.45
(c) Above 7.5 HP	-	4.93	12.00%	3.16%	14.78%	2.81	-	2.12	-
Category 2 Zones (Below 1318 Hrs/HP/Annum)									-
(a) 0-5 HP	2.35	4.93	12.00%	3.16%	14.78%	2.81	-	2.12	-
(b) Above 5 HP - 7.5 HP	5.92	4.93	12.00%	3.16%	14.78%	2.81	-	2.12	-
(c) Above 7.5 HP	-	4.93	12.00%	3.16%	14.78%	2.81	-	2.12	-
LT IV(B): LT - Agriculture Metered Tariff - Pumpsets	3.88	4.93	12.00%	3.16%	14.78%	2.81	-	2.12	-
LT IV(C): LT - Agriculture Metered – Others	10.61	4.93	12.00%	3.16%	14.78%	2.81	2.02	2.12	2.02
LT IV: LT - Agriculture Total									-
LT V (A): LT - Industry - Powerlooms									-
(i): 0-20 kW	9.65	4.93	12.00%	3.16%	14.78%	2.81	1.05	2.12	1.05
(ii): Above 20 kW	10.84	4.93	12.00%	3.16%	14.78%	2.81	2.24	2.12	2.12
LT V (A): LT - Industry - Powerlooms Total									-
LT V(B): LT - Industry - General									-
(i): 0-20 kW	9.12	4.93	12.00%	3.16%	14.78%	2.81	0.52	2.12	0.52
(ii): Above 20 kW	11.47	4.93	12.00%	3.16%	14.78%	2.81	2.87	2.12	2.12
LT V: LT - Industry Total									-
LT VI: LT - Street Light									-
(A): Grampanchayat; A B & C Class Municipal Council	9.86	4.93	12.00%	3.16%	14.78%	2.81	1.26	2.12	1.26
(B): Municipal corporation Area	12.12	4.93	12.00%	3.16%	14.78%	2.81	3.52	2.12	2.12
LT VI: LT - Street Light Total									-
LT X (A) - Public Services – Govt.									-
(i): ≤ 20 kW	12.54	4.93	12.00%	3.16%	14.78%	2.81	3.94	2.12	2.12
(ii): >20 - ≤ 50 kW	-	4.93	12.00%	3.16%	14.78%	2.81	-	2.12	-
iii): >50 kW	9.89	4.93	12.00%	3.28%	14.89%	2.81	1.28	2.12	1.28
LT X (A) - Public Services - Government Total									-
LT X(B) - Public Services - Others									-
(i): ≤ 20 kW	9.02	4.93	12.00%	3.16%	14.78%	2.81	0.42	2.12	0.42
(ii): >20 - ≤ 50 kW	-	4.93	12.00%	3.16%	14.78%	2.81	-	2.12	-
(iii): >50 kW	13.57	4.93	12.00%	3.28%	14.89%	2.81	4.97	2.12	2.12
LT X(B) - Public Services - Others Total									-
LT X - Public Services - Total									-
LT XI – Electric Vehicle Charging Station	10.61	4.93	12.00%	3.16%	14.78%	2.81	2.02	2.12	2.02

Detailed computation of CSS for FY 2029-30 for HV Consumers

Consumer Category	T (ABR)	C	WL	TL	L	D = WL + Tx	CSS Computed	20% of ACoS	Proposed CSS
	Rs./Unit*		%	%	%		Rs./Unit*		
HT Category - EHV (66kV and Above)									
HT I (A) (i): HT - Industry	10.34	4.82	0.00%	3.21%	3.21%	1.07	4.30	2.15	2.15
HT I (B): HT - Industry (Seasonal)	10.80	4.82	0.00%	3.21%	3.21%	1.07	4.76	2.15	2.15
HT II (A): HT - Commercial	20.87	4.82	0.00%	3.21%	3.21%	1.07	14.83	2.15	2.15
HT III (A): HT - Railways/Metro/Monorail Traction	14.30	4.82	0.00%	3.21%	3.21%	1.07	8.26	2.15	2.15
HT IV: HT - Public Water Works (PWW)	9.26	4.82	0.00%	3.21%	3.21%	1.07	3.22	2.15	2.15
HT V(B): HT - Agriculture Others	-	4.82	-	3.21%	3.21%	1.07	-	2.15	-
HT VI: HT - Group Housing Societies (Residential)	-	4.82	0.00%	3.21%	3.21%	1.07	-	2.15	-
HT IX(B): HT - Public Services-Others	-	4.82	0.00%	3.21%	3.21%	1.07	-	2.15	-
HT Category - HT (33kV, 22kV and 11 kV)									
HT I (A) (i): HT - Industry	10.87	4.82	7.50%	3.21%	10.47%	1.95	3.55	2.15	2.15
HT I (B): HT - Industry (Seasonal)	13.02	4.82	7.50%	3.21%	10.47%	1.95	5.70	2.15	2.15
HT II (A): HT - Commercial	18.93	4.82	7.50%	3.21%	10.47%	1.95	11.61	2.15	2.15
HT III (A): HT - Railways/Metro/Monorail Traction	14.69	4.82	7.50%	3.21%	10.47%	1.95	7.37	2.15	2.15
HT IV: HT - Public Water Works (PWW)	10.87	4.82	7.50%	3.21%	10.47%	1.95	3.54	2.15	2.15
HT V(A): HT - Agriculture Pumpssets	11.10	4.82	0.08	0.03	0.10	1.95	3.78	2.15	2.15
HT V(B): HT - Agriculture Others	14.68	4.82	7.50%	3.21%	10.47%	1.95	7.36	2.15	2.15
HT VI: HT - Group Housing Societies (Residential)	10.73	4.82	7.50%	3.21%	10.47%	1.95	3.41	2.15	2.15
HT VIII(B): HT - Temporary Supply Others (TSO)									
HT IX(A): HT - Public Services-Govt. Edu. Institutions and Hospitals	12.61	4.82	7.50%	3.21%	10.47%	1.95	5.29	2.15	2.15
HT IX(B): HT - Public Services-Others	14.05	4.82	7.50%	3.21%	10.47%	1.95	6.72	2.15	2.15
HT X: HT - Electric Vehicle Charging Station	10.73	4.82	7.50%	3.21%	10.47%	1.95	3.41	2.15	2.15

11.2.6 As stipulated in the Open Access Regulations, the cross-subsidy surcharge shall be based on the current level of cross subsidy of the tariff category / tariff slab and/ or voltage level to which such consumer or person belong area connected to. Accordingly, the consumers who opt for Open Access during the FY 2025-26 to FY 2029-30 (i.e., Fifth Control Period) need to be charged to compensate the level of cross subsidy which will prevail during FY 2025-26 to FY 2029-30 (i.e., Fifth Control Period) and to avoid burden of the same on other consumers. Therefore, MSEDCL requests the Hon'ble Commission to approve the CSS for FY 2025-26 to FY 2029-30 as computed above.

11.2.7 MSEDCL submits that, while approving the CSS in Case No. 322 of 2019, Hon'ble Commission worked out the various components of CSS formulae based on the approved values for 4th Control Period and computed the consumer category-wise CSS in accordance with the Tariff Policy, 2016. The CSS computed in accordance with the NTP Formulae represents the current level of cross subsidy. However, Hon'ble Commission approved the CSS equal to 20% of ACoS in line with the provisions of Rule 13 as per MOP notified Electricity (Amendment) Rules, 2022. This results in the lower CSS applicable than current level of cross subsidy leading to incomplete recovery of Cross Subsidy from Open Access consumers.

11.2.8 MSEDCL submits that such revenue deficit due to lower CSS approved results in substantial delay in revenue realisation which comes only after true-up exercise and further tariff increase of MSEDCL consumers at large, despite not being at any fault. Thus, MSEDCL requests the Hon'ble Commission to review and determine the cross-subsidy surcharge considering the formula prescribed by the NTP 2016 without putting any ceiling.

12 ADDITIONAL SURCHARGE

12.1 Background

12.1.1 Section 42(4) of the Electricity Act, 2003, provides the following with respect to Additional Surcharge:

“Section 42.

(4).....

Where the State Commission permits a consumer or class of consumers to receive supply of electricity from a person other than the distribution licensee of his area of supply, such consumer shall be liable to pay an additional surcharge on the charges of wheeling, as may be specified by the State Commission, to meet the fixed cost of such distribution licensee arising out of his obligation to supply”.

12.1.2 Further, section 42(2) of the Electricity Act, 2003 exempts Captive Open Access customers from payment of Cross Subsidy Surcharge and Additional Surcharge.

“Section 42. (Duties of distribution licensee and open access):

(2)...

Provided also that such surcharge shall not be leviable in case open access is provided to a person who has established a captive generating plant for carrying the electricity to the destination of his own use.”

12.1.3 Regulation 14.8 of the Commission’s Distribution OA Regulations, 2016 outlines the principles for determination and levy of Additional Surcharge as below:

“14.8. Additional Surcharge

a. An Open Access Consumer receiving supply of electricity from a person other than the Distribution Licensee of his area of supply shall pay to the Distribution Licensee an Additional Surcharge on the charges of wheeling and Cross-Subsidy Surcharge to meet the fixed cost of such Distribution Licensee arising out of its obligation to supply, as provided in sub-section (4) of Section 42 of the Act.

b. The Additional Surcharge shall become applicable only when, due to the Open Access being granted or having been granted, the obligation of

the Distribution Licensee in terms of power purchase commitments has been and continues to be stranded, or there is an unavoidable obligation and incidence to bear fixed costs consequent to such commitments.

c. The Distribution Licensee shall submit to the Commission, with its Petitions under the Commission's Regulations governing Multi-Year Tariff, detailed computations of the fixed cost which it is incurring towards its obligation to supply, and the actual expenses incurred vis-à-vis those approved by the Commission.

d. The Commission shall determine the category-wise Additional Surcharge to be recovered by the Distribution Licensee from an Open Access Consumer, based on the following principles:

i. The cost must have been incurred by or be expected, with reasonable certainty, to be incurred by the Distribution Licensee on account of such Consumer; and

ii. The cost has not been or cannot be recovered from such Consumer, or from other Consumers who have been given supply from the same assets or facilities, through Wheeling Charges, stand-by charges or other charges approved by the Commission:

Provided that such Additional Surcharge shall be applicable to all Consumers who have availed Open Access to receive supply from a source other than the Distribution Licensee to which they are connected.

e. ...

f. ..."

12.1.4 Further, the amendment to the Distribution Open Access Regulation, 2023 states the following with respect to levy of Additional Surcharge for the Open Access customer:

"7 Amendment to Regulation 14 of the Principal Regulation "Provided also that additional surcharge shall not be applicable for Green Energy Open Access consumers, if fixed charges are being paid by such consumer."

12.1.5 Backing down of thermal generators due to variation in Open Access sales

- 12.1.5.1 It is submitted that the Section 43 of the Electricity Act 2003 casts Universal Service Obligation (USO) on MSEDCL. Accordingly, in order to cater the consumer demand, MSEDCL purchases power on long term basis from Mahagenco, NTPC under MOU route and from IPPs through competitive bidding process. The tariff for generation as per PPA/MoU comprises of two parts viz. Fixed Charge which is dependent on declared availability of generator and variable charge which is dependent on actual energy supplied.
- 12.1.5.2 MSEDCL submits that capacity addition was done by signing the PPAs with generating companies after due approval of Hon'ble Commission and based on estimated demand as per the projections published in 16th Electric Power Survey (EPS) published by CEA. However, there is a variation in projected and actual demand due to increase in Open Access.
- 12.1.5.3 To manage the surplus power, MSEDCL gives zero schedule/ backdown the high variable cost thermal generation as per Merit Order Despatch or sell in energy market depending upon market rates thereby reducing the burden of energy charges. However, whenever such surplus capacity remains available, MSEDCL has to pay fixed/capacity charges irrespective of the scheduling or non-scheduling of power from the units which declares its availability.
- 12.1.5.4 Further, whenever there is unavailability of generation due to the forced outage/coal shortage, there is requirement of additional power during certain blocks of the day, sometimes the duration of shortfall during the day is so small that to cater the demand for such small period, it is unviable to take a generation unit on bar to cater the demand for small period. In such cases, MSEDCL forecast the demand, availability and shortfall on day-ahead basis and procures power from Short Tern Markets such as Energy Exchanges.
- 12.1.5.5 Furthermore, considering the historical trend of demand, coal shortage scenario, trend of rates in Exchanges, etc. MSEDCL in advance plans and procures the power on short term through bilateral transactions on DEEP Portal.
- 12.1.5.6 In addition to this, MSEDCL also explores the option of optimization of power purchase cost by backing down of costly generation unit as per MoD and procuring the cheaper power available in Short Term Market/Exchange.

12.1.5.7 It is further submitted that MSEDCL has to pay Fixed Charges to the Generators as per the terms and conditions of the PPAs irrespective of utilization of generation capacity and thus the surplus capacity adds the fixed cost burden on MSEDCL.

12.1.5.8 Short term power is purchased for cost optimization or to meet demand during coal shortage scenario and hence, additional surcharge is justifiable & needs to be made applicable to all OA consumers.

12.2 Surcharge Computation

12.2.1 MSEDCL has implemented Intra State ABT in the state of Maharashtra since 1st August 2011 and SLDC / DISCOM are granting approvals / consent to open access consumers for purchase and sale of power through open access as per Open Access Regulations. Accordingly, open access consumers are now buying considerable quantum of power under open access and on the other hand MSEDCL has tied up sufficient quantum of power after approval of the Commission, so as to meet the expected demand by considering the overall growth in the State.

12.2.2 As a result, the generation capacity tied up by MSEDCL becomes excess. In this situation, MSEDCL needs to back down the generation and also has to pay Fixed Charges (or Capacity Charges) to the Generators as per the terms and conditions of the PPAs irrespective of utilization of generation capacity. The burden of fixed cost is affecting the viability and sustainability of operations of MSEDCL, which ultimately adversely affects the tariff of MSEDCL's common consumers.

12.2.3 Hence, to mitigate this, it was appropriate to determine the Additional Surcharge for OA consumers, as per Section 42 (4) of the EA, 2003. Hon'ble Commission in its Order dated 3rd November 2016 (Case No. 48/2016) had observed that there was a case for recovery of the part of fixed cost towards the stranded capacity arising from the power purchase obligation through levy of Additional Surcharge from OA consumers. Accordingly, Hon'ble Commission has determined the additional surcharge in its Previous Orders.

12.2.4 In line with the methodology adopted by Hon'ble Commission in the past, MSEDCL has computed the Additional Surcharge as per DOA Regulations.

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Table 256 Proposed Additional Surcharge for the Control Period FY 2025-26 to FY 2029-30

Particulars	Reference	Unit	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Step-1: Establishing contribution of OA to backing-down/stranded capacity							
OA volume for FY 2024-25 (Upto Sept-24)	(a)	MU	4,354	4,354.28	4354.28	4354.28	4354.28
Backing Down quantum for FY 2024-25 (Upto Sept-24)	(b)	MU	7,715	7,715.00	7715.00	7715.00	7715.00
Ratio to OA to Backed down for FY 2024-25 (Upto Sept-24)	(c)=(b)/(a)	%	56.4%	56.44%	56.44%	56.44%	56.44%
Step-2: Ascertaining Cost of Stranded Capacity							
Fixed Cost of Thermal Generating Sources for FY 2025-26	(d)	Rs. Crores	22,124	22469.01	24068.52	25582.49	28205.15
Total Available MU from Thermal Generating Stations for FY 2025-26	(e)	MUs	1,57,258	157258.13	157258.13	169171.73	177235.70
Wt. Avg. Per Unit FC of Thermal Generating Stations for FY 2025-26	(f)=(d)/(e) x10	Rs/kWh	1.41	1.43	1.53	1.51	1.59
Projected Open Access Volume for year for FY 2025-26	(h)	MUs	8,967	10230.51	11355.26	12381.37	13211.13
Fixed Cost pertaining to Backdown/RSD capacity for FY 2025-26	(i)=(f)*(h)/10	Rs. Crores	1,262	1461.73	1737.93	1872.34	2102.41
Step-3: Determination of Additional Surcharge							
Per Unit Additional Surcharge (to be applicable on OA Consumers)	j=(i)/(h)*10	Rs/Unit	1.41	1.43	1.53	1.51	1.59
Per Unit Additional Surcharge (to be applicable		Rs/kVAh	1.38	1.40	1.50	1.48	1.56

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Particulars	Reference	Unit	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
on OA Consumers)							

12.2.5 Taking into consideration the levy of Green Energy Open Access Regulations, 2023, which exempts Green Energy Open Access consumers paying Demand charges to pay Additional Surcharge, MSEDCL has not envisaged any income from Levy of Additional surcharge from the Green Energy Open Access customers in the Control Period. MSEDCL has envisaged the levy of such Additional surcharge only from the conventional IPP Open Access customers.

12.2.6 Summary of Additional Surcharge for the Control Period for FY 2025-26 to FY 2029-30 is provided in the table below:

Table 257 Summary of Additional Surcharge for the Control Period FY 2025-26 to FY 2029-30

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Proposed Additional Surcharge (Rs/unit)	1.41	1.43	1.53	1.51	1.59

12.2.7 MSEDCL requests the Hon'ble Commission to approve the Additional Surcharge for the Open Access customers as provided in the table.

13 PROPOSED TARIFF APPLICABILITY

13.1 Background

13.1.1 Every consumer of electricity has a unique applicability of tariff, depending upon the nature of power supply, purpose of power supply etc. which determines the class of consumer or category of the consumer.

13.1.2 The Hon'ble Commission has accordingly classified the consumers of electricity into various categories depending upon the nature of power supply i.e. (Low Tension or High Tension), purpose of power supply i.e., (Domestic, Non-domestic, Industrial, Agricultural, etc.)

13.1.3 In the recent past, it is observed that classification of a consumer into a particular category has resulted in litigation since applicability of a particular category of tariff is not available in exhaustive nature.

13.1.4 A comparison of the existing applicability as per the MTR Order dated 31st March, 2022 in case no. 226 of 2022 and proposed applicability of tariff for different categories of consumer is given in the following table.

13.1.5 It is submitted that it is very difficult to cover all the existing activities. However, this exercise of MSEC DL has attempted to cover majority of activities. The applicability given in this Petition is indicative and may not cover some of the activities. Such cases will be dealt by the respective field officer/ concerned authority of MSEDCL for the purpose of categorization based on the nature of usages.

13.2 Tariff Applicability

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Sr. No.	Tariff Category	Applicability as per MERC Order in Case No. 226 of 2022 dated 31st March 2022.	Proposed Applicability
LT Category			
	LT I (A): LT – Residential (BPL)	<p>Applicability:</p> <p>This Below Poverty Line (BPL) tariff category is applicable to Residential consumers who have a Sanctioned Load upto 0.25 kW and who have consumed upto 360 units per annum in the previous financial year. The eligibility of such consumers will be reassessed at the end of each financial year. If more than 360 units have been consumed in the previous financial year the LTI (B) - Residential tariff shall thereafter be applicable, and such consumer cannot revert thereafter to the BPL category irrespective of his future consumption level.</p> <p>The categorisation of BPL consumers will be reassessed at the end of the financial year on a pro rata basis if there has been consumption for only a part of the year. The categorisation of BPL consumers who have been added during the previous year would be assessed on a pro rata basis, i.e., 30 units per month.</p> <p>This BPL category will also be applicable to all new consumers subsequently added in any month with a Sanctioned Load of upto 0.25 kW and consumption between 1 to 30 units (on pro rata basis of 1 unit/day) in the first billing month.</p> <p>The BPL tariff is applicable only to individuals and not to institutions.</p>	<p>Applicability:</p> <p>This Below Poverty Line (BPL) tariff category is applicable to Residential consumers who have a Sanctioned Load upto 0.25 kW and who have consumed upto 360 units per annum in the previous financial year. The eligibility of such consumers will be reassessed at the end of each financial year-billing cycle for that financial year. If more than 360 units have been consumed in the previous financial year or till the last billing cycle in a particular financial year the LTI (B) - Residential tariff shall thereafter be applicable, and such consumer cannot revert thereafter to the BPL category irrespective of his future consumption level.</p> <p>The categorisation of BPL consumers will be reassessed at the end of the financial year on a pro rata basis if there has been consumption for only a part of the year. The categorisation of BPL consumers who have been added during the previous year would be assessed on a pro rata basis, i.e., 30 units per month.</p> <p>This BPL category will also be applicable to all new consumers subsequently added in any month with a Sanctioned Load of upto 0.25 kW and consumption between 1 to 30 units (on pro rata basis of 1 unit/day) in the first billing month.</p> <p>The BPL tariff is applicable only to individuals and not to institutions.</p>
	LT I (B): LT – Residential	<p>Applicability:</p> <p>is applicable for electricity used at Low/Medium Voltage for operating various appliances used for purposes such as lighting, heating, cooling, cooking, washing/cleaning, entertainment/leisure, water pumping in the following premises:</p> <p>a. Private residential premises, Government/semi-Government residential quarters; Private corporate bodies staff quarters / Hostels / Rest Houses.</p>	<p>Applicability:</p> <p>This tariff category is applicable for electricity used at Low/Medium Voltage for operating various appliances used for purposes such as lighting, heating, cooling, cooking, washing/cleaning, entertainment/leisure, water pumping in the following premises:</p> <p>a. Private residential premises, Government/semi-Government residential quarters; Private corporate bodies staff quarters / Hostels / Rest Houses. b. Premises used exclusively for</p>

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		<p>b. Premises used exclusively for worship, such as temples, gurudwaras, churches, mosques, etc.; provided that halls, gardens or any other part of such premises that may be let out for a consideration or used for commercial activities would be charged at the applicable LT-II tariff, unless specified in any other category;</p> <p>c. Government / Private / Co-operative Housing Societies / Colonies/complexes (where electricity is used exclusively for domestic purposes) only for common facilities such as Water Pumping / Street and other common area Lighting / Lifts /Parking Lots/ Fire-fighting Pumps and other equipment, etc.;</p> <p>d. Sports Clubs or facilities / Health Clubs or facilities / Gymnasium / Swimming Pool / Community Hall of Government / Private / Co-operative Housing Colonies/complexes - provided that they are situated in the same premises, and are for the exclusive use of the members and employees of such Housing Colonies/complexes;</p> <p>e. Telephone booths owned/operated by Persons with Disabilities/Handicapped persons;</p> <p>f. Residential premises used by professionals like Lawyers, Doctors, Engineers, Chartered Accountants, etc., in furtherance of their professional activities, but not including Nursing Homes and Surgical Wards or Hospitals;</p> <p>g. Single-phase household Flour Mills (Ghar-ghanti) used only for captive purposes;</p> <p>h. A residential LT consumer with consumption up to 500 units per month (current month of supply) who undertakes construction or renovation activity in his existing premises: such consumer shall not require a separate temporary connection, and would be billed at this Residential tariff rate;</p> <p>i. Home-stay facilities at tourist destinations and religious places.</p> <p>j. Consumers undertaking business or commercial / industrial / non-residential activities from a part of their residence, whose monthly consumption is up to 300 units a month and annual consumption in</p>	<p>worship, such as temples, gurudwaras, churches, mosques, etc.; provided that halls, gardens or any other part of such premises that may be let out for a consideration or used for commercial activities would be charged at the applicable LT-II tariff, unless specified in any other category;</p> <p>c. Government / Private / Co-operative Housing Societies / Colonies/complexes (where electricity is used exclusively for domestic purposes) only for common facilities such as Water Pumping / Street and other common area Lighting / Lifts /Parking Lots/ Fire-fighting Pumps and other equipment, etc.;</p> <p>d. Sports Clubs or facilities / Health Clubs or facilities / Gymnasium / Swimming Pool / Community Hall of Government / Private / Co-operative Housing Colonies/complexes - provided that they are situated in the same premises, and are for the exclusive use of the members and employees of such Housing Colonies/complexes;</p> <p>e. Stalls certified by Local Government owned/operated by Persons with Disabilities/Handicapped persons having UDID Card;</p> <p>f. Residential premises used by professionals like Teachers, Lawyers, Doctors, Engineers, Chartered Accountants, etc., in furtherance of their professional activities, but not including Offices, Nursing Homes and Surgical Wards or Hospitals;</p> <p>g. Single-phase household Flour Mills (Ghar-ghanti) used only for captive purposes without any display or advertise for commercial purpose;</p> <p>h. A residential LT consumer with consumption up to 500 units per month (current month of supply) who undertakes construction or renovation activity in his existing premises excluding redevelopment activity: such consumer shall not require a separate temporary connection, and would be billed at this Residential tariff rate;</p> <p>i. Home-stay facilities registered under MTDC Niwas Nyahari Yojana at tourist destinations and religious places.</p> <p>j. Consumers undertaking business or commercial / industrial / non-residential activities from a part of their residence, whose monthly</p>
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		<p>the previous financial year was up to 3600 units. The applicability of this tariff to such consumers will be assessed at the end of each financial year. In case consumption has exceeded 3600 units in the previous financial year, the consumer will thereafter not be eligible for the tariff under this category but be charged at the tariff otherwise applicable for such consumption, with prior intimation to him.</p> <p>k. Entities supplied electricity at a single point at Low/Medium Voltage for residential purposes, in accordance with the Electricity (Removal of Difficulties) Eighth Order, 2005, in the following cases:</p> <p>(i). a Co-operative Group Housing Society which owns the premises, for making electricity available to the members of such Society residing in the same premises for residential purposes; and (ii). a person, for making electricity available to its employees residing in the same premises for residential purposes.</p> <p>l. Crematoriums and Burial Grounds for all purposes, including area lighting, Electric Kiln, water pumps etc.</p> <p>m. Temporary purposes for public religious functions/ festivals like Ganesh Utsav, Navaratri, Eid, Moharrum, Ram Lila, Diwali, Christmas, Guru Nanak Jayanti, Gopalkala Utsav, Dashahara etc., and for areas where community prayers are held; and for functions to commemorate anniversaries of personalities and National or State events for which Public Holidays have been declared, such as Gandhi Jayanti, Ambedkar Jayanti, Chhatrapati Shivaji Jayanti, Republic Day, Independence Day, Maharashtra Day etc.</p> <p>Provided that such temporary connection shall be subjected to 1.5 times of fixed charges.</p> <p><i>Note: This tariff category shall also be applicable to consumers who are supplied power at High Voltage for any of the purpose above other than</i></p>	<p>consumption is up to 300 units a month and annual consumption in the previous financial year was up to 3600 units. The applicability of this tariff to such consumers will be assessed at the end of each financial year. In case consumption has exceeded 3600 units in the previous financial year, the consumer will thereafter not be eligible for the tariff under this category but be charged at the tariff otherwise applicable for such consumption, with prior intimation to him.</p> <p>k. Entities supplied electricity at a single point at Low/Medium Voltage for residential purposes, in accordance with the Electricity (Removal of Difficulties) Eighth Order, 2005, in the following cases:</p> <p>(i). a Co-operative Group Housing Society which owns the premises, for making electricity available to the members of such Society residing in the same premises for residential purposes; and (ii). a person, for making electricity available to its employees residing in the same premises for residential purposes.</p> <p>l. Crematoriums and Burial Grounds for all purposes, including area lighting, Electric Kiln, water pumps etc.</p> <p>m. Temporary purposes for public religious functions/ festivals like Ganesh Utsav, Navaratri, Eid, Moharrum, Ram Lila, Diwali, Christmas, Guru Nanak Jayanti, Gopalkala Utsav, Dashahara etc., and for areas where community prayers are held; and for functions to commemorate anniversaries of personalities and National or State events for which Public Holidays have been declared, such as Gandhi Jayanti, Ambedkar Jayanti, Chhatrapati Shivaji Maharaj Jayanti, Republic Day, Independence Day, Maharashtra Day etc.</p> <p>Provided that such temporary connection shall be subjected to 1.5 times of fixed charges.</p> <p><i>Note: This tariff category shall also be applicable to consumers who are supplied power at High Voltage for any of the purpose above other than</i></p>
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		<p><i>(i) and (j) above.</i></p> <p><i>Note:</i> An Additional Fixed Charge of Rs.200 per 10 kW load or part thereof above 10 kW load shall also be payable for FY 2023-24. This amount will increase to Rs. 205 per month per10 KW, in FY 2024-25.</p> <p>n. Professionals like Lawyers, Doctors, Professional Engineers, Chartered Accountants, etc., occupying premises exclusively for conducting their profession, shall not be eligible for this Tariff, and will be charged at the Tariff applicable to the respective categories.</p> <p>o. Additional Fixed Charge of Rs 10 per connection per month shall be applicable for LT-Domestic category consumers in Urban Divisions of MSEDCL.</p>	<p><i>(i) and (j) above.</i></p> <p><i>Note:</i> An Additional Fixed Charge of Rs.210 per 10 kW load or part thereof above 10 kW load shall also be payable for FY 2025-26. This amount will increase to Rs. 215, Rs. 220, Rs. 225, Rs. 230, per month per10 KW, in FY 2026-27, FY 2027-28, and FY 2028-29, FY 2029-30 respectively</p> <p>n. Professionals like Teachers, Lawyers, Doctors, Professional Engineers, Chartered Accountants, etc., occupying premises exclusively for conducting their profession, shall not be eligible for this Tariff, and will be charged at the Tariff applicable to the respective categories.</p> <p>o. Additional Fixed Charge of Rs 50 per connection per month shall be applicable for LT-Domestic category consumers in Urban Divisions of MSEDCL.</p>
	<p>LT II: LT Non-Residential or Commercial</p>	<p>Applicability:</p> <p>A). 0-20kW</p> <p>This tariff category is applicable for electricity used at Low/Medium voltage in non-residential, non-industrial and/or commercial premises for commercial consumption meant for operating various appliances used for purposes such as lighting, heating, cooling, cooking, entertainment/leisure and water pumping in, but not limited to, the following premises:</p> <p>a) Non-Residential, Commercial and Business premises, including Shopping Malls and Showrooms, Exhibition Centres; b) Warehouses / Godowns; c) Combined lighting and power supply for facilities relating to Entertainment, including film studios, cinemas and theatres (including multiplexes), Hospitality, Leisure, Meeting/Town Halls, and places of Recreation and Public Entertainment; Offices, including Commercial Establishments; Marriage Halls, Resorts, Hotels / Restaurants / Canteens / Cafeterias,</p>	<p>Applicability:</p> <p>A). 0-20kW</p> <p>This tariff category is applicable for electricity used at Low/Medium voltage in non-residential, non-industrial and/or commercial premises for commercial consumption meant for operating various appliances used for purposes such as lighting, heating, cooling, cooking, entertainment/leisure and water pumping in, but not limited to, the following premises:</p> <p>a) Non-Residential, Commercial and Business premises, including Shopping Malls and Showrooms, Exhibition Centres; b) Warehouses / Godowns; c) Combined lighting and power supply for facilities relating to Entertainment, including film studios, cinemas and theatres (including multiplexes), Hospitality, Leisure, Meeting/Town Halls, and places of Recreation and Public Entertainment; Offices, including Commercial Establishments; Marriage Halls, Resorts, Hotels / Restaurants / Canteens / Cafeterias, Ice-cream parlours, Coffee / Tea Shops, Guest</p>

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		<p>Ice-cream parlours, Coffee / Tea Shops, Guest Houses, Internet / Cyber Cafes, Telephone Booths not covered under the LT I category, and Fax / Photocopy shops; d) Automobile and all other types of repairs, servicing and maintenance centres (unless specifically covered under another tariff category); Retail Gas Filling, Petrol Pumps and Service Stations, including Garages; e) Toll Collection plazas including lightings on Express / National / State Highways,;</p> <p>f) Tailoring Shops, Computer Training Institutes, Private Training centres, Typing Institutes, Photo Laboratories, Beauty Parlours and Saloons, Mobile Shoppe's; g) Banks and ATM centres, Telephone Exchanges, TV Stations, Microwave Stations, Radio Stations; h) Common facilities, like Water Pumping / Lifts / Fire-Fighting Pumps and other equipment / Street and other common area lighting, etc., in Commercial Complexes; i) Sports Clubs facilities, Health Clubs facilities, Gymnasiums, Swimming Pools not covered under any other category;</p> <p>j) External illumination of monuments/ historical/ heritage buildings approved by Maharashtra Tourism Development Corporation (MTDC) or the concerned Local Authority; k) Construction of all types of structures/ infrastructures such as buildings, bridges, fly-overs, dams, Power Stations, roads, Aerodromes, tunnels for laying of pipelines for all purposes;</p> <p>Note: Residential LT consumers with consumption above 500 units per month (current month of supply) and who undertake construction or renovation activity in their existing premises shall not require a separate Temporary category connection, and shall be billed at the LT-II Commercial Tariff rate;</p> <p>a) Milk Collection Centres; Standalone milk refrigeration, storage centres; b) Sewage Treatment Plants/ Common Effluent Treatment Plants</p>	<p>Houses, Internet / Cyber Cafes, Telephone Booths not covered under the LT I category, and Fax / Photocopy shops; d) Automobile and all other types of repairs, servicing and maintenance centres (unless specifically covered under another tariff category); Retail Gas Filling, Petrol Pumps and Service Stations, including Garages; e) Toll Collection plazas ,;</p> <p>f) Tailoring Shops, Computer Training Institutes, Private Training centres, Typing Institutes, Photo Laboratories, Beauty Parlours and Saloons, Mobile Shoppe's; g) Banks and ATM centres, Telephone Exchanges, TV Stations, Microwave Stations, Radio Stations; h) Common facilities, like Water Pumping / Lifts / Fire-Fighting Pumps and other equipment / Street and other common area lighting, etc., in Commercial Complexes; i) Sports Clubs facilities, Health Clubs facilities, Gymnasiums, Swimming Pools not covered under any other category;</p> <p>j) External illumination of monuments/ historical/ heritage buildings approved by Maharashtra Tourism Development Corporation (MTDC) or the concerned Local Authority; k) Construction of all types of structures/ infrastructures such as buildings, bridges, fly-overs, dams, Power Stations, roads, Aerodromes, tunnels, laying of pipelines for all purposes;</p> <p>Note: Residential LT consumers with consumption above 500 units per month (current month of supply) and who undertake construction or renovation activity in their existing premises shall not require a separate Temporary category connection, and shall be billed at the LT-II Commercial Tariff rate;</p> <p>a) Milk Collection Centres and/or Standalone milk refrigeration for sale; storage centres operated by private entity; All milk collection centres and stand alone chilling plants operated by local govt bodies will be billed at industrial tariff b) Sewage Treatment Plants/ Common Effluent Treatment Plants</p>
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		<p>for Commercial Complexes not covered under the LT – Public Water Works or LT – Industry categories;</p> <p>c) Advertisements, hoardings (including hoardings fixed on lamp posts/installed along roadsides), and other commercial illumination such as external flood-lights, displays, neon signs at departmental stores, malls, multiplexes, theatres, clubs, hotels and other such establishments.</p> <p>d) Temporary supply for any of the activity not covered under Residential category.</p> <p>Provided that Temporary supply consumer shall pay 1.5 time applicable fixed/demand charges and 1.25-time applicable energy charge.</p> <p>Provided further that temporary supply for operating Fire-Fighting pumps and equipment in residential or other premises shall be charged as per the Tariff category applicable to such premises.</p> <p>B. 20 kW and ≤ 50 kW and (C) > 50 kW</p> <p>Applicability:</p> <p>As per the applicability described in LT II (A) and for the Sanctioned Load in the range applicable in this sub- category, i.e., LT II (B) and LT II (C).</p> <p><i>Note: The ToD tariff is applicable to the LT-II (B) and (C) categories, and optionally available to LT- II (A) category consumers having ToD meter installed.</i></p>	<p>for Commercial Complexes. Not covered under the LT – Public Water Works or LT – Industry categories;</p> <p>c) Advertisements, hoardings (including hoardings fixed on lamp posts/installed along roadsides), and other commercial illumination such as external flood-lights, displays, neon signs at departmental stores, malls, multiplexes, theatres, clubs, hotels and other such establishments.</p> <p>d) Temporary supply for any of the activity not covered under Residential category.</p> <p>Provided that Temporary supply consumer shall pay 1.5 time applicable fixed/demand charges and 1.25-time applicable energy charge.</p> <p>Provided further that temporary supply for operating Fire-Fighting pumps and equipment in residential or other premises shall be charged as per the Tariff category applicable to such premises.</p> <p>B. 20 kW and ≤ 50 kW and (C) > 50 kW</p> <p>Applicability:</p> <p>As per the applicability described in LT II (A) and for the Sanctioned Load in the range applicable in this sub-category, i.e., LT II (B) and LT II (C).</p> <p><i>Note: The ToD tariff is applicable to the LT-II (B) and (C) categories, and optionally available to LT- II (A) category consumers having ToD meter installed.</i></p> <p><i>All Consumers with load above 10 KW will be billed with TOD tariff.</i></p>
	<p>LT III: LT-Public Water Works (PWW) and Sewage Treatment Plants</p>	<p>Applicability:</p> <p>This tariff category is applicable for electricity / power supply at Low / Medium Voltage for pumping of water, purification of water and allied activities relating to Public Water Supply Schemes, Sewage Treatment Plants and Waste Processing Units, provided they are owned or operated or managed by Local Self-Government Bodies (GramPanchayats, Panchayat Samitis, Zilla Parishads, Municipal Councils and Corporations, etc.), or</p>	<p>Applicability:</p> <p>This tariff category is applicable for electricity / power supply at Low / Medium Voltage for pumping of water, purification of water and allied activities relating to Public Water Supply Schemes, Sewage Treatment Plants and Waste Processing Units, provided they are either owned/operated/managed or operated by designated operator appointed by Local Self-Government Bodies (GramPanchayats, Panchayat Samitis, Zilla Parishads, Municipal</p>

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		<p>by Maharashtra Jeevan Pradhikaran (MJP), Maharashtra Industries Development Corporation (MIDC), CIDCO, Cantonment Boards, Housing Societies/complexes (including operated by developers in integrated township projects), Water ATM (RO/UV/UF) Water Purifier Plants which are operated by Gram panchayat / local body or women's self-help groups.</p> <p>All other Public Water Supply Schemes and Sewage Treatment Plants (including allied activities) shall be billed under the LT II or LT V category tariff, as the case may be.</p>	<p>Councils and Corporations, etc.), or by Maharashtra Jeevan Pradhikaran (MJP), Maharashtra Industries Development Corporation (MIDC), CIDCO, Cantonment Boards, Housing Societies/complexes operated by developers in integrated township projects,-Water ATM (RO/UV/UF) Water Purifier Plants which are operated by Gram panchayat / local body or women's self-help groups. Pumping of water from remote location for drinking purpose for religious purposes to temples, gurudwaras, churches, mosques;</p> <p>All other Public Water Supply Schemes and Sewage Treatment Plants (including allied activities) shall be billed under the LT II or LT V respective tariff category tariff, as the case may be.</p>
	LT IV: Agriculture		
	LT IV (A): LT - Agriculture Un-metered - Pumpsets	<p>Applicability:</p> <p>This tariff category is applicable for motive power supplied for Agriculture un-metered pumping loads, and for one lamp of wattage up to 40 Watt to be connected to the motive power circuit for use in pump-houses at Low/Medium Voltage</p> <p>Note:</p> <p>i. The Flat Rate Tariff as above will remain in force only till meters are installed; once meter is installed, the consumer will be billed as per the Tariff applicable to metered agricultural consumers.</p> <p>ii. The list of Category 1 Zones (with consumption norm above 1318 hours/ HP/year) and Category 2 Zones (with consumption norm below 1318 hours/HP/year) is given above.</p> <p>iii. Supply under this Tariff will be given for a minimum load of 2 HP. If any consumer requires any load less than 2 HP for agricultural purposes, he shall be required to pay the Fixed Charge/Energy Charge on this basis as if a load of 2 HP is connected.</p>	<p>Applicability:</p> <p>This tariff category is applicable for motive power supplied for Agriculture un-metered pumping loads, and for one lamp of wattage up to 40 Watt to be connected to the motive power circuit for use in pump-houses at Low/Medium Voltage</p> <p>Note:</p> <p>i. The Flat Rate Tariff as above will remain in force only till meters are installed; once meter is installed, the consumer will be billed as per the Tariff applicable to metered agricultural consumers.</p> <p>ii. The list of Category 1 Zones (with consumption norm above 1318 hours/ HP/year) and Category 2 Zones (with consumption norm below 1318 hours/HP/year) is given above.</p> <p>iii. Supply under this Tariff will be given for a minimum load of 2 HP. If any consumer requires any load less than 2 HP for agricultural purposes, he shall be required to pay the Fixed Charge/Energy Charge on this basis as if a load of 2 HP is connected.</p>
	LT IV (B): LT – Agriculture	Applicability:	Applicability:

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	metered - Pumpsets	<p>This tariff category is applicable for motive power supplied for Agriculture metered pumping loads for irrigation purposes, and for one lamp of wattage up to 40 Watt to be connected to the motive power circuit for use in pump-houses at Low/Medium Voltage.</p> <p>This tariff is also applicable for floriculture, horticulture, nursery and plantation.</p> <p>It is also applicable for power supply for cane crushers and/or fodder cutters for self-use for agricultural processing operations, but not for operating a flour mill, oil mill or expeller in the same premises, either operated by a separate motor or a change of belt drive.</p> <p>This Tariff is also applicable to Feeder Input based Group Metering wherein Input recorded on 11/22 kV Feeder minus Technical Loss of that particular feeder is billed to the consumers connected on that Feeder in proportionate to the sanctioned load of pump.</p>	<p>This tariff category is applicable for motive power supplied for Agriculture metered pumping loads for irrigation purposes, and for one lamp of wattage up to 40 Watt to be connected to the motive power circuit for use in pump-houses at Low/Medium Voltage.</p> <p>This tariff is also applicable for floriculture, horticulture, nursery and plantation.</p> <p>It is also applicable for power supply for cane crushers and/or fodder cutters for self-use for agricultural processing operations, but not for operating a flour mill, oil mill or expeller in the same premises, either operated by a separate motor or a change of belt drive.</p> <p>This Tariff is also applicable to Feeder Input based Group Metering wherein Input recorded on 11/22 kV Feeder minus Technical Loss of that particular feeder is billed to the consumers connected on that Feeder in proportionate to the sanctioned load of pump.</p>
	LT IV (C): LT–Agriculture – Others	<p>Applicability:</p> <p>This tariff category is applicable for use of electricity / power supply at Low / Medium Voltage for:</p> <p>a. Pre-cooling plants and cold storage units for Agricultural Products as defined under APMC Act, 1963 – processed or otherwise;</p> <p>b. Poultries exclusively undertaking layer and broiler activities, including Hatcheries;</p> <p>c. High-Technology Agriculture (i.e. Tissue Culture, Green House, Mushroom cultivation activities Banana Ripening), provided the power supply is exclusively utilized for purposes directly concerned with the crop cultivation process, and not for any engineering or industrial process;</p> <p>d. Aquaculture, Sericulture, Cattle Breeding Farms, etc;</p> <p>e. Tabela, which involves no associated industrial/commercial</p>	<p>Applicability:</p> <p>This tariff category is applicable for use of electricity / power supply at Low / Medium Voltage for:</p> <p>a. Pre-cooling plants and cold storage units for Agricultural Products as defined under APMC Act, 1963 – processed or otherwise;</p> <p>b. Poultries exclusively undertaking layer and broiler activities, including Hatcheries;</p> <p>c. High-Technology Agriculture (i.e. Tissue Culture, Green House, Mushroom cultivation activities Banana Ripening), provided the power supply is exclusively utilized for purposes directly concerned with the crop cultivation process, and not for any engineering or industrial process;</p> <p>d. Aquaculture, Sericulture, Cattle Breeding Farms, Livestock Farming, Indoor Vertical Farming etc;</p> <p>e. Tabela, which does not involves no</p>

