Before the

MAHARASHTRA ELECTRICITY REGULATORY COMMISSION World Trade Centre, Centre No.1, 13th Floor, Cuffe Parade, Mumbai – 400 005 Tel. 022 - 22163964/65/69 Fax No. 022 - 22163976

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CASE No. 226 of 2022

In the matter of

Case of Maharashtra State Electricity Distribution Company Limited for Final True Up of FY 2019-20, FY 2020-21 & FY 2021-22, Provisional True Up for FY 2022-23 and Revised Tariff & Projection for FY 2023-24 to FY 2024-25 under Section 62 of The Electricity Act, 2003 and MERC MYT Regulations, 2019

<u>Coram</u> Shri Sanjay Kumar, Chairperson Shri I. M. Bohari, Member Shri Mukesh Khullar, Member

ORDER

Date: 31 March 2023

Maharashtra State Electricity Distribution Company Limited (MSEDCL or Petitioner), "Prakashgad", Anant Kanekar Marg, Bandra (East), Mumbai has filed a Mid-Term Review Petition on 27 November 2022 for Final Truing-up of ARR for FY 2019-20, FY 2020-21 and FY 2021-22, Provisional Truing-up of ARR for FY 2022-23 and Revised ARR and Tariff for FY 2023-24 to FY 2024-25.

The Petition has been submitted in accordance with the MERC (Multi Year Tariff) Regulations 2015 ("MYT Regulations, 2015"), for Final Truing up of ARR for FY 2019-20, and in accordance with MERC (Multi Year Tariff) Regulations 2019 ("MYT Regulations, 2019") for Final Truing up of ARR for FY 2020-21 & FY 2021-22, Provisional Truing-up of ARR for FY 2022-23 and Revised ARR and Tariff for FY 2023-24 to FY 2024-25,.

The Commission, in exercise of the powers vested in it under Sections 61, 62 and 86 of the Electricity Act, 2003 (EA, 2003) and all other powers enabling it in this behalf, and after taking into consideration all the submissions made by MSEDCL, and in the public consultation process, and all other relevant material, has approved the Final Truing-up of ARR for FY 2019-20, FY 2020-21 and FY 2021-22, Provisional Truing-up of ARR for FY 2022-23 and Revised ARR and Tariff for FY 2023-24 to FY 2024-25 in this Order.

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LIST OF ABBREVIATIONS

Abbreviation	Expansion
A&G	Administration and General
ABR	Average Billing Rate
ABT	Availability Based Tariff
ACoS	Average Cost of Supply
AAD	Advance Against Depreciation
AFC	Annual Fixed Cost
AG	Agriculture
AMR	Automated Meter 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
BEST	Brihan-Mumbai Electric Supply & Transport Undertaking
BPL	Below Poverty Line
BSC	Base Station Controllers
CAG	Comptroller and Auditor General
CAGR	Compounded Annual Growth Rate
Capex	Capital Expenditures
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Stations
CGPL	Coastal Gujarat Power Limited
CGRF	Consumer Grievances Redressal Forum
CIL	Coal India Ltd.
COD	Commercial Operation Date
Commission/MERC	Maharashtra Electricity Regulatory Commission
COS	Cost of Supply
CPI	Consumer Price Index
СРР	Captive Power Plant
CPPA	Captive Power Producers Association
CR	Consumer Representative
CSD	Consumer Security Deposit
CSS	Cross-subsidy Surcharge
CT	Current Transformer

Abbreviation	Expansion
CWIP	Capital Work in Progress
CUF	Capacity Utilisation Factor
DA	Dearness Allowance
DCL	Distribution Commercial Loss
DDUGJY	Deen Dayal Upadhyay Gram Jyoti Yojana
DF	Distribution Franchisee
DIC	Directorate of Industries and Commerce
DPC	Delay Payment Charges
DPR	Detailed Project Report
DSM	Demand Side Management
DTC	Distribution Transformer Centre
DTL	Deferred Tax Liability
EA2003/Act	Electricity Act, 2003
ED	Electricity Duty
EDP	Embedded Display Port
EHV	Extra High Voltage
ERP	Enterprise Resource Planning
FAC	Fuel Adjustment Charge
FBSM	Final Balance Settlement Mechanism
FSA	Fuel Supply Agreement
FY	Financial Year
GC	Generation Charge
GEC	Gross Energy Consumption
GFA	Gross Fixed Assets
GFSS	Gaothan Feeder Separation Scheme
GOI	Government of India
GoM	Government of Maharashtra
GSA	Gas Supply Agreement
HP	Horse Power
HT	High Tension
HVDS	High Voltage Distribution System
IBSM	Interim Balancing Settlement Mechanism
IC	Interim Charge
IDC	Interest During Construction
IIT	Indian Institute of Technology
InSTS	Intra-State Transmission System
IoWC	Interest on Working Capital
IPDS	Integrated Power Development Scheme

Abbreviation	Expansion
IPP	Independent Power Producer
IT/ITES	Information Technology/ Information Technology Enabled
TI/TIES	Services
kVA	Kilo-Volt Ampere
kVAh	Kilo-Volt Ampere Hour
kW	Kilo Watt
kWh	Kilo Watt Hour / Unit
LF	Load Factor
LT	Low Tension
LV	Low Voltage
MGP	Mumbai Grahak Panchayat
MIDC	Maharashtra Industrial Development Corporation
MIS	Management Information System
MoD	Merit Order Desptach
MOEF	Ministry of Environment and Forest
MOP	Ministry of Power
MoU	Memorandum of Understanding
MPECS	Mula Pravara Electric Cooperative Society Limited
MSEB	Maharashtra State Electricity Board
MSEBHCL	Maharashtra State Electricity Board Holding Co. Ltd.
MSEDCL	Maharashtra State Electricity Distribution Co. Ltd.
MSETCL	Maharashtra State Electricity Transmission Co. Ltd.
MSLDC	Maharashtra State Load Despatch Centre
MSPGCL	Maharashtra State Power Generation Co. Ltd.
MTR	Mid Term Review
MU	Million Units
MW	Mega Watt
MYT	Multi Year Tariff
NCDP	New Coal Distribution Policy
NLDC	National Load Despatch Centre
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
Opex	Operational Expenditure
P&L	Profit and Loss
PD	Permanent Disconnected
PF	Power Factor

Abbreviation	Expansion
PFC	Power Finance Corporation
PGCIL	Power Grid Corporation of India Limited
PLF	Plant Load Factor
PoC	Point of Connection
PPA	Power Purchase Agreement
P:SI	Project for System Improvement
P:IE	Project for Intensive Electrification
PWW	Public Water Works
PXIL	Power Exchange India Limited
R&M	Repair and Maintenance
RBI	Reserve Bank of India
RE	Renewable Energy
REC	Renewable Energy Certificates
RECL	Rural Electrification Corporation Ltd.
RGGVY	Rajeev Gandhi Grameen Vidyutikaran Yojana
RGPPL	Ratnagiri Gas and Power Pvt. Ltd.
RInfra	Reliance Infrastructure Limited
RLC	Regulatory Liability Charge
RLDC	Regional Load Desptach Centre
RoE	Return on Equity
RPO	Renewable Purchase Obligation
RTC	Round The Clock
RSD	Reserve Shutdown
Rs.	Indian Rupees
SBAR	State Bank Advance Rate
SBI	State Bank of India
SBLC	Stand By Letter of Credit
SCADA	Supervisory Control and Data Acquisition
SD	Security Deposit
SERC	State Electricity Regulatory Commission
SEZ	Special Economic Zone
SLDC	State Load Despatch Centre
SMD	Simultaneous Maximum Demand
SOP	Standards of Performance
SSP	Sardar Sarovar Project
STP	Sewage Treatment Plant
STU	State Transmission Utility
T&D	Transmission and Distribution

Abbreviation	Expansion
TBIA	Thane Belapur Industries Association
TC	Transmission Charge
ToD	Time-of-Day
TOSE	Tax on Sale of Electricity
TPC	The Tata Power Company Ltd.
TSO	Temporary Supply Others
TSR	Temporary Supply Religious
TSSIA	Thane Small Scale Industries Association
TSU	Transmission System User
TTSC	Total Transmission System Cost
TVS	Technical Validation Session
UI	Unscheduled Interchange
ULDC	Unified Load Dispatch & Communication
UMPP	Ultra-Mega Power Projects
USO	Universal Service Obligation
VIA	Vidarbha Industries Association
VRS	Voluntary Retirement Scheme
V-CoS	Voltage-wise Cost of Supply
Wef	With effect from
WPI	Wholesale Price Index
WRLDC	Western Regional Load Despatch Centre
WRPC	Western Region Power Committee
у-о-у	Year on Year

1 INTRODUCTION

1.1 Background

- 1.1.1 MSEDCL is a Company formed under Government of Maharashtra (GoM) Resolution No. ELA 1003/P.K.8588/Bhag-2/Urja-5 dated 24 January, 2005 from 6 June, 2005 according to the provisions of Part XIII of the EA, 2003. The provisional Transfer Scheme was notified under Section 131(5)(g) of the EA, 2003 on 6 June, 2005, which resulted in the creation of the following four successor Companies from out of the erstwhile Maharashtra State Electricity Board (MSEB), namely,
 - MSEB Holding Co. Ltd.;
 - Maharashtra State Power Generation Co. Ltd. (MSPGCL);
 - Maharashtra State Electricity Transmission Co. Ltd. (MSETCL); and
 - Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)
- 1.1.2 **Multi Year Tariff Regulations, 2015:** The Commission notified the MYT Regulations, 2015 on 8 December, 2015 and notified the first amendment on 29 November, 2017. These Regulations are applicable for the 3rd Control Period, from 1 April, 2016 up to 31 March, 2020.
- 1.1.3 Mid Term Review (MTR) Order: (<u>Case No. 195 of 2017</u>): MSEDCL filed its Petition in Case No. 195 of 2017 for Final Truing-Up of Aggregate Revenue Requirement (ARR) for FY 2015-16 and FY 2016-17, Provisional Truing-Up of ARR for FY 2017-18 and revised estimates of ARR and Tariff for FY 2018-19 and FY 2019-20 on which the Commission passed its Order dated 12 September 2018.
- 1.1.4 Review petition before the Commission and Appeal No.280 of 2019 before the APTEL, New Delhi: MSEDCL submitted that on 29 October, 2018, it has filed Petition for review of certain aspects of the MTR Order. The Commission disposed of the said Petition vide its Order No.321 of 2018 dated 24 December 2018 and partly allowed the certain contentions of MSEDCL. However, aggrieved by the rulings of the Commission, MSEDCL filed appeal before the Hon'ble APTEL, New Delhi (Appeal No.280 of 2019) on following 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 & Losses for FY 2016-17;
 - Non-consideration of MSEDCL's 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 the MTR Order
- 1.1.5 MSEDCL submitted that this MTR Petition is without prejudice to any of its rights and contentions in said Appeal and that MSEDCL reserves its right to again approach the Commission depending upon the final decision of the APTEL, New Delhi in the said Appeal.
- 1.1.6 Multi Year Tariff Regulations, 2019: The Commission notified the MYT Regulations, 2019 on 1 August, 2019 and notified the first amendment on 10 February, 2023 These are applicable for determination of Tariff for the 4th Control period, from 1 April, 2020 up to 31 March, 2025.
- 1.1.7 **Multi Year Tariff (MYT) Order (<u>Case No. 322 of 2019</u>)** MSEDCL filed its MYT Petition for Final True Up for FY 2017-18 & FY 2018-19, Provisional True Up of ARR for FY 2019-20 and approval for forecast of Multi Year Tariff for FY 2020-21 to FY 2024-25 on which the Commission has passed its Order dated 30 March 2020.
- 1.1.8 **Review Petition before the Commission and Appeal No.65 of 2022 before the APTEL, New Delhi:** MSEDCL had filed Petition for review of certain aspects of the MYT Order dated 30 March 2020 in Case No. 322 of 2019. The Commission disposed of the said Petition vide its Order dated 30 June 2020 and partly allowed certain contentions of MSEDCL. Aggrieved by non-consideration of all the aspects, MSEDCL has preferred an Appeal No. 65 of 2022 (DFR No. 318 of 2020) against the Commission Review Order dated 30 June 2020 as well as against MYT Order dated 30 March 2020 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.
- 1.1.9 MSEDCL submitted this MTR Petition is without prejudice to any of its rights and contentions in said Appeal and that MSEDCL reserves its right to again approach the Commission depending upon the final decision of the APTEL, New Delhi in the said Appeal.
- 1.1.10 MSEDCL submitted its original MTR Petition on 29 November 2022 for 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.

- 1.1.11 On 22 December, 2022, the Commission raised preliminary data gaps. MSEDCL submitted its replies to data gaps vide letter dated 4 January 2023.
- 1.1.12 Technical Validation Session (TVS) to discuss the data gaps/ deficiencies, was held on 11 January 2023. Further data gap in the petition were explained to MSEDCL and it were asked to submit the replies along with the revised Petition.
- 1.1.13 The Commission sought certain additional information/clarifications vide additional data gaps on 12 January 2023 and directed MSEDCL to address the additional data gaps and other concerns raised. MSEDCL submitted its replies on 21 January 2023. MSEDCL was asked to submit the revised petition incorporating replies to the data gaps.

1.2 Admission of the Petition and Regulatory Process

- 1.2.1 On 21 January, 2023, MSEDCL submitted its Petition with the following prayers:
 - To admit the MTR Petition as per the provisions of the MERC (MYT) Regulations, 2019 and consider present Petition for further proceedings before the Hon'ble Commission;
 - ii. To approve the total recovery of Aggregate Revenue Requirement and revenue gap for FY 2019-20 to FY 2024-25 along with other claims as proposed by MSEDCL in the present Petition;
 - iii. To allow the carrying cost on the proposed recovery required during the balance years of this control period;
 - iv. 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;
 - v. To allow actual Interest on Working Capital requirements for FY 2020- 21 on account of COVID-19 period;
 - vi. To approve Cross Subsidy Surcharge and all such other charges including wheeling charges and wheeling losses for Open Access consumers as proposed;
 - vii. To approve the suggested categorization for different type of activities as proposed by MSEDCL;
 - viii. To consider the incentives/rebates proposed as part of ARR;
 - ix. To rationalize the incentives and penalties as proposed by MSEDCL;
 - x. To approve the schedule of charges as proposed by MSEDCL;
 - xi. To approve the CAPEX and Capitalisation as submitted by MSEDCL;
 - xii. To approve the OPEX schemes and expenses as proposed by MSEDCL;
 - xiii. To grant any other relief as the Hon'ble Commission may consider appropriate;

- xiv. To pass any other order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in interest of justice;
- xv. To condone any error/omission and to give opportunity to rectify the same;
- xvi. To permit MSEDCL to make further submissions, addition and alteration to this Petition as may be necessary from time to time.
- 1.2.2 The Commission admitted the revised MYT Petition on 24 January, 2023. As required under the Section 64 of the EA, 2003, MSEDCL issued Public Notices in two English Newspapers (Free Press Journal and The Hitwada) and two Marathi (Lokmat and Punyanagari) newspapers on 26 January, 2023 inviting suggestions and objections on its Petition. The Petition and Executive Summary (in English and Marathi) were made available for inspection or purchase at MSEDCL's offices. The Petition was also available on MSEDCL's website (www.mahadiscom.in) free of cost in downloadable format. The Executive Summary of the Petition and the Public Notice were also made available on the websites of the Commission (www.mercindia.org.in) / (http://www.merc.gov.in/www.merc.gov.in) in downloadable format. The Public Notice specified that the suggestions and objections, in English or Marathi, be filed in writing by uploading it through 'E-Public Consultation' Tab on MERC Website (www.merc.gov.in/e-public-consultation).
- 1.2.3 The Commission held E-Public Hearings by setting up E-facilitation Centres at Navi Mumbai, Pune, Aurangabad, Nashik, Amravati and Nagpur from 21 February, 2023 to 03 March, 2023 as per the schedule given in the Table below, during which several Public Representatives, Consumer Representatives, other stakeholders and members of the public were heard. The Commission also received several written suggestions and objections. The list of persons who submitted written suggestions and objections and/or attended the Public Hearings is at Appendix-3.

Table 1-1:Schedule of Public Hearings

Sr. No.	Place / Venue of E- facilitation Centre	Time	Date of Hearing
1	Navi Mumbai Agri- Koli Sanskruti Bhavan, Pam Beach Road, Nreul, Navi Mumbai- 400706	10.30 Am	21 February, 2023
2	Pune Auditorium, Government College of Engineering, Shivaji Nagar, Pune	10.30 Am	23 February, 2023
3	Aurangabad Meeting Hall, Office of the Divisional Commissioner, Aurangabad, District- Aurangabad	10.30 Am	25 February, 2023
4	Nashik	10.30 Am	27 February, 2023

Sr. No.	Place / Venue of E- facilitation Centre	Time	Date of Hearing
	Niyojan Bhavan, Collector Office Campus,		
	Old Agra Road, Nashik		
5	Amravati Hall No.1, Divisional Commissioner's Office Camp, Amravati, District- Amravati	10.30 Am	02 March, 2023
6	Nagpur Vanamatri Auditorium, V.I.P. Road, Dharampeth, Nagpur, District- Nagpur	10.30 Am	03 March, 2023

1.2.4 The Commission has ensured that the due process contemplated under law was followed at every stage to ensure transparency and public participation. Adequate opportunities were given to all to present their responses. Various suggestions and objections raised on the Petition, both orally at the Public Hearings and in writing, along with MSEDCL's responses and the Commission's Rulings have been summarised in Section 2 of this Order.

1.3 Organisation of the Order

- 1.3.1 This Order includes the following Sections:
 - Section 1 provides a brief background of the process undertaken by the Commission:
 - Section 2 summarises the written and oral suggestions and objections raised.
 These are followed by the responses of MSEDCL and the rulings of the Commission;
 - Section 3 covers the final true-up of ARR for FY 2019-20
 - Section 4 covers the final true-up of ARR for FY 2020-21 & FY 2021-22
 - Section 5 covers the provisional true-up of ARR for FY 2022-23
 - Section 6 covers the revised ARR & Tariff of ARR for FY 2023-24 and FY 2024-25
 - Section 7 sets out the Commission's Tariff Philosophy and the category-wise tariffs, including determination of Wheeling Charges and Cross-Subsidy Surcharge and applicable conditions thereof.
 - Section 8 covers the Schedule of Charges,
 - Section 9 covers the compliance of Directives of the Commission

• Annexures - Schedule of Revenue at the revised tariffs at Annexure I to II and the approved Tariff Schedule at Annexure III and IV.

2 SUGGESTIONS/ OBJECTIONS, MSEDCL's RESPONSE AND COMMISSION'S RULINGS

2.1 Technical Validation Session (TVS) and Public Consultation Process

Objection's/Suggestions

- 2.1.1 Ms. Ashwini Chitnis suggested that as per the Electricity Act, 2003 a public consultation process is required before revising the tariff of any regulated entity. The Commission has proposed e-hearing in this crucial tariff matter, however, public hearings conducted in person are more effective than virtual hearings. Thus, to facilitate fruitful public consultation process, a period of at least one month or preferably more, should be allowed to the public to file their initial submissions and further three weeks period should be allowed for filing replies and rejoinders. The Commission should also direct the Discoms to share short videos/audio clips and easy to read & interpret infographics to facilitate greater understanding on Tariff related issues.
- 2.1.2 In the past, the Commission has followed such practice of conducting a technical validation session in the presence of the authorized consumer representatives. Such process helps in improving the quality of the Petition.
- 2.1.3 Shri. R. B. Goenka, Vidarbha Industries Association and Shri. Hemant Kapadia stated that the Commission should undertake TVS before admitting the Tariff Petition and the consumer representative may also be called for such TVS, so that any error in the Petition can be corrected before making it Public. At present, there are no consumers representatives authorized by the Commission to protect consumers' interest. MYT framework was implemented to have stability in Tariff for at least 5 years so that consumers/industries may plan their Business. Every time Commission is allowing pass through of expenses while truing-up exercise. He suggested that there should be a mechanism to strictly inquire about fuel consumption, price of fuel, inefficiencies of the Licensees.

MSEDCL's Replies

2.1.4 MSEDCL states that it has submitted the Petition after following due Regulatory Process.

Commission's Replies

2.1.5 The TVS is intended to weed out discrepancies in the Petition and help ensure that adequate data, etc. are incorporated for more informed public consultation and for consideration by Commission in the tariff determination process. In the present Case, the TVS was held on 11 January 2023. After satisfying compliance of data gaps, the Commission has admitted the MTR Petition. As per Section 64 (3) of the Electricity Act, 2003, the Commission is bound by the time limit of (120) days to issue the necessary Order. The Commission after observing provisions contained in MERC

(Transaction of Business and Fees and Charges) Regulations 2022, the Commission allowed (3) weeks' time for filing of suggestion/objections.

- 2.1.6 As per the provisions of the MERC MYT Regulations, 2019 and MERC (Transaction of Business and Fees and Charges) Regulations 2022 the Commission also directed all Licensees to prepare executive summary of their Petition and make it available to stakeholders free of cost. In the present case also, Executive Summary was prepared in Marathi and English and same was made available on MERC website in addition to MSEDCL's website. Also detailed Public Notice was published in two Marathi Newspapers (Lokmat and Punyanagari) and two English Newspapers (Times of India and Hindustan Times) on 26 January 2023. Accordingly, the Commission has taken due care in informing the stakeholder about the proposed Tariff revision proposal.
- Regarding effectiveness of e-public hearing vis-à-vis physical hearing, the Commission notes that during present public consultation process, the Commission has adopted latest technological solutions to increase public participation as well as provide ease of access of this public process to general consumers. Considering possibility of some consumers not able to use electronic media, the Commission allowed filing of suggestions and objections in hard copy in addition to developing E-Public Consultation portal for filing suggestions and objections online. The Commission has issued detailed guidance note for assisting the consumers to participate in public consultation process. MSEDCL has prepared a Video and animated film on this guidance note and hosted on their website for making consumer aware about e-filing and e-public hearing process. Said video and animated film was also hosted on MERC website. It is important to note that during present public consultation process total 7864 suggestion/objections (online – 2986 and hard copy -4881) were received which were much more than 2300 suggestions/objection received during last public hearing process conducted in January 2020 in conventional format. Also, many consumers have opted to participate in e-public hearing from their own facilities which have saved their time and resources for travelling physically to the location of hearing. E-facilitation Centres were set-up at six revenue headquarters so that the consumers who do not have facility to participate from their location can attend the e-public hearing from such facilitation Centres. Considering higher response of consumers and ease of access made available, the Commission is of the opinion that conducting e-public hearing did not restrict consumer participation in public consultation process. In fact, use of such technological salutations enables the Commission to reach up to doorstep of the consumers.

2.2 Agricultural Tariff and Sales, Power Supply to Agriculture and Distribution loss Objections/Suggestions

2.2.1 Prayas Energy Group, Ms. Ashwini Chitnis and many others submitted that, the inflated Agricultural demand estimation by MSEDCL is not in accordance with the Commission's approved methodology. The Commission had undertaken a detailed, rigorous process for estimation of agricultural demand in MYT Case No. 322 of 2019

based on the recommendations of the study conducted by the Working Group for Agricultural Consumption. Hence, in line with the Commission's directions in this regard, the excessive AG consumption claim of MSEDCL needs to be disallowed and the projected cumulative revenue gap of MSEDCL needs to be reduced by Rs. 23,636 Crores

- 2.2.2 Shri. Pratap Hogade and many others stated that, MSEDCL should use feeder input meters and connected load on AG feeders for the billing purpose as per the methodology employed by Agricultural Study Working Group for appropriate AG sales estimation and proper billing. MSEDCL has manipulated sales by increasing agriculture consumption during the times when residential sales were down in lock down periods. MSEDCL has failed to follow-up the directions of the Commission in its Agriculture Feeder Metering program, resulting in an incorrect assessment of distribution loss. It is observed that, because of COVID-19 pandemic, MSEDCL has not released much new agriculture connections, however AG sales have been increased. This is nothing but an attempt to suppress theft and demonstrate reduction in approved Distribution Losses. Shri Mahaveer Jain stated that, MSEDCL is issuing illegal unmetered AG connection, despite of specific prohibition by Commission vide various Order since 2012.
- 2.2.3 Shri. R. B. Goenka of Vidarbha Industries Association stated that, Commission should make suggestion to Government of Maharashtra under section 86 & 87 of the Electricity Act 2003 to form a separate company for agriculture consumers which shall help in evenly distributing the cross subsidies paid to agriculture consumers to all the licensees in the State.

MSEDCL's Reply

- 2.2.4 **Agricultural Sales:** MSEDCL submitted that, it has filed an Appeal No. 65 of 2022 (DFR No. 318 of 2020) against the Commission's Review Order dated 30 June 2020 as well as MYT Order dated 30 March 2020 on various AG sales related issues. MSEDCL has submitted its MTR petition without prejudice to any of its rights and contentions taken by MSEDCL in said Appeal.
- 2.2.5 **Power Supply to Agriculture:** MSEDCL states that it strives to provide quality and reliable power supply to all its consumers. The power supply to Agriculture consumers is being provided as per the Commission's Orders and Government of Maharashtra's (GoM) directives issued from time to time.
- 2.2.6 **Agricultural Metering:** MSEDCL stated that no unmetered agriculture connection is being issued anymore. MSEDCL takes appropriate precautions/measures to limit the rise in tariff rates by reducing Distribution losses, accurate billing by proper meter reading of utilized energy, increasing collection efficiency, limiting operations and maintenance expenses and implementing latest technology for efficient management

- schemes. With concentrated efforts for reduction of distribution losses, MSEDCL has been able to keep its distribution losses within the targets given by the Commission.
- 2.2.7 It is a well-known fact that issue of metering of AG consumers is faced by almost all States in India and not just by MSEDCL. 100% metering has not been done by any State in India. It is also pertinent to note that the number of AG Consumers in Maharashtra are one of the highest in India. However, MSEDCL shall strive hard to provide the meters to unmetered AG Consumers

Commission's Ruling

- 2.2.8 Issue of Energy Accounting related to AG Consumption and Tariff applicable to Agriculture category is dealt with in Chapter 3 of this Order and corresponding references are made in Chapter 4 to 6.
- 2.2.9 The Commission notes the contention of Objectors that, MSEDCL has not followed the directions issued by the Commission. While the Commission acknowledges the challenges in large scale Agriculture Metering and difficulties in individual consumer metering, as an alternative, the Commission has adopted the methodology of bench marking based on feeder-based sampling at the time of MYT Order in Case No 322 of 2020.
- 2.2.10 Further, the Commission in Case No. 322 of 2019 dated 30 March 2020 had clarified as below:
 - 4.2.36 Under the circumstances, the Commission would undertake a detailed review of the operationalisation of Feeder Input based methodology of determination of AG Sales at the time of MTR, as per roadmap and action plan put in place by MSEDCL. The outcome of results and methodology finalised through this exercise shall form the basis for approval of AG sales from FY2019-20 onwards, during truing up exercise to be carried out at time of MTR.
- 2.2.11 However, MSEDCL has not followed the methodology specified by the Commission while estimating the AG sales for unmetered connections in this MTR Petition. The Commission while approving the public notice for the public hearings in present case, had also clarified that, the LT-AG Sales and Energy Balance reported and estimated by MSEDCL in this Petition is not as per the methodology specified by the Commission in MYT Order in Case No 322 of 2019. Consequently, with the change in methodology for assessment of AG sales, the AG sale would undergo change, which would also have an impact on the total sales, distribution losses and sharing of gains/losses.
- 2.2.12 Accordingly, the Commission vide data gaps had sought meter data of 502 feeders for Truing up years which were considered at the time MYT Order in Case No. 322 of 2020. The Commission based on the meter data received from MSEDCL has reassessed the AG sales as per the methodology specified in the MYT Order and considered for

re-computation of total sales, distribution losses and sharing of gain/losses. The detailed ruling on this issue and analysis is in Section 4.2 of this Order.

- 2.2.13 The Commission, notes the submission of MSEDCL that it has filed appeal before the Hon'ble APTEL against the methodology adopted by the Commission for assessing the AG sales, however, the Hon'ble APTEL has not granted stay to the Commission's MYT Order in Case 322 of 2020. So, MSEDCL was expected to follow the methodology adopted by the Commission while assessing the AG sales in this Petition. The Commission during public hearing has also expressed its displeasure for not following its directions. Accordingly, the Commission directs MSEDCL to maintain the meter data of identified feeders or more feeders and the Commission would undertake a detailed review of the operationalisation of Feeder Input based methodology of determination of AG Sales at the time of truing up of the FY 2022-23 to FY 2024-25. The outcome of results and methodology finalised through this exercise shall form the basis for approval of AG sales for future years only.
- 2.2.14 With regards to issue of forming separate company for supplying electricity to Agriculture consumers, 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 to formation of new Company for Agricultural consumers.

2.3 Increase in Fixed/ Demand Charges

- 2.3.1 Balaji Electro Smelters Pvt Ltd., Meenakshi Ferro Ingots Pvt Ltd., Bajaj Finserv and others submitted that MSEDCL has failed to anticipate demand and supply of Power and signed Long Term Agreements and paying Fixed Charges even though it is not procuring power from some Generating Stations. The Fixed Charges are imposed as Additional Charges, if industries opt for Open Access.
- 2.3.2 Tata Motors submitted that prevailing demand charges in Maharashtra are at par with Gujrat and Telangana whereas demand charges in Maharashtra are considerably higher than Karnataka and Uttar Pradesh. The Commission in its MYT Order approved the hike of 1.98% in Demand Charges for FY 2023-24 over FY 2022-23, however, in MTR Petition MSEDCL has proposed 12.33% hike over the prevailing Demand Charges for FY 2022-23.
- 2.3.3 Bajaj FinServ submitted that at present significant revenue is realized by MSEDCL from Fixed Charges, which is not related to availability. Instead, it recommended to reduce fixed charges and energy charges such that revenue will depend upon consumption. The said consideration will improve efficiency of Discom.
- 2.3.4 The Alloy Steel Producers Association of India, M/s Krishna Verla Sahakari Soot Girni, Palus and others have objected to the proposed Energy Charges and Fixed/Demand

Charges for MSEDCL for FY 2023-24 and FY 2024-25, as it is prejudicial to the object and growth of the industrial sector. The proposed increase by 12% of 'Fixed/Demand Charges' is detrimental to the growth of steel industries and should be gradual and not steep.

MSEDCL's Reply

- 2.3.5 The Commission in its Order dated 5 May 2000, while determining the fixed charge component of the tariff ruled that the recovery of fixed costs of MSEDCL should come from fixed charges and has also observed that the fixed charge component of tariff needs to be gradually increased in due course to cover the actual fixed costs incurred by MSEDCL.
- 2.3.6 In the June 2008 tariff Order, the Commission unilaterally decided to reduce the fixed charges applicable to different categories of consumers citing the reasons of reduced availability of power. At that point of time also, the power supplied to certain categories of consumers was maintained without any reduced supply. As such, MSEDCL feels that the said reduction was unwarranted.
- 2.3.7 Further, in the Tariff Order dated September 12, 2010, the Commission has observed that ".... once sufficient power is available and contracted by the licensees, the fixed/demand charges can again be increased....."
- 2.3.8 The Demand Supply Gap has been reduced for long and is in surplus now and at present, due to sufficient availability of power, there is no planned load shedding in the State. MSEDCL therefore categorically states that it has sufficient power and has contracted enough power to meet the ever-increasing demand of the State in future.
- 2.3.9 Fixed charges are primarily billed against the infrastructure already created and generation capacity already tied up for 24x7 Supply. The fixed charges are recovered against the costs for serving such infrastructure and keeping the generation capacity ready all the times. Therefore, the fixed charges need to be levied even in case of shut down, breakdown, faults or even in force majeure situations etc.
- 2.3.10 In the present MTR Petition, proposed fixed cost is about 50% of total costs, even after increasing/revising the Fixed Charges, the total recovery of fixed costs from fixed charges will reach only till 14% by FY 2024-25. Thus, there is a further need to increase the fixed Charges beyond the Control Period as well. The recovery from fixed charges as approved by the Commission is also not happening due to restriction in definition of billing demand.
- 2.3.11 Therefore, MSEDCL has proposed increasing the Fixed/Demand Charges for various categories of consumers for each year of the Control Period as a step towards gradual balancing of the fixed charges recovery with fixed charges obligation.

Commission's Ruling

- 2.3.12 The Commission notes that, several consumers have objected to MSEDCL's proposal of a steep increase in Fixed Charges in most of the categories. The Commission has elaborated the rationale for levy of Fixed Charges and Demand Charges in previous Tariff Orders, i.e. to the extent possible, recovery of fixed costs should come from the Fixed Charge component of Tariff. That is also in accordance with the EA, 2003 and the National Tariff Policy.
- 2.3.13 Recovery of fixed costs through fixed/demand charges at present is low. Only a part of the fixed costs is recovered through fixed/demand charges and the balance fixed costs are recovered through energy charges, which are linked to the actual energy sold to consumers. The Distribution Licensee is entitled to some level of assurance regarding the recovery of fixed costs. In consideration of consumers with low consumption levels the entire fixed costs are not recovered through fixed/demand charges, however such fixed costs are required to be recovered through fixed cost, to a reasonable extent.
- 2.3.14 Given the surplus situation of availability of power now in the State, the Commission has decided to rationalise and increase the Fixed/Demand Charges for all categories of consumers so as to gradually move towards the mandate of recovery of fixed cost through Fixed /Demand charges. Moreover, with the rationalization of Energy Charges elaborated in Chapter 8 of this Order, the revision in Fixed Charge is unlikely to burden consumers significantly. The fixed/demand charges for each category are determined keeping in view the existing fixed/demand charges, the Average Billing Rate (ABR), and the cross-subsidy ratio.
- 2.3.15 The Commission is rationalising the fixed/demand charges for all Distribution Licensees in Maharashtra, including MSEDCL, keeping in view the share of fixed costs in the total ARR and the existing recovery of fixed costs through fixed/demand charges.

2.4 Wheeling Charges

- 2.4.1 Balaji Electro Smelters Pvt Ltd., Meenakshi Ferro Ingots Pvt Ltd., Tata Motors and many others have submitted that, HT consumers are connected to High Tension Lines and most of them connected to Express Feeders. MSEDCL needs to put meters at the respective Sub-Stations etc., for measuring accurate Wheeling losses for each voltage level and same can be used for Wheeling charges computation. The Commission has approved 1.82% reduction in Wheeling Charges for FY 2023-24 over FY 2022-23, however, MSEDCL has proposed 34.55% hike in FY 2024-25 over prevailing Wheeling Charges. R.K.Spinning, Shirol submitted that, wheeling charges, is extra burden to consumers.
- 2.4.2 Bajaj Finserv submitted that MSEDCL's proposal for common wheeling charges for all HT voltage levels is regressive in nature as it is against the fundamental principle that tariff should reflect the actual cost of supply. It referred the case of RE wind projects, which are connected on 33 kV voltage level. By clubbing of wheeling charges,

RE generators are unnecessarily ending up in paying up higher charges of lower voltage network.

2.4.3 U.A. Texcom, Shantinath Exim and others submitted that MSEDCL is not maintaining audited accounts for voltage wise assets and thus does not have segregation of GFA between HT and LT levels. So, it is not possible to find out the exact wheeling cost for HT, LT or all other categories and hence total wheeling cost is charged equally across all consumer categories.

MSEDCL's Replies

2.4.4 MSEDCL submitted that it has computed the proposed Wheeling Charges by following the same methodology adopted by the Commission while approving the Wheeling Charges in MYT Order dated 30 March 2020. For the purpose of commercial settlement, MSEDCL in its MTR Petition has proposed to continue with Wheeling losses which are already approved in the previous Tariff Orders. Wheeling Losses in the MYT Tariff Order have been considered based on that approved by the Commission in the previous Tariff Orders.

Commission's Rulings

2.4.5 The Commission in its Explanatory Memorandum to the draft MYT Regulations, 2019 has stated following rationale for determining Wheeling Charges for EHT, HT and LT level:

"The Commission in MYT Order and Mid Term Review Order of the past Control Period has determined the voltage-wise wheeling charges for Distribution Licensees in the State. However, it has been observed that wheeling charges have been determined for different voltage levels for different DISCOMs. For MSEDCL, wheeling charges are determined separately for 33 kV, 22 kV, 11 kV and LT level. In case of Distribution Licensees in Mumbai area, viz. AEML-D, TPC-D and BEST, the wheeling charges are determined separately for HT and LT level. Moreover, for MBPPL, the combined wheeling charges for HT and LT level have been determined. The Commission is of view that the methodology for determination of wheeling charges should be uniform across the State. Also, it has been observed that some Distribution Licensees are also maintaining the assets at EHT level. Hence, separate Wheeling Charges is also required to be determined for EHT level. In view of this, the Commission proposes to determine the separate Wheeling Charges for EHT, HT and LT level."

2.4.6 The MYT Regulations 2019 have been notified after the process of previous publication as contemplated under the Electricity Act, 2003. The Regulations include provision of determining separate Wheeling Charges for EHV, HT and LT level i.e. the Commission would determine three different wheeling charges corresponding to their voltage level to reflect voltage wise cost of supply. Having further breakup of Wheeling Charges within HT level has practical difficulty. All voltage levels within HT (11 kV, 22 kV)

- and 33 kV) are not available uniformly across the State. Therefore, even though consumers are eligible for getting supply at specified voltage level, due to historical construction practices, such voltage may not be available in its area. This was creating discrimination amongst consumers and hence, the Commission has decided to have HT wheeling Charges.
- 2.4.7 The Commission is aware of the fact that all the EHV/HT levels (i.e. EHV, 11 kV, 22 kV and 33 kV) are not available in all the areas of MSEDCL and hence in MYT Order dated 30 March 2020 and subsequent Clarificatory Order dated 30 April 2020 has ruled as follows:
 - a. In case of non-availability of requisite voltage level, wheeling charges to the consumers shall be applicable as per the billing demand recorded.
 - b. To avoid misuse of this concession, the applicability shall be subject to MSEDCL internally certifying the non-availability of the requisite voltage level.
 - c. Consumer needs to maintain billing demand as per the requisite voltage level for 75% of bills actually raised during the Financial Year.
- 2.4.8 Above ruling of the Commission in MYT Order and subsequent orders will continue for future period also.

2.5 Power Purchase by MSEDCL

- 2.5.1 Shri. Vijay Kumbhar of Aam Aadmi Party Maharashtra submitted that, MSEDCL has not been able to reduce Distribution Losses. The present loss level stands at >15%. MSEDCL has been sourcing its major energy requirements from Private Generation Companies instead of MSPGCL.
- Prayas Energy Group and many others submitted that, the Ministry of Power (MoP) has 2.5.2 directed all Central and State Generating Companies and IPPs to blend 6% (by weight) imported coal up to September 2023, which is bound to have a significant cost impact on all MSEDCL consumers. MSEDCL has captured the likely impact of change in law due to coal shortfall for IPPs in replies to data gaps as part of this Petition. The directives of MoP have contributed to a 25% rise in the average power purchase rate in FY2022 from contracted coal capacity of MSEDCL. It is likely that measures could be undertaken to avoid imported coal procurement, such as increased contractual accountability of CIL, tracking based on fuel utilisation plans, procurement via eauction route etc. However, allowing such cost increase prima facie would not incentivize generating companies to undertake such proactive measures. The fuel cost adjustment mechanism as stipulated in the MYT regulations has been instituted to address this kind of uncertainty in power purchase cost. Further, MSEDCL has identified several areas where IPPs are not adhering to methodologies and frameworks set up by the Commission, resulting in undue increase in MSEDCLs bills. The

- Commissions should address these issues, provide a clarity, and disallow such costs to ensure speedy resolution and reduce carrying cost impact on consumers.
- Balaji Electro Smelters Pvt Ltd., Meenakshi Ferro Ingots Pvt Ltd., and others submitted that, the Commission has been examining the submissions of MSEDCL every month for calculating FAC Liability and making Prior/post Facto Approval to meet shortfall in Power Purchase Expenses. The Commission has allowed FAC fund, however, MSEDCL is collecting huge FAC amount from its consumers and now demanding to merge this fund by increasing Power Tariffs. However, there is a shortfall of Rs.11,191.92 Crore in the Power Purchase Expenses and MSEDCL has to pay Delay Payment Charges and Interest to the Power Generators, Transmission companies. Further, MSEDCL has surplus Power of 13.26% and 13.73% during MYT Control Period. The surplus cost of surplus energy available in five years is Rs.49,722 Crore, and MSEDCL has to purchase Power from RE Sources. The Commission directed MSEDCL to explore various options for selling surplus power through Power Exchanges and review its PPAs to explore options for reducing Fixed Charges. However, MSEDCL purchased Power from Power Exchanges during October 2021 and from February 2022 to June 2022 at higher rates and burdened consumers. This reveals inefficiency and bad management of MSEDCL in procuring Power and not selling power at higher rates in the Power Exchanges.
- 2.5.4 Shri. Nitin Subhash Tarlekar, the Solapur Chamber of Commerce Industry and Agriculture, Shri Ajit Deshpande and others have stated that, the total cost of power purchase has increased enormously and will continue to increase. MSEDCL has failed to split the power purchase cost in compliance with the statutory requirement of the Commission, resulting in an express violation of the requirement. MSEDCL is required to provide revised corrected data of power purchase showing fixed cost and variable cost separately so that analysis of the same is possible.
- 2.5.5 Maharashtra Vij Grahak Sanghatana, Raigad, Shri. Sidharth Murkute, Shri Ashish Chandarana and many other consumers have stated that, the cost of power purchase has increased, and the sale of power has decreased. Therefore, the revenue gap is seen to increase. The objectors demanded that the present MTR Petition should be dismissed in its entirety and a fresh Petition be ordered to be filed on the basis of proper facts. MSEDCL need to provide with the Power purchase register for each financial year under consideration under present petition to ascertain the power purchase expenses along with clarification as to verify whether any interest and/or DPC is charged by generator / supplier and whether the same is included in power purchase cost and other expenses shown in proposed ARR. It appears that, increase in power purchase is due to interest and DPC.

MSEDCL's Reply

2.5.6 Out of total power purchase, almost entire power procurement is done at Approved Tariffs or Competitive Rate through transparent process of Competitive Bidding. The

Tariffs are either approved by CERC/ the Commission or adopted by the MERC for competitive bidding. MSEDCL further states that, during the higher demand or shortage from regular sources due to various reasons including break downs, fuel shortage etc., MSEDCL purchases power from exchanges and through short term power purchase tenders throughout the year. This short-term power purchase is done only through DEEP e-Bidding portal/ power exchange by way of transparent competitive bidding.

- 2.5.7 MSEDCL has signed a long term PPA with Central/State/IPPs sources for procuring power for a period of 25 years. Hence MSEDCL has the obligation under these agreements to purchase power from these sources and to also adhere to the terms and conditions of the PPA. MSEDCL also has the obligation to pay any 'Change in Law' claims as approved by the respective Authority as stated in the terms and conditions of the PPA. Hence, Order of any Court/Regulator with respect to 'Change in Law' is to be abided by MSEDCL and is to be passed through in tariff. Such claims are not retained by MSEDCL and are passed through as per their claims.
- 2.5.8 MSEDCL procures power from different sources on Merit Order Despatch Principle for optimum utilization of the sources at least cost. For projection of availability, MSEDCL has considered the entire power available for all the tied-up sources during this period to meet the demand. Considering the capacity available and the demand projection, no power procurement from Traders or power exchange is projected for the period FY 2023-24 to FY 2024-25. However, MSEDCL may tie up power from short term sources during April 2023 in case it witnesses similar contingency which it witnessed in April 2022, for which it has already got approval from the Commission vide Order dated 30 August 2022 in Case No. 148 of 2022. Though the situation of coal availability has improved in the past few months, and it is expected that such a contingency may not rise in the months of April and May 2023. However, it will be compelled to procure power from short term sources due to coal shortfall/unavailability of sources or unexpected increase in demand during peak months.
- 2.5.9 For estimating the power purchase cost, MSEDCL as per the provisions of MYT Regulations, 2019, has projected the monthly power requirement using the monthly sales projections and applying monthly MOD. The fixed charges have been considered based on the availability assumed for each of the plants.
- 2.5.10 As regards issues raised pertaining to scrutiny of power purchase cost, it is submitted that the disputed 'Change in Law' claims made by the generators/IPPs are referred to either MERC/APTEL/High Court/Supreme Court etc. Based on the Orders/Judgements issued by these Authorities, MSEDCL is liable to pay these 'Change in Law' claims with respect to IPT coal, SHR, GCV etc. to the generators/IPPs. MSEDCL has no control over the Orders/Judgements issued by these Authorities. MSEDCL makes all its efforts during the proceedings of such matters so that such claims are not allowed under 'Change in Law'. However, in case the Order/Judgement is ruled in favour of IPPs, MSEDCL is compelled to pay the charges as claimed by IPPs. Hence, it is

- submitted that these clams have to be included in the claims made towards power purchase in its MTR Petition
- 2.5.11 Further, MSEDCL has submitted that, it has taken following measures like implementation of MoD, Purchase through Exchanges, Sale on Power Exchanges during lean demand seasons and Banking of Power with other States to optimize power purchase cost.

Commission's Rulings

- 2.5.12 MSEDCL has submitted sample power purchase bills and other relevant documents towards power purchase for scrutiny. Entire power purchase cost of MSEDCL is thoroughly checked with the bills submitted by MSEDCL. The Commission has approved the power purchase expenses only after prudence check, which included reconciliation of cost with MSPGCL Audited Accounts and verification of bills and supplementary bills for various Generating Stations.
- 2.5.13 With regards to Change in Law compensation, the Commission has verified the claims of MSEDCL with reference to various Orders of the competent Authorities and confirmed that, only legitimate claims have been paid or accepted by MSEDCL for generators. The Commission has taken due care that power purchase for ensuing years will be strictly as per MoD principles to reduce power purchase cost of MSEDCL and approval of the power purchase expenses are as per the provisions of the MYT Regulations 2019. The detailed analysis of power procurement carried out by the Commission is discussed in the subsequent Sections of this Order.

2.6 Revenue Gap

- 2.6.1 Balaji Electro Smelters Pvt Ltd., Meenakshi Ferro Ingots Pvt Ltd. and many others have submitted that, MSEDCL has failed to earn income from sale of excess power. MSEDCL is also not projecting any income from Trading of Surplus during FY 2023-24 and FY 2024-25. As Central Government has projected that, there will be a shortage of Power in India in future years, MSEDCL should be able to sell its excess power and earn the revenue. Currently, MSEDCL's sales is increasing, but Revenue is decreasing, resulting in a huge Revenue Gap.
- 2.6.2 Prayas Energy Group, Shri. Vijay Kumbhar of Aam Aadmi Party Maharashtra and others submitted that, in FY2019-20, MSEDCL has a revenue gap of Rs.11515.64 Crores due to higher cost of Power Purchase and Revenue Shortfall of Rs.6020.75 Crores. This gap can be reduced if MSEDCL increases purchase of power from MSPGCL and reduces distribution losses. Additionally, the tariff slabs need to be rationalized and billing should be done in a simpler way to help reduce cost of power to consumer in Maharashtra. Further, the combined effect of reduction in revenue

requirement on Tariff increase required by MSEDCL is shown in Tariff Petition. Prayas suggested reduction in Revenue gap as below:

Sr. No.	Parameter / Details	Rs. Crores	
1	Claimed Revenue Gap / Requested Tariff Increase	67,644	
2	Required reduction in claimed Revenue Gap		
3	Unjustified claim of 'Stabilisation amount'	20,054	
4	Disallowance of excess AG consumption claim	23,636	
5	Increase in power purchase cost of coming two years to be recovered through FAC on actuals after prudence check	12,120	
6	Disallowance of carrying cost	8,734	
7	Total reduction in revenue gap	64,544	
8	Balance revenue gap	3,100	
9	Balanced Revenue Gap as % of revenue in FY24 and FY25	1.7%	

- 2.6.3 Tariff increase beyond the existing Average Billing Rate (ABR) along with FAC is not required for MSEDCL, as any further revenue gap in the coming two years should be met with changes in FAC based on actual fuel and power purchase cost increase with due prudence check and any balance gap can be assessed at the end of current control period.
- 2.6.4 Mahalaxmi textiles, Sunita textiles and other power loom consumers have submitted that, tariff comparisons presented by MSEDCL are fictitious, imaginary, unreal unethical and impractical. Revenue gaps for 2023-24 and 2024-25 are overestimated and too higher compared to actual figures of last 3 years. To address the revenue gap, MSEDCL may consider revaluation of fixed assets, such as freehold land, which have higher market value than the book value. Additionally, depreciation around Rs.2500 Crores should not be claimed for assets which don't depreciate in actual. This would help to write off the deficit.
- 2.6.5 The Ichalkaranji Power loom Weavers Co-Op Association and Malegaon power loom associations have submitted that, Proposed Tariff hike is highest in the country. The tariff numbers are also misleading and confusing, actual tariff hike is much higher than proposed number. With this Tariff hike industries in State would not be able to sustain in the national and international market as it would not be competitive. The Commission should not accept the proposed tariff hike and reduce the tariff in line with Gujrat model. MSEDCL should change its mindset. The tariff hike is not the only solution to meet the revenue gap. Other solutions like distribution loss reduction, financial discipline, other provisions and mandates under the EA 2003 need to be exercised to meet the revenue gap instead of passing all the losses to the consumers.