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		activity of sales counter, milk processing or Dairy/Chilling plant.	associated industrial/commercial activity of sales counter, milk processing or Dairy/Chilling plant.
	LT V: LT- Industry:	<p>Applicability:</p> <p>This tariff category is applicable for electricity for Industrial use, at Low/Medium Voltage, for purposes of manufacturing and processing, including electricity used within such premises for general lighting, heating/cooling, etc.</p> <p>It is also applicable for use of electricity / power supply for Administrative Offices / Canteens, Recreation Hall / Sports Club or facilities / Health Club or facilities/ Gymnasium / Swimming Pool exclusively meant for employees of the industry; lifts, water pumps, fire-fighting pumps and equipment, street and common area lighting; Research and Development units etc.</p> <p>Provided that all such facilities are situated within the same industrial premises and supplied power from the same point of supply;</p> <p>This tariff category shall also be applicable for use of electricity / power supply by an Information Technology (IT) or IT-enabled Services (ITeS) Unit as defined in the applicable IT/ITeS Policy of Government of Maharashtra.</p> <p>This Tariff Category shall be also applicable to integrated logistics parks under Government of Maharashtra Policy, 2018.</p> <p>It shall also be applicable for use of electricity / power supply for (but not limited to) the following purposes:</p> <p>a. Flour Mill, Dal Mill, Rice Mill, Poha Mill, Masala Mill, Saw Mill, Cattle / Poultry Feed Manufacturing plants;</p> <p>b. Ice Factory, Ice-cream</p>	<p>Applicability:</p> <p>This tariff category is applicable for electricity for Industrial use, at Low/Medium Voltage, for purposes of manufacturing and processing, including electricity used within such premises for general lighting, heating/cooling, Research & Development, manufacturing, Processing, Melting, Blending, Mixing, Refining, Printing, Product Testing, Packing, etc.</p> <p>It is also applicable for use of electricity / power supply for Administrative Offices / Canteens, Recreation Hall / Sports Club or facilities / Health Club or facilities/ Gymnasium / Swimming Pool exclusively meant for employees of the industry; lifts, water pumps, fire-fighting pumps and equipment, street and common area lighting; Research and Development units, Testing Laboratories exclusively utilized for self use etc.</p> <p>Provided that all such facilities are situated within the same industrial premises and supplied power from the same point of supply and exclusively utilized for self use;</p> <p>This tariff category shall also be applicable for use of electricity / power supply by an Information Technology (IT) or IT-enabled Services (ITeS) Unit as defined in the applicable IT/ITeS Policy of Government of Maharashtra.</p> <p>This Tariff Category shall be also applicable to the Independent / Standalone units providing Logistics services including Common Facilities but excluding Business and Commercial Facilities situated in integrated logistics parks under Government of Maharashtra Policy, 2018.</p> <p>It shall also be applicable for use of electricity / power supply for (but not limited to) the following purposes:</p> <p>a. Flour Mill, Dal Mill, Rice Mill, Poha</p>

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		<p>manufacturing units, Milk Processing and Chilling Plants (Dairy);</p> <p>c. Engineering Workshops, Engineering Goods Manufacturing units; Printing Presses; Transformer Repair Workshops; Tyre Remoulding/Rethreading units; and Vulcanizing units, Rubber product manufacturing, Packaging material manufacturing,</p> <p>d. Ordinance / Ammunition Factories of Defence Establishments;</p> <p>e. Mining, Quarrying and Stone Crushing units;</p> <p>f. Garment Manufacturing units;</p> <p>g. Soap and cosmetics, Deodorant manufacturing, etc.</p> <p>h. LPG/CNG bottling plants and associated retail gas filling stations;</p> <p>i. Sewage Treatment Plant/ Common Effluent Treatment Plant for industries, and not covered under the LT – Public Water Works category;</p> <p>j. Start-up power for Generating Plants, i.e. the power required for trial run of a Power Plant during commissioning of the Unit and its Auxiliaries, and for its start-up after planned or forced outage (but not for construction);</p> <p>k. Brick Kiln (Bhatti), Biomass Pellet;</p> <p>l. Biotechnology Industries covered under the Biotechnology Policy of Government of Maharashtra;</p> <p>m. Cold Storages not covered under LT IV (C) – Agriculture (Others), Packaged Drinking water plant;</p> <p>n. Food (including seafood and meat) Processing units, Khandsari / Jaggery Manufacturing Units;</p> <p>o. Stand-alone Research and Development units;</p> <p>p. Telecommunications Towers and associated telecom infrastructure but does not cover offices/outlets etc.</p> <p>q. Powerlooms including other allied activities like, Warping, Doubling, Twisting, etc., connected at Low/Medium Tension only.</p> <p>r. Auxiliary Power Supply to EHV/Distribution Substations (but not for construction)</p> <p>s. Ready-mix Concrete or hot mix plants.</p> <p>t. Dhobi/Laundry activities</p> <p><i>Note:</i></p>	<p>Mill, Masala Mill, Saw Mill, Cattle / Poultry Feed Manufacturing plants;</p> <p>b. Ice Factory, Ice-cream manufacturing units, Milk Processing and or Chilling Plants (Dairy);</p> <p>c. Engineering Workshops, Engineering Goods Manufacturing units; Printing Presses; Transformer Repair Workshops; Tyre Remoulding / Rethreading units; and Vulcanizing units, Rubber product manufacturing, Packaging material manufacturing,</p> <p>d. Ordinance / Ammunition Factories of Defense Establishments;</p> <p>e. Mining, Quarrying and Stone Crushing units;</p> <p>f. Garment Manufacturing units;</p> <p>g. Soap and cosmetics, Deodorant manufacturing, etc.</p> <p>h. LPG/CNG bottling plants and associated retail gas filling stations;</p> <p>Bulk Fuel Blending Units</p> <p>i. Sewage Treatment Plant/ Common Effluent Treatment Plant for industries, and not covered under the LT – Public Water Works category;</p> <p>j. Start-up power for Generating Plants, i.e. the power required for trial run of a Power Plant during commissioning of the Unit and its Auxiliaries, and for its start-up after planned or forced outage (but not for construction);</p> <p>k. Brick Kiln (Bhatti), Biomass Pellet;</p> <p>l. Biotechnology Industries covered under the Biotechnology Policy of Government of India and Government of Maharashtra;</p> <p>m. Cold Storages not covered under LT IV (C) – Agriculture (Others), Packaged Drinking water plant;</p> <p>n. Food (including seafood and meat) Processing units, Khandsari / Jaggery Manufacturing Units;</p> <p>o. Stand-alone Research and Development units;</p> <p>p. Telecommunications Towers and associated telecom infrastructure but does not cover offices/outlets etc.</p> <p>q. Powerlooms including other allied activities like, Warping, Doubling, Twisting, etc., connected at Low/Medium Tension only.</p> <p>r. Auxiliary Power Supply to EHV/Distribution Substations (but not for construction)</p> <p>s. Ready-mix Concrete or hot mix plants.</p> <p>t. Dhobi/Laundry activities</p> <p><i>Note:</i></p>
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		<p><i>The ToD Tariff is compulsorily applicable for LT V (ii) (i.e., above 20 kW), and optionally available to LT- V (i) (i.e., up to 20 kW) having ToD meter installed.</i></p> <p><i>*Lower tariff (discount/rebate) of (2.5%) shall be available in Energy Charge Component (including FAC, if applicable) of Tariff for both slabs (<20 kW and > 20 kW) for LT – Industry (Powerloom) as against approved Energy Charge Component of Tariff applicable for respective slabs under LT-Industry.</i></p>	<p><i>The ToD Tariff is compulsorily applicable for LT V (ii) (i.e., above 20 kW), and optionally available to LT- V (i) (i.e., up to 20 kW) having ToD meter installed.</i></p> <p><i>*Lower tariff (discount/rebate) of (2.5%) shall be available in Energy Charge Component (including FAC, if applicable) of Tariff for both slabs (<20 kW and > 20 kW) for LT – Industry (Powerloom) as against approved Energy Charge Component of Tariff applicable for respective slabs under LT-Industry.</i></p>
	LT VI: LT -Street Light	<p>Applicability:</p> <p>This tariff category is applicable for the electricity used for lighting of public streets/ thoroughfares which are open for use by the general public, at Low / Medium Voltage, and at High Voltage.</p> <p>Street-lights in residential complexes, commercial complexes, industrial premises, etc. will be billed at the tariff of the respective applicable categories.</p> <p>This category is also applicable for use of electricity / power supply at Low / Medium Voltage or at High Voltage for (but not limited to) the following purposes, irrespective of who owns, operates or maintains these facilities:</p> <p>a. Lighting in Public Gardens (i.e. which are open to the general public free of charge); b. Traffic Signals and Traffic Islands; c. Public Water Fountains; and d. Such other public places open to the general public free of charge.</p> <p>Note:</p> <p><i>The above street and other lighting facilities having Non-Automatic/manual operation and 'Automatic Timers' for switching On/Off would be levied Demand Charges on the higher of the following–</i></p> <p>i) Actual 'Recorded Demand' or</p>	<p>Applicability:</p> <p>This tariff category is applicable for the electricity used for lighting of public streets/ thoroughfares which are open for use by the general public, at Low / Medium Voltage, and at High Voltage.</p> <p>Street-lights in residential complexes, commercial complexes, industrial premises, etc. will be billed at the tariff of the respective applicable categories.</p> <p>This category is also applicable for use of electricity / power supply at Low / Medium Voltage or at High Voltage for (but not limited to) the following purposes, irrespective of who owns, operates or maintains these facilities:</p> <p>a. Lighting in Public Gardens (i.e. which are open to the general public free of charge); b. Traffic Signals and Traffic Islands; c. Public Water Fountains; and d. Such other public places open to the general public free of charge.</p> <p>e. Street lights on National Highway</p> <p>Note:</p> <p><i>The above street and other lighting facilities having Non-Automatic/manual operation and 'Automatic Timers' for switching On/Off would be levied Demand Charges on the higher of the following–</i></p> <p>i) Actual 'Recorded Demand' or</p>

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		<i>ii) 50 percent of 'Contract Demand'</i>	<i>ii) 50 percent of 'Contract Demand'</i>
	LT VII: LT-Public Services		
	LT VII (A): LT Government Educational Institutions and Hospitals	<p>Applicability:</p> <p>This tariff category is applicable for electricity supply at Low/Medium Voltage for Educational Institutions, such as Schools and Colleges; Health Care facilities, such as Hospitals, Dispensaries, Clinics, Primary Health Care Centres, Diagnostic Centres, Blood Bank and Pathology Laboratories; Libraries and public reading rooms - of the State or Central Government or Local Self-Government bodies such as Municipalities, Zilla Parishads, Panchayat Samitis, Gram Panchayats, etc;</p> <p>It shall also be applicable for electricity used for Hostels/ Sports Clubs and facilities / Health Clubs and facilities / Gymnasium / Swimming Pools attached to such Educational Institutions / Hospitals, provided that they are situated in the same premises and are meant primarily for their students / faculty/ employees/ patients.</p> <p>This Tariff is also applicable for electricity supply at Public Sanitary Conveniences;</p> <p><i>Note:</i></p> <p><i>The ToD Tariff is applicable for LT-VII (A) (ii) and LT-VII (A) (iii) (i.e., above 20 kW) and optionally available to LT- VII (A) (i) (i.e., up to 20 kW) having ToD meter installed.</i></p>	<p>Applicability:</p> <p>This tariff category is applicable for electricity supply at Low/Medium Voltage for Educational Institutions, such as Schools and Colleges; Health Care facilities, such as Hospitals, Dispensaries, Clinics, Primary Health Care Centres, Diagnostic Centres, Blood Bank and Pathology Laboratories; Libraries and public reading rooms - of the State or Central Government or Local Self-Government bodies such as Municipalities, Zilla Parishads, Panchayat Samitis, Gram Panchayats, and owned and operated by charitable trust etc;</p> <p>It shall also be applicable for electricity used for Hostels/ Sports Clubs and facilities / Health Clubs and facilities / Gymnasium / Swimming Pools attached to such Educational Institutions / Hospitals, provided that they are situated in the same premises and are meant primarily for their students / faculty/ employees/ patients.</p> <p>This Tariff is also applicable for electricity supply at Public Sanitary Conveniences;</p> <p><i>Note:</i></p> <p><i>The ToD Tariff is applicable for LT-VII (A) (ii) and LT-VII (A) (iii) (i.e., above 20 kW) and optionally available to LT-VII (A) (i) (i.e., up to 20 kW) having ToD meter installed.</i></p>
	LT VII (B): LT - Public Services – Others	<p>Applicability:</p> <p>This tariff category is applicable for electricity supply at Low/Medium Voltage for:</p> <p>a. Educational Institutions, such as Schools and Colleges; Health Care facilities, such as Hospitals, Dispensaries, Clinics, Primary Health Care Centres, Diagnostic Centres, Blood Banks, Laboratories; Libraries and public reading rooms - other than those of the State or Central Government or Local Self-Government bodies such as Municipalities, Zilla Parishads, Panchayat Samitis, Gram</p>	<p>Applicability:</p> <p>This tariff category is applicable for electricity supply at Low/Medium Voltage for:</p> <p>a. Educational Institutions, such as Schools and Colleges; Health Care facilities, such as Hospitals, Dispensaries, Clinics, Primary Health Care Centres, Diagnostic Centres, Blood Banks, Laboratories; Libraries and public reading rooms - other than those of the State or Central Government or Local Self-Government bodies such as Municipalities, Zilla Parishads, Panchayat Samitis, Gram</p>

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		<p>Panchayats, etc.</p> <p>b. Sports Clubs and facilities / Health Clubs and facilities / Gymnasium / Swimming Pools attached to such Educational Institutions /Health Care facilities, provided that they are situated in the same premises and are meant primarily for their students / faculty/ employees/ patients;</p> <p>c. All offices of Government and Municipal/ Local Authorities/ Local Self-Government bodies, such as Municipalities, Zilla Parishads, Panchayat Samitis, Gram Panchayats; Police Stations and Police Chowkies; Post Offices; Armed Forces/Defense and Para-Military establishments;</p> <p>d. Service-oriented Spiritual Organisations;</p> <p>e. Accommodation facilities provided by religious trusts registered under Maharashtra Public Trust Act for devotees.</p> <p>f. State or Municipal/Local Authority Transport establishments, including their Workshops</p> <p>g. Fire Service Stations; Jails, Prisons; Courts;</p> <p>h. Airports;</p> <p>i. Ports, Jetties and provision for Shore Power Supply;</p> <p>j. Railway/Metro/Monorail Stations, including Shops, Workshops, Yards, etc, if the supply is at Low/ Medium Voltage.</p> <p>k. Waste processing units and water ATM not covered under LT PWW category</p> <p>l. All Students Hostels affiliated to Educational Institutions not covered under LT Public Service - Government;</p> <p>m. All other Students' or Working Men/Women's Hostels;</p> <p>n. Other types of Homes/Hostels, such as (i) Homes/Hostels for Destitutes, Disabled Persons</p>	<p>Panchayats, etc.</p> <p>b. Sports Clubs and facilities / Health Clubs and facilities / Gymnasium / Swimming Pools attached to such Educational Institutions /Health Care facilities, provided that they are situated in the same premises and are meant primarily for their students / faculty/ employees/ patients;</p> <p>c. All offices of Government and Municipal/ Local Authorities/ Local Self-Government bodies, such as Municipalities, Zilla Parishads, Panchayat Samitis, Gram Panchayats; Police Stations and Police Chowkies; Post Offices; Armed Forces/Defense and Para-Military establishments;</p> <p>d. Service-oriented Spiritual Organisations;</p> <p>e. Accommodation facilities provided by religious trusts registered under Maharashtra Public Trust Act for devotees.</p> <p>f. State or Municipal/Local Authority Transport establishments, including their Workshops</p> <p>g. Fire Service Stations; Jails, Prisons; Courts;</p> <p>h. Airports;</p> <p>i. Ports, Jetties and provision for Shore Power Supply;</p> <p>j. Railway/Metro/Monorail Stations, including Shops, Workshops, Yards, etc, if the supply is at Low/ Medium Voltage.</p> <p>k. Waste processing units and water ATM not covered under LT PWW category</p> <p>l. All Students Hostels affiliated to Educational Institutions not covered under LT Public Service - Government;</p> <p>m. All other Students' or Working Men/Women's Hostels;</p> <p>n. Other types of Homes/Hostels, such as (i) Homes/Hostels for Destitutes, Disabled Persons (physically or mentally handicapped)</p>
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		<p>(physically or mentally handicapped persons, etc.) and mentally ill persons (ii) Remand Homes (iii) Dharamshalas, (iv) Rescue Homes, (v) Orphanages - subject to verification and confirmation by the Distribution Licensee's concerned Zonal Chief Engineer or equivalent;</p> <p>o. Dam operation including Lighting and other activities, etc.</p> <p><i>Note:</i></p> <p><i>The ToD Tariff is applicable for LT-VII (B) (ii) and LT-VII (B) (iii) (i.e., above 20 kW) and optionally available to LT- VII (B) (i) (i.e., up to 20 kW) having ToD meter installed.</i></p>	<p>persons, etc.) and mentally ill persons (ii) Remand Homes (iii) Dharamshalas, (iv) Rescue Homes, (v) Orphanages - subject to verification and confirmation by the Distribution Licensee's concerned Zonal Chief Engineer or equivalent;</p> <p>o. Dam operation including Lighting and other activities, etc.</p> <p>p. Independent Pay and Parks</p> <p>q. Border Check Posts <i>excluding commercial activities. Other activities to be billed as per relevant tariff category</i></p> <p><i>Note:</i></p> <p><i>The ToD Tariff is applicable for LT-VII (B) (ii) and LT-VII (B) (iii) (i.e., above 20 kW) and optionally available to LT-VII (B) (i) (i.e., up to 20 kW) having ToD meter installed.</i></p>
	LT VIII: LT – Electric Vehicle (EV) Charging Stations	<p>Applicability:</p> <p>This Tariff category is applicable for Electric Vehicle Charging Station including battery swapping station for electric vehicle.</p> <p>In case the consumers uses the electricity supply for charging their own electric vehicle at their premises, the tariff applicable shall be as per the category of such premises. Consumers may take separate connection under this category for charging of their EVs.</p> <p>Electricity consumption for other facilities at Charging Station such as restaurants, rest rooms, convenience stores, etc., shall be charged at tariff applicable to Commercial Category.</p>	<p>Applicability:</p> <p>This Tariff category is applicable for Electric Vehicle Charging Station including battery swapping station for electric vehicle.</p> <p>In case the consumers uses the electricity supply for charging their own electric vehicle at their premises, the tariff applicable shall be as per the category of such premises. Consumers may take separate connection under this category for charging of their EVs.</p> <p>Electricity consumption for other facilities at Charging Station such as restaurants, rest rooms, convenience stores, etc., shall be charged at tariff applicable to Commercial Category.</p>
	HT Category		
	HT I (A): Industry – General	<p>Applicability:</p> <p>This tariff category is applicable for electricity for Industrial use at High Voltage for purposes of manufacturing and processing, including electricity used within such premises for general lighting, heating/cooling, etc.</p> <p>It is also applicable for use of electricity / power supply for Administrative Offices / Canteen,</p>	<p>Applicability:</p> <p>This tariff category is applicable for electricity for Industrial use at High Voltage for purposes of manufacturing and processing, including electricity used within such premises for general lighting, heating/cooling, Research & Development, manufacturing, Processing, Melting, Blending, Mixing, Refining, Printing, Product Testing, Packing, etc.</p>

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		<p>Recreation Hall / Sports Club or facilities / Health Club or facilities/ Gymnasium / Swimming Pool exclusively meant for employees of the industry; lifts, water pumps, fire-fighting pumps and equipment, street and common area lighting; Research and Development units, etc. –</p> <p>Provided that all such facilities are situated within the same industrial premises and supplied power from the same point of supply.</p> <p>This tariff category shall be applicable for use of electricity / power supply by an Information Technology (IT) or IT-enabled Services (ITeS) Unit as defined in the applicable IT/ITeS Policy of Government of Maharashtra.</p> <p>This Tariff Category shall be also applicable to integrated logistics parks under Government of Maharashtra Policy, 2018.</p> <p>It shall also be applicable for use of electricity / power supply for (but not limited to) the following purposes:</p> <p>a. Dhobi and Laundry activities b. Flour Mills, Dal Mills, Rice Mills, Poha Mills, Masala Mills, Saw Mills, Cattle / Poultry Feed Manufacturing plants; c. Ice Factories, Ice-cream manufacturing units, Milk Processing and Chilling Plants (Dairy); d. Engineering Workshops, Engineering Goods manufacturing units; Printing Presses; Transformer Repair Workshops; Tyre Remolding/Rethreading units, and Vulcanizing units, Rubber product manufacturing, Packaging material manufacturing, e. Ordnance / Ammunition Factories of Defense Establishments; f. Mining, Quarrying and Stone Crushing units; g. Garment Manufacturing units h. Soap and cosmetics, Deodorant manufacturing, etc. i. LPG/CNG bottling plants and</p>	<p>.</p> <p>It is also applicable for use of electricity / power supply for Administrative Offices / Canteen, Recreation Hall / Sports Club or facilities / Health Club or facilities/ Gymnasium / Swimming Pool exclusively meant for employees of the industry; lifts, water pumps, fire-fighting pumps and equipment, street and common area lighting; Research and Development units, etc. –</p> <p>Provided that all such facilities are situated within the same industrial premises and supplied power from the same point of supply.</p> <p>This tariff category shall be applicable for use of electricity / power supply by an Information Technology (IT) or IT-enabled Services (ITeS) Unit as defined in the applicable IT/ITeS Policy of Government of Maharashtra.</p> <p>This Tariff Category shall be also applicable to the Independent / Standalone units providing Logistics services including Common Facilities but excluding Business and Commercial Facilities situated in integrated logistics parks under Government of Maharashtra Policy, 2018.</p> <p>It shall also be applicable for use of electricity / power supply for (but not limited to) the following purposes:</p> <p>a. Dhobi and Laundry activities b. Flour Mills, Dal Mills, Rice Mills, Poha Mills, Masala Mills, Saw Mills, Cattle / Poultry Feed Manufacturing plants; c. Ice Factories, Ice-cream manufacturing units, Milk Processing , Milk Chilling Plants; d. Engineering Workshops, Engineering Goods manufacturing units; Printing Presses; Transformer Repair Workshops; Tyre Remolding/Rethreading units, and Vulcanizing units, Rubber product manufacturing, Packaging material manufacturing, e. Ordnance / Ammunition Factories of Defense Establishments; f. Mining, Quarrying and Stone Crushing units; g. Garment Manufacturing units</p>
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		<p>associated retail filling stations. j. Sewage Treatment Plant/ Common Effluent Treatment Plant for industries, and not covered under the HT – PWW category k. Start-up power for Generating Plants, i.e., the power required for trial run of a Power Plant during commissioning of the Unit and its Auxiliaries, and for its start-up after planned or forced outage (but not for construction); l. Brick Kiln (Bhatti), Biomass Pellet; m. Biotechnology Industries covered under the Biotechnology Policy of Government of Maharashtra; n. Cold Storages not covered under HT – Agriculture (Others), Packaged Drinking Water Plant; o. Food (including Seafood and meat) Processing units. p. Stand-alone Research and Development units. q. Seed manufacturing. r. Dedicated Water Supply Schemes to Power Plants s. Auxiliary Power Supply to EHV/Distribution Substations (but not for construction) t. Telecommunications Towers and associated telecom infrastructure but does not cover offices/outlets etc. u. Ready-mix Concrete or hot mix plants</p>	<p>h. Soap and cosmetics, Deodorant manufacturing, etc. i. LPG/CNG bottling plants and associated retail filling stations. j. Sewage Treatment Plant/ Common Effluent Treatment Plant for industries, and not covered under the HT – PWW category k. Start-up power for Generating Plants, i.e., the power required for trial run of a Power Plant during commissioning of the Unit and its Auxiliaries, and for its start-up after planned or forced outage (but not for construction); l. Brick Kiln (Bhatti), Biomass Pellet; m. Biotechnology Industries covered under the Biotechnology Policy of Government of India and Government of Maharashtra; n. Cold Storages not covered under HT – Agriculture (Others), Packaged Drinking Water Plant; o. Food (including Seafood and meat) Processing units. p. Stand-alone Research and Development units. q. Seed manufacturing. r. Dedicated Water Supply Schemes to Power Plants s. Auxiliary Power Supply to EHV/Distribution Substations (but not for construction) t. Telecommunications Towers and associated telecom infrastructure but does not cover offices/outlets etc. u. Ready-mix Concrete or hot mix plants</p>
	<p>HT I (B): Industry - Seasonal</p>	<p>Applicability: Applicable to Seasonal consumers, who are defined as those who normally work during a part of the year up to a maximum of 9 months, such as Cotton Ginning Factories, Cotton Seed Oil Mills, Cotton Pressing Factories, Salt Manufacturers, Khandsari/ Jaggery Manufacturing Units, excluding Sugar Factories or such other consumers who opt for a seasonal pattern of consumption, such that the electricity requirement is seasonal in nature. Provided that the period of operation in a financial year should be limited upto 9 months, and the category</p>	<p>Applicability: Applicable to Seasonal consumers, who are defined as those who normally work during a part of the year up to a maximum of 9 months, such as Cotton Ginning Factories, Cotton Seed Oil Mills, Cotton Pressing Factories, Salt Manufacturers, Khandsari/ Jaggery Manufacturing Units, excluding Sugar Factories or such other consumers who opt for a seasonal pattern of consumption, such that the electricity requirement is seasonal in nature. Provided that the period of operation in a financial year should be limited upto 9 months, and the category should be opted for by the consumer</p>

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		<p>should be opted for by the consumer within first quarter of the financial year.</p> <p>Note:</p> <p>i. High Tension Industrial consumers having captive generation facility synchronised with the grid may opt for Standby Capacity at rate of 25% of applicable Demand Charges.</p> <p>ii. Demand Charge shall be applicable at 25% of the above rates on the start-up demand contracted by the Power Plant (as referred to at (h) above) with the Distribution Licensee.</p> <p>iii. Demand Charge shall be applicable at 75% of the above rates for Steel Plant operating with electric arc furnaces.</p>	<p>within first quarter of the financial year.</p> <p>Note:</p> <p>i. High Tension Industrial consumers having captive generation facility synchronised with the grid may opt for Standby Capacity at rate of 25% of applicable Demand Charges.</p> <p>ii. Demand Charge shall be applicable at 25% of the above rates on the start-up demand contracted by the Power Plant (as referred to at (h) above) with the Distribution Licensee.</p> <p>iii. Demand Charge shall be applicable at 75% of the above rates for Steel Plant operating with electric arc furnaces.</p>
	HT II: HT- Commercial	<p>Applicability:</p> <p>This tariff category is applicable for electricity used at High Voltage in non-residential, non-industrial and/or commercial premises for commercial consumption meant for operating various appliances used for purposes such as lighting, heating, cooling, cooking, entertainment/ leisure, and water pumping in, but not limited to, the following premises:</p> <p>a. Non-Residential, Commercial and Business premises, including Shopping Malls and Showrooms; b. Warehouses/Godowns c. Combined lighting and power services for facilities relating to Entertainment, including film studios, cinemas and theatres (including multiplexes), Hospitality, Leisure, Meeting/Town Halls, and places of Recreation and Public Entertainment; d. Offices, including Commercial Establishments; e. Marriage Halls, Resorts, Hotels / Restaurants / Canteens / Cafeterias, Ice-cream parlours, Coffee Shops, Guest Houses, Internet / Cyber Cafes, Telephone Booths and Fax / Photocopy shops; f. Automobile and all other types of repairs, servicing and maintenance centres (unless specifically covered</p>	<p>Applicability:</p> <p>This tariff category is applicable for electricity used at High Voltage in non-residential, non-industrial and/or commercial premises for commercial consumption meant for operating various appliances used for purposes such as lighting, heating, cooling, cooking, entertainment/ leisure, and water pumping in, but not limited to, the following premises:</p> <p>a. Non-Residential, Commercial and Business premises, including Shopping Malls and Showrooms; b. Warehouses/Godowns c. Combined lighting and power services for facilities relating to Entertainment, including film studios, cinemas and theatres (including multiplexes), Hospitality, Leisure, Meeting/Town Halls, and places of Recreation and Public Entertainment; d. Offices, including Commercial Establishments; e. Marriage Halls, Resorts, Hotels / Restaurants / Canteens / Cafeterias, Ice-cream parlours, Coffee Shops, Guest Houses, Internet / Cyber Cafes, Telephone Booths and Fax / Photocopy shops; f. Automobile and all other types of repairs, servicing and maintenance centres (unless specifically covered under another tariff category); Retail Gas Filling Stations, Petrol Pumps &</p>

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		<p>under another tariff category); Retail Gas Filling Stations, Petrol Pumps & Service Stations, including Garages, Toll Collection plazas including lightings on Express / National / State Highways;</p> <p>g. Tailoring Shops, Computer Training Institutes, Private Training centres, Typing Institutes, Photo Laboratories, Beauty Parlours and Saloons;</p> <p>h. Banks and ATM centres, Telephone Exchanges, TV Stations, Micro Wave Stations, Radio Stations;</p> <p>i. Common facilities, like Water Pumping / Lifts / Fire-Fighting Pumps and other equipment / Street and other common area Lighting, etc., in Commercial Complexes;</p> <p>j. Sports Clubs/facilities, Health Clubs/facilities, Gymnasiums, Swimming Pools not covered under any other category;</p> <p>k. External illumination of monuments/ historical/heritage buildings approved by Maharashtra Tourism Development Corporation (MTDC) or the concerned Local Authority;</p> <p>l. Construction of all types of structures/ infrastructures such as buildings, bridges, flyovers, dams, Power Stations, roads, Aerodromes, tunnels for laying of pipelines for all purposes;</p> <p>m. Milk Collection Centres, standalone milk refrigeration and storage centres;</p> <p>n. Sewage Treatment Plant/ Common Effluent Treatment Plant for Commercial Complexes, not covered under the HT- PWW category or HT I – Industry</p> <p>o. Advertisements, hoardings (including hoardings fixed on lamp posts/installed along roadsides), and other commercial illumination such as external flood-lights, displays, neon signs at departmental stores, malls, multiplexes, theatres, clubs, hotels and other such establishments</p> <p>p. Temporary supply for any of the activity not covered under any other HT category</p> <p>Provided that Temporary supply consumer shall pay 1.5 time applicable fixed/demand charges and 1.25 time applicable energy</p>	<p>Service Stations, including Garages, Toll Collection plazas including lightings on Express / National / State Highways;</p> <p>g. Tailoring Shops, Computer Training Institutes, Private Training centres, Typing Institutes, Photo Laboratories, Beauty Parlours and Saloons;</p> <p>h. Banks and ATM centres, Telephone Exchanges, TV Stations, Micro Wave Stations, Radio Stations;</p> <p>i. Common facilities, like Water Pumping / Lifts / Fire-Fighting Pumps and other equipment / Street and other common area Lighting, etc., in Commercial Complexes;</p> <p>j. Sports Clubs/facilities, Health Clubs/facilities, Gymnasiums, Swimming Pools not covered under any other category;</p> <p>k. External illumination of monuments/ historical/heritage buildings approved by Maharashtra Tourism Development Corporation (MTDC) or the concerned Local Authority;</p> <p>l. Construction of all types of structures/ infrastructures such as buildings, bridges, flyovers, dams, Power Stations, roads, Aerodromes, tunnels for laying of pipelines for all purposes;</p> <p>m. Milk Collection Centres and/or Standalone milk refrigeration for sale; storage centres</p> <p>n. Sewage Treatment Plant/ Common Effluent Treatment Plant for Commercial Complexes, not covered under the HT- PWW category or HT I – Industry</p> <p>o. Advertisements, hoardings (including hoardings fixed on lamp posts/installed along roadsides), and other commercial illumination such as external flood-lights, displays, neon signs at departmental stores, malls, multiplexes, theatres, clubs, hotels and other such establishments</p> <p>p. Temporary supply for any of the activity not covered under any other HT category</p> <p>Provided that Temporary supply consumer shall pay 1.5 time applicable fixed/demand charges and 1.25 time applicable energy charge.</p> <p><i>Note: A consumer in the HT II category requiring single-point supply for the purpose of downstream</i></p>
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		charge. <i>Note: A consumer in the HT II category requiring single-point supply for the purpose of downstream consumption by separately identifiable entities shall have to operate as a Franchisee authorised as such by the Distribution Licensee; or such downstream entities shall be required to take separate individual connections and be charged under the tariff category applicable to them.</i>	<i>consumption by separately identifiable entities shall have to operate as a Franchisee authorised as such by the Distribution Licensee; or such downstream entities shall be required to take separate individual connections and be charged under the tariff category applicable to them.</i>
	HT III - Railways/Metro/Monorail	Applicability: This tariff category is applicable to power supply at High Voltage for Railways, Metro and Monorail, including Stations and Shops, Workshops, Yards, etc	Applicability: This tariff category is applicable to power supply at High Voltage for Railways, Metro and Monorail, including Stations and Shops, Workshops, Yards, etc
	HT IV: HT - Public Water Works (PWW) and Sewage Treatment Plants	Applicability: This tariff category is applicable for electricity / power supply at High Voltage for pumping of water, purification of water and allied activities relating to Public Water Supply Schemes, Sewage Treatment Plants and waste processing units, provided they are owned or operated or managed by Local Self-Government Bodies (Gram Panchayats, Panchayat Samitis, Zilla Parishads, Municipal Councils and Corporations, etc.), or by Maharashtra Jeevan Pradhikaran (MJP), Maharashtra Industries Development Corporation (MIDC), CIDCO, Cantonment Boards and Housing Societies/complexes (including operated by developers in integrated township projects). All other Public Water Supply Schemes and Sewage Treatment Plants (including allied activities) shall not be eligible under this tariff category but be billed at the tariff applicable to the HT I or HT II categories, as the case may be.	Applicability: This tariff category is applicable for electricity / power supply at High Voltage for pumping of water, purification of water and allied activities relating to Public Water Supply Schemes, Sewage Treatment Plants and waste processing units, provided they are owned or operated or managed by Local Self-Government Bodies (Gram Panchayats, Panchayat Samitis, Zilla Parishads, Municipal Councils and Corporations, etc.), or by Maharashtra Jeevan Pradhikaran (MJP), Maharashtra Industries Development Corporation (MIDC), CIDCO, Cantonment Boards and Housing Societies/complexes (including operated by developers in integrated township projects). All other Public Water Supply Schemes and Sewage Treatment Plants (including allied activities) shall not be eligible under this tariff category but be billed at the tariff applicable to the HT I or HT II categories, as the case may be.
	HT V: HT – Agriculture HT V(A) : HT – Agriculture Pumpsets	Applicability: This category shall be applicable for Electricity / Power Supply at High Tension for pumping of water exclusively for the purpose of Agriculture / cultivation of crops	Applicability: This category shall be applicable for Electricity / Power Supply at High Tension for pumping of water exclusively for the purpose of Agriculture / cultivation of crops

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		<p>including HT Lift Irrigation Schemes (LIS) irrespective of ownership.</p> <p>This tariff is also applicable for floriculture, horticulture, nursery and plantation.</p> <p>It is also applicable for power supply for cane crushers and/or fodder cutters for self-use for agricultural processing operations, but not for operating a flour mill, oil mill or expeller in the same premises, either operated by a separate motor or a change of belt drive</p>	<p>including HT Lift Irrigation Schemes (LIS) irrespective of ownership.</p> <p>This tariff is also applicable for floriculture, horticulture, nursery and plantation.</p> <p>It is also applicable for power supply for cane crushers and/or fodder cutters for self-use for agricultural processing operations, but not for operating a flour mill, oil mill or expeller in the same premises, either operated by a separate motor or a change of belt drive</p>
	HT V(B) : HT – Agriculture Others	<p>Applicability:</p> <p>This tariff category is applicable for use of electricity / power supply at High Voltage for: Pre-cooling plants and cold storage units for Agriculture Products as defined under APMC Act 1963 – processed or otherwise; Poulties exclusively undertaking layer and broiler activities, including Hatcheries; High-Technology Agriculture (i.e. Tissue Culture, Green House, Mushroom cultivation activities), provided the power supply is exclusively utilized for purposes directly concerned with the crop cultivation process, and not for any engineering or industrial process; Aquaculture, Sericulture, Cattle Breeding Farms, etc;</p>	<p>Applicability:</p> <p>This tariff category is applicable for use of electricity / power supply at High Voltage for: Pre-cooling plants and cold storage units for Agriculture Products as defined under APMC Act 1963 – processed or otherwise; Poulties exclusively undertaking layer and broiler activities, including Hatcheries; High-Technology Agriculture (i.e. Tissue Culture, Green House, Mushroom cultivation activities), provided the power supply is exclusively utilized for purposes directly concerned with the crop cultivation process, and not for any engineering or industrial process; Aquaculture, Sericulture, Cattle Breeding Farms, etc;</p>
	HT VI: HT - Group Housing Society (Residential)	<p>Applicability:</p> <p>Entities supplied electricity at a single point at High Voltage for residential purposes in accordance with the Electricity (Removal of Difficulties) Eighth Order, 2005, in the following cases:</p> <p>a. Co-operative Group Housing Society which owns the premises, for making electricity available to the members of such Society residing in the same premises for residential purposes; and b. A person, for making electricity available to its employees residing in the same premises for residential purposes. c. Serving Armed Forces/Paramilitary forces residential establishments</p> <p>Note: 20% reduction in Energy</p>	<p>Applicability:</p> <p>Entities supplied electricity at a single point at High Voltage for residential purposes in accordance with the Electricity (Removal of Difficulties) Eighth Order, 2005, in the following cases:</p> <p>a. Co-operative Group Housing Society which owns the premises, for making electricity available to the members of such Society residing in the same premises for residential purposes; and b. A person, for making electricity available to its employees residing in the same premises for residential purposes. c. Serving Armed Forces/Paramilitary forces residential establishments</p> <p>Note: 20% reduction in Energy Charge (incl. FAC) shall be</p>

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		Charge (incl. FAC) shall be applicable for Serving Armed Forces/Paramilitary forces residential establishments covered under the HT-Group Housing category.	applicable for Serving Armed Forces/Paramilitary forces residential establishments including allied services such as Canteen/ Mess/ Street lighting/Sport Club/ Water Supply covered under the HT-Group Housing category. Other Defence establishments such as Hospitals / Training Centers/Military Schools & Collages will be covered under HT-VIII (B) Public Service Others Category.
	HT VIII: HT Public Services		
	HT VIII – (A): HT - Government Educational Institutions and Hospitals	<p>Applicability:</p> <p>This tariff category is applicable for electricity supply at High Voltage for Educational Institutions, such as Schools and Colleges; Health Care facilities, such as Hospitals, Dispensaries, Clinics, Primary Health Care Centres, Diagnostic Centres, Blood Banks and Pathology Laboratories; Libraries and public reading rooms - of the State or Central Government, Local Self-Government bodies such as Municipalities, Zilla Parishads, Panchayat Samitis, Gram Panchayats, etc;</p> <p>It shall also be applicable for electricity used for Hostels/Sports Clubs and facilities / Health Clubs and facilities / Gymnasium / Swimming Pools attached to such Educational Institutions / Health Care facilities, provided that they are situated in the same premises and are meant primarily for the students / faculty/ employees/ patients of such Educational Institutions and Hospitals.</p> <p>This Tariff is also applicable for electricity supply at Public Sanitary Conveniences</p>	<p>Applicability:</p> <p>This tariff category is applicable for electricity supply at High Voltage for Educational Institutions, such as Schools and Colleges; Health Care facilities, such as Hospitals, Dispensaries, Clinics, Primary Health Care Centres, Diagnostic Centres, Blood Banks and Pathology Laboratories; Libraries and public reading rooms - of the State or Central Government, Local Self-Government bodies such as Municipalities, Zilla Parishads, Panchayat Samitis, Gram Panchayats, etc;</p> <p>It shall also be applicable for electricity used for Hostels/Sports Clubs and facilities / Health Clubs and facilities / Gymnasium / Swimming Pools attached to such Educational Institutions / Health Care facilities, provided that they are situated in the same premises and are meant primarily for the students / faculty/ employees/ patients of such Educational Institutions and Hospitals.</p> <p>This Tariff is also applicable for electricity supply at Public Sanitary Conveniences</p>
	HT VIII - (B): Public Service – Others	<p>Applicability:</p> <p>This tariff category is applicable for electricity supply at High Voltage for:</p> <p>a. Educational Institutions, such as Schools and Colleges; Health Care facilities, such as Hospitals, Dispensaries, Clinics, Primary Health Care Centres, Diagnostic Centres, Blood Banks and Pathology Laboratories; Libraries and public reading rooms - other</p>	<p>Applicability:</p> <p>This tariff category is applicable for electricity supply at High Voltage for:</p> <p>a. Educational Institutions, such as Schools and Colleges; Health Care facilities, such as Hospitals, Dispensaries, Clinics, Primary Health Care Centres, Diagnostic Centres, Blood Banks and Pathology Laboratories; Libraries and public reading rooms - other than those of</p>

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		<p>than those of the State or Central Government, Local Self-Government bodies such as Municipalities, Zilla Parishads, Panchayat Samitties, Gram Panchayats, etc.</p> <p>b. Sports Clubs and facilities / Health Clubs, Student / working Men / Women Hostel and facilities / Gymnasium / Swimming Pools attached to such Educational Institutions / Health Care facilities, provided that they are situated in the same premises and are meant primarily for their students / faculty/ employees/ patients;</p> <p>c. All offices of Government and Municipal/ Local Authorities/ Local Self-Government bodies, such as Municipalities, Zilla Parishads, Panchayat Samitis, Gram Panchayats; Police Stations and Police Chowkies; Post Offices; Armed Forces/Defense and Para-Military establishments;</p> <p>d. Service-oriented Spiritual Organisations;</p> <p>e. Accommodation facilities provided by religious trusts registered under Maharashtra Public Trust Act for devotees. State or Municipal/Local Authority Transport establishments, including their Workshops;</p> <p>f. Fire Service Stations; Jails, Prisons; Courts.</p> <p>g. Airports</p> <p>h. Ports, Jetties and provision for Shore Power Supply</p> <p>i. Waste processing units and Water ATM not covered under HT IV category;</p> <p>j. Dam operation including Lighting and other activities, etc.</p>	<p>the State or Central Government, Local Self-Government bodies such as Municipalities, Zilla Parishads, Panchayat Samitties, Gram Panchayats, etc.</p> <p>b. Sports Clubs and facilities / Health Clubs, Student / working Men / Women Hostel and facilities / Gymnasium / Swimming Pools attached to such Educational Institutions / Health Care facilities, provided that they are situated in the same premises and are meant primarily for their students / faculty/ employees/ patients;</p> <p>c. All offices of Government and Municipal/ Local Authorities/ Local Self-Government bodies, such as Municipalities, Zilla Parishads, Panchayat Samitis, Gram Panchayats; Police Stations and Police Chowkies; Post Offices; Armed Forces/Defense and Para-Military establishments;</p> <p>d. Service-oriented Spiritual Organisations;</p> <p>e. Accommodation facilities provided by religious trusts registered under Maharashtra Public Trust Act for devotees. State or Municipal/Local Authority Transport establishments, including their Workshops;</p> <p>f. Fire Service Stations; Jails, Prisons; Courts.</p> <p>g. Airports</p> <p>h. Ports, Jetties and provision for Shore Power Supply</p> <p>i. Waste processing units and Water ATM not covered under HT IV category;</p> <p>j. Dam operation including Lighting and other activities, etc.</p>
	<p>HT IX: HT – Electric Vehicle (EV) Charging Stations</p>	<p>Applicability:</p> <p>This Tariff category is applicable for Electric Vehicle Charging Station including battery swapping station for Electric Vehicle</p>	<p>Applicability:</p> <p>This Tariff category is applicable for Electric Vehicle Charging Station including battery swapping station for Electric Vehicle</p>

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		<p>In case the consumer uses the electricity supply for charging his own electric vehicle at his premises, the tariff applicable shall be as per the category of such premises.</p> <p>Electricity consumption for other facilities at Charging Station such as restaurant, rest rooms, convenience stores, etc., shall be charged at tariff applicable to Commercial Category.</p>	<p>In case the consumer uses the electricity supply for charging his own electric vehicle at his premises, the tariff applicable shall be as per the category of such premises.</p> <p>Electricity consumption for other facilities at Charging Station such as restaurant, rest rooms, convenience stores, etc., shall be charged at tariff applicable to Commercial Category.</p>
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14 DETAILS OF CAPEX SCHEMES

14.1 Ag Pump Connection Policy-2020:

14.1.1 Objectives:

- GoM has sanctioned Ag Connection Policy-2020 vide GR dated 18.12.2020 for giving connections by conventional method & by Solar energy to the paid pending Ag pumps and Ag applications pending for approval after March-2018, to implement scheme for recovery of Ag consumer arrears, to provide basic infrastructure to Ag consumers in Rural areas and to implement long term scheme through decentralized solar projects for providing Day time power supply to Ag pumps.
- As per this GR, 33% of the total amount of arrears recovered from the Ag consumers was to be utilized at Grampanchayat level for energisation of Ag pumps having 0-200 Mtr distance, 33% at District level for the works of new substations, additional Power Transformers and augmentation of Power Transformers and 34% to be utilized at Corporate Office level.
- GoM has also given sanction to issue Rs. 1500 Crores as yearly expenditure in the form of equity to Mahavitaran for giving connections to Ag paid pending pumps by conventional method upto March-2024.
- Accordingly, allocation of Rs. 1500 Crores were given to field offices for giving connections to Ag paid pending pumps from 01.04.2018 having 201-600 Mtr distance on HVDS. According to the policy,
- New Ag pump applicants whose distance of Ag pump is within 200 mtr from the nearest LT line pole connection will be given on LVDS.
- New Ag pump applicants whose distance of Ag pump is more than 200 mtr from the nearest LT line pole, following option will be available for such consumers,
- If the distance of Ag pump is more than 600 mtr from the nearest HT line pole, applicant can take Off Grid solar connections.
- Applicant can take connection on HVDS.