MSEDCL's Replies

- 2.6.6 The revenue gap has emerged because of additional costs due to increase in power purchase expenses due to change in law, increase in cost of MSPGCL, PGCIL costs, NPCIL Tariff revision, lower revenue due to change in consumer mix, change in capex related expenses, etc. The increase in such costs is beyond the control of MSEDCL. Pandemic of COVID-19 and the resultant situation prevailed for whole of FY 2020-21 & for some part of FY 2021-22 thereby resulting in increased revenue gap. This is mainly on account of lower revenue realization due to drop in subsidizing category sales i.e., Industrial, Commercial as a result of lockdown and increased subsidized category sales. Due to coal shortfall, change in law new coal distribution policy, SHAKTI Policy etc. and as per Interim Judgment dated 31.01.2022 of Hon'ble Supreme Court Judgment certain amount was required to be paid resulting power purchase at increased rate.
- 2.6.7 It is also important to note that the revenue gap of six years is to be recovered only in balance two years of current Control Period i.e., FY 2023-24 to FY 2024-25. Accordingly, MSEDCL has proposed a revision in fixed and energy charges for various categories in order to bridge the revenue gap. Such tariff revision is minimum requirement for MSEDCL to meet the inflation as well as the additional costs submitted above, and to remain financially viable and to meet the financial obligation to discharge liabilities. As regards suggestions regarding alternate ways of recovering revenue gaps, MSEDCL submitted that proposal submitted by MSEDCL is based on the methodology specified in the Regulations notified by the Commission under the Electricity Act 2003.

Commission's Rulings

2.6.8 The Commission has analysed each head of expense and revenue claimed by MSEDCL and its proposed treatment, and accordingly determined the ARR, Revenue Gap / Surplus over the 4th Control Period in accordance with the MYT Regulations. The Commission's analysis of the Revenue Gap or Surplus is set out in Chapter 7 of this Order.

2.7 kVAh based Billing

- 2.7.1 Maha cold storage Association stated that by adopting kVAh billing all HT consumers have already seen loss of incentive, which was earlier being received for maintaining better PF and for such HT consumers kVAh based billing is nothing but a tariff hike in disguise.
- 2.7.2 Shri R. B. Goenka has raised its concerns towards how the balancing and settlement of open access consumers and generating plants will be done in terms of kVAh based billing. Further, questioned billing of wheeling charges in terms of kVAh. Whether energy loss projections and reduction can be done in apparent energy of kVA.

MSEDCL's Replies

- 2.7.3 The Commission in Regulation 73.2 of the MYT Regulations, 2019 has provisioned for kVAh billing for the purpose of recovery from the Distribution System User. The Forum of Regulators (FoR) in its report on 'Metering Issues' published in August-2009, has stated that kVAh billing is the new trend in electricity billing, which is adopted worldwide.
- 2.7.4 FoR in its report strongly advocated to adopt kVAh billing in India on account of reasons like kVAh Metering is a check on power factor, it will encourage consumers to use reactive energy compensators to control the voltage at their intake point and maintain unity power factor and there need not be any penalty exemption for power factor neither lagging nor leading.

Commission's Rulings

- 2.7.5 The Commission has noted the objection and also reply submitted by MSEDCL. The Commission has introduced the kVAh billing for HT consumers from 1 April 2020 as per the provisions of the MYT Regulations, 2019. Further the Commission has discussed the need for introduction of kVAh billing in its MYT Order dated 30 March 2020.
- 2.7.6 The prime objective of kVAh based 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. Additionally, due to improvement of Power Factor (nearer to unity), the consumer's demand may get reduced and also the kVAh bill will correspondingly reduce in turn due to improved system voltage. The improvement in Power Factor will further reduce the Licensee's expenditure on Power Purchase and thereby the consumers are expected to be benefited with lower tariff.
- 2.7.7 Further with regards to preparedness of MSEDCL for introduction of kVAh billing to LT category above 20kVA, the Commission has dealt separately in the Chapter- 8 : compliance of Directives of this Order.

2.8 Prepaid Meter Rebate

Objections/Suggestions

2.8.1 Shri. Pratap Hogade, Ichalkaranji Powerloom Association, Malegaon powerloom association and many other consumers have suggested that the Commission in its Order dated 30 March 2020 has directed that consumers using prepaid meters should be given a rebate of 5% on their bills. MSEDCL, however, has not taken any action or compliance in this regard till date. MSEDCL in this Petition has proposed that, no prepaid meter above 20 kW can be installed to any consumer. At the same time, it has also proposed to reduce rebate to be given to consumers up to 20 kW. This demand of the MSEDCL is violating the Orders of the Commission. In the absence of necessary

meters for the same, it should be ordered that 5% rebate be given to those consumers above 20 kW who will accept the 'advance payment facility' as per the regulation as there is no difference between the prepaid meter method and the advance payment method.

MSEDCL's Replies

2.8.2 It is observed that in case of consumers with HT & above 20 kW load, metering is indirect metering i.e. meter is connected through CT/PT and hence disconnection / reconnection cannot be implemented in case of insufficient funds / payment of bills respectively. Hence, the request of consumers for installation of prepaid meters is not technically feasible.

Commission's Rulings

- 2.8.3 The Commission notes that although cost of pre-paid meter is high it has number of advantages which reduces O&M expenses of Distribution Licensees and also it gets advance payment for electricity which reflects in working capital requirement. Hence, prepaid meter needs to be promoted. However, the Commission notes that 5% rebate on pre-paid meter was introduced when there are very small number of consumers with pre-paid meter and there was a need to promote pre-paid meters. But when under RDSS scheme of the Government of India, all LT consumers are to be installed with Smart Meter with pre-paid facility, continuing with rebate of 5% in monthly energy bill would have huge impact on ARR of Distribution Licensee which ultimately has to be funded through increase in tariff. Therefore, the Commission has decided to rationalise rebate available for pre-payment meter to 2%. Needless to say that this rebate will be available only to the consumers who are actually supplied energy through pre-paid meters. Same is detailed in Chapter 7 of this Order.
- 2.8.4 The Commission noted MSEDCL's submission that pre-paid meter cannot be installed to consumers having load of 20 kW above as their metering arrangement is through input from CT/PT and disconnection of line is not possible after utilisation of credit energy.
- 2.8.5 Regarding, providing rebate for a consumer who is ready to pay electricity bill in advance, the Commission notes that provision of Regulation 16.6.5 of MERC Supply Code Regulations, 2021 mandates Distribution Licensee to pay interest on the amount deposited by a Consumer at a rate equivalent to the bank rate of the Reserve Bank of India. However, considering request from several consumers and also to enable such consumer to get benefit of advance payment which are available to consumer with prepaid meter, the Commission in Chapter 7 of this Order, has decided to provide higher interest rate for advance payment of electricity bill.

2.9 Metering Faults, Meter Reading and Billing Issues

2.9.1 Shri. Mahaveer Kumar Jain and others have submitted that MSEDCL should provide average days passed between date of meter reading and bill generation for LT & HT consumers for FY 2016-2017 to 2022-2023. The average days have gone up to 15-20 days since March 2020, leading to funds crises and delayed payment of power bills. The Commission should issue direction for bringing down to less than 3 days with recovery of interest cost from responsible officers if the delay of average days is more than 3 days. MSEDCL has gone from 5-6 days in 2019 to 10-20 days in 2020, 2021, 2022. Further, MSEDCL should continue accepting payments through cheque.

MSEDCL's Replies

- 2.9.2 MSEDCL is taking necessary measures to sort out metering and billing issues faced by the consumers. It has been continuously improving its metering technology. It has moved from electro-mechanical meters to Radio Frequency (RF) meters and pre-paid meters. MSEDCL has carried out meter replacement drives to replace old, faulty meters. If the consumer specifically brings out specific cases where electro- mechanical meters are not replaced, corrective action can be taken.
- 2.9.3 MSEDCL had filed Petition in Case No. 44 of 2021 before the Commission to apply ceiling on acceptance of monthly electricity bill through cheque and to mandate online payment for any payment amounting to more than Rs. 10,000/-. The Commission had directed MSEDCL to approach the Commission with all details at the time of MTR Petition.
- 2.9.4 Accordingly, in line with the directions of the Commission in Case No. 44 of 2021, MSEDCL in this MTR Petition has proposed to increase the Cash acceptance limit from Rs. 5,000/- to Rs. 20,000/- for initial implementation to minimise the impact of MSEDCL's revenue realization and set the limit on acceptance of amount through Cheque / Demand Draft for Rs. 20,000/- to overcome cheque clearance related issues. Further, all payments to MSEDCL above Rs. 20,000/- should be through online payment modes.

Commission's Rulings

2.9.5 The Commission has taken note of the deficiencies pointed out in the customer related processes and service delivery related issues, which not only affect the consumers but also result in Commercial loss for the Distribution Utility. Addressing the billing process/Billing disputes of consumers is critical and should be taken up on priority, as improving billing and collection cycle efficiency would ease the liquidity position for MSEDCL as well. The Commission notes that, MSEDCL has not specifically addressed the issue pointed out by Shri Mahaveer Jain and provided back up statistics for average number of days for billing delay. The Commission directs 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.
- 2.9.6 The Commission appreciates the efforts of MSEDCL and consequent results for improving billing and taking many consumers centric and innovative steps towards automation to usher transparency and assurance of service delivery.
- 2.9.7 With regards to MSEDCL's proposal for increasing the cash limit upto Rs.20000/- and limiting cheque facility upto Rs. 20000/-, the Commission notes the provision of SoP Regulations 2021 as below
 - "16.5.6. Consumer may pay the bill by Cash, Cheque, Demand Draft, Money Order or through electronic modes. The date of realisation of cheque or Three (3) days from the submission of cheque shall be deemed to be the date of receipt of the payment provided that the cheque is not dishonoured:

Provided that if cheque of a Consumer dishonoured for Two (2) occasions in any Financial Year, then such Consumer shall not have facility of paying electricity bill through cheque for balance period of Financial Year:

Provided further that cash payment limit for each monthly bill shall not exceed Rs 5,000/- or as may be decided by the Commission from time to time in the tariff order.

- 16.5.7. The Distribution Licensee shall endeavour to provide various other modes of payment of bills / dues to its Consumers including but not limited to various electronic modes which may be available at the call centre or on a digital platform from time to time for the convenience of payment.
- 16.5.8. In addition to the mode of payments specified in Regulation 16.5.6 of this Code, the Distribution Licensee may notify schemes for acceptance of bill payment in a specified area and/or for a specified category of Consumers, after due notice is given to the Consumers.
- 2.9.8 Considering the above provisions of the SOP Regulations, 2021, the Commission is of the view that, the provisions of the Regulations are framed after due public consultation, so distribution Licensees need to follow the provisions of Regulations in letter and spirit.
- 2.9.9 However, considering the difficulties expressed by MSEDCL in rural areas, particularly for recovery in case of LT-Agriculture category consumers, the Commission enhances the allowable limit for the cash payment from LT-Agriculture category to Rs 10,000/-
- 2.9.10 Further, MSEDCL's request for limiting the Cheque facility up to Rs. 20000/- is without any rationale and not consistent with Supply Code Regulations, 2021. The concerns raised by MSEDCL are already addressed in Regulation 16.5.6 of Supply Code Regulations, 2021 reproduced above which clearly states that if cheque is

dishonoured for 2 occasions in financial year then such consumer would not have facility of paying electricity bill through cheque for balance period of financial year.

2.10 Capital Expenditure and Capitalisation

Objections/Suggestions

- 2.10.1 Prayas Energy Group and others have submitted that, MSEDCL has submitted its action plan under RDSS, which will affect consumer cost, quality of supply and measures to improve performance accountability. However, details of the planned works (on a circle-wise basis), year-wise roll-out plan, cost estimates, conditionalities and targets committed under the scheme have not been reported. The Commission should direct MSEDCL to provide critical details of the scheme on a quarterly basis, including cost overruns and zone/circle-wise details of planned works. Further, DPR approvals should take place through a public consultation process.
- 2.10.2 Meenakshi Ferro Ingots Pvt Ltd., and others submitted that, Capital Expenditure adds burden on consumers by increasing expenses on O&M expenses, Depreciation Expenses, Interest on Loan Capital and Return of Equity Capital. The Auditors Report from FY 2019-20 to FY 2021-22 made serious comments and defects on utilisation of Capital Expenditure, arriving of Opening Balance of Capital Assets and physical verification of Fixed Assets. It is doubtful whether Capital Asset have been created or not and if created whether it is stolen or are in existence. The Commission should direct MSEDCL to make Forensic Audit and obtain revised accurate expenses certificate by Auditor.
- 2.10.3 Shri. Mandar Lele, Laghu Udyog Bharti has submitted that capitalization of borrowing costs has been done without identifying assets and without considering the principles of allocating interest on general and specific borrowings. Fixed assets are overstated, and depreciation has been overcharged. Auditors have made adverse comments regarding the performance of government Grants and Consumer Contribution for Capital Assets. System/control issues related to negative values in Opening balance, additions, closing balance, computation of depreciation, resulting in incorrect values of Property, Plant and Equipment. In the absence of any systems audit being conducted, Auditors are unable to comment on existence of other system related deficiencies.

MSEDCL's Replies

2.10.4 MSEDCL stated that, the basic need/objective of incurring the capital expenditure is to upgrade the existing distribution network to desirable standards so as to provide better network reliability and sustainable performance. It has been therefore felt essential to take necessary measures, in order to meet the challenges thrown by the EA 2003 and rulesmade there under like SoP Regulations framed by the Commission. The Capital Expenditure also envisaged re-enforcement of the system to provide quality, security and availability of power supply to the consumers, to undertake system

- development to meet the load growth, achieving the targeted reduction in system losses, undertake automation and other improvement works to enhance customer service and fulfil social obligation such as electrification of un- served areas.
- 2.10.5 With regards to discrepancies in Audited Report, MSEDCL submitted that, it initially conducts internal audit of accounts including all expenditures related to infrastructure projects. These accounts are further audited by a statutory auditor appointed by MSEDCL and empanelled with Comptroller and Auditor General of India(CAG). In addition to this, annual accounts are also audited by CAG as a part of supplementary audit. Further, while scrutinizing the Tariff Petitions the Commission also does prudence check of all such expenditures. Therefore, all expenditures are duly scrutinised at various levels and are legitimate expenses. Therefore, MSEDCL requested the Commission to approve the capitalisation as submitted.

Commission's Rulings

- 2.10.6 For capital expenditure and capitalisation in this MTR Order, the Commission has considered only those schemes which have been in-principly approved by the Commission based on the DPRs submitted by MSEDCL. Further, the Commission has also carried out scrutiny of the actual capitalisation submitted by MSEDCL while considering the same in GFA addition for Truing up each year.
- 2.10.7 Capitalisation towards non-DPR schemes has been allowed only up to the threshold limit of 20% of the capitalisation towards DPR schemes. The Commission has disallowed 100% of the IDC of those schemes whose capitalisation has exceeded the in-principle approval. The Commission's observations regarding the capitalisation in excess of the costs approved in principle are elaborated in subsequent chapters dealing with True-up and ARR components.
- 2.10.8 With regards to RDSS schemes, the Commission has discussed the same in details while approving capex expenditure for the remaining period of 4th MYT control period.

2.11 Schedule of Charges

Objections/Suggestions

2.11.1 Shri Pratap Hogade, Shri. Sanjeev Kumar Sadanandan and Amit R Mehta stated that, MSEDCL has proposed to charge New connection above 20 kW or 27 HP as per the actual cost. No normative charges proposed for seeking new connection above 20 kW. This proposal is completely unreasonable and unfair to all the customers who take up the new connection. If such a method is approved by the Commission, there is a possibility that new customers will get burdened with all capital expenditure costs. At the same time, looking at the experience till date, it is certain that every connection above 20kW will get released in the manner of DDF (Dedicated Distribution Facility).

This will completely violate the provision of Article 43 of Universal Supply Obligation in the EA,2003.

MSEDCL's Replies

2.11.2 As per the provisions of the EA 2003 and Regulations of the Commission, it is the purview of the Commission to decide on various factors covered in the Tariff Petition including the matter of service connection charges.

Commission's Analysis & Rulings

2.11.3 The Commission has dealt with MSEDCL's proposal of revision in Schedule of Charges under Chapter 9 of this Order considering the provisions of MYT Regulations and concerns raised by the stakeholders.

2.12 Applicability of Standby Charges for SEZs/Railways

Objections/Suggestions

- 2.12.1 Indian Railways (IR) has submitted that, as per the observations made by the Hon'ble APTEL Indian Railways (IR) have adequate standby supply arrangements, the same has been complied by IR. IR is operating throughout the country and the electricity drawn by it is being used in connection with the working of Railways as a public utility. IR is not seeking any exemption from undertaking stand-by supply arrangement on account of being a public utility but should not be equated with different distribution licensees in the State of Maharashtra and be forced in compulsory stand-by arrangement with MSEDCL, especially in the circumstances where no stand-by power is being drawn by IR from MSEDCL.
- 2.12.2 AEML-D submitted that MSEDCL's submission on stand-by arrangement cannot be unilaterally exited by any Mumbai Licensee implies that there is no formal contract of Stand-by support between MSEDCL and AEML (then BSES). The ARRs of the Licensee provide for the corresponding charges, which cannot be forced to continue with the standby arrangement. Stand-by charges are demand-based and can be exited at any time by either party. MSEDCL wants to charge for stand-by support, while AEML wants to provide it at its own discretion. Standby support is not meant to take care of revisions in RE/short term power, as it is a contractual relationship between short term power provider and buyer. Revisions of RE/ST supplier must be affected by MSLDC through DSM portal, and if it cannot be sought for such interim period, Licensee must depend on an over-drawal from the Grid, exposing them to the same uncertainties and consequences as in case of tripping of any other source.

MSEDCL's Replies

2.12.3 MSEDCL is raising stand by bills as per the Orders of the Commission. However, AEML is not paying the standby charges from October 2021 onwards and is claiming that it has opted out of Stand by arrangement since December 2021. It is pertinent to mention that the standby arrangement and the standby charges thereof have been decided by the Commission and hence neither MSEDCL nor any Licensee in Mumbai distribution area can take unilateral decision to discontinue with the standby arrangement.

Commission's Rulings

2.12.4 The Commission vide order dated 31 May, 2004 in Case No. 7 of 2000 has held that standby charges are akin to insurance premium and needs to be paid irrespective of whether the standby facility is availed or not. The corresponding para is reproduced as below;

"The Commission has considered all the aspects of the standby charges and the objects underlying the concept of standby. The Commission finds that the standby charge is akin to an insurance premium, in the sense that it is a cost necessary to be incurred as an insurance cover for the eventuality of interruptions in power supply in a metropolis like Mumbai. By payment of this standby charge, the Utilities in Mumbai are assured of supplying uninterrupted power. At the same time, this standby charge has to be incurred irrespective of whether the standby facility is utilized or not. To that extent, the standby charge is a fixed cost for the concerned Utility and has to be recovered from its consumers."

2.12.5 The Commission notes that stand-by arrangement is being implemented for several years based on above said Order of the Commission and charges for the same is being determined through tariff Order. Therefore, scope of tariff proceeding is limited to determination of charges only. If any beneficiary of stand by arrangement has any issue with such arrangement, then such beneficiary needs to file proper Petition for adjudication of such issue. In absence of that the Commission cannot change its dispensation which is in force for several past years. Therefore, in present Order, the Commission continues to determine standby charges for all beneficiaries as per prevalent practice. Beneficiaries may file separate Petition for adjudication of their dispute with reference to standby arrangement.

2.13 Accountability of Distribution Franchisees

Objections/Suggestions

2.13.1 Prayas Energy Group submitted that MSEDCL was required to report the status of franchisee on an annual basis for franchisees operating in its area of supply: Categorywise number of consumers, energy input, energy billed, revenue billed and collection efficiency, loss reduction trajectory as per the franchisee agreement and its actual

performance, annual capitalisation by the franchisee versus target, quarterly report on pending dues from franchisees, and Standards of Performance reporting as per Supply Code Regulations,2021 and Section 59 (2) of the Electricity Act, 2003. However, the details submitted are limited. It is important that such crucial performance indicators are publicly reported and tracked.

2.13.2 Shri. Thirupati V Siripuram from Bhiwandi power loom stated that the experience of Torrent Power in Bhiwandi area is very satisfactory as Franchisee. They have reduced losses, improved supply quality and invested in capex to improve infrastructure. Similarly, new areas need to be allotted to them for improvement.

MSEDCL's Replies

2.13.3 With regard to the queries of accountability of Distribution Franchisees, MSEDCL submitted the details of each Distribution Franchise as below:

Commission's Analysis & Rulings

2.13.4 The Commission notes that MSEDCL in its revised projections for 4th Control Period has considered Bhiwandi Franchisee, Thane DF – SMK area, Malegaon DF. Accordingly, the Commission has factored in the impact of these franchisees while projecting the sales and revenue of MSEDCL in subsequent chapters of this Order.

Sr	Name of Distribution	Date of Agreement/	Extension Agreement
no.	Franchisee	Term of Agreement	date/ Term of
			agreement
1	Bhiwandi DF- M/s. Torrent	20 December 2006/	01 December 2016 (till
	Power Ltd. (TPL) Franchisee	(for 10 years)	25 January 2027)
	for Bhiwandi Circle		
2	Thane DF-SMK area- M/s.	11 February 2019/	-
	Torrent Power Ltd. (TPL)	(From 1 March 2020	
	Franchisee for Shil, Mumbra	to 1 March 2040)	
	& Kalwa (SMK) Sub-		
	Divisions		
3	Malegaon DF- M/s. CESC	29 May 2019 (From 1	-
	Limited Franchisee for	March 2020 to 1	
	Malegaon Urban-I, II and III	March 2040)	
	Sub-divisions and 5 villages		
	of Malegaon Rural sub-		
	divisions		

2.13.5 Regarding, Prayas suggestions of making operational details of franchisee in public domain, the Commission notes that, Prayas had made similar submission in MYT Order and the Commission had directed MSEDCL to host on the lines indicated by Prayas Energy Group, the periodic performance details of franchisee area on its website. MSEDCL in reply to compliance of directives submitted that performance reports of operational Distribution Franchisee in MSEDCL area have been uploaded on MSEDCL web-site. For reference MSEDCL provided following link:

 $\underline{HTTP://WWW.MAHADISCOM.IN/WP-CONTENT/UPLOADS/2023/01/19.01.2023-PERFOMANCE-OF-DF-FOR-WEBSITE.PDF.$

2.14 Rebate on Incremental Power Consumption

Objections/Suggestions

- 2.14.1 Alloy Steel Producers Association of India submitted that the objective of grant of Incremental Consumption Rebate ("ICR") is to increase power and supply of power for consumers of MSEDCL. The objector submitted that in MYT Order 2020, the Commission had proposed conditions to deter consumers from availing ICR, but the conditions were contrary to the objective of ICR. It is requested the Commission to dismiss the prayer of MSEDCL to impose an additional condition for ICR, as contained in Paragraph 8.7.14 of the MTR Petition.
- 2.14.2 Wada Induction Furnace Association submitted that Incremental Consumption Scheme in the Tariff Order dated 30th March 2020 to increase the consumption of energy by Industrial Consumers in proportion to the available excess long-term power. However, due to the impact of covid 19, the Industrial consumer was fighting for survival rather than increasing their power consumption and expansion. To ensure a 'win-win' for both the MSEDCL and the Consumers, the Benchmark for further period 1st April 2023 to 31st March 2025 towards the incremental consumption should be retained the same i.e. average of the total consumption between 1st April 2017-31st March 2020.
- 2.14.3 Tech Nova Imaging Systems and Galaxy Surfactants Limited submitted that Various rebates and incentives will be available only if the consumer has no arrears and bill payment is made within 7 days or before PPD date. If the bills are not paid before due date, MSEDCL charges DPC & interest to the product. The consumer is likely to get penalized heavily by losing these advantages.

MSEDCL's Replies

2.14.4 MSEDCL faces surplus power situation due to many reasons. Encouraging incremental consumption by way of discount is an efficient way to manage surplus power scenario. The Commission in MTR Order dated 12 September 2018 had also acknowledged the necessity of this methodology and ruled that he same can be considered along with next filing for new Control Period. Such incremental consumption rebate is also available in other states such as Madhya Pradesh where the rebate is provided for Industrial, Non-Industrial and Shopping Malls categories.

Commission's Analysis & Rulings

2.14.5 The Commission has noted the Objection and the submission of MSEDCL in the matter of Rebate on Incremental Power Consumption. The proviso of section 62(3) of Electricity Act provides for differentiation according to the total consumption of electricity during any specified period. There is a surplus power available with

MSEDCL and therefore there is a need to implement innovative schemes for boosting power demand. As a result, any benefit of increase in sales due to such innovative measures will get passed n to all its consumers by way of reduction in tariff in future. The Commission has dealt with issue of base line consumption for incremental consumption rebate in Chapter__ of this Order.

2.15 Additional Surcharge

Objections/Suggestions

- 2.15.1 Bajaj Finserv has filed Appeal No. 142 of 2017 against the MYT Order for the third control period, seeking leave to challenge the computation of Cross Subsidy Surcharge (CSS) by MSEDCL. It is submitted that MSEDCL's claim for AS is false, and that the CSS should be determined and approved in a manner that reflects a progressive reduction in cross-subsidies. The Commission should consider restoring concessional CSS for RE OA transactions in view of the amendments to the DOA and TOA regulations, which will revive the RE OA sector in Maharashtra.
- 2.15.2 Tech Nova Imaging Systems and Galaxy Surfactants Limited submitted that existing Sur-charges of Rs.1.20 per kVAh, the MSEDCL now proposed Rs.1.42/kVAh common for FY 2023-24 & 2024-25, say yearly increase by 18.3%.
- 2.15.3 Alloy Steel Producers Association of India submitted that MSEDCL's Additional Surcharge (ASC) for FY 2023-24 and FY 2024-25 is not in parity with the approved ASC in MYT Order 2020 due to stranded capacity and open access. Regulation 14.8 of MERC (Distribution Open Access) Regulations states that the ASC shall only be leviable when due to open access, the obligation of distribution licensee in terms of power purchase commitments has been and continues to be stranded. Additionally, any stranded power projects as of now will be utilised, reducing the so-called indefinite assets.

MSEDCL's Replies

- 2.15.4 MSEDCL stated that Regulation 14.8 of the MERC Distribution OA Regulations, 2016 outlines the principles for determination and levy of Additional Surcharge. In line with the provisions of OA Regulations 2016, MSEDCL has proposed the Additional Surcharge and it is incorrect to state that these charges are against the EA, 2003 and also imposition of such charges reflects inefficiency of the MSEDCL.
- 2.15.5 MSEDCL stated that Regulation 14.8 of the MERC Distribution OA Regulations, 2016 outlines the principles for determination and levy of Additional Surcharge. In line with the provisions of OA Regulations 2016, MSEDCL has proposed the Additional Surcharge.
- 2.15.6 Under Universal Service Obligation (USO), MSEDCL is obligated to supply power on demand/application. Accordingly, in order to cater to the consumer demand, MSEDCL

purchases power on long term basis from Mahagenco, NTPC under MOU route and from IPPs through competitive bidding process. Capacity addition was done by signing the PPAs with generating companies after due approval of the 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 various reasons such as increase in Open Access, RE capacity addition to fulfil RPO Target, RE capacity addition by CPP because of low tariff and Net Metering etc. This is resulting into surplus power availability.

- 2.15.7 Further, due to the recent trends in the prices of solar energy and MERC Net Metering Regulations 2019, various consumers are now converting to captive power plants (CPP) by installing solar projects through Developers. Due to this, the surplus power is also likely to increase further.
- 2.15.8 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.
- 2.15.9 MSEDCL has tied up sufficient quantum of power, after approval of the Commission, by considering the overall growth in the State. However, on the other hand, large number of consumers are buying power under Open Access instead of availing supply from MSEDCL. As a result, the generation capacity tied up by MSEDCL remains idle.

Commission's Analysis and Rulings

2.15.10The Commission has noted the submissions of the stakeholders and their concerns on the increasing ASC. The Commission has examined the relevant provisions of EA, 2003, and Regulation 14.8 of the DOA Regulations, 2016 on which MSEDCL has relied. The Commission has also considered the provisions of the Tariff Policy 2016, recent rulings of Hon'ble the APTEL and Hon'ble the Supreme Court regarding applicability of CSS and ASC while approving the applicability of CSS and ASC to Open Access consumers and Captive consumers in Chapter 7 of this Order.

2.16 Power Supply and Distribution

Objections/Suggestions

2.16.1 Shri. Mahaveer Kumar Jain and others submitted that the MSEDCL must install Power Quality Meters on the secondary (LV) side of the Power Transformer in a phased manner within three years covering at least 33% of the 33kV substations in the first year and 33% each in subsequent two years. They must also develop communication architecture in a manner that all the data is available in a central data base to be

maintained by the Distribution Licensee. Finally, they must design a web-based single graphical user interface and provide online access from the central data base. Harmonics generated by some consumers (LT and HT) go to the common grid, resulting in low PF and some burden in kVAh units. Distribution transformers in scope of MSEDCL should also be monitored and controlled.

2.16.2 Shri John Parera, stated that, MSEDCL's L.T network is very shabby and very poorly maintained which results into frequent failure of supply. No disaster management system is in place by MSEDCL to tackle the natural calamities.

MSEDCL's Replies

2.16.3 To improve operational efficiency and services MSEDCL has implemented IT based solutions for research and development work such as, ERP-SAP, Mobile Based Applications for Consumers, Employees and Meter Reading, 24 x 7 Centralised Customer Care Centres, Dashboard for effective monitoring of Project, Energy Accounting & Analysis, Consumer Relationship Management, Online Centralised Cash Collection System, Centralised Billing system and SMS & e-mail alerts to consumers about billing, outage, application status etc.

Commission's Analysis and Rulings

- 2.16.4 The Commission has notified its MERC (Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2021, wherein the Commission has specifically considered the power quality issues and provided the Regulatory framework which also has penalty provisions. The Commission is of the view that, power quality is the responsibility of all stakeholders including distribution licensees.
- 2.16.5 With regards to installation of power quality meters, the Commission has ruled following in its MYT Order dated 30 March 2020 in Case No. 322 of 2019:
 - "2.13.18 Having said that the Commission is cognizant of the issue of power quality. Hence, in order to ensure that requisite data is available before next tariff determination process, the Commission in Section 8.25 of this Order has laid down time frame for installation of power quality meter as per mandate of CEA Regulations. Accordingly, all Bulk Consumers with Contract Demand above 20 MVA shall install power quality meter by March 2021 (and above 10 MVA by March 2022) and share monthly data with Distribution Licensee. Also, Distribution Licensee needs to install power quality meter at their selected substations and share the data from these meters on its website."
- 2.16.6 The Commission has dealt with this issue in detailed in Chapter 8 Compliance of Earlier Directives.

2.17 Increase in Tariff

- 2.17.1 Prayas Energy Group, Divyang Education and welfare society and others stated that MSEDCL has projected a 4% per annum increase in its costs for the remaining period of the control period, with power procurement expenses accounting for 70% and transmission costs accounting for 10%. Capital expenses and operation and maintenance expenses are responsible for 6% and 8% of the total regulated costs respectively. MSEDCL has sought a tariff increase of 14% for FY24 and a further increase of 11% for FY25 in this tariff petition.
- 2.17.2 Several of MSEDCL's claims in the petition are unfounded and have resulted in a substantial and unnecessary rise in revenue requirement for the control period. The claim of carrying cost on revenue gaps needs to be rejected due to the reduction in claimed revenue gap due to the Stabilization Fund, agricultural sales, and FAC. This will reduce the claimed revenue gap by Rs. 8,734 Cr.
- 2.17.3 The GoM has issued a letter stating that no thermal power plant shall be proposed in the next five years, which could have a significant impact on consumer tariffs and costs. It is important to have clarity on the same in the tariff Order itself. The escalation of the Electricity Tariff from the present Rs.7.90/unit to Rs.9.0/unit for the year 2023-24 and Rs.9.2/Unit for the year 2024-25 which accounts for 14% and 11% respectively is unjustified.
- 2.17.4 Wada Induction Furnace Association submitted that, increase in the tariff would have direct impact on Industrial Consumers which are energy intensive industries with high component of power in their conversion cost. This will lead to MSEDCL losing its major loyal Industrial Consumers, who also bear the burden of Cross Subsidies.
- 2.17.5 Maharashtra Rajya sahakari Vastrodyog mahasangh, Ms. Ashwini Chitnis, Shri. Pratap Hogade, M/s Navjivan Hatcheries and Many others submitted that power purchase expenses have increased by 70% over the past 8 years, while sales have increased at a CAGR of only 2%. This is largely due to an estimated/projected increase in agricultural sales, while other major categories such as industrial, commercial, residential have reduced. This is a worrisome aspect and requires deeper analysis. Other aspects of the petition such as capital expenditure, operations and maintenance related costs, other major cost-heads, and tariff design also require a detailed review. Keeping aside fuel adjustment cost and comparing with the base tariff, MSEDCL's industrial, domestic, commercial and electricity tariffs for agricultural pump are the highest in the country. Therefore, this proposed rate hike is a deterrent to the upcoming industries in the state and pushes the existing industries out of the state. This MTR proposal breached the general principle laid by APTEL, of not hiking tariff more than 10 % at a time. MSEDCL should act on inefficiency, Transparency, Theft, corruption, improve administration through administrative reforms, rather than increase in tariff.

MSEDCL's Replies

- 2.17.6 The present Petition includes the revenue gap for FY 2019-20 to FY 2021-22, impact of Review Petition (Case No. 84 of 2020) along with the revenue gap projected for the period from FY 2023-24 to FY 2024-25. Thus, effectively, the Tariff Petition covers 6 years of recovery. Further, the impact of the carrying cost arose due to delay in recovery of legitimate expenses is also included in the revenue gap. The revenue gap has emerged because of additional costs due to increase in power purchase expenses due to change in law, increase in cost of MSPGCL, PGCIL costs, NPCIL Tariff revision, revenue due to change in consumer mix, change in capex related expenses, etc. The increase in such costs is beyond the control of MSEDCL.
- 2.17.7 For the FY 2022-23, it is observed that as compared to neighbouring states, the ABR for HT Industries category of Bangalore Electricity supply is 1013 paise/unit which is much higher as compared to MSEDCL's ABR which is 848 paise/unit. Similarly, for FY 2018-19, it is observed that ABR of Bangalore Electricity supply is 825 paise per unit which is higher as compared to MSEDCL ABR which is 820 paise/unit. For FY 2022-23, MSEDCL's approved ABR for LT industry category is 822 paise/unit while for neighbouring states, Andhra Pradesh (873 paise/unit), Madhya Pradesh (965 paise/unit) & Bangalore Electricity Supply Limited (1068 paise/unit) which is high as compared to MSEDCL's rate.
- 2.17.8 The standalone tariff proposed by MSEDCL for certain categories may appear to be higher than other states. But while doing so it is necessary to consider regulatory and economic framework of the Licensee in a State, consumer mix, quality of supply which affects the tariff considerably. While comparing tariff of neighbouring states following contributing factors needs to be considered:
 - Differences in power generation and power purchase expenses
 - Variation in power purchase cost due to fuel sources and fuel availability (pit-head Stations).
 - MSEDCL distributes electricity in the largest geographical area in India as compared to other Distribution Utilities.
 - Higher Agriculture consumer base with highly cross subsidised tariff.
 - Incentive Structure followed by the Distribution Licensee /Commission.
 - Geographical diversity of the State.
 - Diversity in consumer mix and consumption pattern.

Considering the above, it is not appropriate to compare the stand-alone Tariff of MSEDCL with the Tariffs of other State Distribution Licensee.

Commission's Analysis & Rulings

- 2.17.9 The Commission has analysed in detail the MSEDCL's proposal for power purchase and other costs before determining the Tariff revision in this Order. It has allowed power purchase and O&M expenses as against those proposed after carrying out the prudence check, to maintain the Tariff increase within reasonable limits.
- 2.17.10The Commission has verified the consumer mix of MSEDCL and tried to follow the Tariff philosophy of ACoS \pm 20%, to the extent possible, while determining cross subsidy for various consumer categories and accordingly notified Tariff revision.
- 2.17.11The Commission has discussed parameter wise prudence and dealt with category-wise tariff in Chapter 7 of this Order.

2.18 Fuel Adjustment Cost (FAC)

Objections/Suggestions

- 2.18.1 Balaji Electro Smelters Pvt Ltd., Meenakshi Ferro Ingots Pvt Ltd. and others submitted that F.Y. 2022-23 saw a huge increase in FAC, causing Power Intensive Consumers to suffer and their cost of production to go up substantially. Some States, such as Chhattisgarh, Madhya Pradesh, Andhra Pradesh, Bihar, and Meghalaya, created separate categories for Power Intensive Industries like Ferro Alloys, Steel etc. to ensure their survival. MSEDCL is adding FAC and then calculating hike in Energy Charges, which is unreasonable and unjustifiable.
- 2.18.2 Prayas Energy Group, Meenakshi Ferro Ingots Pvt Ltd., Roop Rajat Steel Private Limited and others stated that no such "stabilization amount" was established in Case No 322 of 2019. An FAC fund was established to increase transparency and manage variations in tariffs due to changes in FAC. The fund is limited to 20% of the monthly tariff revenue and cannot exceed Rs. 1500 crore. The Commission's stipulation in Case No. 322 of 2019 and the MYT Regulations, 2019 clearly required the status of this fund to be uploaded on MSEDCL website on monthly basis. The Commission should disallow this unnecessarily inflated claim of Rs. 20,054 Crores revenue requirement in the name of 'stabilization amount'. This Stabilization Amount is nothing but advance FAC collections from the consumers by way of higher Power Tariffs, which is an additional burden on the consumers. FAC charges are causing extra burden on industrial consumers. Presently ample electricity is available in the state but MSEDCL is not purchasing low cost power such as wind, solar, Hydro, co-gen, rather it is purchasing costly power from central grid. The difference is recovered from Industrial consumers in the form of FAC. This is injustice and economic exploitation.

MSEDCL's Replies

2.18.3 MSEDCL has submitted that, the FAC is a mechanism provided in the Electricity Act and respective Regulations of the Commission for claiming any deviations (positive or negative) in power purchase cost with immediate effect so that the Licensee or the consumers do not have to wait till the issuance of Tariff Order for the adjustment in

cost/tariff. The present MYT Regulations provide for issuance of Tariff Order for every 3 years with the MYT and MTR cycle. It would be difficult for any Distribution Licensee to sustain for such a long period without passing on the increase in power purchase cost to the consumers during this time. Similarly, it would be unjust to consumers if there is a rebate in power purchase cost allowed by the generator during this period but the same is not passed on to the consumers. Therefore, an FAC mechanism is in place so that such deviations shall be accounted for in a prompt manner and the cost/rebate is reflected in the next month itself. However, it does not mean that the deviation in power purchase cost will be covered in FAC only. Further, it is submitted that the deviation in power purchase cost claimed in FAC is on a provisional basis whereas in MTR Petition the same is claimed on the basis of audited accounts and therefore any pending claim which was not claimed in FAC is to be recovered through MTR Petition.

2.18.4 MSEDCL submitted that 'Stabilisation amount as per MYT Order' is different from 'Stabilisation (buffer) for Fuel Cost Adjustment'. Considering the previous revenue gaps, carrying cost and other adjustments, the Commission computed the ARR and revised tariffs for period from FY 2020-21 to FY 2024-25 so that the total approved revenue recovery gets considered over the Control Period. As per Table 8-2 in MYT Order in Case No. 322 of 2019 recovery allowed over the 4th Control Period of Rs. 20,054 Cr (Stabilisation amount) exactly matches with claim submitted by MSEDCL. MSEDCL further submits that MSEDCL has given the details of Stabilisation amount as per MYT Order i.e., revenue gap recovery allowed, for FY 2020-21 at paragraph 3.25, for FY 2021-22 at paragraph 4.25, for FY 2022-23 at Paragraph 5.23, for FY 2023-24& FY 2024-25 at Paragraph 6.34 of the Petition, which was used to approve the revenue from the revised tariff.

Commission's Analysis & Rulings

2.18.5 FAC mechanism envisages levy / refund of charges if power purchase cost undergoes a change from that approved in the Tariff Order. Per unit rate of power purchase is dependent on power purchase quantum, source mix and rate of each source. The Commission is scrutinizing all FAC computation of Distribution Licensee while granting prior approval to levy of FAC to consumers. FAC mechanism allows pass through of variation in power purchase cost withoutwaiting for next tariff revision. This minimizes the impact of annual tariff revision. However, the Commission notes that the impact of frequent variation in rate on account of FAC needs to be minimized to the extent possible. MYT framework is also a method for achieving a consistency in Tariff. In Order to address this issue to theextent possible, the Commission in its MYT Order had slightly modified FAC mechanism to avoid frequent variations in the monthly bills on account of FAC charges. The Commission notes that, this has helped to absorb the monthly FAC variations to great extent during last 2.5 years of 4th control period. There was no FAC levied to the consumers during that 2.5 years.

2.18.6 Further with regards to Stabilization Amount, as referred by Prayas Energy Group and other consumers, the Commission agrees with the submission of MSEDCL that, it is past period revenue gap which the Commission has allowed was discussed in the MYT Order. The Commission notes that, MSEDCL has claimed the same amount in its revised Tariff Petition. Same can be confirmed from the table below:

Particulars in Rs. Crore		FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	Total
ARR approved by the Commission		80,163	81,721	84,021	86,298	88,910	4,21,113
Approved Revenue at existing tariff		85,021	88,667	92,479	96,504	1,00,738	4,63,409
Approved Revenue Gap		-4,858	-6,946	-8,458	-10,206	-11,828	-42,296
Projected Revenue at appproved tariff		80,918	84,400	88,039	91,883	95,927	4,41,167
Additional Recovery from approved tariff		-4,103	-4,267	-4,440	-4,621	-4,811	-22,242
Previous Revenue Gap recovery allowed after adjustment of current year Revenue Gap		755	2,679	4,018	5,585	7,017	20,054
Approved Revenue recovery in Case 322 of 2019 by the Commission		4,011	4,011	4,011	4,011	4,011	20,055

2.18.7 The Commission notes that, the confusion has been created because of misinterpretation of previous revenue gap recovery allowed by the Commission as stabilization amount by MSEDCL in the MTR Petition. The Commission clarifies that, it is previous revenue gap recovery already allowed by the Commission in the MYT Order. The Commission while truing up of the respective years and revising the ARR of the FY 2023-24 and FY 2024-25 has taken the appropriate view to deal with the previous revenue gap recovery already allowed by the Commission in Chapter 7 of the this Order.

2.19 Tariff for EV Charging Stations

Objections/Suggestions

2.19.1 Mr. D'Souza submitted that the Commission and all the Distribution Licensees are called upon to relook at their Tariff Proposals for Electric Vehicles Charging Stations (Cars / Bikes / Transport Vehicles) to Individual and Corporates who have their own Private Electric Vehicle Charging Point for their own Private use and/or for the use of their Employees who use Electric Vehicles. Currently, only Public charging Stations are being extended lower Electricity Tariffs. It will be a good progressive step if the Tariff for Electric Charging Points/Stations is kept at a token amount of just Rs. 1/- per unit, which will greatly support the initiatives already taken by other authorities to grow the use of Electric Vehicles and reduce the use of Fossil Fuel to save this Planet for the next Generations.

MSEDCL's Replies

2.19.2 In light of the expected growth in EV ownership, unique charging attributes, and resulting effects on electricity demand, very soon EV charging shall become significant type of load to warrant special tariffs. Considering very low penetration of Electrical/Hybrid vehicles, it is necessary to provide incentives in tariffs to kick start this nascent technology and boost environment friendly electric and hybrid vehicles.

- 2.19.3 The tariff for EV Charging Station is being proposed by considering the revenue requirement and recovery of revenue gap. It is pertinent to note that the proposed revision in EV Charging Stations is in the range of 3-6% which is bare minimum requirement for covering the inflationary changes and proposed revenue gap. Even after proposed revision, tariffs of EV Charging Stations will remain close to average cost of supply (ACOS).
- 2.19.4 Considering the actual growth of the EV Charging Stations and their consumption, MSEDCL shall review the tariffs for EV Charging Stationsduring the next Mid Term Review

Commission's Analysis and Rulings

- 2.19.5 The Commission notes that the Government of Maharashtra (GoM) has notified the Maharashtra EV Policy,2021 dated 23 July 2021, with an objective to promote sustainable transport system along with other policy objectives. One of the strategic drivers for the Policy is promotion of creation of dedicated infrastructure for charging of EVs through subsidization of investment.
- 2.19.6 Details of applicability of this Category is provided in the Tariff Schedule for the respective years. It is further clarified that consumers are allowed to charge their own Electric Vehicle at their premises with the Tariff applicable to such premises falling under the respective consumer category.
- 2.19.7 However, the Commission notes that many of the Distribution Licensee in the State are issuing sub-meter or separate meter for EV charging facility of individual owner. If EV charging consumption is loaded in domestic connection which has telescopic tariff with high rate for higher slab, objective of promoting EV charging is not fully met. At the same time if domestic tariff is made applicable to separate EV connection then it will get benefit of very low subsidised tariff for initial consumption which is not intended. Hence, the Commission decides to provide option to EV owner to apply for fresh connection for EV charging or charge its EV from existing connection. In case separate connection is applied then tariff for EV Charging category shall be made applicable to such connection. Accordingly, the Commission has made changes in applicability of EV Charging category.

2.20 Time of Day Tariff

Objections/Suggestions

2.20.1 Prayas Energy Group submitted that MERC commissioned and published a study report on implementation of time of day tariffs in November 2022, which found seasonal variation, incentivizing day time consumption, and increasing the ambit of ToD to consumers with connected load > 10 kW is feasible and desirable. Seasonal tariffs should be based on current demand supply and future projections, with higher

penalties during summer months and off-peak rebates during high wind seasons to reduce system cost and aid RE integration. Provision of day-time rebate is welcome provision to incentivize consumption during solar hours. In fact, Maharashtra would be the first state to provide such a strong incentive. MSEDCL has mentioned that all consumers with 3 phase meters have ToD capabilities, and the study report states that ToD features are programmable for 5 to 8 tariff registers. ToD tariffs can be applicable on all consumers with load >10 kW from FY25, providing MSEDCL with enough lead time to ensure meters are capable of this shift. The Commission's initiative aims to enable effective RE integration, system cost reduction and improved supply quality for consumers.

- 2.20.2 Shri. Mahaveer Kumar Jain submitted that the most important details are that peak hours are not evening 6 to 10 pm, but from 3 pm onwards due to high temperature, and that the use of Air Conditioning/Refrigeration has gone up in residential and commercial areas. MERC should give due consideration and make changes to the Time of Day to ensure demand management is based on historical data.
- 2.20.3 Wada Induction Furnace Association submitted that, TOD has almost lost its relevance and purpose due to the 'Turn Down' ratio increasing for generators during night time due to lower off take. This has made it difficult for MSEDCL to control cost of power generation. The present Petition does not take into consideration this crucial aspects ToD framework.

MSEDCL's Replies

2.20.4 MSEDCL stated that the existing TOD tariff concept, rebate or penalty is same in all months irrespective of load pattern, surplus & shortfall in availability. Further, due to various Govt. of India policies to promote RE generation and as per the RPO Targets set for Utilities by the Commission, tremendous rise in RE generation particularly in solaris expected during day-time. The solar generation has typical shape of inverted hyperbola. There is no or very less generation during specific time period of a day; particularly during 06:00 to 09:00 and during 15:00 to 19:00 Hrs. It is thus necessary to incentivize consumers to shift the demand pattern by relooking the TOD tariffs. Considering the demand pattern and expected Solar Generation, MSEDCL has proposed revision in ToD tariff/rates.

Commission's Analysis & Rulings

2.20.5 The Commission appreciates suggestion of Prayas and MSEDCL's justification for the need of changing ToD Tariff Structure. The Commission has conducted study on this issue and report of the same is available on MERC website which indicates needs to change ToD structure in Maharashtra. However, in the present Petition, MSEDCL has not proposed any change in ToD structure. Although, the Commission can do it sumoto, but it would be proper if it is undertaken after due public consultation process. Also, MSEDCL has proposed installation of Smart meters under RDSS scheme to its

consumers. Smart meters would help implementation in ToD tariff structure and changes in time slots for absorbing RE. Hence, the Commission directs MSEDCL to propose changes in ToD tariff structure during next tariff filling process.

2.21 Tariff Re-categorisation

- 2.21.1 Ultratech Cement Limited submitted that MSEDCL's proposal for re-classification of RMC Manufacturing Plants from 'Industrial' to 'Commercial' tariff category is without any cogent basis and is opportunistic. RMC is sold as a raw material for construction purposes and is not an ancillary process of construction activity, as sought to be suggested by MSEDCL. The purpose for which supply is required by UTCL at its RMC Plants is to manufacture RMC by scientifically processing /mixing together various raw materials at different temperature and pressure using a completely computerized and automated process. It is further submitted that classification of activities under "HT-Industry" tariff category is inclusive and not exhaustive, even if electricity is utilized for industrial purpose.
- 2.21.2 Ministry of Tourism & Cultural Affairs of GoM, Aurangabad Hotels and Restaurants Association, Hotel and Restaurant Association (Western India), Radisson Blu and others submitted that the Hospitality sector has been granted Industrial Status on 03-12-2020 by the GoM. MSEDCL is still charging Commercial Tariffs. It is necessary to provide incentives hospitality sector and an immediate migration to Industrial Tariffs, so that more new hotels will get built across Maharashtra. This change will create opportunities for growth, increase employment, increase in investment and growth of tourism within the State of Maharashtra. The current prevalent tariff category is still "Commercial" under the tariff schedule booklet, which is validly implemented till the year 2025. The Impact of COVID-19 had a huge impact on the tourism industry, with loss of jobs, loss of staff, and losses for hotel owners. It is important for MSEDCL and other DISCOMs to consider this tariff change and implement it accordingly.
- 2.21.3 Macrotech Developers Ltd. states that the developer needs to maintain the STP of the project for the sanctioned period or 10 years as the case may be. The tariff categories LT-III & HT-IV as per the applicability of voltage level should be made applicable to such STP power supply connections from day one even though the connections initially are released in the name of the developer.
- 2.21.4 Commander works Engineers Army requested to create a separate tariff slab for Defence Establishments of Indian Armed Forces as a special slab at par or lower than domestic consumer energy charges (below Rs 4.50/KWH energy charges). This should be made applicable for all defence establishments across Maharashtra state. Commander highlighted that Forum of Regulators have already discussed the above issue in its 76th meeting and such favourable dispensation has been granted by HPERC.

- 2.21.5 Aditya Textiles, Brahamani Exports and other power loom consumers submitted that Power loom is an important industry in Maharashtra due to its employment generating, efficient usage of electricity, energy consumption against demand, and low cost of supply. In 2015, a separate tariff head LT-V (A) was created to promote the industry and lower tariff applied for it. This should be continued and at least 10% rebate should be granted to power loom, compared to other industries.
- 2.21.6 Jawaharlal Nehru Port Authority submitted that ship when berthed at port though not propelling still use large amount of energy for various functions during its port stay such as meeting the ships auxiliary power requirements for lightning, ventilation of accommodation, loading & unloading of cargo etc. The power for such operations is produced by fuel powered generators resulting in noise, vibrations and emissions in ports. An emerging global practice is the increasing use of Shore side Power Supply (SPS) for vessels in ports. The Ministry of Ports has also launched 'Green Port' initiative and set target for supply of shore power to all ships by 2030. The Directorate General of Shipping (DGS) has issued guidelines to all ports for making necessary arrangement, in phased manner for supply of shore power to visiting ships. It is imperative to have competitive tariff for promoting shore power. Supplying shore power is akin to having an Public EV charging station. Accordingly, JNPT requested to create separate tariff category for Shore Power Supply. In suggestion, JNPT also urged that it may be allowed to distribute and supply power to various ships visiting JN Port through dedicated network and recover energy charges from vessels as per respective vessel consumption during its stay at JNPT. Further, MSEDCL may be directed to meter entire shore power at a single point at 33 kV outgoing feeder dedicated for shore power at 220 kV MUSS and bill JNPT accordingly.
- 2.21.7 City and Industrial Development Corporation of Maharashtra Limited (CIDCO) submitted that it is a New Town development Authority for Navi Mumbai in terms of Sub-Section 3 A of Section 113 of the Maharashtra Regional & Town Planning Act 1966 (the MR&TP Act). In essence, it is a special planning authority constituted by the Government. CIDCO is undertaking the work of water works, sewage treatment plants, sewage pumping stations and maintenance of Railway stations & Gardens.
- 2.21.8 Presently, MSEDCL is levying commercial category tariff to CIDCO establishments. CIDCO sought recategorization of its establishment in following manner:
 - HT-IV category tariff i.e (Public Water Works and Sewage Treatment Plants) be applied to CIDCO's water works and sewage treatment plants;
 - LT-VII (B)/HT-III category tariff be applied to Railway Stations and all other services provided and maintained by CIDCO for residents of Navi Mumbai;
- 2.21.9 CIDCO sought retrospective applicability of above proposed recategorization and demanded refund/re-imbursement of the excess amounts already paid by CIDCO to MSEDCL due to wrong tariff applicability.

- 2.21.10Mahanagar Gas Limited (MGL) submitted that MSEDCL has proposed recategorisation of CNG stations to Commercial Category. MGL submitted that dispensing CNG is not at all similar to dispensing petrol. Natural Gas is compressed and converted to CNG before sale at CNG Station. The Circular issued by Central Excise Department defines CNG as Manufacturing commodity. MSEDCL in present Petition has proposed bulk LPG/CNG Bottling plants under Industrial category whereas on the other hand Retail Gas filling stations are put in Commercial category when more than 90% of the consumption is related to activity of bottling. The dominant load in the Retail Gas filling Station (CNG) Station is of compression and Hence, the categorisation of tariff is to be based on the process/activity at a premises.
- 2.21.11Alloy Steel Producers Association of India has submitted an order from the Higher Authority of India to create a separate category for Arc Furnace EHV consumers in accordance with Order No.13 of 2010, 198 of 2010 and 42 of 2011. The demand profile is volatile, with highest peak demand highest being 40 MW and lowest minute demand being 1 MW.
- 2.21.12Shri Pratap Hogade stated that MSEDCL has demanded that, if there is a godown or a warehouse in an industrial plot (In the same Industrial Premises) for industrial use, then as per the order clarified by the Commission from time to time, the godown or warehouse must be charged at the industrial rate only. In rural areas chilling centre is located where milk is collected and the chilling process needs to be done immediately. There are earlier clear orders of the Commission that industrial tariff should be levied. However, MSEDCL has demanded that the chilling center should be charged at commercial rates.
- 2.21.13Maharashtra Border check post Network Ltd, requested, to clarify that all Border check post operated by MBCPNL on behalf of the GoM fall under 'Public service others' category in regard to applicability of tariff.
- 2.21.14M/s Biotech Tissue culture, Rise and Shine Biotech, Association of plant Tissue culture Industries Kolhapur, Biobreed Aggrotech, Callus Biotech and others stated that Tissue culture, Nurseries, Green Houses are part of advanced agriculture. After MSEDCL's Tariff Order in Case No.121 of 2014, the Commission categorized advanced agricultural activities in to LT IV (C) / HT V (B) Agriculture- Others. Objectors urged the Commission to classify Tissue culture, Nurseries and Green Houses under LT-IV(B) Agriculture (metered) and HT V (A) Agriculture. Objectors also highlighted that advanced agricultural activities need continuous power supply and while changing the tariff categorisation, MSEDCL be directed not to curtail supply hours availability to 8 hours. Further, such activities be exempted from electricity duty.
- 2.21.15Smt. Suchitra pointed out that all farmers cultivating Mango, Cashew, Coconut, Jackfruit and Betel Nut and Nurseries of such fruits have been categorized by MSEDCL into LT IV (C) AG-others in the pretext of Horticulture. In support to her request Shri.

- Dnyanesh Kotkar and Sanjay Yadavrao of Konkan Bhumi Pratishthan stated that LT-IV(B) Agriculture Tariff be made applicable to backyard horticulture in Konkan area.
- 2.21.16Bharti Airtel submitted that whilst telecom towers were placed under the Industrial Category, MSEDCL continues to levy and impose commercial tariff from Airtel and other service providers in the telecom sector for their infrastructure other than telecom towers. MSEDCL is treating mobile towers and other telecom infrastructure as distinct to each other. Mobile/Telecom tower do not function in isolation and as such certain other infrastructure is also required so as to ensure effective transmission of signals. Therefore, such associated infrastructure cannot be subjected to a different tariff rate.
- 2.21.17Shri. D.D.Sontake Maharashtra Rajya Dhobi (Parit) Samaj Mahasangha submitted that the Commission in past MYT Order has categorized Laundry/Dhobi activities under Industrial Category. Due to lack of clarity, field offices have not extended the benefit of Industrial category tariff to all Laundry/Dhobi operators. He requested for suitable directions to MSEDCL in this regards.
- 2.21.18 Maharashtra Industrial Development Corporation (MIDC) submitted that, the State Government has decided to establish minimum 25 number of integrated multi-model logistic parks and minimum 100 logistic parks across the state. The policy says that the electricity to various activities other than business and commercial facility in this approved integrated logistic parks and logistic parks shall be provided at industrial rate. However, it is observed that, MSEDCL had not proposed the same during MYT Petition. Hence, it is requested to accept the proposal of MIDC to consider these proposed integrated multi-model logistic parks and logistic parks under industrial category.

MSEDCL's Replies

- 2.21.19For re-categorisation of tariff, MSEDCL stated that, it strictly follows the tariffstructure approved by the Commission with regard to applicability of tariff to different consumer categories. MSEDCL reiterates that it has taken necessary steps to simply the tariff structures over the years. As the number of consumers have increased, the type of activities have also become diverse and hence the categorization of tariff has become vast in nature. Further, as per the Ministry of Power's Committee for Tariff Simplification and Tariff Rationalization, MSEDCL has already suggested measures in the present petition to reduce number of tariff sub-categories and improve transparency so as to possibly enhance operational performance.
- 2.21.20It is submitted that it is very difficult to cover all the existing activities. However, this exercise of MSEDCL 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.

- 2.21.21 Ready-mix Concrete or hot mix plants used for construction of buildings, bridges, flyovers, dams, Power Stations, roads, Aerodromes, tunnels for laying of pipelines for all purposes. Based on usages, standalone milk refrigeration and storage centres i.e., chilling plants, are included in LT commercial tariff.
- 2.21.22 In case of separate category for steel/ ferro alloy industries, MSEDCL stated that in the MTR Order, Commission had ruled that the Steel Plant operating with electric arc furnaces shall be charged with 75% of applicable demand charge for HT Industries. Therefore, there is no need to provide a separate category for power intensive ferro alloys and steel industries.
- 2.21.23With regards to MIDC's request to consider these proposed integrated multi-model logistic parks and logistic parks under industrial category, MSEDCL has proposed the same in this MTR Petition.

Commission's Analysis & Rulings

2.21.24 Issue of Tariff categorisations has been dealt with in Section 7 of this Order.

2.22 Cross Subsidy and Cross Subsidy Surcharge (CSS)

- 2.22.1 Balaji Electro Smelters Pvt Ltd., Meenakshi Ferro Ingots Pvt Ltd., Prayas Energy Group, Bajaj Finserv and others submitted that MSEDCL has proposed to change the threshold for BPL consumption from 360 units a year to 30 units a month, a progressive move to protect poor consumers from tariff shock and ensure access to concessional tariffs. The Commission has been a pioneer in such measures and it is hoped that this measure continues as the benefits to small consumers outweigh the limited cross subsidy burden. MSEDCL has used the formula prescribed in the National Tariff Policy, 2016 to arrive at the applicable CSS. However, it has not levied the ceiling of 20% of the applicable tariff which is also prescribed in the tariff policy. There are questions around methodology used for determination of additional surcharge and the rationale for the levy when open access quantum reduces due to applicability of levy. To provide certainty of CSS and Additional Surcharge to consumers and to ensure incentives to increase efficiency for the Distribution Licensee, it is proposed that the CSS and AS together should be fixed in nominal terms at Rs. 2.5/unit for FY202324.
- 2.22.2 Tech Nova Imaging Systems and Galaxy Surfactants Limited suggested not to allow any increase in CSS proposed by MSEDCL. Open access of RE power is also needed to promote development of Wind & Solar Power Generation in the State of Maharashtra.
- 2.22.3 Shri Ashish Chandarana, and Alloy Steel Producers Association of India has submitted that proviso (4) of sub-section (2) of Section (42) of EA, 2003 provides that surcharge and cross subsidies shall be progressively reduced, and Clause 8.5 of National Tariff

Policy, 2016 stipulates that surcharge should not exceed 20% of tariff applicable to the category of consumers seeking open access. However, despite a period of about 17 years to national tariff policy, there is failure on part of the Commission to bring it down within desired level.

MSEDCL's Replies

- 2.22.4 Regarding applicability of CSS, MSEDCL submitted that as per the provision of Section 42 (2) of the EA2003, the CSS needs to be based on the current level of cross subsidy. Accordingly, the consumers who opted for Open Access need to be charged for the compensation of current level of cross subsidy which prevailed during that period and in order to avoid the burden of the same getting passed on to other consumers who are with the Distribution Licensee.
- 2.22.5 Further, under Sub-Section (2) of Section 42 of the Act, NEP as stipulated by the Central Government provides the formula for calculating surcharge. The CSS computed in accordance with the NTP Formula represents the current level of cross subsidy. However, the Tariff Policy 2016 restricts CSS at 20% of the consumer tariff. The Commission in MTR Order dated 12 September 2018, has approved the CSS equal to minimum of the two values: Computed CSS and 20% of tariff. This has resulted in lower CSS applicable than current level of cross subsidy leading to incomplete recovery of Cross Subsidy from Open Access consumers. For last 3-4 years, ceiling on CSS resulted in additional financial burden of ~Rs. 1,600 Cr.
- 2.22.6 Such revenue deficit due to lower CSS approved is being passed on to the consumers of the MSEDCL during true up exercise resulting in substantial delay in revenue realisation which comes only after true up exercise and also further increase in tariff of MSEDCL's consumers at large, despite not being at any fault. In the process, OA consumers unduly get benefited due to less CSS. As Industrial consumers are subsidizing consumers, the more impact gets loaded onto the Industrial category, raising its tariff further.
- 2.22.7 Consultation paper by MoP on issues pertaining to OA on 24 August 2017 also advocates the levy of ceiling on CSS only when the tariffs are within ±20% of ACoS. Therefore, in order to avoid burden on other consumers of MSEDCL, it has requested to consider the current level of cross subsidy as cross subsidy surcharge without any ceiling.

Commission's Analysis & Rulings

2.22.8 The Electricity Act, 2003 mandated the State Commission to determine the CSS to meet the requirement of current level of cross subsidy. The Commission is conscious of the need to gradually reduce cross-subsidy. The Commission in present MTR Order has effected a reduction in cross-subsidy to some extent, as it can be seen in the Table under Section 7.28 of this Order.

2.22.9 The Commission has determined Cross Subsidy Surcharge as per formula stipulated in National Tariff Policy and applied ceiling of 20% of ACoS in line with stipulations in Electricity (Amendment) Rules, 2022. Detailed computation is in Section 7 of this Order. The Commission in its MYT Order lays down road map for reduction in cross-subsidy for control period, which needs to be realigned, if required, during MTR process for allowing recovery of past gaps. To have larger visibility on cross-subsidy reduction roadmap and its implication on consumer tariff, the Commission directs MSEDCL to submit 5/10 year roadmap for Cross subsidy reduction and its implication on subsidised categories during next tariff filing so that it can be debated, discussed and decided through public consultation process.

2.23 Open Access

Objections/Suggestions

- 2.23.1 Prayas Energy Group stated that the MSEDCL estimates that 45% of OA sales in its area of supply will be RE based by FY25, bringing into focus frameworks such as RE banking and the provision of concessions on OA charges for RE based use. The MERC OA Regulations, 2016 and the Green Energy Open Access Rules, 2022 will provide the framework for consumers to choose their own supplier, but without clarity on critical matters such as eligibility limit, concessional OA charges, applicable framework, duration and charge for RE banking, and process for application, consumers would not be able to exercise their choice and investors would be wary. Long term migration is encouraged to enable MSEDCL to plan better and take critical steps early on to increase its operational efficiency.
- 2.23.2 Tata Motors submitted that MSEDCL has double imposition of Demand Charges through Electricity Duty on its OA Consumers due to a gradual increase in the percentage of Contract Demand used to calculate Billing Demand. MSEDCL needs to calculate the maximum capacity of RE OA quantum and make it mandatory for RE Generators to forecast RE generation with allowable variation of +/- 15%. Additionally, HT Consumers are forced to maintain their power factor close to Unity.
- 2.23.3 Bajaj finserv submitted that MSEDCL failed to submit detailed justification and computation of processing fees and operating charges, that costs incurred by MSEDCL in digitalization and automation of the systems have reduced significantly, and that the benefit of reduced operating charges must be passed on to the generator. Additionally, the Commission should consider reducing administrative charges for RE OA transactions due to the low CUF of RE power projects. MSEDCL should levy correct operating charges approved by MERC i.e. as per total OA capacity availed under O.A.
- 2.23.4 Hemant Kapadiya, Aurangabad suggested Open Access limit to be decreased to 500kVA from existing 1 MW.

MSEDCL's Replies

- 2.23.5 Under USO, MSEDCL is obligated to supply power on demand/application. Accordingly, in order to cater to the consumer demand, MSEDCL purchases power on long term basis from Mahagenco, NTPC under MOU route and from IPPs through competitive bidding process. Capacity addition was done by signing the PPAs with generating companies after due approval of 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 various reasons such as increase in Open Access, RE capacity addition to fulfil RPO Target, RE capacity addition by CPP because of low tariff and Net Metering etc. This is resulting into surplus power availability.
- 2.23.6 Further, due to the recent trends in the prices of solar energy and MERC Net Metering Regulations 2019, various consumers are now converting to captive power plants (CPP) by installing solar projects through Developers. Due to this, the surplus power is also likely to increase further.
- 2.23.7 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. whenever such surplus capacity remains available, MSEDCL has to pay fixed/capacitycharges irrespective of the scheduling or non-scheduling of power from the units whichdeclares its availability.
- 2.23.8 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 dayahead basis and procures power from Short Tern Markets such as Energy Exchanges.
- 2.23.9 In addition to this, MSEDCL also explores the option of optimization of powerpurchase cost by backing down of costly generation unit as per MoD and procuring thecheaper power available in Short Term Market/Exchange. 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 to the fixed cost burden on MSEDCL. From the estimations submitted in the MYT Petition, it is clear that MSEDCL is in power surplus and will continue to be in surplus for Control Period. However, 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. MSEDCL has tied up sufficient quantum of power, after approval of the Commission, by considering the overall growth in the State. However, on the other hand, a large number of consumers are buying power under Open Access instead of availing supply from MSEDCL. As a result, the generation capacity tied up by MSEDCL remains idle.

2.23.10In this situation, MSEDCL needs to back down the generation and is also required to pay Fixed Charges (or Capacity Charges) to the Generators irrespective of actual purchase. Thus, the need 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 has been underlined by Commission in the MYT Order.

Commission's Analysis & Rulings

2.23.11The Commission has made its observations relating to Open Access Charges and revised the same in Chapter 7 of this Order.

2.24 Standard of Performance and Efficiency of Administration

Objections/Suggestions

- 2.24.1 Prayas Group suggested that, the Commission should undertake an independent study to assess the reliability of supply and quality of service provided by MSEDCL, and hold separate public processes on these important aspects of consumer concerns.
- 2.24.2 The President, Sajag Nagrik Manch, Pune stated that power quality in the state has deteriorated, interruptions have increased despite price rise. There are unscheduled blackouts in smart city Pune. The reliability indices are not published by MSEDCL time to time. Shri Mahaveer Jain pointed out that uninterrupted power supply is available for 6 days in week and weekly shutdown on Thursday in Pune region, but apart from this there are several instances of interruptions due to overloads or other technical issues. Prior instructions should be given to consumers on particular substations where shutdown has to be taken to help industries to stop operations as per schedule and avoid losses.
- 2.24.3 Shri. Mahaveer Kumar Jain also submitted that KYC norms must be strictly followed to ensure that defaulter customers pay past dues before new connection can be allowed. KYC should be made mandatory to be updated every 3 years.
- 2.24.4 Divyang Education and Welfare Society submitted that Consumers Grievances are never cared, and SoP are never maintained. It is time to change the views and look into the grievances of consumers from their perspective with sympathetic and justified attitudes.
- 2.24.5 Laghu Udhyog Bharati Submitted that, MSEDCL's web portal is not consistent with Supply Code-2021, leading to HT industrial consumers not having the option of phasing demand or choosing voltage level. The Commission should direct MSEDCL to submit new connection application and sanction for industrial category and suo moto SoP compensation since inception of Supply Code-2021. The Commission has allowed auto load reduction/enhancement facility during COVID-19 pandemic for two years for both LT and HT consumers. However, MSEDCL extended this benefit only to HT consumers and LT consumers online applications were never approved under AUTO

mode and they could not get the benefit of the said facility. LT consumers were deprived from such facility. Online complaints are marked as resolved even without attending faults and consumers must suffer at large. MSEDCL has not paid even a single rupee across the state under the head automatic SoP Compensation as stipulated in Supply Code-2021.

- 2.24.6 Shri Pratap Hogade and others stated that, the preamble of the Electricity Act, 2003 has (4) basic objectives: competition, efficiency, 24x7 quality power supply at affordable rates to electricity consumers and protection of consumer interest. However, none of these provisions seem to be being followed. Rising cost of power purchase, wrongful and hugely burdensome power purchase agreements, huge power leakage of distribution, huge administrative costs of distribution, lack of infrastructure and losses are major issues of MSEDCL due to these inefficiencies consumers are burdened with shocking hike.
- 2.24.7 Shri Ashish Chandarana and Shri R.B. Goenka stated that despite notification of supply code and introduction of automatic SoP Compensation regime, MSEDCL has not paid even a single rupee as SoP compensation. It has not provided facility of altering demand on web portal of MSEDCL, which is causing huge revenue loss by delaying new load sanction to HT industries. The Commission should take note of such practices and seek explanation from MSEDCL in this regard and also direct to recover the revenue loss from guilty officer.

MSEDCL's Replies

- 2.24.8 To minimise the interruptions, and to improve performance on reliability indices and service quality standards, MSEDCL has taken steps like Strengthening of HT/LT line network, Providing Ring Main Unit system for alternative supply arrangement in urban/metropolitan areas, Bifurcation of overloaded HT feeders, Crimping of HT/LT line jumpers, Tree Trimming on HT/LT line, Regular DTC/ HT/LT line preventive maintenance work and Maintenance of Sub-station equipment.
- 2.24.9 MSEDCL submitted that, it has been making concentrated efforts to achieve the standards of reliability fixed by the Commission. The following Table shows the reliability indices of MSEDCL as compared to other State Distribution Licensees:

Comparison of Reliability Indices with other states

Distribution Licensee	Month / Quarter	SAIFI (No.)	SAIDI (Hours)
MSEDCL (Rural)	Dec-22	1.50	2.65
MSEDCL (Urban)	Dec-22	0.84	1.20
CSPDCL (Chhattisgarh)	Dec-22	5.86	2.97
DGVCL (Gujarat)	Dec-22	3.30	5.13
PGVCL (Gujarat)	Dec-22	5.51	8.52
UGVCL (Gujarat)	Dec-22	1.43	1.81
MGVCL (Gujarat)	Dec-22	3.28	3.88
BESCOM (Karnataka)	Jul-22	10.24	4.16

Source: Discoms Website

- 2.24.10As can be seen from above, MSEDCL submitted that its reliability standards maintained are much better than those maintained by neighboring states. Further, several measures have been initiated by MSEDCL in terms of improvement in availability and quality of supply, reliability and investment in capital including IT infrastructure. It is to submit that, the basic need/objective of incurring the capital expenditure is to upgrade the existing distribution network to desirable standards so as to provide better network reliability and sustainable performance. In this context, it is relevant to mention that the Revamped Distribution Sector Scheme (RDSS) proposed by the petitioner aims to carry out the works enabling improvement in the quality and reliability of power supply to consumers. The Petitioner has also proposed Enterprise GIS & Network Analysis Solution, Sub-station Monitoring System contributing performance of reliability indices. The Petitioner believes and will continue its concerted efforts to improve reliability indices to the extent targets set by the Hon'ble Commission.
- 2.24.11Details of compensation in the matter of standard of performance is provided in the table below. Such compensation has been provided in the matter of individual complaints dealing with issues such as delay in connection, load reduction/enhancement, billing complaint, etc.

Amount of Compensation arising out CGRF Order

Particulars	Amount of Compensation (Rs.)
FY 2019-20	2,48,590
FY 2020-21	1,57,800
FY 2021-22	33,508
FY 2022-23#	7,000

[#] Actuals up to 6 months

2.24.12MSEDCL submitted that, it shall provide roadmap for implementation of automatic compensation mechanism within next 3 months.

Commission's Analysis & Rulings

- 2.24.13The Commission has taken serious note of the views expressed by the objectors/consumers during public hearing regarding the interruptions, performance on reliability indices and service quality standards. The reliability indices (SAIFI/SAIDI/CAIDI) are vital indicators of network performance and benchmarking of the same is needed. MSEDCL needs to prepare plan for addressing network bottlenecks on priority. The Commission notes that in the MSEDCL's Capex basket certain schemes like DPDC, RDSS which will help in improving reliability. However, MSEDCL shall publish the reliability indices on its website as mandated under the EA 2003 and the Regulations framed by the Commission.
- 2.24.14Issue of automatic compensation to be paid to the consumer as per provision of Supply Code Regulations is dealt with in Chapter 7 of this Order.

- 2.24.15The Commission noted the objections filed by some of the objectors that facility of auto-load reduction/enhancement as extended during COVID-19 period was not extended to LT consumers. In this context, the Commission observes that the use of technology and web-based IT tool for processing of applications for load reduction/enhancement, as MSEDCL has effectively implemented for HT consumers and the system for web-based processing of applications is in the interest of ease of doing business and faster delivery of service to consumers.
- 2.24.16Hence, learnings from such web-based systems should be gainfully deployed for various consumers including LT consumers. Further, the Consumers have requested for allowing multiple revision in the contract demand during billing cycle, which outside the scope of present regulatory process for mid-term review and will have to be addressed as per provisions of Supply Code Regulations, 2021. Therefore, MSEDCL should file petition within three months from date of issuance of this Order, as to how applications for change in demand can be facilitated through web-based applications in the interest of ease of doing business for the consumers.

2.25 Financial Management

Objections/Suggestions

- 2.25.1 Prayas Energy Group Submitted that the GoM has constituted a Committee to study MSEDCL finances. The report of the Committee and its recommendations are pertinent to this ongoing process, as MSEDCL has claimed financial distress and has sought increase in tariffs. The status of the committee process and report of the committee should be submitted by MSEDCL as part of these proceedings. MSEDCL must ensure timely payment of dues to IPPs, Transmission Utilities and NTPC. It is also evident that MSEDCL has not exercised payment discipline when it comes to MSPGCL, resulting in an average delay of 154 days for FY2021 and FY2022. MSEDCL's plan for payment of pending dues should be shared with the Commission to manage impact on working capital borrowing.
- 2.25.2 Shri. Mahaveer Kumar Jain submitted that MSEDCL should have an internal team of fraud and forensic auditors and IT experts to reduce revenue leakage and improve the business functioning. The Commission is requested to issue direction to MSEDCL to plug loopholes and ensure that the public interest is conserved. The cost will be borne by budgeted expenses and MSEDCL will get its cost plus profit. Further, the quality of internal audit of MSEDCL has deteriorated. Internal Audit Section never bothered to cover area for improvement. There is a tender process for Internal Auditors, but selection of specific internal audit is being decided internally. The Companies Act, 1956 was replaced by Companies Act, 2013, which contains provisions to protect the interest of public at large, investor, government and other stakeholders. MSEDCL was fully aware of the deficiencies in Internal Finance Control reported in FY 2015-16 in the auditors report, but no material action to strengthen these were taken. The loss is on the public at large for the failure to take action on this most critical aspect. MSEDCL

has been wilfully violating the provisions of Companies Act 1956 and Companies Act 2013 by not physically verifying the fixed assets. The ICAI standards require physical verification of fixed assets once in 3 years, but MSEDCL is planning to delay this for the next 10-15 years, resulting in a loss in the accounts and no employee being traced or identified. The Commission should issue direction to MSEDCL to comply with the requirement and issue instruction and plan the activity in consultation with the statutory auditors before 31 March 2023. Further, MSEDCL implemented ERP in 2010-2011, 2013-14, and 2014-15, but has not yet started all activities in ERP. The total cost of ERP is estimated to be more than Rs 200 Crores, including Rs 51.13 Crores for hardware and Rs 32.56 Crores for maintenance. MSEDCL leadership is yet to implement 100% functioning in ERP, leading to write-offs of Rs 2200 Crores, Rs 300 Crores for inventory and Rs 65 Crores in SD of customers. To have 100% operations linked and functioning under ERP. Utilization of ERP tools will help to optimize resources and improve the functioning, resulting in more effective service and reduced cost of operations.

- 2.25.3 Balaji Electro Smelters Pvt Ltd. submitted that in the Independent Auditors' reports of MSEDCL for FY 2019-20, FY 2020-21 and FY 2021-22, Auditors have made serious comments and pointed out mistakes and passed adverse comments on function & maintenance of accounts. Auditors in Standalone Financial Statement for FY 2019-20 mention that they could not determine and quantify Impact of Statement of Profit & Loss and balance Sheet on Rs.13,175 Crores amount. Therefore the Audited Accounts are nothing but Unaudited Accounts. There are also Rs.7,869 Crore Disputed Duties/Tax Demands payable by MSEDCL under IT Acts, EPF, Central Excise & Service Act, MS VAT 2002 etc. and 8,465 Cases pending Legal/Arbitration against MSEDCL. Maintenance of Fixed Asset Registers and Physical Verification of Fixed Assets are important for any company and the responsibility of MSEDCL includes maintaining adequate accounting records and preventing frauds and irregularities.
- 2.25.4 Balaji Electro Smelters Pvt Ltd., Roop Rajat Steel Private Limited, and others submitted that Auditors found instances of non-capitalization and/or delayed capitalization of PPE and Work Completion Reports, with a corresponding impact on Depreciation. Capitalisation of interest, employee cost and office and administrative expenses was not in accordance with IND AS 23 Borrowing Costs, and there was no sufficient evidence of utilisation of Government Grants and Consumer Contribution. System/control issues caused incorrect values of Property, Plant and Equipment. Auditors have not considered Expected Credit Loss (ECL) on Trade Receivables aggregating to Rs.359.72 Crore of Global Tower Limited, Rs.2,349 Crore of Mula Pravara Electric Co-op. Society Limited (MPECS). MSEDCL has written off substantial amounts as bad debts and the auditors are unable to comment on the basis adopted for providing ECL and adequacy thereof. Further, as per comments of Audiors, Rs.3,469 Lakhs of provisions towards Power Purchase is un-identified and included under Trade Payables-Current Liability for purchase of power. Additionally, there is a difference of Rs.4,542 Crore in balances receivable/payable between the books of

- accounts of the company and the corresponding balances in the books of the group companies.
- 2.25.5 Meenakshi Ferro Ingots Pvt Ltd., and others submitted that the Commission is allowing 1.5% Bad Debts every year, which is the highest amount allowed by any other Regulatory Commissions in India. Further, MSEDCL is demanding that, the Commission should use their Special Powers in the MYT Regulations and allow 7.5% bad Debts (as Agriculture Sales are more than 20% of Total Sales). MSEDCL should work out innovative methods for collecting Arrears and regular Energy Bills from the consumers, as it is the responsibility of MSEDCL to recover Arrears including from Agriculture Consumers. Increasing Bad Debts amount is unreasonable and illegal.
- 2.25.6 Shri. Rasika Parab, Shri. Ravindra Raghuwanshi and others submitted that MSEDCL is praying for Final True Up for FY 2019-20, FY 2020-21 and FY 2021-22 before the Commission based on the Audited Annual Accounts, but the Auditors made serious adverse comments, mistakes, and not following Statutory provisions. Therefore, the Commission should direct MSEDCL to conduct Forensic Audit and obtain a positive certificate, suspending Truing Up for these three years.
- 2.25.7 Bharadia Technotex, Jay Jeet Textiles and others submitted that Outstanding/trade receivables and bad debts of MSEDCL are a major issue, with total revenue of Rs. 90842.21 Crores and average monthly revenue of Rs. 7570.18 Crores. Trade Receivables are 6.5 times to average monthly revenue and more than 50% of annual revenue. Bad debts are about Rs. 1000-1100 Crores per year, which is abnormal. Paschim Gujrat Veej Co. Ltd has only 0.41 Crores bad debts against Rs. 14134 Crores sales in 2020-21.
- 2.25.8 Tech Nova Imaging Systems and Galaxy Surfactants Limited submitted that the bad debt & recovery of arrears is a major issue for MSEDCL in FY 2023-24, with repayment to Rs.7407.09 Crores for wire and Rs.66,663.84 Crores for retail supply business, resulting in a 3.5% decrease in receivable amount. If recovered, there is no need for tariff hikes to bridge the revenue gap.
- 2.25.9 Wada Induction Furnace Association submitted that the Annual Audited Accounts and Independent Auditor's Reports of MSEDCL for FY 2019-20, FY 2020-21 and FY 2021-22 mentioned that 8,465 Cases pending Legal/ Arbitration against MSEDCL, substantial increase in legal cost, and lack of evidence for utilisation of Government Grants and Consumer Contribution for Capital Assets. To ensure stability of tariffs, MSEDCL has devised a mechanism and approved constitution of the FAC Fund to build up over a period of time. Auditors made comments and defects on utilisation of Capital Expenditure, arriving of opening Balance of Capital Assets and physical verification of Fixed Assets. MSEDCL should sell surplus power in power exchanges and review PPAs to bridge revenue gap.

- 2.25.10Mandar Lele, Laghu Udyog Bharti, Ajit Deshpande and others submitted that the Independent Auditor's Reports mention that there are Rs.7,869 Crore Disputed Duties/Tax Demands payable by MSEDCL under IT Act, 1961, EPF, Central Excise & Service Act, MS VAT 2002 etc. and 8,465 Cases pending Legal/Arbitration against MSEDCL. Physical verification of Assets is important for any business, and MSEDCL is praying for Final True Up for these three years before the Hon'ble Commission on the basis of Audit Report.
- 2.25.11Shri. Nitin Subhash Tarlekar has requested the Commission to constitute a Committee to review financial, accounting, operational, efficiency improvement for MSEDCL, and to require all services/requirements/applications to be submitted online within 6 months and processed within 7 days. It also demands that cost of use of CC/CD at 10% on the balance held in 2021-2022 should be recovered from officer concerned, and that MSEDCL should have an internal team of fraud and forensic auditors and IT experts to reduce revenue leakage and improve the business functioning. Audited accounts for FY 2023-2024 must be free from auditor's comments.

MSEDCL's Replies

- 2.25.12MSEDCL submitted that it conducts an internal audit of accounts, which is further audited by a statutory auditor and Comptroller and Auditor General of India (CAG). Annual accounts are also audited by CAG as a part of supplementary audit. All expenditures are scrutinised at various levels and are legitimate expense. MSEDCL has submitted proposal based on the methodology specified in the Regulations and has not claimed any expenses which is not justified or does not come under the purview of the Regulations. It is taking up internal controls to safeguard assets and prevent fraudulent activity to ensure integrity in its business functions.
- 2.25.13MSEDCL is conducting an internal audit for billing process of LT and HT billing and is planning an audit of billing software/system. Regular energy audits are conducted at subdivision/division/circle/zonal level and target is set for reducing distribution loss. Information about power consumption details of consumers above 20 kW is received through AMR/MRI and list of suspected consumers is sent to local office for further inspection. MSEDCL is trying to reduce distribution loss by working hard in various areas including metering and billing so that electricity cost will be reduced and revenue will increase. Despite increase in tariff rates, MSEDCL takes appropriate precautions/measures to limit the rise in tariff rates by reducing Distribution losses, accurate billing by proper meter reading of utilized energy, increasing collection efficiency, limiting operations and maintenance expenses to possible extent and implementing latest technology for efficient Management schemes.

Commission's Analysis & Rulings

2.25.14The Commission notes the serious comments and allegations of the consumers on the financial indiscipline and auditor's adverse remarks in the Audited Reports. The

Commission also notes that, MSEDCL's submission on the issues raised by consumers is not satisfactory and to the points. The Commission directs MSEDCL to submit point wise reply to such objection to the objectors. MSEDCL shall also submit the action plan to take corrective action on all the adverse remarks, qualification and references within six months of this Order.

2.25.15Regarding provisions for Bad Debt, the Commission has not considered MSEDCL's projection of increasing Bad Debt amount. Detailed computation is at Section 6.16 of this Order.

2.26 Renewable Purchase Obligation (RPO)

Objections/Suggestions

2.26.1 Prayas Energy Group submitted that MSEDCL is reporting substantial RPO shortfall as compared to the approved RE power purchase for FY2019-20, FY2020-21 and FY2021-22. The cost of incremental RE purchase was reported at less than Rs. 3/unit by MSEDCL for FY2020. Despite rapidly rising RE procurement, MSEDCL is still unable to meet its RPO target each year and is projecting non-commitment to target in the future. The Commission has given RPO compliance relaxation and opportunity for cumulative compliance of RPO several times without penalties, but the result is the same. It is vital that the Commission should hold MSEDCL accountable for RE procurement to meet RPO.

MSEDCL's Replies

2.26.2 As regards Non-Solar RPO compliance, MSEDCL has contracted Energy Purchase Agreement (EPA) to the tune of 6611 MW capacity with Non-Solar RE Generators as on 31 March 2022. The current contracted capacity 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 inefficiency of Generators, the actual 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.

Commission's Rulings

2.26.3 The Commission has dealt with RPO compliance of FY 2020-21 and FY2021-22 and estimation of RE power procurement for meeting RPO compliance for the remaining period of 4th MYT control period in power procurement section of respective years in this Order and issued necessary directions in the matter.

2.27 OPEX Scheme

Objections/ Suggestion

2.27.1 Shri Satish Shah and KTST Engineering Pvt Ltd stated that with a huge revenue gap MSEDCL should not go for the new OPEX schemes such as Smart metering, cloud project, Vehicle tracking.

MSEDCL's Replies

2.27.2 MSEDCL has not submitted any response for the same.

Commission's Analysis & Rulings

2.27.3 The Commission has noted the views expressed by consumers with regards to proposed opex schemes. The Commission has dealt with the issue of allowance of opex related schemes and expected benefits of such schemes proposed during remaining period of 4th Control period under Chapter 6 this Order and issued necessary directions in the matter.

3 TRUE-UP OF FY 2019-20

3.1 Background

- 3.1.1 MSEDCL has sought Truing-up of the ARR for FY 2019-20 considering actual expenditure and revenue as per the Audited Accounts and in accordance with the MYT Regulation, 2015. It has submitted reasons for differences between the actual expenses for FY 2019-20 as compared to those approved in MYT Order in Case No. 322 of 2019 dated 30 March 2020.
- 3.1.2 The Commission notes that as per Indian Accounting Standard (Ind AS) 8 Accounting Policies, Changes in Accounting Estimated and Errors, if any error or omission result in prior period expenses then, such prior period expenses shall be adjusted in the year in which pertains. Accordingly, the Audited Annual Accounts for FY 2019-20 have been restated during approval of Audited Annual Accounts for FY 2020-21 & FY 2021-22.
- 3.1.3 MSEDCL in present Petition has proposes to true up of its expenses and revenues based on the said Audited Accounts for FY 2019-20 and subsequent restatement.
- 3.1.4 The analysis underlying the Commission's approval for true-up of FY 2019-20 is set out in the following sections.

3.2 Sales in FY 2019-20

MSEDCL's Submission

3.2.1 MSEDCL has submitted category wise actual sales for FY 2019-20 excluding all distribution franchisee as shown in the table below:

Table 3-1: Category wise sales for FY 2019-20 as submitted by MSEDCL

		FY 2019-20					
Category	MYT Order (MUs)	MTR Petition (MUs)	Deviation (MUs)				
Residential	20,747.29	20,044.65	(702.64)				
Commercial	7,745.71	7,302.18	(443.52)				
HT-Industries	30,903.47	29,928.40	(975.07)				
LT-Industries	7,004.10	6,811.33	(192.77)				
PWW	2,348.25	2,379.09	30.84				
Streetlight	1,817.36	1,860.27	42.91				
Agriculture	24,551.31	29,246.05	4,694.74				
Public Services	1,472.76	1,477.59	4.84				
Railways	64.23	71.06	6.83				
Others	698.57	670.47	(28.09)				
MSEDCL Excl. DF	97,353.03	99,791.09	2,438.06				

- 3.2.2 MSEDCL has submitted that the Commission approved sales (excl. DF) of 97,353.03 MUs for FY 2019-20 in MYT Order (Case No. 322 of 2019). The actual sales (excl. DF) are 99,791.09 MUs, i.e., additional sale of 2,438.06 MUs for FY 2019-20.
- 3.2.3 MSEDCL has highlighted that it has filed appeal against the Commission's Order related to re-assessment of AG sales before the APTEL. MSEDCL submitted present petition without prejudice to any rights or contention taken in the appeal.

Commission's Analysis and Rulings

True-up of Non-AG Sales for FY 2019-20:

- 3.2.4 For true-up of sales for FY 2019-20, the Commission has reviewed the actual sales reported by MSEDCL for FY 2019-20 in its Petition. There is significant variation of (702.64) MUs, (443.52) MUs, (1167.84) MUs and 4694.64 MUs in actual sales of LT-Residential, Commercial (HT and LT), Industrial (HT and LT) and LT-AG (Unmetered and Metered) categories, respectively, vis-à-vis that provisionally approved under the MYT Order in Case No. 322 of 2019.
- 3.2.5 The Commission vide Data Gap Set-1 directed MSEDCL to submit justification and rationale behind significant reduction in the sales in HT-Industry sales, LT-Nondomestic and LT-domestic categories.

Sale of HT-Industry Category

3.2.6 With regards to reduction in sale of HT-Industry Category, MSEDCL submitted that drop in HT industrial sale mainly because of drop in demand from steel companies particularly during August 2019 to November 2019. Also, in March 2020 due to COVID 19 lockdown, the sale dropped drastically.

Sale of LT-Residential & LT-Commercial Category

- 3.2.7 About LT-Residential Category and Commercial (HT and LT) Category, MSEDCL submitted that due to COVID 19 lockdown from 20 March 2020, the billing was done as per average consumption of past period which was winter season i.e. low consumption period and that affected the sales of February 2020 partially and complete sale of March 2020.
- 3.2.8 For true-up of Non-AG sales for FY 2019-20, the Commission has verified actual Non-AG Sales as claimed by MSEDCL vis-à-vis its audited annual accounts and month-wise sales submitted as per the formats prescribed under the MTR petition and found it to be in order. The reduction in the Non-AG Sales is considered due to the impact of COVID-19 during month of March 2020.
- 3.2.9 Regarding true-up of AG Sales for FY 2019-20, the Commission has elaborated its approach in subsequent sections upon detailed scrutiny of MSEDCL's submissions on the estimation of AG sales.

True-up and Estimation of AG Sales for FY 2019-20:

- 3.2.10 The Commission notes that, there is a significant deviation in agriculture sales with respect to the sales approved in MYT Order in Case No. 322 of 2019. The Commission vide its data gaps set-1 dated 22 December 2022, directed MSEDCL to justify, the significant increase in AG sales with appropriate details of methodology used for computation of Ag sales and directed to provide break up of deviation in sales to metered category and deviation to unmetered category. Further the Commission also sought data of;
 - Circle-wise consumption recorded on separated AG feeders (along with information of connected load, no. of AG consumers),
 - Circle-wise consumption recorded on Feeders with SDT,
 - Circle-wise consumption recorded on Feeders in Single Phasing Scheme (along with information of connected load, no. of AG consumers),
 - Circle-wise consumption recorded on other Feeders with AG consumers (along with information of connected load, no. of AG consumers)
 - Circle-wise and month-wise details (for FY2019-20) of No. of AG consumers (metered and un-metered), connected load (HP) (metered and un-metered) and billed units (metered and un-metered)
- 3.2.11 Further, in line with the directions of the Commission vide Para 4.2.25 of MYT Order in Case No. 322 of 2019, MSEDCL was directed to submit detailed roadmap and action plan for undertaking activities mentioned in Para 4.2.25 of MYT Order to improve the AG sales estimation process. Further MSEDCL was also directed to submit the feeder wise annual consumption data of 502 feeders selected for AG study conducted by Commission for FY 2019-20.
- 3.2.12 MSEDCL vide its replies to the data gaps set-1 dated 4 January 2023 submitted that the AG Metered billing was computed as per consumer meter reading and AG Unmetered consumers have been billed as per Connected load (HP) based tariff and sales was computed on the basis of AG Index (kWh/HP) of normal status metered consumer at subdivision level.
- 3.2.13 Considering the significant increase in AG sales prior to last MTR Petition, the Commission had carried out an independent study through the analysis of feeder input data and field survey. The Commission had constituted a Working Group for Agricultural Consumption study (AGWG). The Final Report was submitted by the AGWG to the Commission on 11 March 2020. The Commission had taken cognizance of report of AGWG. The report covers the findings on metered AG consumption, the AG consumption norms and validation of total AG consumption based on the Feeder meter input of 502 Feeders, covering around 1.33 Lakh AG consumers. The

Commission has computed the AG Sales for the last MYT order based on the report of AGWG.