14.1.2 Cost Benefit Analysis :

Ag Policy 2020 have been envisaged by GoM to extend electricity supply to Ag Consumers which will ultimately improve the sustainability of MSEDCL & help farmers to improve their productivity. Ag consumer tariff is a subsidised tariff hence no financial returns are expected. This policy will benefit society by improving the living standard of farmers.

14.1.3 Scope of the work & Progress:

Table 258 Scope of the work & Progress

Particulars	Scope	Progress
Nos. of Ag Pump Connections	4,00,000	3,55,702
New Substations	119	42
Augmentation of Power Transformer	25	18
Additional Power Transformer	95	77
New DTC	50,898	46,677
Augmentation of DTC	1,558	1523
HT Line	20,023	21,379
LT Line	13,028	10,038

14.1.4 Details of Funding:

- Funding of Rs. 1500 Crores annually in the form of equity till March-2024 from Govt. of Maharashtra.
- Funds generated through recovery of arrears of Ag bills from Ag consumers

Scheme is in progress.

14.2 AG Special Package for Vidarbha & Marathwada

14.2.1 Objectives:

- AG Special Package I: - As compared to the Rest of Maharashtra, there was imbalance of Ag. Pump energisation in Vidarbha & Marathwada. To remove the imbalance of Ag. Pump energisation in Vidarbha & Marathwada, the GoM made the provision of fund of Rs. 819 Cr. under Special Package for FY 2015-16 for energisation of 99,054 nos. of Ag. paid pending as on March 2015 in Vidarbha & Marathwada.
- AG Special Package II:- For the FY 2016-17, the GoM made the provision of fund of Rs. 916.20 Cr. under Special Package for energisation of 94,462 nos. of Ag pumps.

14.2.2 Cost Benefit Analysis :

Ag Special Package Scheme for Vidarbha and Marathwada has been envisaged by GoM to extend electricity supply to Ag Consumers which will ultimately improve living standard of beneficiaries. Scheme is driven by social developmental motives hence no monetary benefits are envisaged.

14.2.3 Scope of the work :

- Special Package-I : HT Line- 6104 km, LT Line- 18972 km, DTC- 7206

Nos., Ag Pumps- 95167 nos.

- Special Package-II : HT Line- 4684 km, LT Line- 13533 km, DTC- 8740 Nos., Ag Pumps- 79889 nos.

14.2.4 Current Progress/ Status :

- Special Package-I : HT Line- 3673 km, LT Line- 18557 km, DTC- 7212 Nos., Ag Pumps- 95167 nos.
- Special Package-II : HT Line- 4458 km, LT Line- 13207 km, DTC- 8272 Nos., Ag Pumps- 79889 nos.

Table 259 Year wise Ag pumps energized and expenditure of funds

Particulars	2015-16	2016-17	2017-18	2018-19
Financial Achievement (in Rs. Crores)	481.22	594.35	343.29	310.85
Physical Achievement (in Nos.)	65,900	54,717	27,099	27,340

14.2.5 Details of Funding :

GoM has sanctioned the grant of Rs. 819 Crores under Special Package-I and the grant of Rs. 910.73 Crores under Special Package-II.

Scheme is completed.

14.3 DPDC Scheme

14.3.1 Objectives:

- After formation of the Maharashtra state in 1960, Government has adopted a policy of balanced development on the basis of District as a unit for formulation of Five year plans and Annual plans.
- For this purpose, District Planning and Development Council (D.P.D.C.) have been constituted in every District. The District Planning and Development Council has now been replaced by District Planning Committee Constituted as per article 243 Z.D. of the 74th Amendment of constitution.
- The Minister in charge of the district is Chairman of the Committee. The Collector of the district is member Secretary of this committee. All the matters are put in front of the District Planning Committee and are to be sanctioned by this Committee.
- The objective of GoM for implementing this scheme is for benefit as well as economic development of Scheduled Caste, Nav Buddha beneficiaries. Also, this scheme is formulated to fill gap of development between Tribal and non-tribal area, to improve living status of Tribal

peoples, to increase rate of social as well as economic development of Tribal peoples. This scheme is executed for the benefit of the common people by general electrification and by carrying out system improvement works.

14.3.2 Cost Benefit Analysis :

DPDC Schemes have been envisaged by Government of Maharashtra to extend electricity supply to deprived sections of the society, which will ultimately improve living standard of beneficiaries.

14.3.3 Scope of the work :

- The GoM has sanctioned Outlay of Rs. 624.12 Crores for year 2022-23 & Rs. 557.87 Crores for year 2023-24 under DPDC General Plan (Non-Tribal). For DPDC Special Component Plan, sanctioned Outlay of Rs. 162.72 Crores. for FY 2022-23 and Rs. 128.22 for FY 2023-24.
- The budget provision for FY 2022-23, for area under TSP is Rs. 95.14 Crores. & for OTSP is Rs. 31.74 Crores. Further, the budget provision for FY 2023-24, for area under TSP is Rs. 58.41 Crores. & for OTSP is Rs. 18.02 Crores.

14.3.4 Current Progress/ Status :

For FY 2022-23 and FY 2023-24 works carried out till Oct-24 under this plan is as below:

14.3.5 General / Non-Tribal Scheme

This scheme is executed for the benefit of the common people. The work of general electrification such as new connections and System Improvement work are carried out from this fund. The district wise yearly plan under this scheme is approved by GoM. Every year GoM allocates funds (Grants) under DPDC scheme for each district.

Table 260 General / Non-Tribal Scheme Funds and expenditure for FY 2022-23 and FY 2023-24

Particulars	FY 2022-23		FY 2023-24	
	Target	Achievement	Target	Achievement
Residential Connection	4846	4798	1795	1087
Funds Sanctioned (Rs. in Crores)		624.12		557.87
Expenditure (Rs. in Crores)		518.54		260.60

14.4 DPDC/ Special Component Plan-DPDC SCP

14.4.1 This is district wise yearly plan approved by GoM for benefit as well as economical development of Scheduled Caste & Nav- Bauddha beneficiaries. The main condition of this plan is that funds should be exclusively used for Scheduled Caste & Nav-Buddha beneficiaries. Since circle wise allocation is less than Rs 10 Crores, the in-principle approvals form MERC has not obtained till date for this scheme. The electrification of streetlight connection, release Ag connections to Scheduled Caste & Nav Buddha beneficiaries & associated infrastructure work are carried out through these funds.

14.4.2 The fund under this head is being released by GoM for fulfilling the social obligation. Hence there is no monitory benefit envisaged. But still scheme needs to be released to meet statutory obligation of Electricity Act 2003. Every year GoM allocates funds (Grants) under DPDC SCP scheme in State Budget.

14.4.3 Cost Benefit Analysis- DPDC SCP Scheme has been envisaged by Government of Maharashtra to extend electricity supply to deprived sections of the society, which will ultimately improve living standard of beneficiaries.

Table 261 Cost-Benefit Analysis of the DPDC Special Component Plan (SCP) for FY 2022-23 and FY 2023-24

Particulars		Special Component Plan (FY 2022-23)		Special Component Plan (FY 2023-24)	
		Target	Achievement	Target	Achievement
Physical Targets	Agriculture Pump Set Connection	2773	2487	1674	850
	Residential Connection	2348	2106	952	348
	Street Light electrification	352	258	288	220
Funds Sanctioned (Rs. in Crores)		162.72		128.22	
Expenditure (Rs. in Crores)		146.43		48.73	

14.5 DPDC/TSP+OTSP

14.5.1 The objective of GoM for implementing this scheme is to fill gap of development between Tribal and non tribal area, to improve living status of Tribal peoples, to increase rate of social as well as economical development of Tribal peoples. The district wise yearly plan under this scheme is approved by GoM.

14.5.2 The electrification of un-electrified Tribal Wadi / Vastis, release of L&F as well as Ag connections to Tribal beneficiaries & associated infrastructure work are carried out through this fund. Being circle wise allocation is less that Rs. 10 Crores, the in-principle approval from MERC has not obtained till date for this

scheme.

14.5.3 As present tariff of L& F as well as Agricultural category is much less than average cost of supply, there is no direct monetary benefit envisaged. But still scheme needs to be released to meet statutory obligation of Electricity Act 2003. Every year GoM allocates funds (Grants) under DPDC scheme for each district.

14.5.4 Cost Benefit Analysis:

DPDC TSP OTSP Scheme has been envisaged by Government of Maharashtra to extend electricity supply to deprived sections of the society, which will ultimately improve living standard of beneficiaries.

Table 262 Cost-Benefit Analysis of the DPDC TSP and OTSP Schemes for FY 2022-23

Description		TSP FY 2022-23		OTSP FY 2022-23	
		Target	Achievement	Target	Achievement
Physical Targets	Ag. pump energisation	463	397	459	385
	L&F connection	634	483	671	539
	Wadi/Pada Electrification	275	112	3	3
Sanctioned Outlay		Rs. 95.14 Cr.		Rs. 31.74 Cr.	
Expenditure		Rs. 85.44 Cr.		Rs. 24.32 Cr.	

Table 263 Cost-Benefit Analysis of the DPDC TSP and OTSP Schemes for FY 2023-24

Description		TSP FY 2023-24		OTSP FY 2023-24	
		Target	Achievement	Target	Achievement
Physical Target	Ag. pump energisation	526	190	284	152
	L&F connection	317	80	145	31
	Wadi/Pada Electrification	16	8	0	0
Sanctioned Outlay		Rs. 58.41 Cr.		Rs. 18.02 Cr.	
Expenditure		Rs. 31.07 Cr.		Rs. 8.53 Cr.	

14.5.5 Details of Funding

As per Government Resolution No. Sankirna-2013/ Pra. Kra. 189/ Energy -5 Dt. 30.12.2013, funds under this scheme are released as grant to MSEDCL from the year 2013-14.

14.5.6 Phasing Details: Yearly

14.6 Evacuation of Power (EoP) from EHV Substation Scheme (Phase I and Phase II)-

14.6.1 MSEDCL is implementing Evacuation of Power from EHV Substation (EoP)

Scheme for Evacuation of Power from various commissioned and to be commissioned EHV Substations.

14.6.2 In the 1st Phase Evacuation of Power from 11 Nos. EHV Substations is sanctioned and 2nd Phase Evacuation of Power from 17 Nos. EHV Substations is approved. MERC has accorded in-principle approval to the scheme Phase-I&II vide Letter No. MERC/ CAPEX/ 2021-22/ 312 Date 13th July 2021.

14.6.3 The objectives of the scheme are:

- To evacuate Power from EHV substation commissioned/ to be commissioned.
- To reduce loading of existing feeders and reduction in line length.
- To improve voltage regulation of existing feeders.
- To improve reliability of system.
- To reduce technical losses.

14.6.4 The following benefits are envisaged from the scheme: -

- Utilization of EHV Substations commissioned by MSETCL.
- Reducing overloading of existing network, improvement in reliability and meeting load of prospective consumers.

14.6.5 Cost Benefit Analysis

The following benefits are envisaged from the scheme: -

- Utilization of EHV Substations commissioned by MSETCL.
- Reducing overloading of existing network, improvement in reliability and meeting load of prospective consumers.

14.6.6 Scope of Work: -

Table 264 Scope of Work for Evacuation of Power (EoP) Scheme (Phase I & Phase II)

Sr No.	Description	Unit	Scope
Phase-I			
1	132 kV Deulgaon Raja	km	65
2	220 kV Nagewadi	km	10.5
3	220 kV Narangwadi	km	35
4	132 kV Ralegaon	km	51.5
5	220 kV Karanja	km	30
6	132 kV Babhulwada	km	65

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7	220 kV Vihigaon	km	64.4
8	132 kV Chamorshi	km	47.5
9	220 kV Kekatnimbhora	km	97
10	132 kV Kolsa	km	25
11	132 kV Renukapur	km	57.5
Phase-II			
12	132 kV Kanzara	km	23
13	Link line Kotamgaon-Gavandgaon	km	13.5
14	132 kV Wayal	km	30
15	220 kV Loni Deokar	km	17.8
16	132 kV Wagdari	km	25
17	132 kV Kawathe Yamai	km	48
18	132 kV Jawala	km	46.62
19	220 kV Renukapur	km	40
20	132 kV Nimbhoni	km	78
21	220 kV Jalkot	km	69
22	132 kV Dhadgaon	km	18
23	220 kV Nagbhid	km	39
24	132 kV Kolari	km	64.9
25	132 kV Kothali	km	116
26	132 kV Karki	km	32.2
27	132 kV Sinnar Shaha	km	104
28	220 kV Bhose	km	51

14.6.7 Current Progress/Status: -

14.6.7.1 Phase-I

The projects covered in Phase-I of the scheme have been physically completed. The financial closure of completed works is in progress.

Table 265 Current progress for Evacuation of Power (EoP) Scheme Phase I

Sr No.	Description	Unit	Target	Completed
Phase-I				
1	132 kV Deulgaon Raja	km	59.15	59.15
2	220 kV Nagewadi	km	12.5	12.5
3	220 kV Narangwadi	km	20.93	20.93
4	132 kV Ralegaon	km	31.2	31.2
5	220 kV Karanja	km	14.64	14.64
6	132 kV Babhulwada	km	72.59	72.59
7	220 kV Vihigaon	km	61.11	61.11
8	132 kV Chamorshi	km	45	45
9	220 kV Kekatnimbhora	km	101	101
10	132 kV Kolsa	km	22	22

Sr No.	Description	Unit	Target	Completed
11	132 kV Renukapur	km	57.5	57.5

14.6.7.2 Phase-II

The projects-132 kV Kanzara EHV Substation and Link Line Kotamgaon-Gavandgaon covered in Phase-II of the scheme have been physically completed and financial closure of completed works is in progress. Further, projects of 132 kV Sinnar Shaha and 220 kV Bhose are awarded and works are under progress.

The full turnkey tenders for the execution of balance projects in Phase-II of the scheme are floated and award of works is under process.

Table 266 Current status of Evacuation of Power (EoP) Scheme Phase II

Sr No.	Description	Unit	HT Line-Target	HT Line-Completed
1	132 kV Kanzara	km	23	23
2	Link line Kotamgaon-Gavandgaon	km	13.5	13.5
3	132 kV Wayal	km	30	-
4	132 kV Wagdari	km	25	-
5	132 kV Kawathe Yamai	km	48	-
6	132 kV Jawala	km	46.62	-
7	220 kV Renukapur	km	40	-
8	132 kV Nimbhoni	km	78	-
9	220 kV Jalkot	km	69	-
10	220 kV Nagbhid	km	39	-
11	132 kV Kolari	km	64.9	-
12	132 kV Kothali	km	116	-
13	132 kV Karki	km	32.2	-
14	132 kV Sinnar Shaha	km	104	75.63
15	220 kV Bhose	km	63	47

The works of following projects which were covered in the Phase-II of scheme have been completed in other schemes:-

Table 267 Completed projects in Evacuation of Power (EoP) Scheme (Phase I & Phase II)

Sr. No.	Description	Unit	Target	Completed
1	220 kV Loni Deokar	km	17.8	Work completed in other scheme
2	132 kV Dhadgaon	km	18	Work completed in DPDC Scheme

14.6.8 Funding Details: -

The funds for execution of the project in Phase-I are arranged by availing loan from REC Limited up to 80% of project cost. Balance 20% from internal resources. The financial tie up for Phase-II is in process.

14.7 Evacuation of Power from EHV Substation (Phase-III) Scheme:-

14.7.1 MSEDCL is implementing Evacuation of Power from EHV Substation (Phase-III) Scheme for Evacuation of Power from various commissioned and to be commissioned EHV Substations.

14.7.2 In the Evacuation of Power from EHV Substation (Phase-III) Scheme, the work of evacuation of power has been sanctioned and approved from 10 Nos. of EHV Substations.

14.7.3 The Hon'ble MERC has accorded the in-principle approval for Evacuation of Power from EHV Substation (Phase-III) Scheme vide Letter No. MERC/ CAPEX/ 2022-23/ 673 dated 27th December 2022.

14.7.4 The objectives of the scheme are:

- To evacuate Power from EHV substation commissioned/ to be commissioned.
- To reduce loading of existing feeders and reduction in line length.
- To improve voltage regulation of existing feeders.
- To improve reliability of system.
- To reduce technical losses.

14.7.4.1 The following benefits are envisaged from the scheme:-

- Utilization of EHV Substations commissioned by MSETCL.
- Reducing overloading of existing network, improvement in reliability and meeting load of prospective consumers.

14.7.5 Cost Benefit Analysis

The following benefits are envisaged from the scheme:-

- Utilization of EHV Substations commissioned by MSETCL.
- Reducing overloading of existing network, improvement in reliability and meeting load of prospective consumers.

14.7.6 Scope of Work:-

Table 268 Scope of work for Evacuation of Power from EHV Substation (Phase-III) Scheme

Sr. No.	Description	Unit	HT Line-Scope
1	220 kV Uppalwadi	km	52
2	132kV Achalpur	km	59.5
3	132kV Pangri	km	25

Sr. No.	Description	Unit	HT Line-Scope
4	132 kV GCRORES & 132 kV Girwali	km	13
5	220 kV Pawane	km	22.5
6	220 kV Timber Mart	km	54.8
7	220 kV Khed City	km	91
8	220kV Abhitghar	km	24
9	220 kV Khaparkheda	km	11.9
10	220 kV Ambazari	km	73.2

14.7.7 Current Progress/Status:-

Table 269 Current progress of Evacuation of Power from EHV Substation (Phase-III) Scheme

Sr. No.	Description	Unit	HT Line-Target	HT Line-Completed
1	220 kV Uppalwadi	Km	52	-
2	132kV Achalpur	Km	59.5	-
3	132kV Pangri	Km	25	-
4	132 kV GCRORES & 132 kV Girwali	Km	13	-
5	220 kV Pawane	Km	22.5	-
6	220 kV Timber Mart	Km	54.8	-
7	220 kV Khed City	Km	91	22.4
8	220kV Abhitghar	Km	24	-
9	220 kV Khaparkheda	Km	11.9	-
10	220 kV Ambazari	Km	73.2	-

The full turnkey tenders for the execution of projects under Evacuation of Power from EHV Substation Phase-III Scheme have been floated. The work is progress in respect of 220 kV Khed City EHV Substation whereas issue of LoAs for the execution of work for balance projects are under process.

14.7.8 Funding Details:-

The funds for execution of the project are arranged by availing loan from REC Limited up to 80% of project cost.

14.8 High Loss Feeder (HLF) Scheme

14.8.1 MSEDCL is implementing High Loss Feeder (HLF) scheme to bring down distribution losses in 259 High Loss Feeders (more than 50% losses). In the 1st Phase 185 feeders are chosen to be taken up in Financial Year 2018-19, 2019-20 with total capital cost of Rs 316.22 Crores to bring down distribution losses in 185 high loss feeders (more than 50% losses).

14.8.2 MERC has accorded in-principle approval to the scheme vide Letter No. MERC/ Capex/2018-19/1258 Date 11 October, 2018.

14.8.3 The objectives of the scheme are

- Introduce HVDS (High Voltage Distribution System) for reducing HT: LT ratio and providing AB (Aerial Bunched) cable to prevent theft and pilferage of electricity by hooking.
- To shift energy meters from consumers premises and providing multimeter boxes to outside to prevent tampering of energy meters.
- Replacement of faulty energy meters.
- To replace old, corroded and deteriorated LT conductor and providing AB switches and wedge connectors to reduce power supply interruptions and prevent accidents.

14.8.4 Cost Benefit Analysis

The following benefits are envisaged from the scheme

- Increase in revenue and reduction in losses.
- Reduction of power supply interruptions and accidents.
- Improvement in reliability of power supply due to introduction of HVDS.
- Meeting Universal Supply Obligation

14.8.5 Scope of Work

Table 270 Scope of work of High Loss Feeder (HLF) Scheme

Sr. No.	Description	Unit	Scope
1	Installation/ Replacement of Meters	No.	208868
2	HVDS (New DTC)	No.	11234
3	Conversion of LT Line to HT Line	km	296.15
4	Provision of AB cable	km	3672.86
5	Shifting of meters from Inside to Outside consumers premises	No.	276996
6	Installation of 1 Ph/ multi meter/ service box boxes	No.	20630

14.8.6 Current Progress/Status

The turnkey tenders for execution of project are floated in FY 2018-19. The work is completed and financial closure of projects is in progress.

Table 271 Current progress of High Loss Feeder (HLF) Scheme

Sr. No.	Description	Unit	Target	Completed
1	Installation/Replacement of Meters	No.	54244	27966
2	HVDS (New DTC)	No.	761	595
3	Conversion of LT Line to HT Line	km	108.48	69.13
4	Provision of AB cable	km	918.16	724.10

5	Shifting of meters from Inside to Outside consumers premises	No.	124733	47310
6	Installation of 1 Ph/multi meter/service box boxes	No.	13745	8065

14.8.7 Funding Details

The funds for execution of the project are arranged by availing loan from REC Limited up to 80% of project cost.

14.9 MIDC Network Strengthening Scheme -

14.9.1 MSEDCL provides power supply to 3,20,723 Industrial consumers in the state of Maharashtra through its vast network consisting of substations, feeders, Distribution transformers and electric lines.

14.9.2 The Industrial consumers contribute a majority of revenue to MSEDCL. The Maharashtra Industrial Development Corporation (MIDC) the premier infrastructure development agency has set up 289 Industrial areas in the state in a planned and systematic manner since its inception.

14.9.3 The electrical distribution infrastructure has been set up by MSEDCL for providing reliable and uninterrupted power supply in these MIDC areas. Majority of Industrial consumers in the state are covered in MIDC areas.

14.9.4 The existing infrastructure has been in existence for more than 25 years. There have been rising cases of power supply interruptions and breakdowns in these areas especially in rainy season due to deterioration of existing infrastructure, ageing and non-availability of alternate supply arrangement for ensuring 24x7 reliable power supply in these areas.

14.9.5 The consumers in these areas have a higher average billing rate and contribute major portion of MSEDCL revenue. They are cross subsidizing consumers for lower income groups and Agricultural sector in the state.

14.9.6 The Interruptions in power supply even if for a few minutes in duration, results in heavy loss of revenue to MSEDCL and also cause severe production loss to Industrial MIDC consumers.

14.9.7 There are many industries like Paper & Pulp, Cement, Pharmaceuticals, Cold Storage, Electroplating Industries, Starch Manufacturing, Petrochemicals, etc which require continuous power supply.

14.9.8 In 1st Phase system strengthening & Ring Main System Development in 26 nos. MIDC areas planned with an estimated cost of Rs 276 Crores. MERC

has accorded in-principle approval to the scheme with approved cost of Rs 267.37 Crores vide Letter No. MERC/ CAPEX/ 2021-22/ 315 Date 22 July 2021.

14.9.9 Objectives: -

The project is formulated with following activities for addressing deficiencies in the existing infrastructure & achieving following objectives:

- Strengthening & Augmentation of existing distribution network.
- Providing RMUs at multiple locations for easier load diversion, fault isolation & minimizing interruption area.
- Laying of additional link lines for conversion of existing Radial network to Ring Mains
- Conversion of OH to UG in densely populated & accident prone areas.

14.9.10 Cost Benefit Analysis

The following benefits are envisaged from the scheme: -

- 24x7 reliable power supply to consumers in high revenue pocket areas.
- Reduction of power supply interruptions and breakdowns.
- Reducing overloading of existing network and meeting load of prospective consumers.
- Meeting Universal Supply Obligation.

14.9.11 Scope of Work: -

Table 272 Scope of work of MIDC Network Strengthening Scheme

Sr. No.	Description	Unit	Scope
1	New HV substation/ switching station	No.	11
2	Additional Power Transformer	No.	4
3	33 kV/ 11 kV Bay	No.	16
4	Installation of RMUs	No.	205
5	Augmentation of Distribution Transformer	No.	167
6	Additional Distribution Transformer	No.	134
7	33 kV Isolators	No.	62
8	AB Switches	No.	142

14.9.12 Current Progress/Status: -

The full turnkey tenders for execution of project are floated circle wise and LOAs was issued in September 2022 where financial tie up is available. The work is in progress.

Table 273 Current Progress MIDC Network Strengthening Scheme

Sr No.	Description	Unit	Scope	Achievement
1	New Substation, Switching Station	No.	10	2
2	Additional/Augmentation of Power Transformer	No.	3	0
3	33 kV, 11 kV Bay	No.	5	1
4	Installation of RMUs	No.	175	81
5	Additional/Augmentation of Distribution Transformer	No.	109	46
6	New Distribution Transformers	No.	95	43
7	HT UG cable	Km	268.14	94
8	HT OH line	Km	146.02	21
9	Ring Main Unit	No.	184	81
9	33 kV Isolators	No.	62	18
10	AB Switches	No.	133	59

14.9.13 Funding Details:

- The fund of Rs 190 Crores for execution of the project are sanctioned with interest free loan from Government of India (GoI) under Special Assistance to States for Capital Investment Scheme.
- Further, financial tie up of Rs 20.99 Crores has been executed with REC Limited for funding of the balance project cost.

14.10 New Consumer/Connection (NC) Scheme:-

14.10.1 MSEDCL is implementing New Consumer/Connection (NC) scheme for providing power supply to prospective consumers and enhancement/reduction of load of existing consumers.

14.10.2 MERC has accorded in-principle approval to the scheme vide Letter No. MERC/Capex/2021-22/086 dated 02.03.2022.

14.10.3 The objectives of the scheme are:

- Providing power supply to new upcoming consumers.
- Establishment of infrastructure to provide power supply to prospective consumers.

14.10.4 Cost Benefit Analysis

The following benefits are envisaged from the scheme:

- Increase in revenue.
- Meeting Universal Supply Obligation.

14.10.5 Current Progress/Status:-

Table 274 Current progress New Consumer/Connection (NC) Scheme

Sr. No.	Description of Activity	Unit	Scope	Achievement
1	New Substations, Switching Stations	No.	9	0
2	Augmentation of Power Transformer in existing substation	No.	4	1
3	Additional Power Transformer in the existing substation	No.	1	0
4	Distribution Transformer Centre (DTC)	No.	10269	7843
5	Augmentation of Distribution Transformer Centre (DTC)	No.	799	587
6	HT Lines	km	3878.8	2841.61
7	LT Lines	km	5110.4	4020.61

14.10.6 Funding Details:-

- The financial tie up of Rs 2617.75 Crores has been made with Power Finance Corporation (PFC). Further, funds are also arranged from Service Connection Charges (SCC) recovered from consumers.

14.11 RDSS-Loss Reduction Part B-

14.11.1 The Central Government has announced a Revamped Distribution Sector Scheme vide Office Memorandum dated 20.07.2021. Under the said scheme, financial assistance will be provided by the central government to the government electricity distribution companies in the state to improve their operational efficiency and financial stability.

14.11.2 Sunset Date : 31.03.2026

14.11.3 Scheme Features:

- Funding linked to Results/ Performance (Conditional financial assistance)
- Thrust on Smart Metering
- Funding for Loss Reduction works
- Quality & reliability of power supply.

14.11.4 Scheme Objectives:

- Improve quality, reliability & affordability of power
- Reduce AT&C Losses pan-India level to 12-15% by FY 24-25
- Reduce ACS-ARR gap to ZERO by FY 24-25

14.11.5 Major Milestones of the Scheme:

- M/s RECPDCL is been appointed as PMA (Project Management Agency)
- The MoP, GoI approved the Action Plan & DPR in the Monitoring Committee Meeting on Dt. 29.08.2022.
- The sanction was received on 22-09-2022 from the Nodal Agency M/s. PFC Ltd. for Smart Metering works & Loss Reduction Works.

14.11.6 Pre-Qualifying Criteria

- 100% payment of subsidy for the previous year and advance payment of subsidy up to current period
- Ensure all govt. dept. / attached offices / local bodies have made 100% payment of Electricity Dues.
- Putting prepaid meters on Govt. Offices.
- Submission of Quarterly un-audited accounts and Audited annual accounts within prescribed timelines:
- First two years: Submission of Quarterly un-audited accounts within 60 days by end of the quarter & Audited annual accounts by end of December month.
- Third year onwards: Submission of Quarterly audited accounts within 45 days by end of quarter & Audited annual report by end of September month.
- Tariff order for the evaluation year and true up of penultimate year and implemented w.e.f. 1st April of Financial Year.

14.11.7 Action Plan:

- Reduce AT&C Losses of MSEDCL to 13% by FY 24-25
- Reduce ACS (Average Cost of Supply) - ARR (Average Revenue Realized) gap to ZERO by FY 24-25

14.11.8 Details of the scheme:

Part A : Smart Metering: (Rs. 14,547 Crores)

- Consumer Metering : Rs. 13,493 Crores
- DTC Metering: Rs. 937 Crores
- Feeder & Boundry Metering: Rs. 117 Crores

Part B: Loss Reduction Works: Rs. 13,149 Crores

- For MSEDCL, the existing sanctioned amount for RDSS : Rs. 27,696 Crores

14.11.9 Major Works involved in the RDSS:

- Smart Metering: Total Outlay - Rs. 14,547 Crores
- Under Smart Metering, total 2.37 Crores Non Ag Consumers, 4.07 lakh Non Ag DTCs & 27,826 nos. of Feeders are proposed to be Smart Metered.
- Under the Revamped Distribution Sector Scheme **Smart Metering**, work orders of Rs. 28,996 crore have been issued and installation of meters is in progress.
- Loss Reduction Works: Total Outlay - Rs. 13,149 Crores
- In this Scheme, it is proposed to reduce AT&C Loss to 13% up to FY 2024-25. The works involved are as under:
 - Separation of Ag and Non-Ag Feeders : 4,712 Feeders
 - Arial Bunch (AB) Cable to reduce the theft. : 30,332 Km
 - Upgradation of conductor (33,22,11kV & LT) : 19,884 Km
 - Feeder bifurcation (33,22 & 11kV feeders) : 9,843 Km
 - Provision of HVDS (DT and HT line): 5,170 DTCs
 - Installation of Capacitor to Substations : 2,051 Nos.
 - IT/OT : Rs. 168 Crores
- The works under RDSS will be executed on Full Turn Key Basis.
- Under the Revamped Distribution Sector Scheme Loss Reduction, work orders of Rs. 12,995 crore have been issued and Works are in progress.

14.12 RDSS Ray Nagar Colony Solapur PMAY Scheme: -

14.12.1 MSEDCL is implementing RDSS Ray Nagar Colony Solapur PMAY scheme for providing power supply to M/s Raynagar Housing Co-Operative Societies Federation Limited which is constructing 30,000 EWS Households under Pradhan Mantri Awas Yojana (PMAY) at Kumbhari, Taluka South Solapur, District Solapur.

14.12.2 MERC has accorded in-principle approval to the scheme vide Letter No. MERC/Capex/ MSEDCL/2023-24/179 dated 11.03.2024.

14.12.3 The objectives of the scheme are:

- Providing power supply to new upcoming consumers.
- Establishment of infrastructure to provide power supply to prospective consumers.

14.12.4 Cost Benefit Analysis

The following benefits are envisaged from the scheme:

- Increase in revenue.
- Meeting Universal Supply Obligation.

14.12.5 Scope of Work:-

Table 275 Scope of work of RDSS Ray Nagar Colony Solapur PMAY Scheme

Sr No.	Description of Activity	Unit	Phase-I	Phase-II
			Qty	Qty
1	33/11 KV, 2x10 MVA New Substation [Outdoor]	No.	1	2
2	33/11 KV, 1x5 MVA Additional Power Transformer [Outdoor] with Gantry Structure for 33 KV Bus	No.	0	1
3	Supply & Fixing of Modem along with Hardware Accessories for AMR	No.	8	18
4	33 KV Double Circuit Line with 100 sq mm ACSR Suspension Type & RSJ 152x152 mm 13 meter long	Km	11	26.7
5	33 KV Highway Crossing by 33 KV Cable 3C 300 sq mm for RoW 60 meter	No.	1	2
6	33 KV 6 Pole structure for Cut Points at substation end using 13 meter long RSJ Pole	No.	2	4
7	11 KV Single Circuit Pin Type with 55 sq mm AAAC lines on 100x116 mm 9 meter RSJ Poles	Km	18.02	37
8	11 KV Road Crossing with XLPE Cable 3C 95 sq mm on 100x116 mm, 11 Meter RSJ Pole	No.	1.83	22
8	11 KV Double Circuit Pin Type with 55 sq mm AAAC lines on 100x116 mm 11 meter RSJ Poles	Km	2.66	8.5
9	Single Pole Cut Point Structure for 11 KV Line on RSJ 9 Meter Pole	No.	36	65
10	Pole Mounted Distribution Transformer Substation 200 KVA 11/0.433 KV on 11 meter RSJ Pole	No.	96	183
11	LT Mini Feeder Pillars	No.	288	547
12	11 KV AB Switch	No.	18	31
13	LT Underground 3.5C x 70 sq mm cable for 3 nos buildings	No.	96	183
14	Single Phase Service Connection [up to 5 KW]	No.	10308	19692

14.12.6 Current Progress/Status:-

- The full turnkey tenders for the execution of project are floated.
- The works covered in Phase-I of the project are completed and works covered in Phase-II of the project are under progress.

Table 276 Current Progress RDSS Ray Nagar Colony Solapur PMAY Scheme

Sr No.	Description of Activity	Unit	Phase-I		Phase-II	
			Scope	Achievement	Scope	Achievement
1	33/11 KV, 2x10 MVA New Substation [Outdoor]	No.	1	1	2	5.90
2	33/11 KV, 1x5 MVA Additional Power	No.	0	0	1	0

Sr No.	Description of Activity	Unit	Phase-I		Phase-II	
			Scope	Achievement	Scope	Achievement
	Transformer [Outdoor] with Gantry Structure for 33 KV Bus					
3	Supply & Fixing of Modem along with Hardware Accessories for AMR	No.	8	10	18	0
4	33 KV Double Circuit Line with 100 sq mm ACSR Suspension Type & RSJ 152x152 mm 13 meter long	Km	11	6.10	26.7	9.089
5	33 KV Highway Crossing by 33 KV Cable 3C 300 sq mm for RoW 60 meter	No.	1	1	2	0
6	33 KV 6 Pole structure for Cut Points at substation end using 13 meter long RSJ Pole	No.	2	6	4	0
7	11 KV Single Circuit Pin Type with 55 sq mm AAAC lines on 100x116 mm 9 meter RSJ Poles	Km	18.02	12.089	37	0
8	11 KV Road Crossing with XLPE Cable 3C 95 sq mm on 100x116 mm, 11 Meter RSJ Pole	No.	1.83	0	22	0
8	11 KV Double Circuit Pin Type with 55 sq mm AAAC lines on 100x116 mm 11 meter RSJ Poles	Km	2.66	2.645	8.5	0
9	Single Pole Cut Point Structure for 11 KV Line on RSJ 9 Meter Pole	No.	36	88	65	0
10	Pole Mounted Distribution Transformer Substation 200 KVA 11/0.433 KV on 11 meter RSJ Pole	No.	96	93	183	0
11	LT Mini Feeder Pillars	No.	288	281	547	0
12	11 KV AB Switch	No.	18	18	31	5.90
13	LT Underground 3.5C x 70 sq mm cable for 3 nos buildings	No.	96	93	183	0
14	Single Phase Service Connection [up to 5 KW]	No.	10308	2517	19692	0

14.12.7 Funding Details:-

- The funds of Rs 57.90 Crores for execution of the project are sanctioned by Government of India (GoI) for power supply arrangements for Ray Nagar Colony, Solapur PMAY under RDSS Scheme vide Sanction Letter No. 02:10:RDSS:2021:I:MSEDCL dated 22.09.2022. The grant shall be disbursed by Government of India (GoI) up to 60% of project cost under RDSS Scheme.

14.13 East Vidarbha Scheme (Shet-tale)

14.13.1 Objectives:

- In State, most of the part of 5 nos. of districts namely Chandrapur,

Gadchiroli, Bhandara, Gondia and Nagpur of East Vidarbha Region is remote and naxalite. In these districts the work of strengthening, renovation and modernization of distribution network had not been carried out since last 2 to 3 years. Also, connections were released to new Ag consumers on the existing network. Due to burden on existing network, Ag consumers were not getting quality power supply. Hence, it was necessary to carry out strengthening and augmentation of distribution networks in order to provide quality power supply to Ag consumers which in turn will help increasing agriculture production and living standard of farmers. Considering above facts, GoM has sanctioned the scheme of Rs. 749.72 Crores. for strengthening, renovation and modernization of existing distribution network in 5 nos. of districts of East Vidarbha Region namely Chandrapur, Gadchiroli, Bhandara, Gondia and Nagpur.

14.13.2 Cost Benefit Analysis :

- East Vidarbha Scheme has been envisaged by GoM to extend electricity supply to Ag Consumers which will ultimately improve living standard of beneficiaries. Scheme is driven by social developmental motives hence no monetary benefits are envisaged.

14.13.3 Scope of the work:

- In East Vidarbha Scheme under Phase-I, scope of works includes 12 new Sub-station, Augmentation of 5 nos. of power transformers, 11 nos. of additional power transformers, 546 nos. of new distribution transformers, 803 km HT line, Augmentation of 84 nos. of DTC, Sub-station Capacitor 9, Line Capacitor 39 and replacement of 4896 nos. of distribution box etc.

14.13.4 Current Progress/ Status :

- As on 31.07.2022, out of above scope, 12 new Sub-stations, Augmentation of 5 nos. of power transformers, 9 nos. of additional Power Transformers, 535 nos. of new distribution transformers, 773 km HT line, Augmentation of 78 nos. of DTC, Sub-station Capacitor 9, Line Capacitor 38 and replacement of 4795 nos. of distribution box etc. work has been completed.

14.13.5 Details of Funding :

- GoM has sanctioned Rs. 749.72 Crores. as a grant and disbursed the

fund of Rs. 350 Crores. to Mahavitaran.
Scheme is completed as per the funds received from the GoM

14.14 System Strengthening in Metropolitan Region (SSMR Scheme)

14.14.1 MSEDCL is implementing System Strengthening in Metropolitan Region (SSMR) Scheme in Financial Year 2018-19, 2019-20 & 2020-21 with total capital cost of Rs 438 Crores to strengthen existing distribution network and reduce power supply interruptions in high revenue pocket areas in Mumbai & Pune Metropolitan Region consisting of Bhandup, Kalyan & Pune Zones.

14.14.2 MERC has accorded in-principle approval to the scheme vide Letter No. MERC/ CAPEX/ 2019-20/ 9170 Date 22nd October, 2019.

14.14.3 The objectives of the scheme are:

- Strengthening & Augmentation of existing distribution network.
- To reduce power supply interruptions in High Revenue pocket areas of Mumbai & Pune Metropolitan Regions.
- Replacement of existing feeder pillars with RMUs and providing RMUs at multiple locations for easier load diversion, fault isolation & minimizing interruption area.
- Laying of additional link lines for conversion of existing Radial network to Ring Mains.
- To replace old, corroded and deteriorated aging infrastructure like Electric Poles, Feeder Pillars, Conductors, etc to reduce frequent power supply interruptions

14.14.4 Cost Benefit Analysis :

The following benefits are envisaged from the scheme.

- 24x7 reliable power supply to consumers in high revenue pocket areas.
- Reduction of power supply interruptions and breakdowns.
- Reducing overloading of existing network and meeting load of prospective consumers.
- Meeting Universal Supply Obligation

14.14.5 Scope of Work

Table 277 Scope of work System Strengthening in Metropolitan Region (SSMR Scheme)

Sr No.	Description	Unit	Scope
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**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

1	Installation/ Replacement of R.M.U	No.	636
2	Augmentation/ Conversion of Lines	km	733.43
3	New Lines	km	836.52
4	Replacement of Feeder Pillars	No.	814
5	Replacement of Poles	No.	3129
6	Replacement of DB	No.	95
7	Provision/ Replacement of isolators/ AB switches/VCB	No.	361
8	Replacement of Line accessories	Lot	8605
9	R&M of DTC	Lot	793
10	Installation of multi meter/ service box boxes	No.	1847
11	Others (R&M)- Guarding, etc	Lot	8085.5
12	DTC New/ Augmentation/Conversion	No.	374
13	Substation		
a	Augmentation of Power Transformer	No.	10
b	Renovation of Existing Substation	Lot	25
c	Establishment of New Substation / Switching station	No.	18

14.14.6 Current Progress/Status: -

The full turnkey tenders for execution of project are floated and balance work is in progress. The financial closure of completed works is in progress.

Table 278 Current progress System Strengthening in Metropolitan Region (SSMR Scheme)

Sr No.	Description	Unit	Target	Completed
1	R.M.U	No.	576	567
2	HT Lines	km	820.95	786.36
3	LT Lines	Km	443.17	425.28
4	Feeder Pillars	No.	678	678
5	Replacement of Poles	No.	603	599
7	Distribution Box	No.	650	648
8	Narrow Base Tower	No.	31	31
9	AB Switch	No.	392	381
10	Multimeter Boxes	No.	1798	1798
11	DTC-New	No.	282	282
12	Substation			
a	Augmentation/Additional Power Transformer	No.	6	6
b	Establishment of New Substation/ Switching Station	No.	10	8

14.14.7 Funding Details: -

The funds for execution of the project are arranged by availing loan from REC Limited up to 80% of project cost.

14.15 Evacuation of Power from EHV Substation Phase-IV Scheme

14.15.1 MSEDCL is going implementing Evacuation of Power from EHV Substation Phase-IV Scheme for evacuation of power from EHV Substations which are soon commissioned by MSETCL. The Evacuation plan for 132/33 kV Jattarodi EHV Substation has been approved by Board of Directors. Further, DPRs for other EHV Substations are presently in process of approval.

14.15.2 MERC in-principle approval for the scheme has to be obtained prior to roll out of scheme.

- To evacuate Power from EHV substation commissioned/ to be commissioned.
- To reduce loading of existing feeders and reduction in line length.
- To improve voltage regulation of existing feeders.
- To improve reliability of system
- To reduce technical losses.

14.15.3 The following benefits are envisaged from the scheme:-

- Utilization of EHV Substations commissioned by MSETCL.
- Reducing overloading of existing network, improvement in reliability and meeting load of prospective consumers.

14.15.4 Cost Benefit Analysis

The following benefits are envisaged from the scheme:-

- Utilization of EHV Substations commissioned by MSETCL.
- Reducing overloading of existing network, improvement in reliability and meeting load of prospective consumers.

14.15.5 Current Progress/Status:-

The scheme is planned for roll out during FY 2024 to FY 2028.

14.15.6 Funding Details:-

The financial tie up shall be made with funding agencies.