- 3.2.14 The Commission in its MYT Order in Case No. 322 of 2019 had directed MSEDCL to submit detailed roadmap and action plan for undertaking activities for operationalizing feeder input based AG billing. Further, it has been explicitly mentioned that the outcome of results and methodology finalized through AGWG study shall form basis for approval of AG sales from FY 2019-20 onwards. Relevant extract of the MYT Order is as quoted below:
 - "4.2.25 Upon careful consideration of above points and suggestions made by AGWG, the Commission is of the view that key activities that MSEDCL needs to focus in order to operationalise feeder-input based energy accounting and to further improve the estimation of AG consumption shall cover amongst various aspects following specific action points:
 - Ensuring availability of (month-wise/time-slot-wise) feeder metering (AMR/MRI) for feeders (>95% time-slot data).
 - Addressing the difficulty in feeder metering (AMR/MRI) and minimising assessment of feeder meter data (month-wise/time-slot wise) due to CT/PT errors, mapping errors, communication error etc. (<5% time-slot data)
 - Web-publishing of Feeder-wise AMR/MRI data in timely manner (By 7th of month for previous month).
 - Metering the DTC (AMR), to start with the DTC on all the 502 feeders which were taken up for survey. Web-publishing of Feeder wise DTC wise AMR data in timely manner (By 7th of month for previous month)
 - Feeder-wise mapping of consumers (AG and Non-AG) and indexing/geotagging of consumer data to DTC and feeder and regularly updating (not later than one month) it in case of shifting of load from one DTC/feeder to another.
 - Compiling/updating Feeder profile information and undertaking technical loss assessment of Feeder based on feeder length, no. of DTCs and its distribution across feeder, current loading pattern, LT circuit distribution and number of pumpsets/connected load
 - Updating Master records of AG consumers for Addition/Deletion of consumer based on field validation (before MTR and end of Control Period)
 - Updating Master records of Connected Load of AG consumers for Addition/Deletion of Connected Load based on field validation (before MTR and end of Control Period)
 - 4.2.26 The Commission hereby directs MSEDCL to submit detailed roadmap and action plan for undertaking above activities mentioned at 4.2.25 and also additional activities that MSEDCL wishes to undertake so as to improve the

estimation process. The roadmap and the action plan shall be submitted to the Commission within two months from issuance of this Order.

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- 4.2.36 Under the circumstances, the Commission would undertake a detailed review of the operationalisation of Feeder Input based methodology of determination of AG Sales at the time of MTR, as per roadmap and action plan put in place by MSEDCL. The outcome of results and methodology finalised through this exercise shall form the basis for approval of AG sales from FY2019-20 onwards, during truing up exercise to be carried out at time of MTR."
- 3.2.15 Further, the Commission vide its Order dated 30 June 2020 in Case No. 84 of 2020 and MA 40 of 2020 under Case No. 84 of 2020 filed by MSEDCL for seeking review of the MYT Order dated 30 March 2020 had clarified as below:
 - 11.18. The Commission notes that although MSEDCL has stated that it is not requesting review of Ag sales for FY 2014-15 onwards in the present review Petition, but by requesting for allowing reconsideration of Ag Sales for FY 2014-15 onwards in MTR proceedings, it is in effect seeking review of MYT Order.
 - 11.19. The Commission notes that MSEDCL has taken several objections on final report of AGWG in the present review Petition. The Commission had provided multiple opportunities to MSEDCL for its active participation in the exercise including at the stage of deciding the methodology to carry out the studies. Further, their comments were sought and considered on the Draft Report by the AGWG before submitting their Report to the Commission. Even after submission of the Final Report by the AGWG to the Commission, the Commission had separately sought their comments on Final Report so that the same could be considered by the Commission before issuing final Order. MSEDCL chose not to offer the comments on the same. Now in this review Petition, MSEDCL is requesting the Commission to revise Ag sales estimation based on data which could be made available during MTR proceeding in year 2022. The Commission is of the view that such practice of objecting in spite of multiple chances being made available will defeat the very purpose of the setting up the AGWG study and thus the Commission rejects the request of MSEDCL on this point. The Commission also cautions MSEDCL to refrain from raising such decided issues and should rather work on improving the estimations.
 - 11.20. The Commission notes that in its impugned MYT Order, it has extensively analysed the Final Report of AGWG and thereafter noted that AGWG has come out with a fair and reasonable estimation method based on comprehensive analysis of feeder input. Relevant part of MYT Order is reproduced below:
 - 4.2.19 The Commission upon scrutiny and review of the overall approach and methodology presented in the Final Report, is of the opinion that, for estimation of AG Sales and its corresponding AG consumption norm for FY 2018-19,

AGWG has come out with a fair and reasonable estimation method based on comprehensive analysis of feeder input. The Commission also notes from the analysis that though the technical loss level is in the range of 6% to 24%, on some of the feeders the losses are of significantly high order ranging from 16% to 18%, which could be due to multiple factors such as, long length of feeders, vintage of feeders, excessive loading (due to higher connected load than record or unauthorized use) for long duration out of operating hours of the feeder etc.

Accurate mapping/indexing of consumers (AG and Non-AG) and validating their connected load as per master records or updating master records is critical for improving feeder based energy accounting and addressing the issue of high loss levels......

Once, the Commission has accepted the Report of AGWG after detailed analysis, and full reasoning MSEDCL cannot seek review of the same.

- 3.2.16 Further with regards to contention of MSEDCL on AG Sale estimation for FY 2019-20 in MYT Order, the Commission in Order dated 30 June 2020 on review Petition, the Commission had clarified that,
 - "11.23. In view of the above finding, the commission is not inclines to review its decision on Ag sales estimation arrived based on AGWG report. The Commission in the impugned MYT Order has already appreciated MSEDCL's support to Ag study and also recognised the fact that methodology adopted by AGWG of estimation of AG sales will get improved over the period once more reliable/continuous data for larger time period becomes available during MTR proceedings......
 - 14.10. Relating to MSEDCL's request for revision in Ag sales for FY 2019-20, the Commission notes that said estimation was provisional estimates and the Commission itself has stated in the impugned MYT Order that Ag sales for FY 2019-20 will be reassessed based on more accurate data which would be available at the time of MTR proceedings."
- 3.2.17 Under MYT Order in Case 322 of 2019 in Para 4.2.20 to Para 4.2.26, the Commission has extensively deliberated on the need for Feeder Input based estimation of AG Sales, the methodology and meticulous process to be followed for selection of feeders and care to be taken for implementation of such Feeder input-based AG estimation. Merely increasing sample size of feeders without ensuring appropriate steps for verification, validation, mapping of DTC, indexing of consumers and updation of records of the connected load of such consumers connected on the feeder in the register aligned with ground reality upon field survey, will not be proper.
- 3.2.18 Further, ascertainment of the technical loss/commercial loss on such feeder is prerequisite for ascertaining the AG sales using AMR based feeder input mechanism. In this context, the Commission reiterates its observations and ruling outlined under MYT Order in Case 322 of 2019 that in order to have a credible arrangement of feeder input

based methodology, (through operationalising the feeder input based methodology), it is important that feeder-based energy accounting data based on AMR/MRI is maintained and made available in automated manner without manual intervention and without need for assessment due to any reason (including but not limited to CT/PT errors, mapping errors, communication errors etc.). Further, estimation of feeder-wise technical losses (by segregating losses on account on wrong/non billing and unauthorised consumption (if any), mapping of AG and Non-AG consumers on the feeder, updating master data thereof and timely publishing this information in transparent manner on regular basis is essential, which will boost the confidence level of all stakeholders in ascertaining a better estimation of actual AG consumption in the state using Feeder Input based methodology, in the absence of actual metering of entire AG consumers.

- 3.2.19 Thus, considering the directives of the Commission in MYT Order and subsequent clarifications in the Order in Review Petition, MSEDCL, was required to undertake the AG sales estimation for MTR Petition based on the methodology specified by the Commission in MYT Order based on recommendations of AGWG. However, the Commission notes that, MSEDCL has not considered the methodology specified by the Commission in MYT Order for estimation of Ag sales.
- 3.2.20 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 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. The Commission observes that these 502 feeders were so selected upon extensive exercise of field survey, mapping of DTs and AG consumers and connected load thereon based on rigorous stratified random sample-based feeder selection approach. Any addition to the sample feeders will have to strictly follow all the steps outlined under MYT Order in Case 322 of 2019 and part substitution/replacement of such identified 502 feeders without valid reasons/justification is not envisaged. The Commission also noted that MSEDCL has not provided any reasons/justification for the discrepancy noted and non-consideration of 502 sample feeders (partly or otherwise) as covered at the time of MYT Order.
- 3.2.21 Further, the Commission also notes that while MSEDCL has filed Appeal before the Hon'ble APTEL against the methodology of Ag sales estimation as approved by the Commission in its MYT Order in Case No. 322 of 2019, there is no stay order or any relief granted for operation of such Feeder based AG Index methodology by the Hon'ble APTEL on the relevant provisions of the MYT Order or the subsequent order on the review petition filed by MSEDCL. In the absence of stay from the Hon'ble

- APTEL, MSEDCL is expected to implement the directives of the Commission judiciously and in letter and spirit.
- 3.2.22 The Commission also notes the objections of the public during public hearing process regarding, very high AG sales as reported by MSEDCL. The Commission is of the view that, MSEDCL failed to comply with the directives of the Commission in MYT Order.
- 3.2.23 In pursuance of above, the Commission sought Ag feeder data of 502 feeders as per the methodology finalised by the Commission in MYT Order and also the roadmap and action plans for AG Sales estimation. However, the Commission notes that, the data of 502 feeders for FY 2019-20 as submitted by MSEDCL as per part of data gaps replies, had lot of inconsistent and incongruent information, which cannot be relied upon for analysis/estimation purpose. For example, in this dataset for FY 2019-20, out of 502 feeders, around 251 feeders reported negative loss level and around 152 feeders reported loss levels in excess of 20%. Subsequently, MSEDCL furnished additional information for 502 feeders for FY2020-21 and FY2021-22, in reply to data-gaps. As per this information, the out of 502 feeders, around 134 feeders (for FY2020-21) and 181 feeders (for FY2021-22) reported loss level below 20% and around 368 feeders (for FY 2020-21) and 321 feeders (for FY2021-22) reported loss levels in excess of 20%.
- 3.2.24 MSEDCL vide letter dated 17 March 2023 made additional submission regarding feeder-based assessment of AG sales after the conclusion of the public hearing process on 3 March 2023. In its submission, MSEDCL mentioned that using the AG index determined based on a small sample size of 502 feeders (less than 5%) to determine the entire Agriculture Sale of MSEDCL is unjustified and leads to inaccurate/erroneous results resulting in financial loss to MSEDCL. Further, MSEDCL has submitted that it conducted an analysis of feeders which are not selected by the Commission, using actual data and identified other sample feeders in accordance with the methodology provided by the Commission in its MYT order. For purpose of its analysis, MSEDCL has considered feeders no. as 1427(FY2019-20), 996 (FY 2020-21), 1362 (FY2021-22). MSEDCL has then determined the AG Sales based on the index derived from these additional feeders. Further, MSEDCL has conducted the whole study to determine the AG index by distributing the whole exercise in three separate scenarios.
 - Scenario-1: for analysis on MERC selected 502 feeders.
 - Scenario-2: for analysis of the entire AG feeders of MSEDCL, which meet the criteria per the MERC directives methodology.
 - Scenario-3: for analysis of AG feeders of MSEDCL with the same methodology but with a more accurate sample size based on the theory.
- 3.2.25 Based on the comparison of estimated AG consumption, MSEDCL has submitted that it acknowledges that the feeder-based billing methodology determined by the AGWG is a comprehensive and effective tool for billing individual consumers on the specific

feeder, but it is an inappropriate method for determining the AG sales of all feeders based on sample size as small as 5%.

- 3.2.26 In addition to that, MSEDCL has highlighted the approaches of different SERCs for determining the norms for unmetered AG consumption. It shows a wide range of variation in the actual per HP consumption from the norms set. MSEDCL has submitted that this variation can be justified based on demand variation due to seasonal changes. MSEDCL has submitted that the norms can be revalidated based on AMR data of AG feeders, subdivision-wise losses and load flow study(software-based) on the sample AG feeders. Further, MSEDCL also submitted that 20% of the sample size would hold good based on different crop patterns, irrigation levels, and rainfall covering representative areas of the state. For sample feeders, the GPS survey should be completed along with the metering of individual AG pumps.
- 3.2.27 The Commission observes that MSEDCL has not submitted this information neither at the time of technical validation nor prior to or during the public hearing process to enable scrutiny and filing of objections/comments/suggestions from stakeholders. Further, there could be a possibility that MSEDCL has chosen feeders which support/favor its arguments. Selection of representative sample should be unbiased and such sampling should be done at the start of billing exercise. MSEDCL's argument to enlarge the sample size at later stage, when billing is done as per conventional method is not correct. It is highlighted that for 502 feeders, MSEDCL has implemented feeder input based billing. In fact, the Commission had categorically highlighted this point in the Public Notice, published for public hearing as a part of regulatory process as under:

Note:- LT-AG Sales and Energy Balance reported and estimated by MSEDCL in this Petition is not as per the methodology specified by the Commission in MYT Order in Case No 322 of 2019. Consequently, with the change in methodology for assessment of AG sales, the AG sale would undergo change, which would also have an impact on the total sales, distribution losses and sharing of gains/losses.

- 3.2.28 During the course of the Public Hearing, several objectors have raised objections regarding the methodology followed by MSEDCL for estimation of AG Sales and non-compliance of Commission's directions to adopt feeder-based input methodology, delay in sharing feeder-based input data to be put out in public domain in timely manner for verification/validation by stakeholders. Even the specific objections of the objectors in this respect are not responded to appropriate manner and only generic reply is provided at times. The Commission observes that sanctity of the regulatory and public consultation process demands that all the information and data that is required to be considered as part of regulatory process should have been part of the MTR petition and stakeholders/general public should have chance to scrutinize and an opportunity to offer its objections/comments in the process.
- 3.2.29 Hence, it will not be appropriate for the Commission to consider the same on such critical issue of estimation/assessment of AG sales and consequently assessment distribution loss thereon, with revised sets of feeder data. Hence, the Commission is not inclined to consider this additional submission and is of the considered view to consider

the feeder input based AG Index as approved under its MYT Order in Case 322 of 2019 for estimation of AG sales in present MTR purpose as well. Further, the Commission notes that improvements in the feeder-based input methodology, enhancement of sample size, selection of feeders strictly in accordance with the principles, methodology and conditions outlined under the MYT Order in Case 322 of 2019 is a continuous process for further refinements in assessment of AG sales, which MSEDCL should continue. MSEDCL should submit such information in public domain from time to time in accordance with conditions outlined under MYT Order and also incorporate the same as part of next tariff revision filing in timely manner. This would improve the confidence level of stakeholders not only on datasets but also on the process and their feedback/suggestions can be incorporated including adoption of measures for course correction, if necessary, in timely manner. Accordingly, the Commission shall consider the same at the time of next tariff revision process while truing up the sales for prospective periods.

- 3.2.30 In view of the above, the Commission has disallowed the claim of MSEDCL regarding increase in AG sales and has approved the AG sales based on AG Index and methodology in line with the MYT order in Case No.322 of 2019 dated 30 March 2020.
- 3.2.31 Further, the Commission has observed that MSEDCL has claimed an increased no. of unmetered connections for FY 2020-21 (75,14,426) and FY 2021-22 (79,03,903) from FY 2019-20 (73,67,595) which is strictly not acceptable. The Commission in past vide MYT Order of 3rd Control period in Case No. 19 of 2012 had directed MSEDCL to reduce unmetered AG connections and convert these connections to metered Ag connections. Further, strictly no new unmetered connection shall be released to consumers including Ag consumers. MSEDCL was expected to follow the directions of the Commission in letter and spirit. Accordingly, the Commission is of the view that, releasing unmetered connections instead of converting unmetered to metered connection, is non-compliance of the Commission's directions. The Commission expresses its displeasure for non-compliance by MSEDCL on the directions of the Commission and directs MSEDCL to initiate the internal enquiry on the issue of releasing the un-metered Ag connections during FY 2020-21 and FY 2021-22 and submit the Zone-wise compliance report to the Commission within six months from the date of this Order.
- 3.2.32 In view of the above, the Commission has disallowed the claim of MSEDCL regarding increase in AG sales and has approved the AG sales based on AG Index and methodology in line with the MYT order in Case No. 322 of 2019 dated 30 March 2020.
- 3.2.33 The summary of the approved Sales for FY 2019-20 for the purpose of Truing-up is provided as under:

Table 3-2: Sales of FY 2019-20 as approved by the Commission (MU)

	FY 2019-20					
Particulars	MYT Order	MTR Petitioned	Approved by the Commission			
HT Sales	37,175	35,817	35,817			
LT Sales (Excl. LT AG Sales)	36,920	35,585	35,585			
LT AG Sales	23,258	28,389	23,411			
Total Energy Sales (Excl. DF Sales)	97,353	99,791	94,814			
Energy Sales in Bhiwandi DF Area	3,271.49	3,128.47	3,128.47			
Energy Sales in Nagpur DF Area	1438.55	716.02	716.02			
Total Energy Sales (Incl. of DF Sales)	102,063	103636	98,658			

3.3 Energy Balance for FY 2019-20

MSEDCL's Submission

3.3.1 For calculating energy balance of MSEDCL as a whole, the sale to the consumers within the Distribution Franchisee area and OA sales have been considered. In addition, MSEDCL has also factored the sales against the Solar offset units. Accordingly, energy available for FY 2019-20 is computed by MSEDCL as below:

Table 3-3: Energy Available for Sales for FY 2019-20 (MUs) as submitted by MSEDCL

Particulars	FY 2019-20					
Particulars	MYT Order	Actual	Deviation			
Energy Sales by MSEDCL for FY 2019-20	97,353.03	99,791.09	2,438.06			
Add: Category wise sales in DF area	4,710.04	3,844.49	(865.55)			
Add: Solar Offset Units	73.89	76.24	2.35			
Add: OA Sales (Conventional)	3,983.40	3,342.82	(640.58)			
Add: Renewable OA	859.40	813.11	(46.29)			
Total Energy sales MSEDCL	1,06,979.75	1,07,867.75	887.99			

- 3.3.2 MSEDCL 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 Transmission periphery. Hence, an average inter-state loss for the whole year is considered for power sourced from outside the State of Maharashtra.
- 3.3.3 Data of metered energy is available at 3 points: at busbar of the MSEDCL's contracted generating station, at T <> D interface i.e. at Distribution Periphery and sales at consumer end. MSEDCL further stated that in order to calculate Distribution Loss, it considered metered energy.

- 3.3.4 Power purchased from the inter-state transmission network is scheduled by Western Region Load Dispatch Center (WRLDC). Based on the power scheduled at generator bus for Maharashtra is available as Full Schedule and Net-Schedule on WRLDC webbased scheduling software.
- 3.3.5 WRLDC provides web-based scheduling reports on their website where details of full schedule and net schedule from each ISGS. The WRLDC uses this data for loss calculation. Further, WRPC prepares the REA from this data which forms the basis of billing for ISGS.
- 3.3.6 MSEDCL has prepared the cumulative information for FY 2019-20 based on these above-mentioned reports. MSEDCL has considered the ISTS losses as 2.95% for FY 2019-20, considering the energy at ex bus bar and energy received at STU periphery from these reports,

Table 3-4: Inter-State Transmission Loss for FY 2019-20 as submitted by MSEDCL

Sources of Power (Station Wise)	At regional Periphery (MUs)	Energy Received at State Periphery (MUs)	ISTS Loss
NTPC	28671.52	27723.12	3.3%
NPCIL	5163.56	5066.21	1.9%
SSP Hydro	1080.08	1080.22	0.0%
Pench Hydro	72.37	72.38	0.0%
EMCO Power	1412.71	1365.60	3.3%
CGPL	5017.40	4869.72	2.9%
Short Term Power Purchase	1450.82	1428.30	1.6%
Total Power Scheduled from Inter State Source	42868.47	41605.56	2.95%

- 3.3.7 MSLDC has submitted the computation of the Intra State Transmission System (InSTS) Grid Loss based on the Energy Input and Energy Output. This grid loss is for the Maharashtra Transmission System and not for MSEDCL. Hence, considering the fact that Grid Loss can't be same for all Distribution Licensees, MSEDCL has computed Intra-State losses.
- 3.3.8 MSEDCL submitted that it has considered a normative loss of 6% as per MYT Order for computing the input for OA consumption.
- 3.3.9 Considering the energy available for sale for FY 2019-20 as shown below, the energy balance for MSEDCL is calculated. The following tables shows the energy balance for FY 2019-20 as submitted by MSEDCL.

Table 3-5: Energy Balance for FY 2019-20 as submitted by MSEDCL

Sr.				FY 2019-20		
No.	Particulars	Calculation	UoM	MYT Order	MTR Petition	
1	LT Sales (Including D.F.)	a	MU	64,042	67,058	
2	HT sales excluding EHV level Sales (Incl. D.F)	b	MU	28,195	27,708	
3	HT/LTIP Credit Sales and HT/LT Offset Export Solar Units	С	MU	74	76	
4	Total Sales Incl. D.F. (Excl. EHV Sales)	d=a+b+c	MU	92,311	94,843	
5	OA Sales (Renewables)	e	MU	859	813	
6	OA Sales (Conventional)	f	MU	3,983	3,343	
7	Retail Energy Sale to Consumers (Excluding EHV Sales)	A=d+e+f	MU	97,154	98,999	
8	Total Power Purchase	B=g+h	MU		1,32,020	
9	Power Purchase Quantum from Intra-State sources	g	MU		89,150	
10	Power Purchase Quantum from Inter-State sources	h	MU		42,870	
11	Inter-State Losses	I	%		2.95%	
12	Power Purchase Quantum from Inter-State sources at MS Periphery	j=h*(1-i)	MU		41,607	
13	Add: FBSM	k			(1,734.30)	
14	Power Quantum handled at Maharashtra Periphery	I=g+j+k	MU		1,29,023	
15	Infirm Non-PPA Wind Power	m	MU		865.01	
16	Input for OA Consumption	n=f/(1-6%)	MU		3,556.19	
17	Total Power Purchase Quantum Handled	o=I+m+n-w	MU		1,32,932	
18	Surplus Power Traded	p	MU		841	
19	Energy Requirement at G<>T Periphery	q=o-p	MU		1,32,092	
20	Intra-State Transmission Loss	r	%	0.00%	3.28%	
21	Intra-State Transmission Loss	s=q*r	MU		4,329	
22	Net Energy requirement at T<>D Periphery	t=q-s	MU	1,28,106	1,27,762	
23	EHV Sales	u	MU	9,825	8,869	
24	Net Energy Available for Sale at 33kV	v=t-u	MU	1,18,281	1,18,893	
25	Energy injected and drawn at 33kV	W	MU	573	512	
26	Total Energy Available for Sale at 33kV (Metered Energy at EHV and 33 kV Input)	C=v+w	MU	1,18,854	1,19,406	
27	Distribution Loss (Excl. EHV Sales)	D=C-A	MU	21,700	20,407	
28	Distribution Loss (Excl. EHV Sales)	E=D/C	%	18.26%	17.09%	

Commission's Analysis and Ruling

- 3.3.10 The Commission notes that the Energy Balance submitted by MSEDCL for FY 2019-20 is as per the format F1.4 specified in MYT Regulations 2015, in which Distribution Loss has been estimated excluding EHV sales.
- 3.3.11 The Commission has considered the Conventional Open Access Sales and Renewable Open Access Sales as submitted by MSEDCL. The data has been verified from the

- submission made in response to queries raised. Accordingly, the submission by MSEDCL towards Open Access Sales is found to be in order.
- 3.3.12 In the earlier paras, the Commission has elaborated on its approach for estimation of AG sales for the purpose of true-up of FY 2019-20.
- 3.3.13 Based on the revised estimate of LT Sales by the Commission as approved in this Order, the approved sales including the DF sales, OA sale and embedded solar units offset as available for the Energy Balance of FY 2019-20 are shown below:

Table 3-6: Energy Available for Sale for FY 2019-20 (MU) as approved by the Commission

	FY 2019-20					
Particulars	MYT Order	MTR Petition	Approved in this Order			
Energy Sales by MSEDCL for FY 2019-20	97,353	99,791	94,814			
Add: Category wise sales in DF area	4,710	3,844	3,844			
Add: Solar Offset Units	73.89	76.24	76.24			
Add: OA Sales (Conventional)	3,983.40	3,342.82	3,342.82			
Add: Renewable OA	859.40	813.11	813.11			
Total Energy sales MSEDCL	106,980	107,868	102,890			

- 3.3.14 The Commission has considered the energy injected and drawn at 33 kV as submitted by MSEDCL as this information about energy injected and drawn at 33 kV is maintained at Circle offices of MSEDCL.
- 3.3.15 The Commission has considered the intra-state transmission loss of 3.18%, which is also the actual intra-state transmission losses as reported by MSLDC for FY 2019-20.
- 3.3.16 MSEDCL was asked to submit the month-wise details of the surplus energy traded for FY 2019-20 in terms of Quantum, Average rates and mode of sell, i.e., through Exchange or Bilateral. Based on the data submitted by MSEDCL, the Commission considered 840.52 MU of surplus energy traded which is same as claimed by MSEDCL.
- 3.3.17 Accordingly, the Commission has considered the Net Energy requirement at T<>D Periphery as claimed by the MSEDCL for FY 2019-20 for calculating the Distribution Loss.
- 3.3.18 The Distribution Losses arrived at for FY 2019-20 in the Energy Balance are consequent to the above changes.

Table 3-7: Energy Balance for FY 2019-20 as approved by the Commission.

					20		
Sr. No.	Particulars Calcula		UoM	MTR Order	MYT Petition	Approved in this Order	
1	Net Energy requirement at T<>D Periphery	a	MU	128,106	127,762	127,162	
2	EHV Sales	b	MU	9,825	8,869	8,869	
3	Net Energy Available for Sale at 33kV	c=a-b	MU	118,281	118,893	118,893	
4	Energy injected and drawn at 33kV	d	MU	573	512	512	
5	Total Energy Available for Sale at 33kV	A=c+d	MU	118,854	119,406	119,406	
6	LT Ag Sales (Including D.F)	e	MU	23,274	28,401	23,423	
7	LT Sales excluding Ag Sales (Incl. D.F)	f	MU	40,768	38,657	38,657	
8	HT Sales excl. EHV level sales (Incl. D.F)	g	MU	28,195	27,708	27,708	
9	HT/LTIP Credit Sales and HT/LT Offset Export Solar units	h	MU	73.89	76.24	76.24	
10	Total Sales incl. D.F (Excl. EHV Sales)	i=e+f+g+h	MU	92,311	94,843	89,866	
11	OA Sales (Renewables)	j	MU	859	813	813	
12	OA Sales (Conventional)	k	MU	3,983	3,343	3,343	
13	Retail Energy Sale to Consumers (Excl. EHV Sales and Incl. OA Sales)	B=i+j+k	MU	97,154	98,999	94,022	
14	Distribution Loss (Excl. EHV Sales)	С=А-В	MU	21,700	21,700 20,407 25,3		
15	% Distribution Loss (Excl. EHV Sales)	D=C/A	%	18.26%	17.09%	21.26%	

3.4 Distribution Loss for FY 2019-20

MSEDCL's Submission

3.4.1 In MYT Order dated 30 March 2020 in Case No. 322 of 2019 for 4th Control Period, the Commission restated the distribution loss of 18.26% based on the provisional true-up for FY 2019-20. It is submitted that the actual distribution loss (excluding EHV sales) achieved by MSEDCL for FY 2019-20 is 17.09% which is less by (1.17%) than that of the Distribution Loss level approved by the Commission in MYT Order.

Table 3-8: Distribution Losses for FY 2019-20 as submitted by MSEDCL.

	FY 2019-20			
Particulars	Approved in MYT Order	Actual	Deviation	
Distribution Loss	18.26 %	17.09 %	-1.17 %	

3.4.2 MSEDCL has submitted that loss reduction is a slow process and becomes increasingly difficult as the loss levels come down. The change in the sales mix also impacts the distribution losses. Hence, MSEDCL requested the Commission to approve the actual Distribution Loss as submitted by MSEDCL.

Commission's Analysis and Rulings

- 3.4.3 Based on the methodology for computation of Distribution Loss by considering the sales at the distribution periphery excluding EHV sales, the Distribution Loss level stipulated for FY 2019-20 in the last MYT Order was 18.26 %. However, MSEDCL now has submitted a Distribution Loss level of 17.09% for FY 2019-20, which is lower than the provisionally approved figures under MYT Order.
- 3.4.4 Further, the Commission has elaborated in earlier paragraphs regarding estimation of AG sales.
- 3.4.5 Accordingly, for the purpose of Energy Balance and assessment of distribution loss for FY 2019-20 under this Order, the Commission has now approved revised Energy Sales of 89,866 MU for FY 2019-20 against the claim of 94,843 MU including DF Sales, OA Sales and Solar Offset Units and excluding EHV Sales. Based on this, the approved Distribution Loss for FY 2019-20 as shown in the Table below:

Table 3-9: Distribution Loss for FY 2019-20 as approved by the Commission.

	FY 2019-20			
Particulars	MYT Order	MTR Petition	Approved in this Order	
Distribution Loss	18.26 %	17.09 %	21.26 %	

3.5 Power Purchase Expenses for FY 2019-20

MSEDCL's Submission

3.5.1 Following table summarizes the source wise power purchase done by MSEDCL during the FY 2019-20.

Table 3-10: Source wise Power Purchase for FY 19-20 as submitted by MSEDCL.

Source	PP Quantum (MU)			Quantum (MU) PP Cost (Rs. Crore)			PP Cost (Rs. /Unit)		
	Approved in MYT order	Actual	Deviation	Approved in MYT order	Actual	Deviatio n	Approv ed in MYT order	Actu al	Deviati on
MSPGCL	47,840.33	49,391.74	1,551.41	20,238.13	21,871.72	1,633.59	4.23	4.43	0.20
NTPC	26,638.65	28,671.64	2,032.99	10,452.18	10,430.64	(21.54)	3.92	3.64	(0.29)
NPCIL	5,612.76	5,163.56	(449.20)	1,615.18	2,085.00	469.82	2.88	4.04	1.16
SSP	1,043.46	1,080.08	36.62	213.91	221.42	7.51	2.05	2.05	
Pench	91.58	72.37	(19.21)	18.77	14.84	(3.94)	2.05	2.05	0.00
Dodson	34.68	45.62	10.94	14.67	16.24	1.57	4.23	3.56	(0.67)
JSW	2,120.32	1,952.79	(167.5)	725.07	685.95	(39.12)	3.42	3.51	0.09
CGPL	4,696.92	5,017.40	320.48	1,350.07	1,437.47	87.40	2.87	2.86	(0.01)
Adani Power	19,710.82	22,019.09	2,308.27	7,496.65	11,246.72	3,750.07	3.80	5.11	1.30

Source	PP Quantum (MU)			PP (Cost (Rs. Cro	re)	PP Cost (Rs. /Unit)		
	Approved in MYT order	Actual	Deviation	Approved in MYT order	Actual	Deviatio n	Approv ed in MYT order	Actu al	Deviati on
EMCO Power	1,331.67	1,413.87	82.20	569.08	685.16	116.08	4.27	4.85	0.57
Rattan India	3,356.11	2,904.83	(451.28)	2,122.00	1,971.09	(150.91)	6.32	6.79	0.46
Renewable	15,718.00	12,826.99	(2,891.01)	7,761.79	6,818.47	(943.32)	4.94	5.32	0.38
Traders	571.42	1,451.02	879.60	224.84	517.10	292.26	3.93	3.56	(0.37)
RECs									
Other Adjustments									
PGCIL Charges				3,163.31	3,902.34	739.04			
FBSM					(9.08)	(9.08)			
Intra State Purchase		9.33	9.33	1.98	8.59	6.61			
Rebate					(6.45)	(6.45)			
Total Power Purchase	1,28,767	1,32,020	3,254	55,968	61,897	5,930	4.35	4.69	0.34

- 3.5.2 In the following paragraphs, MSEDCL has submitted the detailed reasons for variation in the power purchase quantum by 3,254 MUs and variation power purchase cost by Rs 5,930 Cr in FY 2019-20 as against that approved under MYT Order.
- 3.5.3 **MSPGCL:** MSEDCL submitted that, due to coal shortage MSEDCL has purchased power from Bhusawal 4 & 5, Nashik 3, 4 & 5, Paras 3, Parli 6-7 & Parli Replacement U-8 which were not included in approved MoD stack. Hence, the actual MUs from MSPGCL generating units have been increased as compared to approved 9, 656 MUs. Further, the FAC up to January 20 is Rs. 2,103.28 Crore.

MSEDCL had signed a Tri-Partite Agreement (TPA) on 18 October 2019 for the period from 01 November 2019 to 31 October 2020 under Case IV (Phase II) with M/s. Dhariwal Infrastructure Ltd. (DIL) and MSPGCL for 185 MW with the quoted (contracted) tariff of Rs. 2.889/unit. The TPA was further extended on 29 October 2020, 20 January 2021 and 25 October 2021 for a period of three months, nine months and five months respectively. In view of the above, MSEDCL has purchased power worth Rs. 171.22 Crores in FY 2019 20 from MSPGCL Dhariwal.

3.5.4 **NTPC:** MSEDCL submitted that due to coal shortage MSEDCL has purchased power from Maudra, NTPC Solapur and Gadarwara which were not in the approved MoD stack. Further, incentive, ED, Cess, ECR revision not approved in MYT Order are paid as per CERC Order for NTPC stations amounting to Rs. 46.41 Crore.

- 3.5.5 **JSW:** MSEDCL submitted that variable charges are increased more than that approved one (i.e., Rs. 2.32/kWh against Rs 2.08/kWh). This is because of increase in escalation index of coal.
- 3.5.6 **CGPL**: MSEDCL submitted that it has paid change in law claims to the tune of Rs. 97 Crore on account of GST.
- 3.5.7 **APML**: MSEDCL submitted that, Rs. 1,680 Crore are considered against claim under SHAKTI Policy viz. Rs. 68 Crore (in case of APML 125 MW), Rs. 719 Crore (In case of APML 1320 MW), Rs. 653 Crore (in case of APML 1200 MW), Rs. 240 Crore (in case of APML 440 MW).
- 3.5.8 Further for domestic coal shortfall in case of APML 1320 MW, Rs. 1,663.50 Crore are considered for 800 MW portion of 1320 MW. Also, actual fixed charges of Rs. 447 Crore paid as against approved amount of Rs. 77 Crore in case of APML 440 MW,
- 3.5.9 **EMCO Power**: MSEDCL submitted that, transmission charges increased by Rs. 38 Crore than that of approved of Rs. 84 Crore. Further, payment on account of new change in law event in DS evacuation facility charges paid during current year. Further, an amount of Rs. 56.40 Crore paid to make 50% payment under National Coal Distribution Policy.
- 3.5.10 **Rattan India Power:** MSEDCL submitted that units were not in approved MoD stack. However, due to increased demand power was scheduled from this unit during FY 2019-20.
- 3.5.11 **Dodson II:** MSEDCL submitted that supplementary capacity incentive of Rs. 1.31 Crore was paid for FY 2018-19.
- 3.5.12 **Short Term:** MSEDCL submitted that due to increase in demand short term power was procured. Further, MSEDCL has submitted the month-wise short term power purchase and the rate for such purchase along with the break break-up between (bilateral/trader or purchase from market/PX) for FY 2019-20, FY 2020-21, and FY 2021-22 in response to data gaps.

Renewable Energy

Non-Solar RE:

- 3.5.13 MSEDCL submitted reasons for less generation from non-solar sources as below:
 - Due to drought situation in the districts like Ahmednagar, Solapur and Marathwada region, the crushing season was reduced which further reduced the generation by around 50% as compared to previous year i. e. FY 2018-19. Whereas in some of the districts such as Kolhapur, Sangli and Satara were flooded which has also impacted the crushing and generations from the Bagasse based plants. Further, the variable

- cost in respect of Bagasse and Biomass is also increased by Rs. 0.21 per unit and Rs. 0.26 per unit, respectively.
- Due to pandemic situation of COVID-19 scheduled commercial operation date of about 726 MW wind power projects (which were contracted in FY 2018-19) has been extended almost one and half years. Hence, less power is received in FY 2019-20.
- 3.5.14 MSEDCL submitted the reasons for less generation from solar generators as below:

Solar Generation:

- MSEDCL submitted that while approving the monthly power purchase from solar generator it was considered that 1501 MW and 862 MW new capacity will be added in the Solar portfolio. However, in case of SECI, during FY 2019-20 only 1000 MW were commissioned in the month of December 2019. Hence, lesser power received in FY 2019-20.
- Further, in case of Adani Renewable (Rajasthan), major reason for delay in project commissioning was due to COVID-19 pandemic situations.
- In case of NVVN Solar, the preferential tariff is much higher than the competitive tariff.
- 3.5.15 MSEDCL submitted the details of RE purchase for FY 2019-20. The details are shown in the following table:

FY 2019-20 Source Quantum (MU) Cost (in Rs. Crs.) Hydro (NCE) 327.52 139.03 3,205.70 6,371.06 Wind Bagasse based Cogen. 2,622.06 1,713.77 368.40 263.83 Biomass MSW 0.85 0.41 Total Non-Solar 9,689.89 5,322.74 Solar 1,269.38 650.56 SECI 1,736.62 792.06 Adani Renewable (RJ) 91.29 24.29

20.49

19.32

3,137.10

12,826.99

Table 3-11: RE purchase for FY 2019-20 as submitted by MSEDCL.

- 3.5.16 MSEDCL submitted that during FY 2019-20, MSEDCL has shortfall of 6,115.26 MUs in fulfilling cumulative non-Solar RPO Target till FY 2019-20 including the standalone shortfall of 4,236.56 MU for FY 2019-20.
- 3.5.17 In case of Solar, MSEDCL has the shortfall of 4,320.66 MU in fulfilling cumulative Solar RPO Target till FY 2019- 20 including the standalone shortfall of 852.17 MU for

21.98

6.83

1,495.73

6,818.47

NVVN (Solar)

Solar Rooftop

Total Solar

Total

FY 2019-20. Further, MSEDCL has the shortfall of its stand-alone Mini/Micro hydel RPO of 22.45 MU for FY 2019-20 with cumulative shortfall till FY 2019-20 of 50.89 MU. The Commission vide its Order dated 7 September 2021 Case No. 49 of 2021 has allowed MSEDCL to fulfil its cumulative shortfall till FY 2022-23.

Commission's Analysis and Ruling

- 3.5.18 The Commission has noted the submissions of MSEDCL for the purpose of truing up of FY 2019-20. The Commission observes a deviation of Rs. 2081.93 Crore in the total Power Purchase (excl. Transmission & Reactive Charges) with the audited account of FY 2019-20, for which the Commission has sought for the reconciliation of power purchase cost with the audited account of FY 2019-20 in the data gap query.
- 3.5.19 In response of above, MSEDCL submitted that the difference in power purchase cost for FY 2019-20 as per Note 29 of Audited account and the amount claimed in the Petition is on account of re-statement of Audited Accounts of FY 2019-20 at a later stage. The reconciliation of power purchase cost for FY 2019-20 is provided as shown below:

Table 3-12: Reconciliation of Power Purchase Cost for FY 2019-20, as submitted by MSEDCL

Particulars	Amount (Rs. Cr.)
RPO Provision considered	2,003.60
Excess RE provision reversed	(63.75)
FBSM Provision	144.66
Excess RE DPC Provision reversed	(2.57)
Total	2,081.93

- 3.5.20 Further, the Commission had asked MSEDCL to submit station wise cost breakup for power purchase duly certified by the statutory auditor. In response MSEDCL clarified that station wise break-up of Power Purchase cost as submitted by MSEDCL in Form F2 along with the MTR Petition reflects the duly certified audited numbers, since, MSEDCL has already provided reconciliation of the total power purchase cost claimed in Form F2 with the audited accounts.
- 3.5.21 Accordingly, for the purpose of truing up of FY 2019-20, the Commission has considered the power purchase cost and quantum based on the Form 2 of the Tariff Format for further scrutiny and prudence check.
- 3.5.22 **MSPGCL:** Regarding the power purchase from MSPGCL under Case IV arrangement from Dhariwal, the Commission notes that MSEDCL had signed a Tri-Partite Agreement (TPA) on 18 October 2019 for the period from 1 November 2019 to 31 October 2020 under Case IV (Phase II) with M/s. Dhariwal Infrastructure Ltd. (DIL) and MSPGCL for 185 MW with the quoted (contracted) tariff of Rs. 2.89 /unit. Further, the TPA was extended on 29 October 2020, 20 January 2021, and 25 October 2021 for a period of three months, nine months, and five months respectively.

- 3.5.23 In view of the above, the Commission observes that the power purchase quantum from DIL is lower during FY 2019-20, as the TPA as signed in November. Further, the power purchase cost of the same is Rs. 171.22 Crore.
- 3.5.24 Further, MSEDCL was asked to submit sample copies of Supplementary bills of MSPGCL stations for FY 2019-20. Upon verification of the sample bills, the Commission finds it in order with the Form 18 which is further reconciled with the Form-2 in the additional submission dated 17 March 2023.
- 3.5.25 Accordingly, the Commission approves the power purchase quantum and cost based on Form 2 of the MTR Tariff format as shown below:

Table 3-13: Power Purchase cost and quantum of MSPGCL stations for FY 2019-20 as approved by the Commission.

	MYT Order				MTR Petition			Approved in this Order		
Generator Name	Energy Purchas e (ex- bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchas e (ex- bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purcha se (ex- bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	
MSPGCL Total	47,840	20,238	4.23	49,392	21,872	4.43	49,392	21,872	4.43	

Central Generating Stations:

- 3.5.26 The Commission in its MYT Order had projected the quantum of energy purchase based on the Merit Order Despatch principles for FY 2019-20. However, due to lesser availability of the RE Sources in FY 2019-20, MSEDCL had to procure power from other sources. Accordingly, increase of 2032 Mus was observed from NTPC generators due to its lower variable costs as per MoD stack. However, at the same time there is no significant increase in the total power purchase cost due to lower VC during FY 2019-20.
- 3.5.27 MSEDCL was asked to submit sample copies of Supplementary bills of NTPC stations for FY 2019-20. MSEDCL submitted sample copies of supplementary bills raised by NTPC during the year.
- 3.5.28 Further, the Commission observes a significant increase in power purchase cost from NPCIL generators because NPCIL has raised Rate revision bill due to Fuel Adjustment Charges for April 2009 to March 2020 for TAPP 1 to 4 for Rs. 751.29 Crores and Kakrapar had passed on negative rate revision bill due to Fuel Adjustment Charges for April 2009 to March 2020 of Rs. -106.39 Crores. Hence, aggregate impact of Rs. 644.90 Crores. is there in FY 2019-20 resulting in increase in total cost per unit.
- 3.5.29 Upon verification of the sample bills, the Commission finds it in order with the Form 18 which is further reconciled with the Form-2 in the additional submission dated 17

March 2023. Accordingly, the Commission approves the power purchase quantum and cost based on Form 2 of the MTR Tariff format as shown below:

Table 3-14: Power Purchase cost and quantum of NTPC and NPCIL stations for FY 2019-20 as approved by the Commission.

	MYT Order				MTR Petition			Approved in this Order		
Generato r Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	
NTPC	26,638.65	10,452.18	3.92	28,671.64	10,430.64	3.64	28,671.64	10,430.64	3.64	
NPCIL	5,612.76	1,615.18	2.88	5,163.56	2,085.00	4.04	5,163.56	2,085.00	4.04	

IPPs:

- 3.5.30 MSEDCL was asked to provide detailed submission on the Rs. 1680 Crores against the Shakti Policy and Rs. 1663.5 Crore against the domestic coal shortfall for the APML generators. Further, the commission has also asked for the detailed computation for the same in reply to the data gaps.
- 3.5.31 In response to this MSEDCL has submitted that since the matter relating to the computation of compensation is still under litigation before the Hon'ble Supreme court and APTEL the actual computation is yet to be finalized. However, MSEDCL submitted that it has paid adhoc amount to APML from time to time.
- 3.5.32 Further, MSEDCL has also submitted the amount accepted by MSEDCL against the amount claimed by the generators as detailed below:

Table 3-15: Change in Law Claims as Submitted by MSEDCL (Rs. Crore)

		Claime	ned by the Generator				DCL
S. No.	Generators	Variation due to Coal shortfall	Impact of Taxes and duties	Total	Variation due to Coal shortfall	Impact of Taxes and duties	Total
1	JSW Energy		48.83	48.83		44	44
2	CGPL		97.02	97.02		97.02	97.02
3	APML	6096.73	765.85	6862.58	3343.5	692.52	4036.02
4	GMR Warora/ EMCO	156	59.24	215.24	56.4	51.27	107.67
5	Rattan India		225.66	225.66		101.05	101.05
	Total	6252.73	1196.6	7449.33	3399.9	985.86	4385.76

3.5.33 The Commission in this regard observes that MSEDCL has accepted a lower amount as claimed by the generator. Further, the Commission has scrutinized the audited account and noted that, the power purchase where, there is ambiguity in the method of

- computation of CIL by Generator, such amount is booked as non-provision under the financial statement and same has not been considered for the power purchase expense of that year.
- 3.5.34 Regarding GMR Warora/ EMCO, the Commission observes an increase in per unit power purchase because of increase in transmission charge by Rs. 38 Crores. Further, MSEDCL has paid Rs. 56.40 Crores to make 50% payment under NCDP policy.
- 3.5.35 Further, for the purpose of truing up of IPPs, the Commission has sought for monthly bills on sample basis for all the IPPs for detailed scrutiny of the power purchase cost as claimed by MSEDCL. In response to this MSEDCL has provided the sample copies of energy bills, CIL Bills and other bills for all the IPPs.
- 3.5.36 The Commission has scrutinized the monthly sample bills as provided by MSEDCL. As there is discrepancy in in Form 18, the Commission has asked MSEDCL to submit the reconciliation of the Form 2 and Form 18 as Form 18 provides the actual billed amount for Energy Bills, CIL and other bills on monthly basis which should match with the Form 2 in yearly aggregate basis.
- 3.5.37 In response to above, MSEDCL has provided the revised submission of Form 18 reconciled with Form 2. The Commission further undertaken scrutiny of the revised submission provided by MSEDCL dated 17 March 2023 and founds it in order with the Form 2.
- 3.5.38 Accordingly, the Commission has approved the power purchase quantum and cost of the IPPs and UMPP based on Form 2 of the Tariff Format below:

Table 3-16: Power Purchase cost and quantum of IPPs and UMPP stations for FY 2019-20 as approved by the Commission

	MYT Order				MTR Petition		Approved in this Order			
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	
JSW	2,120.32	725.07	3.42	1,952.79	685.95	3.51	1,952.79	685.95	3.51	
CGPL	4,696.92	1,350.07	2.87	5,017.40	1,437.47	2.86	5,017.40	1,437.47	2.86	
Adani Power	19,710.82	7,496.65	3.80	22,019.09	11,246.72	5.11	22,019.09	11,246.72	5.11	
GMR Warora/ EMCO	1,331.67	569.08	4.27	1,413.87	685.16	4.85	1,413.87	685.16	4.85	
Rattan India	3,356.11	2,122.00	6.32	2,904.83	1,971.09	6.79	2,904.83	1,971.09	6.79	
Total	31,215.84	12,262.87	3.93	33,307.98	16,026.39	4.81	33,307.98	16,026.39	4.81	

Short-term Power Purchase:

- 3.5.39 The Commission has sought for the detailed procedures followed by MSEDCL for selecting trader/offtake for bilateral/trader power purchase. In response to this MSEDCL submitted that it has procured power through short term tenders by the competitive bidding process. Further, for procurement of short-term power, MSEDCL floated Short Term Power Purchase tenders on DEEP-E-bidding portal in accordance with the Guidelines issued by Ministry of Power, GoI for Procurement of Power on Short term basis. As per the guidelines, the tenders were processed on DEEP-Bidding portal and LOAs were issued to successful bidders.
- 3.5.40 MSEDCL submitted the month wise short-term power procured with the monthly average rate and quantum during FY 2019-20 as detailed below:

Table 3-17: Short term Power	r Purchase in FY 2019-2	20 as submitted by MSEDCL
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Month	Energy E	Exchange	Bilateral	Purchase	
Month	MU Rs/Unit		MU	Rs/Unit	
Apr-19	0.50	3.15	195.07	4.42	
May-19	3.48	3.52	115.23	4.50	
Jun-19	24.96	3.44	1	Ī	
Jul-19	7.76	3.37	1	ı	
Aug-19	90.29	3.60	-	-	
Sep-19	134.14	3.10	-	-	
Oct-19	96.31	3.35	87.62	3.44	
Nov-19	12.24	3.42	-	-	
Dec-19	143.68	3.60	-	-	
Jan-20	170.74	3.61	-	-	
Feb-20	117.69	3.48	-	-	
Mar-20	251.31	2.84	-	-	
Total	1,053.10	3.31	397.92	4.23	

3.5.41 The Commission has scrutinized the submission of MSEDCL and further observes that the average yearly per unit short-term for FY 2019-20 is comes out to be Rs. 4.23/unit which is below the ceiling tariff (Rs. 4.50/unit) as decided by the Commission in MYT Order. Accordingly, the Commission approves the short-term quantum and rates as submitted by MSEDCL for FY 2019-20.

RPO Compliance:

- 3.5.42 As per the MERC RPO Regulations, 2016, each Distribution Licensee has to meet 15 % and of its requirement through RE sources in FY 2019-20 including 3.5% through solar sources and 11.5% through Non-solar (Other RE) sources for FY 2019-20. In addition, 0.2% of the Non-solar (Other RE) RPO obligation has to be met through Mini Hydro or Micro Hydro power projects.
- 3.5.43 The Commission had verified the compliance of RPO targets by MSEDCL for FY 2019-20 in its Order dated 07 September 2021 in Case No. 49 of 2021. The Commission concluded that MSEDCL has not fulfilled its stand-alone and cumulative solar and non-

Solar targets with a shortfall of 4320.66 MUs and 6115.26 MUs respectively for FY 2019-20. In addition, MSEDCL has also not fulfilled its stand-alone and cumulative mini/micro-Hydro RPO targets with a shortfall of 50.89 MUs. The Commission has allowed MSEDCL to fulfil its cumulative RPO shortfall by FY 2022-23.

3.5.44 The RPO compliance status as per Case no. 49 of 2021 for FY 2019-20 is as shown in Table below:

Table 3-18: RPO compliance status for FY 2019-20 as approved by the Commission in Case No 49 of 2021

FY 2019-20	RPO Target	RPO Compliance	Standalone Shortfall	Shortfall Percentage	Cumulative RPO (Surplus)/ Short fall till end of FY 2019-20
Solar	4,468.62	3,616.45	852.17	0.67%	4320.66
Non-Solar	14,682.60	10,446.04	4236.56	3.32%	6115.26

FBSM Bills:

3.5.45 The Commission had asked MSEDCL to submit year-wise and source-wise revenue/costs towards FBSM bills. MSEDCL has submitted the details of FBSM charges, bills raised by MSLDC as per the Orders of the Commission as below:

Table 3-19: FBSM Revenue as per DSR for FY 2019-20 as submitted by MSEDCL

Particulars	Amount (Rs Cr.)
FBSM Bills for FY 2016-17 booked in FY 2019-20	27.96
FBSM Bills for FY 2017-18 booked in FY 2019-20	(37.05)
Total considered in FY 2019-20	(9.08)

3.5.46 Further, the Commission has scrutinized the bills submitted by MSEDCL and found it in Order. Accordingly, the Commission has approved the FBSM expenses as claimed by MSEDCL for FY 2019-20.

PGCIL Charges:

- 3.5.47 As sought by the Commission, MSEDCL submitted the monthly bills against ISTS charges by PGCIL for FY 2019-20. The Commission verified the bills and found that the summation of the monthly bills for FY 2019-20 is equal to the claimed value for PGCIL charges by MSEDCL for FY 2019-20. Based on the above verification, the Commission approves the PGCIL charges as claimed by the MSEDCL for FY 2019-20
- 3.5.48 Accordingly, upon scrutiny and verification, the Commission has approved the actual power purchase expenses as claimed by MSEDCL for FY 2019-20 for the purpose of truing up of FY 2019-20. The approved Power Purchase is shown in the table below:

Table 3-20: Power Purchase Expenses for FY 2019-20 as approved by the Commission (Rs. crore)

		MTR Petition		Approved in this Order		rder
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
KAPP	1,056.21	157.68	1.49	1,056.21	157.68	1.49
TAPP 1&2	1,014.03	518.22	5.11	1,014.03	518.22	5.11
TAPP 3&4	3,093.33	1,409.10	4.56	3,093.33	1,409.10	4.56
SSP	1,080.08	221.42	2.05	1,080.08	221.42	2.05
Pench	72.37	14.84	2.05	72.37	14.84	2.05
Dodson I	32.07	5.81	1.81	32.07	5.81	1.81
Dodson II	13.55	10.43	7.70	13.55	10.43	7.70
Non-solar	9,689.89	5,322.74	5.49	9,689.89	5,322.74	5.49
Solar	3,137.10	1,495.73	4.77	3,137.10	1,495.73	4.77
Hydro + Ghatghar)	4,537.89	730.82	1.61	4,537.89	730.82	1.61
Bhusawal - 3	27.66	143.50	51.89	27.66	143.50	51.89
Bhusawal – 4 & 5	4,934.13	2,640.44	5.35	4,934.13	2,640.44	5.35
Khaparkheda - 1 to 4	3,534.50	1,502.17	4.25	3,534.50	1,502.17	4.25
Khaparkheda - 5	3,110.11	1,415.63	4.55	3,110.11	1,415.63	4.55
Nashik- 3,4 & 5	2,085.71	1,194.86	5.73	2,085.71	1,194.86	5.73
Chandrapur – 3 to 7	8,457.49	3,303.41	3.91	8,457.49	3,303.41	3.91
Paras - 3	2,480.98	1,265.18	5.10	2,480.98	1,265.18	5.10
Paras - 4	-	-	-	-	-	-
Parli - 4	(6.05)	8.91	(14.74)	(6.05)	8.91	(14.74)
Parli - 5	-	-	-	-	-	-
Parli - 6	1,393.83	925.87	6.64	1,393.83	925.87	6.64
Parli - 7	-	-	-	-	-	-
Koradi - 6	429.72	457.73	10.65	429.72	457.73	10.65
Koradi - 7	-	-	-	-	-	-
GTPS Uran	2,525.01	709.68	2.81	2,525.01	709.68	2.81
Parli Replacement U 8	778.11	593.73	7.63	778.11	593.73	7.63
Chandrapur - 8	3,161.80	1,638.21	5.18	3,161.80	1,638.21	5.18
Chandrapur - 9	3,121.95	1,488.53	4.77	3,121.95	1,488.53	4.77
Koradi R U-8	2,532.47	1,210.99	4.78	2,532.47	1,210.99	4.78
Koradi 9	2,804.29	1,289.33	4.60	2,804.29	1,289.33	4.60
Koradi10	2,889.49	1,489.48	5.15	2,889.49	1,489.48	5.15
MSPGCL Infirm	-	-	-	-	-	-
MSPGCL Dhariwal	592.66	171.22	2.89	592.66	171.22	2.89
IEPL	-	-	-	-	-	-
True up 17-18 & 18-19	-	(307.97)	-	-	(307.97)	-
KSTPS	4,498.24	953.11	2.12	4,498.24	953.11	2.12

		MTR Petition		Approved in this Order		rder
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
KSTPS III	855.46	239.41	2.80	855.46	239.41	2.80
VSTP I	2,954.21	804.15	2.72	2,954.21	804.15	2.72
VSTP II	2,278.92	577.71	2.54	2,278.92	577.71	2.54
VSTP III	2,019.50	564.25	2.79	2,019.50	564.25	2.79
VSTP IV	2,165.63	706.60	3.26	2,165.63	706.60	3.26
VSTP V	1,236.97	415.24	3.36	1,236.97	415.24	3.36
Kawas	425.41	231.98	5.45	425.41	231.98	5.45
Gandhar	93.29	181.60	19.47	93.29	181.60	19.47
KhSTPS-II	1,055.22	331.78	3.14	1,055.22	331.78	3.14
SIPAT TPS 2	1,989.04	551.09	2.77	1,989.04	551.09	2.77
SIPAT TPS 1	3,902.47	1,115.55	2.86	3,902.47	1,115.55	2.86
Mauda I	1,901.90	1,160.29	6.10	1,901.90	1,160.29	6.10
Mauda II	2,289.61	1,358.63	5.93	2,289.61	1,358.63	5.93
NTPC Solapur 2	-	-	-	-	-	-
NTPC Solapur	385.61	903.44	23.43	385.61	903.44	23.43
Lara	422.86	201.11	4.76	422.86	201.11	4.76
Gadarwara	32.62	60.57	18.57	32.62	60.57	18.57
Khargone	33.64	19.67	5.85	33.64	19.67	5.85
RRAS (Thermal)	-	(27.22)	-	-	(27.22)	-
RRAS (Gas)	-	35.55	-	-	35.55	-
NTPC NVVN Coal	131.01	46.13	3.52	131.01	46.13	3.52
JSW	1,952.79	685.95	3.51	1,952.79	685.95	3.51
CGPL	5,017.40	1,437.47	2.86	5,017.40	1,437.47	2.86
APML 125 MW	954.60	452.18	4.74	954.60	452.18	4.74
APML 1320 MW	9,571.05	5,114.31	5.34	9,571.05	5,114.31	5.34
APML 1200 MW	9,164.19	4,340.97	4.74	9,164.19	4,340.97	4.74
APML 440 MW	2,329.24	1,339.25	5.75	2,329.24	1,339.25	5.75
GMR Warora/ EMCO	1,413.87	685.16	4.85	1,413.87	685.16	4.85
RIPL 450 MW	1,089.31	744.07	6.83	1,089.31	744.07	6.83
RIPL 750 MW	1,815.52	1,227.02	6.76	1,815.52	1,227.02	6.76
Short Term	1,451.02	517.10	3.56	1,451.02	517.10	3.56
FBSM	-	(9.08)	-	-	(9.08)	-
Intra State	9.33	8.59	9.21	9.33	8.59	9.21
Reactive Charges	-	0.01	-	-	0.01	-
PGCIL Charges	-	3,902.33	-	-	3,902.33	-
Rebate	-	(6.45)	-	-	(6.45)	-
Total	1,32,020.34	61,897.22	4.69	1,32,020.34	61,897.22	4.69

3.6 Intra State Transmission Charges and MSLDC Charges for FY 2019-20

MSEDCL's Submission

3.6.1 MSEDCL submitted the details of the actual transmission charges and MSLDC charges paid to MSETCL and MSLDC. The details are as follows:

Table 3-21: Intra State Transmission Charges for FY 19-20 as submitted by MSEDCL

	FY 2019-20				
Particular	MYT Order	MTR Petition	Deviation		
Intra-State Transmission Charges	4,839.42	4,847.57	8.15		
MSLDC Charges	24.32	23.68	(0.64)		
Total	4,863.74	4,871.25	7.51		

3.6.2 MSEDCL submitted that it pays the transmission charges to STU as per the InSTS Order issued by the Commission from time to time. MSEDCL requested the Commission to approve the actual Transmission and MSLDC Charges as per the Audited Accounts.

Commission's Analysis and Ruling

- 3.6.3 In reply to the data gaps MSEDCL has submitted the reconciliation statement. Upon review of the reconciliation statement the Commission noted that, the reconciliation statement submitted by MSEDCL does not clarifies why it has paid the InSTS charges and MSLDC charges higher than what the Commission has approved in the Case No. Case No. 265 of 2018 dated 12 September 2018 and Case No. 171 of 2017 dated 12 September 2018. Therefore, for FY 2019-20, the Commission has considered the Transmission Charges and SLDC charges paid by MSEDCL as per the above respective Orders of the Commission for the purpose of truing up of FY 2019-20.
 - 3.6.4 Accordingly, intra-state transmission charges and MSLDC charges as approved by the Commission for the purpose of true-up for FY 2019-20 is summarized below:

Table 3-22: InSTS Charges and MSLDC Charges for FY 19-20 as approved by the Commission (Rs. Crore)

	FY 2019-20				
Particular	MYT Order	MTR Petition	Approved in this Order		
Intra-State Transmission Charges	4,839.42	4,847.57	4,839.42		
MSLDC Charges	24.32	23.68	24.32		
Total	4,863.74	4,871.25	4,863.74		

3.7 O&M Expenses for FY 2019-20

MSEDCL's Submission

Actual O&M Expenses

- 3.7.1 MSEDCL has submitted actual employee expenses, A&G Expenses and R&M expenses in Regulatory Formats.
- 3.7.2 MSEDCL has provided the Comparison of actual O&M expenses for FY 2019-20 (excluding arrears) and FY 2018-19 as shown in table below:

Table 3-23: Comparison of actual O&M Expenses for FY 2019-20 as submitted by MSEDCL (Rs. Crore)

Particulars	FY 2018-19 (Actual)	FY 2019-2020 (Actual)	Difference
Employee Expenses (Net)	4877.64	5307.38	429.74
A&G Expenses (Net)	758.89	713.11	(45.78)
RM Expenses	764.49	773.84	9.35
Total O&M Expenses	6401.02	6,794.33	393.31

3.7.3 MSEDCL has submitted that there is an increase of Rs. 393.91 Crores in O&M Expenses for FY 2019-20 over FY 2018-19. The following Table summarizes the reasons for change in major components of O&M Expenses for FY 2019-20 over FY 2018-19.

Table 3-24: Reasons for change in major components of O&M expenses for FY 2019-20 over FY 2018-19

Sr. No.	Particulars	FY 2018-19	FY 2019-20	Difference	Remark
1.	Employee Cost				
1.1	Basic Salary	1,557.60	2,848.97	1,291.37	There is increase in Basic Salary due to Pay revision
1.2	Expenditure on Outsourced Employees	262.04	371.39	109.35	Due to increase in minimum wage & increase in outsource employees, the expense is increased
1.3	Dearness Allowance	1,651.61	378.93	(1,272.69)	As per the Pay revision the DA has been merged in Basic pay
1.4	Earned Leave Encashment	252.93	573.62	320.69	Due to last year of Block most of employee has applied for Leave Encashment in FY 2019-20. Also, there is impact of Pay revision
1.5	Other Allowances	166.21	204.93	38.71	The allowances have been increased due to pay revision
1.6	Overtime Payment	34.85	24.05	(10.80)	Due to austerity measures taken, this has been controlled
1.7	Gratuity Payment	524.89	415.90	(108.98)	Decrease due to retirement of employees
1.8	Staff Welfare Expenses	20.59	46.63	26.04	Interest on staff welfare fund was previously booked to other interest. From FY 2019-20 it is re-booked another GL
1.9	Provident Fund Contribution	370.73	381.82	11.09	Due to pay revision, PF share has increased
2.	Administration & C	General Ex	penses		

Sr. No.	Particulars	FY 2018-19	FY 2019-20	Difference	Remark
2.1	Rent Rates & Taxes	100.58	80.35	(20.23)	LBT expenses in respect of Aurangabad Urban Circle booked in FY 2018-19 Rs.20.02 Crore
2.2	Security Measures for Safety & Protection	117.15	136.85	19.70	Increase due to change in DA Rates & allowances
2.3	Advertisements	27.54	8.77	(18.77)	Advertisement of Public Notice for inviting Suggestions/Objections on MSEDCL's MTR petition' (Case No 195 of 2017) in the year FY 2018- 19
2.4	Expenditure on Computer Billing	296.42	274.05	(22.36)	Decrease due to lockdown
2.5	Commission/Colle ction charges	81.27	68.63	(12.64)	Decrease due to lockdown and increase in online collection
3.	Repair & Maintena	nce Expen	ses		
3.1	Plant & Machinery	352.85	283.42	(69.42)	Actual Expenditure
3.2	Civil Works	12.24	34.10	21.86	Actual Expenditure
3.3	Lines & Cable Networks	312.32	357.50	45.18	Actual Expenditure
3.4	Office Equipment	42.73	68.71	25.98	Actual Expenditure
3.5	Others	42.39	29.53	(12.86)	Meter cost of Rs. 69.88 Crs restated, due to earlier Dr to R&M, & other expenses are also restated

3.7.4 In the employee expenses, MSEDCL has added Rs. 121.13 Crores towards Remeasurement of defined benefit plans. In this regard, MSEDCL submitted that the Gratuity is recognised at the year-end by using projected unit credit method as on 31 March 2020. It is an unfunded defined benefit plan.

Normative O&M Expenses

- 3.7.5 Based on the MYT Regulation 2015, by considering the year-on-year variation of CPI and WPI, the annual escalation factor for arriving at O&M Expenses is computed as 4.22% for FY 2019-20. The escalation for O&M expenses has been done by considering O&M expenses for FY 2015-16 as the base.
- 3.7.6 Further, O&M expenses are allocated between the Wires Business and Retail Supply Business (in the ratio of allocation matrix provided in the MYT Regulations, 2015), i.e., 65% to Wires Business and 35% to Supply Business.
- 3.7.7 In MYT Order 322 of 2019 dated 30 March 2020, for the purpose of provisional true-up for FY 2019-20, the Commission had provisionally approved Rs. 291.06 Crore over and above derived normative O&M expenses which were based on actual disbursement of arrears owing to wage revision during the year. MSEDCL submitted that instalment of pay revision of Rs. 302.00 Crores has been given in the month of November 2019. Accordingly, for the purpose of true-up, MSEDCL has calculated total allowable O&M expenses for FY 2019-20, by considering Rs. 302.00 Crores over and above derived normative O&M expenses for FY 2019-20, as shown in the following table.

Table 3-25: Normative O&M Expenses for FY 2019-20 by MSEDCL (Wires + Supply) as submitted by MSEDCL (Rs Crores)

	FY 2019-20				
Particulars	MYT Order	MTR Petition (Normative)	Deviation		
O&M Expenditure for Wires business	4,662.26	4,690.38	28.12		
O&M Expenditure for Retail Supply business	2,510.45	2,525.59	15.14		
Operation and Maintenance Expenses (A)	7,172.71	7,215.97	43.26		
Impact of arrears - Wires business	189.19	196.30	7.11		
Impact of arrears - Supply business	101.87	105.70	3.83		
Sub Total (B)	291.06	302.00	10.94		
Total O&M Expenses (C = A+B)	7,463.77	7,517.97	54.20		

3.7.8 MSEDCL requested to allow the O&M expenses as computed in the above table.

Commission's Analysis and Ruling

- 3.7.9 The Commission notes that, MSEDCL has claimed O&M expenses for FY 2019-20 on normative basis while considering the same as controllable expenses and shared the impact of efficiency gain/loss on account of its variation w.r.t actual/audited O&M expense during the year.
- 3.7.10 The Commission further observes that the actual O&M expense for FY 2019-20 is lower than the normative O&M expense during the period.

Actual O&M Expenses

- 3.7.11 The Commission has carried out prudence check of actual employee expenses, A&G expenses and R&M expenses submitted by MSEDCL in the petition as well as restated audited accounts and replies to data gaps.
- 3.7.12 It is observed that Actual employee expense, A&G Expenses, and R&M expenses in the audited accounts of FY 2019-20 are Rs. 5,186.14, Rs. 676.86, and Rs. 773.85 Crore, respectively as compared to Rs 5307.38 Crore, Rs.713.11 Crore, and Rs.773.84 Crore respectively, claimed in the Petition. In reply to the query raised by the Commission, MSEDCL submitted the actual O&M expenses with restated Audited Accounts.
- 3.7.13 The Commission during TVS, sought clarification from MSEDCL for restating the Audited Accounts of FY 2018-19 and its impact. MSEDCL submitted that as per Indian Accounting Standard (Ind As) 8 Accounting Policies, Changes in Accounting Estimates and Errors As per Ind As 8 if any error or omission result in prior period expenses then, such prior period expenses shall be adjusted in the year in which pertains. Effect of Restatement in FY 2021-22 has been given in FY 2020-21 & FY 2019-20 only. FY 2018-19 was restated in FY 2020-21. Restatement of FY 2018-19 is mainly on account of DPS which is out of purview of ARR.

- 3.7.14 The Commission notes the clarification submitted by MSEDCL and accordingly considered the restated Audited Accounts for further scrutiny of the ARR components included O&M expense.
- 3.7.15 The Commission vide data gaps sought head-wise reconciliation of the O&M expense. In reply to data gaps, MSEDCL submitted that employee expense of Rs.5,307.38 Crore claimed in the Petition includes Other Comprehensive Income. While scrutiny of O&M expense, steep rise is observed in employee expense in FY 2019-20 as compared to previous years.

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Actual Employee expense (Rs. Crore)	4,292	4,157	4,877	5,307.38

- 3.7.16 The Commission vide data gaps sought the justification for such steep rise in O&M expense. In reply to data gaps, MSEDCL submitted that, the Pay revision effect has been given in FY 2018-19 for Rs.582.11 Crores and the same has been considered in the Petition as per Administrative Circulars dated 11 September 2019.
- 3.7.17 The Commission notes the submission of MSEDCL that, total employee expenses are Rs. 5,307.28 Crores which comprise employee expense of Rs. 5,186.25 Crores as per restated audited accounts and other comprehensive income of Rs. 121.13 Crores. The Commission notes that, MSEDCL has claimed Rs. 121.13 Crore as other comprehensive income under employee expenses, however it has not submitted any justification of the claim or supporting documents. Hence, the Commission has not considered the same and approved employee expenses as per restated audited account. Hence, Commission has approved Rs. 5,186.25 Crores towards employee expenses for FY 2019-20.
- 3.7.18 The Commission observes that, A&G expenses as per restated audited account are Rs. 676.86 Crores whereas MSEDCL has claimed A&G expense of Rs. 713.11 Crores. The breakup of A&G expense as claimed by MSEDCL and as per audited accounts is given in table below. It is observed that, there is a mismatch between the heads of A&G expenses as claimed by MSEDCL and A&G heads present in audited accounts. The Commission has raised a query on mismatch in heads claimed under A&G as per MTR formats and audited accounts. In reply to the query, MSEDCL submitted the breakup of A&G expense which is not in line with Audited accounts. MSEDCL submitted that, A&G expense claimed in the petition covers addition of Rs. 0.06 Crores towards Incentive to prepaid consumer, Rs. 0.99 Crores towards Go Green Discount to Consumer, Rs. 28.42 Crores Payment to MPECS, Rs. 47.22 Crores Lease Rent and subtraction of Rs. 40.42 Crores due to impact of payment to MPECS in future years. Accordingly, total A&G expenses claimed by MSEDCL are Rs. 713.11 Crore as claimed by MSEDC in MTR Petition formats.

3.7.19 The Commission opines that, licensees shall book overall expense in the audited accounts and accordingly expenses booked in audited accounts shall be considered for truing up. Further, MSEDCL has restated the audited accounts and submitted it to the Commission. The Commission has scrutinized restated audited accounts and as per the restated audited accounts, A&G expenses of Rs. 676.86 Crores are approved for FY 2019-20 in line with the heads given in audited accounts.

Table 3-26: Actual A&G Expenses for FY 2019-20 as per MSEDCL's submission and audited accounts

		FY 2	019-20
Sr. No.	Particulars	MTR Petition	As per Audited Accounts (Note 34)
1	Rent Rates & Taxes*	68.35	
2	Insurance	0.97	-
3	Telephone & Postage, etc.	17.74	
4	Legal charges & Audit fee	16.14	39.98
5	Professional, Consultancy, Technical fee	24.83	
6	Conveyance & Travel	11.38	11.38
7	Electricity charges	40.35	40.35
8	Water charges	4.88	
9	Security arrangements / Measures for Safety & Protection	136.85	136.85
10	Fees & subscription	15.15	15.15
11	Printing & Stationery	14.76	14.76
12	Advertisements	8.77	8.77
13	Vehicle Running Expenses Truck / Delivery Van	5.50	5.50
14	Vehicle Hiring Expenses Truck / Delivery Van	39.57	39.57
15	Expenditure on Computer billing	274.05	274.05
16	Commission/Collection charges	68.63	68.63
17	Miscellaneous Expenses	0.95	-
18	Expenditure on meetings/conference	1.84	-
19	Expenditure on upkeep of office premises	14.05	-
20	Others	5.01	-
21	Payment to MPECS#	-	-
22	Other Scheme Expenses	-	-
23	Administrative expenses	-	78.53
24	Gross A &G Expenses	769.77	733.52
25	Less: Expenses Capitalized	56.66	56.66
26	Net A &G Expenses	713.11	676.86

- 3.7.20 Similarly, R&M expenses are Rs. 773.84 Crores as per restated audited account. Hence, same are approved for FY 2019-20.
- 3.7.21 Accordingly, actual O&M expenses approved by the Commission are as below:

Table 3-27: Actual O&M Expenses for FY 2019-20 as approved by Commission (Rs. Crore)

Particulars	MYT Order	MTR Petition	Approved in this Order
Employee Expenses		5,307.38	5,186.14
A&G Expenses	7,172.71	713.11	676.86
R&M Expenses		773.84	773.85
Total O&M Expenses	7,172.71	6,794.33	6,636.85

3.7.22 The Commission has done prudence check of wage revision related documents submitted by MSEDCL. Accordingly, for the purpose of true-up, the Commission has allowed expenses of Rs. 302.00 Crores towards wage revision over and above derived normative O&M expenses for FY 2019-20.

Normative O&M Expenses:

- 3.7.23 The Commission has applied the amended norms specified in Regulations 72 and 81 of the MYT Regulations, 2015 (1st amendment 2017) for approval of O&M Expenses for the Wires Business and Supply Business. The relevant extract of the regulation is as given below:
 - "... 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."
- 3.7.24 As per the amendment to the MYT Regulations, 2015 the Base Year expenses for FY 2015-16 need to be escalated by an inflation factor with 30% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index (WPI) of the past five financial years and 70% weightage to the average yearly inflation derived based on the monthly Consumer Price Index (CPI) for Industrial Workers (all-India) of the past five financial years, as reduced by an efficiency factor of 1% to arrive at the permissible O&M expenses for each year of the Control Period. It is noted that MSEDCL has used WPI series of 2015-16 for the truing up year FY 2019-20.
- 3.7.25 Considering the year-on-year variations in CPI and WPI and escalation factor as approved by the Commission is shown in the following table.

Table 3-28: Normative O&M Expenses for FY 2019-20 (Wires + Supply) as approved by the Commission

Year	WPI	WPI Inflation	СРІ	CPI Inflation
FY 2015-16	109.72	-3.65%	265.00	5.65%
FY 2016-17	111.62	1.73%	275.92	4.12%
FY 2017-18	114.88	2.92%	284.42	3.08%
FY 2018-19	119.79	4.28%	299.92	5.45%
FY 2019-20	121.80	1.68%	322.50	7.53%
Average from FY14 to FY18		2.02%		5.17%
Weight		30%		70%
Escalation Factor				4.22%
Efficiency Factor				1.00%
Escalation Factor for FY 18	net of Ef	ficiency Facto	r	3.22%

- 3.7.26 The Commission has computed the escalation factor as specified in the above provision of the MYT Regulations, 2015 and the same works out to 3.22% after reducing 1% efficiency factor for FY 2019-20. Thus, for the purpose of working out normative O&M expenses for FY 2019-20, an escalation factor of 3.22% has been considered. Accordingly, the Commission has derived the O&M norms for FY 2019-20 as Rs 7,183.12 Crores excluding impact of wage revision.
- 3.7.27 The Commission has further verified the actual O&M expenses of MSEDCL for FY 2019-20 from the audited accounts and found the same to be lower than normative O&M expense. Since O&M expense is a controllable expense, the efficiency gains on account of lower actual O&M expense compared to normative expense has to be shared among MSEDCL and the consumer in accordance with the principles outlined under MYT Regulations, 2015.
- 3.7.28 Employee expense is major contributor in actual O&M, consisting of 78% of actual expense. The Commission also notes that R&M expense as percentage of actual O&M expense is 11.66%. The Commission is of the view that R&M expense needs to be increased so as to ensure better power quality to the consumers. The present expenses on R&M are on the lower side which may be adversely impacting the power quality. The low spending on R&M activities is a matter of concern, as it directly affects the reliability and upkeep of the Distribution network which in-turn has a bearing on quality service to the consumers. During the public consultation process, many Consumers have complained about the supply quality of MSEDCL.
- 3.7.29 The O&M expense approved for the purpose of truing up of FY 2019-20 for Wires Business and Retail Supply of electricity is shown in following table.

Table 3-29: Normative O&M Expenses for FY 2019-20 (Wires + Supply) approved by Commission (Rs. Crore)

Particulars	MYT Order	MTR Petition (Normative)	Approved in this Order
Normative O&M expense -Wires Business	4,662.26	4,690.38	4,669.03
Normative O&M expense - Supply Business	2,510.45	2,525.59	2,514.09
Sub Total (A)	7,172.71	7,215.97	7,183.12
Impact of wage revision arrears for Wires Business	189.19	196.30	196.30
Impact of wage revision arrears for Supply Business	101.87	105.70	105.70
Normative O & M Expenses (B)	291.06	302.00	302.00
Total O&M Expense allowed (C = A +B)	7,463.77	7,517.97	7,485.12

3.7.30 Thus, the Commission has approved normative O&M expense of Rs. 7,485.12 Crore including impact of wage revision for Truing-up of ARR for FY 2019-20 and difference between approved actual O&M and normative O&M is considered for sharing of gain/losses in the subsequent paragraphs of this Order.

3.8 Capital Expenditure and Capitalization for FY 2019-20

MSEDCL's Submission

3.8.1 MSEDCL has submitted that it has achieved a capitalization of Rs. 4,444.48 Crore as against an approved value of Rs. 5,920.00 Crore for FY 2019-20. The following table shows the capitalization in FY 2019-20.

Table 3-30: Capitalization as submitted by MSEDCL for FY 2019-20 (Rs. crore)

Particulars	FY 2019-20 MYT Order MTR Petition Deviation		
1 at uculars			
Capitalization			
DPR Schemes	5,700.51	3,907.30	(1,793.21)
Non DPR Schemes	219.49	537.18	317.69
Total	5,920.00	4,444.48	(1,475.51)

3.8.2 As per the Audited Accounts the addition to GFA is Rs. 4,476.57 Crores whereas in Form 4 MSEDCL has shown Capitalization as Rs. 4,444.48 Crores. MSEDCL submitted that in Form 4.2 only scheme wise details have been shown, whereas in audited accounts the Addition to GFA is shown in totality including land and land rights, buildings etc. The detail of which is shown in the table below:

Table 3-31: Addition to GFA as per Audited Accounts for FY 2019-20, as submitted by MSEDCL (Rs. Crore)

Sr. No.	Particulars	MTR Petition
1	Capitalization as per Note of Audited Accounts	4,476.57
2	Capitalization as per Form 4	4,444.48
	Other Assets	
3	Land	2.67
4	Buildings	12.11
5	Vehicles	-0.89
6	Furniture & Fixtures	0.82
7	General Assets	1.57
8	Other Civil Works	5.11
9	Computer Software	10.70
	Total (2 to 9)	4,477

3.8.3 MSEDCL has submitted the details of General Assets under GFA as summarized below:

Table 3-32: Details of GFA for FY 2019-20, as submitted by MSEDCL (Rs. Crore)

Sr. No.	Particulars	Amount (Rs. Crs)
1	Hydraulics Works	0.27
2	Communication Equipment	0.09
3	IT Equipment	0.02
4	Office Equipment	1.12
5	Other Assets	0.08
	Total	1.57

3.8.4 MSEDCL has also submitted that, the Commission in its previous Orders has allowed the Capitalization towards schemes not forming part of any scheme, which are of the nature of General Assets, and has accordingly made revisions in the GFA to that extent. MSEDCL has further requested the Commission to approve capitalization as per audited accounts and revise the GFA accordingly.

Commission's Analysis and Rulings

- 3.8.5 The Commission has analyzed the capitalisation details of the schemes as claimed by MSEDCL for FY 2019-20.
- 3.8.6 Regulation 23.2 of MYT Regulations, 2015 specifies the provisions to be referred to while allowing capitalisation.

"The capital cost admitted by the Commission after prudence check shall form the basis for determination of Tariff:

Provided that prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan including the choice and manner of funding, interest during construction, use of efficient technology, cost over-run and time

over-run, and such other matters as may be considered appropriate by the Commission for determination of Tariff."

- 3.8.7 As emphasized in earlier Orders also, some capitalisation is due to time over run of the schemes, and excess interest was incurred which would have been capitalized as IDC.
- 3.8.8 Due to excess capitalisation, an undue burden of excess IDC is being passed on to consumers, which is not justifiable. In case of schemes with excess capitalisation over and above the in-principle approved capital cost, the Commission has disallowed 100 % IDC for these schemes in line with the previous Orders. Thus, IDC of Rs 1.96 against Rs. 2.39 Crore is disallowed in FY 2019-20. The scheme-wise excess capitalisation is provided in the following Table.

Table 3-33: Excess Capitalisation claimed by MSEDCL in FY 2019-20 (Rs. Crore)

Sr. No	Major Schemes	Excess Capitalization in FY 2019-20
1	Infra Plan Works - II	217.45
2	GFSS	159.42
3	AMR	3.12
4	DTC Metering Phase-III	78.51
5	SPA:PE	1,712.84
3	P:SI	182.20
4	P:IE	337.70
5	RGGVY	46.90
6	DPDC / Non-Tribal	1,413.26
7	DPDC / SCP	463.37
8	DPDC / TSP + OTSP	981.87
	Total	5,596.34

3.8.9 The Commission has verified the DPR schemes submitted by MSEDCL and has disallowed Rs. 21.82 Crores in FY 2019-20 towards DPR schemes. The Commission has disallowed following schemes as shown in table below due to higher claim of MSEDCL in current MTR than the capex approved in principle. MSEDCL has projected higher capex and capitalisation than in-principle approval accorded by the Commission towards New Service Connection scheme. The Commission does not find any logic of such proposal and hence the capitalisation for such schemes is disallowed.

Table 3-34: Capitalisation disallowed by the Commission in FY 2019-20 (Rs. Crore)

S.N o	Schemes	MSEDCL petition	Approved in this Order
1	Ag DSM-Pilot project in Mangalwedha, Solapur	4.42	-
2	Star rated ceiling fan Phase-II (HVAC)	13.40	-

S.N o	Schemes	MSEDCL petition	Approved in this Order
3	New Service Connection (NSC) Scheme	4.00	-
4	Total	21.82	-

- 3.8.10 MSEDCL has submitted capitalisation towards feeder monitoring system, MIS/ IT Bacbone, Load management, distribution schemes, Dhadak Sinchan Yojana, JBIC scheme in non-DPR schemes.
- 3.8.11 Accordingly, the Capitalization approved by the Commission for FY 2019-20 is as follows:

Table 3-35: Capitalisation approved by Commission for FY 2019-20 (Rs. Crore)

	FY 2019-20		
Particulars	MTR Petition	Approved in this Order	
Approved DPR Capitalisation amount	3,904.91	3,883.12	
IDC claimed	2.39	0.43	
Pending/ yet to approve DPR	0.00	0.00	
Sub-total	3,907.30	3,883.55	
Non DPR	537.18	537.04	
% of Non DPR to DPR	13.75%	13.82%	
Total Capitalisation	4,444.48	4,420.59	

3.8.12 Accordingly, the total capitalisation approved for FY 2019-20 is summarized as shown below:

Table 3-36: Capitalisation for FY 2019-20 as approved by the Commission (Rs crore)

FY 2019-20			
Particulars	MYT Order	MTR Petition	Approved in this Order
Total Capitalization	5,920.00	4,444.48	4,420.59

3.8.13 Accordingly, the Commission approves the capitalization of Rs. 4,420.59 Crores for FY 2019-20.

3.9 Depreciation for FY 2019-20

MSEDCL's Submission

3.9.1 MSEDCL has submitted that the Opening GFA as per Audited Accounts is Rs. 57,924.40 Crores excluding the impact of Final Transfer Scheme/Restructuring Plan and subsequent revaluation. Accordingly, the depreciation has been reworked on a prorata basis on the revised Opening GFA for FY 2019-20 for the purpose of True-up which is summarized below.

Table 3-37: Depreciation as submitted by MSEDCL for FY 2019-20 (Rs. crore)

Particulars	FY 2019-20
Opening GFA for FY 2019-20 (Actual)	57,924.40
Opening GFA for FY 2019-20 (Regulatory)	52,374.60
Less: consumer contribution and grants	
Net Opening GFA (Approved)	52,374.60
Depreciation (Actual)	2,696.37
Depreciation (Claimed in proportion to actual)	2,437.48

Commission's Analysis and Rulings

- 3.9.2 The Commission has worked out allowable depreciation considering the approved opening GFA for FY 2019-20 on the revised capitalisation approved during the respective year.
- 3.9.3 Further, as per provision of MYT Regulations, 2015, consumer contribution and grants has been deducted from GFA while working out depreciation. The relevant Regulations is reproduced as under.
 - "25.2 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 26, after deducting the amount of such financial support received;
 - (c) provisions related to depreciation, as specified in Regulation 27, shall not be applicable to the extent of such financial support received;
 - (d) provisions related to return on equity, as specified in Regulation 28 shall not be applicable to the extent of such financial support received;
 - (e) provisions related to interest on loan capital, as specified in Regulation 29 shall not be applicable to the extent of such financial support received." (Emphasis Added)
- 3.9.4 The Commission has considered closing GFA of FY 2018-19 approved in the MYT Order in Case No. 322 of 2019 dated 30 March 2020 which is Rs. 52,374.60 Crores as opening GFA while computing depreciation in the Petition. Accordingly, the Commission approved the depreciation as shown in table below.

Table 3-38: Depreciation approved by the Commission for FY 2019-20 (Rs. Crore)

Particulars	Approved in this Order
Opening GFA (closing GFA of FY 2018-19)	52,374.60

MERC Mid-Term Review Order for MSEDCL for Truing-up of ARR for FY 2019-20, FY 2020-21 and FY 2021-22, Provisional Truing-up of ARR for FY 2022-23 and revised ARR for FY 2023-24 and FY 2024-25

Additional Capitalisation	4,420.59
Less: Consumer Contribution and grants	2,207.81
Closing GFA of FY 2019-20	54,585.78
Depreciation	2,247.49
Composite weighted average depreciation rate	4.29%

Table 3-39: Depreciation approved by the Commission for FY 2019-20 (Rs. crore)

	FY 2019-20		
Particular	MYT Order	MTR Petition	Approved in this order
Depreciation	2,665.53	2,437.48	2,247.49

3.9.5 Accordingly, the Commission approves depreciation of Rs. 2,247.49 Crores for FY 2019-20.

3.10 Interest Expenses for FY 2019-20

MSEDCL's Submission

- 3.10.1 MSEDCL has submitted that the computation of Interest expenses has been done on a normative basis linked to normative opening loan and normative loan addition during the year.
- 3.10.2 Further Regulation 29.5 of the MYT Regulations 2015 provides that at the time of Truing-up, the weighted average rate of interest computed on the basis of the actual loan portfolio during the concerned year shall be considered as the rate of interest. Accordingly, for arriving at the interest rate, MSEDCL has considered the weighted average interest rate of actual loan portfolio of FY 2019-20. The computation of weighted average interest rate of actual loan portfolio is shown in following table:

Table 3-40: Computation of weighted average interest rate for FY 2019-20 (In Crores)

Particular	Formula	Actual (Rs. Crores)
Outstanding Loan at the start of the		14,182.66
year	a	1.,102.00
Loan drawl during the year	b	5,248.10
Loan repayment during the year	c	2,734.85
Balance outstanding at the end of the		16,695.91
year	d = a+b-c	10,093.91
A 7 Cd	e =	15,439.28
Average Loan of the year	Avg(a,d)	,
Interest Expense incurred during the		1,569.78
year	f	1,505.70
Weighted Average Interest rate	g=f/e	10.17%

- 3.10.3 Regarding additional capitalisation and debt, MSEDCL submitted that, as per the Regulation 26.1 of MYT Regulations, 2015, 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.
- 3.10.4 MSEDCL submitted that the information required by the 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 capex and capitalization and hence it would be difficult to match the capex and capitalization and its funding on yearly basis.
- 3.10.5 It is submitted that previously funding gap (if any) was shown as internal accrual and the Commission has considered it as a part of normative equity or normative loan. It is pertinent to note that many times the 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, Commission has already given the necessary effect for additional equity.
- 3.10.6 The funding pattern for the capitalization for FY 2019-20, in proportion capital Expenditure, is presented in the following table:

Table 3-41: Funding for Capitalisation for FY 2019-20 (In Crores)

Particular	Amounts	Funding Mix (%)
Total Capitalisation	4,444.48	
Less: Consumer Contribution	322.89	
Less: Grants	1,896.69	
Balance to be funded	2,224.90	
Equity	1,041.12	46.79%
Debt	1,183.78	53.21%
Normative Equity	667.47	30.0%
Normative Debt	1,557.43	70.0%

3.10.7 MSEDCL has computed the interest expenses on normative basis by 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 and is provided in the Table below:

Table 3-42: Interest Expenses for FY 2019-20 as submitted by MSEDCL

	FY 2019-20			
Particulars	MYT Order	MTR Petition (Normative)	Deviation	
Normative Outstanding Loan at beginning of the year	12,973.91	12,973.91		
Less: Reduction of Normative Loan due to retirement of assets				
Loan drawn	2,583.70	1,557.43	(1,026.27)	
Loan Repayment	2,665.53	2,438.03	(227.50)	
Normative Balance outstanding at the end of the year	12,892.08	12,093.31	(798.77)	
Average Balance of Net Normative Loan	12,933.00	12,533.61	(399.38)	
Interest Rate	10.28%	10.17%		
Interest Expenses	1,328.88	1,274.34	(54.54)	

- 3.10.8 MSEDCL has submitted that the Commission had approved Funding of Capitalization based on the approved capitalization in the MYT Order dated 30th March 2020. However, actual capitalization is lower than the approved capitalization. The normative loan drawal is also lower than that approved in MYT Order
- 3.10.9 MSEDCL has requested to approve the normative interest expenses as submitted by MSEDCL in the above table.

Commission's Analysis and Rulings

3.10.10The Commission has confirmed that, normative debt:equity ratio is 70:30 and that actual equity claimed is not more than 30%. In case if actual equity is in excess of 30%, equity shall be treated as 30% and remaining actual equity shall be considered as normative loan. The funding pattern for FY 2019-20 for the capitalisation is approved by the Commission, in proportion to the funding pattern of capital expenditure adopted by MSEDCL and considering the approved capitalisation for the respective year. The approved funding pattern is presented in the following table:

Table 3-43: Funding of Capitalisation approved by Commission for FY 2019-20

Particular	MTR Petition	Approved in this Order (Rs. Crore)
Total Capitalization	4,444.48	4,420.59
Less: Consumer Contribution	322.89	321.18
Less: Grants	1,896.69	1,886.64
Balance to be funded	2,224.90	2,212.78
Normative Equity (30%)	667.47	663.83
Normative Debt (70%)	1,557.43	1,548.95

- 3.10.11The Commission has considered Rs. 4420.59 Crore for total Capitalization and calculated Consumer contribution Rs 321.18 Crore, and Rs 1886.64 Crore Grants. The Commission has considered total balance to be refunded Rs 2,212.78 Crore while deducting Consumer contribution and Grants. The commission has considered Balance to be refunded for computing Interest on loan capital and Return on Equity.
- 3.10.12The Commission has allowed the interest expenses linked to the normative opening loan and normative loan addition approved during the year. Further, for arriving at the interest rate, the Commission has considered the weighted average interest rate of actual loan portfolio during the FY 2019-20 in accordance with Regulation 29.5 of the MYT Regulations, 2015. Regulation 29.5 of MYT Regulations, 2015 is reproduced as below:
 - "29.5 The rate of interest shall be the weighted average rate of interest computed on the basis of the actual 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 loan portfolio during the concerned year shall be considered as the rate of interest:"
- 3.10.13The Commission sought clarification vide data gap that, Opening and closing balance of loan from PFC, REC and total term loan is not matching with Note 17 of audited accounts. In reply to data gap MSEDCL submitted that actual opening and closing balance of loan from PFC, RFC and other loans matches with Note 18 of restated Audited Accounts. The Commission has duly considered the submission of MSEDCL while working out and allowing the normative interest expenses for FY 2019-20. Summary of opening and closing balance of loan from different banks is shown in below table:

Table 3-44: Summary of opening and closing balance of loan from different Banks.

Particulars Particulars	FY 2019-20
PFC	
Opening Balance of Loan	2,857.40
Less: Reduction of Normative Loan due to retirement or	
replacement of assets	
Addition of Loan during the year	333.49
Loan Repayment during the year	694.63
Closing Balance of Loan	2,496.26
Average Loan Balance	2,676.83
Applicable Interest Rate (%)	10.89%
Interest Expenses	291.61
REC	
Opening Balance of Loan	11,181.75
Less: Reduction of Normative Loan due to retirement or	
replacement of assets	
Addition of Loan during the year	4,914.61
Loan Repayment during the year	2,034.66
Closing Balance of Loan	14,061.70

MERC Mid-Term Review Order for MSEDCL for Truing-up of ARR for FY 2019-20, FY 2020-21 and FY 2021-22, Provisional Truing-up of ARR for FY 2022-23 and revised ARR for FY 2023-24 and FY 2024-25

Particulars	FY 2019-20
Average Loan Balance	12,621.72
Applicable Interest Rate (%)	10.11%
Interest Expenses	1,276.57
Interest Expenses	1,270.57
MIDC	
Opening Balance of Loan	123.52
Less: Reduction of Normative Loan due to retirement or	
replacement of assets	
Addition of Loan during the year	-
Loan Repayment during the year	-
Closing Balance of Loan	123.52
Average Loan Balance	123.52
Applicable Interest Rate (%)	-
Interest Expenses	-
Other Loan	
Opening Balance of Loan	0
Less: Reduction of Normative Loan due to retirement or	
replacement of assets	
Addition of Loan during the year	-
Loan Repayment during the year	-
Closing Balance of Loan	0
Average Loan Balance	0
Applicable Interest Rate (%)	-
Interest Expenses	-
GOM	
Opening Balance of Loan	19.99
Less: Reduction of Normative Loan due to retirement or	19.99
replacement of assets	
Addition of Loan during the year	_
Loan Repayment during the year	5.56
Closing Balance of Loan	14.43
Average Loan Balance	17.21
Applicable Interest Rate (%)	10.50%
Interest Expenses	1.80
	1100
Total	
Opening Balance of Loan	14,182.66
Less: Reduction of Normative Loan due to retirement or	
replacement of assets	_
Addition of Loan during the year	5,248.10
Loan Repayment during the year	2,734.85
Closing Balance of Loan	16,695.91
Average Loan Balance	15,439.28
Applicable Interest Rate (%)	10.17%
Interest Expenses	1,569.78

3.10.14 The Commission has considered closing loan of FY 2018-19 is Rs 12,973.91 Crore as per Order Case no 322 of 2019. Thus, opening loan for FY 2019-20 is considered at Rs. 12,973.91 Crores.