14.16 Nagpur OH to UG Scheme:-

14.16.1 MSEDCL is implementing Nagpur OH to UG Scheme for Conversion of Overhead (OH) to Underground (UG) network and system strengthening work in Nagpur (Urban) and (Rural) Circle of Nagpur Zone

14.16.2 MERC in-principle approval is not required for 100% government grant scheme.

14.16.3 The objectives of the scheme are:

- Strengthening and augmentation of distribution network for meeting load growth.
- Reduction of AT&C losses
- Conversion of Overhead (OH) to Underground (UG) network at accident prone area & densely populated area.
- Providing RMUs at multiple locations for ease in load diversion by isolating faulty section and minimizing interruption area.
- Laying Ring Main lines for conversion of Radial power supply network to Ring Mains network.

14.16.4 Cost Benefit Analysis:

The following benefits are envisaged from the scheme:

- Reduction in AT&C losses.
- Reduction in accidents in densely populated areas.

14.16.5 Scope of Work:-

Table 279 Scope of work of Nagpur OH to UG Scheme

Sr. No.	Activity	Unit	NUC	NRC	Total	
			Qty	Qty	Qty	Amount (Crores)
1	Conversion of OH to UG 33 kV line 300 sqmm	Km	76	21.6	97.6	51.86
2	Conversion of OH to UG 11 kV line 300 sqmm	km	232	117.1	349.1	125.14
3	Conversion of OH to UG 11 kV line 185 sqmm	km	56	6.65	62.65	18.45
4	33 kV Feeder Bay with Gantry structure & PT	No.	3	0	3	0.62
5	11 kV feeder bay without Gantry Structure	No.	4	0	4	0.47
6	33 kV Isolators (without EB)	No.	21	0	21	0.24
7	33 kV 3C 300 sq mm XLPE UG Cable	km	31	2	33	16.68
8	11 kV 3C 300 sq mm XLPE UG Cable	Km	74	20.5	94.5	32.90
9	11 kV 3 C 95 mm 2 XLPE under ground Cable	km	35	0	35	7.39
10	11 kV Overhead Line	km	2	0	2	0.32
11	Shifting of 200 kVA DTC on plinth	No.	32	5	37	4.13
12	Shifting of 315 kVA DTC on plinth	No.	20	0	20	2.42
13	New DTC's(100&200 kVA)	No.	291	85	376	25.30
14	Augmentation of DTC's	No.	115	20	135	14.62

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Sr. No.	Activity	Unit	NUC	NRC	Total	
			Qty	Qty	Qty	Amount (Crores)
15	Conversion of OH to UG LT line 300 sqmm	km	172	6	178	38.07
16	Conversion of OH to UG LT line 240 sqmm	km	35	6	41	7.66
17	Conversion of OH to UG LT line 185 sqmm	km	13	40	53	7.88
18	Conversion of OH to UG LT line 120 sqmm	km	10	12	22	3.38
19	LT UG Cable	km	27.6	86.8	114.4	13.84
20	LT AB Cable -New	Km	156	20	176	30.85
21	LT AB Cable -Conversion	km	20	9	29	2.32
22	Replacement of HT Line Pole	No.	97	25	122	0.64
23	Replacement of LT Line Pole	No.	1014	100	1114	2.67
24	Replacement of Existing Distt.Box	No.	378	65	443	2.83
25	New RMU	No.	195	36	231	30.90
26	Replacement of 11KV AB Switch	No.	314	22	336	1.17
27	Dismantling of Street Light Pole	No.	1000	0	1000	0.12
28	LT Feeder Pillar -6Way	No.	102	36	138	1.16
29	LT Feeder Pillar -4Way	No.	475	268	743	5.09
30	LT Feeder Pillar -Mini	No.	1035	783	1818	6.13
31	HDD In Km	No.	79	0.65	79.65	27.57
32	Others		45.37	8.80		54.17
Total DPR Amount (Rs Crores)			425.00	112.00	-	537.00

14.16.6 Current Progress/Status:-

In the 1st Phase tenders for Infrastructure Development and Conversion of Overhead (OH) to Underground (UG) Network in Nagpur South West Constituency under Nagpur (U) Circle of Nagpur Zone have been awarded on 23.09.2024 and execution of work is in progress.

14.16.7 Funding Details:-

The 100% grant shall be provided by Government of Maharashtra (GoM) and funds are requested to Government of Maharashtra (GoM) vide Letter No. CMD/CE(Dist)/M-I/Nagpur/ 26615 dated 04.09.2023. The sanction of funds is under process. The works shall be executed from internal sources till sanction and disbursement of funds from Government of Maharashtra (GoM) to MSEDCL.

14.17 New Consumer/Connection (NC) FY 2025 to 2030 Scheme:-

14.17.1 MSEDCL is going implementing New Consumer/Connection (NC) scheme for providing power supply to prospective consumers and enhancement/reduction of load of existing consumers during FY 2025 to FY 2029.

14.17.2 MERC in-principle approval for the scheme has to be obtained prior to roll out of scheme.

14.17.3 The objectives of the scheme are:

- Providing power supply to new upcoming consumers.
- Establishment of infrastructure to provide power supply to prospective consumers.

14.17.4 Cost Benefit Analysis

The following benefits are envisaged from the scheme:

- Increase in revenue.
- Meeting Universal Supply Obligation.

14.17.5 Current Progress/Status:-

The scheme is planned for roll out during FY 2025 to FY 2029.

14.17.6 Funding Details:-

The financial tie up shall be made with funding agencies. Further, funds are also arranged from Service Connection Charges (SCC) recovered from consumers.

14.18 P:IE (Project for Intensive Electrification):

14.18.1 Objectives

This scheme is prepared to Release of electricity connections to residential, commercial, industrial, Street light & water works connections. The in-principle approval for such schemes has been taken from MERC.

14.18.2 Cost Benefit Analysis

N.A. Scheme Closed long back.

14.18.3 Details of Funding:

The scheme was funded through debt 90 %from REC & 10 % own fund. The scheme is closed long back.

14.19 P:SI (Project for System Improvement):

14.19.1 Objectives

This scheme is prepared to comply the statutory obligation section 57 of Electricity Act 2003 as well as to maintain quality of power supply as specify by SOP & to reduce technical loss. These schemes are prepared for to reduce the technical loss & improve voltage profile by strengthening the system by taking loan from REC Ltd.

14.19.2 Cost Benefit Analysis

N.A. Scheme Closed long back.

14.19.3 Details of Funding:

The scheme is funded through debt 90 % from REC & 10% own fund. The The scheme is closed long back.

14.20 RDSS (PMA) –

14.20.1 Objectives of PMA

The objectives for appointing of PMA are to ensure smooth implementation of Revamped Reforms- Linked Results- Based Distribution Sector Scheme -Part -A and projects under said scheme as per stipulated framework of timelines, quality and financial parameters.

14.20.2 Scope of PMA

The scope of PMA includes preparation of DPR, tender documents, awarding, monitoring, quality assurance, material inspection, evaluation etc. The complete scope of work of PMA is proposed to be undertaken in 2 (two) phases as below:

- Phase - 1: Preparation of DPR and Action Plan
- Phase- 2:Tender Documents, Award of Contract, monitoring, Quality Assurance, Material Inspection etc.

14.20.3 PMA: SCOPE OF WORKS

Part 1: Focused support to formulate schemes which are required for AT&C loss reduction including preparation of DPR.

- As is analysis of ‘consumer metering’, ‘DTR metering’, ‘feeder metering’ and identification of high loss areas, financial impact.
- Formulation of new metering schemes, scope for smart metering, cost benefit analysis, liasoning with smart metering agency, contractual due diligence with smart meter agencies.

- Overall budgeting, cost benefit analysis of pre-paid metering, feeder metering, DTR & Ag consumer metering of MSEDCL.
- As is analysis of 'performance indices like SAIFI, SAIDI, CAIDI' at various feeder level, and consumer level. Primary surveys should be conducted if required on sample basis.
- Formulation and recommendation of schemes to improve reliability and quality of supply.
- Benchmark experience of private counterparts and other state discoms in these aspects, and document the learnings.
- Besides, the consultant is also expected to assist in preparation of DPR for all consumer metering, DTR metering and feeder metering work.
- the consultant is also expected to assist in preparation of DPR to meet loss level below target, new methods thereof.
- the consultant is also expected to assist in submission of DPR to Board, Financial Institutions, MERC as per MSEDCL requirement & preparation of replies/queries to raise by them.
- The consultant is also expected to assist in preparation of tender documents, awarding, monitoring, quality assurance, material inspection, results evaluation or any other aspect related to above areas as decided by the MSEDCL.

Part 2: Financial viability assessment of reform measures

- Circle / Divisionwise root cause analysis of AT&C loss levels & methods for reduction as per target with financial requirement & Cost Benefit analysis.
- Root cause analysis of ACS-ARR gap.
- Formulation of things to do as short/medium term measures.
- The short-term measures should include but confine to following:
- Putting in place a mechanism to monitoring mechanism and process to ensure that the Government Departments pay for the for electricity consumed, promptly
- Putting in place a mechanism for ensuring that the consumption by the subsidized categories is accounted for properly
- Development of roadmap for implementing cost effective tariff.
- Development of roadmap for funding accumulated and current financial losses and clearance of part or whole of regulatory assets through tariff or state funding
- Conduct quarterly capacity building workshops in a central location on latest technologies, solar rooftop, EV etc.

- Develop Compliance framework for RPO
- Develop uniform data reporting templates for MoP, PFC/ REC, State Gov, Banks, Financial Institutions on subsidy, ABR, ACS or any other data.

Part 3: Development of evaluation framework

- Create circle wise baseline AT&C loss level monitoring and reporting framework
- Based on the action plan parts I and II, develop outcome and output parameters along with their year-wise targets with respect to the baseline data, weightage and marks shall be spelt out in this part in the form of a Results Evaluation Matrix.
- Coordinate with MoP , State Cabinet and MSEDCL offices for draft and final action plan formulation
- Preparation of presentations on progress as and when required

14.20.4 The PMA shall also carry out following works.

- Assisting MSEDCL in preparation of scheme & formulation of DPRs
- Monitoring and coordination of bidding process:
- Assist MSEDCL in preparation of tender documents for appointment of turnkey contractor.
- Assist MSEDCL in bidding process (including pre bid meetings etc) and technical evaluation of bids.
- Assist the MSEDCL for placement of Letter of Award and related activities.
- Project Planning and Implementation
- Assisting MSEDCL in preparation of detailed work implementation schedule (PERT) in association with turnkey contractor.
- Coordination & monitoring of project implementation activities.
- To monitor receipt and issue of materials by the contractor.
- Identification of anticipated bottlenecks in project implementation & preparation of remedial action plan in consultation with MSEDCL & Contractor.
- Verification of invoices raised by the contractors
- Supervision of flow of funds in dedicated bank account of projects
- To verify & assist for creation of assets in asset register of the MSEDCL.
- Quality Monitoring
- To prepare a Quality Assurance (QA) Plan with the approval of the utility
- Field quality inspection of ongoing/ completed works.
- Inspection of material at site / store on sample basis (Poles, Conductor,

Meters, Transformers, Cable etc).

- MIS & Web Portal Updation
- Assisting MSEDCL in timely updation of information on Web portal.
- Periodic reporting to the Distribution Section of MSEDCL.
- Preparation & Submission of Cost Benefit Analysis to MERC.
- Co-ordination: -
- Coordination with Nodal Agency / Mop / Contractors and any other works as may be required to achieve the objectives of the scheme
- Quality of Works: -
- To ensure quality of works and workmanship executed by contractors engaged by the Maharashtra State Electricity Distribution Co. Ltd. under REFORM Scheme during execution and after completion.
- To inspect quality of materials, works and workmanship of the various works under REFORM Scheme.
- Standard being followed by the turnkey contractors as per specifications and relevant electricity rules, Standard method of construction as per I.E. rules and standard Engineering practices.
- Inspect the actual quantity of materials utilized by the turnkey contractors as compare to the standard BOQ specified in schedules, within the sample scope of the works.
- VIP reference/complaints received relating to quality of works & resolving any other issues.
- Assist MSEDCL in Closure of works & Scheme, Approval for Equity.

14.20.5 Cost Benefit Analysis:

N.A.

14.21 RDSS-Dvp of Particular Vulnerable Tribal Grp (PVTG):

14.21.1 Objectives :

Hon'ble PM launched Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM-JANMAN) on Janjatiya Gaurav Divas on 15th November, 2023 at District of Jharkhand. This mission aims at the targeted development of 75 particularly Vulnerable Tribal Groups (PVTGs) residing in the 18 States and the Union Territory of Andaman and Nicobar Islands.

The Government of India has decided that all identified PVTG beneficiary HHs under PM-JANMAN Scheme for PVTG development mission for on-grid / off-grid electricity connection shall be eligible for funding under RDSS (Revamped Distribution Sector Scheme) as per the scheme guidelines.

14.21.2 Major Works involved:

DPR COST – Rs. 26.22 Crores (Rs. 30,464 per HH)

- HT Line : 39.51 km
- New DTC : 65 nos.
- LT Line : 88.14 km
- Aerial Bunched Cable : 78.28 km
- Service Connections : 8556 nos.

14.21.3 Details of Funding:

- As per the list of 43,534 nos. PVTG HHs received from GoM / MoTA, actual site survey was carried out and 23 un-electrified Habitations & 8556 nos. of un-electrified HHs were identified.
- DPR of Rs. 26.22 Crores was submitted to MoP & GoM and was sanctioned on 11.03.2024.
- Rs. 7.87 Crores i.e. 50% of Eligible Grant towards 1st Stage of the Scheme is released on 12.04.2024.

14.21.4 Current Progress/Status:

On 15.04.2024 all 23 nos. of UE PVTG Habitations & 8556 nos. of UE PVTG HHs as per target scope have been electrified.

As on 30.06.2024, total 9216 nos. of PVTG HHs are electrified and DPR preparation for additional electrified 660 HHs is in process & will be submitted within a week.

14.21.5 Cost Benefit Analysis:

RDSS PVTG scheme have been envisaged by Government of India to extend electricity supply to deprived sections of the society, which will ultimately improve living standard of beneficiaries.

14.22 SIDBI Cluster Development Fund (CDF) Scheme:-

14.22.1 The Small Industries Development Bank of India (SIDBI)-Cluster Development Fund is set up to provide financial assistance in order to create physical infrastructure such as Power Distribution projects, Roads & Bridges, Godowns , Market yards, Training Centers, etc in existing MIDC, Industrial & Extended Industrial area clusters for development of Micro, Medium & Small Enterprises.

14.22.2 The funds for the execution of projects under SIDBI-Cluster Development Fund shall be provided as a loan upto 95% of project cost and 5% grant shall be provided by Government of Maharashtra (GoM).

14.22.3 The Government of Maharashtra (GoM) has informed MSEDCL to consider project with cost Rs 250 Crores for financial assistance under SIDBI-Cluster Development Fund. Accordingly, Detailed Project Reports (DPRs) for system strengthening work to be executed in MIDC, Industrial and Industrial area clusters has been submitted to SIDBI with Total Cost Rs 250.99 Crores for availing financial tie up.

14.22.4 The Detailed Project Report (DPR) has been approved by Board of Directors vide Board Resolution (BR) No. 2888 dated 14.08.2024.

14.22.5 Project Objectives:-

The project is formulated with following activities for addressing deficiencies in the existing infrastructure & achieving the following:-

- Strengthening & Augmentation of the existing distribution network with provision of new Substations, Distribution Transformer Centre (DTCs), electric lines, etc and augmentation of the existing Substations, DTCs, electric lines to cater load growth.
- Laying of new lines & link lines for diversion of load from existing overloaded feeders, conversion of existing Radial network to Ring Mains, etc.
- Providing RMUs at multiple locations for easier load diversion, fault isolation & minimizing interruption area and Laying additional Ring Main Lines converting all essential network to Ring Main Network rather than existing Radial network.
- Replacement of old and deteriorated conductor, poles, distribution boxes, etc which have served useful life for improving reliability of distribution network.
- Conversion of Overhead (OH) network into Underground (UG) in densely populated & accident prone areas
- Reduction of A&T losses.

14.22.6 Cost Benefit Analysis:

The following benefits are envisaged from the scheme:-

- Increase in sales.

- Reduction in interruptions for consumers.

14.22.7 Scope of Work:-

Table 280 Scope of work of SIDBI Cluster Development Fund (CDF) Scheme

Sr No.	Description	Unit	Scope
1	33/22/11 kV Substations and Switching Stations	No.	6
2	33 kV, 22 kV, 11 kV Feeder Bays	No.	19
3	Additional Power Transformers	No.	1
4	33 kV, 22 kV, 11 kV HT Lines	km	69.5
5	33 kV, 22 kV, 11 kV HT UG Cables	Km	246.02
6	LT Lines	km	2
7	LT Cables	Km	30.13
8	New Distribution Transformers	No.	121
9	Augmentation of Distribution Transformers	No.	97
10	Ring Main Unit	No.	68
11	Pole replacement (HT <)	No.	165
12	OH to UG cable	km	17.55
13	Line upgradation	km	71
14	AB Switch	No.	51
15	Feeder Pillar	No.	345
16	Isolators	No.	23
17	Replacement of Distribution boxes	No.	126

14.22.8 Current Progress/Status:-

The circle wise full turnkey tenders for the execution of project have been floated and are under process. The Detailed Project Report (DPR) is being submitted to Hon'ble MERC for in-principal approval of capital investment.

14.22.9 Funding:-

MSEDCL has requested Government of Maharashtra (GoM) to provide funds for System Strengthening works to be executed in MIDC, Industrial & Extended Industrial areas vide letter No. CMD/CE(Dist.)/M-I/28693 dated 20.09.2023. The financial tie up shall be done with SIDBI for the execution of work.

14.23 SPA: PE (Special Project for Ag. Pump electrification):

14.23.1 Objectives :

- This scheme was prepared to release Ag pumps in non-backlog districts. All the Ag. Pump related work such as HT Line, LT line & DTC erection

are carried out in this scheme. To Release of electricity connections to pending and forth coming Agricultural connections in Non- Backlog notified districts.

- However from FY-2009-10, these schemes are being prepared for circle as whole resulting in scheme costing more than Rs. 10 Crores, hence categorised as DPR schemes. The in-principle approval for such schemes has been taken from MERC.

14.23.2 Cost Benefit Analysis:

N.A. Scheme is closed long back.

14.23.3 Details of Funding:

The scheme was funded through debt 90 % from REC & own fund 10%. The scheme is closed long back.

14.24 Special Assistance Nagpur & Pune System Strengthening Scheme:-

14.24.1 MSEDCL provides power supply to 2.90 Crores consumers in the state of Maharashtra through its vast network consisting of substations, feeders, distribution transformers and electric lines.

14.24.2 The existing infrastructure in many places has been in existence for more than 25 to 30 years.

14.24.3 The Industrial consumers contribute a majority of revenue to MSEDCL. There have been rising cases of power supply interruptions and breakdowns in these areas especially in rainy season as well in Summer season due to inadequate infrastructure, deterioration of existing infrastructure, ageing, overloading of feeders and non-availability of alternate supply arrangement for ensuring 24x7 reliable power supply in these areas.

14.24.4 A meeting was held at corporate level on 06.02.2024 to discuss the time bound action plan to resolve the problems of frequent interruptions, emergent load shedding due to overloading of existing network in Pune zone. After detail analysis it is observed that 60 Nos of feeders in Pune zone are overloaded having more than 80% load, leading to frequent power supply failures.

14.24.5 The Chief Engineer, Nagpur Zone has informed during Network Data meeting held on 12.03.2024 at Corporate Office, Mumbai and meeting held with Hon'ble Chairman & Managing Director on 18.06.2024 & 19.06.2024 that

considering loading position in this summer season it is necessary to carry out network work like Link Line, Substation, Additional Power Transformer, etc on an urgent basis to maintain uninterrupted power supply during next summer season under area of Nagpur (Urban) and Nagpur (Rural) Circle.

14.24.6 Accordingly, Chief Engineer, Nagpur Zone has submitted Detailed Project Report (DPR) for urgent system strengthening work under Nagpur (Urban) and Nagpur (Rural) Circle of Nagpur Zone to reduce interruptions and to maintain quality and reliable power supply.

14.24.7 In view of above considering the constraints of distribution network in Nagpur and Pune Zone, the Superintending Engineer, Nagpur (U) ,Nagpur R, Rastpeth Urban, Ganeshkhind Urban and Pune Rural Circle has submitted DPR for Infrastructure Development and System strengthening work in Nagpur and Pune Zone area.

14.24.8 Project Objectives:-

The project is formulated with following activities for addressing deficiencies in the existing infrastructure & achieving the following:-

- Bifurcation of overloaded feeder and Load relief to the existing overloaded 22KV & 11KV feeders.
- Providing quality and reliable power supply to existing low voltage pocket areas.
- Strengthening and augmentation of distribution network for meeting load growth.
- Reduction of AT&C losses.
- Reducing power supply interruption to existing consumers.
- Providing RMUs at multiple locations for ease in load diversion by isolating faulty section and minimizing interruption area.
- Laying Ring Main lines for conversion of Radial power supply network to Ring Mains network.

14.24.9 Cost Benefit Analysis:

The following benefits are envisaged from the scheme:

- Reduction of AT&C losses.
- Reducing power supply interruption to existing consumers.
- Increase in Revenue.

14.24.10 Scope of Work:-

Table 281 Scope of work of Special Assistance Nagpur & Pune System Strengthening Scheme

Sr. No.	Activity	Unit	Scope
1	33/11KV, 2x10MVA Conventional S/stn	Nos	1
2	33/22KV,2x10 MVA S/stn	Nos	1
3	22/22KV Sw/stn with 22/11KV ,1x10MVA S/stn	Nos	1
4	22KV I/D Switching Station	Nos	1
5	1x10MVA Additional PT	Nos	1
6	33KV Feeder Bay with Gantry structure & PT	Nos	2
7	22KV Feeder Bay with Gantry structure & PT	Nos	2
8	33KV,300sqmm XLPE UG cable	KM	16.2
9	22KV,300sqmm XLPE UG cable	KM	96.14
10	11KV,300sqmm XLPE UG cable	KM	57
11	HT line Up-gradation	KM	29
12	RMU	No	80
13	200/31145/630 KVA DTCs	No	68
14	DTC Augmentation	No	93
15	DTC Conversion 22KV to 11KV	No	16
16	LT UG cable	KM	3
17	LT OH Line	KM	9
18	33KV Suspension type with 232 Sq.mm AAC Conductor	KM	11.5
19	22KV Single ckt Line	KM	5.12
20	11 KV Single ckt Line	KM	1.5

14.24.11 Current Progress/Status:-

The full turnkey tenders for execution of project are floated in 5 No circles in Sept.2024 and 1 No LOA is in process and balance 4 Nos tender technical evaluation is in process.

14.24.12 Funding Details:-

MSEDCL has requested GoM to provide special assistance of Rs.155.73 Crores i.e. interest free loan from central government for special assistance scheme under Pune and Nagpur area. The fund provision shall be done from internal sources till availing of financial tie up from FIs.

14.25 Sukanu Samiti:-

14.25.1 MSEDCL has implementing Sukanu Samiti for providing express feeder for power supply to industrial consumers with funds sanctioned by District Industries Centre (DIC).

14.25.2 The objectives of scheme are:-

- To provide power supply to industrial consumers
- To provide express feeder for uninterrupted and quality power supply
- To improve reliability of supply

14.25.3 The following benefits are envisaged from the scheme:-

- Increase in sales.
- Reduction in interruptions for consumers

14.25.4 Cost Benefit Analysis:

The following benefits are envisaged from the scheme:-

- Increase in sales.
- Reduction in interruptions for consumers

14.25.5 Current Progress/Status:-

The works are awarded in the scheme and financial closure is pending.

14.25.6 Funding Details:-

The 100% funds are provided as grant by District Industries Centre (DIC)

14.26 MSKVY 2.0 – System Strengthening and Capacity Enhancement

14.26.1 MSEDCL supplies electricity to around 2.9 Crores. consumers in the Maharashtra state, around 45 Lakh consumers are agriculture consumers and consume 29% of electricity.

14.26.2 Presently power supplied to the agricultural consumers is during day and night-time on rotational basis.

14.26.3 The night-time power supply to farmers is creating a lot of inconvenience to them and there is a constant demand for long time to provide reliable electricity supply to farmers during the daytime.

14.26.4 So total 2782 nos. of substations are identified for solarisation of Ag feeders for giving day time power supply to farmers under MSKVY 2.0.

14.26.5 Objectives of the scheme:

- In accordance with the Government of Maharashtra's initiative to provide reliable day time electricity supply to agricultural consumers &
- To promote Renewable Energy and to reduce per unit cost of energy, the

Mukhyamantri Saur Krushi Vahini (MSKVY) 2.0 scheme has been launched.

- This scheme, as detailed in the referenced Government Resolution (GR), aims to solarize 30% of agricultural feeders by 2025, by deploying 9155 MW of solar power capacity by December 2025.

14.26.6 Cost Benefit Analysis :

The following benefits are envisaged from the scheme:

- 24X7 Power Supply to agriculture consumers.
- To promote renewable energy and to reduce per unit cost of energy.

14.26.7 To meet these objectives, it is essential to undertake system strengthening and capacity augmentation at existing substations to facilitate the effective evacuation of power generated from decentralized solar projects.

14.26.8 To support the implementation of system strengthening and Capacity addition works under the MSKVY 2.0 scheme, the DPR amounting to Rs 1181.37 Crores was submitted to Government of Maharashtra.

14.26.9 Accordingly, GoM has sanctioned interest-free loan of Rs.757.67 Crores for the fiscal year 2023-24 from Special Assistance Scheme of GoI.

14.26.10 Further, GoM has released fund of Rs.757.67 Crores. up to March 24 and balance fund of Rs 423.70 Crores is demanded from GoM for the year 2024-25.

14.26.11 In this regard, Rolling Capital Investment Plan for FY 2023-24 and 2024-25 for all the schemes including MSKVY 2.0 to be executed under MSEDCL was submitted. In first stage, Detailed Project Report (DPR) of Rs. 1181.37 Crores. Submitted to Hon. MERC vide letter no 32549 dated 15.10.2024 that encompasses the proposed System Strengthening and Capacity Enhancement works necessary for accommodating power injection from decentralized solar plants.

14.26.12 Also some minor works arises like replacement of VCB Spares, Isolators, Painting of Power Transformers, Metal Spreading, Watering arrangement etc. for the earthing system etc. These works will be executed from the grant of Rs. 350 Crores to be received in phase manner from 2023-24 to 2028-29.

14.26.13 In addition to the Substation Strengthening works, the additional DPR of Rs 823.0 Crores. is also submitted to GoM to give load relief to the existing

33KV and 11KV feeders related to the solar power injected substations.

14.26.14 These additional funds are expected to receive for FY 2025-26.

14.27 Underground Works in Extended area of Baramati Municipal Corporation Scheme: -

14.27.1 MSEDCL is implementing Underground Works under Extended area of Baramati Municipal Corporation Scheme in Baramati Municipal Corporation area with total capital cost of Rs 103.62 Crores. In order to meet the load demand. The project is divided into 3 phases.

- Phase-I- Underground Works of Extended area of Baramati Municipal Corporation- Total Cost Rs 54.03 Crores.
- Phase-II- New Substations & Conversion of 22 kV to 11 kV network in Baramati Extended area-Total Cost Rs 30.11 Crores.
- Phase-III- New Substation at Medad & additional Underground works in Baramati Extended area-Total Cost Rs 19.48 Crores.

14.27.2 The scheme is 100% funded by Government of Maharashtra (GoM) grant.

14.27.3 MERC in-principle approval is not applicable for 100% government grant funded schemes as per MERC (Approval of Capital Investment Schemes) Regulations 2022.

14.27.4 The objectives of the scheme are:

- Strengthening & Augmentation of Distribution Network.
- Reduction of AT&C losses.
- Conversion of OH to UG network at accident prone area & densely populated area.
- By providing RMU at multiple locations, easily load diversion can be done by isolating faulty section and minimize interruption area.
- Laying Ring Main lines results all network convert to Ring Main network rather than existing radial network.

14.27.5 The following benefits are envisaged from the scheme:

- Increase in revenue and reduction in losses.
- Reduction of power supply interruptions and accidents.
- Improvement in reliability of power supply due to introduction of HVDS.
- Meeting Universal Supply Obligation.

14.27.6 Cost Benefit Analysis:

The following benefits are envisaged from the scheme:

- Increase in revenue and reduction in losses.
- Reduction of power supply interruptions and accidents.
- Improvement in reliability of power supply due to introduction of HVDS.
- Meeting Universal Supply Obligation.

14.27.7 Scope of Work:-

The phase wise scope of work is as given below:-

Phase-I:- Underground Works of Extended area of Baramati Municipal Corporation:-

Table 282 Scope of work of Underground Works in Extended area of Baramati Municipal Corporation Scheme (Phase I)

Sr No.	Activity description	Unit	Quantity
1	Conversion of 22 KV Overhead Line to 22 KV, 3C, 300 sq mm Underground Cable	km	7.1
2	Conversion of 22 KV Overhead Line to 22 KV, 3C, 95 sq mm Underground Cable	km	0.5
3	Conversion of 11 KV Overhead Line to 11 KV, 3C, 300 sq mm Underground Cable	km	26.17
4	Conversion of 11 KV Overhead Line to 11 KV, 3C, 185 sq mm Underground Cable	Km	12.94
5	Conversion of 11 KV Overhead Line to 11 KV, 3C, 95 sq mm Underground Cable	Km	4.6
6	11 KV Without SCADA Compatible RMU (3 Iso)	No.	45
7	11 KV Without SCADA Compatible RMU (3 Iso) including FPI	No.	17
8	11 KV SCADA Compatible RMU (3 Iso + 1 Br)	No.	10
9	11 KV SCADA Compatible RMU (2 Iso + 1 Br)	No.	20
10	22 KV SCADA Compatible RMU (2 Iso + 1 Br)	No.	1
11	Conversion of Overhead LT Line to LT, 3.5C, 240 sq mm Underground Cable	Km	63.5
12	Conversion of Overhead LT Line to LT, 3.5C, 185 sq mm Underground Cable	Km	62
13	Conversion of Overhead LT Line to LT, 3.5C, 120 sq mm Underground Cable	Km	71.3
14	Conversion of Overhead LT Line to LT, 3.5C, 70 sq mm Underground Cable	Km	15.3
15	Conversion of Overhead LT Line to LT, 3.5C, 50 sq mm Underground Cable	Km	2.2
16	Conversion of Overhead LT Line to LT, 3.5C, 16 sq mm Underground Cable	Km	32.62
17	Conversion of Overhead LT Line to LT, 2C, 2.5 sq mm Underground Cable	Km	85.53
18	Conversion of Overhead LT Line to LT, 2C, 4 sq mm Underground Cable	Km	315.2
19	LT Feeder Pillar 6 Way	No.	31
20	LT Feeder Pillar 4 Way	No.	369

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Sr No.	Activity description	Unit	Quantity
21	LT Mini Feeder Pillar	No.	1343
22	22 KV Silicon Coated Touchproof Indoor Termination Joint for XLPE, 3C, 300 sq mm	No.	5
23	11 KV Heat Shrinkable Outdoor Termination Joint for XLPE, 3C, 95 sq mm	No.	106
24	11 KV Heat Shrinkable Indoor Termination Joint for XLPE, 3C, 300 sq mm	No.	100
25	11 KV Heat Shrinkable Indoor Termination Joint for XLPE, 3C, 185 sq mm	No.	62
26	11 KV Heat Shrinkable Indoor Termination Joint for XLPE, 3C, 95 sq mm	No.	124
27	GI Pipe 200 mm	No.	396
28	9 Way Service Connection Box	No.	100

**Phase-II:- New Substations & Conversion of 22 kV to 11 kV network in
Baramati Extended area:-**

Table 283 Scope of work Underground Works in Extended area of Baramati Municipal Corporation Scheme (Phase II)

Sr. No.	Particulars	Activity code	Unit Rate (Rs Lakhs)	Unit	Qty	Total Amount (Rs Lakhs)
1	33/11 KV, 2x5 MVA Urja Bhavan GIS S/s	7004	344.61	No.	1	344.61
2	33/11 KV, 2x5 MVA Gokul nagar S/s (Outdoor)	0103	287.15	No.	1	287.15
3	33/11 KV, 2x10 MVA Urban gram S/s (Outdoor)	0104	345.90	No.	1	345.90
4	33/11 KV, 1x5 MVA Addl. Power Transformer with gantry structure for 33 kV bus Kanheri S/s	301A	98.32	No.	1	98.32
5	33 KV S/c suspension type 100 sq mm AAAC line on 152x152 mm 13 mtr RSJ	0702	12.76	Km	1	12.76
6	33 KV 3C 300 sq mm UG cable	0708	35.16	Km	11.12	390.95
7	DP structure for 33 KV line using 13 mtr RSJ	0711	1.30	No.	3	3.91
8	11 KV S/c pin type 100 sq mm AAAC line on 100x116 mm 10 mtr RSJ	0906	9.03	Km	16.6	149.86
9	DP structure for 11 KV line using 11 mtr RSJ	922	0.89	No.	16	14.33
10	Pole mounted DTC 100 KVA 11/0.44 KV on 9 mtr RSJ	1203	3.30	No.	25	82.51
11	11 KV 3C 300 sq mm UG cable	913	24.01	Km	17.5	420.29
12	Aug. of pole mounted DTC 11/0.44 KV 100 KVA to 200 KVA	1302	4.09	No.	10	40.93
13	Aug. of pole mounted DTC 11/0.44 KV 200 kVA to 315 kVA	1304	9.21	No.	1	9.21
14	LT to UG 3.5C 120 sq mm UG cable	1412	6.46	km	1.2	7.75
15	Conversion of DTC 22 KV to 11 KV 16 KVA	New 1	0.73	No.	31	22.73

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Sr. No.	Particulars	Activity code	Unit Rate (Rs Lakhs)	Unit	Qty	Total Amount (Rs Lakhs)
16	Conversion of DTC 22 KV to 11 KV 25 KVA	New 2	0.83	No.	5	4.17
17	Conversion of DTC 22 KV to 11 KV 63 KVA	New 3	1.51	No.	41	62.09
18	Conversion of DTC 22 KV to 11 KV 100 KVA	New 4	1.9765	No.	207	409.13
19	Conversion of DTC 22 KV to 11 KV 200 KVA	New 5	3.40	No.	18	61.37
20	Conversion of DTC 22 KV to 11 KV 315 KVA	New 6	7.56	No.	6	45.38
21	Conversion of DTC 22 KV to 11 KV 630 KVA	New 8	10.79	No.	4	43.19
22	11 KV station type 1.2 MVAR capacitor bank	1703	7.89	No.	1	7.89
23	11 KV station type 2.4 MVAR capacitor bank	1704	10	No.	2	20.01
24	Supply & Fixing of AMR modem	New AMR	0.046	No.	24	1.12
25	RI charges for Asphalt road	-		km	2	22.68
26	RI charges for concrete road	-		km	1	15.17
27	RI charges along the road	-		km	15	86.85
Total DPR Cost (in Lakhs)						3010.37 (Rs 30.11 Crores)

Phase-III:- New Substation at Medad & additional Underground works in Baramati Extended area:-

Table 284 Scope of work Underground Works in Extended area of Baramati Municipal Corporation Scheme (Phase III)

Sr No.	Description	Total Amount (Rs Lakhs)
1	33/11 KV, 2x5 MVA Substation at Medad, Tal. Baramati	627.45
2	Underground Works	649.22
3	Cost of R.I. Charges to be paid to Baramati Municipal Council	471.02
4	Cost of Land for Substation	200.00
Total DPR Cost (Rs 19.48 Crores)		1947.69

14.27.8 Current Progress/Status:-

The turnkey tenders for execution of Phase-I project are floated in 2020 and physical work is completed. The financial closure of projects is in progress. The work completed is as given below:-

Table 285 Current Progress Underground Works in Extended area of Baramati Municipal Corporation Scheme (Phase III)

Sr No	Activity No.	Description of Activity	Unit	LOA Qty	Closure Qty.
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Sr No	Activity No.	Description of Activity	Unit	LOA Qty	Closure Qty.
1	5502	Laying of 1 Km 22 KV Overhead line by 3 C, 300 Sqmm XLPE under ground Cable	Nos	7.10	31.662
2	5504	Laying of 1 Km 22 KV Overhead line by 3 C, 95 Sqmm XLPE under ground Cable	Nos	0.50	0.00
3	5505	Laying of 1 Km 11 KV Overhead line by 3 C, 300 Sqmm XLPE under ground Cable	Nos	26.17	33.234
4	5507	Laying of 1 Km 11 KV Overhead line by 3 C, 185 Sqmm XLPE under ground Cable	Km	12.94	12.365
5	5508	Laying of 1 Km 11 KV Overhead line by 3 C, 95 Sqmm XLPE under ground Cable	Km	4.60	1.570
6	New1	11 Kv Without SCADA Compatible RMU 3 Iso	Nos	45	45
7	New2	11 Kv Without SCADA Compatible RMU 3 Iso including Fault Passage Indicator	Nos	17	17
8	6202	11 kV SF6, Motorized, SCADA Compatible RMU 3 Iso + 1 Br	Nos	10	10
9	1225	11 kV SF6, Motorized, SCADA Compatible RMU 2 Iso + 1 Br	Nos	20	20
10	New3	Ring Main Unit (SF - 6) (2 Isolators + 1 Breaker) 22 kV	Nos	1	10
10A	New 8	Ring Main Unit (SF - 6) (3 Isolators + 2 Breaker) 22 kV	Nos	0	2
11	5511	Laying of Overhead LT Line to underground by 3.5 C, 240 sqmm XLPE cable	Km	63.50	71.930
12	5512	Laying of Overhead LT Line to underground by 3.5 C, 185 sqmm XLPE cable	Km	62	54.553
13	5513	Laying of Overhead LT Line to underground by 3.5 C, 120 sqmm XLPE cable	Km	71.30	50.811
14	5515	Laying of Overhead LT Line to underground by 3.5 C, 70 sqmm XLPE cable	Km	15.30	0.00
15	5517	Laying of Overhead LT Line to underground by 3.5 C, 50 sqmm XLPE cable	Km	2.20	0.00
16	5518	Laying of Overhead LT Line to underground by 3.5 C, 16 sqmm XLPE cable	Km	32.62	18.169
17	1415	LT to underground 2C, 2.5sqmm cable	Km	85.53	81.597
18	1416	LT to underground 2C, 4 sqmm cable	Km	315.20	169.098
19	2001	Supply, Erection, Testing & Commissioning of LT 6--WAY Feeder Pillars	Nos	31	0.00
20	2002	Supply, Erection, Testing & Commissioning of LT 4--WAY Feeder Pillars	Nos	369	453
21	2003	Supply, Erection, Testing & Commissioning of LT Mini Feeder Pillars	Nos	1343	1449
22	New4	22 kV Silicon coated touchproof Indoor termination joint (Al) kit for XLPE 3 C X 300 sqmm	Nos	5	37
23	5320	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 95 sqmm	Kit	106	8
24	5327	11 kV heat shrinkable indoor termination joint kit for 3 C X 300 sqmm	Nos	100	229
25	New5	11 kV heat shrinkable Indoor termination joint kit for 3 C X 185 sqmm	Nos	62	64
26	5324	11 kV heat shrinkable Indoor termination joint kit for 3 C X 95 sqmm	Nos	124	12

Sr No	Activity No.	Description of Activity	Unit	LOA Qty	Closure Qty.
27	New6	G.I. Pipe 200 mm	MTR	396	0
28	New7	9 Way Service Connection box	Nos	100	9

14.27.9 Funding Details:-

14.27.10 The 100% funds for execution of the project are sanctioned as grant from Government of Maharashtra (GoM). The phase wise sanction of fund from Government of Maharashtra is as given below:-

Table 286 Funding details of Underground Works in Extended area of Baramati Municipal Corporation Scheme (Phase III)

Sr No.	Phase	Description	Total Cost (Rs Crores.)	GR No.
1	I	Underground Works of Extended area of Baramati Municipal Corporation	50	Sankirn-2020/Sr No. 45/Energy-5 dtd. 30.03.2020
2	II	New Substations & Conversion of 22 kV to 11 kV network in Baramati Extended area	30.11	Sankirn-2020/Sr No.45/Energy-5 dtd. 27.03.2021
3	III	New Substation at Medad & additional Underground works in Baramati Extended area	6.28	Sankirn-2021/Sr No.176/Energy-5 dtd. 15.02.2022
4	III		4.71	Sankirn-2021/Sr No.45/Energy-5 dtd. 15.02.2022
5	III		8.49	Sankirn-2021/Sr No.45(Part-1) /Energy-5 dtd. 15.02.2022
Total (Rs Crores.)			99.59	

Note:- In the 1st Phase Government of Maharashtra (GoM) vide Government Resolution (GR) No. Sankirn-2020/Sr No. 45/Energy-5 dtd. 30.03.2020 had approved grant of Rs 50 Crores, DPR cost is Rs 54.03 Crores. however tender was awarded to successful bidder at 16.77% below the estimated tender cost within approved grant by Government of Maharashtra (GoM).

14.28 Backlog Scheme (Regional Imbalance):

14.28.1 Objectives:

- The Indicator & Backlog Committee nominated by Hon'ble Governor, Maharashtra in March 1996, worked out the backlog in different areas (such as Education, Irrigation etc.) in various districts of Maharashtra State, taking average of state as a base for calculation of same. The I & B committee worked out the backlog of Ag pump Energization based on Nos. of Ag pump sets energized & sawn area in that particular district.
- In order to remove the regional imbalance of Ag. pump energisation in the State, I & B Committee declared the backlog of 2,98,225 nos. of Ag.

pumps as on March 96 in 18 nos. of districts (Akola, Washim, Amravati, Yavatmal, Wardha, Bhandara, Gondia, Chandrapur, Gadchiroli, Jalna, Parbhani, Hingoli, Beed, Nanded, Thane, Raigad, Sindhudurg and Ratnagiri). Under this scheme, backlog of Ag. Pump energisation has been removed completely from Vidarbha & Marathwada and Rest of Maharashtra except Ratnagiri district.

14.28.2 Cost Benefit Analysis:

As the present tariff of Agricultural category is much less than average cost of supply, there is no direct monetary benefits envisaged. But still new Ag connections needs to be released to meet statutory obligation of Electricity Act 2003.

14.28.3 Scope of the work:

The Indicator & Backlog Committee declared the backlog of 2,98,225 nos. of Ag. pumps as on March 1996 in 18 nos. of backlog districts.

14.28.4 Current Progress/ Status:

Out of declared the backlog of 2,98,225 nos. of Ag. pumps as on March 1996 in 18 nos. of backlog districts, 2,95,606 Ag pumps are energized upto Sept-2024 and work of energization of balance backlog of 2,619 Ag pumps is under progress in Ratnagiri district. However, in Ratnagiri district only 213 nos. of Ag pumps are paid pending as on 30.09.2024.

14.28.5 Details of Funding :

Earlier, work of energization of Ag Pumps (thereby removing Ag. Backlog) in Backlog notified districts were carried out by MSEB by taking loan from funding agency. As per the directives issued by Hon'ble Governor in the FY 2005-06, the fund is being made available as grant to Mahavitaran under the scheme of removal of regional imbalance of Ag. pump energisation to remove backlog of Ag. pumps from the backlog districts.

14.29 DDF/Non-DDF Scheme

14.29.1 MSEDCL implements DDF Scheme for individual or group of applicant/consumers that are on the same/contiguous premise/s and requesting power supply through Dedicated Distribution Facility (DDF) as per provisions of MERC Supply Code Regulations, 2021. The DDF Scheme is also implemented for execution of works of establishment of 33/11 kV S/s on specific demand, laying and shifting of OH lines/ UG cables up to 33 kV.

14.29.2 MSEDCL implemented the Non-DDF CC&RF Scheme for providing infrastructure to provide power supply to new consumer's/group of consumer's who want early connection's & opts to execute the work and bears the cost of infrastructure then the refund of the cost of infrastructure given by way of adjustment through energy bills.

14.29.3 The objectives of DDF/Non-DDF scheme are:-

- To provide Dedicated Distribution Facility (DDF) i.e. separate dedicated electric line from substation or DTC and the substation or DTC to the applicant or group of applicant's on the same/contiguous premises.
- Establishment of 33/11 kV S/s on specific demand, laying & shifting of OH lines/ UG cables up to 33 kV.
- The development of infrastructure required for release of new connection's.

14.29.4 Cost Benefit Analysis

- Providing reliable and uninterrupted power supply to DDF consumers.
- Meeting Universal Supply Obligation.

14.29.5 Current Status: -

The DDF Scheme is an ongoing scheme & estimates are sanctioned as per request's of applicants.

14.29.6 Funding Details: -

The 100% funds for execution of DDF scheme are provided by the applicant/ consumers as per provisions of MERC Supply Code Regulations, 2021. The works in Non DDF CC&RF Scheme are executed by the applicant/consumers and infrastructure cost is refunded by MSEDCL through internal sources.

14.30 MIDC Interest Free Loan Scheme

14.30.1 MSEDCL has implemented MIDC Interest Free Loan Scheme for strengthening & up-gradation of infrastructure in MIDC areas. The physical work in the scheme is completed in 2007. The financial closure with MIDC is in process.

14.30.2 Cost Benefit Analysis

The following benefits are envisaged from the scheme

-
- 24x7 reliable power supply to consumers in high revenue pocket areas.
 - Reduction of power supply interruptions and breakdowns.

14.31 Sub-Station Monitoring System:

14.31.1 Objective:

- Substations are inevitable components in all power networks. It is the heart of the distribution network. The entire downstream network is controlled and managed by sub-stations.
- Substation equipment health monitoring is very important for providing reliable and continuous power to consumers. Substation equipment failure plays a major role in the reliability of power delivery.
- Having an important role within the power system, substations are required to be equipped with a great variety of monitoring and control devices. Therefore, it becomes of utmost importance to have real-time data of sub-stations.

14.31.2 Cost Benefit Analysis-

- Improved monitoring and situational awareness of remote substations
- Monitoring of substation data in real-time
- Reducing the work of operators like taking hourly data, recording the tripping, etc.
- Substation equipment health monitoring
- Feeder Interruption analysis and computation of reliability indices such as SAIDI, SAIFI, etc.
- Monitoring failures and breakdowns, Feeder load profiling, Load growth planning, and management
- Feeder demand monitoring, Energy Accounting
- Reporting of violations/exceptional values of different equipment in substations
- Analysis and diagnosis of the condition of the substation equipment
- Load balancing, Data for Load forecasting
- Data for Strategic, Managerial, and Operational decisions

14.31.3 Benefits to Customers:

- Quick actions from MSEDCL to reduce downtime and improve consumer satisfaction.
- SMS alerts facility can be extended to consumers so that consumers will

know that the feeder is under breakdown.

14.31.4 Brief Scope of work:

- Supply, customization, installation, deployment and maintenance of necessary hardware, centralized software and communication equipment at 3257 nos. of 33/22/11 kV Substations and switching stations across MSEDCL and necessary HES/DAS software at cloud on CAPEX+OPEX basis.
- Monitoring of
 - Incoming and outgoing feeders
 - Capacitor bank
 - Station distribution transformer
 - Substation DC auxiliary power supply
 - Power Transformer's - Oil temperature, Winding temperature, On Load Tap changer (OLTC), Oil level, Buchholz relay & Differential relay
- Feeder control action also proposed under ADMS (Automatic Demand Management Scheme) for all feeders.
- The time for implementation of project is proposed to be 1 year from date of issue of LOA and FMS period as 8 years. Total contract period will be 9 years.

14.31.5 Current Progress/Status:

LOA issued to M/s Amnex Infotech pv Ltd. in consortium with M/s Rite water solution India pvt ltd and synergy system and solution pvt ltd. on dt 11.03.2024 of Rs.382.29 Crores.

14.31.6 Funding Details:

As envisaged under the RDSS IT / OT scheme, a 60 % grant is considered. Balance expenditure will be made from internal resources/loans. Scheme approval from MoP is awaited.

14.32 MSEDCL Cloud Project-

14.32.1 Objectives:

- Vide Maharashtra Government Circular (□□□□□□-060/3/2017 dtd. 29th Jan 2018) on Cloud Computing Policy, instructions were given to the Govt. Departments, Local Bodies & PSUs to migrate all their existing IT

applications onto Cloud Platform.

- In pursuance to this, MSEDCL Competent Authority vide Board Resolution no. 1242 dtd. 07/04/2018, has accorded approval to migrate all MSEDCL IT applications (hosted at On-premise Data Centre) to Cloud Platform.

14.32.2 Scope:

MSEDCL has appointed a Managed Service Provider to migrate all its applications over to Amazon Cloud (MeitY empanelled Cloud Service Provider) and maintain them as per MSEDCL's requirement in the cloud environment for the period of 3 years.

14.32.3 Benefits

- **Less operational issues:** The cloud service provider company has to maintain the cloud uptime as per the Service level Agreement with the Customer which is normally 99.99%. Therefore, cloud computing actually has fewer issues than On-Premises infrastructures.
- **Security:** Cloud Service Provider is usually backed by top class security professionals managing the security infrastructure of Cloud 24x7. The cloud service providers also perform more regular security audits. Cloud providers even back up data to additional remote servers so data loss just won't happen.

14.32.4 Project status:

- The migration of applications from On-premise Data Center to Amazon Web Service (AWS) Cloud is completed and running successfully till date.

14.32.5 Current status:

- LOA is issued to M/s SM Networks & Solutions Pvt. Ltd. for providing cloud services for 3 years for Rs. 98.52 Cr. incl. taxes (LOA no. CGM/IT/29427 dtd. 23.09.2024).

14.32.6 Cost Benefit analysis:

- **Lower Total Cost of Ownership:** MSEDCL's On-premise IT-infrastructure estimated cost for 5 years (2018-19 to 2022-23) is approx. Rs. 205.79 Crores i.e. approx. Rs. 41.15 Crores per year. Whereas for cost of Cloud Computing (as per recent LOA awarded by MSEDCL) for availing same

type of services is approx. Rs. 17.90 Crores per year (thus saving Rs. 23.25 Crores per year).

14.32.7 Life-cycle cost analysis:

- Cloud operational cost is billed to MSEDCL on quarterly basis for the amount of computing resources (servers & storage) utilized per quarter.

14.32.8 Funding details

- Proposed in capital budget.

14.32.9 MERC in-principle approval for the scheme has to be obtained prior to roll out of scheme.

14.32.10 The objectives of the scheme are:

- Providing power supply to new upcoming consumers.
- Establishment of infrastructure to provide power supply to prospective consumers.

14.32.11 The following benefits are envisaged from the scheme:

- Increase in revenue.
- Meeting Universal Supply Obligation.

14.32.12 Current Progress/Status:-

The scheme is planned for roll out during FY 2025 to FY 2029.

14.32.13 Funding Details:-

The financial tie up shall be made with funding agencies. Further, funds are also arranged from Service Connection Charges (SCC) recovered from consumers.

14.33 Enterprise GIS & Network Analysis Solution

14.33.1 Objectives

- MSEDCL implemented GIS and Network Analysis (NA) as part of the R-APDRP IT program for 130 towns in 2011 (data updated up to July 2016). It has also mapped the whole distribution network at the HT level and all AG Consumers (updated up to Mar-2020). MSEDCL desires to

implement a comprehensive GIS & NA solution with updated GIS & NA data of all areas under MSEDCL jurisdiction to efficiently maintain the electrical network, carry out smooth network planning and derive useful analysis of network parameters.

- The proposed GIS and NA system will expand the capabilities at the Enterprise Level. MSEDCL intends to have an integrated WEB-MOBILITY-GIS-Analytics-based System, conceptualized to cater to core technical requirements of the processes under day-to-day Operations, Maintenance and Projects activities of MSEDCL staff, officers and Management.
- The proposed Network Analytics solution is an integrated platform of web and mobile applications. Network addition, deletion, and changes to be captured on the Mobile application. Network shall be created automatically, online, based on Mobile App information.
- The NA System will be able to simulate or demonstrate technical impact of Distributed Generation (like Grid connected RE Generation Systems), EV Charging Stations, and Critical Harmonic/power quality-prone consumption points. System may derive Grid Synchronization/Stability/Quality parameters/requirements of such elements.

The software will support various analysis including

- Network Planning Software Basic Module,
- Network Configuration Optimization,
- Enhanced Substation Modeling,
- Load flow with Load Profiles,
- Contingency Analysis,
- Reliability Analysis,
- Advanced Project manager,
- Long-Term Dynamics,
- Techno-economic Analysis

14.33.2 Cost Benefit Analysis-

The proposed solution will enable measurable improvements including:

- GIS Implementation at Enterprise Level
- Reliability and Performance Indices
- Network System behavior and response to disturbances
- Optimization of asset utilization and operating efficiency of the electric

power system.

14.33.3 Scope of the work

- Implementation of Enterprise GIS solution for MSEDCL with 1-year warranty and 4 years of Annual Technical Support (ATS).
- Implementation of Enterprise Network Analysis solution for MSEDCL with 1-year warranty and 4 years of Annual Technical Support (ATS) from OEM.
- Integration of GIS Solution & NA Solution with each other and other systems of MSEDCL. Eg. Load Forecasting, SAP-ERP, MDAS, ECCC, Dashboard.
- Provision of Facility Management Services (FMS) for GIS Solution & NA Solution for 5 years for operation & maintenance.
- Training of GIS Solution & NA Solution to MSEDCL users.
- Provision of Cloud Services for deploying GIS Solution & NA Solution from a MeitY empaneled and SQTC Audit Complaint Cloud Service Provider for 5 years.

14.33.4 Current Progress/ Status

- The LOA is issued to L1 bidder M/s SCS Tech India pvt ltd. in consortium with M/s Sliver Touch Tech Ltd. Of Rs 46,94,97,923/-

14.33.5 Funding details

- As envisaged under the RDSS IT / OT scheme, a 60 % grant is considered. Balance expenditure will be made from internal resources/loans.

14.34 Implementation of Electric Vehicle Charging Infrastructure Operation Center

14.34.1 Objectives:

- Supply, customization, installation, deployment and maintenance of necessary software and other systems for proposed Electrical vehicle charging infrastructure Operation Centre to facilitate monitoring, data logging and data analysis of charging stations across Maharashtra. Operations and Maintenance of the system for the period of 5 years from the date of acceptance.

14.34.2 Cost Benefit Analysis-

Electrical vehicle charging infrastructure Operation Centre to facilitate monitoring, data logging and data analysis of charging stations across Maharashtra.

14.34.3 Scope of work

- Supply, Installation, commissioning of standard EV Charging Infrastructure OC solution on MSEDCL Cloud, inclusive of required Databases, map services and allied tools such as charting tools etc. for 50 no. of EV Charging Units (with scalability up to 500 no. of EV charging units) for 5 years.
- Supply, Installation, commissioning of Web portal on Cloud for EV Charging Infra OC solution.
- Supply, Installation, commissioning of Mobile App (for both Android & iOS) for EV Charging Infra OC solution
- The hosting of above software shall be done onto MSEDCL provided Cloud. SIM cards for communication with EVSE will be provided by MSEDCL.
- 24x7 Support for EV Charging Infrastructure OC Solution including Web portal & Mobile App for 5 years.
- Any additional changes/modifications/customization in proposed EV Charging infrastructure OC Solution including Web portal & Mobile App for 5 years.
- Integration shall be done using Open Charge Point Protocol (OCPP) 1.5 or higher. Bidder has to integrate with all existing and future versions of OCPP.

14.35 Extension of SIM based services under Network Bandwidth Service Providers NBSP contract

14.35.1 Objectives

- Maharashtra State Electricity Distribution Company Limited (MSEDCL) is

Electricity Distribution Company having consumer base of approx. 3.07 Crore consumers throughout Maharashtra. MSEDCL has followed innovative procedures for meter reading and billing such as photo meter reading, spot billing, reading through mobile app. etc to maintain transparency and accuracy of LT energy bills. The HT consumer meter readings were taken from the meter data downloaded from HT consumer meters using MRI instruments. To avoid human intervention in the meter reading process, MSEDCL has adopted metering technologies such as RF Meters for LT consumers and AMR-enabled (Automated Meter Reading System) meters for HT consumers and LT consumers having load above 20kW.

- The GPRS enabled DCUs will have RF port and meter data of approx. 9725 (sept 24) meters can be stored in a DCU. Using DCUs, RF meter readings are available remotely through GPRS network, at central AMR server. GSM/GPRS modems are installed at HT Consumer meter locations and LT consumers having load above 20kW and meter readings of these consumers, are available through GPRS network at centralized AMR server.
- MSEDCL is using AMR system, since more than a decade, thus building a comprehensive, transparent, system based, truly automatic metering reading system without any scope of manual intervention. Further, Meters at Feeder and DTC (Distribution Transformer) are AMR enabled meters, wherein a modem is installed at each metering location and meter reading of Feeders and DTCs is done through AMR.

14.35.2 Cost Benefit Analysis-

- The proposed solution will enable network connectivity for AMR activities by appointing different network bandwidth service providers (NBSP contract) for SIM and backhaul link services. This will in turn help in building comprehensive, transparent, system based, truly automatic metering reading system without any scope of manual intervention.
- The proposed data enabled SIMs will be utilized in various MSEDCL projects such as:
 - Smart Prepaid Meters of Ag Consumers
 - Substation Monitoring System for all substations in Maharashtra
 - Other IoT projects planned under RDSS scheme such as DT Health Monitoring system, communicable FPI etc.
 - LT connections above 20 kW, HT connections, feeders and DTCs

14.35.3 Scope of Work

- Supply of the required no. of 4G/4G LTE project SIMs (Public or Private as per requirement) with data and SMS services enabled to MSEDCL.
- Provision for sufficient Backhaul leased lines/secure tunnels through internet at MSEDCL Data Center (Mumbai) and MSEDCL Cloud Data Center along with the configuration and integration of the Backhaul leased lines/secure tunnels through internet with the Data Centre, MSEDCL Cloud Data Centre.
- Provision of leased lines of following capacity at Data Center and MSEDCL Cloud Data Center:

Table 287 Scope of work of Extension of SIM based services under Network Bandwidth Service Providers NBSP contract.

Sr. No.	Location	No. of Links per Service Provider	Minimum Bandwidth required
1	MSEDCL Data Center Mumbai	1 Nos.	2 MBPS
2	MSEDCL Cloud Data Center on AWS	1 Nos.	8 MBPS

- Provision for web portal which should have minimum following facilities.
- Dashboard, Management of SIM cards, SIM diagnosis, Ticket Management, Reports, User management
- Approx. 6,00,000 AMR endpoints are estimated to be covered during contract period in phase wise manner. At present, 2,07,750 SIMs are in use for AMR activities. Additionally, 3,92,250 no. of SIMs are estimated in phase wise manner for AMR activities during the period of contract.
- Bandwidth Requirement
- AMR endpoints in different projects of MSEDCL have different bandwidth requirements. Therefore, Cellular Data Plans with following data usage limits will be required,
 - 50 Mb per SIM per month
 - 100 Mb per SIM per month
 - 500 Mb per SIM per month
 - 1000 Mb per SIM per month

14.35.4 Current Progress / Status- LOA issued in July 2023. CGM/IT/20192 Dtd. 04.07.2023, CGM/IT/20233 Dtd. 04.07.2023, CGM/IT/20194 Dtd. 04.07.2023.

14.35.5 Funding Details.

Proposed in capital budget. And funding through internal resources.

14.36 Procurement of IT Infra

14.36.1 Objectives:

Procurement of IT Infrastructure equipment such as laptops, printers, scanners etc. is done centrally by IT Department after evaluating the requirement received from concerned MSEDCL offices.

14.36.2 Cost Benefit Analysis-

- The IT infra equipment is procured across various offices for similar specifications.
- It is ensured whether adequate security policies are taken care at the time of Installation & Commissioning of the IT infra.
- To introduce best practices for Refreshment-Disposal of ICTE resources (Hardware/Software) of MSEDCL.
- To establish cost effective structure for life cycle of ICTE items and optimum resource utilization & reutilization.

14.36.3 Scope of work

Scope of work will include procurement of IT infrastructure equipment such as laptops, printers, scanners etc.

14.36.4 Funding details:

Procurement is done through capital budget as per the MSEDCL requirements.

14.36.5 Phasing Details etc.

Procurement of IT equipment is done as per requirement received from various MSEDCL office.

14.37 Business Analytics and Demand Forecasting Solution

14.37.1 Objective

- Mahavitaran distributes electricity to consumers across the State excluding some parts of Mumbai. MSEDCL sources power from Mahagenco, Central Sector and Private Sector projects.
- Around 75% of revenue of MSEDCL goes towards power purchase expenses. The constant pressure to optimize the cost of power purchase due to the danger of the industrial sector moving out of state (Open Access) owing to higher power tariffs.
- In view of this, MSEDCL intends to purchase a Software Solution with the

capability of energy load forecasting and power trade strategy management along with power purchase optimization/power portfolio optimization.

- The demand-supply gap forecast is the difference between power demand and power availability.
- The different parameters that influence power demand and hence load forecasting are Weather Parameters, historical demand/load, load growth projections, historical lifestyle & lifestyle projections, festivals, holidays, elections, the economic behavior of the country, policy decision of different statutory bodies/ Govt. etc.
- The different parameters that affect power availability from Generating units are maintenance schedule, Maintenance Planning of generating stations, Outage planning of generating units, the life of generating units, long & short-term power purchase contracts with generating units, fuel availability for generating units on short term & long term basis, various commercial conditions of power purchase contracts & their legal dispute status, various past, present & future decisions/ stays on various Power Purchase Agreements (PPAs)& other related parameters.

14.37.2 Cost Benefit Analysis-

The proposed solution will enable measurable improvements including:

- Demand Forecasting
- Scenario Analysis
- Demand Supply Position Map (Load Generation Balance)
- Power Portfolio Management
- Scheduling Optimization
- Trade Optimization
- Enterprise Visualization

14.37.3 Scope of the work

- Design, Implementation, commissioning of Business Analytics and Demand forecasting, Power Optimization Solution
- Integration of proposed solution with MSEDCL existing system, SCADA & proposed Substation Monitoring Scheme (SMS) of MSEDCL, existing AMR & SCADA, Scheduling software of MSLDC/WRLDC.
- Fetching all necessary data from external sources required as input for forecasting, Optimization and analysis purposes.
- Debriefing with Analytics including optimization with AI and ML and

documenting causes, effects, patterns and results using incident-specific data based on time, date and location.

- Designing Live Dashboard for Business Analytics and Current Status of Incidents
- Providing Cloud Services for the deployment of the proposed solution.
- Provide Facility Management Service (FMS) for Application Maintenance for five years

14.37.4 Current Progress/ Status

- The LOA for Business Analytics and Demand Forecasting Solution is issued to L1 bidder M/s SCS Tech India pvt ltd. in consortium partner M/s Mercados Energy Markets India pvt ltd. of Rs. 32,55,71,118/-.

14.37.5 Funding details

- As envisaged under the RDSS IT / OT scheme, a 60% grant is considered. Balance expenditure will be made from internal resources/loans.

14.38 ERP SAP S4 HANA

14.38.1 SAP ERP up-gradation to S/4 HANA & implementation of SAP TRM module

14.38.2 Objectives

- MSEDCL has automated its business processes by implementing SAP-ERP which covers Financial Accounting & Control (FICO), Projects Systems (PS), Plant Maintenance (PM), Material Management (MM) ERP core modules are live since 2015. In addition to ERP core modules MSEDCL has developed five custom modules.
- Further SAP HRMS modules such as PaFYoll (PY), Organizational Management (OM), Personal Administration (PA), Time Management (TM), Travel Management and Performance Management along with 13 nos. of custom-developed allied modules developed on SAP ERP platform are live since Dec-2020.
- MSEDCL has implemented SAP ECC 6.0 EHP 5 (702) with database Sybase 15.7. SAP application and Database are hosted on the AWS Cloud.
- Due to manifold increase in transactions every year, the performance of SAP ERP is degrading gradually. Also, M/s SAP has declared end of support for SAP ERP ECC 6.0 in the year 2027. Hence, it is planned to

upgrade existing SAP ERP ECC 6.0 platform to S/4 HANA platform. S/4 HANA platform is the latest version of SAP ERP, wherein due to change in database from Sybase to HANA the performance of the system will improve. Further, SAP S/4HANA offers increased scalability to better support data storage and data analysis needs.

- MSEDCL, is also planning to implement additional SAP ERP modules SAP Treasury and Risk module (TRM) for loan and grant management required by finance section.

14.38.3 Cost Benefit Analysis-

14.38.3.1 Benefits of SAP S4 HANA:

- The SAP HANA in-memory database helps organizations to execute transactions and analyse business data in real-time.
- User experience is powered by Fiori – browser based and convenient to use.
- Embedded real-time analytics, and HANA powered in-memory processing to handle large data volumes of operational and transactional business data.

14.38.3.2 Benefits of SAP Treasury and Risk Module (TRM)

- With the SAP Treasury and Risk Management application, one can integrate cash flows, transactions, loan ,grant and optimize straight-through processing with full-view and real-time analysis, audit trails, and compliance reporting.

14.38.3.3 SCOPE:

- Upgradation of SAP ERP ECC6 EHP 5.0 platform to SAP S/4 HANA (latest version) for Core Modules (FICO,PM,PS,MM,HCM) and implemented custom developed modules in MSEDCL including data migration.
- Implementation of Treasury and Risk Module (TRM) powered by HANA.
- Implementation of Cash Management Module powered by HANA.
- Upgradation of Solution Manager from 7.1 to 7.2 (or latest version) on HANA.
- Upgradation of existing 1 TB HANA appliance (Base edition) to 2 TB HANA appliance (Enterprise edition).
- Network services for providing cloud connectivity upto end locations. (MSEDCL offices upto subdivisions).
- Application Maintenance Services (AMS) towards Support, Maintenance

& Enhancement of all existing SAP systems (Core & Custom modules) at MSEDCL till declaration of go-live of SAP S/4 HANA.

- Application Maintenance Services (AMS) after go-live declaration of S/4 HANA upgradation till end of contract period, towards Support, Maintenance & Enhancement of all upgraded SAP-ERP modules on S/4 HANA (FICO, PM, PS, MM, HCM, TRM & Cash Management) & implemented custom developed modules.

14.38.3.4 Estimate

Table 288 Capex Cost estimate as per budgetary quote from M/s SAP (without GST)

Particular	Cost
License cost	Rs. 4.65 Crores
Implementation Cost	Rs. 3.68 Crores
Training	Rs. 0.47 Crores
Total Capex Cost	Rs. 8.80 Crores

14.38.4 Current Progress / Status

- LOA Issued to M/s Deloitte Touche Tohmatsu India pvt ltd.of Rs.106.89 Crores Funding details
- As envisaged under the RDSS IT / OT scheme, a 60 % grant is considered. Balance expenditure will be made from loans/ internal resources

14.39 Procurement of SD-WAN Solution:

14.39.1 Overview

MSEDCL wishes to procure SD-WAN solution to reduce the high cost of WAN bandwidth, enable better application performance, and improve internal business communication and IT agility by deploying Software-Defined WAN (SD-WAN) across MSEDCL remote offices up to subdivision offices.

14.39.2 Cost Benefit Analysis-

- SD-WAN solution shall improve performance of connectivity by using link optimization. The solution shall also manage the Link Load on available paths and auto failover for better performance of links.
- SD-WAN Solution shall have inbuilt QoS mechanism which is having application recognition and provide the bandwidth priority for most critical applications. This may include dynamic path selection, sending an application on faster link or even splitting an application between two

paths to improve performance by delivering it faster.

- SD-WAN solution shall improve the MSEDCL Video Conferencing (Data/Voice/Video traffic) by using polices, performance of the links such as jitter, latency, packet loss, etc and features like Video stream splitting, de-duplications and automatic traffic diversion for better link performance for MSEDCL video Conferencing Solution.
- SD-WAN solution shall create full mesh connectivity among all the MSEDCL remote offices and integrated with existing network.

14.39.3 Scope of Work

- MSEDCL is looking for upgrading of its existing Network with SD-WAN across Maharashtra up to Circle Office level with high performance, reliable, consistent network to achieve best performance of MSEDCL applications.
- It shall be bidder's responsibility to integrate any new or existing FTTH broadband, MPLS, ILL, broadband link on supplied wifi enabled SD-WAN device during the contract period. The SD WAN Device(s) integrated with external WiFi access points, must be configured as per requirement.

14.39.4 Current Progress / Status: Loa issued to M/s SM Networks & Solutions Pvt. Ltd. Of Rs.53.16 Cr.

14.39.5 Funding Details - As envisaged under the RDSS IT / OT scheme, a 60 % grant is considered. Balance expenditure will be made from internal resources/loans.

14.40 Redevelopment Of MSEDCL IT Systems Under the RDSS Scheme

14.40.1 Objective:

Under RDSS sanction (Letter no. 02:10:RDSS:2021:I: MSEDCL dtd. 22.09.22 (RDSS Sanctioned letter), Ministry of Power (Govt of India), sanctioned for the upgradation of Customer Relationship Management (CRM), Document Management System (DMS), Energy Audit (EA), New Service Connection (NC) & Disconnection and Web Self Service (WSS) and Database Licences for MS-SQL, Oracle Enterprise Edition. Accordingly, a tender was floated for the Appointment of a System Integrator for the Redevelopment of MSEDCL IT Systems under the RDSS Scheme on 25.11.2022. Letter of Award to M/s Idea Infinity IT Solutions Pvt Ltd. for Rs. 9.70 Crores was issued vide LOA no. CGM/IT/36156 dtd. 08.12.2023.

14.40.2 Brief Scope of Work

- Upgradation, Design, Development, Implementation, and Commissioning of new web applications such as Consumer Self-service and Employee Self Service by consolidating the following existing applications.
- Document Management System (DMS),
- Customer Relationship Management System(CRM),
- Energy Audit (EA),
- New Connection System (NC),
- Web Self-Service (WSS) system
- and Other related sub-systems.
- Supply, installation, and commissioning of Enterprise Database with one-year OEM support. Bidder shall provide sufficient enterprise licenses for proposed solution. If open-source database is proposed, enterprise support from vendor or support partner should be provided.
- Re-architect above applications and Migration of existing data into the new system.
- Perform application and Infrastructure security audit annually of the new application viz. Consumer Self-service and Employee Self Service by CERT-IN empaneled Auditor after GO-Live.
- Module-wise technical training to MSEDCL IT staff.
- Number of Staff to be trained – Minimum 25
- Mode of Training – Offline
- Copy of Training Manual to be made available – Per module, bilingual.
- For Customer facing Application: Necessary Document to be provided by the vendor.
- Application Maintenance Support for the above applications for the period of one year after stabilization.
- Handholding and Application Maintenance Services (AMS) of the systems after one year of Go-Live.
- Staff to be deployed: One project Manager and 10 resources, including one staff having DBA experience (At least 5 years' experience of DBA)
- Place of Deployment of Staff: Mumbai
- Tenure of Deployment: 12 Months

14.40.3 Funding details

- Application redevelopment and licences are sanctioned under the RDSS scheme. Whereas additional items IS-Audit, Training & AMS for 1 FY are necessary for effective implementation.
- Under the RDSS, 60% of the project cost of works of Sanctioned items would be provided as a grant by the Government of India whereas

40% of the remaining cost plus the cost for additional items is to be arranged by the MSEDCL, which will be funded through the revenue budget of 2023-24 & 2024-25.

14.40.4 Cost Benefit Analysis:

- Though there is no direct cost benefit, the upgradation of the above existing applications is essential to provide critical services to MSEDCL consumers smoothly. Also, the proposed upgradations will give the following benefits:
 - Strengthen the availability and responsiveness of existing applications.
 - Simplify IT infrastructure management by making workloads independent of hardware resources, thereby enabling business-driven strategies like strengthening its flexibility over Security and Redundancy policies.
 - Strengthen agility, scalability, multi-tenancy and governance of the entire Application Architecture on the industry lines and maintain these for the foreseeable future.
 - Utilization of the modern technologies evolved in software and database systems to improve the scalability, availability, maintainability, and performance.
- Upgradation of the important existing applications is required on account of the following reasons:
 - Increase in the number of consumers.
 - The consumer count on March 2010 (L&T LoA date and baseline for sizing) was 1,87,31,340. The total Consumer Count in the system as of today stands out be 3,25,00,000. Thus total consumer load has increased by 73.50 % since R-APDRP applications were designed and developed.
- Addition of New Systems
 - Since the commissioning of R-APDRP applications, the following new applications have been developed/added:
 - Centralized billing
 - SAP Systems & Custom modules.
 - Big Data Solution/Dashboard (HANA)
 - Mahavitaran Mobile Applications (5 nos.)
 - Online Bill Revision system
 - Group Payment System
 - OCCS

- MSKVY Portal, etc.
- Therefore, the integration touchpoints have been increased. This has necessitated the comprehensive redevelopment of system architecture to meet the requirements of smooth integration with other modules.
- Technological Advancements
 - Cloud: Earlier the Applications and database were hosted in on-premise Data Centers and DR. Now with the adoption of the Cloud system, the applications need to be modified for efficient hosting on the cloud.
 - As the data is growing extensively, more resources (more caches, temporary workspaces, etc) are required to process large sets of data. The new technologies in Application platforms, Database systems and Networking technologies need to be adopted to improve performance and reliability.
 - For business continuity the copies of data need to be preserved in the form of Business Copies, Backups and DR.
 - Participation in state-wide initiatives (eg. Aaple Sarkar, PM Gatishakti, PM Kusum, etc) to improve services to the public; and essential cross-agency functions where software compatibility within and among agencies is mandatory, such as enterprise application systems, and document sharing.
 - Short Duration of Technology life cycles and changes that render existing hardware and software obsolete (i.e. unsupported versions and incapability with other versions or with new versions of software). Therefore, it is necessary to move the critical applications to latest available technologies/platforms.

14.41 Mukhyamantri Saur Krishi Vahini Yojana Phase I

14.41.1 Objective:

- MSEDCL is implementing Mukhyamantri Saur Krishi Vahini Yojana (MSKVY) announced by Govt. of Maharashtra vide G.R. 14.6.2017 & 17.03.2018 by installing decentralized solar power projects for giving day time power to farmers.

14.41.2 Benefit:

The scheme has manifold benefits which are as under,

- Farmer will get good quality day time power supply.
- Reduced peak energy demand

- Saving the transmission & distribution network losses due generation at distribution point.
- Increase in consumer satisfaction.
- To fulfil RPO Targets.

14.41.3 Scope of work:

- MSEDCL has executed 200 MW PPA with M/s. EESL on 20.01.2018 for 25 years @Rs. 3.00 pu.
- Installation of solar power project is in scope of M/s. EESL.
- Power Evacuation (Transmission Line & Feeder Bay) arrangement is in scope of MSEDCL.

14.41.4 Cost Benefit Analysis

- Max solar capacity to be generated is 200MW. Considering CUF 17.5% for solar power purchase and 6% losses in transmission & distribution, the cost benefit analysis is as below:

Table 289 Cost benefit analysis of Mukhyamantri Saur Krishi Vahini Yojana Phase I

Particulars	Details
Solar capacity to be generated	200MW
CUF for Solar power	17.5%
Total Energy generated (A) in MUs	200*0.175*24*365 306.6MUs
Losses for 33KV level	6%
Avoided generation (B) (Considering 6% loss of 33KV level)	(A)*1.06 324.99MUs
Approved power purchase rate for solar generation by Hon. MERC order 195 of 2017 dtd 12.09.2018	Rs 4.19per unit
Cost of avoided generation (C)	(B)*4.19 Rs 136.17 Crores
Rate of Power purchase offered by M/S EESL for 25 years	Rs 3 per unit (levelised)
Cost of Power generation to be paid by MSEDCL to M/S EESL (D)	(A)*3 306.6*3 Rs 91.98 Crores
Saving (C-D)	Rs 44.19 Crores
Tentative Cost of line evacuation including civil works	Rs 92.77Crores

- From the above analysis it is clear that there is substantial saving in power which has been reduced due to direct solar power generation at

substation.

- The annual cost saving is Rs 74.9 Crores. Also it can be seen that payback period considering the evacuation is 2 years.

14.41.5 Funding provision:

- MERC has given capex approval for 92.77 Crores vide Capex no/18-19/035 dtd 29.09.19.
- MSEDCL has received Rs. 92.77 Crores from Green Cess Fund of MEDA for power evacuation works under MSKVY.

14.41.6 Current Status of project:

- At present 173.75 MW capacity out of total 200 MW is commissioned as on 31.10.2024.

14.42 Approval for installation of Rooftop solar at MSEDCL owned Building such as offices, substations, stores, Rest house and CFCs for total pf 50MW-

14.42.1 Objectives

- Government of India has approved the PM Surya Ghar: Muft Bijli Yojana on 29.02.2024 to increase the share of solar rooftop capacity. MNRE vide its referred (2) Office memorandum published operational guidelines for saturation of Government buildings with rooftop solar under PM Surya Ghar: Muft Bijli Yojana
- Under the scheme, all Government rooftops under the administrative control of State Government Ministries/Departments, including autonomous bodies, subordinate offices etc. shall be saturated with rooftop solar.
- Ministry of New and Renewable Energy (MNRE) will be monitoring and tracking installations in the Government sector. No Central Financial Assistance shall be provided under the Scheme for buildings in the Government sector.
- In view to saturate Government Buildings in terms of Rooftop Solar installation, MSEDCL has carried out detail survey of all Maharashtra MSEDCL offices with available shadow free roof top area, type of electric connection with sanctioned load, annual consumption.
- MSEDCL has assessed required solar PV capacity for each office. Due to RTS installation, not only demand of offices meets out, but excess

generation also created lowering power purchase cost. This Green energy generation will be contributing national target of non-fossil generation of 500 GW by 2030.

- MNRE, GoI vide Office Memorandum under ref. (1) has informed regarding saturation of the Government buildings in terms of Roof top solar installation by December 2025. GoM Energy Dept, has forwarded the said Memorandum to MSEDCL for further needful actions.
- In this context, MSEDCL has decided to install roof top solar on owned Buildings. Survey of MSEDCL owned buildings such as Offices, Substations and Other Installations such as Stores, Rest houses & CFC's etc is carried out by MSEDCL Circle office with help of Section Engineers.
- The survey has been carried out referring to sanctioned load, actual connected load, Annual Consumption, Annual Energy bill amount, shadow free area. The IT report abstract regarding MSEDCL owned buildings is as below:

Table 290 The IT report abstract regarding MSEDCL owned buildings

No. of Connections of MSEDCL owned buildings	Total Required RTS Capacity derived from Average Monthly consumption in MW
12329	50

14.42.2 Benefits:

Benefits of installation of solar roof top at MSEDCL owned Buildings are as below:

- Use of MSEDCL roof for generation of energy for self use
- Annual Export of energy in the grid : 27 MUs
- Annual Saving : Rs 21 Crores
- Reduction in T & D losses
- Use of Green Energy
- Contributing national target of non-fossil generation of 500 GW by 2030.

Total proposed capacity of solar rooftop to be installed under this project is 50MW.

14.42.3 Total Cost of Detailed Project Report (DPR):

- MNRE vide referred Office Memorandum (2) dtd. 07.06.2024 has published benchmark cost inclusive of Material (exclusive of net meter),

Civil works, foundations, installation, and commissioning, transportation, insurance costs, Comprehensive maintenance charges for five years. The said Benchmark cost is Rs. 5.00 Crores per MW.

- With reference to this Benchmark cost, the DPR cost per MW is calculated by considering GST (@ 13.80%) and HO Supervision Charges (@ 15.00%) which is worked to be Rs. 6.54 Cr. Per MW. Accordingly, total DPR cost for 50MW capacity worked out to be Rs. 327.18 Cr.
- The detailed calculations of DPR cost are as below:

Table 291 DPR costs of Approval for installation of Rooftop solar at MSEDCL owned Building

Item Description	Rate/MW
Total DPR cost of the Project for 50MW (Rs.)	327,17,50,000
Total DPR cost of the Project for 50MW (Rs. Cr.)	327.18

14.42.4 Cost Benefit Analysis:

Cost benefit analysis of this project is as below:

Table 292 Cost benefit analysis of Approval for installation of Rooftop solar at MSEDCL owned Building

Sr. No.	Particular	Unit	MSEDCL
1	Number of locations/connections	Nos	123299
2	Sanctioned load	MW	35.78
3	Annual Consumption	MUs	45.92
4	Avg Monthly Consumption	MUs	3.83
5	Assessed PV Capacity as per consumption	MWp	49.63
6	Shadow free area required as per assessed PV capacity	Lakh SqFt	49
7	Shadow free area available	Lakh SqFt	95
8	Applicable PV capacity as per shadow free area	MWp	49
9	Project DPR Cost considering MNRE Benchmark cost Rs 50,000/ KW	Rs. Cr	327.18
10	Annual Energy bill saving (For 25 Years)	Rs. Cr	21

14.42.5 Funding Arrangement:

- Funding will be provided through internal funds arrangement by finance section.

14.43 Domestic Efficient Lighting Program (DELP)-

14.43.1 MSEDCL has implemented Domestic Efficient Lighting Program (DELP) in coordination with M/s EESL under Demand Side Management (DSM) scheme. In this scheme existing ICL/CFL bulbs of Domestic Consumers are

replaced by energy efficient bulbs (LEDs) of 7 Watts & 9 Watts, resulting in substantial saving in the consumption and reduction in overall demand. LED bulbs are supplied by M/S EECL. Cost of bulb is to be recovered from consumer by upfront payment or by EMI through monthly energy bill.

14.43.2 After delivery of bulb to a consumer with EMI option he will get intimation in his next electricity bill regarding nos. of LED bulb purchased by him and deduction of EMI in electricity bill for the same. If no objection is raised by the consumers, EMI recovery shall start from next bill. Further, MSEDCL can recover LED cost through bills of consumers only if he has given the EMI option and consent. bills will be raised by M/s EESL to this office which is to be monitored, checked & to be forwarded to SB section. Payment recovered on best effort basis by MSEDCL shall be given to M/s EESL and maximum efforts shall be taken to recover the dues of LED bulbs.

14.43.3 Payment which is balanced to be released of Rs 0.17 Crores. EMI are balance to be collected from some PD consumers and some subdivision has been stopped EMI from consumer due to some issues. Same amount is balanced to be release to M/s EESL. Scheme is completed on March 2018 and EMI collected from consumer and payment transferred to M/s EESL. Hence it is revenue neutral scheme.

14.43.4 Cost Benefit Analysis:

Approx per year savings in energy: 422.75 per year

Cost in saving in Average variable cost Rs 3.38 per unit: Rs 142.88
Crores

14.44 Maharashtra Solar AG Pump Project

14.44.1 As per GR no. 2019/case.no. 80/Energy-5 dtd. 18.06.2019 GoM has accorded an approval to implement the installation of 30,000 Nos. of AG off-grid solar pump under HVDS fund. This scheme was implemented for Vidarbha & Marathwada region. This scheme covers the paid pending consumer as on dtd.31.03.2018. Letter of Award (LoA) was issued for installation of 10,000 Nos. of AG off-grid solar pump under Vidarbha & Marathwada region.

14.44.2 Total 1,00,954 Off-grid-solar pump installed under this scheme.

14.44.3 Cost benefits Analysis of MSKPY & MSAP:

Table 293 Cost benefits Analysis of MSKPY & MSAP

Particular	Values
Total Solar nos. of pump	100954
Total Solar Units Generated by solar pump Kwh/Year (MUs)	475.79
Actual Units Required after adding Loss Units/Year (MUs)	559.76
Power Purchase Cost with T&D Loss Units/Year @ Rs.5.68/Kwh (Rs. In Crores)	270.25
Saving in Cross Subsidy/Year @ Rs.3.65/Kwh (Rs. Cr.)	194.6
Saving in Farmer Energy Bill as per MERC Rate per year (Rs. Cr.) as per MERC Rate, EC+WC @ Rs. 4.17/unit	228.28
Saving in Govt. Subsidy/Year (Rs. Cr.) as per Govt Subsidy Rate, EC+WC @ Rs. 2.03/unit	98.45
Saving in Farmer Energy Bill as per Pay Rate per year (Rs. Cr.) As per Consumer Rate, EC+WC @ Rs. 2.14/unit for 3 HP and Rs. 2.44/unit for 5 HP & 7.5 HP.	129.83
REC cost saving for RPO @ Rs. 1 Per Unit (Rs. Cr.)	47.58

14.45 PM – KUSUM component B- Mukhyamantri Saur Krushi Pump Yojana

14.45.1 Objectives:

- GoM & MSEDCL have undertaken various solar projects such as separation of Agriculture feeder and Solarization of feeder, Offgrid solar pump installation for day time power supply to farmers. The Solar Photovoltaic Water Pumping Systems Project and Agricultural Feeder Solarization Project with conventional agriculture connections aims to provide Day time reliable and quality power supply, and possibility of reducing the electricity tariffs paid by farmers and cross subsidy burden on the industrial and commercial consumers.
- Additionally, it presents a compelling solution to address the challenges faced by farmers in accessing reliable irrigation. Similarly, to reduce network cost, MSEDCL has initiated new scheme of installation Off grid solar pump. These project aims to improve water efficiency, enhance agricultural productivity, and contribute to sustainable rural development.
- In order to facilitate daytime irrigation to the farmers & to promote use of renewable source of energy, the Govt. of Maharashtra vide G.R. No. Solar Project-2018/ C. No. 401/ energy-7 Dt. 15.11.2018 declared 'Mukhyamantri Saur Krushi Pump Yojana' (MSKPY) to install 1,00,000 Off-Grid Solar Photovoltaic Water Pumping Systems in phase manner. MSEDCL is implementing agency for this scheme. Phase wise Target of installation of solar agriculture pump was as under:
 - Phase I (2018-19)– 25,000 Pumps
 - Phase II (2019-20)– 50,000 Pumps

- Phase III (2020-21)– 25,000 Pumps
 - Scheme is completed on Dec 2022 with target of 1,00,000.
 - As per GR no. 2019/case.no. 80/Energy-5 dtd. 18.06.2019 GoM has accorded an approval to implement the installation of 30,000 Nos. of AG off-grid solar pump under HVDS fund. This scheme was implemented for Vidarbha & Marathwada region. This scheme covers the paid pending consumer as on dtd.31.03.2018. Letter of Award (LoA) was issued for installation of 10,000 Nos. of AG off-grid solar pump under Vidarbha & Marathwada region. 954 Off-grid-solar pump installed under this scheme.
 - In order to electrify the agricultural pumps in the state with solar energy program, the Ministry of New and Renewable Energy, New Delhi GoI had given approval to implement the Pradhan Mantri Kisan Urja Suraksha Evam Utthan Mahabhiyan (KUSUM) for the farmers in the country on 22nd July 2019.
 - Implementation of the said campaign has been approved as per GoM GR dated 12.05 2021. Under the component-B scheme of the said campaign, a target of 1,00,000 solar pumps per year has been set so as to install 5 lakh off-grid solar agricultural pumps in 5 years.
 - Ministry of New and Renewable Energy, New Delhi has sanctioned to install 4,05,000 Nos. of solar pump under PM KUSUM Component-B scheme for the Maharashtra State
 - The GoM sanctioned to install 2,00,000 solar agricultural pumps by MSEDCL as per seniority and scheme criteria in r/o paid pending consumer and application registered on the portal of PM KUSUM Component-B scheme in the State on 05.03.2024. Under the said scheme, 2,00,000 solar agricultural pumps will be installed by MSEDCL.
 - For installing solar agricultural pumps under the scheme, the General category farmers have to pay 10 % of the pump price and the Scheduled caste & Scheduled tribe category farmers have to pay 5% of the pump price as beneficiary share. 30% Central Government share will be available as per the Solar Pump benchmark cost decided by the Ministry of New and Renewable Energy. Also, the rest of the funds will be available through the State Government as Government share and Additional Tax on Sale of Electricity (TOSE).
 - GoM has resolved that vide GR dated 15.03.2024 stated that installation 5 lacs off grid solar pump for next 5 years with funding from AIIB Loan. In this way total 10,00,000 pump is to be installed next 5 years.