Table 3-45: Interest Expenses approved by the Commission for FY 2019-20 (Rs. Crore)

	FY 2019-20			
Particular	MYT Order	MTR Petition	Approved in this order	
Opening Balance of Net Normative Loan	12,973.91	12,973.91	12,973.91	
Less: Reduction of Normative Loan due to retirement	1	1	0	
Addition of Normative Loan due to capitalisation	2,583.70	1,557.43	1,548.95	
Repayment of Normative Loan	2,665.53	2,437.48	2,247.49	
Closing Balance of Net Normative Loan	12,892.08	12,093.87	12,275.37	
Average Balance of Net Normative Loan	12,933.00	12,533.89	12,624.64	
Weighted average Rate of Interest on actual Loans (%)	10.28%	10.17%	10.17%	
Interest Expenses	1,328.88	1,274.37	1,283.60	
Total Interest Expenses	1,328.88	1,274.37	1,283.60	

3.10.15 Thus, the Commission approves Interest on Loan Capital of Rs. 1,283.60 Crores for FY 2019-20

3.11 Return on Equity for FY 2019-20

MSEDCL's Submission

- 3.11.1 MSEDCL has claimed RoE in accordance with Regulation 28.2 of the MYT Regulations, 2015. MSEDCL has considered the equity addition during the year. The equity portion of the capitalization is computed by considering a debt: equity ratio of 70:30 as per Regulation 26.1 of MYT Regulations, 2015.
- 3.11.2 The RoE 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 are divided into wires and supply business in the ratio of 90:10.
- 3.11.3 MSEDCL has not reduced the equity corresponding to the assets retired in FY 2019-20 since retirement against only land and vehicles is seen and accordingly, claimed the RoE on entire equity. MSEDCL has computed RoE as per the provisions of MYT Regulations, 2015 for Wires business and supply business for FY 2019-20 are provided separately in the table below:

Table 3-46: RoE for Wires Business for FY 2019-20 as submitted by MSEDCL (Rs. crore)

	FY 2019-20			
Particulars	MYT Order	MTR Petition (Normative)	Deviation	
RoE (Wires Business)				
Regulatory Equity at the beginning of the year	10,553.23	10,553.23	(0.00)	
Equity portion of Assets Capitalisation	295.34	600.72	305.38	
Equity portion of Assets Decapitalization				
Regulatory Equity at the end of the year	10,848.57	11,153.95	305.38	
Return on Computation				
RoE at the beginning of the year- 15.5%*(1)	1,635.75	1,635.75	(0.00)	
RoE on Normative Equity portion of Asset Capitalization - 15.5%*(2)/2	22.89	46.56	23.67	
Interest on Equity Portion above 30% equity				
Total RoE	1,658.64	1,682.31	23.67	

Table 3-47: RoE for Supply Business for FY 2019-20 as submitted by MSEDCL (Rs. crore)

	FY 2019-20			
Particulars	MYT Order	MTR Petition (Normative)	Deviation	
RoE (Supply Business)				
Regulatory Equity at the beginning of the year	1,173	1,173	(0.00)	
Equity portion of Assets Capitalisation	33	67	39.33	
Equity portion of Assets Decapitalization				
Regulatory Equity at the end of the year	1,206	1,240	33.93	
Return on Computation				
RoE at the beginning of the year- 15.5%*(1)	205.28	205.28	(0.00)	
RoE on Normative Equity portion of Asset Capitalization - 15.5%*(2)/2	2.87	5.84	2.97	
Interest on Equity Portion above 30% equity				
Total RoE	208.15	211.12	2.97	

3.11.4 MSEDCL has requested the Commission to approve the computation of RoE for wires and retail supply business as submitted in the table above.

Commission's Analysis and Rulings

3.11.5 The Commission in Order in Case No. 322 of 2019 has approved Rs 10,553.23 Crore and Rs 1173.03 Crore as closing equity balance of wire and supply business

respectively for FY 2018-19. Similarly, the Commission has considered opening equity for FY 2019-20 is considered at Rs. 10,553.23 Crores and Rs. 1,173.03 Crores for wire and supply business respectively.

- 3.11.6 The Commission has approved the funding pattern based on the approved capitalisation for FY 2019-20 as discussed in the earlier Section on interest expenses.
- 3.11.7 The RoE approved for the purpose of truing up of FY 2019-20 is as follows:

Table 3-48: Return on Equity (Wires) for FY 2019-20 approved by Commission (Rs. crore)

Particulars	%	Approved in this Order
Equity at the beginning of the year		10,553.23
Equity portion of Assets Capitalization		597.45
Equity at the end of the year		11,150.68
Return on Computation		
RoE at the beginning of the year -@15.5%	15.50%	1,635.75
RoE on Normative Equity portion of Asset Capitalization - @15.5%/2	7.75%	46.30
Total RoE		1,682.05

Table 3-49: Return on Equity (Supply) for FY 2019-20 approved by Commission (Rs. crore)

Particulars	%	Approved in this Order
Equity at the beginning of the year		1,173.03
Equity portion of Assets Capitalization		66.38
Equity at the end of the year		1,239.41
Return on Computation		
RoE at the beginning of the year -@17.5%	17.50%	205.28
RoE on Normative Equity portion of Asset Capitalization - @17.5%/2	8.75%	5.81
Total Return on Equity		211.09

Table 3-50: RoE approved by Commission for FY 2019-20 (Wires+Supply) (Rs. crore)

		FY 2019-20	
Particulars	MYT Order	MTR Petition	Approved in this Order
RoE for Wires Business	1,658.64	1,682.31	1,682.05
RoE for Retail Supply Business	208.15	211.12	211.09
Return on Equity	1,866.79	1,893.43	1,893.14

3.11.8 Thus, the Commission has approved the RoE of Rs. 1893.14 Crore for FY 2019-20.

3.12 Interest on Working Capital for FY 2019-20

MSEDCL's Submission

- 3.12.1 MSEDCL has computed the Interest on Working Capital (IoWC) for wire business as per Regulation 31.3 of MYT Regulation, 2015. Also, as per the Regulation 2.1(10) of the first amendment regulations for MYT Regulations, 2015, the interest on working capital shall be allowed at a rate equal to the weighted average of one year MCLR of SBI prevailing during the concerned year plus 150 basis points. As per the above Regulations, MSEDCL has computed the total weighted Average rate for FY 2019-20 as 9.66%.
- 3.12.2 MSEDCL submitted the Commercial Circular No. 324 for Rate of Interest on Consumer Security Deposit @10.05% per annum (MCLR plus 150 basis points) for FY 2019-20 as an annexure with Petition.
- 3.12.3 The IoWC and Interest on Security Deposit computed by MSEDCL for FY 2019-20 in accordance with the Regulations specified above as provided in Table below:

Table 3-51: Interest on Working Capital and Security Deposit for Wires Business for FY 2019-20 as submitted by MSEDCL (Rs. crore)

	FY 2019-20		
Particulars	MYT Order	MTR Petition (Normative)	Deviation
O&M expenses for a month	388.52	407.22	18.70
Maintenance spares at 1% of the opening GFA	513.94	471.37	(42.57)
1.5 months of the expected revenue from charges for use of Distribution Wires at prevailing tariffs	1,318.77	1,292.14	(26.63)
Less: Amount held as SD from Distribution System users	(792.07)	(810.11)	(18.05)
Total Working Capital	1,429.17	1,360.63	(68.54)
Rate of Interest (% p.a.)	9.50%	9.66%	
Interest on Working Capital	135.77	131.40	(4.37)
Actual Working Capital		160.61	
Interest on Consumers' Security Deposit			
Rate of Interest (% p.a.)	10.05%		
Interest on Consumers' Security Deposit	79.60	74.89	(4.71)

- 3.12.4 MSEDCL has submitted that the IoWC for Retail Supply business is computed as per Regulation 31.4 of MYT Regulation, 2015.
- 3.12.5 MSEDCL has calculated the IoWC at 9.66% as weighted average interest rate and paid interest on security deposit is at 10.05% i.e. MCLR plus 150 basis points and considered the actual paid amount as per audited accounts:

Table 3-52: Interest on Working Capital and Consumers' Security Deposit for Supply Business for FY 2019-20 as submitted by MSEDCL (Rs. crore)

		FY 2019-20	
Particulars	MYT Order	MYT Petition (Normative)	Deviation
Computation of Working Capital (Supply			
Business)			
O&M expenses for a month	209.20	219.27	10.07
Maintenance spares as 1% of the opening GFA	57.10	52.37	(4.73)
1.5 months of the expected revenue from sale of electricity at the prevailing tariff and including revenue from CSS and Additional Surcharge	9,695.24	9,304.36	(390.88)
Less: Amount held as Security Deposit	(7,128.59)	(7,291.01)	(162.42)
Less: One month equivalent of cost of Power Purchase, Transmission Charges and MSLDC Charges	(5,097.75)	(5,564.04)	(466.29)
Total Working Capital	(2,264.79)	(3,279.04)	(1,014.25)
Rate of Interest (% p.a.)	9.50%	9.66%	
Interest on Working Capital			
Actual Working Capital Interest		1,445.45	
Interest on Security Deposit			
Rate of Interest (% p.a.)	10.05%		
Interest on Consumers' Security Deposit	716.42	674.03	(42.40)

Commission's Analysis and Ruling

- 3.12.6 The Commission has worked out IoWC and interest on security deposit on normative basis as specified under MYT Regulations, 2015.
- 3.12.7 As per the Regulation 29.11 of the MYT Regulations 2015, the Commission has allowed the interest on the amount of security deposit for the year on the basis of the actual interest paid by the Licensee. The Commission has reworked the IoWC in accordance with the MYT Regulations, 2015 norms and based on parameters such as the O&M Expenses, Wires ARR and Supply ARR approved in this Order. Further, the actual interest on working capital is computed based on monthly working capital requirement details shared by MSEDCL in replies to data gaps.

Table 3-53: Interest on Working Capital and Security Deposit for Wires Business as approved by Commission for FY 2019-20 (Rs. crore)

	FY 20	19-20
Particulars	MTR Petition	Approved in this order
O&M expenses for a month	407.22	405.44
Maintenance Spares at 1% of Opening GFA	471.37	471.37
One and half months equivalent of the expected revenue from sale of electricity including revenue from CSS and Additional Surcharge	1,292.08	1,265.41
Less: Amount of Security Deposit	(810.11)	(810.68)
Total Working Capital Requirement	1,360.57	1,331.55
Computation of Working Capital Interest		
Rate of Interest (%) = SBI Base Rate + 150 basis points	9.66%	9.66%
Interest on Working Capital	131.39	128.59
Actual Working capital interest	160.61	11.32
Interest on Security Deposit		
Rate of Interest (%) = SBI Base Rate + 150 basis points	9.24%	9.24%
Interest on Security Deposit	74.89	74.89

Table 3-54: Interest on Working Capital and Consumers' Security Deposit for Supply Business as approved by Commission for FY 2019-20 (Rs crore)

	FY 20	19-20
Particulars	MTR Petition	Approved in this order
O&M expenses for a month	219.27	218.32
Maintenance Spares at 1% of Opening GFA	52.37	52.37
One and half months equivalent of the expected revenue from sale of electricity including revenue from CSS and Additional Surcharge	9,304.36	9,304.36
Less: Amount of Security Deposit	(7,291.01)	(7,296.12)
Less: One month equivalent of cost of power purchase, Transmission Charges and MSLDC Charges	(5,564.04)	(5,563.41)
Total Working Capital Requirement	(3,279.04)	(3,284.48)
Computation of Working Capital Interest	orking Capital Interest	
Rate of Interest (%) = SBI Base Rate + 150 basis points	9.66%	9.66%
Interest on Working Capital	-	-
Actual working capital interest	1,445.45	101.89
Interest on Security Deposit		
Rate of Interest (%) = SBI Base Rate + 150 basis points	9.24%	9.24%
Interest on Security Deposit	674.03	674.03

3.12.8 The IoWC and the Interest on Security Deposits from Consumers and Distribution System Users approved for FY 2019-20 is as follows:

Table 3-55: IoWC and Interest on Security Deposit as approved by Commission FY 2019-20 (Wires + Supply) (Rs. Crore)

	FY 2019-20		
Particulars	MYT Order	MTR Petition	Approved in this order
IoWC (Wire + Supply)	135.77	131.39	128.59
Interest on CSD (Wire+Supply)	796.02	748.92	748.92

- 3.12.9 Accordingly, the normative interest on working capital requirement is Rs. 128.59 Crores and interest on security deposit is Rs. 748.92 Crores in FY 2019-20.
- 3.12.10Further, the Commission has verified the actual IoWC for FY 2019-20 from the audited accounts of MSEDCL. The Commission observed that, the actual IoWC expense shown as Rs. 1,606.06 Crore (Wire + Supply business) in FY 2019-20 did not match with the Audited Accounts. The Commission sought Month-wise working for capital requirement. In reply to data gaps, MSEDCL submitted the reconciliation statement. The Commission has computed actual IoWC expenses considering monthly working capital requirement and weighted average rate of interest as Rs. 283.00 Crores (Wire + supply business) as against MSEDCL revised submission of Rs. 1,606 Crore, which is far lower than its claim under MTR Petition.
- 3.12.11Regulation 31.6 of MYT Regulations, 2015 specifies that the contribution of delay in receipt of payment to the actual interest on working capital shall be deducted from the actual interest on working capital, before sharing of the efficiency gain or efficiency loss. The relevant Regulations is reproduced as following:
 - "31.6 For the purpose of Truing-up for each year, the variation between the normative interest on working capital computed at the time of Truing-up and the actual interest on working capital incurred by the Generating Company or Licensee or MSLDC, substantiated by documentary evidence, shall be considered as an efficiency gain or efficiency loss, as the case may be, on account of controllable factors, and shared between it and the respective Beneficiary or consumer as the case may be, in accordance with Regulation 11: Provided that the contribution of delay in receipt of payment to the actual interest on working capital shall be deducted from the actual interest on working capital, before sharing of the efficiency gain or efficiency loss, as the case may be."
- 3.12.12To give effect to the above provision, actual interest on delayed payment charges (Rs. 30.14 Crore) has been reduced from actual interest on working capital in FY 2019-20 for FY 2019-20. Thus, the net actual IoWC works out to Rs. 252.89 Crore for FY 2019-

- 20 respectively. This amount of net IoWC has been considered for the purpose of sharing of gains and losses on account of IoWC.
- 3.12.13Under the MYT Regulations, 2015, IoWC expense is a controllable parameter, and any difference between the actual and the approved IoWC should be considered as efficiency gain or efficiency loss to be shared among MSEDCL and consumers in accordance with Regulations. The efficiency loss to the extent of the difference between the actual IoWC as per the Audited Accounts and that allowed on normative basis for FY 2019-20 has been shared accordingly. The subsequent sections detailed the sharing of gains/losses.

3.13 Other Finance Charges for FY 2019-20

MSEDCL's Submission

3.13.1 MSEDCL submitted that regulation 29.8 of the MYT Regulations, 2015 provides that the finance charges shall be allowed at the time of True-up and it has incurred Other Finance Charges amounting to Rs. 22.08 Crores during the FY 2019-20. These are the fund-raising charges i.e., Guarantee Charges, Finance Charges, Stamp Duty and Service Fee, for which the details are submitted as following:

Table 3-56: Other Finance Charges for FY 2019-20 as submitted by MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition	Deviation
Guarantee Charges		13.19	13.19
Finance Charges	23.04	5.31	(17.73)
Stamp Duty	1.12	1.05	(0.07)
Service Fee i.e., Fund raising charges	6.94	2.53	(4.41)
Total Other Finance Charges	31.10	22.08	(9.02)

3.13.2 MSEDCL has further submitted that these charges depend on the number 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 requested the Commission to allow the Other Finance Charges as per the Audited Accounts.

Commission's Analysis and Ruling

3.13.3 The Commission has verified the above Charges with the Audited Accounts and found them to be in order after reconciled statement provided by MSEDCL. Commission also analysed the past trends of other finance charges as percentage of closing loan amount and find it in order with the submission of MSEDCL in this Petition.

Table 3-57: Finance charge as a percentage of Closing Loan of Past years

Particulars	FY 2017-18	FY 2018-19
Other Finance Charges	28.34	26.11

Particulars	FY 2017-18	FY 2018-19
Closing Loan	12,897.13	12,230.23
Other Finance Charge as % of	0.22%	0.21%
Closing Loan	0.2270	0.2170

Table 3-58: Other Finance Charges for FY 2019-20 as approved by Commission (Rs. crore)

	FY 2019-20		
Particulars	MYT Order MYT Petition		Approved in this Order
Other Finance Charges	31.10	22.08	22.08

3.13.4 Hence, the Commission approves the Other Finance Charges of Rs. 22.08 Crore for FY 2019-20.

3.14 Provision for Bad Debts for FY 2019-20

MSEDCL's Submission

- 3.14.1 MSEDCL has submitted that as per Regulation 73 and 82 of MYT Regulations, 2015, 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.
- 3.14.2 The amount written off towards bad debt as submitted by MSEDCL is Rs. 3,282.25 Crore against the bad debt during FY 2019-20 and computed the provision for bad and doubtful debts as per the provisions of the MYT Regulations, 2015 considering the receivables as per Audited Accounts.

Table 3-59: Provision for Bad and Doubtful Debts for FY 2019-20 for Wire and Supply business as submitted by MSEDCL (Rs. crore)

	FY 2019-20		
Particulars	MYT Order	MTR Petition	Deviation
Opening Balance of provision for bad and doubtful debts	-	0.00	0.00
Receivables	48,842.02	56,997.53	8,155.51
Percentage of Receivables	1.50%	1.50%	
Provision for Bad and doubtful debts during the year.	732.63	854.96	122.33
Actual bad and doubtful debts written off		854.96	854.96
Closing Balance of Provision for bad and doubtful debts	732.63		(732.63)
Closing balance as % of Receivables	1.50%	0.00%	

3.14.3 MSEDCL has submitted 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, 2015), i.e., 10% to Wires Business and 90% to Supply Business. The same is shown in following table.

Table 3-60: Provision for Bad and Doubtful debt of wire and supply business for FY 2019-20

Particulars	FY 2019-20			
r ai uculai s	MYT Order Normative Deviate			
Bad debts provision for wires business	73.26	85.50	12.23	
Bad debt provision for retail supply business	659.37	769.47	110.10	
Bad Debt Provision	732.63	854.96	122.33	

3.14.4 MSEDCL has requested the Commission to approve the provision for bad and doubtful expenses as computed for wires and retail supply business as computed above.

Commission's Analysis and Ruling

3.14.5 Regulation 73 and 82 of the MERC MYT Regulations, 2015 provides for the provision of bad and doubtful debts up to 1.5% of the amount shown as Trade Receivables or Receivables from Sale of Electricity excluding the provision made for unbilled revenue at the end of the year. The relevant extract of Regulation 73 and 82 of MYT Regulations, 2015 is provided below for reference purposes:

"For any Year, 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 Wheeling Charges in the audited accounts of the Distribution Licensee for that Year:

Provided that the Commission, in its MYT Order, shall provisionally approve provision for bad and doubtful debts for each Year of the Control Period, based on the actual provision for bad and doubtful debts made by the Distribution Licensee in the latest Audited Accounts available for the Petitioner, as allowed by the Commission:"

- 3.14.6 The Commission has observed that there is significant increase in total receivable of MSEDCL in FY 2019-20 compared to previous years. The Commission has verified the trade receivables on 1st April 2020 which accounts to Rs 39,484.51 Crore as per Note 11 of the Restated audited accounts and found them in order with previous years.
- 3.14.7 The provision for Bad Debts worked out on normative basis in following table:

Table 3-61: Provision for Bad Debts for FY 2019-20 as approved by Commission for Wire (Rs. Crore)

	FY 2019-20		
Particulars	MTR Petition	Approved in this order	
Receivables for the year	5,699.75	3,948.45	
Opening Balance of Provision of Bad and Doubtful Debt as % of Receivables	1.50%	1.50%	
Provision for Bad & Doubtful Debts during the year	85.50	59.23	

Table 3-62: Provision for Bad Debts for FY 2019-20 as approved by Commission for Supply (Rs. Crore)

	FY 2019-20		
Particulars	MTR Petition	Approved in this order	
Receivables for the year	51,297.78	35,536.06	
Opening Balance of Provision of Bad and Doubtful Debt as % of Receivables	1.50%	1.50%	
Provision for Bad & Doubtful Debts during the year	769.47	533.04	

3.14.8 The provision for Bad Debts approved for FY 2019-20 for wires and supply businesses is summarized as follows:

Table 3-63: Provision for Bad Debts for FY 2019-20 as approved by Commission for Wire + Supply Business (Rs crore)

	FY 2019-20		
Particular	MYT Order	MTR Petition	Approved in this order
Provision for Bad and Doubtful Debts	732.68	854.97	592.27

3.14.9 Thus, the Commission approves Rs 592.27 Crore for FY 2019-20 towards Provision for Bad Debts for Wire and Supply Business.

3.15 Other Expenses for FY 2019-20

MSEDCL's Submission

3.15.1 MSEDCL has submitted that 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 submitted the other expenses as shown in the table below.

Table 3-64: Other Expenses for FY 2019-20 as per MSEDCL (Rs. crore)

		FY 2019-20	
Particulars Particulars Particulars	MYT Order	Actual	Deviation
Compensation for injuries, death to staff	1.26	0.82	(0.44)
Compensation for injuries, death to others	15.22	15.27	0.05
Loss on obsolescence of Fixed Assets	1.64	1	(1,64)
Sundry debit balances written off	1.81	6.58	4.77
Non-Moving Items	16.89	1	(16.89)
Provision for Non-Moving Items		0.88	
Other Sundry Expenses	7.74	4.09	

		FY 2019-20		
Particulars	MYT Order	Actual	Deviation	
Other Expenses (Incl. of payable to DSL towards damages in terms of Arbitral Award dt. 18.06.2004)		18.81		
Incentive to Distribution Franchisee		0.22		
Interest to suppliers/Contractors*		3.38	3.38	
Other Interest and Charges		0.10	0.10	
Interest on security deposit on bill collection agency		7.54		
Interest on income tax for AY 2018-19		20.16		
Interest on income tax for AY 2020-21		5.39		
Incentive payable to vendor		0.05	0.05	
Other Expenses for previous years	5.52		(5.52)	
Total	50.08	83.28	33.20	

3.15.2 MSEDCL submitted that the amount under the head "interest to suppliers/contractor" as per the Audited Accounts included Delayed Payment Charges / Surcharge payable to MSPGCL, MSETCL, IPPs & Wind Generators for FY 2019-20. MSEDCL has not claimed the same in this Petition.

Commission's Analysis and Ruling

- 3.15.3 The Commission has prudence checked the above submission with restated audited account. In the audited accounts, other expenses are given in Note 37 which accounts to Rs 50.08 Crore for FY 2019-20. The Commission has raised a query in data gaps about deviation in other expenses audited accounts and claimed by MSEDCL.
- 3.15.4 In reply to data gaps, MSEDCL submitted the breakup of "Other Expenses" as per Note 37 of restated audited account.
- 3.15.5 The Commission has verified MSEDCL's submission with audited account. The Commission has done a prudence check on various heads under other expenses submitted by MSEDCL in petition and audited accounts. As per Note 37 of audited accounts, "Other Expenses" comprises only miscellaneous losses and sundry expenses. Other expenses booked in Note 37 of Audited Account are Rs. 7.37 Crores as miscellaneous expenses and Rs. 42.63 Crores as sundry expenses for FY 2019-20.
- 3.15.6 In MTR format of MSEDCL, there are multiple heads under other expenses which were not approved at the time of MYT Order. Further, MSEDCL's claim towards expenses such as Other Sundry Expenses, provision against court deposit, Write-off of WDV of scrapped assets and provision for non-moving items is higher resulting into higher claim of other expenses. In FY 2019-20, MSEDCL has claimed expense towards interest on income tax for FY 2017-18 and FY 2018-19. It is to be noted that, interest on income

tax cannot be claimed under other expense as delay in payment of income tax is due to inefficiency of Licensee and hence, its financial burden cannot be passed on the consumers. Further, provision of other expenses is made to allow licensees to recover the other expenses incurred for miscellaneous activities. Further, the claim of other expenses (Incl. of payable to DSL towards damages in terms of Arbitral Award dt. 18.06.2004) of Rs. 18.81 Crore is not approved as MSEDCL has not given justification for the claim which was not approved in MYT Order.

- 3.15.7 It is observed that, other expenses booked in audited accounts are Rs. 50.08 crores towards two broad heads as sundry expenses and miscellaneous expenses.
- 3.15.8 As the Commission considers audited accounts for truing up, the Commission approves other expenses based on audited accounts of FY 2019-20.

Table 3-65: Other Expenses for FY 2019-20 as approved by the Commission (Rs. crore)

	FY 2019-20			
Particulars	MYT Order	MTR Petition	Approved in this Order	
Compensation for injuries, death to staff	1.26	0.82	0.82	
Compensation for injuries, death to others	15.22	15.27	15.27	
Loss on obsolescence of Fixed Assets	1.64	-	1	
Sundry debit balances written off	1.81	6.58	6.58	
Non-Moving Items	16.89	-	-	
Provision for Non-Moving Items		0.88	0.88	
Other Sundry Expenses	7.74	4.09	4.09	
Other Expenses (Incl. of payable to DSL towards damages in terms of Arbitral Award dt. 18.06.2004)		18.81	-	
Incentive to Distribution Franchisee		0.22	0.22	
Interest to suppliers/Contractors*		3.38	3.38	
Other Interest and Charges		0.10	0.10	
Interest on security deposit on bill collection agency		7.54	7.54	
Interest on income tax for AY 2018-19		20.16	1	
Interest on income tax for AY 2020-21		5.39	-	
Incentive payable to vendor		0.05	-	
Other Expenses	5.52	-	11.21	
Total*	50.08	83.28	50.08	

^{(*} Total Other expenses approved are matched with audited accounts as Rs. 50.08 Crores for FY 2019-20 and accordingly Rs. 11.21 Crores are adjusted against other expenses in above table)

3.15.9 Thus, the Commission approves Rs. 50.08 Crore as Other Expenses for FY 2019-20.

3.16 Contribution to Contingency Reserves for FY 2019-20

MSEDCL's Submission

3.16.1 MSEDCL has submitted that it has invested Rs. 128.19 Cr. towards contribution to contingency reserves for FY 2019-20. Accordingly, the same is claimed in this Petition.

Table 3-66: Contribution to Contingency Reserve for FY 2019-20 as submitted by MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition	Deviation
Contribution to Contingency Reserve	142.76	128.19	(14.57)

3.16.2 MSEDCL has requested the Commission to approve the contribution to contingency reserve for FY 2019-20 as submitted in the above table.

Commission's Analysis and Ruling

- 3.16.3 Regulation 36 of the MYT Regulations, 2015 provides for appropriation to the Contingency Reserve 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 amount is to be invested in Government securities authorized under the Indian Trusts Act, 1882 within six months of the close of the financial year.
- 3.16.4 The Commission noted that, MSEDCL has claimed Rs 128.19 Cr towards contingency reserve for FY 2019-20. MSEDCL has provided documentary evidence to validate the investment made in contingency reserve. The Commission found the documentary evidence in order and thus approves Rs 128.19 Crores contribution to contingency reserves in FY 2019-20.

Table 3-67: Contingency Reserve Approved for FY 2019-20 (Rs. Crore)

	FY 2019-20		
Particular	MYT Order	MTR Petition	Approved in this order
Contribution to Contingency Reserves	142.77	128.19	128.19

3.16.5 Thus, the Commission approves Rs. 128.19 Cr towards Contribution to Contingency reserve for FY 2019-20.

3.17 Income Tax for FY 2019-20

MSEDCL's Submission

3.17.1 MSEDCL has submitted 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 2019-20 (AY 2020-21).

Table 3-68: Income Tax as submitted by MSEDCL for FY 2019-20 (Rs. Crore)

	FY 2019-20		
Particulars	MYT Order	MTR Petition	Deviation
Income Tax	213.89	-	(213.89)

Commission's Analysis

3.17.2 The Commission has noted that, MSEDCL has not claimed any amount under head of Income Tax. Thus, the Commission approved NIL Income Tax for FY 2019-20.

3.18 Incentives and Discounts for FY 2019-20

MSEDCL's Submission

3.18.1 MSEDCL submitted that during FY 2019-20, it has paid Rs. 337.25 Crores of incentives/discounts to the consumers for timely payment of bills as against Rs. 307.03 Crores approved by Commission in its MYT Order dated 30th March 2020.

Table 3-69: Incentives and Discounts for FY 2019-20 as submitted by MSEDCL (Rs. crore)

	FY 2019-20		
Particulars	MYT MTR Deviatio		
	Order	Petition	Deviation
Incentives/Discounts	307.03	337.25	30.22

3.18.2 MSEDCL has requested the Commission to allow the incentives/discounts of Rs. 337.25 Crore as per the Audited Accounts for FY 2019-20.

Commission's Analysis and Ruling

- 3.18.3 The Commission has observed the trend of Incentives and Discount for the past years. The approved Incentives and Discount for FY 2017-18 and FY 2018-19 is Rs. 242.40 Crore and Rs. 287.38 Crore, respectively, Thus, the present claim is considerably higher than the past trends of Incentives and Discount offered by MSEDCL.
- 3.18.4 The Commission vide data gaps sought further break-up of "Incentives/Discounts" from MSEDCL. In reply to data gap, MSEDCL submitted that as per Note 29 of restated audited account this is sum of the prompt payment provided to consumers for timely payment of electricity bills (Rs 320.54 Cr), Incentive to prepaid consumers (Rs. 0.06 Cr), Go Green Discount to Consumer (Rs 1 Cr), and Digital payment discount (Rs. 15.65 Cr). The Commission has verified the incentive/discounts from the Restated

Audited Accounts, which is majorly the prompt payment discount, and taken the actuals as submitted by MSEDCL for FY 2019-20.

Table 3-70: Incentives and Discounts approved for FY 2019-20 (Rs. crore)

	FY 2019-20		
Particulars	MYT Order	MTR Petition	Approved in this Order
Incentives and Discounts	307.03	337.25	337.25

3.18.5 Thus, the Commission approves Rs 337.25 Crores for incentives/discounts in FY 2019-20.

3.19 RLC Refund for FY 2019-20

MSEDCL's Submission

3.19.1 MSEDCL has submitted that during FY 2019-20 it has made a refund of Rs. 1.77 Crores for RLC. MSEDCL has requested the Commission to allow the RLC Refund for FY 2019-20 as per Audited Accounts.

Table 3-71: RLC Refund submitted by MSEDCL for FY 2019-20 (Rs. crore)

	FY 2019-20		
Particulars	MYT Order	MTR Petition	Deviation
RLC Refund	1.84	1.77	(0.06)

Commission's Analysis and Ruling

- 3.19.2 Under the Commission's directions in Order dated April 2, 2008 in Case Nos. 47 and 92 of 2007 on MSEDCL's review petition regarding refund of RLC, MSEDCL has to refund around Rs. 3,227 Crores collected through RLC from December 2003 to September 2006. It is observed that the present amount claimed by MSEDCL as refund made in FY 2019-20 is within the balance amount.
- 3.19.3 The Commission has verified the RLC refund made by MSEDCL for the purpose of truing up of FY 2019-20 from the Audited Accounts. It was booked in the note 37 of the audited accounts "Other expense" and the same was not claimed in the "Other expense" claimed by the petitioner in the above section.

Table 3-72: RLC Refund approved by Commission for FY 2019-20 (Rs. crore)

Particulars	FY 2019-20		
	MYT Order	MTR Petition	Approved in this Order
RLC Refund	1.84	1.77	1.77

3.19.4 Thus, the Commission approves Rs. 1.77 Crores as RLC refund for FY 2019-20.

3.20 Revenue from sale of Electricity for FY 2019-20

MSEDCL's Submission

3.20.1 MSEDCL has considered the revenue for FY 2019-20 based on the Audited Accounts as shown in following table:

Table 3-73: Revenue for FY 2019-20 as per MSEDCL (Rs crore)

Particulars	FY 2019-20			FY 2019-20		
1 at uculats	MYT Order MTR Petition Deviation					
Revenue from Sale of Power	78,965.30	72,944.55	(6,020.75)			

- 3.20.2 MSEDCL has submitted that 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.
- 3.20.3 MSEDCL has also submitted the Category-wise revenue for various consumer categories in following table:

Table 3-74: Category wise Revenue for FY 2019-20 (Rs Crore)

Catagory	Revenue (Rs Crs)			
Category	MYT Order	MTR Petition	Deviation	
Residential	15,877.43	15,088.92	(788.50)	
Commercial	10,097.23	9,752.23	(345.00)	
HT- Industrial	28,150.10	24,892.36	(3257.74)	
LT- Industrial	6,298.75	5,059.76	(1238.98)	
PWW	1,678.63	1,603.91	(74.72)	
Streetlight	1,566.32	1,306.60	(259.72)	
Agriculture	10,975.53	10,031.52	(944.01)	
Public services	1,791.55	1,639.19	(152.37)	
Railways	71.34	62.75	(8.59)	
Other Categories	226.66	244.37	17.72	
Other (Incentive/Discounts)	-492.98	ı	492.98	
Other (Recoveries from theft etc)		303.13	303.13	
Sub Total	76,240.56	69,984.76	(6255.80)	
Revenue from DF@input sales	2,328.74	2,560.53	231.79	
Standby Charges	396.00	399.26	3.26	
Total	78,965.30	72,944.55	(6020.75)	

3.20.4 MSEDCL has also submitted the details of revenue of Rs. 303.13 Crore recovered from theft/malpractice, revenue from subsidy and grant and also miscellaneous charges from consumers.

Commission's Analysis and Ruling

3.20.5 The Commission has verified revenue from audited accounts for FY 2019-20. In replies to data gaps, MSEDCL submitted the breakup of revenue from sale of power as shown in table below:

Table 3-75: Break up of Revenue from Sale as submitted by MSEDCL for FY 2019-20 (Rs Crore)

Particulars	FY 2019-20
Revenue from Sale of Power as per restated audited accounts	72,925.82
Less: Prompt Payment Discount	337.25
Add: Standby Charges	399.26
Add: Miscellaneous charges from consumers	219.22
Total Revenue from Operations as per Note 29	73,207.05
Add: Prompt Payment Discount claimed separately	337.25
Less: Income from Open Access Charges	-312.95
Less: Income from Traders /Income from Trading of Surplus	335.99
Power	
Less: Income from Wheeling Charges	1.10
Less: Income from Additional Surcharge	575.60
Total Revenue from Operations shown on Form 13	72,944.55

3.20.6 The category-wise revenue for FY 2019-20 is as shown in the table below.

Table 3-76: Category wise Revenue from Sale as submitted by MSEDCL for FY 2019-20 (Rs. Crore)

Particulars	FY 2019-20
LT-I BPL & Domestic	15,088.92
LT II Commercial	7,207.85
LT III PWW	369.13
LT IV Agriculture	9,473.88
LT V Industrial	5,059.76
LT-IV(A) - Gram panchayat Street Light	1,306.60
LT VII -(B)Temporary Others	57.42
LT VIII Advertisement & Hoarding	9.04
LT IX Crematorium & Burial Grounds	0.52
LT X -(A)Public Service	493.55
LT XI Charging Station	0.19
HT II Commercial	2,544.38
HT I Industrial	24,892.36
HT III Railway Traction	62.75
HT IV PWW	1,234.78
HT V Agriculture	557.65

Particulars	FY 2019-20
HT VI Group Housing/Commercial Complex	156.01
HT VIII Temporary Supply Religious	0.10
HT VIII Temporary Supply Others	16.96
HT IX Public Service	1,145.64
HT-Electric Vehicle	4.21
HT Auxiliary Consumer	(0.08)
Income from wheeling charges claimed separately	(1.1 0)
Recoveries from Theft of Power/Malpractice	85.01
Sale of energy to Distribution Franchisee @ Input	2,560.53
Standby charges	399.26
Miscellaneous charges from consumers	219.22
Total incl. DF @Input	72,944.55

3.20.7 Based on the above, the Commission approves the following actual revenue for FY 2019-20 as per claimed by MSEDCL and verified from replies to data gaps and Note 29 of audited accounts.

Table 3-77: Revenue from Sale of Power for FY 2019-20 as approved by Commission (Rs. Crore)

	FY 2019-20				
Particulars	MYT Order MTR Petition Approved in this order				
Revenue from Sale of Power	78,965.30	72,944.55	72,944.55		

3.20.8 Thus, the Commission approves Rs 72,944.55 Crores as Revenue from sale of electricity for FY 2019-20.

3.21 Non-Tariff Income for FY 2019-20

MSEDCL's Submission

- 3.21.1 MSEDCL submitted that it has certain sources of Non-Tariff Income, viz. interest on arrears of consumers, DPC, interest on staff loans and advances, sale of scrap, interest on investments, rebate on power purchase, etc.,
- 3.21.2 MSEDCL has claimed a non-tariff income equal to Rs. 494.19 Crore for FY 2019-20. The Comparison of Non-Tariff Income as actual and as earlier approved by the Commission is presented in the Table below:

Table 3-78: Non-Tariff Income as submitted by MSEDCL for FY 2019-20 (Rs. crore)

	FY 2019-20		
Particulars	MYT Order	MTR Petition	Deviation
Rents of land or buildings	1.03	0.99	(0.04)
Sale of Scrap	52.05	46.49	(5.59)
Income from investments	18.50		(18.50)

Income from sale of tender documents	8.92	7.80	(1.12)
Prompt payment discount from REC/PFC	12.16		(12.16)
Other/Miscellaneous receipts	269.00	381.94	112.94
Revenue from subsidy & grant		35.00	35.00
Interest on Contingency Reserve Investments		21.99	21.99
Non-Tariff Income	361.66	494.19	132.52

- 3.21.3 MSEDCL has submitted that as per the Regulation 36.3 of MYT Regulation, 2015 it has not considered delayed payment charge as part of Non-Tariff Income.
- 3.21.4 MSEDCL has not considered the income from grants and contribution reported under non-tariff income for FY 2019-20 as the treatment to the same is already considered while computing the depreciation for the respective years.
- 3.21.5 MSEDCL also submitted the breakup of Other/Misc. receipts as below:

Table 3-79: Break Up of Other/Misc. Receipts as submitted by MSEDCL for FY 2019-20 (Rs. Crore)

	FY 2019-20
Particulars Particulars Particulars	Amount
Interest on loans & advances to supplier/contractors:	2.66
Interest Income for prior period	0.31
Interest income from investments in Bank Deposits	30.87
Sundry Credit Balances written back	25.69
Miscellaneous Receipts (NEF Subsidy taken only)	99.18
Penalty charges recovered from vendor	78.28
Other income related to prior period	71.69
Profit on sale of Asset	9.29
Others	4.66
Interest on IPDS, DDUGY and smart Grid	59.30
Total	381.94

Commission's Analysis and Ruling

- 3.21.6 The Commission notes that break-up of non-tariff income claimed by MSEDCL as provided under Form-9 of the Petition. The same was further verified and found to be as per Note 28 of the Audited Accounts for FY 2019-20.
- 3.21.7 Commission noted that "Other/Miscellaneous receipts" has increased steeply as compared to past years. Thus, the Commission analyzed the past trends of "Other/Miscellaneous receipts" as shown in the table below.

Table 3-80: Trend of Other/Miscellaneous receipts (Rs. crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Other/Miscellaneous receipts	55.64	291.22	405.62

3.21.8 Further Commission sought the break-up of Rs. 381.94 Crore of miscellaneous expense in data gap for FY 2019-20, MSEDCL in its reply to data gap submitted the same as shown in the table below:

Particulars	Amount (Rs. Crs)
Income from Hire Charges from Contractors & others	0.06
Commission for collection of Electricity Duty	1.05
Income from supervision charges of stores	0.42
Registration Fees	2.42
Ground Rent on Material lying with stores	0.03
Sundry Credit Balances written back	25.69
Miscellaneous Receipts (NEF Subsidy taken only)	99.18
Other Transaction - Gain	-0.24
Penalty charges recovered from vendor	78.28
RTI Charges	0.02
Receipts from REC, PFC, ICF training program	0.34
Recruitment Application Fees (new recruitment)	0.52
Profit on sale of Asset	9.29
Other income related to prior period	71.69
Interest income from investments in Bank Deposits	30.87
Interest on Staff Loans & Advances	0.01
Interest on Securities	0.02
Interest on loans & advances to supplier/Contractor	2.66
Interest Income for prior period	0.31
Restated Other income	59.30
Total	381.94

3.21.9 The Commission has verified the non-Tariff income from the Note 28of Audited Account for FY 2019-20. Accordingly the Commission considered the same for approval.

Table 3-81: Non-Tariff Income for FY 2019-20, as approved by Commission (Rs. crore)

	FY 2019-20		
Particulars	MYT Order	MTR Petition	Approved in this Order
Non-Tariff Income	361.66	494.19	494.18

3.21.10Thus, the Commission approves Non-Tariff Income of Rs. 494.18 Crore for FY 2019-20.

3.22 Income from Wheeling Charges for FY 2019-20

MSEDCL's Submission

3.22.1 MSEDCL has reported an income from Wheeling Charges of Rs. 1.10 Crore in actual during FY 2019-20 against Rs. 1.79 Crore approved by the Commission in MYT Order in Case No. 322 of 20220 for FY 2019-20.

Table 3-82: Income from Wheeling Charges for FY 2019-20 as submitted by MSEDCL (Rs. Crore)

	FY 2019-20			
Particulars	MYT Order MTR Petition Deviation			
Income from Wheeling Charges	1.79	1.10	(0.68)	

3.22.2 MSEDCL has submitted the actual value of income from wheeling charges submitted is as per audited book of accounts for FY 2019-20.

Commission's Analysis and Ruling

- 3.22.3 Commission sought the nature of the Wheeling charges claimed for the truing up years and in reply to data gaps MSEDCL submitted that the nature of income claimed for true up years is shown under head "Revenue from Operation" of restated Audited accounts.
- 3.22.4 The Commission in data gaps raised a query on reduction in income from wheeling charges w.r.t. approved in MYT Order 322 of 2019. MSEDCL submitted reply to data gaps with the justification that wheeling charges are recovered from OA consumer if consumer or generator is connected to the distribution network. There is an exponential rise in development of solar parks and in maximum cases the capacity is much higher than 20 MW and connectivity of these Solar Park / Plants is on EHV levels. In many cases the generation evacuation is carried out on EHV levels and if in such cases, the consumers are also connected to EHV level then wheeling charges are not levied. Further, the increase in new wind generators which are connected to distribution network is near stagnant and so wheeling charges applicable to such consumers have not increased.
- 3.22.5 The Commission has verified the income from Wheeling Charges from the Note 29 of Audited Accounts and has considered it accordingly.

Table 3-83: Income from Wheeling Charges approved for FY 2019-20 (Rs crore)

	FY 2019-20		
Particular	MYT Order	MTR Petition	Approved in this order
Income from Wheeling Charges	1.79	1.10	1.10

3.22.6 Thus, the Commission notes that these wheeling charges pertain to only short term OA related wheeling charges whereas the wheeling chages from consumers are covered as part of overall revenue recovery. Accordingly, the Commission approves Rs. 1.10 Crore as Income from Wheeling Charges for FY 2019-20, which is verified and in line with audited annual accounts.

3.23 Income from Additional Surcharge for FY 2019-20

MSEDCL's submission

3.23.1 MSEDCL has received an income of Rs. 575.60 Crore for FY 2019-20 against Rs. 317.14 Crore approved in the MYT Order for FY 2019-20. The comparison of Actual vis-à-vis approved Income from Additional surcharge is as shown in the Table below:

Table 3-84: Income from Additional Surcharge for FY 2019-20 as per MSEDCL (Rs. crore)

	FY 2019-20			
Particulars	MYT Order	MTR Petition	Deviation	
Income from Additional Surcharge	317.14	575.60	258.46	

3.23.2 MSEDCL has submitted the actual value of income from additional surcharge submitted is as per audited books of accounts for FY 2019-20.

Commission's Analysis

3.23.3 The Commission has verified Income from additional surcharge from Note 29 of audited accounts of MSEDCL for FY 2019-20. For truing-up, the Commission approves the income from Additional Surcharge as per claimed by MSEDCL.

Table 3-85: Income from Additional Surcharge for FY 2019-20 as approved by Commission (Rs. crore)

	FY 2019-20			
Particulars	MYT Order MTR Petition Approved ord			
Income from Additional Surcharge	317.14	575.60	575.60	

3.23.4 Thus, the Commission approves Rs 575.60 Cr as Income from Additional Surcharge for FY 2019-20.

3.24 Income from Open Access Charges

MSEDCL's Submission

3.24.1 MSEDCL submitted that it has received an income from OA Charges of Rs. 83.44 Crore as against Rs. 29.59 Crore during FY 2019-20.

Table 3-86: Income from Open Access Charges FY 2019-20 as per MSEDCL (Rs. crore)

	FY 2019-20			
Particulars	MYT Order	MTR Petition	Deviation	
Income from Open Access Charges	29.59	83.44	53.85	

3.24.2 MSEDCL has also submitted the details of income from actual open access charges for FY 2019-20 as shown in the table below:

Table 3-87: Details of Income from Open Access charges for FY 2019-20 as per MSEDCL (Rs. Crore)

Particulars	Amount
Energy Charges Open Access	1.37
F.C.A Charges Open Access	0.02
Additional Charges Open Access	0.38
Adjustment to past billing Open Access	(78.91)
Cross Subsidy Surcharge Open Access	112.42
Wheeling Charge Open Access	30.35
Transmission Charge Open Access	198.35
Operating Charges Open Access	17.55
Threshold penalty Open Access	0.27
Total Income from Open Access Charges	281.79

3.24.3 MSEDCL has submitted that the Commission vide MYT Order dated 30th March 2020 in Case no. 322 of 2019 for the purpose of provisional true-up for FY 2019-20 while estimating income from OA charges for FY 2019-20 had estimated same level of transmission charges as in FY 2018-19 i.e. Rs. 182.33 Crore. Further, in accordance with the ruling of the Commission in the Order in Case No.361 of 2018 dated 14 June, 2019 and Regulations 14(1)(v) of the DOA Regulations, 2019 (First Amendment), for the purpose of provisional true-up has disallowed Rs. 182.33 Crore from the projected income from OA charges, while approving net income from OA charges for FY 2019-20. Accordingly, MSEDCL has excluded the transmission charges open access revenue from the income from OA charges.

Commission's Analysis and Ruling

- 3.24.4 The Commission has verified income from OA Charges from audited accounts.
- 3.24.5 From the scrutiny of audited accounts and submission of MSEDCL, Commission considered the income from OA charges as below.

Table 3-88: Income from OA Charges approved for FY 2019-20 (Rs. crore)

	FY 2019-20			
Particulars	MTR Petition		Approved in this order	
		22.11		
Income from Open Access Charges	29.59	83.44	83.44	

3.24.6 Thus, the Commission approves Rs 83.44 Cr as Income from Open access in FY 2019-20.

3.25 Income from Trading of Surplus Power

MSEDCL's Submission

3.25.1 MSEDCL has reported the income of Rs. 335.99 Crores from trading of surplus power as provided in following table.

Table 3-89: Income from Trading of surplus power for FY 2019-20, as submitted by MSEDCL

Doutionlong	FY 2019-20			
Particulars	MYT Order	MTR Petition	Deviation	
Income from Trading of Surplus power	298.18	335.99	37.81	

Commission's Analysis and Ruling

3.25.2 The Commission upon verification of the Note 29 of audited accounts has considered the income from trading of surplus power as submitted by MSEDCL for the purpose of truing up of ARR of FY 2019-20.

Table 3-90: Income from Trading Surplus for FY 2019-20 as approved by Commission (Rs. crore)

	FY 2019-20			
Particulars	MYT Order	MSEDCL Petition	Approved in this order	
Income from Trading of Surplus Power	298.18	335.99	335.99	

3.25.3 Thus, the Commission approves Rs. 335.99 Crores as Income from Trading surplus for FY 2019-20.

3.26 Impact of Payment to MPECS for FY 2019-20

MSEDCL's Submission

3.26.1 MSEDCL has submitted that the Commission in the MYT Order dated 3 November 2016 had approved on a future basis the payment to MPECS for the years from FY 2017-18 to FY 2019-20 as following.