14.45.2 Benefits of scheme:

- Daytime Solar Power to Agriculture Pumps: Reliable access to solar-powered irrigation systems for continuous daytime operation, optimizing agricultural productivity and water utilization. This will also relieve farmers of power supply anxiety and facilitate their working during daylight hours.
- No Electrical Network and Electrical Accident-Free: Independence from electrical grid, eliminating risks associated with electrical accidents and providing a secure operating environment for farmers and workers.
- No Electricity Bills: Relief from the financial burden of electricity bills by utilizing solar energy for irrigation, reducing operational costs and enhancing financial sustainability for farmers.
- No Maintenance Cost: Minimal maintenance required for solar pumping systems compared to traditional electrical pumps, resulting in reduced maintenance expenses, cost savings, and improved operational efficiency for MSEDCL.
- Cost Savings: Helping farmers reduce their irrigation costs by eliminating the need for costly diesel or electricity.
- Energy Independence: Promoting energy independence for farmers by encouraging the use of solar power.
- Increased Agricultural Productivity: Providing a reliable and uninterrupted source of power for irrigation, leading to improved agricultural productivity and higher crop yields.
- Water Conservation: Facilitating water conservation through promotion of optimized water usage and modern technologies like drip irrigation and solar-powered sprinkler systems.
- Farmers can generate their energy by their own. Due to absence of T & D losses are reduces. MSEDCL can reduce cost power generation. Government can save Govt. subsidy
- Till date installed Solar Off-grid Solar pump progress till 25.10.2024

Table 294 Installed Solar Off-grid Solar pump progress till 25.10.2024

Capacity	Atal-1	Atal-2	MSKPY	KUSUM MEDA	KUSUM MSEDCL	Total
3 Hp	1509	2231	81258	56181	36060	177239
5 Hp	3612	4769	12196	48736	31281	100594
7.5 Hp	541		7500	11948	7669	27658
Total Hp	5662	7000	100954	116865	75010	305491

14.45.3 Cost benefit Analysis:

Table 295 Cost benefit analysis of PM – KUSUM component B- Mukhyamantri Saur Krushi Pump Yojana

Particular	Values
Total Solar Units Generated by solar pump kWh/Year (MUs)	1637.04
Actual Units Required after adding Loss Units/Year (MUs)	1925.93
Power Purchase Cost with T&D Loss Units/Year @ Rs.5.68/Kwh (Rs. In Crores)	1093.93
Saving in Cross Subsidy/Year @ Rs.3.65/Kwh (Rs. Cr.)	669.55
Saving in Farmer Energy Bill as per MERC Rate per year (Rs. Cr.) as per MERC Rate, EC+WC @ Rs. 4.17/unit	785.44
Saving in Govt. Subsidy/Year (Rs. Cr.) as per Govt Subsidy Rate, EC+WC @ Rs. 2.03/unit	326.59
Saving in Farmer Energy Bill as per Pay Rate per year (Rs. Cr.) As per Consumer Rate, EC+WC @ Rs. 2.14/unit for 3 HP and Rs. 2.44/unit for 5 HP & 7.5 HP.	458.85
REC cost saving for RPO @ Rs. 1 Per Unit (Rs. Cr.)	163.70

- Considering the all scheme target MSEDCL is planning to install 10,00,000 solar pump. MSEDCL inaugurated new website of “Magel Tyala Saur Krushi Pump” to accept the application solar pump.
- Considering the target of 10,00,000 Saur Krushi pump Saving power purchase cost is elaborated in cost benefit analysis.

14.46 Off-Grid Solar Photovoltaic Water Pumping Systems & Agricultural Feeder Solarisation Project With Conventional Ag Connections. (Funded by AIIB) Component A:

14.46.1 GoM has resolved that vide GR dated 15.03.2024 stated that installation 5 lacs off grid solar pump for next 5 years with funding from AIIB Loan.

Table 296 Off-Grid Solar Photovoltaic Water Pumping Systems & Agricultural Feeder Solarisation Project With Conventional Ag Connections. (Funded by AIIB) Component A Financial Details

Sr No	AIIB Loan component (60%)	GoM subsidy (30% & 40%)	Contribution of beneficiary (SC(5%)/ST(5%)/Open(10%))	Total
Component A	8096.13	4199.87	1197.55	13493.55

14.46.2 GoM has borrowed loan from Asian Infrastructure Investment Bank (AIIB) and it will transfer to MSEDCL as fund. GoM will repay the loan using TOSE fund.

14.46.3 Fund will release to GoM in 5 years

Table 297 Funds Release for off Off-Grid Solar Photovoltaic Water Pumping Systems & Agricultural Feeder Solarisation Project With Conventional Ag Connections. (Funded by AIIB)

Financial Year	Funding Rs Crores
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**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Financial Year	Funding Rs Crores
FY 24-25	1349.36
FY 25-26	2698.71
FY 26-27	2698.71
FY 27-28	2698.71
FY 28-29	4048.07
Total	13493.55

14.46.4 In this way total MSEDCL is in verge of to install 10,00,000 pump next 5 years.

14.46.5 Cost benefits analysis of AIIB scheme:

Table 298 Cost benefits analysis of AIIB scheme

Particular	Values
Total Solar nos. of pump	500000
Total Solar Units Generated by solar pump Kwh/Year (MUs)	1477.8
Actual Units Required after adding Loss Units/Year (MUs)	1738.69
Power Purchase Cost with T&D Loss Units/Year @ Rs.5.68/Kwh (Rs. In Crores)	987.52
Saving in Cross Subsidy/Year @ Rs.3.65/Kwh (Rs. Cr.)	604.42
Saving in Farmer Energy Bill as per MERC Rate per year (Rs. Cr.) as per MERC Rate, EC+WC @ Rs. 4.17/unit	754.37
Saving in Govt. Subsidy/Year	312.11
(Rs. Cr.) as per Govt Subsidy Rate, EC+WC @ Rs. 2.03/unit	
Saving in Farmer Energy Bill as per Pay Rate per year	442.26
(Rs. Cr.) As per Consumer Rate, EC+WC @ Rs. 2.14/unit for 3 HP and Rs. 2.44/unit for 5 HP & 7.5 HP.	
REC cost saving for RPO @ Rs. 1 Per Unit (Rs. Cr.)	147.28

14.46.6 Proposal of installation of Off-Grid Solar pump to all paid pending consumer:

In the State of Maharashtra, about 6,51,480 nos. of Ag connections are released under various schemes during FY2018-19 to 2024-25 upto 25.10.2024 by MSEDCL. The scheme wise Ag connections released are tabulated as below,

Table 299 scheme wise Ag connections released from FY 18-19 to FY 24-25

Scheme Name	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	Total
Ag Policy - 2020	282	305	27500	91904	130447	95415	10145	355998
Special Package	4267	0	0	1	0	0	0	4268
Ddf	1178	1413	2620	8952	11141	9103	15410	49817
Non DDF CCRF	42	4	48	2107	3545	2723	369	8838
Backlog	1401	711	1065	1222	6528	585	160	11672

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

Scheme Name	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	Total
Dhadak Sinchan Yojana	477	0	0	0	0	0	0	477
Ddugjy	122	3	0	0	0	0	0	125
Dpdc	1065	767	1093	1579	4270	3034	1111	12919
HVDS Scheme	2545	62529	38556	24296	10672	228	15	138841
Mahavitaran Apalya Dari	554	0	0	0	0	0	0	554
Nsc	55084	7710	2243	2582	352	0	0	67971
Grand Total	67017	73442	73125	132643	166955	111088	27210	651480

14.46.7 As on date 25.10.2024, there are about 88,169 nos. of paid pending Ag connections under various scheme in the State, which are as below,

Table 300 Scheme wise pending AG connections

Scheme	Ag Policy	DDF	NON DDF	DPDC	BACKLOG	HVDS	NSC	Total
Ag paid pending	74098	10206	307	2989	162	120	24	87906

14.46.8 All these Ag paid pending consumers are requiring Ag pump connection on conventional method by erecting allied infrastructure such as HT/LT line & Distribution Transformer centre etc. Now, GoM has announced the scheme “Magel Tyala Saurp Pump” in which, GoM has objectives to release all the paid pending Ag pump connections and prospective Ag pump connections on Off Grid Solar mode only.

14.46.9 Therefore, all these 87,906 nos. Ag paid pending connections are to be released on Off Grid Solar by converting these connections to Solar mode. For that, process of contacting paid pending Ag consumers and taking their willingness is under progress. Hence, Hon’ble Commission will be requested to allow MSEDCL to release connections to all present Ag paid pending connections and to all prospective Ag applicants on Solar mode under “Magel Tyala Saurp Pump” scheme.

14.46.10 Considering the all-scheme target MSEDCL is planning to install 10,05,000 solar pump. MSEDCL inaugurated new website of “Magel Tyala Saur Krushi Pump” to accept the application solar pump. Considering the target of 10,00,000 Saur Krushi pump Saving power purchase cost is as below:

Table 301 “Magel Tyala Saur Krushi Pump” Saving Power Purchase cost

Particular	Value
Actual Units Required after adding Loss Units/Year (MUs)	5969.58
Power Purchase Cost with T&D Loss Units/Year @ Rs.5.68/kWh (Rs. In Cr.)	3390.72
Saving in Cross Subsidy/Year @ Rs.3.65/ kWh (Rs. Cr.)	2075.32

Particular	Value
Saving in Govt. Subsidy/Year (Rs. Cr.) as per Govt Subsidy Rate, EC+WC @ Rs. 2.03/unit	1030.16
Saving in Farmer Energy Bill as per Pay Rate per year (Rs. Cr.) As per Consumer Rate, EC+WC @ Rs. 2.14/unit for 3 HP and Rs. 2.44/unit for 5 HP & 7.5 HP.	1404.38
REC cost saving for RPO @ Rs. 1 Per Unit (Rs. Cr.)	107.23
Actual Units Required after adding Loss Units/Year (MUs)	5969.58
Power Purchase Cost with T&D Loss Units/Year @ Rs.5.68/ kWh (Rs. In Crores)	3390.72

14.47 Electric Vehicle Charging Station:

14.47.1 Govt. of India has notified the National mobility mission 2020. Similarly, Govt. of Maharashtra has declared Maharashtra Electric Vehicle Policy 2018. GoM has designated MSEDCL as State Nodal Agency (SNA) for Maharashtra. GoM has updated and published EV policy 2021 on dt. 23.07.2021. MSEDCL as SNA has issued Operational guidelines on 02.09.2021 for incentive disbursement of EV Charging stations.

14.47.2 MSEDCL has decided to set up Electric Vehicle charging station in its premises at their own cost to promote use of electrical vehicle by creating charging infrastructure.

14.47.3 Tariff for EV charging station is fixed as under:

- LT -VIII Energy charges Rs.7.25 per unit and KVA (MD) charges Rs.75/ KVA/month
- HT-IX Energy charges Rs.7.50 per unit and KVA (MD) charges Rs.75/ KVA/month
- During time slot 22.00 to 6.00 Hrs- discount of Rs -1.5/unit
- During time slot 06.00 to 9.00 Hrs& 12.00 to 18.00 Hrs- base tariff
- During time slot 09.00 to 12.00 Hrs- additional charges of Rs 0.80/unit
- During time slot 18.00 to 22.00 Hrs- additional charges of Rs 1.10/unit

14.47.4 Cost Benefit Analysis-

- No of unit sale in this business up to 13.11.2024: 665859 Units
- Income from Ev charging station business up to 13.11.2024: Rs 0.87 Crores
- Total Capex expenditure: Rs 8.67 Crores

14.47.5 Present status of EV charging stations

- MSEDCL has commissioned 63 no of EV station at various prime locations of Maharashtra Thane- 11, Navi Mumbai-12, Nagpur-6, Nashik-2, Aurangabad-2, Pune-23, Solapur-2, Kolhapur-1, Amravati-2, Sangli-1 and Bandra(Mumbai)-1
- Creation of first Roof top solar integration to EV charging station at Pune
- GoM EV Policy -2021 Incentive-Amount received for incentive disbursement - Rs 2.89 Crores Incentive released -65 Nos of Applicant (Received- 71, Rejected-06) . Amount released – Rs 2.09 Crores

14.47.6 Developed “Powerup” Mobile App. Proposed Digital Feature of Mobile App

With the increased population of electrical vehicle it is necessary to set up a centralized information Centre which provides real time information along with geo-coordinates to e-vehicle owners like –

- Digital Current Status of EV Station, Station Specifications, Plug Type, Power (DC, AC)
- Opening Times, Available times (book through app/MSEDCL Consumer number)
- Distance from current location
- Alternate EV station in case the nearest one is Busy or not in service

14.47.7 Development of Web Portal for Single window EV connection and incentive disbursement Submitted draft report EVCS integrated charging infrastructure plan to GoM.

14.47.8 Tariff for Supply of electricity to EV charging stations:

- Gol has issued guidelines for installation and operation of Electric Vehicle Charging Infrastructure -2024 on dated 17 Sept 2024.
- As per Clause no 9 Tariff for supply of electricity to EV charging stations:
 - (1) *The tariff for supply of electricity to EV Charging Stations shall be single part and shall not exceed "Average Cost of Supply" till 31st March 2028.*
 - (2) *The Distribution Licensee will charge 0.7 times the Average Cost of Supply (ACoS) during solar hours (9:00 AM to 4:00 PM) and 1.3 times ACoS during non-solar hours (remaining hours of the day).*
 - (3) *Each EV charging station must have separate metering arrangements to accurately record consumption and apply the appropriate tariff.*

(4) Distribution Licensee may provide sub metering for EV charger, behind-the-meter of an existing HT connection.

14.47.9 Tariff as per MTR order 226 of 2022 is as below:

Table 302 EVCS Tariff from 01.04.2024 as per MYT order 226 of 2022

EVCS Tariff from 01.04.2024			
Particular	Unit	LT	HT
Demand Charges	Rs/KVA/Month	75	75
Energy charges	Rs/Unit	6.08	6.90
Wheeling charge	Rs/Unit	1.17	0.60
Total	Rs/Unit	7.25	7.5
ACoS FY 24-25	Rs/Unit	8.91	
Proposed Tariff for EV			
1) During solar hours (9:00 AM to 4:00 PM), the cost is 0.7 times ACoS, and	Rs/unit	6.23	
2) During non-solar hours, it is 1.3 times ACoS.	Rs/unit	11.58*	Exceed

Note:

Tariff for EV charging is exceeding for non-solar hours than ACoS. It is proposed that if ACoS increased than existing tariff then it is suitable to increase EV Charging tariff. In tariff guidelines it is mentioned that as per clause 9 tariff EV tariff should not exceed than ACoS.

14.47.10 Capex Scheme details:

- MSEDCL has submitted the proposal to MERC for the Planning, designing, Engineering, Supply, Testing, erection and Commissioning along with 5 Year on-site warranty of set of DC (fast) charging equipment compatible with Bharat DC-001 15KW charge and combination of 50KW CCS-2+ CHAdeMO charger at 50 identified location
- MERC has given directives in its reply vide letter dated 15.12.2021 as follows:
- EV Charging station is de-licensed activity and hence the capital expenditure by Distribution Licensee cannot be allowed to be recovered through tariff by including it in regulated/ licensed business of Distribution Licensee.
- Maintain separate account for such business of setting-up of EV Public charging stations and the Capex expenditure on the small shall not be recovered through the tariff from Consumers (ARR)
- Ensure that distribution business neither subsidized in any way such

business of setting-up EV Charging station nor encumbers its distribution assets in any way to support such business.

- As per MYT Regulations, amount equal to two third of Income from such business shall be used for reducing ARR of MSEDCL's Distribution Business.
- In this way MSEDCL give approval to proposal under section 51 of EA act 2003 for setting-up of EV Public Charging stations as its other business under section 51 of the EA, 2003
- Capex scheme for the Planning, designing, Engineering, Supply, Testing, erection and Commissioning along with 5 Year on-site warranty of set of DC (fast) charging equipment compatible with Bharat DC-001 15KW charge and combination of 50KW CCS-2+ CHAdeMO charger at 50 identified location has been closed on May 2023.
- As per tender condition of scheme Retention amount for scheme is balanced to release of amount of Rs 0.867 Crores for 5 years.
- Details of EV charging station as per directives of MERC considering as other business of utility upto 24.10.2024:

14.48 Implementation of solar Roof top project for the Prakashgad Building Bandra-

14.48.1 The Prakashgad building is the corporate office of MSEDCL, MSPGCL and asset of MSEB HCL. The building is G+6 multi storied building has two wings A and B. The terrace of both wings are covered by the Shed of which, the work of shed for A and B wing terrace is completed. Hence it is proposed to install solar roof top on provided shed on the terrace of both the wings of the building to have savings in the monthly electricity bill payment.

14.48.2 The indicative information presented in tabular form

14.48.3 Cost Benefit Analysis-

Table 303 Cost benefit analysis of solar Roof top project for the Prakashgad Building Bandra

Particular	Amount
Total capacity kWp	280
Gross energy production kWp/Annum	1350
Total estimated generation KWh/Annum	378000
Existing average per unit rate (Rs/unit)	8
Annual saving Rs by net metering	3024000
Approx expenditure	1.41 Crores

Particular	Amount
Payback period	5 Years

14.48.4 The actual expenditure for the aforementioned project shall be shared by MSEDCL and MSPGCL as per occupancy ratio.

14.49 Incomer Metering-

14.49.1 Providing and fixing energy metering arrangement on 33kV and 22kV Incomer feeders at 33 or 22/11kV substations and 22kV switching stations.

14.49.2 Objectives: -

The source of power to MSEDCL substation comes from MSETCL's substation at 33/22kV level (i.e. Incoming line to MSEDCL Substation).

For proper energy audit of substation i.e. for calculating energy loss, accurate measurement of incoming units and outgoing units is important, hence energy meters should be provided on all Incoming lines of the substation.

14.49.3 Benefits of the incomer metering Scheme are as below:

- There will be accurate measurement of incoming units to MSEDCL Substation.
- Accuracy in substation Energy audit.

14.49.4 Cost Benefit Analysis-

- Substations are the transfer points for energy flows within the electrical grid. The source of power to MSEDCL substation comes from MSETCL's substation at 33/22KV level (i.e. Incoming line to MSEDCL Substation).
- For proper energy audit of substation i.e. for calculating energy loss, accurate measurement of incoming units and outgoing units is important.
- After completion of the Metering infrastructure works at balance feeders, the accurate accounting of units and Substation loss will be possible. For proper energy audit of substation i.e. for calculating energy loss, accurate measurement of incoming units and outgoing units dedicated metering is required.
- Impact on Tariff of proposed works amounting to 30.10 Crores is in the range of 0.04 Paise/Unit to 0.01 Paise/Unit.

14.49.5 Scope of Work: -

To provide, install and commission Metering arrangement for incoming feeders at 765 Sub-stations.

- 33kV CTs: 2112 Nos.
- 22kV CTs: 18 Nos.
- 33kV PTs: 2112 Nos.
- 22kV PTs: 9 Nos.
- HT ToD Meter: 765 Nos.
- AMR: 765 Nos.
- Metering Cubicle: 55 Nos.

Table 304 Scope of work for Incomer metering

Sr. No.	Zone	DPR Amount (Rs Crores)	Locations Nos.
	Aurangabad Zone	0.036	01
	Nanded Zone	0.985	27
	Latur Zone	4.67	128
1	Aurangabad Region	5.691	156
	Bhandup Zone	4.152	55
	Konkan Zone	0.109	3
	Kalyan Zone	0.875	24
	Nashik Zone	4.561	125
2	Konkan Region	9.697	207
	Akola Zone	5.838	160
	Amravati Zone	5.327	146
	Chandrapur Zone	0.182	5
	Gondia Zone	0.401	11
	Nagpur Zone	1.736	46
3	Nagpur Region	13.484	368
	Kolhapur Zone	1.095	30
	Pune Zone	0.114	04
4	Pune Region	1.209	34
	State Total	30.081	765

14.49.6 Current Status:-

- At 14 Zones tenders had floated and LOAs were issued to the qualified bidders; till date the work of installation of metering arrangement for incoming feeders at 575nos. (510nos. in incomer metering scheme and 65nos. in other scheme) substations has been completed.
- Tender under Akola zone and Amravati zone (Yavatmal circle) has

been re-floated at the risk and cost of old agency who had not completed the works.

- The work of installation is under progress at said zones for the balance 163 locations. At other balance locations of 27 nos. the work cannot be executed due to space constraint.

14.49.7 Funding Details:

- The funds for execution of the project in Phase-I are arranged by availing loan from REC Limited up to 80% of project cost. Balance 20% from internal resources.

14.50 Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGJY)

14.50.1 Government of India (GoI) has launched an ambitious program of “Deen Dayal Upadhyay Gram Jyoti Yojana” (DDUGJY) in December 2014 in rural areas for creation of infrastructure for distribution of energy. The scheme is being implemented 33 Districts (37 Circles) of Maharashtra State.

14.50.2 Objectives of DDUGJY scheme:

- Giving regulated Power Supply to Ag. Consumers,
- Continuous Power Supply (24X 7) for non-agriculture consumers
- Metering at various level for proper Energy accounting.
- Reduction of AT & C Losses.
- Subsuming RGGVY in DDUGJY and carry forward the approved outlay for RGGVY to DDUGJY
- Separation of Agriculture and Non-Agriculture Feeders,
- Strengthening and Augmentation of Sub-transmission and Distribution
- Infrastructure in Rural Areas including metering,
- Creation of infrastructure for connecting unconnected RHH including BPL beneficiaries &
- Modernization & strengthening of infrastructure in villages selected under SansadAdarsh Gram Yojana (SAGY).

14.50.3 Cost Benefit Analysis:

The DDUGJY Scheme was sanctioned in March 2016 and scheme was physically completed in March 2021.

The scheme implementation was resulted in AT&C loss reduction of the utility as below

Table 305 Cost benefit analysis of DDUGJY Scheme

Particulars	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
% Loss reduction trajectory as per IPDS guidelines	16.45	15.45	15.00	14.50	14.25	14.00
Actual AT&C Loss (%)	18.88	14.38	16.23	19.80	20.73	14.49

Table 306 Supply hours and transformer failures

Particular	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Supply Hours (Urban)	23.48	23.40	23.06	23.37	23.45	23.49	23.44
Transformer Failure	8.11	7.95	7.5	8.26	9.38	7.98	8.01

14.50.4 Provision of funds :

- 60% Grant Central Government.
- 10% Utility/ State Government
- 30% Loan from FIs/ Banks
- Further, GOI has approved Districtwise /Component wise DPRs amounting to Rs. 2164.15 Crores for 33 Districts (37DPRs) of DDUGJY for Maharashtra State.
- The works of scheme is completed and financial closures is done for an amount Rs.2176.86 Crores.
- Scope of work & final achievement is as below :

Table 307 Scope of work for DDUGJY scheme

Sr No	Particulars	Unit	Scope	Achievements	Percentage
1	New Substations	Nos	210	210	100%
2	Augmentation/Additional Power Transformers	Nos	150	150	100%
3	HT line	km	14056	14056	100%
4	LT line	km	4471	4471	100%
5	Distribution transformers	Nos	7885	7885	100%
6	Feeder Separation	Nos	658	658	100%
7	SAGY Villages	Nos	79	79	100%
8	Connection to BPL HHs	Nos	364405	364405	100%

14.51 66 kV Elimination Scheme

14.51.1 In order to eliminate the existing 66 KV line and to convert the same to 33 KV voltage level the 66 KV elimination scheme is implemented

14.51.2 The Contract for work of 66kV Elimination Scheme in Amravati zone, Nagpur zone & Nagpur Urban zone awarded to M/s JSL vide LOA dtd. 24.02.2011.

14.51.3 LOA No. CE/DSPC/66KV level elimination/338/6516 Dt.24.02.2011.

14.51.4 The tender details considering the revised quantities are as follows:

Table 308 Tender details with revised quantities for 66 kV Elimination scheme

Name of Zone.	Tender No	Approved cost by MERC (Rs Crores)	Tender Floated (Rs Crores)	REC Loan Sanctioned (90 %) (Rs Crores)	LOA Value (Rs Crores)	Quoted %
Nagpur, Nagpur Urban & Amravati	T-08	147.70	130.49	132.93 Crores for total scheme	117.574	Below (-) 9.9%

14.51.5 Cost Benefit Analysis:

- No direct monetary benefits are envisaged. It is necessary to implement the scheme in order to standardize the system voltages and ensure better quality and reliability of supply as the 66 kV system has become outdated.
- At present 66 kV system is not in existence in India and the 66 kV equipments and spares are not available for maintenance.
- To maintain the supply it is essential to convert 66 kV level into 33 kV level and is need of the system.

14.51.6 The contractual work completion period for the said work was 24 months from date of LOA i.e 23.02.2013.

14.51.7 The 66 KV Elimination scheme is funded by REC (90 % loan)

14.51.8 The scheme is financially closed in Mar-2016 for Rs.87.02 Crores.

14.52 HVDS Scheme

14.52.1 Approval of HVDS scheme:

- Government of Maharashtra vide G.R. dated 05.05.2018 has approved Ag HVDS scheme of Rs 5048.13 Crores, for providing power supply to the Agriculture paid pending applicants as on 31 March 2018 and for establishment of new sub stations to cater the agriculture load.
- For Vidharbha & Marathwada, Government of Maharashtra will borrow loan (USD \$ 346.00 Mn) from Asian Development bank and provide financial support in terms of Grant to MSEDCL for implementation of HVDS scheme.
- For Rest of Maharashtra Rs. 2800 Crores loan approved by GoM is being

- borrowed by MSEDCL from Financial Institutions (Punjab National Bank Rs.1500 Crores & Punjab & Sind Bank Rs.1300 Crores).
- GOM vide G.R. dated 15.09.2021 has given approval to revised scheme cost Rs.4734.61 Crores of HVDS scheme and granted time limit extension to HVDS scheme till March-23.
 - MERC has given in principle approval vide letter number MERC/CAPEX/2018-19/1216 dated 02.08.2018 for “Implementation of High Voltage Distribution System (HVDS) for releasing connections to AG paid pending consumers in Maharashtra” (Cost of Rs.5048.13 Crore as proposed by MSEDCL (Rs.2248.09 Cr. As a Grant from GoM + Rs.2799.59 Cr. Will be borrowed through loans from Financial Institutions)).
 - Under HVDS scheme Distribution transformers of capacity 10kVA, 16kVA & 25kVA will be used for releasing Ag connections. Maximum One or Two Ag connection will be released on each transformer

14.52.2 Cost Benefit Analysis:

- Submitted letter to MERC (L.No-18276 Dt 30 July 2018) point no 5, Return on Investment in which it is clarified that “HVDS scheme is implemented for energisation of Ag paid pending pumps as on 31st march 2018 of farmers as per policy of GoM ,hence no return on investment is expected as it is under social obligation. It can be seen that by implementing HVDS, reliability and quality of power supply to AG consumers in the state will be improved to great extent, thereby securing the stable energy supply and improving the efficiency of Ag production as well as living standard of rural population in the state.
- Hence, the benefit of the scheme may not be calculated in terms of money, but it will be benefited to the farmers across the state in form of quality and reliable supply.”

14.52.3 Advantages of HVDS

- Reliable and uninterrupted Power Supply
- In the existing LVDS, due to lengthy LT lines and high current flowing through it, there is issue of low voltage at consumer end. The low voltage is causing frequent motor burnt out incidences. If HVDS system is implemented, the current flowing through the lines and associated equipment will be reduced by more than 25 times. This will result into improvement in the voltage resulting into reduction in failure of equipment like DTs, motors, breaking of conductors, etc. and hence substantial

reduction in interruption of electric supply. Better voltage and less interruption will facilitate the reliability and quality of power supply to Ag. consumers. Further, there will be increase in the life of equipment, saving the maintenance cost of utility

- Reduction in electrical accidents:
As the HT line is controlled by circuit breaker in the sub-station, the circuit breaker will trip whenever line conductor snaps on the ground, avoiding the electrical accidents due to live conductor.
- Reduction in distribution losses:
As mentioned above, the current flowing through HT line in HVDS will reduce by more than 25 times in LVDS will result into reduction in the distribution losses. Further, in HVDS, theft of energy by hooking the lines, as frequently observed in LVDS will be eliminated. This will result into further reduction in distribution losses.
- Reduction in DT fail:
In HVDS, there will be only one or two Ag. consumers on one DT. Hence, the consumer will feel ownership of the DT, will take responsibility and will not allow any unauthorized connection on the DT. This will avoid overloading of DTs and hence, there will be substantial reduction in DT failure rate due to overloading of DTs, as observed in LVDS. Further, in the event of failure of DT, only one or two consumers will be affected as against 15-20 consumers in existing LVDS.

Thus, it can be seen that by implementing HVDS, reliability and quality of power supply to Ag. Consumers in the state will be improved to great extent, thereby securing the stable energy supply and improving the efficiency of Ag. production as well as living standard of rural population in the state.

14.52.4 Tenderization

- Standard Bidding Documents (SBD) is prepared by HO for full turnkey and partial turnkey tenders.
- In case of full turnkey tenders circle wise tenders are floated by concerned chief engineers and in case of partial turnkey sub division wise and section wise tenders are floated by concerned circle office.
- E-Tendering process is adopted for all tenders.

14.52.5 Progress (As on 30th September, 2024)

14.52.6 Progress of AG Connection:

Table 309 AG connection progress in HVDC scheme

Name of Region	Freezed Ag Paid Pending consumer Scope	DTC Commissioned	AG Pump Commissioned
Vidarbha & Marathwada	77,125	75,372	77,125
Rest of Maharashtra	61,711	60,347	61,711
Maharashtra	1,38,836	1,35,719	1,38,836

14.52.7 Substation progress:

Table 310 Substation progress in HVDS scheme

Region	New Substation		Additional Power Transformer		Capacitor Bank	
	Scope	Comm	Scope	Comm	Scope	Comm
Vidarbha & Marathawada	63	48	34	32	13	9
Rest of Maharashtra	39	10	27	18	2	-
Total	102	58	61	50	15	9

14.52.8 Challenges Faced During Execution of HVDS Scheme:

- Large nos. of transformers of capacity (10/16/25 KVA) are required, manufacturers were not ready with the required set-up. Initially resulted in delay in transformer supply.
- Full Turn Key contractors received lately approval for design & type tests of transformers as concept of lower capacity transformer was new.
- Heavy rains and stranding crops in the field hampering the progress of installation.
- Due to lockdown of COVID – 19 from 20th March 2020 progress is hampered, as the period from April to June 2020 was conducive to works of Ag connection.

14.53 Infra Plan Works -II Scheme

14.53.1 General Information:

To erect and commission new infrastructures such as New Sub-stations, Additional Power Transformers, Erection of New and augmentation of DTCS with associated HT LT Lines, etc. and includes Up gradation and Modernization of existing infrastructure and New Service Connections to the prospective consumers.

14.53.2 Objectives

- Meeting Load Growth
- Enhancing network for releasing new connections of Residential, Commercial, Industrial as well as Agriculture Pump Consumers
- Up-gradation of existing system
- Providing reliable & quality supply
- Reduction in Distribution Loss
- Reduction in Distribution Transformer Failure Rates

14.53.3 Financial Details of Infra-II Scheme

- Total scheme cost of Infra-II scheme is Rs. 8304.32 Crores.
- REC has sanctioned 80% loan of Rs. 6643.45 Crores.
- GoM has sanctioned 20% Equity of Rs.1660.86 Crores .
- The total expenditure up to March-2022 is Rs. 7903.14 Crores.

14.53.4 Infrastructure Plan Part II scheme is formulated for enhancing and upgrading the Infrastructure so as to enable MSEDCL to cater the increasing demand for releasing New connections under Residential, Commercial, Industrial and Agriculture categories and Renovation/Modernization (R&M) works in existing distribution network to be taken up during the period between 2013-14 and FY 2015-16. While formulating the scheme, expected load Growth up to 2015-16 has been considered.

14.53.5 Infra Plan “Part II” Schemes is prepared keeping in view the following Objectives

- Releasing New Connections - R, C, I as well as to clear all the Agriculture Paid Pending Connections and prospective demand upto 2015-16
- Up-gradation of existing system
- Meeting Load Growth
- Providing reliable & quality supply
- Reducing AT&C Loss
- Reduction in DTC Failure Rates.

14.53.6 Accordingly, MSEDCL has prepared DPRs for 131 Dn. Infra Section has submitted the scheme of Infrastructure Plan Part – II and Board of Directors has accorded approval to Infra II Plan vide BR No: 53 dated 07.03.2012 for various capital works such as New substations, switching station, Augmentation of Power Transformers, additional power transformers, Distribution Transformers, associated lines and works etc. amounting to Rs. 5556.5 Crores. The area covered excludes the 130 towns covered under R-

APDRP scheme.

14.53.7 INFRA II Scheme covers only Capital works for 2012-13 to 2015-16. The existing Infrastructure except the work carried out in INFRA I Scheme is more than 20 to 40 years old which needs replacement on priority basis so as to cope with the future load in system. Due to this Reliability of Supply will be increased, DTC failure rate will be reduced.

14.53.8 The Board vide BR No. 153 has accorded administrative approval for execution of Infra-II for “Up gradation and Modernization” U&M Scheme at estimated cost of Rs. 943.5 Crores.

14.53.9 The Government of Maharashtra has granted 20% equity support amounting to Rs. 1300 Crores. vides GOM resolution: Infra-II/2012/872/Urja-5 date 02 March 2013.

Infra Part II Scheme in 7 towns

14.53.10 As the Distribution losses are below 15% in Pune, Kolhapur, Panvel & Navi Mumbai (16 divisions), Nashik, Sinnar and Ozar towns were excluded from the R-APDRP Part-B works. To cope up with the growing demand and to release the new Residential, Commercial, Industrial, Agriculture and other connections upto 2015-16, it is necessary to implement INFRA Part- II Scheme in these towns for development of Infrastructure.

14.53.11 The Board of Directors accorded the approval for execution of INFRA-II Scheme in above 7 Towns at a cost of Rs. 1804.32 Crores vide BR No: 144 date 05th September, 2013.

14.53.12 The Government of Maharashtra has granted 20 % Equity support of Rs. 734.51/- Crores. upto Year 2016-17.

14.53.13 Funding for this scheme is detailed as under:

Table 311 Funding details of Infra Part II Scheme in 7 towns

Sr. No.	Funding	Infra II scheme	U&M scheme	INFRA-II Scheme in 7 Towns	Total in Crores.
1	80% loan	4445.2	754.8	1443.456	6643.456
2	Govt. equity 20%	1111.3	188.7	360.864	1660.864
Total		5556.5	943.5	1804.32	8304.32

14.53.14 Scope and progress of works :The tenders for Infra II were awarded from September 2013 to October 2015 in phased manner. The following table

shows the progress of Infra-II + Infra-II Town Scheme upto Sept 2017.

Table 312 Progress of works Infra-II + Infra-II Town Scheme upto Sept 2017

Sr. No	Phase	Number of tenders	Contractual Cost (Rs. In Crores)
1	A	21	1963.07
2	B +B1+B2	21	1546.22
3	C	15	957.35
4	D+D1	25	1310.13
5	T-BG	1	54.95
6	E	1	11.73
7	Nasik R Div	7	74.925
Total		91	5918.375

14.53.15 Cost Benefit Analysis

- Total 91 main Tenders were floated against Infra II scheme. Due to various reasons viz. non availability of land, ROW issues, delay in forest department, various Govt. authorities and local body permissions and non-performance of some agencies, the scope of main tenders were reduced and in due course 234 Nos. of parallel/left out tenders had to be floated to achieve the deleted scope.
- The total achievement and objective of Infra II scheme (excluding 14 tenders shifted in HVDS scheme) is detailed below: The zone wise and district wise sheet is enclosed herewith.

14.53.16 Releasing of New Connections: Year wise LT Connection released as on 16/12/19

Table 313 Year wise LT Connection released as on 16/12/19

Year	Total	
	Consumers	Load kW
YR-13-14	1098481	2533470
YR-14-15	1121428	2330666
YR-15-16	1248629	2507563
YR-16-17	1138241	2232470
YR-17-18	1141614	2114191
YR-18-19	1556566	2364908
Grand Total	7304959	14083270

14.53.17 Reduction in Distribution Transformer Failure Rate:

Table 314 Reduction in Distribution Transformer Failure Rate

Year	% DTC Failure Rate	Variation of DTC Failure Rate w.r.t FY 2013-14
2013-14	9.18%	Reduced by 1.88%
2018-19	7.30%	

14.53.18 Increase in Power Handling Capacity:

Table 315 Increase in Power Handling Capacity

Year	Total Input Power in MU's	Variation of Input Power w.r.t FY 2013-14
2013-14	110458	Increased by 19.90%
2018-19	132441	

14.53.19 Distribution Losses:

Table 316 Distribution Losses

Year	% Distribution Loss	Variation of Distribution loss w.r.t FY 2013-14
2013-14	14.00 %	Reduced by 0.37%
2018-19	13.63%	

14.53.20 Above objectives are achieved by addition of infrastructure executed in Infra II scheme in the existing system. The achievement of Infra II scheme is detailed below.

Table 317 The achievement of Infra II scheme

Sr. No	Parameters	Scope	Achievement
1	New Substation (Nos.)	512	512
2	Augmentation of PTF (Nos.)	213	213
3	Additional Power Transformer (Nos.)	327	327
4	New DTC (Nos.)	37040	37040
5	Augmentation of DTC (Nos.)	14825	14825
6	HT Line (Kms)	24439	24439
7	LT Line (Kms)	20729	20729

14.53.21 Financial Progress- The original cost of Infra II project was Rs.8304 Crores and the same was revised to Rs.8639 Crores. The total scheme cost, loan drawn, equity utilized is detailed below. Also the details of recovery done and the retention amount is detailed below:

14.53.22 The total expenditure up to March-2023 is Rs. 7903.44 Crores (including GEC, overheads, taxes etc.). The scheme is closed in March 2019.

14.54 Integrated Power Development Scheme (IPDS-I)- IPDS System Strengthening

14.54.1 Government of India has launched Integrated Power Development Scheme (IPDS) for urban area (Statutory Towns) only. The existing scheme of R-APDRP is subsumed in this new IPDS scheme. The projects under the scheme are formulated for urban areas having population more than 15000 as per census 2011. The scheme is implemented in 254 towns.

14.54.2 The DPRs have been prepared as per the guidelines of IPDS and in consultation with Local MP's. Government of India has approved the Project cost of Rs 2300.43 Crores for IPDS under MSEDCL on 16.03.2016. The works under this scheme are executed on Full Turnkey Contract basis. The tenders of the same have been floated at HO and Zonal level.

14.54.3 Objectives of IPDS:

- 24x7 Hrs Power supply for consumers.
- Strengthening of electrical distribution network.
- Reduction of AT&C Losses.

14.54.4 Provision of funds:

- 60% Grant Central Government.
- 10% Utility/ State Government
- 30% Loan from FIs/ Banks
- Additional grant of 50% of loan component i.e. 15% will be released subject to achievement of milestones.

14.54.5 Cost Benefit Analysis:

The IPDS Scheme was sanctioned in March 2016 and scheme was physically completed in March 2021.

The scheme implementation was resulted in loss reduction of the utility as below

Table 318 Cost benefit analysis of IPDS Scheme

FY	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
% Loss reduction trajectory as per IPDS guidelines	16.45	15.45	15.00	14.50	14.25	14.00
Actual AT&C Loss (%)	18.88	14.38	16.23	19.80	20.73	14.49

Table 319 Supply hours and transformer failures

Particulars	FY	2017-18	2018-19	2019-20	2020-21	2021-22
Supply Hours (Urban)	Nos	23.55	23.55	23.51	23.56	23.56

Particulars	FY	2017-18	2018-19	2019-20	2020-21	2021-22
Transformer Failure	Nos	7.5	8.26	9.38	7.98	8.01

14.54.6 All sanctioned 45 circles are physically completed as on March -2021 and financially closed as on March -2022

14.54.7 The total expenditure incurred against the scheme is Rs 2251 Crores.

14.55 RAPDRP-Part B

14.55.1 It is implemented in 123 towns (120 Part Band 3 towns SCADA enabling component) of MSEDCL with population more than 30,000 as per census 2001 and AT&C loss greater than 15 %. R-APDRP Part B is sanctioned From June 2010 to Feb -2012.

Table 320 Details of Sanctioned and Final Project Cost under R-APDRP Part B

Particulars	R-APDRP Part B
Sanctioned Amount	3111.64 Crores
Final Project cost	2245.69 Crores

14.55.2 Funding Mechanism:

- Initially GOI will provide 100% Loan for Part A and 25% loan for Part B projects on the terms decided by Ministry of Finance. The Loan of Part A is converted into grant once establishment of the required system is achieved;
- The balance funds (75 %) for Part B projects shall be raised from financial institutions. The entire loan from Gol is routed through financial institutions for the respective schemes funded by them.

14.55.3 Cost Benefit Analysis: Attached as MERC in-principle approval letters, CBA and appraisal letters.

14.55.4 Conversion of loan into Grant

- Part A: The loan shall be converted into grant once the establishment of the required system is achieved and verified by the independent agencies. The interest on the converted Loan shall be capitalized. No conversion to grant will be made in case Part A is not completed within 5 years from the date of sanctioning of the project/ till the period extended by PFC
- Part B: Up to 50% loan of Part-B projects shall be converted into grant in five equal tranches on achieving the 15% AT&C loss in the project area

on a sustainable basis for a period of five years. If the utility fails to achieve or sustain the 15% AT&C loss target in a particular year, that year's trench of conversion of loan to grant will be reduced in proportion to the shortfall in achieving 15% AT&C loss target from the starting AT&C loss figure. PFC has extended the R-APDRP Part B till March -18.

14.55.5 Progress of works:

Achievements of R-APDRP Part A:

- 128 Towns with population more than 30, 000 (Census 2001) selected for Implementation of R-APDRP Part A.
- All 128 towns Declared as go-Live as on Oct'14.
- After declaration of Go live of towns the TPIA (M/s PWC Ltd) appointed by PFC has started their work in April -2015. The verification is completed. The reports submitted by TPIEA for successful completion of the scheme is accepted by PFC in the month of Oct – 16.
- The project is successfully completed and the entire loan amount is converted into Grant

Achievements of R-APDRP Part B and SCADA Part B:

Table 321 Achievements of R-APDRP Part B and SCADA Part B

Sr. No	Activities	Unit	Scope	Achievement
1	New Sub-stations	Nos	135	135
2	Aug Of Power Transformers	Nos	29	29
3	Add of Power Transformers	Nos	35	35
4	New Distribution Transformers HVDS	Nos	5823	5823
5	Aug of Dist. Transformer	Nos	3624	3624
6	RMU	Nos	1370	1370
7	Numerical Relay	Nos	3913	3913
8	WTI/OTI	Nos	403	403

All 123 Towns are declared as completed and financially closed.

14.56 Feeder Separation under RDSS

14.56.1 The Central Government has announced a Revamped Distribution Sector Scheme vide Office Memorandum dated 20.07.2021. Under the said scheme, financial assistance will be provided by the central government to the government electricity distribution companies in the state to improve their operational efficiency and financial stability.

14.56.2 The scheduled date of closure is 31 March 2026

14.56.3 Feeder separation scheme is implemented for separating agriculture consumer on a feeder from other domestic and non-domestic consumers for balanced mix feeder.

14.56.4 Feeder segregation allows greater revenue potential as it helps in reducing the theft and technical losses that prevail in unmetered agricultural consumption. Feeder separation also helps in reducing the peak power purchase cost through better distribution of agricultural load, leading to savings. The core objective of feeder separation is to provide regulated supply to agricultural consumers and continuous supply to non-agricultural consumers in rural areas.

14.56.5 There are total 10811 no of Mixed feeders already separated feeders with AG load are 6099. Balance 4712 nos. of feeder are considered for segregation under RDSS.

14.56.6 Cost Benefit Analysis: Scheme is Ongoing

14.56.7 Scheme Features:

Funding linked to Results/ Performance (Conditional financial assistance)

Thrust on Smart Metering

Funding for Loss Reduction works

Quality & reliability of power supply.

14.56.8 Scheme Objectives:

Improve quality, reliability & affordability of power

Reduce AT&C Losses pan-India level to 12-15% by FY 24-25

Reduce ACS-ARR gap to ZERO by FY 24-25

14.56.9 Major Milestones of the Scheme:

- M/s RECPDCL is been appointed as PMA (Project Management Agency)
- The MoP, GoI approved the Action Plan & DPR in the Monitoring Committee Meeting on Dt. 29.08.2022.
- The sanction was received on 22-09-2022 from the Nodal Agency M/s. PFC Ltd. for Smart Metering works & Loss Reduction Works.

14.56.10 Action Plan:

- Reduce AT&C Losses of MSEDCL to 13% by FY 24-25
- Reduce ACS (Average Cost of Supply) - ARR (Average Revenue Realized) gap to ZERO by FY 24-25

14.56.11 Details of the AG Feeder Separation under RDSS

Loss Reduction

14.56.11.1 Ag. Feeder Separation:-

- Sanctioned Amt.:- 7010.47 Crores.
- Proposed Ag Feeders for Separation-4712 Feeders

14.56.11.2 Ag. Feeder Separation:-

- Total 26 nos of tenders for estimated cost of Rs. 6840.51Crores (With GST) were floated for Ag feeders Separation works under loss reduction works in RDSS and all 26 LOAs are awarded for an amount of Rs.7235.11Crores.(With GST)
- Up to 22nd Oct'2024, Feeder Separation Work of 905 feeders is completed and work of 1265 feeders is in progress.
- The proposed completion period is 18 to 27 months from date of award of LOA.
- The expenditure on the said scheme up to 22nd Oct'2024 is Rs. 1309 Crores

14.57 Reactive Power Management Scheme (PSDF)-

14.57.1 MSEDCL had submitted the DPR to power system development fund (PSDF), MoP, GoI for installing APFC (Automatic Power Factor Correction) capacitor bank at 33/22/11 KV substations in MSEDCL.

14.57.2 Ministry of MoP, GoI has sanctioned the project through PSDF (Power System Development Fund) on 25.08.2022 for 657 no. of capacitor banks (APFC) of 843.6 MVAR capacity amounting to Rs 132.62 Crores.

14.57.3 The amount of grant sanctioned is Rs 119.36 Crores (90 % of the approved project cost). National Load Dispatch Center (NLDC) is the nodal agency for the scheme.

14.57.4 The main objective of the scheme is to improve voltage profile in the grid.

14.57.5 Funding Mechanism: 90% grant and 10% own contribution.

Package wise 2 tenders (Pune Region + Konkan Region and Nagpur region+ Aurangabad Region) are floated on full turnkey basis for timely completion of the scheme. LOA has been issued for 2 nos. of packages on dtd. 11.04.2023.

14.57.6 Cost Benefit Analysis: Scheme is Ongoing. This scheme is implemented for improvement of PF in AG dominated areas

14.57.7 The details as below :-

Table 322 Cost Benefit Analysis Reactive Power Management Scheme (PSDF) Scheme

Tender no	Region	Name of agency	LOA amount (excluding Taxes)	Contract Period	No of APFC units (Target)	Commissioned
T-01	Pune+ Konkan Region	M/s Ganpati Infrapower Pvt. Ltd.	62.25	9 Months	258	258
T-02	Aurangabad+ Nagpur Region	M/s Shreem Electric Ltd	64.80	9 Months	292	292
Total			127.05		550	550

14.58 Saubhagya Scheme

14.58.1 Govt. of India has launched 'Pradhan Mantri Sahaj Bijli Har Ghar Yojana "Saubhagya", on September 25, 2017.

14.58.2 Objectives of Saubhagya Scheme:

- Providing last mile connectivity and electricity connections to all un-electrified households in rural areas.
- Providing Solar Photo Voltaic (SPV) based standalone systems for un-electrified households located in remote and inaccessible villages/Habitations where Grid extension is not feasible or cost effective.
- Providing last mile connectivity and electricity connections to all remaining economically poor un-electrified households in urban areas.

14.58.3 Cost Benefit Analysis: Saubhagya Scheme was implemented for mile connectivity and electricity connections to all un-electrified households in rural areas and economically poor un-electrified households in urban areas, hence the benefits of the scheme are intangible.

Provision of Funds:
60% Grant Central Government.
10% Utility/ State Government
30% Loan from FIs/ Banks

- Additional grant (50% of loan component i.e. 5% for special category states and 15% for other states) under the scheme will be released subject to achievement of 100% household electrification of all willing households by 31st December, 2018.
- Sanctioned & Utilized Funds Details:
Total amount of Rs. 774.8 Crores. (Rs. 405.88 Crores. + Rs. 368.92 Crores.) is sanctioned against the total DPR amount of Rs. 1945.212 Crores. under Saubhagya Scheme for Maharashtra State.

14.58.4 Household Electrification as per Saubhagya Dashboard:

- Maharashtra has completed the 100% electrification total 10,93,614 nos. of connections are released i.e. up to 27.12.2018, as per the Saubhagya Dashboard. Fortnightly progress report (till 31th December-2018) is submitted to REC/MoP.
- As on 31.03.2019, total households 15,17,922 of HHs are electrified after 10.10.2017 and achieved 100% electrification in Maharashtra State.
- Closure proposal of Saubhagya scheme has been submitted to MoP, which is approved. Below are details of closure:

Table 323 Details of Closure proposal of Saubhagya scheme

Saubhagya Scheme	Total Expenditure Crores	Total Connection	HT km	LT km	DTC Nos
Total	608.93	558704	1276.46	8052.26	3073

14.59 Underground Works under System Strengthening in Gondia, Bhandara & Nagpur 1st Phase-

14.59.1 Government of Maharashtra has approved the scheme for Overhead to Underground line work in the district of Gondia, Bhandara and Nagpur for strengthening the power distribution system at the district headquarters, Rs. 142.75 crore for Gondia district headquarters, Rs. 432.84 crore for Nagpur district headquarters and Rs. 184 for Bhandara. The 30% share capital will be given to the Mahavitran Company by the state government for the said work.

14.59.2 As per the approval given by the Maharashtra Electricity Regulatory Commission, Tender No. T-1 and T-2 have been published for works worth Rs.83.33 crores under Nagpur Rural circle and Nagpur Urban circle respectively. Indian Cable and Electrical Private Limited and M/s. Polycab India Limited has been awarded and the said works are in progress

14.59.3 Cost Benefit Analysis:

- Additional sales of Energy (MUs)-221.74
- Reduction in interruptions (MUs)-10.84
- Loss reduction (MUs)-12.87

14.59.4 Following are the details of the work tenders drawn under the Overhead to Underground Canal Scheme.

Table 324 Details of the work tenders drawn under the Overhead to Underground Canal Scheme

Particular	Target	Achieved	WIP
New Sub-station	1	0	0
Additional Power Transformer	156.70	104.32	18.1
HT Line (OH + UG)	30.50	4.2	0
LT Line (OH + UG)	51	51	0
New Distribution Transformer	35	35	0
Distribution Transformer Augmentation	2	0	1

14.60 SCADA Part A

14.60.1 SCADA is implemented in 8 towns of MSEDCL. The towns with population more than 4 lakhs and Annual Input energy more than 350 MU are selected for SCADA implementation. The eligible towns are Amravati, Malegaon, Sangli, Solapur and Greater Mumbai for SCADA and DMS, and Pune, Nashik and Kolhapur for Only substation SCADA.

14.60.2 The SCADA Part A Includes the following scope of work:

- Establishment of SCADA/DMS control centre in eight specified towns.
- Integration with IT system being implemented under R-APDRP Part-A
- Establishment of Data Recovery Center at Nagpur
- Supply, installation, integration and commissioning of RTUs at all 66/33/22/11kV S/S
- FRTUs at locations of RMUs on 11kV Distribution networks etc.
- SCADA/DMS system for control and supervision of 33/11kV S/S and 33KV & 11kV feeders

14.60.3 Cost Benefit Analysis:

- Quicker fault location and restoration. Hence reduction in the down time.
- Equipment health monitoring for longevity
- Protection from overloading

- Proper implementation of load shedding
- Operation monitoring for preventive maintenance

14.60.4 The Achievements of SCADA Part A are as below:

Table 325 Achievements of SCADA Part A

Sr. No	Activity	Scope	Installed
1	SCADA Control center	8	8
2	RTU	268	268
3	FRTU	1653	1653

- SCADA at all 8 towns ie Amravati, Solapur, Sangli, Malegaon, Pune, Nashik, Kolhapur and Greater Mumbai town is completed.
- The third-party verification by the Agency appointed by PFC is completed and the reports are accepted by PFC.
- The scheme is completed, and the entire loan amount is converted into grant.

14.61 Rational for capital investment during FY 2025-26 to FY 2029-30

MSEDCL submits that the huge capitalization in future years is due to the implementation of Central Sponsored capital schemes such as RDSS which will be utilized for the development of network infrastructure and upgradation, improving operational efficiency. RDSS – Loss reduction & Feeder separation scheme also forms part of improvement of network reliability and loss reduction.

MSEDCL's network spreads over 3.08 Lakh square km geographical area of Maharashtra

and serves around 3 crore consumers' base. Further 100% Govt. of Maharashtra funded schemes such as District Planning Development Council (DPDC) schemes, this scheme is focused to benefit Schedule Cast, Nav Buddha beneficiaries and fill the gap between tribal and non-tribal areas to improve the living of tribal people. Projections under DPDC are done by considering the rise in previous year trend of sanctioned funds by GoM.

Further MSEDCL is implementing MSKVY 2.0 for daytime availability of power to the consumers hence it is essential to undertake system strengthening and capacity augmentation at existing substations to facilitate the effective evacuation of power generated from decentralized solar projects System Strengthening is proposed under System Strengthening (MSKVY 2.0)

scheme. New consumers (2025-30) scheme is planned for timely release of connections to the prospective consumers of MSEDCL.

The following details are attached as annexure 14.1 MERC in-principle approval letters, CBA and appraisal letters.

- Cost Benefit Analysis.
- Appraisal letters (In soft mode only).

15 DETAILS OF OPEX SCHEMES

15.1 Centralised Customer Care Center Services

15.1.1 Objective:

The purpose of setting up the Centralised Customer Care Center is to improve the supply /billing related complaint handling processes of MSEDCL and enhance the customer servicing capabilities of MSEDCL. Centralized Customer Care Center (CCCC) is equipped with latest technology & multi skilled customer service representatives. CCCC are manned by trained and polite personnel, who are sensitive to customer needs. CCCC takes the complaints and feedback through Telephone calls, e-mail etc. and each communication are answered and forwarded to concerned office.

15.1.2 Scope:

To improve Customer Care Services, MSEDCL has outsourced the entire CCC Operations (incl. Manpower, Infra, Links, etc.) on turnkey basis to a professional large scale BPO company. Deployment of 374 nos of agents in 3 shifts at 2 locations to handle inbound calls and outbound calls to consumer. 200 Nos of agents appointed for inbound calls for consumers for complaint registration (billing complaints, power related and other type of complaints)

15.1.3 Benefits:

- Better & professional Customer Care service to MSEDCL Consumers calling its Toll free numbers (1912, 19120, 1800-233-3435, 1800-212-3435). High Availability of CCC operations. BPO companies maintain robust CCC Infrastructures, trained manpower backups & redundant telecom lines to avoid disruptions and SLA penalty.
- Faster call handling and quicker resolution of Consumers' Calls.
- Outbound calls for the payment follow-ups can be easily arranged for better recovery of revenue.
- 374 nos of agents engaged for outbound calling for various activities as below –

Table 326 Agents engaged for outbound calling for various activities

Sr No	Activities
1	Outbound Calling for arrears recovery
2	Follow up with field staff for
	1. New Connection pendency,

Sr No	Activities
	2. Pendency of online applications
	3. Pendency of billing complaints and power failure complaints
3	Welcome Call to New Consumer
	- Information of tariff applicable
	- Bill details, discounts on bill such as go-green, prompt payment discount, digital payment discount etc.
	- Online payment facility
	- Mobile app and web self service facility
4	Complaints forwarded by VIPs with end to end resolution and consumer feedback
5	Consumer Feedback on various services

15.1.4 Project status:

- Letter of Award for ‘Providing Customer Care Services and establishment of Consumer Facilitation Centers (CFC) at all O&M Divisions of MSEDCL for the period of 5 years’ is issued on dated 16.06.2022 for Rs.136.13 crores
- Centralised Call Center operations made live in Sep-2022.
- The addendum of LOA issued to M/s Arceus Infotech Pvt Ltd. on 08.12.2023 for revision in scope after cancellation of scope of CFC and deployment of additional 374 no. of FTE at Call Centre for outbound calls for various activities for Rs. 114.54 Crores.

15.1.5 Revenue Expenditure:

LOA issued to M/s Arceus Infotech Pvt Ltd. on 08.12.23. Amt of Rs.136.13/-.
The total cost includes the opex in nature.

Table 327 Revenue expenditure for Centralised Customer Care Center Services scheme

FY22 - 23 (Actual)	FY 23 - 24 (Actual)	FY 24 - 25 (Revised Projected)	FY 25 - 26 (Revised Projected)	FY 26 - 27 (Revised Projected)	FY 27 -28 (Revised Projected)	FY 28 - 29 (Revised Projected)	FY 29 - 30 (Revised Projected)
9.75	14.50	20.68	25.20	25.20	25.20	25.20	25.20

15.1.6 Cost Benefit:

There are multiple benefits many of them are intangible benefits these are as follows-

- Call center activities resulted in improving customer satisfaction.
- Facilitating, monitoring and resolving consumer complaints within SOP timeline.

- Improving quality of supply and quality of billing.
- Due to outbound calls newly connected consumers as a welcome call for image improvement of company amongst larger public.
- Tangible benefit- The amt recovered against the calls are the tangible benefit. Out of 27 Crores the 17 Crores and 13 Crores are recovered.

Due to follow up calls for arrears recovery through outbound calling the revenue recovered is summarized as below.

Table 328 Summary of revenue recovered

Sr No	FY	No of calls		Complaint Attended	Payment to the agency / vendor (in Rs. Crores)	Amt recovered after follow up call (in Rs. Crores)
		Inbound	Outbound			
1	2022-23	2184352	-	3649647	8.15	13.08
2	2023-24	2551017	4768962	3580846	14.49	17.65
3	Apr24 to Nov24	1897178	38871077	3113325	14.17	21.53

15.1.7 Life-cycle cost analysis:

Table 329 Life cycle cost (in Rs. Crores)

COST SUMMARY	Cost Per Year (Rs)	Revised Cost
Call Center Cost	8,89,45,568	44,47,27,840
Toll Free & Telephone lines cost	2,14,04,020	10,70,20,100
CFC manpower diverted to call center (bal 44 months)	16,19,15,012	59,36,88,378
GRAND TOTAL (A+B+C)	27,22,64,600	114,54,36,318

15.1.8 Funding details:

Proposed in Revenue budget.

15.2 Substation Monitoring System (SMS)

15.2.1 Objective:

Substations are inevitable components in all power networks. It is the heart of the distribution network. The entire downstream network is controlled and managed by sub-stations. Substation equipment health monitoring is very important for providing reliable and continuous power to consumers. Therefore, substation monitoring system is required for having real-time data of sub-stations, to monitor failures and breakdowns, Feeder load profiling, Load growth planning and management.

15.2.2 Brief Scope of work:

- Supply, customization, installation, deployment and maintenance of necessary hardware, centralized software and communication equipment at 3563 nos. of 33/22/11 kV Substations and switching stations across MSEDCL on CAPEX+OPEX basis.

Additional scope of 3563 Substation monitoring system

1. Set up of Central control center with cloud based central software & hardware server and workstation at msedcl premise
2. Monitoring of
 - Incoming and outgoing feeders
 - Capacitor bank
 - Station distribution transformer
 - Substation DC auxiliary power supply
 - Power Transformer's
 - Monitoring of solar feeder
3. Monitoring of RMS data of each Solar plant commissioned by solar developers under MSKVY 2.0 at Central control center.
4. Feeder control action also proposed under ADMS (Automatic Demand Management Scheme) for all feeders.
 - The time for implementation of project is proposed to be one year from date of issue of LOA and comprehensive support service for 2 years. Total contract period will be for 3 years.

15.2.3 Benefits of Substation Monitoring System:

- Benefits to MSEDCL:
 - Improved monitoring and situational awareness of remote substations
 - Feeder Interruption analysis and computation of reliability indices such as SAIDI, SAIFI, etc.
 - Monitoring failures and breakdowns, Feeder load profiling, Load growth planning, and management
 - Data for Strategic, Managerial, and Operational decisions
- Benefits to Customers:
 - Quick actions from MSEDCL to reduce downtime and improve customer satisfaction.
 - SMS alerts facility can be extended to consumers so that consumers will know that the feeder is under breakdown.
- Funding Details :-
- As per screening committee approvals and Minutes of meeting It is

proposed under ADB DPR scheme, it will be funded by 70 % loan(ADB) and 30% (GOM) equity

15.2.4 Current Progress/Status:

LOA issued to M/s Amnex Infotech pv Ltd. in consortium with M/s Rite water solution India pvt ltd and synergy system and solution pvt ltd. on dt 11.03.2024 of Rs.382.29 Crores. Survey completed as per scope of work.

Table 330 Revenue expenditures for Substation Monitoring System scheme (in Rs. Crores)

FY22 - 23 (Actual)	FY 23 - 24 (Actual)	FY 24 - 25 (Revised Projected)	FY 25 - 26 (Revised Projected)	FY 26 - 27 (Revised Projected)	FY 27 -28 (Revised Projected)	FY 28 - 29 (Revised Projected)	FY 29 - 30 (Revised Projected)
5.23	0.75	2.84	35.62	33.26	33.26	33.26	33.26

Note – The actual expenditure in 2024-25 are showing against pilot project at Akola only for 44 nos of substation.

15.3 MSEDCL Cloud Project

15.3.1 Objectives:

The objectives of the Cloud Project are listed below :

To deal with very less Operational issues: Cloud computing has fewer issues and lot more reliable than On-Premise infrastructure. The cloud runs on it's own servers through a professional company whose only job is to make the cloud functional and bug-free with cloud uptime as per the service level agreement with the customer which is normally 99.99%.

For faster Deployment/Scalability of IT infrastructure: By having Cloud Computing Contract, faster deployment of IT infrastructure is possible (within a matter of minutes) when the IT infrastructure resources are required, whereas for On-Premises IT infrastructure equipment, the procurement process can take months. In case of Cloud Computing, resources can be purchased and consumed on a “pay-as-you-go” basis and increased or decreased as needed for optimal utilization, Cloud computing is scalable on demand, Cloud service providers usually allow scaling up and down on demand seamlessly. The billing of cloud resources is done on recurring basis.

For Security of Infrastructure: Clouds are usually managed by large technologically advanced companies like Google, Microsoft, Amazon etc. backed by the top class security professionals managing the security infrastructure of cloud 24*7.

Also vide Maharashtra Government Circular (मातंसं-060/3/2017 dtd. 29th Jan 2018) on Cloud Computing Policy, instructions were given to the Govt. Departments, Local Bodies & PSUs to migrate all their existing IT applications onto Cloud Platform. In pursuance to this, MSEDCL Competent Authority vide Board Resolution no. 1242 dtd. 07/04/2018, has accorded approval to migrate all MSEDCL IT applications (hosted at On-premise Data Centre) to Cloud Platform.

15.3.2 Scope:

MSEDCL has issued Letter of Award (Ref.2) for 'Selection of Managed Service Provider (MSP) for Providing Cloud Services to MSEDCL for 3 Years' to M/s SM networks & Solutions Pvt. Ltd. and its Consortium Partner M/s StarOne IT Solutions India Pvt. Ltd. of Rs. 98,52,87,708.26/- (Rs. Ninety-Eight Crores Fifty-Two Lakhs Eighty-Seven Thousand & Seven Hundred and Eight and Twenty-Six Paise Only) for following scope of work. The Cloud Service provider is M/s Amazon Internet Services Pvt. Ltd. (Amazon Web Services).

- MSEDCL envisages managed services for its cloud infrastructure deployed on Amazon Web Services (AWS) Cloud, for the duration of next 3 years i.e. 2024 – 2027. The major services planned to procure through end-to-end cloud services/ infrastructure, cloud support services, and future up-scaling of services and existing management services.
- MSEDCL plans to adopt Infrastructure as a Service (IaaS) model wherein MSP and CSP will be responsible for managing and controlling the underlying Cloud infrastructure including operating systems, storage, network, security, etc. and the deployed applications shall be managed and controlled by MSEDCL.
- Existing Cloud contract does not have provision for utilization of new technologies such as Server-less technologies, Micro services, Machine Learning, Artificial Intelligence, IoT etc. Therefore, the scope of work for the new tender is prepared, with provision for utilization of future technologies during the contract period. In case of existing applications, with the increase in data/functionalities, additional resources (CPU, Memory, and Storage) will be required over the period to maintain the application performance.
- Providing Cloud Infrastructure on Amazon Web Services (AWS) Cloud, including Network & Security, for MSEDCL applications along with 24x7x365 days support. Providing Management, Monitoring & Support Services for Cloud Infrastructure including Network & Security.
- Managed Disaster recovery services for business continuity and on

premises backup centre Ensure continuity of operations in the event of failure and provision for configuring, scheduling, performing, and managing back-ups and restore activities.

- Additional Infrastructure security components to meet CERT-IN and CEA requirements Provide integration, multi-factor Authentication, Identity and Access Management Services, Single Sign on for the cloud services as well as the applications hosted on cloud.
- Provisioning for additional new storage, compute services & instances and future services like containers, CI/CD, Vault, code repositories, dashboard, AI/ML, DevOps tools as and when required. Operation & Maintenance, Help Desk support, Training etc.

15.3.3 Benefits

- Less operational issues: The cloud service provider company has to maintain the cloud uptime as per the Service level Agreement with the Customer which is normally 99.99%. Therefore, cloud computing actually has fewer issues than On-Premises infrastructures.
- Security: Cloud Service Provider is usually backed by top class security professionals managing the security infrastructure of Cloud 24x7. The cloud service providers also perform more regular security audits. Cloud providers even back up data to additional remote servers so data loss just won't happen.

15.3.4 Project status

LOA is issued to M/s SM Networks & Solutions Pvt. Ltd. for providing cloud services for 3 years for Rs.98.52 Cr. incl. taxes (LOA no. CGM/IT/29427 dtd. 23.09.2024). Capex cost Rs. 33.38 Opex cost Rs.65.14 Crores)

The Managed Service Provider M/s SM Networks & Solutions Pvt. Ltd. and its Consortium Partner M/s StarOne IT Solutions India Pvt. Ltd. have taken over the cloud management from the earlier Managed Service Provider.

Presently MSEDCL applications are running successfully on the cloud, provided by M/s Amazon Web Services through the Managed Service Provider M/s SM Networks & Solutions Pvt. Ltd.

15.3.5 Revenue Expenditure:

Proposed in Revenue budget

Table 331 Revenue expenditure for MSEDCL Cloud Project (in Rs. Crores)

FY22 - 23 (Actual)	FY 23 - 24 (Actual)	FY 24 - 25 (Revised Projected)	FY 25 - 26 (Revised Projected)	FY 26 - 27 (Revised Projected)	FY 27 -28 (Revised Projected)	FY 28 - 29 (Revised Projected)	FY 29 - 30 (Revised Projected)
14.2	13.25	21.72	21.72	21.72	23.89	23.89	23.89

Actual expense 2022-23 and 23-24 shown for contract placed during the f.y.2019-24 placed to M/s Orient Technologies Pvt Ltd. The previous contract end on Oct-2024.

15.3.6 Life-cycle cost analysis:

Cloud operational cost is billed to MSEDCL on quarterly basis for the amount of computing resources (servers & storage) utilized per quarter.

15.3.7 Funding details

Proposed in Revenue budget.

15.4 Business Analytics and Demand Forecasting Solution

15.4.1 Objectives:

Mahavitaran distributes electricity to consumers across the State excluding Mumbai. MSEDCL sources power from Mahagenco, Central Sector and Private Sector projects. The constant pressure to optimize the cost of power purchase due to the hazardous of the industrial sector moving out of state (Open Access) owing to higher power tariffs. In view of this, MSEDCL intends to purchase a Software Solution with the capability of energy load forecasting and power trade strategy management along with power purchase optimization/power portfolio optimization.

15.4.2 Benefits

The proposed solution will enable measurable improvements including:

- Demand Forecasting
- Scenario Analysis
- Demand Supply Position Map (Load Generation Balance)
- Power Portfolio Management
- Scheduling Optimization
- Trade Optimization
- Enterprise Visualization

15.4.3 Scope of the work

- Design, Implementation, commissioning of Business Analytics and Demand forecasting, Power Optimization Solution
- Integration of proposed solution with MSEDCL existing system, SCADA & proposed Substation Monitoring Scheme (SMS) of MSEDCL, existing AMR & SCADA, Scheduling software of MSLDC/WRLDC.
- Fetching all necessary data from external sources required as input for forecasting, Optimization and analysis purposes.
- Debriefing with Analytics including optimization with AI and ML and documenting causes, effects, patterns and results using incident-specific data based on time, date and location.
- Designing Live Dashboard for Business Analytics and Current Status of Incidents
- Providing Cloud Services for the deployment of the proposed solution.
- Provide Facility Management Service (FMS) for Application Maintenance for three years.

15.4.4 Current Progress/ Status:

- The LOA for Business Analytics and Demand Forecasting Solution is issued to L1 bidder M/s SCS Tech India pvt ltd. in consortium partner M/s Mercados Energy Markets India pvt ltd. Of Rs. 32,55,71,118/- (capex cost Rs.24.57 Crores, opex cost Rs.7.98 Crores) UAT and Go live for confirmation of project is done on dt 12.09.24.

15.4.5 Life cycle cost analysis:

Tender/LOA includes Licenses cost, Implementation cost, Training cost, , FMS cost, ATS cost.

15.4.6 Funding Details:

The project is operating under RDSS Scheme as per the sanctioned letter of Power Finance Corp. Ltd. Vide letter no. 02:10: RDSS:2021:1 MSEDCL Dt.22.09.2022 60% amount approved cost of works would be provided by Govt of India and balance cost of the works /(over and above cost of DPR) has to be arranged through loan or internal resources.

Table 332 Revenue expenditure for Business Analytics and Demand Forecasting Solution (in Rs. Crores)

FY22 - 23	FY 23 - 24	FY 24 - 25 (Revised)	FY 25 - 26 (Revised)	FY 26 - 27 (Revised)	FY 27 -28 (Revised)	FY 28 - 29 (Revised)	FY 29 - 30 (Revised)
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(Actual)	(Actual)	Projected	Projected	Projected	Projected	Projected	Projected
0.00	0.00	2.41	2.41	2.41	2.41	2.41	2.41

15.5 Enterprise GIS & Network Analysis Solution

15.5.1 Objectives:

MSEDCL desires to implement a comprehensive GIS & NA solution with updated GIS & NA data of all areas under MSEDCL jurisdiction to efficiently maintain the electrical network, carry out smooth network planning and derive useful analysis of network parameters .

The proposed GIS and NA system will expand the capabilities at the Enterprise Level. MSEDCL intends to have an integrated WEB-MOBILITY-GIS-Analytics-based System, conceptualized to cater to core technical requirements of the processes under day-to-day Operations, Maintenance and Projects activities of MSEDCL staff, officers and Management .

The proposed Network Analytics solution is an integrated platform of web and mobile applications . Network addition, deletion and changes to be captured on the Mobile application . Network shall be created automatically, online, based on Mobile App information .

15.5.2 Benefits

The proposed solution will enable measurable improvements including:

- GIS Implementation at Enterprise Level
- Reliability and Performance Indices
- Network System behaviour and response to disturbances
- Optimization of asset utilization and operating efficiency of the electric power system.

15.5.3 Scope of the work

- Implementation of Enterprise GIS solution for MSEDCL with 1-year warranty and 4 years of Annual Technical Support (ATS).
- Implementation of Enterprise Network Analysis solution for MSEDCL with 1-year warranty and 4 years of Annual Technical Support (ATS) from OEM.
- Integration of GIS Solution & NA Solution with each other and other systems of MSEDCL. Eg. Load Forecasting, SAP-ERP, MDAS, ECCC,

Dashboard.

- Provision of Facility Management Services (FMS) for GIS Solution & NA Solution for 5 years for operation & maintenance.
- Training of GIS Solution & NA Solution to MSEDCL users.
- Provision of Cloud Services for deploying GIS Solution & NA Solution from a MeitY empanelled and SQTC Audit Complaint Cloud Service Provider for 5 years.

15.5.4 Current Progress/ Status

- The LOA is issued to L1 bidder M/s SCS Tech India pvt ltd. in consortium with M/s Sliver Touch Tech Ltd. Of Rs 46,94,97,923/- (opex cost Rs.26.60 Crores, capex cost Rs.20.34)

15.5.5 Life cycle cost analysis

Tender/LOA includes Lines cost, Implementation cost, Training cost, cloud deployment cost, FMS cost, ATS cost.

Table 333 Life cycle cost (in Rs. Crores)

FY22 - 23 (Actual)	FY 23 - 24 (Actual)	FY 24 - 25 (Revised Projected)	FY 25 - 26 (Revised Projected)	FY 26 - 27 (Revised Projected)	FY 27 -28 (Revised Projected)	FY 28 - 29 (Revised Projected)	FY 29 - 30 (Revised Projected)
0.00	0.00	5.99	5.99	5.99	5.99	5.99	5.99

15.5.6 Funding of Details:

Revenue Budget

15.6 ERP SAP S4 HANA

15.6.1 Objectives

MSEDCL has automated its business processes by implementing SAP-ERP which covers Financial Accounting & Control (FICO), Projects Systems (PS), Plant Maintenance (PM), Material Management (MM) ERP core modules are live since 2015. Further SAP HRMS modules such as Payroll (PY), Organizational Management (OM), Personal Administration (PA), Time Management (TM), Travel Management, Performance Management along with 13 nos. of custom-developed allied modules developed on SAP ERP platform are live since Dec-2020.

Due to manifold increase in transactions every year, the performance of SAP ERP is degrading gradually. Also, M/s SAP has declared end of support for SAP ERP ECC 6.0 in the year 2027. Hence, it is planned to upgrade existing SAP ERP ECC 6.0 platform to S/4 HANA platform. S/4 HANA platform is the latest version of SAP ERP, wherein due to change in database from Sybase to HANA the performance of the system will improve. Further, SAP S/4HANA offers increased scalability to better support data storage and data analysis needs. MSEDCL is also planning to implement additional SAP ERP modules SAP Treasury and Risk module (TRM) for loan and grant management required by finance section.

15.6.2 Benefits of SAP S4 HANA:

- The SAP HANA in-memory database helps organizations to execute transactions and analyse business data in real-time.
- User experience is powered by Fiori – browser based and convenient to use.
- Embedded real-time analytics, and HANA powered in-memory processing to handle large data volumes of operational and transactional business data.

15.6.3 Benefits of SAP Treasury and Risk Module (TRM):

- With the SAP TRM application, one can integrate cash flows, transactions, loan ,grant and optimize straight-through processing with full-view and real-time analysis, audit trails, and compliance reporting.

15.6.4 Scope:

- Upgradation of SAP ERP ECC6 EHP 5.0 platform to SAP S/4 HANA (latest version) for Core Modules (FICO,PM,PS,MM,HCM) and implemented custom developed modules in MSEDCL including data migration.
- Implementation of Treasury and Risk Module (TRM) powered by HANA.
- Implementation of Cash Management Module powered by HANA.
- Upgradation of Solution Manager from 7.1 to 7.2 (or latest version) on HANA.
- Upgradation of existing 1 TB HANA appliance (Base edition) to 2 TB HANA appliance (Enterprise edition).
- Network services for providing cloud connectivity upto end locations. (MSEDCL offices upto subdivisions).

- Application Maintenance Services (AMS) towards Support, Maintenance & Enhancement of all existing SAP systems (Core & Custom modules) at MSEDCL till declaration of go-live of SAP S/4 HANA.
- Application Maintenance Services (AMS) after go-live declaration of S/4 HANA upgradation till end of contract period, towards Support, Maintenance & Enhancement all upgraded SAP-ERP modules on S/4 HANA (FICO, PM, PS, MM, HCM, TRM & Cash Management) & implemented custom developed modules.

15.6.5 Life cycle cost analysis

Table 334 Cost estimate as per budgetary quote from M/s SAP (without GST)

Particulars	Amount
Annual Saas based COTs ERP pricing	Rs. 79.58 Crores (opex)
SAP HANA In-memory Base Edition 1 TB Appliance,	Rs. 4.65 Crores
License with 5 year ATS+ ATS for PI/PO	Rs. 5.30 Crores (opex)
Implementation Cost	Rs. 3.68 Crores (capex)
AMS for 2 years	Rs. 12.92 Crores (opex)
Training to end users	Rs. 0.47 Crores
Change request	Rs.0.30 Crores (oepx)
Total Cost	Rs. 106.90 Crores (Inclu GST)

15.6.6 Current Progress / Status

LOA issued to M/s. Deloitte Touche Tohmatsu India LLP Amt of Rs. 1,06,89,76,389/- capex cost Rs.8.80 Crores, Opex cost Rs.98.09 Crores

Following are the Milestone are going under SAP s4 Hana project

- Upgradation of project-
- Migration
- Implementation of solution

15.6.7 Funding Details

The project is operating under RDSS Scheme as per the sanctioned letter of Power Finance Corp. Ltd. Vide letter no. 02:10: RDSS:2021:1 MSEDCL Dt.22.09.2022 60% amount approved cost of works would be provided by Govt of India and balance cost of the works/(over and above cost of DPR)has to be arranged through loan or internal resources.

Table 335 (in Rs. Crores)

FY22 - 23	FY 23 - 24	FY 24 - 25 (Revised)	FY 25 - 26 (Revised)	FY 26 - 27 (Revised)	FY 27 -28 (Revised)	FY 28 - 29 (Revised)	FY 29 - 30 (Revised)
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(Actual)	(Actual)	Projected)	Projected)	Projected)	Projected)	Projected)	Projected)
0.00	0.00	23.58	23.58	23.58	23.58	23.58	23.58

15.7 Procurement of SD-WAN Solution

15.7.1 Overview

MSEDCL wishes to procure SD-WAN solution to reduce the high cost of WAN bandwidth, enable better application performance, and improve internal business communication and IT agility by deploying Software-Defined WAN (SD-WAN) across MSEDCL field offices up to sub Division.

15.7.2 Benefits

- SD-WAN solution shall improve performance of connectivity by using link optimization .The solution shall also manage the Link Load on available paths and auto failover for better performance of links.
- SD-WAN Solution shall have inbuilt QoS mechanism which is having application recognition and provide the bandwidth priority for most critical applications. This may include dynamic path selection, sending an application on faster link or even splitting an application between two paths to improve performance by delivering it faster.
- SD-WAN solution shall improve the MSEDCL Video Conferencing (Data/Voice/Video traffic) by using polices ,performance of the links such as jitter, latency, packet loss, etc and features like Video stream splitting ,de-duplications and automatic traffic diversion for better link performance for MSEDCL video Conferencing Solution.
- SD-WAN solution shall create full mesh connectivity among all the MSEDCL field offices and integrated with existing network.

15.7.3 Scope of Work

- MSEDCL is looking for upgrading of its existing Network with SD-WAN across Maharashtra up to Sub division level with high performance, reliable, consistent network to achieve best performance of MSEDCL applications.
- It shall be bidders responsibility to integrate any new or existing FTTH broadband, MPLS, ILL, broadband link on supplied wifi enabled SD-WAN device during the contract period.
- The SD WAN Device(s) integrated with external WiFi access points, must be configured as per requirement.

15.7.4 Current Progress / Status

LOA issued to M/s SM network & solution Pvt Ltd. Of Rs. 53,16,07,520/- opex cost 5.10 Crores capex cost 48.05 Crores, stabilization done for 698 locations.

15.7.5 Funding Details

The project is operating under RDSS Scheme as per the sanctioned letter of Power Finance Corp. Ltd. Vide letter no. 02:10: RDSS:2021:1 MSEDCL Dt.22.09.2022 60% amount approved cost of works would be provided by Govt of India and balance cost /(over and above cost of DPR)of the works has to be arranged through loan or internal resources.

Table 336 (in Rs. Crores)

FY22 - 23 (Actual)	FY 23 - 24 (Actual)	FY 24 - 25 (Revised Projected)	FY 25 - 26 (Revised Projected)	FY 26 - 27 (Revised Projected)	FY 27 -28 (Revised Projected)	FY 28 - 29 (Revised Projected)	FY 29 - 30 (Revised Projected)
0.00	0.00	0.50	1.15	1.15	1.15	1.15	1.15

15.8 Redevelopment of MSEDCL IT Systems under the RDSS Scheme (Tender no. CGMIT/RDSS/ITOT/22-23/7 dtd. 25.11.22 | LOA No. CGM/IT/36156 dtd. 08.12.2023)

15.8.1 Objective:

Under RDSS sanction (Letter no. 02:10:RDSS:2021:l: MSEDCL dtd. 22.09.22 (RDSS Sanctioned letter), Ministry of Power (Govt of India), sanctioned for the upgradation of Customer Relationship Management (CRM), Document Management System (DMS), Energy Audit (EA), New Service Connection (NC) & Disconnection and Web Self Service (WSS) and Database Licences for MS-SQL, Oracle Enterprise Edition. Accordingly, a tender was floated for the Appointment of a System Integrator for the Redevelopment of MSEDCL IT Systems under the RDSS Scheme on 25.11.2022. Letter of Award to M/s Idea Infinity IT Solutions Pvt Ltd. for Rs. 9.70 Crores was issued vide LOA no. CGM/IT/36156 dtd. 08.12.2023.

15.8.2 Brief Scope of Work

- Upgradation, Design, Development, Implementation, and Commissioning of new web applications such as Consumer Self-service and Employee Self Service by consolidating the following existing applications.
- Document Management System (DMS),

- Customer Relationship Management System(CRM),
- Energy Audit (EA),
- New Connection System (NC),
- Web Self-Service (WSS) system and Other related sub-systems.
- Supply, installation, and commissioning of Enterprise Database with one-year OEM support. Bidder shall provide sufficient enterprise licenses for proposed solution. If open-source database is proposed, enterprise support from vendor or support partner should be provided.
- Re-architect above applications and Migration of existing data into the new system.
- Perform application and Infrastructure security audit annually of the new application viz. Consumer Self-service and Employee Self Service by CERT-IN empaneled Auditor after GO-Live.
- Module-wise technical training to MSEDCL IT staff.
- Number of Staff to be trained – Minimum 25
- Mode of Training – Offline
- Copy of Training Manual to be made available – Per module, bilingual. For Customer facing Application: Necessary Document to be provided by the vendor.
- Application Maintenance Support for the above applications for the period of one year after stabilization.
- Handholding and Application Maintenance Services (AMS) of the systems after one year of Go-Live.
- Staff to be deployed: One project Manager and 10 resources, including one staff having DBA experience (At least 5 years' experience of DBA)
- Place of Deployment of Staff: Mumbai
- Tenure of Deployment: 12 Months

15.8.3 Funding details

Under the RDSS, 60% of the project cost of works of Sanctioned items would be provided as a grant by the Government of India whereas 40% or over and above of the remaining cost plus the cost for additional items is to be arranged by the MSEDCL, which will be funded through the revenue budget of 2023-24 & 2024-25.

15.8.4 Project status-

Letter of Award to M/s Idea Infinity IT Solutions Pvt Ltd. for Rs. 9.70 Crores was issued vide LOA no. CGM/IT/36156 dtd. 08.12.2023. Capex part Rs.7.33 Crores opex cost 2.37 Crores

Table 337 Projections submitted in MYT petition (in Rs. Crores)

FY22 - 23 (Actual)	FY 23 - 24 (Actual)	FY 24 - 25 (Revised Projected)	FY 25 - 26 (Revised Projected)	FY 26 - 27 (Revised Projected)	FY 27 -28 (Revised Projected)	FY 28 - 29 (Revised Projected)	FY 29 - 30 (Revised Projected)
0.00	0.00	1.49	0.88	0.00	0.00	0.00	0.00

15.8.5 Cost Benefit Analysis:

The benefits out of this project are Intangible benefit. the upgradation of the above existing applications is essential to provide critical services to MSEDCL consumers smoothly. Also, the proposed upgradations will give the following benefits:

- Strengthen the availability and responsiveness of existing applications.
- Simplify IT infrastructure management by making workloads independent of hardware resources, thereby enabling business-driven strategies like strengthening its flexibility over Security and Redundancy policies.
- Strengthen agility, scalability, multi-tenancy and governance of the entire Application Architecture on the industry lines and maintain these for the foreseeable future.
- Utilization of the modern technologies evolved in software and database systems to improve the scalability, availability, maintainability, and performance.

Upgradation of the important existing applications is required on account of the following reasons:

- Increase in the number of consumers.
- The consumer count on March 2010 (L&T LoA date and baseline for sizing) was 1,87,31,340. The total Consumer Count in the system as of today stands out be 2,96,69,375. Thus total consumer load has increased by 58.39 % since R-APDRP applications were designed and developed.
- Addition of New Systems

Since the commissioning of R-APDRP applications, the following new applications have been developed/added:

- Centralized billing
- SAP Systems & Custom modules.
- Big Data Solution/Dashboard (HANA)
- Mahavitaran Mobile Applications (5 nos.)

- Online Bill Revision system
- Group Payment System
- OCCS
- MSKVY Portal, etc.
- Therefore, the integration touchpoints have been increased. This has necessitated the comprehensive redevelopment of system architecture to meet the requirements of smooth integration with other modules.
- Technological Advancements
- Cloud: Earlier the Applications and database were hosted in on-premise Data Centers and DR. Now with the adoption of the Cloud system, the applications need to be modified for efficient hosting on the cloud.
- As the data is growing extensively, more resources (more caches, temporary workspaces, etc) are required to process large sets of data. The new technologies in Application platforms, Database systems and Networking technologies need to be adopted to improve performance and reliability.
- For business continuity the copies of data need to be preserved in the form of Business Copies, Backups and DR.
- Participation in state-wide initiatives (eg. Aaple Sarkar, PM Gatishakti, PM Kusum, etc) to improve services to the public; and essential cross-agency functions where software compatibility within and among agencies is mandatory, such as enterprise application systems, and document sharing.
- Short Duration of Technology life cycles and changes that render existing hardware and software obsolete (i.e. unsupported versions and incapability with other versions or with new versions of software). Therefore, it is necessary to move the critical applications to latest available technologies/platforms.

15.9 SMS Services

15.9.1 Objectives:

MSEDCL sends SMS to its consumers informing the Status of their Complaints/Requests/Enquiries (around 2.5 lakh per month) which are registered at its Centralized Customer Care Centers via Toll Free Numbers.

15.9.2 Scope of Work

The Government of India's Digital India programme and the e-Governance Policy of the Government of Maharashtra have mandated MSEDCL to take serious efforts To enhance service delivery, particularly through online mode for its large consumer base throughout the Maharashtra State

Currently, MSEDCL sends SMS to its registered consumers for providing different types of services such as Bill Alerts, Bill Reminders, Disconnection Notices, Payment Acknowledgements, Power Outage Notification, Meter Reading advance intimation, Meter Reading information, Self-Meter Reading Submission, Ag Policy Details, NC Paid Pending information, the status of online application, various MSEDCL Campaigns, etc. Similarly, various SMS are sent to Employees & Vendors for services such as OTP, Salary intimation, DMS alerts etc.

15.9.3 Current Progress / Status

LOA issued to M/s BSNL tower corporation Limited (BTCL) on dt 24.03.2023 for providing SMS service to MSEDCL of Rs. 33.64 Crores for 3 years (includes opex cost)

15.9.4 Cost Benefit analysis for SMS Services:

Consumer can avail various MSEDCL services on real time basis The benefits are Intangible benefits .

Understanding that not all consumers would require mobile app, MSEDCL started providing all consumer related services through SMS on mobile and towards this, took massive efforts to collect mobile number of all consumers . Registered mobile numbers are used for passive communication with the consumers . SMS are sent to consumers in Marathi and English language as per consumer preference .

Benefits : -

- Instant acknowledgment on registered Mobile no / Email.
- Provide information about New Scheme/Policies.
- Energy Bill Generation SMS (Before/ After Due Date SMS)
- Payment Acknowledgement
- Outage Notification
- Meter Reading information
- Request for Self-Reading
- Complaint Acknowledgement
- To avoid Delay Payment charges or Disconnection Connection.