Table 3-91: Payment Approved to MPECS by the Commission

Financial Year	Amount (Crores)
FY 2017-18	46.20
FY 2018-19	43.18
FY 2019-20	40.17

- 3.26.2 MSEDCL has submitted that the Commission in the MYT Order dated 30th March 2020 has approved Rs. 40.17 Crores towards payment to MPECS for FY 2019-20 as the same was allowed under the MTR Order dated 12 September 2018. The Commission in the MYT Order dated 30th March 2020 also ruled that it shall consider the actual amount towards this head at the time of truing up of FY 2019-20.
- 3.26.3 Thus, in the MTR Petition MSEDCL has claimed the same amount equivalent to Rs. 46.42 Crore for FY 2019-20.

Commission's Analysis

3.26.4 Commission has verified the payment to MPECS by MSEDCL from the audited accounts and found that MSEDCL has paid Rs 40.42 Crores to MPECS.

Table 3-92: Impact of payment to MPECS for FY 2019-20 as approved by Commission (Rs. Crore)

	FY 2019-20		
Particular	MTR Order	MTR Petition	Approved in this order
Impact of Payment to MPECS	40.17	40.42	40.42

3.26.5 Thus, the Commission allows Rs 40.42 Crores as Impact of payment to MPECS for FY2019-20.

3.27 Past Period Adjustment by Commission

MSEDCL's Submission

3.27.1 MSEDCL has submitted that the Commission had considered the past period adjustments of Rs. 853.08 Crores for FY 2019-20 in MYT Order dated 30th March 2020 as approved in the MTR Order. MSEDCL has considered the same for FY 2019-20.

Commission's Analysis

3.27.2 Commission has approved the past period adjustments as approved in the MYT Order dated 30th March 2020. The same has been considered by the Commission while arriving at the trued-up revenue gap FY 2019-20.

3.28 Sharing of Efficiency Gains and Losses for FY 2019-20

MSEDCL's Submission

3.28.1 MSEDCL has submitted the sharing of efficiency gains and losses in accordance with the controllable/uncontrollable factors and the mechanism of sharing gains/losses for

these factors as defined by Regulation 9, 10 and 11 of MYT Regulations, 2015. The relevant extracts of the Regulations are as provided below for reference purposes:

- "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."
- 3.28.2 O&M Expenses and Interest on Working Capital etc. for which the norms for computation are defined in the Regulations have been computed by MSEDCL on normative basis.
- 3.28.3 The sharing for the parameters is done by MSEDCL as per MYT Regulations, 2015 such that any variation in the actual expenses as against the permissible normative levels will be shared between MSEDCL and consumers.
 - O&M Expenditure:

The actual O&M expenses as per the Audited Accounts for FY 2019-20 are lower than that allowed on normative basis:

• Interest on Working Capital:

IoWC expenses as per the Audited Accounts for FY 2019-20 is higher than the IoWC allowed on normative basis. The summary of sharing of gains/ losses of O&M Expenses and Interest on Working capital is as given in the table

Table 3-93: Sharing of Efficiency Gains/(Losses) on O&M Expenses submitted by MSEDCL (Rs. crore)

Particulars	Normative value	Actual value	Gain/ (Loss)	2/3 of Efficiency Gains passed on to consumers	1/3 of Efficiency Gains retained by MSEDCL	Net Entitlement after sharing
O&M Expenses	7,215.97	6,794.33	421.65	281.10	140.55	6,934.88

Particulars	Normative value	Actual value	Gain/ (Loss)	2/3 of Efficiency Gains passed on to consumers	1/3 of Efficiency Gains retained by MSEDCL	Net Entitlement after sharing
Interest on Working Capital	131.39	1,606.06	(1,474.66)	(983.11)	(491.55)	622.95

• Distribution Loss:

The actual distribution loss (excluding EHV Sales) in FY 2019-20 is lower than the loss approved in the MYT Order.

- 3.28.4 MSEDCL has submitted that it has computed the sharing of efficiency gain/ loss considering 18.26% as the approved distribution loss target (Excluding EHV Sales) against the actual distribution losses (Excluding EHV Sales) in accordance with the MERC (MYT) Regulations, 2015. MSEDCL further submits that the approved distribution loss of 13.50% for FY 2015-16 was inclusive of EHV sales. Hence, these two numbers cannot be compared for sharing purpose. It is pertinent to note that in MYT Order dated 3rd November 2016 the Hon'ble Commission itself has approved the distribution loss target as 18.26% (excluding EHV sales) for FY 2019-20. The normative loss of 13.50% was approved loss trajectory for FY 2015-16 on provisional basis and was inclusive of EHV Sales.
- 3.28.5 Hence MSEDCL submitted that since Distribution Loss Trajectory excluding EHV sales was introduced by the Commission for 3rd Control Period in MYT Order, the actual Distribution Loss excluding EHV sales needs to be compared with the approved Distribution Loss Trajectory excluding EHV sales. The Summary of Sharing of gains/losses as computed by MSEDCL as per the above submissions is shown in Table below:

Table 3-94: Efficiency Gains/Losses due to lower Distribution Loss in FY 2019-20 as per MSEDCL

Particulars	Unit	Amount
Actual Distribution Losses	%	17.09%
MYT approved Loss	%	18.26%
Sales Excl. EHV sales in MUs	MU	94,843
EHV Sales in MUs	MU	8,869
Total Sales in MUs	MU	1,03,712
Intra STS loss (Proposed	%	3.28%
Power Requirement at Ex-Bus Periphery (Actual)	MU	1,27,439
Power Requirement at Ex-Bus Periphery (Normative)	MU	1,29,131
Additional/ (lower) Power purchase due to higher distribution loss	MU	(1,692.6)

Particulars	Unit	Amount	
Marginal Variable Cost of Power Purchase	Rs. /kWh	2.43	
Additional/(Lower) Power purchase Cost due to	Rs. Crores	(411.9)	
lower distribution loss	Ks. Cloles	(411.9)	
2/3 Efficiency gain/(loss) to be borne/retained by	Rs. Crores	274.6	
MSEDCL	Rs. Clores	274.0	
1/3 Efficiency gain/(loss) to be borne by the	Rs. Crores	137.3	
consumers	Ks. Clules	137.3	

3.28.6 The total impact of sharing of gains and losses of the three parameters as computed by MSEDCL for FY 2019-20 is as shown in table below:

Table 3-95: Net Impact of sharing of gains and losses FY 2019-20

Particulars	FY 2019-20
O&M Expenses	(281.10)
Interest on Working Capital	491.55
Revenue due to Distribution Loss	137.30
Total	347.76

Commission's Analysis and Ruling

3.28.7 As per the MYT Regulations 2015, 2/3rd of the efficiency gain has to be passed on to consumers and one-thirds allowed to be retained by MSEDCL. The summary of sharing of efficiency gains/(loss) on account of O&M Expenses, IoWC and Distribution Loss as approved by the Commission are shown in the tables below:

Table 3-96: Sharing of Gains/Loss on O&M and IoWC Expenses, approved by Commission (Rs. crore)

Particulars	Normative	Actual	Gain/ (Loss)	2/3 of Efficiency Gains/ Losses passed on to Consumers	1/3 of Efficiency Gains/losses retained by MSEDCL	Net Entitlement after sharing
O&M Expenses	7,183.12	6,636.85	546.27	364.18	182.09	6,818.94
IoWC	128.59	252.89	(124.30)	(82.90)	(41.40)	170.00

Effect of sharing of Gains and Loss on Distribution Loss

3.28.8 Variation in Distribution Loss is considered as a controllable parameter under MYT Regulations. Accordingly sharing of gains and loss on account of the same has been carried out every year at the time of true-up.

- 3.28.9 The Commission has approved AG sales for FY 2019-20 in energy sales section above and derived the actual distribution loss. It is observed that actual loss is higher than distribution loss approved in MYT Order.
- 3.28.10The Commission in the MYT Order in Case No. 322 of 2019 while giving treatment to sharing of loss/gain on account of the higher/lower distribution loss had consider the Average Variable Cost of power procurement of MSEDCL. The relevant provision of the said Order is as below:
 - "4.29.12Thus, it is observed that effect of sharing of higher loss level than norms to an extent of Rs 3028 Crore has already been provided through earlier MYT/MTR Orders (Case48 of 2016 and Case 195 of 2017).
 - 4.29.13Following table shows the effect of sharing of loss on account of variation in Distribution loss considering the reassessed Distribution loss level in the respective years of FY 2014-15 to FY 2018-19. For the same, Commission has considering loss level as 20.54% and rate of power purchase at Average Variable Cost; with loss sharing ratio 2/3rd :1/3rd between MSEDCL and consumer, in accordance with provision of MYT Regulations 2011 and MYT Regulations, 2015 respectively for FY 2014-15 and other financial years."
- 3.28.11The Commission is of the view that, ideally the incremental power procurement for meeting the higher distribution losses above normative shall be at marginal variable cost of power procurement of MSEDCL. However, the Commission in MYT Order had taken lenient view considering that, the Commission was truing up excess distribution losses on account of higher AG sales for the entire control period of 5 years and the impact of Sharing of Gains/Loss on account of distribution losses on the MSEDCL would be significant. Also, the Commission has directed MSEDCL to work on improvement of Ag sales estimation as per methodology stipulated in the MYT Order.
- 3.28.12However, during filing of present Petition, MSEDCL has taken a stand that AGWG Report and subsequent direction of the Commission in MYT Order was related to billing of Ag consumers and nothing to do with AG sales estimation. Even after asked for revision in AG sales estimation and conveying specific data gaps regarding the same, MSEDCL has filed its MYT Petition by estimating AG sales based on old method. Although, the Commission could have refused the admission of such Petition which has been filed in contravention to its directives, in order to avoid delay in truing up process, the Commission has decided to admit the Petition and conveyed the stakeholders regarding the same by directing MSEDCL to specifically mention in its Public Notice that its AG sales estimation is not accordance with directives of the Commission. Further in the last three years by citing excuse of COVID-19 pandemic MSEDCL has not taken visible efforts to improve AG sales estimations. After end of public consultation process, MSEDCL vide letter dated 17 March 2023 has submitted AG sales estimation claiming that it is based on methodology stipulated by the Commission in MYT Order. This shows casual approach of MSEDCL towards AG

sales estimation. In earlier section of the chapter 3, the Commission has stated reasons for not considering such submission in this Order. Also, even several directions, it is evident that MSEDCL has released un-metered connections to AG pumps. This act of MSEDCL is not only against directives of the Commission but against the provision of the Act. Such approach of MSEDCL towards AG sales estimation compels the Commission to take hard decision so that MSEDCL becomes serious about this issue which not only impacts its performance but impacting other consumers by way of cross-subsidy burden.

- 3.28.13 In view of above for truing up of FY 2019-20, the Commission is considering marginal variable cost of MSEDCL power procurement for computation cost of procurement of higher power quantum on account of higher distribution loss level of 22.72% and 23.54% for FY 2020-21 and FY 2021-22 respectively.
- 3.28.14Following table shows the effect of sharing of loss on account of variation in Distribution loss considering the reassessed Distribution loss level for FY 2019-20. For the same, Commission has considered loss level as 21.26% and rate of power purchase at Marginal Variable Cost; with loss sharing ratio 2/3rd :1/3rd between MSEDCL and consumer, in accordance with provision of MYT Regulations, 2015 respectively for FY 2019-20.

Table 3-97: Efficiency Gains/Losses due to lower Distribution Loss in FY 2019-20 as approved by the Commission

Particulars	Unit	FY 2019-20
Actual Distribution Loss	%	21.26%
MYT approved loss	%	18.26%
Sales Excl. EHV sales in Mus	MU	89,866
EHV Sales in Mus	MU	8,869
Total Sales in Mus	MU	98,735
IntraSTS loss	%	3.28%
Power Requirement at Ex-Bus Periphery (Actual) in Mus	MU	1,27,164
Power Requirement at Ex-Bus Periphery (Normative) in Mus	MU	1,22,836
Additional/ (lower) Power purchase due to higher distribution	MU	4,328
loss in Mus		1,320
Rate of PP (At marginal Variable Cost)	Rs. /kWh	3.52
Additional/(Lower) Power purchase Cost due to lower	Rs. Crore	1,524
distribution loss		1,324
Efficiency gain/(loss) to be borne by MSEDCL	Rs. Crore	(1,016)
Efficiency gain/(loss) to be borne by the consumers	Rs. Crore	(508)

- 3.28.15Total impact of additional power purchase to be borne by MSEDCL is estimated as Rs 1,016 Crore (2/3rd of estimated avoided power purchase cost at marginal variable cost).
- 3.28.16Accordingly, the total impact of sharing of gains and losses of the three parameters approved by the Commission for FY 2019-20 is as shown in table below:

Table 3-98: Net Impact of sharing of gains and losses FY 2019-20

Particulars	FY 2019-20
Sharing of gains/(loss) of O&M Expenses	(364.18)
Sharing of gains/(loss) of Interest on Working Capital	41.43
Sharing of gains/(loss) due to Distribution Loss	(1,015.75)
Total	(1,338.50)

3.29 Aggregate Revenue Requirement for FY 2019-20

3.29.1 Based on the analysis, the summary of ARR for the Wires Business and Supply Business, as claimed by MSEDCL and as trued-up by the Commission for FY 2019-20 is presented in the Tables below.

Table 3-99: ARR for Wires Business for FY 2019-20 as approved by Commission (Rs. crore)

	FY 2019-20					
Particulars	MYT Order (a)	MTR Petition (b)	Approved in the Order (c)	True Up d = c-a		
Operation & Maintenance Expenses	4,851.44	4,886.68	4,865.33	13.89		
Depreciation	2,398.98	2,193.73	2,022.74	(376.24)		
Interest on Loan Capital	1,195.99	1,146.93	1,155.24	(40.76)		
Interest on Working Capital	135.77	131.39	128.59	(7.18)		
Interest on deposit from Consumers and Distribution System Users	79.60	74.89	74.89	(4.71)		
Other Finance Charges	27.99	19.87	19.87	(8.12)		
Provision for bad and doubtful debts	73.26	85.50	59.23	(14.04)		
Opex Scheme	-	-		-		
Contribution to contingency reserve	128.49	115.37	115.37	(13.11)		
Income Tax		-		-		
Return on Equity Capital	1,658.64	1,682.31	1,682.05	23.41		
Aggregate Revenue Requirement	10,550.17	10,336.67	10,123.31	(426.85)		
Net Revenue Requirement	10,550.17	10,336.67	10,123.31	(426.85)		

Table 3-100: ARR for Supply Business for FY 2019-20 as approved by Commission (Rs. crore)

	FY 2019-20				
Particulars	MYT Order (a)	MTR Petition (b)	Approved in the Order (c)	True Up d = c-a	
Power Purchase Expenses	55,967.62	61,897.22	61,897.23	5,929.61	

	FY 2019-20				
Particulars	MYT Order (a)	MTR Petition (b)	Approved in the Order (c)	True Up d = c-a	
Operation & Maintenance Expenses	2,612.31	2,631.29	2,619.79	7.48	
Depreciation	266.55	243.75	224.75	(41.80)	
*		127.44			
Interest on Loan Capital	132.89	127.44	128.36	(4.53)	
Interest on Working Capital	-	-	-	-	
Interest on Consumer Security	716.42	674.03	674.03	(42.40)	
Deposit Other Finance Changes	3.11	2.21	2.21	(0.00)	
Other Finance Charges Provision for bad and doubtful	3.11	2.21	2.21	(0.90)	
debts	659.37	769.47	533.04	(126.33)	
Other Expenses	50.08	83.28	50.08	0.00	
Income Tax	213.89	-	-	(213.89)	
Intra-State Transmission Charges	4,867.55	4,871.25	4,863.74	(3.81)	
Incentives/Discounts	307.03	337.25	337.25	30.22	
Contribution to contingency reserves	14.28	12.82	12.82	(1.46)	
Return on Equity Capital	208.15	211.12	211.09	2.94	
RLC refund	1.84	1.77	1.77	(0.07)	
ASC refund	-	-	2.,,	-	
Effect of sharing of gains/losses	_	347.76	(1,338.50)	(1,338.50)	
Past Period Surplus	853.08	853.08	853.08	-	
Revenue Gap Recovery Allowed	2,562.93	2,562.93	2,562.93	_	
Impact of payment to MPECS in future years	40.17	40.42	40.42	0.25	
Opex scheme	_	_		_	
Incremental Consumption Rebate			_	_	
Total Revenue Expenditure	69,477.27	75,667.08	73,674.08	4,196.81	
Revenue from sale of Power	78,965.30	72,944.55	72,944.55	(6,020.75)	
Non-Tariff Income	361.66	494.19	494.19	132.52	
Income from Additional					
Surcharge	317.14	575.60	575.60	258.46	
Income from Wheeling charges	1.79	1.10	1.10	(0.68)	
Income from Open Access	29.59	83.44			
charges	<u> </u>	03.44	83.44	53.85	
Income from Trading of Surplus	298.18	335.99	335.99	37.81	
Power	2,5.10	333.77	223.77	37.01	
Net Revenue Requirement for Retail supply	79,973.67	74,434.88	74,434.88	(5,538.79)	
Revenue Gap	(10,496.40)	1,232.20	(760.80)	9,735.60	
Actoriac Gap	(10,770.70)	1,202.20	(100.00)	7,755.00	

Table 3-101: ARR for FY 2019-20 (Wires + Supply) as approved by Commission (Rs. crore)

	FY 2019-20				
Particulars	MYT Order (a)	MTR Petition (b)	Approved in the Order (c)	True Up d = c-a	
Power Purchase Expenses	55,967.62	61,897.22	61,897.23	5,929.61	
Operation & Maintenance Expenses	7,463.76	7,517.97	7,485.12	21.37	
Depreciation	2,665.53	2,437.48	2,247.49	(418.04)	
Interest on Loan Capital	1,328.88	1,274.37	1,283.60	(45.28)	
Interest on Working Capital	135.77	131.39	128.59	(7,18)	
Interest on Consumer Security Deposit	796.03	748.92	748.92	(47.11)	
Other Finance Charges	31.10	22.08	22.08	(9.02)	
Provision for bad and doubtful debts	732.63	854.96	592.27	(140.36)	
Other Expenses	50.08	83.28	50.08	0.00	
Income Tax	213.89	-	-	(213.89)	
Intra-State Transmission Charges	4,867.55	4,871.25	4,863.10	(4.45)	
Incentives/Discounts	307.03	337.25	337.25	30.22	
Contribution to contingency reserves	142.76	128.19	128.19	(14.57)	
Opex scheme	-	-	-	1	
DSM Expenses	-	-		-	
Return on Equity capital	1,866.79	1,893.43	1,893.14	26.35	
RLC refund	1.84	1.77	1.77	(0.07)	
ASC refund	-	-		1	
Effect of sharing of gains/losses	-	347.76	(1,338.50)	(1,338.50)	
Past Period Adjustment by Commission	853.08	853.08	853.08	1	
Revenue Gap Recovery Allowed	2,562.93	2,562.93	2,562.93	-	
Impact of payment to MPECS in future years	40.17	40.42	40.42	0.25	
Incremental Consumption Rebate	-	-	-	-	
Aggregate Revenue Requirement	80,027.43	86,003.75	83,797.39	3,769.96	
Revenue from sale of Power	78,965.30	72,944.55	72,944.55	(6,020.75)	
Non-Tariff Income	361.66	494.19	494.19	132.52	
Income from Open Access Charges	29.59	83.44	83.44	53.85	
Income from Trading of Surplus Power	298.18	335.99	335.99	37.81	
Income from Wheeling Charges	1.79	1.10	1.10	(0.68)	
Income from Additional Surcharge	317.14	575.60	575.60	258.46	
Net Aggregate Revenue Requirement	79973.67	74434.88	74,434.88	(5,538.79)	
Revenue Gap/(Surplus)	53.77	11,568.88	9,362.51	9,308.75	

4 TRUE-UP OF FY 2020-21 AND FY 2021-22

4.1 Background

- 4.1.1 MSEDCL has sought Truing-up of the ARR for FY 2020-21 and FY 2021-22 considering actual expenditure and revenue as per the Audited Accounts and in accordance with the provisions of the MYT Regulation, 2019. MSEDCL has made submissions for differences between the actual expenses for FY 2020-21 and FY 2021-22 as compared to those approved in MYT Order in Case No. 322 of 2019 dated 30 March 2020.
- 4.1.2 The analysis underlying the Commission's approval for true-up of FY 2020-21 and FY 2021-22 is set out in the following sections.

4.2 Sales in FY 2020-21 and FY 2021-22

MSEDCL's Submission

4.2.1 MSEDCL has submitted category wise actual sales for FY 2020-21 and FY 2021-22 excluding all distribution franchisee as per the table below:

		FY 2020-21		FY 2021-22			
Category	MYT Order (MU)	MTR Petition (MU)	Deviation (MU)	MYT Order (MU)	MTR Petition (MU)	Deviation (MU)	
Residential	22,647.41	21,219.70	(1,427.70)	23,750.90	21,477.14	(2,273.75)	
Commercial	8,607.29	4,856.36	(3,750.93)	9,202.09	5,745.74	(3,456.35)	
HT-Industries	33,577.23	28,285.99	(5,291.23)	34,916.20	33,909.97	(1,006.23)	
LT-Industries	7,515.43	7,002.98	(512.45)	7,878.84	8,311.07	432.23	
PWW	2,553.96	2,504.79	(49.17)	2,644.54	2,628.89	(15.66)	
Streetlight	2,258.45	1,832.03	(426.42)	2,402.49	1,262.46	(1,140.03)	
Agriculture	27,727.32	34,060.49	6,333.17	28,279.08	36,394.46	8,115.38	
Public Services	1,663.12	1,278.38	(384.73)	1,750.44	1,501.34	(249.10)	
Railways	80.46	67.37	(13.10)	82.07	84.30	2.22	
Others	718.60	580.12	(138.48)	729.31	739.13	9.82	
Total Excl. DF	1,07,349.27	1,01,688.22	(5,661.05)	1,11,635.97	1,12,054.50	419	

4.2.2 MSEDCL has submitted that the Commission has approved sales (excl. DF) of 1,07,349.27 MUs for FY 2020-21 and 1,11,635.97 MUs for FY 2021-22 in MYT Order (Case No. 322 of 2019). The actual sales (excl. DF) are 1,01,688.22 MUs and 1,12,054.50 MUs, i.e., lower sale of 5,661.05 MUs for FY 2020-21 and additional sale of 419 MUs for FY 2021-22.

4.2.3 MSEDCL has submitted that at the time of MYT Order process, MSEDCL was in advanced step/stage to introduce franchisee in other areas, and hence, the Commission while projecting sales has considered only Bhiwandi Franchisee and not factored in the impact of other franchisees. Further, the Commission had opined that the same can be done at MTR stage based on actual details.

Bhiwandi DF:

4.2.4 MSEDCL has submitted that M/s. Torrent Power Ltd. (TPL) had been appointed as Distribution Franchisee 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 26 January 2017. As per article 3.2 of DFA, the said agreement has been renewed and extended for 10 Years i.e. up to 25 January 2027. Distribution Franchisee Renewal Agreement was signed on 02 December 2016.

Thane DF SMK area:

4.2.5 MSEDCL has submitted that M/s. Torrent Power Ltd. (TPL) has been appointed as Distribution Franchisee for Shil, Mumbra & Kalwa (SMK) sub-divisions under Thane Urban Circle. DFA dated 11 February, 2019 is effective for the period commencing from 1 March 2020 to 1March 2040. Distribution operations of designated DF area were handed over to M/s. TPL on 1 March, 2020.

Malegaon DF:

4.2.6 MSEDCL has submitted that M/s. CESC Limited has been appointed as Distribution Franchisee 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 29 May 2019 is effective for the period commencing from 1 March 2020 to 1 March 2040. Distribution operations of designated DF area were handed over the M/s. CESC on 1 March 2020.

AG Sales for FY 2020-21 and FY 2021-22:

- 4.2.7 MSEDCL vide its replies to the data gaps dated 4 January 2023 submitted that the AG Metered billing was computed as per consumer meter reading and AG Unmetered Billing was billed as per Connected load (HP) based tariff and sales was computed on the basis of AG Index (kWh/HP) of normal status metered consumer at subdivision level.
- 4.2.8 MSEDCL has submitted that the details of month wise sales are given in the Form 1 of the Regulatory Formats and requested the Commission to approve the Sales for FY 2021-22 and FY 2021-22 as submitted.

Commission's Analysis and Rulings

True-up of Non-AG Sales for FY 2020-21:

- 4.2.9 For true-up of sales for FY 2020-21, the Commission has reviewed the actual sales reported by MSEDCL for FY 2020-21 in its Petition. There is significant variation of (1427.70) MUs, (3750.93) MUs, (5,291.23) MUs, (512.45) MUs and 4694.64 MUs in actual sales of LT-Residential, Commercial (HT and LT), HT-Industrial, LT-Industrial and LT-AG (Unmetered and Metered) categories, respectively, vis-à-vis that provisionally approved under the MYT Order in Case No. 322 of 2019.
- 4.2.10 The Commission vide Data Gap Set-1 directed to MSEDCL to submit justification and rationale behind significant reduction in the sales in HT-Industry sales, LT-Non-domestic and LT-domestic categories. About HT-Industry and Commercial (HT and LT) Category, MSEDCL submitted that the reason behind the drop in industrial and commercial sale is on account of COVID 19 and pandemic & subsequence lockdown. About LT-Residential Category MSEDCL submitted that the consumption rise of 2.98% was observed which is very less vis-a-vis projected during the MYT Order. About AG sales MSEDCL submitted that FY 2020-21 was COVID period and majority input rise was observed in AG dominated areas like Akola, Aurangabad, Gondia, Jalgaon, Latur, Nanded which is reflected in rise in AG Sales.
- 4.2.11 For true-up of Non-AG sales for FY 2020-21, the Commission has verified actual Non-AG Sales as claimed by MSEDCL vis-à-vis its audited annual accounts and month-wise sales submitted as per the formats submitted under the MTR petition and found it to be in order. The reduction in the Non-AG Sales is considered due to the impact of COVID-19. Regarding true-up of AG Sales for FY 2020-21, the Commission has elaborated its approach in subsequent sections upon detailed scrutiny of MSEDCL's submissions and suggestions on the estimation of AG sales.

True-up of Non-AG Sales for FY 2021-22:

- 4.2.12 For true-up of Non-AG sales for FY 2021-22, the Commission has reviewed the actual sales reported by MSEDCL for FY 2021-22 in its Petition. There is significant variation of (2273.75) MUs, (3456.35) MUs, (1006.23) MUs, (1140.03) MUs and 8815.38 MUs in actual sales of LT-Residential, Commercial (HT and LT), HT-Industrial, LT-Street light and LT-AG (Unmetered and Metered) categories, respectively, vis-à-vis that provisionally approved under the MYT Order in Case No. 322 of 2019.
- 4.2.13 The Commission vide Data Gap Set-1 sought justification and rationale behind significant reduction in the sales in HT-Industry sales, LT-Non-domestic and LT-domestic categories. In reply MSEDCL submitted that the COVID-19 lock down situation was continued for majority period of FY 2021-22.
- 4.2.14 For true-up of Non-AG sales for FY 2021-22, the Commission has verified actual Non-AG Sales as claimed by MSEDCL vis-à-vis its audited annual accounts and month-wise sales submitted as per the formats submitted under the MTR Petition and found it to be in order. The Commission notes that, the reduction in the Non-AG Sales is mainly

due to the impact of COVID-19 lock down. Most of the industries were either not operating or partly operating. Most of the IT sector or other service sectors had adopted work from home (WFH) options as per the Government directives which had major impact on the sales of industrial and commercial categories. Regarding true-up of AG Sales for FY 2021-22, the Commission has elaborated its approach in subsequent sections upon detailed scrutiny of MSEDCL's submissions and suggestions on the estimation of AG sales.

True-up and Estimation of AG Sales for FY 2020-21 and FY 2021-22:

- 4.2.15 The Commission in chapter 3 at Para 3.2 elaborated on Regulatory approach followed observatory on AG Sales growth & release of unmetered Ag connection. The same is not repeated for sake brevity.
- 4.2.16 In view of above, reasons stated in earlier Chapter 3 of this Order, the Commission has disallowed the claim of MSEDCL regarding increase in AG sales and has approved the AG sales based on AG Index and adopted methodology in line with the MYT order in Case No. 322 of 2019 dated 30 March 2020.
- 4.2.17 Accordingly, the summary of the approved Sales for FY 2020-21 and FY 2021-22 for the purpose of Truing-up is provided as under:

Table 4-2: Sales of FY 2020-21 and FY 2021-22 as approved by the Commission (MU	Table 4-2: Sales	of FY 2020-2	1 and FY 2021-22 as	approved by the	Commission (M	U)
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		FY 2020-21			FY 2021-22			
Particulars	MYT Order	MTR Petition	Approved in this Order	MYT Order	MTR Petition	Approved in this Order		
HT Sales	40,205	33,368	33,368	41,726	39,570	39,570		
LT Sales (Excl. LT AG Sales)	40,661	35,048	35,048	42,914	36,942	36,942		
LT AG Sales	26,483	33,271	26,549	26,996	35,543	26,775		
Total Sales	107,349	101,688	94,965	111,636	112,055	103,287		
Energy Sales in Bhiwandi DF Area	3,273	2,550.73	2,550.73	3,427	3,099.23	3,099.23		
Energy Sales in Malegaon DF Area	-	604.89	604.89	-	731.74	731.74		
Energy Sales in Thane DF Area	-	394.11	394.11		443.51	443.51		
Total Energy Sales (Incl. of DF Sales)	110,622	105,237	98,515	115,603	116,329	107,561		

4.3 Energy Balance for FY 2020-21 and FY 2021-22

MSEDCL's Submission

4.3.1 For calculating energy balance of MSEDCL as a whole, the sale to the consumers within the Distribution Franchisee area has also been considered. Accordingly, energy available for FY 2020-21 and FY 2021-22 is computed by MSEDCL as below:

Table 4-3: Energy Available for Sales for FY 2020-21 (MU) as submitted by MSEDCL

	FY 2020-21				
Particulars	MYT Order	MTR Petition	Deviation		
Energy Sales by MSEDCL for FY 2020-21	1,07,349.27	1,01,688.22	(5,661.05)		
Add: Category wise sales in DF area	3,272.95	3,549.73	276.78		
Add: OA Sales (Conventional)	3,983.40	3,319.25	(664.15)		
Add: Renewable OA	859.40	956.22	96.82		
Total Energy Sales	1,15,465.02	1,09,513.42	(5,951.60)		

Table 4-4: Energy Available for Sales for FY 2021-22 (MU) as submitted by MSEDCL

	FY 2021-22					
Particulars	MYT Order	MTR Petition	Deviation			
Energy Sales by MSEDCL for FY 2021-22	1,11,635.97	1,12,054.50	418.53			
Add: Category wise sales in DF area	3,427.25	4,274.48	847.23			
Add: OA Sales (Conventional)	3,983.40	4,435.55	452.15			
Add: Renewable OA	859.40	1,247.70	388.30			
Total Energy Sales	1,19,906.02	1,22,012.23	2,106.21			

- 4.3.2 MSEDCL has considered the InSTS losses as 3.17% for FY 2020-21 and 3.38% for FY 2021-22 for deriving InSTS losses, MSEDCL has considered the energy at ex bus bar and energy received at STU periphery from WRLDC reports.
- 4.3.3 MSEDCL has considered the InSTS loss of 4.30% and 4.11% for FY 2020-21 and FY 2021-22 respectively for Maharashtra System. MSEDCL has considered this Intra-State transmission loss for computing the input for OA consumption, as mandated by the Commission in MYT Order.
- 4.3.4 The following tables shows the energy balance for FY 2020-21 and FY 2021-22 as submitted by MSEDCL.

Table 4-5: Energy Balance for FY 2020-21 as submitted by MSEDCL

S _n	Sr.			FY 2020-21	
No.	Particulars Particulars	Calculation	UoM	MYT Order	Actual
1	LT Agriculture Sales (Including D.F)	a	MU	26,354	33,135
2	LT Sales excluding Agriculture Sales (Including D.F)	b	MU	43,345	38,147
3	HT Sales excluding EHV level sales (Including D.F)	С	MU	30,565	24,895
4	Total Sales including D.F (Excluding EHV Sales)	d=a+b+c	MU	1,00,265	96,176
5	OA Sales (Renewables)	e	MU	859	956
6	OA Sales (Conventional)	f	MU	3,983	3,319

Sr.				FY 2020-21		
No.	Particulars	Calculation	UoM	MYT Order	Actual	
7	Retail Energy Sale to Consumers (Excluding EHV Sales)	A=d+e+f	MU	1,05,108	1,00,452	
8	Sale due to Surplus Energy Traded	B=1%*(d+t)	MU	1,106	286	
9	Retail Energy Sale including surplus traded (Excluding EHV Sales)	C=A+B	MU	1,06,214	1,00,738	
10	Total Power Purchase	D=g+h	MU	1,39,584	1,32,485	
11	Power Purchase Quantum from Intra-State sources	g	MU	98,524	85,180	
12	Power Purchase Quantum from Inter-State sources	h	MU	41,060	47,305	
13	Inter-State Losses	i	%	3.10%	3.17%	
14	Power Purchase Quantum from Inter-State sources at MS Periphery	j=h*(1-i)	MU	39,786	45,805	
15	Add: FBSM	0	MU	-	(805.39)	
16	Power Quantum handled at Maharashtra Periphery	k=g+j	MU	1,38,310	1,30,179	
17	Infirm Non-PPA Wind Power	l=e/(1-q)	MU	888	999	
18	Input for OA Consumption	m=f/(1-q)	MU	4,114	3,468	
19	Total Power Purchase Quantum Handled	n=k+l+m-v	MU	1,42,738	1,34,647	
20	Surplus Power Traded	o=B	MU	1,106	286	
21	Energy Requirement at G<>T Periphery	p=n-o	MU	1,41,632	1,34,361	
22	Intra-State Transmission Loss	q	%	3.18%	4.30%	
23	Intra-State Transmission Loss	r=p*q	MU	4,502	5,775	
24	Net Energy requirement at T<>D Periphery	s=p-r	MU	1,37,130	1,28,586	
25	EHV Sales	t	MU	10,357	9,062	
26	Net Energy Available for Sale at 33kV	u=s-t	MU	1,26,773	1,19,524	
27	Energy injected and drawn at 33kV	v	MU	573	694	
28	Total Energy Available for Sale at 33kV	E=u+v	MU	1,27,346	1,20,218	
29	Energy Available for Sale including Surplus traded (excl. OA Sales)	# F=E-l- m+o	MU	1,23,451	1,15,750	
30	Distribution Loss (Excl. EHV Sales and OA Sales)	# G=E-A	MU	22,238	19,574	
31	Distribution Loss (Excl. EHV Sales and OA Sales)	H=G/F	%	18.01%	16.91%	

[#] While calculating "G" i.e. Distribution Loss (Excl. EHV Sales and OA Sales), OA sales has been excluded from both "F" as well as "d". Formula corrected to "G" = F-d

Table 4-6: Energy Balance for FY 2021-22 as submitted by MSEDCL

Sr.		Calculation		FY 2021-22	
No. Particulars	Particulars		UoM	MYT Order	MTR Petition
1	LT Agriculture Sales (Including D.F)	a	MU	26,867	35,390

[#] while calculating the parameter "F" i.e. Energy Available for Sale including Surplus traded (excl. OA Sales), surplus power traded has been excluded as same is being sold at transmission periphery. The forula corrected to "F" = E-l-m'

C				FY 2021-22		
Sr. No.	Particulars	Calculation	UoM	MYT	MTR	
	LT Sales excluding Agriculture Sales			Order	Petition	
2	(Including D.F)	b	MU	45,727	40,619	
3	HT Sales excluding EHV level sales (Including D.F)	c	MU	31,718	28,970	
4	Total Sales incl. D.F (Excl. EHV Sales)	d=a+b+c	MU	1,04,313	1,04,978	
5	OA Sales (Renewables)	e	MU	859	1,248	
6	OA Sales (Conventional)	f	MU	3,983	4,436	
7	Retail Energy Sale to Consumers (Excl. EHV Sales)	A=d+e+f	MU	1,09,155	1,10,662	
8	Sale due to Surplus Energy Traded	B=1%*(d+t)	MU	1,151	334	
9	Retail Energy Sale including surplus traded (Excl. EHV Sales)	C=A+B	MU	1,10,306	1,10,996	
10	Total Power Purchase	D=g+h	MU	1,41,940	1,44,535	
11	Power Purchase Quantum from Intra- State sources	g	MU	1,01,459	98,704	
12	Power Purchase Quantum from Inter- State sources	h	MU	40,481	45,831	
13	Inter-State Losses	i	%	3.10%	3.38%	
14	Power Purchase Quantum from Inter- State sources at MS Periphery	j=h*(1-i)	MU	39,224	44,284	
15	Add: FBSM	0	MU	-	-282	
16	Power Quantum handled at Maharashtra Periphery	k=g+j	MU	1,40,683	1,42,706	
17	Infirm Non-PPA Wind Power	l=e/(1-q)	MU	888	1,301	
18	Input for OA Consumption	m=f/(1-q)	MU	4,114	4,626	
19	Total Power Purchase Quantum Handled	n=k+l+m-v	MU	1,45,112	1,48,633	
20	Surplus Power Traded	o=B	MU	1,151	334	
21	Energy Requirement at G<>T Periphery	p=n-o	MU	1,43,961	1,48,299	
22	Intra-State Transmission Loss	q	%	3.18%	4.11%	
23	Intra-State Transmission Loss	r=p*q	MU	4,576	6,097	
24	Net Energy requirement at T<>D Periphery	s=p-r	MU	1,39,385	1,42,202	
25	EHV Sales	t	MU	10,751	11,351	
26	Net Energy Available for Sale at 33kV	u=s-t	MU	1,28,635	1,30,851	
27	Energy injected and drawn at 33kV	V	MU	573	905	
28	Total Energy Available for Sale at 33kV	E=u+v	MU	1,29,208	1,31,756	
29	Energy Available for Sale including Surplus traded (excl. OA Sales)	F=E-l-m+o	MU	1,25,357	1,25,829	
30	Distribution Loss (Excl. EHV Sales and OA Sales)	G=E-A	MU	20,052	20,851	
31	Distribution Loss (Excl. EHV Sales and OA Sales)	H=G/F	%	16.00%	16.57%	

Commission's Analysis and Ruling

- 4.3.5 The Commission notes that the Energy Balance submitted by MSEDCL for FY 2020-21 and FY 2021-22 is as per the format F1.4 approved for 4th MYT Control period, in which Distribution Loss has been estimated excluding EHV sales.
- 4.3.6 The Commission has considered the Conventional Open Access Sales and RE Open Access Sales as submitted by the MSEDCL. The data has been verified from the submission made in response to queries raised. Accordingly, the submission by MSEDCL towards Open Access Sales is found to be in order.
- 4.3.7 In previous sections, the Commission has elaborated on its approach for estimation of AG sales for the purpose of true-up of FY 2020-21 and FY 2021-22
- 4.3.8 Based on the revised estimation of LT Sales by the Commission as approved in this Order, the approved sales including the DF sales, and OA sale units as available for the Energy Balance of FY 2020-21 and FY 2021-22 are as shown below:

Table 4-7: Energy Available for Sale for FY 2020-21 (MU) as approved by the Commissions

	FY 2020-21				
Particulars	MTR Order	MTR Petition	Approved in this Order		
Energy Sales by MSEDCL for FY 2020-21	107,349.27	101,688.22	94,965		
Add: Category wise sales in DF area	3,272.95	3,549.73	3549.73		
Add: OA Sales (Conventional)	3,983.40	3,319.25	3,319.25		
Add: Renewable OA	859.40	956.22	956.22		
Total Energy sales MSEDCL	115,465.02	109,513.42	102,790.20		

Table 4-8: Energy Available for Sale for FY 2021-22 (MU) as approved by the Commission

	FY 2021-22				
Particulars	MTR Order	Actual	Approved in this Order		
Energy Sales by MSEDCL for FY 2021-22	1,11,635.97	1,12,054.50	103,287		
Add: Category wise sales in DF area	3,427.25	4,274.48	4,274.48		
Add: OA Sales (Conventional)	3,983.40	4,435.55	4,435.55		
Add: Renewable OA	859.40	1,247.70	1,247.70		
Total Energy sales MSEDCL	1,19,906.02	1,22,012.23	113,244.73		

4.3.9 The Commission has considered the energy injected and drawn at 33 kV as submitted by MSEDCL as this information about energy injected and drawn at 33 kV is maintained at Circle offices of MSEDCL.

- 4.3.10 Accordingly, the Commission has considered the Net Energy requirement at T<>D Periphery as claimed by the MSEDCL for FY 2020-21 and FY 2021-22 for calculating the Distribution Loss.
- 4.3.11 The Distribution Losses arrived at for FY 2020-21 and FY 2021-22 in the Energy Balance are consequent to the above changes.

Table 4-9: Energy Balance for FY 2020-21 as approved by the Commission

					FY 2020-21	
Sr. No.	Particulars	Calculation	UoM	MYT Order	MTR Petition	Approved in this Order
1	LT Agriculture Sales (Including D.F)	a	MU	26,354	33,135	26412
2	LT Sales excluding Agriculture Sales (Including D.F)	b	MU	43,345	38,147	38147
3	HT Sales excluding EHV level sales (Including D.F)	С	MU	30,565	24,895	24895
4	Total Sales including D.F (Excluding EHV Sales)	d=a+b+c	MU	1,00,265	96,176	89454
5	OA Sales (Renewables)	e	MU	859	956	956
6	OA Sales (Conventional)	f	MU	3,983	3,319	3319
7	Retail Energy Sale to Consumers (Excluding EHV Sales)	A=d+e+f	MU	1,05,108	1,00,452	93729
8	Sale due to Surplus Energy Traded	B=1%*(d+t)	MU	1,106	286	286
9	Retail Energy Sale including surplus traded (Excluding EHV Sales)	C=A+B	MU	1,06,214	1,00,738	94015
10	Total Power Purchase	D=g+h	MU	1,39,584	1,32,485	132485
11	Power Purchase Quantum from Intra-State sources	g	MU	98,524	85,180	85180
12	Power Purchase Quantum from Inter-State sources	h	MU	41,060	47,305	47305
13	Inter-State Losses	i	%	3.10%	3.17%	3.17%
14	Power Purchase Quantum from Inter-State sources at MS Periphery	j=h*(1-i)	MU	39,786	45,805	45805
	Add: FBSM		MU		(805)	(805)
15	Power Quantum handled at Maharashtra Periphery	k=g+j	MU	1,38,310	1,30,179	130179
16	Infirm Non-PPA Wind Power	l=e/(1-q)	MU	888	999	999
17	Input for OA Consumption	m=f/(1-q)	MU	4,114	3,468	3468
18	Total Power Purchase Quantum Handled	n=k+l+m-v	MU	1,42,738	1,34,647	134647
19	Surplus Power Traded	o=B	MU	1,106	286	286
20	Energy Requirement at G<>T Periphery	p=n-o	MU	1,41,632	1,34,361	134361
21	Intra-State Transmission Loss	q	%	3.18%	4.30%	4.30%

				FY 2020-21			
Sr. No.	Particulars	Calculation	UoM	MYT Order	MTR Petition	Approved in this Order	
22	Intra-State Transmission Loss	r=p*q	MU	4,502	5,775	5775	
23	Net Energy requirement at T<>D Periphery	s=p-r	MU	1,37,130	1,28,586	128586	
24	EHV Sales	t	MU	10,357	9,062	9062	
25	Net Energy Available for Sale at 33kV	u=s-t	MU	1,26,773	1,19,524	119524	
26	Energy injected and drawn at 33kV	V	MU	573	694	694	
27	Total Energy Available for Sale at 33kV	E=u+v	MU	1,27,346	1,20,218	120218	
28	Energy Available for Sale including Surplus traded (excluding OA Sales)	# F=E-l- m+o	MU	1,23,451	1,15,750	115750	
29	Distribution Loss (Excl. EHV Sales and OA Sales)	# G=E-A	MU	22,238	19,574	26297	
30	Distribution Loss (Excl. EHV Sales and OA Sales)	H=G/F	%	18.0%	16.91%	22.72%	

[#] While calculating "G" i.e. Distribution Loss (Excl. EHV Sales and OA Sales), OA sales has been excluded from both "F" as well as "d". Formula corrected to "G" = F-d

Table 4-10: Energy Balance for FY 2021-22 as approved by the Commission

				FY 2021-22				
Sr. No.	Particulars	Calculation	UoM	MYT Order	MTR Petition	Approved in this Order		
1	LT Agriculture Sales (Including D.F)	a	MU	26,867	35,390	26622		
2	LT Sales excluding Agriculture Sales (Including D.F)	b	MU	45,727	40,619	40619		
3	HT Sales excluding EHV level sales (Including D.F)	c	MU	31,718	28,970	28970		
4	Total Sales including D.F (Excluding EHV Sales)	d=a+b+c	MU	1,04,313	1,04,978	96211		
5	OA Sales (Renewables)	e	MU	859	1,248	1248		
6	OA Sales (Conventional)	f	MU	3,983	4,436	4436		
7	Retail Energy Sale to Consumers (Excluding EHV Sales)	A=d+e+f	MU	1,09,155	1,10,662	101894		
8	Sale due to Surplus Energy Traded	B=1%*(d+t)	MU	1,151	334	334		
9	Retail Energy Sale including surplus traded (Excl. EHV Sales)	C=A+B	MU	1,10,306	1,10,996	102228		
10	Total Power Purchase	D=g+h	MU	1,41,940	1,44,535	144535		
11	Power Purchase Quantum from Intra-State sources	g	MU	1,01,459	98,704	98704		

[#] while calculating the parameter "F" i.e. Energy Available for Sale including Surplus traded (excl. OA Sales), surplus power traded has been excluded as same is being sold at transmission periphery. The forula corrected to "F" = E-l-m"

				FY 2021-22				
Sr. No.	Particulars	Calculation	UoM	MYT Order	MTR Petition	Approved in this Order		
12	Power Purchase Quantum from Inter-State sources	h	MU	40,481	45,831	45831		
13	Inter-State Losses	i	%	3.10%	3.38%	3.38%		
14	Power Purchase Quantum from Inter-State sources at MS Periphery	j=h*(1-i)	MU	39,224	44,284	44284		
	Add: FBSM		MU		(282)	(282)		
15	Power Quantum handled at Maharashtra Periphery	k=g+j	MU	1,40,683	1,42,706	142706		
16	Infirm Non-PPA Wind Power	l=e/(1-q)	MU	888	1,301	1301		
17	Input for OA Consumption	m=f/(1-q)	MU	4,114	4,626	4626		
18	Total Power Purchase Quantum Handled	n=k+l+m-v	MU	1,45,112	1,48,633	148633		
19	Surplus Power Traded	o=B	MU	1,151	334	334		
20	Energy Requirement at G<>T Periphery	p=n-o	MU	1,43,961	1,48,299	148299		
21	Intra-State Transmission Loss	q	%	3.18%	4.11%	4.11%		
22	Intra-State Transmission Loss	r=p*q	MU	4,576	6,097	6097		
23	Net Energy requirement at T<>D Periphery	s=p-r	MU	1,39,385	1,42,202	142202		
24	EHV Sales	t	MU	10,751	11,351	11351		
25	Net Energy Available for Sale at 33kV	u=s-t	MU	1,28,635	1,30,851	130851		
26	Energy injected and drawn at 33kV	V	MU	573	905	905		
27	Total Energy Available for Sale at 33kV	E=u+v	MU	1,29,208	1,31,756	131756		
28	Energy Available for Sale including Surplus traded (excluding OA Sales)	# F=E-l- m+o	MU	1,25,357	1,25,829	125829		
29	Distribution Loss (Excl. EHV Sales and OA Sales)	# G=E-A	MU	20,052	20,851	29618		
30	Distribution Loss (Excl. EHV Sales and OA Sales)	H=G/F	%	16.0%	16.57%	23.54%		

[#] While calculating "G" i.e. Distribution Loss (Excl. EHV Sales and OA Sales), OA sales has been excluded from both "F" as well as "d". Formula corrected to "G" = F-d

4.4 Distribution Losses for FY 2020-21 and FY 2021-22

4.4.1 In MYT Order dated 30 March 2020 in Case No. 322 of 2019, the Commission had approved distribution loss of 18.01% and 16.00% (excl. EHV Sales and OA Sales) for FY 2020-21 and FY 2021-22, respectively. MSEDCL has submitted that the actual distribution loss of MSEDCL for FY 2021-21 and FY 2021-22 is 16.91% and 16.57%, respectively.