15.9.5 Savings in O&M scheme

MSEDCL directly connected globally with consumers by online services. MSEDCL sends SMS for intimation/information about ongoing or new schemes/policies, Various Alerts, Notices etc.

- Consumer Satisfaction
- Resolve consumer complaints.
- Transparency in process.
- Quick Action
- Offline/Manual work is reduced.
- Paperless work & automated process.
- Time Saving & Instant Service.

15.9.6 Life Cycle Cost Analysis:

The Rate of SMS is calculated as per given below .

Rate of SMS is 0.05 paise per SMS (excluding GST) .

- SMS Rate = Unit Rate + Charges as per Trai +Any other statutory charges
- GST = As per govt. regulation
- Total Cost per SMS= SMS Rate + GST

15.9.7 Revenue Expenditure:

The LOA issued to M/s BSNL vide LOA no CGM/IT/ 8923.dt. 24.03.23. of Rs. 33,63,81,420/-

Table 338 Projections of revenue expenditure (in Rs. Crores)

FY22 - 23 (Actual)	FY 23 - 24 (Actual)	FY 24 - 25 (Revised Projected)	FY 25 - 26 (Revised Projected)	FY 26 - 27 (Revised Projected)	FY 27 -28 (Revised Projected)	FY 28 - 29 (Revised Projected)	FY 29 - 30 (Revised Projected)
14.63	5.77	24.75	13.95	13.95	13.95	13.95	13.95

15.9.8 Funding details

Proposed in Revenue budget .

15.10 Annual Technical Support of SAP /Oracle Software Licences

15.10.1 Introduction:

MSEDCL has implemented integrated SAP ERP (Enterprise Resource Planning) solution for its core functions for improvement in operation efficiencies with respect to the finance, project functions and integrating with existing systems viz. Billing, HRMS etc. MSEDCL has also invested in procurement of Oracle Databases Licences for its various IT systems.

15.10.2 Objectives:

The OEM Annual Technical Support (ATS) which covers product updates, maintenance releases in the form of free fixes and patches and support related to the ERP products/ERP Database/Oracle Database is required for smooth functioning of SAP ERP, Oracle Database & Other IT Systems.

15.10.3 Scope:

- Product updates/ Maintenance releases in the form of free fixes and patches, Support service or by deputation of experts if necessary.
- The Annual Technical Support is 24x7.

15.10.4 Funding details

Proposed in Revenue budget.

15.10.5 Cost Benefit analysis:

The benefits are intangible.

15.10.6 Application maintenance services for SAP ECC

Support and maintenance of SAP ERP core and custom modules .

Scope- provide Support and maintenance of SAP ERP core and custom modules

SAP-ERP specialised skill set is required for day to day BASIS activities such as regular backup, monitoring of web services and performance and healthiness of the SAP-ERP system. Further as per requirements of user departments, it is essential to customise the SAP applications from time to time by undertaking code revision and configuration changes. Also, support issues like configuration mapping, data correction, document reversal, transaction issues etc. raised by end users, are required to be addressed on day to day basis.

Table 339 Projections (in Rs. Crores)

FY22 - 23 (Actual)	FY 23 - 24 (Actual)	FY 24 - 25 (Revised Projected)	FY 25 - 26 (Revised Projected)	FY 26 - 27 (Revised Projected)	FY 27 -28 (Revised Projected)	FY 28 - 29 (Revised Projected)	FY 29 - 30 (Revised Projected)
15.12	14.02	7.00	7.00	7.00	7.00	7.00	7.00

15.11 Tendering Process

15.11.1 MSEDCL submits that it adopts a fair, open and competitive tendering process for selection of the service provide for different opex schemes.

15.11.2 Tender advertisements are published through newspaper and mahadiscom website by MSEDCL. As per the CVC/MEITY guidelines, the terms and conditions are applied for floating of tender. The qualification criteria for the bidders are defined to confirm the technical capability of bidders and financial status of bidder. The experience criteria for bidder is mentioned to confirm bidders past experience in similar projects. After submission of technical and commercial bid their technical evaluation is carried out.

15.11.3 The Pre bid meeting is conducted and response to pre-bid quires are published. Selection will be done through bidding process based on L1 criteria for technically qualified bidder.

15.12 Rational for Opex schemes

15.12.1 MSEDCL submits that Opex schemes are designed and implemented to improve consumer satisfaction and organization efficiency, hence the scheme proposed under opex scheme. Furthermore, the expenses incurred on the schemes are recurring in nature depending on the services availed, wherein the service provider has to maintain/ fulfil basic minimum requirements SLR (Service Level Requirement).

16 COMPLIANCE OF DIRECTIVES

16.1 Background

16.1.1 Hon'ble Commission in its Mid-Term Review (MTR) Order dated 31st March 2023 (Case No. 226 of 2022) has issued various directives for compliance by MSEDCL also specified timelines for compliance of these directions. Hon'ble Commission in the order mentioned that it shall initiate suo-motu proceedings for review of status of compliances of various directions after twelve months from issuance of this Order and prior to next tariff review exercise.

16.1.2 In view of the above, Hon'ble Commission scheduled suo-motu e-hearing vide notice dated 26.04.2024 in case no. 4/SM/2024 and also directed MSEDCL to submit its compliance on the said directives. Accordingly, MSEDCL submitted the said compliances vide its reply dated 01.07.2024 and made additional submissions dated 23.09.2024 and 17.11.2024. The status of compliance of directives is being reviewed by Hon'ble Commission in the said suo-moto case.

16.1.3 Additionally, some of the compliances with its proposal in Case no 04/SM/2024 were to be submitted during filing of instant MYT petition. Accordingly, MSEDCL is submitting compliances of such directives in below paragraphs:

16.2 Detailed list of compliance of directives (Next Tariff filing)

16.2.1 **MERC Directives:** MSEDCL to propose changes in ToD tariff structure during next tariff filling process.

Abstract of compliance: MSEDCL has proposed changes in ToD charges and rebates along with slabs with detailed reasoning and calculations in Chapter 6: Tariff Design and Philosophy of the Petition

16.2.2 **MERC Directives:** The Commission directed MSEDCL to submit 5/10 year roadmap for Cross subsidy reduction and its implication on subsidised categories during next tariff filing .

Abstract of compliance: MSEDCL has proposed Cross Subsidy reduction trajectory for next 5 years detailed in chapter 10 Cross Subsidy Surcharge: on basis of proposed ABR for applicable categories. Major portion of cross subsidy in earlier years were directed towards agricultural consumers. In present Petition, MSEDCL has also calculated separate CoS for LT agriculture consumers on basis of dedicated and distributed renewable energy sources

and has determined tariff for the category in accordance with the calculated CoS. This has led to reduction in cross subsidy requirement for remaining categories and bring them with limit of 20% as per MERC MYT Regulations 2024. For further 5 years, MSEDCL has proposed same cross subsidy trajectory as for FY 2029-30.

16.2.3 MERC Directives: MSEDCL to prepare zone wise process flow diagram marked with time frame for billing (start from Meter reading to handover of bills to consumers). Further, suitable timelines be prepared considering field circumstances and pass on appropriate directions to field offices. The Commission will review the said exercise during next MYT filing

Abstract of compliance: MSEDCL has started Centralized Billing for HT & LT non Ag consumers in 2019. In Centralized Billing all the LT non-Ag consumers are equally divided in fixed A to Y groups called “clusters” for meter reading. The clusters starts from date 1 (cluster A) & lasts till date 25 (cluster Y) each month. For HT & LT consumers having load above 20 Kw the reading is done through AMR/MRI. In the circumstances if reading is not available through AMR/MRI manual reading is done. The meter reading schedule for HT consumers is from Date 1 to 10 of every month & that of LT consumers having load above 20 Kw is from Date 1 to 12 of every month. MSEDCL has planned to install Smart Meters to all the consumers under RDSS scheme & the modem replacement will boost the AMR count. With implementation of smart metering solution, all the consumers will be billed promptly. The details of Compliance is submitted to Hon’ble Commission vide letter no CE/B&R/06627 dated 29.02.2024 and is attached as Annexure-16.1.

16.2.4 MERC Directives: To put in place a protocol for automated measurement and reporting of supply availability across various circles/ divisions and submit such records along with next tariff review exercise.

Abstract of compliance: MSEDCL submits that for computation of supply availability, the data of interruption is received through AMR, MRI, Mobile app & NDM system of respective feeders and is processed at MSEDCL centralised IT system. For receiving data of interruptions without manual intervention, the work of installation of smart meters to all the feeders is in process. LOA details of the work is as below:

1. M/s Adani Energy Solutions Ltd, Ahmedabad.

- MMD/T-NSC-05/0323/24021 dated 07.08.2023 (Bhandup, Kalyan and Kokan Zone)

- MMD/T-NSC-06/0323/24022 dated 07.08.2023 (Pune and Baramati Zone)
- Amendment-1 MMD/T-NSC-05/0323/additional scope/7965 dated 11.03.2027 (Kolhapur Zone)

2. M/s NCC Ltd, Hyderabad

- MMD/T-NSC-08/0323/24023 dated 07.08.2023 (Nasik and Jalgaon Zone)
- MMD/T-NSC-08/0323/24024 dated 07.08.2023 (Latur, Nanded and CSN Zone)

3. M/s Montecarlo Ltd Ahmedabad

- MMD/T-NSC-08/0323/24025 dated 07.08.2023 (Nagpur, Chandrapur and Gondia Zone)

4. M/s Genus Power Solutions Pvt Ltd. Jaipur

- MMD/T-NSC-08/0323/24025 dated 07.08.2023 (Akola and Amaravati Zone)

As of the date of filing of tariff petition, out of 27,826 feeders; smart meters have been installed in 24,145 meters. Remaining work of installing smart meters in 3,681 feeders would be completed by Dec 2024. Installation of smart meters on all feeders, would enable measurement of supply availability automatically without manual intervention. After completion of the activity of installation of feeder meters, software / program will be developed after checking & verification of all technical possibilities and accordingly, automated measurement and reporting of supply availability across various circles/divisions will be carried out. MSEDCL requests Hon'ble Commission that after completion of the said activity, it would submit detailed report for its records.

16.2.5 MERC Directives: Formation of separate agriculture company would enable monitoring and ensuring accountability with two separate organisations, as their mandate would drive such focussed efforts necessary at this stage. In view of above, the Commission directed MSEDCL to pursue this option and chart out the modalities for implementation of the same expeditiously.

Abstract of compliance: MSEDCL acknowledges the Commission's directive to explore the formation of a separate agriculture company aimed at enhancing monitoring and ensuring accountability through distinct organizational mandates MSEDCL is hereby submitting modalities of

separation of Agriculture & Non-agriculture categories in Chapter no 7:
Separation of Agricultural and Non-Agricultural Supply.

Further Regulation 5.2 of MYT Regulations 2024 requires Petitioner to submit consolidated statement of the status of the adherence of various directives of Hon'ble Commission including those in non-tariff Orders. The consolidated list of status of compliance of cases other than tariff order is tabulated below

Sr. No.	MERC Case No.	Case details	Directives in MERC Order	Compliance
1	CASE No. 10 of 2023	Petition of Mr. Shaikh Asrar Ishaque seeking action against Maharashtra State Electricity Distribution Co. Ltd. for non-compliance of the Electricity Act 2003 and the Commission's Regulations.	<ul style="list-style-type: none"> TPL/MSEDCL immediately to restore the power supply of the Petitioner which was disconnected for alleged theft of energy charges showing it as arrears. MSEDCL/ TPL is at liberty to initiate proceedings/ legal remedy against the Petitioner under Section 135 of the Electricity Act, 2003 as provided by Law. 	<ul style="list-style-type: none"> Torrent Power Ltd has restored the power supply of the consumer/complainant, Mr. Shaikh Asrar vide service no. 13015349179 on 05.01.2024. Torrent Power Ltd has initiated legal action against the consumer/complainant, Mr Shaikh Asrar under section 135 of EA 2003 by filling an FIR nos.955/2023 on 07.12.2023 for the offence committed on 03.02.2020.
2	Case No. 59 of 2023	Case of Maharashtra State Electricity Company Limited (MSEDCL) seeking approval for change in the approved Load Shedding protocol of Agricultural Load management scheme in Gadchiroli District.	MSEDCL needs to engage itself to more actively follow up with the GoM for receipt of the additional subsidy including the past arrears in timely manner, as committed and inform the Commission after receipt of additional subsidy along with the past arrears.	MSEDCL submits that the demand for Rs.114.02 Crores towards additional three phase day time power supply for 12hrs to AG consumers of Chandrapur, Gadchiroli, Gondia, Nagpur and Bhandara districts of Vidarbha Region is placed to GoM vide letter dated 31.03.2023. The fund towards same is released by GoM vide GR dated 06.10.2023.

Sr. No.	MERC Case No.	Case details	Directives in MERC Order	Compliance
3	Case No. 72 of 2023	Case of Shree Tatyasaheb Kore Warana Sahakari Navshakti Nirman Sanshtha Ltd. for refund of excess wheeling and transmission charges levied by MSEDCL and seeking compliance of Distribution Open Access Regulations 2016	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL) to refund the excess wheeling and transmission charges recovered from the Petitioner with interest within two months from the date of this Order considering the applicability of limitation period (excluding the overlapping period as per the Hon'ble Supreme Court Order due to Covid 19 Pandemic). MSEDCL shall verify the claim made by the Petitioner before making the payment.	MSEDCL submits that Wheeling & Transmission charges from April'16 to Mar'2023 of Rs. 55,28,379.84 is credited in Jan'24.
4	Case No. 151 of 2023 and IA No. 45 of 2023 And Case No. 177 of 2023 and IA No. 55 of 2023 And Case No. 186 of 2023 and IA No.58 of 2023 And Case No. 187 of 2023 and IA No. 57 of 2023 And Case No. 196 of 2023	Case of Jubilant Ingrevia Ltd, Infosys Ltd. (SEZ) Ultra Tech Cement Ltd. , Saarloha Advanced Materials Pvt. Ltd. challenging the levy of wheeling charges by Maharashtra State Electricity Distribution Company Ltd. on its Captive Open Access transactions.	<ul style="list-style-type: none"> Maharashtra State Electricity Distribution Co. Ltd. is directed not to levy Wheeling Charges and Wheeling losses on the power sourced through Open Access in the present cases. Maharashtra State Electricity Distribution Co. Ltd is directed to refund the Wheeling Charges recovered from Petitioners /Open Access Consumers, along with applicable interest, within one month from the date of this Order. 	<p>MSEDCL submits that the said MERC Order for refund of Wheeling Charges and Wheeling losses is complied. The details are as below:</p> <ul style="list-style-type: none"> 151 of 2023 Petition Jubilant Ingrevia Ltd Rs. 33699343/- Refunded in Apr'24 and June'24 E-Bill. 177 of 2023 Petition Infosys Rs.3647923/- Refunded in Sept'24 E-Bill. 186 of 2023 Petition Ultratek Cement Rs.13452383/- Refunded in Mar'24 E-Bill 187 of 2023 Petition Saarloha Advance Material Rs.103144709/- Refunded in May'24 & June'24 E-Bill 196 of 2023 Petition Saarloha Advance Material Rs.103144709/- Refunded in May'24 & June'24 E-Bill

Sr. No.	MERC Case No.	Case details	Directives in MERC Order	Compliance
5	Case No. 190 of 2023	MSEDCL's Petition for approval and adoption of tariff determined through transparent bidding process for procurement of short-term power for the period 01 October 2023 to 31 October 2023 & 01 March 2024 to 31 May 2024 and approval to increase ceiling rate for short term power purchase.	MSEDCL to submit the copies of Final PPAs to the Commission for records.	The copies of final PPAs are submitted to Hon'ble Commission dated 18.10.2024.
6	Case No. 04 of 2024	Petition for approval and adoption of tariff determined through transparent bidding process for procurement of short-term power for the period 01 February-24 to 31 May-24 and approval for increase in ceiling rate for short term power purchase at higher cost than the ceiling rate approved by the Commission.	MSEDCL to submit the copies of Final PPAs to the Commission for records.	The copies of final PPAs are submitted to Hon'ble Commission dated 18.10.2024.

Sr. No.	MERC Case No.	Case details	Directives in MERC Order	Compliance
7	Case No. 84 of 2023	Case of Adani Power Maharashtra Limited against Maharashtra State Electricity Distribution Company Limited seeking relief for additional cost of Fly-Ash Transportation introduced by Ministry of Environment, Forest & Climate Change, Govt. of India, pursuant to the Appellate Tribunal for Electricity's Judgment dated 21 October 2022 in Appeal No. 148 of 2019.	<ul style="list-style-type: none"> APML is eligible for the Change in Law compensation of Rs. 144.40 Crore, on account of the additional cost of Ash Transportation for the period from FY 2016-17 to FY 2021-22. Carrying cost is also payable on above Change in Law compensation from the date of incurrance of increased expenses till the date of this Order. Same shall be computed as per directions in para 15 above. 	MSEDCL submits that Rs.126.60 Crores is paid on dated 30.05.2024 as per order dated 07.05.2024. Further, balance amount Rs.17.79 Crores along with carrying cost Rs 103.92 Rs. Crores is paid on dated 21.10.2024 and remaining carrying cost of Rs.21.68 Crores is paid on dated 28.10.2024. In addition to this, 95% payment of Rs. 199.86 Crores against APML invoice for Fly ash principal amount along with carrying cost for year 22-23 & 23-24 is done on dated 21.10.2024.
8	IA No. 48 of 2024 in Case No. 155 of 2024 Case No. 155 of 2024	Petition by Maharashtra State Electricity Distribution Company Ltd. (MSEDCL) seeking adoption of weighted average tariff discovered in composite bids through the competitive bidding process held for long term procurement of 1600 MW thermal power and 5000 MW solar power in the State of Maharashtra.	MSEDCL shall file the signed copies of Power Purchase Agreements for record of the Commission.	MSEDCL submits that it has signed PPA and PSA on 29 th October 2024. Copy of the PPA has been submitted to Hon'ble Commission vide letter no. CE/PP/MERC/34739 dated 07 th November 2024.

Sr. No.	MERC Case No.	Case details	Directives in MERC Order	Compliance
9	IA No. 49 of 2024 in Case No. 156 of 2024 Case No. 156 of 2024	Petition by Maharashtra State Electricity Distribution Company Ltd. (MSEDCL) seeking approval for adoption of tariff discovered through the competitive bidding process held for procurement of 3000 MW (including 2000 MW under Green Shoe option) energy storage capacity (for 8 hours discharge with maximum 5 hours continuous discharge) for 40 years from InSTS connected Pumped Hydro Storage Plant/s.	MSEDCL shall file signed copies of Energy Storage Facility Agreements (ESFAs) for record of the Commission.	MSEDCL submits that PPA Signing is under Process. After signing of PPA, same shall be sent to Hon'ble Commission.
10	Case No. 162 of 2023 and IA No. 63 of 2023 And Case No. 163 of 2023 and IA No. 62 of 2023 And Case No. 166 of 2023 and IA No. 69 of 2023 Case No. 162 of 2023 And IA No. 63 of 2023	Case of CIE Automotive India Ltd., Bekaert Industries Pvt. Ltd. and Sunbarn Renewables Pvt. Ltd. challenging the levy of wheeling charges by Maharashtra State Electricity Distribution Company Ltd. on its Captive Open Access transactions	<ul style="list-style-type: none"> As ruled at Para. 26 of this Order, Maharashtra State Electricity Distribution Co. Ltd. is directed not to levy Wheeling Charges and Wheeling losses on the power sourced through Open Access in the present cases. As ruled at Para. 26 of this Order, Maharashtra State Electricity Distribution Co. Ltd is directed to refund the Wheeling Charges recovered from Petitioners /Open Access Consumers, along with applicable interest, within one month from the date of this Order. 	<p>MSEDCL submits that the said MERC Order for refund of Wheeling Charges and Wheeling losses is complied. The details are as below:</p> <ul style="list-style-type: none"> 166 of 2023 Beakart Ind - Rs.19553708/- Refunded in Apr'24 E-Bill 162 of 2023 CIE Automotive India Limited Rs.23721296/- Refunded in Apr'24 E-Bill 163 of 2023 CIE Automotive India Limited Rs.9211809/- Refunded in Apr'24 E-Bill

Sr. No.	MERC Case No.	Case details	Directives in MERC Order	Compliance
11	Case No. 182 of 2023	Case of Shri. Harshad Sheth seeking directions regarding validity of MSEDCL's Circular No. 30011 dated 20 December 2018 and subsequent modifications made thereto.	<ul style="list-style-type: none"> The Commission imposes a penalty of Rs. 1,00,000 on the responsible officer for violation of the Commission's direction in the daily Order dated 21 May 2024. The amount of penalty to be deposited in the office of the Commission, within a month of the date of this Order. MSEDCL to undertake detailed technical exercise to decide the quantum of a suitable piece of land or a suitable room within such premises and accordingly finalize the fresh Guidelines in accordance with the MERC (Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2021 and submit the action taken report to the Commission within three months of this Order. 	<ul style="list-style-type: none"> MSEDCL has deposited the amount of Rs. 1 lakh to MERC vide NEFT UTR No. MAHBH24254272881 on dated 10.09.2024. MSEDCL constitute committee and is exercising to decide the quantum of a suitable piece of land and will finalise the guidelines shortly and will submit the action taken report to Hon'ble Commission.

Sr. No.	MERC Case No.	Case details	Directives in MERC Order	Compliance
13	Case No. 206 of 2023 and Case No. 207 of 2023 and Case No. 208 of 2023 and Case No. 211 of 2023	Petition of M/s. ICC Reality India Pvt. Ltd., EON Hinjewadi Infrastructure Pvt. Ltd., Panchshil Infrastructure Holdings Pvt. Ltd. & Panchshil Corporate Park Pvt. Ltd. for refund of excess wheeling and transmission charges collected by MSEDCL for the period September 2020 till May 2023 with interest	MSEDCL is directed to refund excess wheeling and transmission charges recovered from the Petitioners during the period September 2020 up to May 2023, in the energy bills with applicable interest within one month from the date of this Order, in line with the direction issued in Order dated 20 January 2023 in Case No. 206 of 2017. MSEDCL shall verify the claims made by the Petitioners before making the refund payment.	MSEDCL submits that the said MERC Order for refund of Wheeling Charges and Wheeling losses is complied. The details are as below: <ul style="list-style-type: none"> • 206 of 2023 M/s. ICC Realty India Pvt. Ltd Appriaisal given 12.08.24 Rs. 3843447.29 • 207 of 2023 Eon Hinjewadi Infrastructure Pvt. Ltd. Appriaisal given 12.08.24 Rs 69003.13 • 208 of 2023 Panchshil Infrastructure Holdings Pvt. Ltd. Appriaisal given 12.08.24 Rs. 585314.63 • 211 of 2023 Panchshil Corporate Park Pvt. Ltd. Appriaisal given 12.08.24 Rs.927794.87
14	Case No. 68,69,70,71 of 2023	Petition of Maharashtra Vidyut Nigam Private Limited, Vayunandana Power Limited, Greta Energy Limited & AA Energy Limited for payment of Late Payment Surcharge (LPS) on energy bills paid belatedly by MSEDCL after the due date.	The Petitioners are eligible for LPS and Penal interest as follows: MSEDCL to pay above claims within timelines stipulated in respective EPAs after receipt of supplementary bill.	MSEDCL submits that the said MERC Order is complied. MSEDCL has paid Rs. 1.45 Crores, Rs. 1.32 Crores, Rs. 1.75 Crores and Rs. 1.22 Crores to MVNL, Vayunandana Ltd., Greta Energy Ltd. and AA Energy Ltd. respectively.

Sr. No.	MERC Case No.	Case details	Directives in MERC Order	Compliance
15	Case No. 35 of 2023	Case of M/s Sun-N-Sand Hotels Ltd. seeking directions against Maharashtra State Electricity Distribution Co. Ltd. for recovery of outstanding amounts dues against Delayed Payment Charges (DPC) and interest on DPC, against invoices generated under various Wind Energy Purchase Agreements and various Orders of the Commission.	MSEDCL shall verify and pay the admissible amount within the due date as per EPA.	MSEDCL submits that the said MERC Order has been complied. As directed by the Hon'ble Commission, M/s. Sun N Sand was paid Rs. 1.57 Crores DPC. The claim was fully settled on 27.07.2024
16	Case No. 74 of 2023	Petition of SJVN Limited seeking directions to MSEDCL for payment of outstanding amounts in terms of energy purchase agreements executed between the parties and seeking action against MSEDCL under Section 142, 146 & 149 of the Electricity Act, 2003.	MSEDCL to pay above claims within timelines stipulated in respective EPAs after receipt of supplementary bill.	MSEDCL submits that the said MERC Order has been complied. DPC paid on dt 14-02-2024 & 01-10-2024 {Rs.68125529} Further, MSEDCL has paid Penal Interest of Rs. 3.51 Crores on 30.10.2024

Sr. No.	MERC Case No.	Case details	Directives in MERC Order	Compliance
17	Case No. 124 of 2023	Petition of M/s Bhimashankar Sahakari Sakhar Karkhana Ltd. seeking directions to Maharashtra State Electricity Distribution Co. Ltd. to honour the terms and conditions of Article 8.2 of the Energy Purchase Agreement dated 21 June 2004 and subsequent amendment Energy Purchase Agreement dated 12 December 2012.	The Petitioner, is eligible for LPS and Penal interest as follows.... MSEDCL to pay above claims within timelines stipulated in respective EPAs after receipt of supplementary bills.	MSEDCL submits that the said MERC Order is complied. MSEDCL has paid Rs. 0.59 Crores to M/s. Bhimashankar Sahakari Sakhar Kharkhana Ltd. on 29.05.2024.
18	Case No.157 of 2023	Petition of M/s Sahyadri Industries Ltd. seeking directions against MSEDCL to comply the terms of Wind Energy Purchase Agreement	MSEDCL to pay above claims within the timelines stipulated in respective EPAs after receipt of supplementary bills.	MSEDCL submits that the said MERC Order has been complied. MSEDCL has paid Rs.3.09 Crores to M/s.Sahyadri Industries Ltd. The claim was fully settled on 28.07.2024.

Sr. No.	MERC Case No.	Case details	Directives in MERC Order	Compliance
19	Case No. 174 of 2023	Petition of M/s. Team Ferro Alloys Pvt Ltd seeking recovery of differential demand charges with interest from MSEDCL as per the Commission Order dated 5 December, 2020 in Case No. 166 of 2020 and refund of excess security deposit held by MSEDCL.	<ul style="list-style-type: none"> • MSEDCL to pay refundable amount along with interest (at rate of prevailing Bank Rate declared by Reserved Bank of India) to TFAPL in single instalment. • MSEDCL to pay excess amount of Security Deposit to TFAPL • The Commission imposes a penalty of Rs 1,00,000/- (Rs. One Lacs Only) on the Superintending Engineer, Gondia, MSEDCL for non-filing of any reply in present matter. • MSEDCL to comply with this Order and submit the Compliance report within 30 days from receipt of this Order. 	<p>MSEDCL submits that the said order is complied. The details are as below:</p> <ul style="list-style-type: none"> • MSEDCL has paid refundable amount of Rs 36,32,091 along with interest to M/s Team Ferro Alloys pvt. Ltd on 21.08.2024 • MSEDCL has paid excess amount of Security Deposit of Rs 22,65,666 to M/s Team Ferro Alloys pvt. Ltd on 21.08.2024. • MSEDCL has filed review petition before Hon'ble Commission for directives to point no. 3.

Sr. No.	MERC Case No.	Case details	Directives in MERC Order	Compliance
20	Case No. 181 of 2023	Petition of Shri. Harshawardhan Raibhan Jadhav seeking action against Maharashtra State Electricity Distribution Company Limited for non-compliance of the MERC (Electricity Supply Code and Standards of Performance for Distribution Licensees, including Power Quality) Regulations, 2021 in regard to with metering requirements including calibration and testing thereof, etc.	<p>MSEDCL to pay following penalty amount within 15 days from date of this Order:</p> <ol style="list-style-type: none"> Rs. 40.70 lakh (Rs 2 lakh for two contraventions and Rs 38.70 lakh for continued contravention calculated till 30 Nov 2023) for noncompliance of Regulation 22.14 (installation of power quality meters) of MERC Supply Code Regulations 2021. Rs. 4.66 lakh (Rs 1 lakh for first contraventions and Rs 3.66 lakh for continued contravention calculated till 30 Nov 2023) for noncompliance of Second proviso to Regulation 25.2 (mechanism for automatic compensation) of MERC Supply Code Regulations 2021 read with MTR Order dated 31 March 2023. The exact penalty amount will be calculated once MSEDCL complies with provisions of Regulations and thereafter differential penalty amount shall be paid by MSEDCL. MSEDCL to submit monthly progress report on implementation of above provisions of Regulations. If no substantial progress is visible within six months from date of this Order, then Commission will be forced to initiate appropriate action against Senior Officials of the MSEDCL. 	<p>MSEDCL has filed review petition in the matter before Hon'ble Commission vide case no 12/MP/2024 on dt. 24/01/2024. E-hearing in the matter was conducted on dt.20/09/2024. In the e-hearing Hon'ble Commission has directed to submit action taken report on affidavit. The affidavit in the matter is submitted on dated 01/10/2024.</p> <p><u>Present Status:-</u> CI.no. 22.14:- 1) MSEDCL has completed installation of 1500 nos PQM on dated 05/09/2024 and for balance 5291 nos of locations LOA has been issued on 23/08/2024 to M/s Secure Meters Ltd. The Contract period of supply and installation is 14 months i.e. upto Oct-25. At present survey is going on. M/s Secure has offered 90 nos of PQM for inspection at factory site. The PQM meter data for HT consumers is deployed in WSS system by MSEDCL IT in co-ordination with the agency on dt 05/10/2024.</p> <p>CI.No. 25.2:- The requisite mechanism for automatic compensation under Regulation 25.2 of MERC Supply Code Regulations, 2021 is made operational from 11.05.2024 under WSS portal of MSEDCL website.</p>

Sr. No.	MERC Case No.	Case details	Directives in MERC Order	Compliance
21	Case no. 122 of 2024	Petition for seeking approval for long term procurement of 1052 MW grid connected solar photovoltaic power projects to be set up on lands of water resource department of Maharashtra for lift irrigation scheme.	Hon'ble Commission clarifies that gone into merit and implications of proposed modalities for supplying power to LIS consumers and will consider the same in appropriate proceedings.	Accordingly, MSEDCL submits the details in this MYT petition. The details of the same is submitted in Chapter 17. Solarization of lift Irrigation Scheme.

17 SOLARIZATION OF LIFT IRRIGATION SCHEME

17.1 Solarization of Lift Irrigation Scheme

17.1.1 MSEDCL had filed a Petition to the Hon'ble Commission on 20th September 2024 for seeking Approval for Long Term Procurement of 1052 MW grid connected Solar Photovoltaic Power Projects to be set up on lands of Water Resource Department of Maharashtra for Lift Irrigation Schemes (LIS) in the State of Maharashtra.

17.1.2 The Hon'ble Commission through its order dated 20th September, 2024 in Case No. 122 of 2024 allowed MSEDCL to proceed with competitive bidding process as per Guidelines. However, the Hon'ble Commission further clarified that "it has not gone into merits and implications of proposed modalities for supplying power to LIS consumers. The Commission will consider the same in the appropriate proceeding."

17.1.3 Accordingly, MSEDCL would like to make following submissions in its current MYT Petition:

- The Government of Maharashtra ("GoM") in its endeavour to provide daytime electricity to agriculture consumers through decentralized solar power projects, had launched the Mukhyamantri Saur Krushi Vahini Yojana 2.0 ("MSKVY 2.0") for solarization of agricultural feeders. Under this scheme multiple tenders are floated for procurement of solar power, both under an open tender framework where bidding was conducted on a substation level and under a cluster framework where the bidding was for an entire cluster comprising of multiple substations with the project to be developed on revenue land that had been identified and sub-leased to Project SPVs.
- It is also respectfully submitted that the Hon'ble Commission *vide* its Order in Case No. 164 of 2023 dated August 11, 2023 ("MERC Order"), had approved the bid documents for solarisation of agricultural feeders and had approved the tariffs discovered under the bidding processes conducted for the solarization of agricultural feeders *vide* its Order in Case No. 32 of 2024 dated 06th March, 2024.
- Under MSKVY 2.0, the substations wherein agricultural load catering the agricultural consumers are being solarized. However, the agricultural consumers connected to the Lift Irrigation schemes are not covered with the supply of day time power supply through solarisation. In order to cover these consumers, the GoM has issued Government Resolution

dated 15th March, 2024 for solarisation of Lift Irrigation Schemes in the State of Maharashtra, since these schemes also cater to the agricultural demand. In line with MSKVY 2.0 where revenue lands were provided to the solar project developers upfront to de-risk and expedite the project implementation, the proposed scheme for LIS solarisation also envisages the provision of lands by the Water Resource Department to the solar project developers.

- Government of Maharashtra (GoM) vide its GR dated 15th March, 2024 has notified the scheme for Solarization of Lift Irrigation Schemes (LIS) whereby it is envisaged that the Water Resource Department shall be providing the required land for installation of solar plants for solarisation of LIS and MSEDCL has been appointed as the implementation agency.
- The scheme has following objectives:
 - To reduce the subsidy burden of GoM.
 - To design long term financially sustainable model for supply of electricity to Lift Irrigation Schemes.
 - To reduce carbon emissions.
 - To reduce greenhouse emissions to cope with climate change.
 - To reduce the dependency of conventional energy sources.
- Salient features of the scheme:
 - The required land will be provided by the Water Resource Department /LIS consumers.
 - The total generation will be sufficient to meet the existing requirement of the LIS consumers throughout the life of the solar plant.
 - LIS consumers consume the power during daytime as well as during night time. This means that while the solar capacity proposed will generate excess power during the daytime and result in bringing down the power purchase cost of MSEDCL, the power purchase cost may increase when LIS consumers require electricity supply during the non-solar evening peak time hours. Therefore, the solar capacity proposed is designed for such higher quantum so as to compensate for the increase in the power supply during the non-solar hours i.e. higher proposed solar capacity will enable excess generation during solar hours.
 - Since the proposed scheme will result in reduction of subsidy burden of GoM, the Government shall provide incentive to the successful developers in the form of financial assistance of Rs.3,20,00,000/- per MW of solar capacity which will be disbursed based on specified milestones.

- The implementation of the scheme will be carried out as follows:
 - Competitive bidding by MSEDCL and execution of PPA with solar project developers.
 - The responsibility of operation and maintenance of the solar plants will be of the developer.
 - Netting of solar generation from the projects under the scheme with consumption of LIS consumers
 - Grid connectivity to the solar projects as per MERC Rules and Regulations.
 - MSEDCL to finalize land requirement for LIS consumers solarization.
 - WRD will provide free lands and submerged lands depending on the requirement of MSEDCL.
 - Annual Reconciliation of the import and export units will be done by MSEDCL and WRD jointly.
 - In this scheme MSEDCL will be revenue neutral.
- The annual requirement of the existing LIS consumers is 1,242 MUs. The estimated capacity required for the solarization of the LIS consumers considering the average capacity utilization factor of 24 % is 590.75 MW. The capacity utilization factor of 24 % is considered referring to the average of the actual generation data of the solar projects commissioned so far.
- Against 590.75 MW the solar capacity proposed is 1052 MW. This excess capacity of 461 MW comprises of
 - Capacity required for off setting the degradation factor,
 - Capacity required for off setting the power purchase cost for supplying the consumption during the non-solar hours and
 - Capacity required for off setting the amount paid to the solar project developers for power purchase of excess capacity mentioned above
- To reduce the subsidy burden, the solarization of LIS consumers scheme is framed based on the following considerations:
 - GoM will provide one-time capital subsidy for the solar projects which will bring down the solar tariff. GoM and the Solar Power Generator (SPG) will share the cost of the project in the ratio of 80:20. A project cost of Rs. 4 Crore (for 1 MW) is considered out of which, GoM will provide Rs. 3.20 Crore per MW as a capital subsidy. Remaining 20% will be invested by the developer. The capital subsidy is expected to reduce the levelized tariff to Rs. 0.98 per unit.

- The required land will be provided by the LIS consumers.
- The total generation will be sufficient to meet the existing requirement of the LIS consumers throughout the life of the solar plant.
- The SPG will get adequate compensation from MSEDCL so that the project will operate in a financially self-sufficient mode.
- The excess solar generation exported in the grid during the daytime will save power purchase cost of MSEDCL. However, the power purchase cost will increase when LIS consumers require electricity supply during the non-solar hours, due to high demand during the evening peak time and average demand during the off-peak period. Therefore, MSEDCL needs to be compensated against the increase in the power purchase during the non-solar hours which will be done through the excess generation. This will avoid any burden on the other consumers of the MSEDCL.
- The solar capacity thus decided will help MSEDCL to remain revenue neutral in the banking arrangement with LIS consumers as shown in the table below:

Table 340 Determination of Solar capacity with LIS consumer

Sr. No.	Particulars	Unit	Total
1	LIS consumption in a year	MUs	1,242
2	Required solar capacity	MW	1,052
3	Solar generation from the required capacity	MUs	2,135
4	SPG's expected Revenue @ 0.98 paisa per unit (Sr. No. 3)	Rs. Crore	210
5	LIS consumption during daytime	MUs	682
6	Excess Generation during daytime in grid (Sr. No. 3 – Sr. No. 5)	MUs	1,453
7	MSEDCL's avoided power purchase cost @ Rs. 3.92 per unit (Sr. No. 6)	Rs. Crore	570
8	Net MSEDCL savings in power purchase cost during daytime (Sr. No. 7- Sr. No. 4)	Rs. Crore	360
9	Import by LIS during evening peak time and off-peak time	MUs	560
10	MSEDCL's cost of power purchase @ Rs. 6.43 per unit (Sr. No. 9)	Rs. Crore	360
11	Additional Burden (+)/ Savings (-) (Sr. No. 10 – Sr. No. 8)	Rs. Crore	0

17.1.4 The average annual requirement of the existing LIS consumers is 1,242 MUs (Sr No. 1 above). The estimated capacity required for the solarization of the LIS consumers is 1,052 MW (Sr. No. 2 above) which will cater the existing LIS demand for 25 years and will also help MSEDCL remain revenue neutral as explained below:

- The average solar generation throughout the life @ 24% CUF will be around 2,135 MUs (Sr. No. 3 above). MSEDCL will pay the SPG, the total

cost of generation i.e. Rs. 210 Crore (Sr. No. 4 above) @Rs. 0.98 per unit. Please note, for the capital cost of Rs. 4 Crore per year, the levelized tariff comes out to be Rs. 3.04 per unit. After considering the capital subsidy of Rs. 3.2 Crore, this tariff will come down to Rs. 0.98 per unit.

- The LIS consumption during the solar hours is around 682 MUs which will result in the net export of 1,453 MUs (Sr. No. 6 above) into MSEDCL's network. The average Power Purchase cost during the daytime is considered as Rs. 3.92 per unit which will be avoided due to availability of cheapest solar power. The procurement of excess generation will result in savings of Rs. 570 Crore (Sr No. 7 above). As MSEDCL will have to make payment to the solar power generator @ Rs. 0.98 per unit, the net savings will be Rs. 360 Crore (Sr. No. 8 above).
- During non-solar hours, LIS consumers will import around 560 MUs from the MSEDCL's network. During this time, the average power purchase cost is generally high, around Rs. 6.43 per unit. For the required export during non-solar hours, MSEDCL will incur additional cost of Rs. 360 Crore (Sr. No. 10 above). As the net savings is also around Rs. 360 Crore, MSEDCL will be revenue neutral in this banking arrangement. Other consumers of the MSEDCL will not have to bear any additional cost.
- In a nutshell, due to the payment to Generator by MSEDCL through its savings, LIS does not need to pay. Therefore, cheaper solar rate due to the capital subsidy will help reducing the subsidy burden of the GoM, and the financial burden of the beneficiary farmers.
- The estimated Solar capacity required is 1,052 MW. However, the present tender is for 800 MW which will cover the solarization of the government LIS schemes, own and operated by the WRD. Please note that WRD has already leased out the required land.
- The LIS operated by the cooperative societies/ sugar factories/other will also be solarized as on when they provide the required land for the solar plant.

17.2 Revenue Neutral Model

17.2.1 The consumer shall be billed as per the recorded consumption, and credit will be issued to the consumers against the banked units that neutralise its bills. The PPAs for LIS scheme are likely to be executed by March - 2025. Post execution of the PPA project will be implemented within 18 months.

**Final True Up for FY 2022-23 & FY 2023-24,
Provisional True Up For FY 2024-25 and
Multi Year Tariff For FY 2025-26 to FY 2029-30**

Main Petition

18 PRAYERS TO THE HON'BLE COMMISSION

18.1 MSEDCL most respectfully prays to the Hon'ble Commission:

Prayers to the Hon'ble Commission

MSEDCL most respectfully prays to the Hon'ble Commission:

1. To admit the MYT Petition as per the provisions of the MERC (MYT) Regulations 2024 and consider present Petition for further proceedings before Hon'ble Commission;
2. To approve the total recovery of Aggregate Revenue Requirement and revenue gap for FY 2022-23 to FY 2029-30 along with other claims as proposed by MSEDCL;
3. To allow the carrying cost on the proposed recovery required during the balance years of this control period;
4. To approve mechanism for recovery of computed revenue gap along with carrying cost and Tariff Schedule considering the Tariff Design principles and other suggestions proposed by MSEDCL;
5. To determine a separate cost of supply for agriculture category;
6. To approve revised ToD tariff structure and allow MSEDCL to approach itself each year of 5th Control period regarding changes in ToD charges and slabs.
7. To approve levy of Grid Support Charge as calculated by MSEDCL
8. To approve kVAh based billing for LT consumers above 20 kW
9. To direct SEZs and Deemed Licensees situated in MSEDCL license area to enter into standby arrangement with MSEDCL and approve standby charges as requested by MSEDCL
10. To allow MSEDCL to recover financial burden on account of wheeling charges and wheeling loss from MSETCL due to non-establishment of EHV infrastructure.
11. To approve revised methodology for billing of residential consumers with Rooftop Solar System.
12. To approve revised 'Green Tariff' and Green RTC power for sunshine industries like data centers and semi-conductor.
13. To approve discount in Demand Charges for Single Shift operation of HT-Industry which are operational for at-least 8 hours during solar hours.
14. To approve proposal of additional demand charges for consumers availing multiple sources of supply

15. To approve proposed increase in reactive charge from RE generators and Open Access Consumers
16. To allow the revision in definition of Billing Demand as proposed by MSEDCL
17. To approve Cross Subsidy Surcharge and all such other charges including wheeling charges and wheeling losses for Open Access consumers as proposed for the Control Period;
18. To approve the suggested categorization for different type of activities as proposed by MSEDCL;
19. To consider the incentives/rebates proposed as part of ARR;
20. To rationalize the incentives and penalties as proposed by MSEDCL;
21. To approve the schedule of charges as proposed by MSEDCL;
22. To approve the CAPEX and Capitalisation as submitted by MSEDCL;
23. To approve the OPEX schemes and expenses as proposed by MSEDCL;
24. To grant any other relief as the Hon'ble Commission may consider appropriate;
25. To pass any other order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice;
26. To allow shortfall in compliance of RPO for past period till FY 2029-30.
27. To allow revisit the RPO compliance for segregated Ag and Non-Ag business vertical at the time of MTR filing
28. To condone any error/omission and to give opportunity to rectify the same;
29. To permit MSEDCL to make further submissions, addition and alteration to this Petition as may be necessary from time to time.

19 ANNEXURES

19.1 List of Annexures:

ANNEXURE 1.1 - REGULATORY FORMATS (IN SOFT MODE ONLY)
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ANNEXURE 4.3 - CALCULATION OF ASSET WISE DEPRECIATION

ANNEXURE 6.1 – CALCULATION OF TOD (TIME OF DAY) TARIFF (IN SOFT MODE ONLY)
ANNEXURE 10.1 - DETAILED COST ESTIMATION SHEET FOR SCHEDULE OF CHARGES
ANNEXURE 14.1 – MERC INPRINCIPLE APPROVAL LETTERS, CBA & APPRAISAL LETTERS (IN SOFT MODE ONLY)
ANNEXURE 16.1 – ANNEXURE RELATED TO COMPLIANCE TO DIRECTIVES