[#] while calculating the parameter "F" i.e. Energy Available for Sale including Surplus traded (excl. OA Sales), surplus power traded has been excluded as same is being sold at transmission periphery. The forula corrected to "F" = E-l-m'

Table 4-11: Distribution Losses for FY 2020-21 and FY 2021-22 as submitted by MSEDCL

	J	FY 2020-21		FY 2021-22			
Particulars	MYT Order	MTR Petition	Deviation	MYT Order			
Distribution Loss	18.01 %	16.91 %	(1.10) %	16.00 %	16.57 %	0.57 %	

- 4.4.2 MSEDCL has submitted that it has been putting best endeavours for lowering the Distribution Losses to the lowest possible level. MSEDCL claimed that it has achieved a significant reduction in distribution losses during recent years. However, loss reduction is a slow process and becomes increasingly difficult for the loss levels to come down after a particular level. The change in sales mix also impact the distribution losses.
- 4.4.3 MSEDCL has requested the Commission to approve the actual Distribution Loss as per the above table.

Commission's Analysis and Rulings

- 4.4.4 Based on the methodology for computation of Distribution Loss by considering the sales at the distribution periphery excluding EHV sales, the Distribution Loss level stipulated for FY 2020-21 and FY 2021-22 in the last MTR Order was 18.01 % and 16.00 %. However, MSEDCL now has submitted a Distribution Loss level of 16.91% and 16.57 % for FY 2020-21 and FY 2021-22, respectively.
- 4.4.5 Further, the Commission has elaborated in earlier paragraphs regarding estimation of AG sales which is significantly different as against MSEDCL's claim, which would result in consequent impact on estimation of distribution loss for FY2020-21 and FY2021-22.
- 4.4.6 Accordingly, for the purpose of Energy Balance and assessment of distribution loss for FY 2020-21 and FY 2021-22 under this Order, the Commission has now approved revised Energy Sales of 93,729 MU for FY 2020-21 against the claim of 1,00,451.84 MU and Energy Sales of 101,894 MU for FY 2021-22 against the claim of 110,662 MU, including DF Sales, and OA Sales, Sales due to surplus energy traded and excluding EHV Sales. Based on this, the approved Distribution Loss for FY 2020-21 and FY 2021-22 as shown in the Table below:

Table 4-12: Distribution Loss for FY 2020-21 and FY 2021-22 as approved the Commission

		FY 2020-	-21	FY 2021-22			
Particulars	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order	
Distribution Loss	18.0 %	16.91 %	22.72 %	16.0 %	16.57 %	23.54 %	

4.5 Power Purchase Expenses for FY 2020-21 and FY 2021-22

FY 2020-21

MSEDCL's Submission

4.5.1 Following table summarizes the source wise power purchase done by MSEDCL during the FY 2020-21:

Table 4-13: Source wise Power Purchase for FY 2020-21 as submitted by MSEDCL.

	PP	Quantum (M	IU)	P	P Cost (Rs. Cos	PP Cost (Rs. /Units)			
Source	MYT order	MTR Petition	Deviation	MYT order	MTR Petition	Deviation	MYT order	MTR Petition	Deviat ion
MSPGCL	53,130.08	47,684.94	(5,445.14)	22,189.34	20,076.59	(2,112.76)	4.18	4.21	0.03
NTPC	28,082.61	31,545.02	3,462.42	10,627.68	10,840.30	212.62	3.78	3.44	(0.35)
NPCIL	4,932.23	4,066.90	(865.33)	1,407.05	1,253.73	(153.33)	2.85	3.08	0.23
SSP	1,209.94	855.76	(354.18)	248.05	175.43	(72.62)	2.05	2.05	(0.00)
Pench	136.50	142.94	6.44	27.98	29.30	1.32	2.05	2.05	0.00
Dodson	115.72	76.65	(39.07)	17.78	17.64	(0.15)	1.54	2.30	0.76
JSW	1,934.21	1,919.67	(14.5)	698.54	594.77	(103.77)	3.61	3.10	(0.51)
CGPL	5,157.89	5,111.51	(46.37)	1,515.68	1,455.84	(59.84)	2.94	2.85	(0.09)
Adani Power	20,986.36	17,059.49	(3,926.88)	7,829.51	8,249.89	420.37	3.73	4.84	1.11
GMR Warora/ EMCO	1,370.06	1,483.93	113.87	616.88	603.95	(12.93)	4.50	4.07	(0.43)
Rattan India	2,085.63	2,597.62	511.99	1,414.19	1,454.00	39.82	6.78	5.60	(1.18)
Sai Wardha		923.35	923.35		455.03	455.03			
Renewable	20,272.00	14,918.10	(5,353.90)	9,081.89	7,423.00	(1,658.89)	4.48	4.98	0.50
Traders		4,084.93	4,084.93		1,176.16	1,176.16		2.88	2.88
RECs	-		-	130.01	-	(130.01)			
PGCIL Charges			-	3,321.46	3,538.02	216.56			
FBSM		-	-		(1,064.14)	(1,064.14)			-
Inter State Purchase		14.29	14.29		9.75	9.75			
Total Power Purchase	1,39,413	1,32,485	(6,928)	59,126	56,289	(2,837)	4.24	4.25	0.01

- 4.5.2 In the following paragraphs, MSEDCL has submitted the detailed reasons for variation in the power purchase quantum by (6,928) MUs and variation power purchase cost by Rs (2,837) Crore against that approved under MYT Order in Case no. 322 of 2019.
- 4.5.3 **MSPGCL-** In view of lower demand due to COVID-19 pandemic and lower prices prevailing on power exchanges, Zero Schedule was given to some of the units of generating stations of MSPGCL such as Nashik, Koradi 6 &7 and Bhusawal 3. However, MSEDCL has paid the fixed cost towards Reserved Shut down/Zero

- Schedule which impacted total power purchase cost. Further, MSEDCL has also received FSA bills of Rs. (950) Crore.
- 4.5.4 **Central Generating Stations-** Actual units received from Mouda 1 & 2 were at lower side. Further, due to ECR revision and COVID-19 rebate approximately of Rs. 80 Crore and Rs. 168 Crore respectively, has been received by MSEDCL which has resulted into lower power purchase cost from NTPC generator. Further, NPCIL TAPS 1& 2 units are under shut down from month of January 2021.
- 4.5.5 **JSW & CGPL:** MSEDCL submitted that the reduction in rate is on account of negative escalation index for imported coal index.
- 4.5.6 **APML**: In view of lower demand in Covid 19 pandemic, units were under Zero Schedule for 4.5 months (in case of APML 125 MW), 4 months (in case of APML 1200 MW), and 5.5 months (in case of APML 440 MW). In case of APML 125 MW, APML 1200 MW and APML 440 MW capacity charges had to be paid as per PPA, resulting in increase in per unit cost as compared to previous year. Change in Law compensation on account of domestic coal shortfall of Rs.11.54 Crore (in case of APML 125 MW), Rs.171.85 Crore (in case of APML 1320 MW), Rs. 82.31 Crore (in case of APML 1200 MW) and Rs. 22.38 Crore (in case of APML 440 MW) is considered.
- 4.5.7 **GMR Warora/ EMCO**: MSEDCL submitted that PoC charges approved for 12 months however from December 2020 onwards PoC charges subsumed in PGCIL bills. The CERC escalation index applicable to Domestic coal and transportation is Nil throughout the year hence, actual rate did not increase and is in line with MYT rate.
- 4.5.8 **Rattan India Power:** MSEDCL submitted that in view of lower demand in Covid 19 pandemic, units were under Zero Schedule for 8.5 months. Further, capacity charges had to be paid as per PPA, resulting in increase in per unit cost as compared to previous year. Variable per unit cost is reduced from Rs. 2.9 to Rs. 2.4 w.e.f. January 2021.
- 4.5.9 **Sai Wardha:** MSEDCL submitted that the Commission has not approved any quantum from newly started IPP.
- 4.5.10 **Inter-State:** MSEDCL submitted that the 14 MUs purchased from MPEB for villages in Nagpur and Amravati.
- 4.5.11 **Short-term PP:** MSEDCL submitted that during lockdown in Covid-19 pandemic period energy at lower rate was available at power exchange. MSEDCL has done procurement for cost optimization which resulted in saving in power purchase expenses.
- 4.5.12 **FBSM:** MSEDCL received amount to the tune of Rs. 1064.14 Crore against FBSM for various cases.

Renewable Energy:

Non-Solar

- 4.5.13 Lower generation from non-Solar due to various reasons such as contract violation of O&M between wind Generator and wind power developer, RoW issues, major breakdowns, and lower wind. In addition to this, due to COVID-19 pandemic situation, scheduled commercial operation date of about 726 MW wind power projects has been extended.
- 4.5.14 Further, due to COVID-19, the generation from bagasse is also less due to delay in cutting and transporting the sugarcane from the field to sugar plant. This has further delayed the crushing season.

Solar

- 4.5.15 MSEDCL submitted that in case of solar Rs. 63.54 Crore is considered towards Change in Law due to which tariff is increased.
- 4.5.16 **PGCIL:** MSEDCL submitted that due to implementation of CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, the PoC charges were revised from month of December 2020. Further, MSEDCL has also received COVID-19 rebate of Rs. 109.13 Crores and PoC-3 bills for Rs. 421 Crore pertaining to FY 2020-21 and the same has been considered in the power purchase.

FY 2021-22

4.5.17 Following table summarizes the source wise power purchase done by MSEDCL during the FY 2021-22.

Table 4-14: Source wise Power Purchase for FY 21-22 as submitted by MSEDCL.

_	PP Quantum (MU)			PP	Cost (Rs. Co	PP Cost (Rs./Units)			
Source	MYT order	MTR Petition	Deviation	MYT order	MTR Petition	Deviation	MYT order	MTR Petition	Deviati on
MSPGCL	52,402.95	51,005.09	(1,397.86)	22,056.38	21,498.11	(558.28)	4.21	4.21	0.01
NTPC	27,674.55	34,764.32	7,089.77	10,724.94	12,867.77	2,142.84	3.88	3.70	(0.17)
NPCIL	4,932.23	4,257.52	(674.71)	1,440.83	1,365.52	(75.30)	2.92	3.21	0.29
SSP	1,209.94	460.61	(749.34)	248.06	94.42	(153.63)	2.05	2.05	(0.00)
Pench	136.50	98.51	(37.99)	27.98	20.19	(7.79)	2.05	2.05	0.00
Dodson	115.72	32.43	(83.29)	17.92	12.01	(5.91)	1.55	3.70	2.16
JSW	1,934.21	855.16	(1,079.1)	738.09	259.29	(478.80)	3.82	3.03	(0.78)
CGPL	5,157.89	785.97	(4,371.92)	1,568.26	249.96	(1,318.30)	3.04	3.18	0.14
Adani Power	20,986.36	20,457.57	(528.80)	7,965.76	15,590.03	7,624.27	3.80	7.62	3.82
GMR Warora/ EMCO	1,370.06	1,393.46	23.40	654.24	579.77	(74.48)	4.78	4.16	(0.61)
Rattan India	1,855.61	8,141.30	6,285.70	1,355.49	3,252.98	1,897.49	7.30	4.00	(3.31)
Sai Wardha		1,257.05			614.63	614.63			

~	PP Quantum (MU)			PP	Cost (Rs. Co	ost)	PP Cost (Rs./Units)		
Source	MYT order	MTR Petition	Deviation	MYT order	MTR Petition	Deviation	MYT order	MTR Petition	Deviati on
Renewable	24,164.00	16,955.69	(7,208.31)	10,283.43	8,200.21	(2,083.23)	4.26	4.84	0.58
Traders		4,020.10	4,020.10		1,785.58	1,785.58		4.44	4.44
RECs	-		-	-	-	-			
Other Adjsutments		38.94	38.94		21.91	21.91			
PGCIL Charges			1	3,487.53	3,294.10	(193.43)			
FBSM		(281.98)	(281.98)		(236.34)	(236.34)			-
Inter State Purchase		11.60	11.60		8.64	8.64			
Total Power Purchase	1,41,940	1,44,253	1,056	60,569	69,479	8,910	4.27	4.82	0.55

- 4.5.18 In the following paragraphs, MSEDCL has submitted the detailed reasons for variation in the power purchase quantum by 1056 MU and variation in power purchase cost by Rs 8,910 Crore in FY 2021-22 as against that approved under MYT Order in Case No. 322 of 2019.
- 4.5.19 MSEDCL has submitted that in case of any shortfall from approved sources, when demand exceeds availability or for cost optimization, MSEDCL sources power from exchange/Traders or other sources at the market price through competitive bidding in accordance with the Guidelines of MoP.
- 4.5.20 MSEDCL submitted the detailed reasons for variation in the power purchase quantum and cost as provided in the subsequent section.
- 4.5.21 **MSPGCL** MSEDCL submitted that the power purchase quantum from MSPGCL stations has reduced in FY 2021-22 as compared to the quantum approved by the Commission. The lower quantum of purchase from MSPGCL stations is mainly due to lower availability from MSPGCL stations on account of shortage of coal availability which also resulted into forced shut down of Chandrapur-9 and Paras-3 Unit. Moreover, Koradi Unit-7 was retired on 3rd August 2021. Both the factors have resulted into overall reduction in cost as compared to approved. However, the average rate of purchase has remained in line with the approved average rate for FY 2021-22.
- 4.5.22 **Central Generating Stations-** MSEDCL submitted that there was an increase in energy charge rate of NTPC stations due to increase in coal cost by Rs. 0.11 per unit. However, the actual units received from Mouda 1 & 2 was at lower side. Hence, the impact on the cost for the same was less. Further, approximately Rs. 80 Crore and Rs. 168 Crore has been received on energy charge rate revision and COVID-19 rebate respectively.

- 4.5.23 Further, NPCIL TAPS 1 and 2 units were under shut down from month of January 2021 which has resulted into purchase of almost ~7000 MUs from NTPC stations which is higher than the approved quantum in MYT Order Case no. 322 of 2019. Further, it has submitted that due to non-availability of APM gas, NTPC stations of Kawas and Gandhar were under zero scheduling during the months of June and July. It is further submitted that the issue of higher gas prices continued for the entire year resulting into negligible amount of purchase from these stations during FY 2021-22. Further, MSEDCL has also received a refund received of Rs. 22.02 Crore from Central RRAS.
- 4.5.24 **JSW** MSEDCL submitted that the unit was back down during the months of April 2021 and from October 2021 to January 2022. This has resulted in reduction of overall purchase from JSW station. Further, the reduction in rate is on account of less increase in CERC index for domestic coal and transportation as against CAGR considered in MYT projections.
- 4.5.25 **CGPL** MSEDCL submitted that the unit was under zero availability with effect from 18th September 2021. The overall purchase from CGPL is reduced as compared to approved. Further, the reduction in rate is on account of less increase in CERC index for domestic coal and transportation as against CAGR considered during MYT projection.
- 4.5.26 **APML**: MSEDCL submitted that it has paid Rs. 7920.72 Crores towards Change in Law claims made by APML for the period from 2014 onwards, in line with the directions of the Hon'ble Supreme Court Order for payment of outstanding amounts. Further, MSEDCL has also paid Rs. 301.97 Crore towards Evacuation Facility charges. These charges have been approved by the Commission under 'Change in Law' claims. These charges have resulted into a jump in average rates of APML by almost 100% from the approved rates. There was a slight decrease in per unit rates due to lower increase of CERC indices for domestic coal and transportation as compared to approved.
- 4.5.27 **Rattan India**: MSEDCL submitted that there has been a significant increase in quantum purchased from Rattan India as compared to approved due to the unit falling under MoD stack. In addition to this, MSEDCL had paid Rs. 198.30 Crore towards domestic coal shortfall and Rs. 78.15 Crore towards Evacuation Facility Charges.
- 4.5.28 **GMR Warora/ EMCO** MSEDCL submitted that the average rates of GMR Warora/ EMCO Power have reduced due to lower CERC indices as compared to approved. The power purchased is almost in line with the approved quantum. The approved transmission charges were Rs. 107.10 Crore. However, due to implementation of CERC (Sharing of Inter-State transmission charges & losses) Regulation, 2020, these charges were waived off. Further, additional payment of Rs. 57.70 Crore was made in October 2021 on account of coal shortfall in line with the judgement of Hon'ble APTEL.

- 4.5.29 **Sai Wardha** The unit of Sai Wardha was started in July 2020. The Commission in its MYT Order for MSEDCL had not the considered purchase from this unit. This has resulted into increase in deviation from approved power purchase cost.
- 4.5.30 **Inter- State:** 12 MUs purchased from MPEB for villages in Nagpur and Amravati.
- 4.5.31 **Short Term PP-** MSEDCL submitted that there has been an increase in purchase from power exchanges by almost ~4000 Mus which is mainly on account of lower availability due to coal shortfall and non-availability of CGPL and JSW units as discussed above. It is submitted that the average rate of power purchase has been lower than the ceiling rate of Rs. 4.50 per unit approved by the Commission in MYT Order.
- 4.5.32 **FBSM** MSEDCL submitted that it has received amount to the tune of Rs. 1064.14 Crore against FBSM for various cases.

Renewable Energy

Non-Solar

- 4.5.33 In case of Non-Solar, MSEDCL submitted that the old projects having preferential tariff is much higher than the new competitive tariff projects. Further, most of the wind EPA's are expired during FY 2020-21 and FY 2021-22 and wind generators have opted open access instead of participating in the post expiry tenders issued by MSEDCL.
- 4.5.34 Further, in reply to data gap query MSEDCL submitted that it had floated more than 4100 MW of Non-Solar based tenders during last three years (till 31 March 2022) but received very poor response despite multiple efforts in RE tenders and giving enormous publicity over newspapers. In past three years only 1000 MW of new non-solar has been contracted.
- 4.5.35 MSEDCL also submitted that the projects are yet to be commissioned with full capacity as the SCOD is delayed due to impact of COVID-19 Pandemic

Solar

- 4.5.36 In case of Solar, Rs. 71.67 Crore is considered towards change in law which has impacted the tariff increase for solar generators.
- 4.5.37 MSEDCL submitted that COVID-19 has resulted in delay in SCOD of Solar capacities. In FY 2021-22 only 200 MW of new capacity were added. Further, around 1200 MW of solar capacity is remaining to commission. As on 31 March 2022 MSEDCL has executed long term power purchase agreements for the total capacity of 5390 MW to meet the solar target under various schemes of MNRE, GoI.
- 4.5.38 MSEDCL submitted the details of RE purchase for FY 2020-21 and FY 2021-22. These details are shown in the following table:

Table 4-15: RE purchase for FY 2020-21 and FY 2021-22 as submitted by MSEDCL

	FY 202	0-21	FY 20	21-22
Source	Quantum (MU)	Cost (Rs. Crs.)	Quantum (MU)	Cost (Rs. Crs.)
Wind	5,533.11	2,581.67	6,068.25	2,707.30
SHP	400.55	169.07	591.01	190.38
Bagasse based Cogen.	3,747.21	2,401.97	4,486.81	2,882.41
Biomass	344.02	247.79	324.85	231.45
MSW	0.09	0.04	0.25	0.12
Total Non-Solar	10,024.97	5,400.53	11,471.16	6,011.66
Solar	3,027.13	1,177.93	3,667.60	1,358.25
SECI	1,750.39	803.30	1,700.27	770.77
NVVN (Solar)	28.16	30.22	27.38	29.34
Solar Rooftop	87.46	11.03	89.28	30.18
Total Solar	4,893.13	2022.47	5,484.53	2,188.54
Total	14,918.10	7,423.00	16,955.69	8,200.21

- 4.5.39 MSEDCL submitted that it has purchased additional RE power by almost more than 2000 MUs in FY 2021-22 as compared to FY 2020-21.
- 4.5.40 **PGCIL Charges-** MSEDCL submitted that due to implementation of CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, PoC charges have been revised from the month of December 2020. This has resulted into an increase in amount of PGCIL charges for FY 2021-22 as well as compared to the cost approved by the Commission.

Commission's Analysis and Ruling

- 4.5.41 The Commission observes that the power purchase quantum and cost as claimed for FY 2020-21 is reduced by 6900 MUs and Rs. 2837 Crore respectively from the approved amount in MYT Order in Case No. 322 of 2019 because of reduction in power consumption during COVID lock down.
- 4.5.42 Further, upon scrutiny of power purchase from each generator the same trend could be observed such as reduction in power purchase from MSPGCL (-5445 MUs)), from NTPC (-865 MUs) from Adani Power (-3927 MUs) and renewable energy sources by (-5354 MUs) compared to as approved in MYT Order. This is mainly on account of reduction in sales due to COVID-19 impact, the power purchase requirement itself has reduced significantly.
- 4.5.43 In FY 2021-22, the Commission noticed an increase in the power purchase quantum of 1056 MUs because of gradual restoration after COVID -19. However, at the same time the power purchase cost has increased significantly by Rs. 8910 Crore as compared to values approved in MYT Order due to various change in law claims during FY 2021-22.
- 4.5.44 Further, there is a major increase in power purchase quantum from NTPC (7090 MUs), Rattan India (6286 MUs) and short-term power purchase (4020 MUs) mainly on account of reduction in power purchase from renewable energy sources. There is

- significant shortfall in RPO compliance with reduction in power purchase from renewable energy sources by (-7308 MU). Further, there is reduction in power purchase from CGPL (-4371MUs), from MSPGCL (-1398 MUs) as well to optimize power purchase cost as per operation of the MoD stack.
- 4.5.45 Upon detailed scrutiny of the audited account the Commission observes a deviation of Rs. 782.77 Crore and Rs. -4,405.69 Crore in the total Power Purchase (excl. Transmission & Reactive Charges) with the audited account of FY 2020-21 and FY 2021-22 respectively, for which the Commission has sought for the reconciliation of power purchase cost with the audited account of FY 2020-21 and FY 2021-22 in the data gap query.
- 4.5.46 In response to above, MSEDCL submitted that the difference in power purchase cost for FY 2020-21 and FY 2021-22 as per Note 29 and Note 31 of Audited account of FY 2020-21 and FY 2021-22 and the amount claimed in the Petition is on account of restatement of Audited Accounts at a later stage. The reconciliation of power purchase cost for FY 2020-21 and FY 2021-22 is provided as shown below:

Table 4-16: Reconciliation of Power Purchase Cost for FY 2020-21, as submitted by MSEDCL (Rs. Crore)

Particulars	FY 2020-21
RPO Provision considered	1,351.19
RPO Provision of Prior Period	(703.00)
Rebate	168.64
POSOCO Reactive Charges considered	
in Transmission Charges	1.39
Provisions related to RE not considered	
in restatement	(35.44)
Total	782.77

Table 4-17: Reconciliation of Power Purchase Cost for FY 2021-22, as submitted by MSEDCL (Rs. Crore)

Particulars	FY 2021-22
RPO Provision reversal	(4,409.50)
WRLDC Charges	4.30
WRPC Reactive charges	(0.17)
Other Charges	(0.32)
Total	(4,405.69)

4.5.47 Further, the Commission had asked MSEDCL to submit station wise cost breakup for power purchase duly certified by the statutory auditor. It has clarified that the Form F2 of the MTR Tariff Format reflects the total power purchase cost duly certified by the statutory auditor.

- 4.5.48 Accordingly, for the purpose of truing up of FY 2020-21 and FY 2021-22, the Commission has considered the power purchase cost and quantum based on the Form 2 of the Tariff Format for further scrutiny and prudence check.
- 4.5.49 **MSPGCL:** The Commission noted that in view of lower demand due to COVID-19 pandemic and lower prices prevailing on power exchanges during FY 2020-21, Zero Schedule was given to units of generating stations of MSPGCL such as Nashik, Koradi–6 &7 and Bhusawal 3. Further, the Commission has verified it from the MSLDC's monthly backing down report and found it in order. However, fixed cost was paid by MSEDCL towards Reserved Shut down/Zero Schedule which have impacted per unit power purchase cost form MSPGCL generators.
- 4.5.50 Regarding the power purchase from MSPGCL Dhariwal (DIL), the Commission notes that MSEDCL had signed a Tri-Partite Agreement (TPA) as discussed in Para 3.5.3. In view of this, the Commission observes that the power purchase quantum from DIL is Rs. 425.05 Crore and Rs. 374.64 Crore during FY 2020-21 and FY 2021-22 respectively.
- 4.5.51 The Commission has also sought for the details of the compensation paid by MSEDCL to the MSPGCL for as per Regulation 34.2 of MERC Grid Code regulation 2020, the buyers are liable to pay compensation to the generators if, the generator operates below the normative Technical Minimum of 55% as directed by MSLDC. Accordingly, MSEDCL in its reply submitted that it has paid Rs. 32.98 Crore for during FY 2021-22 regarding compensation and claimed the same power purchase cost. Further, no compensation was paid during FY 2020-21.
- 4.5.52 Further, MSEDCL was asked to submit sample copies of Supplementary bills of MSPGCL stations for FY 2019-20. Upon verification of the sample bills, the Commission finds it in order with the submissions made under Form 18 which is further reconciled with the Form-2 along with the additional submission dated 17 March 2023.
- 4.5.53 Accordingly, the Commission approves the power purchase quantum and cost based on Form 2 of the MTR Tariff format as shown below:

Table 4-18: Power Purchase cost and quantum of MSPGCL stations for FY 2020-21 as approved by the Commission

	MYT Order			MTR Petition			Approved in this Order		
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchas e (ex- bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchas e (ex- bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
MSPGCL	53,130	22,189	4.18	47,685	20,077	4.21	47,685	20,077	4.21

Table 4-19: Power Purchase cost and quantum of MSPGCL stations for FY 2021-22 as approved by the Commission.

	MYT Order			MTR Petition			Approved in this Order		
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
MSPGCL	52,403	22,056	4.21	51,005	21,498	4.21	51,005	21,498	4.21

Central Generating Stations:

- 4.5.54 In reply to data gaps MSEDCL has submitted the justification for the deviation of 3462 MUs and 7089 MU for NTPC generators wrt to MYT approved quantum for FY 2020-21 and FY 2021-22.
- 4.5.55 The Commission observes that the MoD rates as approved in MYT Order for NTPC Stations were estimated based on the actual billed rates available at that time. However, the actual MoD rates for NTPC stations were discovered lower than the MoD rates as approved in MYT for FY 2020-21 and FY 2021-22. Hence, MSEDCL purchased more power during these years. Further, the same could be observed from the reduction in in energy charge of NTPC generators by Rs. 0.35/per unit and by Rs. 0.17/unit during FY 2020-21 and FY 2021-22
- 4.5.56 The Commission also observes an increase in Per unit Power purchase cost for NPCIL generators in line with the submission of MSEDCL for the NPCIL TAPS 1 and 2 units were under shut down from month of January 2021.
- 4.5.57 Further, MSEDCL was asked to submit sample copies of Supplementary bills of NTPC stations for FY 2019-20. MSEDCL submitted sample copies of supplementary bills raised by NTPC during the year.
- 4.5.58 Upon verification of the sample bills, the Commission finds it in order with the Form 18 which is further reconciled with the Form-2 in the additional submission dated 17th March 2023. Accordingly, the Commission approves the power purchase quantum and cost based on Form 2 of the MTR Tariff format as shown below:

Table 4-20: Power Purchase cost and quantum of NTPC and NPCIL stations for FY 2020-21 as approved by the Commission.

	MYT Order			MTR Petition			Approved in this Order		
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
NTPC	28,082.61	10,627.68	3.78	31,545.02	10,840.30	3.44	31,545	10,840	3.44
NPCIL	4,932.23	1,407.05	2.85	4,066.90	1,253.73	3.08	4,066.90	1,253.73	3.08

Table 4-21: Power Purchase cost and quantum of NTPC and NPCIL stations for FY 2021-22 as approved by the Commission

	MTR Order			I	MYT Petition	1	Approved in this Order		
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
NTPC	27,674.55	10,724.94	3.88	34,764.32	12,867.77	3.70	34,764.32	12,867.77	3.70
NPCIL	4932.23	1440.83	2.92	4257.52	1365.52	3.21	4257.52	1365.52	3.21

IPPs:

- 4.5.59 The Commission notes the submission of MSEDCL regarding APML that due to lower demand during COVID-19, APML stations were under zero scheduled for most times of the year. Therefore, the actual power procured from APML stations are less than that of MYT approved quantum during FY 2020-21.
- 4.5.60 Further, for FY 2020-21 the MSEDCL was liable to pay Capacity Charges as per provisions of the PPA along with the Change in Law claims of Rs. 1624 Crore and Rs. 512 Crore towards the domestic shortfall and tax & duties respectively.
- 4.5.61 The Commission also observes that during FY 2020-21, MSEDCL has accepted Rs. 7,920 Crore and Rs. 948 Crore towards domestic coal shortfall and tax & duties respectively under Change in law as provided in the reply to the data gaps are also factored in the power purchase cost form the APML generators.
- 4.5.62 MSEDCL submitted the amount accepted by MSEDCL against the amount claimed by the generators as detailed below:

Table 4-22: Change in Law Claim for FY 2020-21 as Submitted by MSEDCL (Rs. Crore)

		Claim	ed by the Gene	erator	Accepted by MSEDCL			
S. No.	Generators	Variation due to Coal shortfall	Impact of Taxes and duties	Total	Variation due to Coal shortfall	Impact of Taxes and duties	Total	
1	JSW Energy		46.34	46.34		41.8	41.8	
2	CGPL		93.71	93.71		107.01	107.01	
3	APML	8134.074	613.82	8747.894	1624.08	512.61	2136.69	
4	GMR Warora	156	65.43	221.43		55.25	55.25	
5	Rattan India					74.81	74.81	
6	Saiwardha		42.48	42.48		32.21	32.21	
	Total	8290.074	861.78	9151.854	1624.08	823.69	2447.77	

Table 4-23: Change in Law Claim for FY 2021-22 as Submitted by MSEDCL (Rs. Crore)

		Claim	ed by the Gene	erator	Accepted by MSEDCL			
S. No.	Generators	Variation due to Coal shortfall	Impact of Taxes and duties	Total	Variation due to Coal shortfall	Impact of Taxes and duties	Total	
1	JSW Energy		22.06	22.06		44	44	
2	CGPL		89.71	89.71		97.02	97.02	
3	APML	2228.91	812.14	3041.05	3343.5	692.52	4036.02	
4	GMR Warora	156	64.22	220.22	56.4	51.27	107.67	
5	Rattan India	1157	421.35	1578.35		101.05	101.05	
6	Saiwardha		50.1	50.1				
	Total	3541.91	1459.58	5001.49	8208.97	1497.28	9706.25	

- 4.5.63 The Commission in view of above that MSEDCL has accepted a higher amount as claimed by the generator during FY 2021-22 and have paid an amount equal to 50% of the balance outstanding claims (Principle and carrying cost) of M/s. APML upto generation month December 2021 after interim Judgement dated 31 January 2022 the Hon'ble Supreme Court.
- 4.5.64 Further, based on MSEDCL's submissions in response to datagaps as well as from Auditor's notes to the Accounts, the Commission observes that there are several pending claims towards change-in law between IPP generators and MSEDCL. The Commission notes that un-reconciled claim amount represents contingent liability for MSEDCL and it should expeditiously resolve/settle this claim, or seek remedial measures for resolution of dispute, if any, in terms of provisions under PPA incl. adjudication through regulatory process, if necessary. Unsettled claims would otherwise carry avoidable interest burden/carrying cost. Further, keeping such claim pending would make MoD based despatch futile exercise, as generator may get schedule considering lower cost without change in law impact and latter on MSEDCL has to pay such change in law impact. Therefore, considering large quantum of disputed claims and its adverse implications, the Commission directs MSEDCL to file separate Petition within a month from date of this Order before the appropriate Commission for adjudication of all pending dispute by making concerned generator as a necessary party.
- 4.5.65 Regarding Rattan India, the Commission notes that during FY 2020-21 the RIPL were under Zero Schedule for 8.5 months. However, in next 3.5 months MSEDCL had scheduled a quantum of 2597 MUs which was even higher than that of the MYT approved quantum of 2085 MUs. The Commission vide data gaps sought clarification for such high deviation in the power purchase quantum.
- 4.5.66 In response to this, MSEDCL submitted that it has initiated supplementary PPA between MSEDCL and Rattan India advancing Non-Escalable energy charge from 1 April 2021 vide Case No. 232 of 2020 dated 30 December 2020 in the view of consumer interest. The relevant extract from the Order is below:

- "9.1 The Commission notes that the proposed supplementary agreement proposes advancement of Non-Escalable Energy Charge (stipulated under Schedule 8 of the PPAs) applicable from 1 April 2021 (for FY 2021-22) to 1 December 2021. Such advancement will reduce energy charge from Rs 0.96 per kWh to Rs 0.50 per kWh, thereby benefiting the consumers with Rs 0.46 per kWh for the period of 1 December 2020 to 31 March 2021. This will reduce the power purchase cost of MSEDCL and thereby benefit the end consumers."
- 4.5.67 Accordingly, in the MOD Rattan India has become preferred choice for during December 2020 to March 2021 (almost 3.5 months) due to lower variable charge rate. Further, after the COVID lockdown the demand has been gradually increase during this period leads to high schedule of power from the Rattan India.
- 4.5.68 Regarding the Sai wardha, MSEDCL in response to data gap submitted that, the Commission in Case No. 91 of 2020 has adopted the tariff under Section 63 of the EA 2003 for long term procurement of 210 MW power from M/s. SWPGL. Accordingly, MSEDCL started purchasing power from the SWPGL since July 2020. The tenure of PPA is for a period of 25 years from July 2020 onwards.
- 4.5.69 Further, for the purpose of truing up of IPPs, the Commission has sought for monthly bills on sample basis for all the IPPs for detailed scrutiny of the power purchase cost as claimed by MSEDCL. In response to this MSEDCL has provided the sample copies of energy bills, CIL Bills and other bills for all the IPPs.
- 4.5.70 The Commission has scrutinized monthly sample bills as provided by MSEDCL and observes a mismatch with amount billed under Form 18. Accordingly, the Commission asked MSEDCL to submit reconciliation of the Form 18 with the amount claimed for the power purchase cost under Form 2 of the Tariff Format.
- 4.5.71 In response to above, MSEDCL has provided the revised submission of Form 18 reconciled with Form 2. The Commission has undertaken scrutiny of the power purchase considering revised submission of MSEDCL dated 17th March 2023 and founds it in order with the Form 2.
- 4.5.72 Accordingly, the Commission has approved the power purchase quantum and cost of the IPPs and UMPP:

Table 4-24: Power Purchase cost and quantum of IPPs and UMPP stations for FY 2020-21 as approved by the Commission.

]	MYT Order			ATR Petition		Appr	oved in this C	Order
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procure d (Rs/kWh	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procure d (Rs/kWh	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
JSW	1,934.21	698.54	3.61	1,919.67	594.77	3.10	1,919.67	594.77	3.10
CGPL	5,157.89	1,515.68	2.94	5,111.51	1,455.84	2.85	5,111.51	1,455.84	2.85
Adani Power	20,986.36	7,829.51	3.73	17,059.49	8,249.89	4.84	17,059.49	8,249.89	4.84
GMR Warora/ EMCO	1,370.06	616.88	4.50	1,483.93	603.95	4.07	1,483.93	603.95	4.07
Rattan India	2,085.63	1,414.19	6.78	2,597.62	1,454.00	5.60	2,597.62	1,454.00	5.60
Saiwardha				923.35	455.03	4.93	923.35	455.03	4.93
Total	31,534.15	12,074.80	3.83	29,095.57	12,813.48	4.40	29,095.57	12,813.48	4.40

Table 4-27: Power Purchase cost and quantum of IPPs and UMPP stations for FY 2021-22 as approved by the Commission.

		MYT Order			MTR Petition		Approved in this Order		
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
JSW	1,934.21	738.09	3.82	855.16	259.29	3.03	855.16	259.29	3.03
CGPL	5,157.89	1,568.26	3.04	785.97	249.96	3.18	785.97	249.96	3.18
Adani Power	20,986.36	7,965.76	3.80	20,457.57	15,590.03	7.62	20,457.57	15,590.03	7.62
GMR Warora/ EMCO	1,370.06	654.24	4.78	1,393.46	579.77	4.16	1,393.46	579.77	4.16
Rattan India	1,855.61	1,355.49	7.30	8,141.30	3,252.98	4.00	8,141.30	3,252.98	4.00
Sai wardha				1,257.05	614.63	4.89	1,257.05	614.63	4.89
Total	31,304.13	12,281.84	3.92	32,890.51	20,546.66	6.25	32,890.51	20,546.66	6.25

Short-term Power Purchase:

- 4.5.73 The Commission noted the submission of MSEDCL regarding the purchase of short-term power during lockdown in Covid-19 pandemic period energy was available at lower rate at power exchange in FY 2020-21. Further, in FY 2021-22, the Commission observes an increase in ~4000 MUs in short term due to lower availability due to coal shortfall and non-availability of CGPL and JSW units.
- 4.5.74 The Commission in MYT Order in Case No. 322 of 2019 has approved ceiling tariff of Rs. 4.50 per unit for short term power purchase.

4.5.75 Further, MSEDCL submitted month wise short-term power procured with the monthly average rate and quantum for FY 2020-21 and FY 2021-22 as detailed in table below:

Table 4-25: Short term Power Purchase in FY 2020-21 as submitted by MSEDCL.

Month	Energy Ex	change
MU at Regional periphery	MU	Rs/Unit
Apr-17	1147.79	2.78
May-17	857.79	2.87
Jun-17	510.92	2.72
Jul-17	247.42	2.71
Aug-17	210.91	2.75
Sep-17	141.64	2.92
Oct-17	85.98	3.01
Nov-17	61.04	2.80
Dec-17	368.60	3.17
Jan-18	260.95	3.11
Feb-18	19.61	2.72
Mar-18	172.27	3.43
Total	4084.93	2.88

Table 4-26: Short term Power Purchase in FY 2021-22 as submitted by MSEDCL.

Month	Energy Ex	change	Power Purchase (Banking)		
MU at Regional Periphery	MU	Rs/Unit	MU	Rs/Unit	
Apr-18	536.58	3.33	0.00	0.00	
May-18	201.18	2.61	0.00	0.00	
Jun-18	295.50	2.41	0.00	0.00	
Jul-18	220.21	2.76	0.00	0.00	
Aug-18	265.73	3.74	0.00	0.00	
Sep-18	467.68	4.21	0.00	0.00	
Oct-18	285.64	7.30	76.80	0.00	
Nov-18	246.44	2.79	144.00	0.00	
Dec-18	54.96	2.98	0.00	0.00	
Jan-19	123.47	3.51	0.00	0.00	
Feb-19	358.47	4.88	62.40	0.00	
Mar-19	571.17	8.07	148.80	0.00	
Total	3627.03	4.50	432.00	0.00	

4.5.76 Accordingly, the Commission approves the short-term power purchase as submitted by MSEDCL for FY 2020-21 and FY 2021-22 given the average cost of short-term power purchase is below the ceiling norm of Rs. 4.50 per unit.

RPO Compliance of FY 2020-21 and FY 2021-22:

4.5.77 As per the RPO Regulations, 2019, each Distribution Licensee has to meet 16.00 % and 17.50% of its requirement through RE sources in FY 2020-21 and FY 2021-22 respectively, including 4.5% through solar sources and 11.5% through Non-solar (Other

- RE) sources for FY 2020-21 and 6.0 % through solar sources and 11.5% through Non-solar (Other RE) sources for FY 2021-22.
- 4.5.78 The Commission had verified the compliance of RPO targets by MSEDCL for FY 2019-20 in its Order dated 07 September 2021 in Case No. 49 of 2021 as discussed in earlier part of this Order. Further, in the same Order the Commission had allowed MSEDCL to fulfil cumulative shortfall of 4320.66 MUs and 6115.26 MUs for Solar and Non-Solar targets by FY 2022-23 including standalone RPO Targets of FY 2022-23.
- 4.5.79 Accordingly, the Commission has sought for the details of power purchase from non-conventional energy with the list of sources wise RE PPAs, PPA tenure, capacity with estimated energy generation and tariff rates. In response to this, MSEDCL has submitted the same in the reply to the data gap. Further, it has also submitted the reasons for not complying with the RPO target in FY 2020-21 and FY 2021-22, which are elaborated in subsequent sections.

Renewable Energy:

Non-Solar

4.5.80 The Commission notes from the submission of MSEDCL that it has contracted capacity (CC) of 6611 MW capacity with Non-Solar RE Generators on 31 March 2022 as detailed below:

Table 4-27: Source wise Contracted capacity of Non-solar during FY 2020-21 and FY 2021-22 as submitted by MSEDCL

S. No.	Source	Contracted Capacity as on 31.03.2020	Capacity Addition during FY 2020-21	Contracted Capacity as on 31.03.2021	Capacity Addition during FY 2021-22	Contracted Capacity as on 31.03.2022
1	Wind	3814	-200	3614	-68	3546
2	Small Hydro	307	10	317	10	327
3	Baggase (Cogen)	2418	19	2437	198	2635
4	Biomass	228	-70	158	-71	87
5	MSW	16	0	16	0	16
6	Total	6783		6542		6611

Note: Remark: (-) sign indicates expiry of long-term EPA

4.5.81 The Commission notes from the submission of MSEDCL that 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.

4.5.82 Further, the Commission notes that due to COVID-19 there was a delay in the crushing season which impacted the generation from the Cogeneration plants. Further, MSEDCL highlighted that O & M contract disputes, ROW issues, low wind & major breakdown are prominent for reduced generation from wind dry outs.

Solar

4.5.83 MSEDCL submitted that it has on 31 March 2022, it has contracted capacity (CC) of 5390 MW capacity with Solar RE Generators as detailed below:

Table 4-28: Source wise Contracted capacity of solar during FY 2020-21 and FY 2021-22 as submitted by MSEDCL

S. No.	Source	Contracted Capacity as on 31.03.2020	Capacity Addition during FY 2020-21	Contracted Capacity as on 31.03.2021	Capacity Addition during FY 2021-22	Contracted Capacity as on 31.03.2022
1	Solar	4017	592	4609	781	5390

- 4.5.84 MSEDCL submitted that as per MERC (Net Metering for Roof-top Solar Photo Voltaic Systems Regulations, 2015) Regulations, solar energy purchased by MSEDCL through the net metering is eligible towards meeting its solar RPO. Further, as per the Commission's Order dated 19 March 2019 in Case No. 33 of 2019, the solar generation from the Off-Grid Solar pumps are also eligible towards fulfilment of its solar RPO targets. Therefore, in this regards solar generation of 86.98 MUs and 621.91 MUs has been considered for meeting Solar RPO target for FY 2020-21 and FY 2021-22 respectively.
- 4.5.85 MSEDCL further submitted that despite multiple efforts in floating RE tenders and giving enormous publicity over newspapers, response has been poor over past three years further disruptions in supply chain due to COVID-19 and increase in raw material cost has also shown impact.
- 4.5.86 Further, the Commission sought for the actual status of compliance of the RPO target during FY 2020-21 and FY 2021-22 in the data gap query. In response to this, MSEDCL has provided the RPO target versus achieved quantum in the table below:

Table 4-29: RPO Compliance solar during FY 2020-21 and FY 2021-22 as submitted by MSEDCL (MUs)

RPO	20	20-21	FY 2021-22		
KPU	Target	Achieved	Target	Achieved	
Solar	5555	5673	8164	7184	
Non-Solar	14196	10769	15648	12186	

4.5.87 The Commission observes the MSEDCL's submission that it has complied (rather exceeded) its Solar RPO in FY 2020-21 but there is shortfall in Non-Solar RPO

compliance for FY2020-21 and FY2021-22 and shortfall in solar RPO compliance for FY 2021-22.

- 4.5.88 However, for verification of RPO compliance the Commission has re-computed the of the target quantum based on the gross consumption excluding consumption from hydro. The relevant extract from the RPO Regulation 2019 is detailed below:
 - "7.1 Every Obligated Entity shall procure electricity generated from eligible RE sources to the extent of the percentages, out of its total procurement of electricity from all sources excluding energy from Hydro power in a year...."
- 4.5.89 Accordingly, the Commission has approved the RPO compliance status for FY 2020-21 and FY 2021-22 as shown in the table below:

Table 4-30: RPO compliance status for FY 2020-21 and FY 2021-22 as approved by the Commission

Particulars	Gross Energy (Mus)	RPO Target	RPO Compliance	Standalone Shortfall	Shortfall Percentage	Cumulative RPO (Surplus)/ Short fall till end of FY 2021-22
(Surplus)/ Short fall Till FY 2019-20						10435.92
Solar		5,733.40	5,673.00	60.40	0.05%	
Non-Solar		14,652.01	10,769.00	3883.01	3.05%	
Total FY 2020-21	1,27,408.79	20,385.41	16,442.00	3,943.41	3.10%	3,943.41
Solar		8,360.57	7,184.00	1,176.57	0.36%	
Non-Solar		16,024.43	12,186.00	3,838.43	1.94%	
Total FY 2021-22	1,39,342.89	24,385.01	19,370.00	5,015.01	2.30%	5,015.01
Cumulative (Surplus)	19,394.33					

4.5.90 The Commission notes that upon excluding consumption from hydro sources from the total gross consumption approved by the Commission in this Order, MSEDCL has not complied with the RPO target during FY 2020-21 and FY 2021-22. However, the Commission also recognizes the difficulties in complying RPO target especially in COVID period. The Commission also notes that, MSEDCL has taken efforts for power procurement from RE sources. It has also entered into PPAs with RE sources however, RE projects mainly Solar projects have been delayed due to COVID-19 Pandemic conditions. Hence, the Commission is not inclined to levy penalty for non-compliance of RPO targets for FY 2020-21 and 2021-22 as stipulated in in RPO Regulations 2019. The Commission is of the view that, if MSEDCL is allowed to carry forward the targets upto the end of 4th control period, the upcoming PPAs of the RF projects which have been delayed due to COVID-19 situation would provide required RE power to MSEDCL to cumulatively meet its RPO targets including standalone targets of FY 2022-23 to FY 2024-25.

4.5.91 Accordingly, the Commission directs MSEDCL to carry forward standalone shortfall of Solar RPO compliance of 60.40 MUs and shortfall of Non-Solar RPO of 3883.01 MUs for FY 2020-21 in upto FY 2024-25. Further the Commission also directs MSEDCL to carry forward shortfall of Solar RPO compliance of 1176.57 MUs and shortfall of Non-Solar RPO of 3838.43 MUs for FY 2021-22 in upto FY 2024-25. The Commission also directs that, MSEDCL shall meet of the above shortfall of RPO compliance for FY 2020-21 and FY 2021-22 alongwith earlier shortfall and standalone RPO compliance of respective years of the forth control period. Further, the Commission emphasizes that, MSEDCL needs to take all efforts to enter into PPAs with RE generators to meet its shortfall of RPO compliance by the end of this control period. The Commission is not inclined to give any further carry forward for meeting RPO shortfall of this control period in the next control period.

FBSM Bills:

4.5.92 The Commission had asked MSEDCL to submit year-wise and source-wise revenue from FBSM/IBSM bills. MSEDCL has submitted the details of FBSM charges bills raised by MSLDC as per orders of the Commission as below:

Table 4-31: FBSM Revenue considered as per DSR for FY 2020-21 as submitted by MSEDCL

Particulars	Amount (Rs Cr.)
Provisional bill for variable charges (due to change in WASMP considering inter Open asses and exchange rate) bill for the period FY 2011-12 to 2017-18 MERC Order as per Case No. 90 of 2020	105.52
MS/MSPD/FBSM/1949 DT.27/10/2020	344.29
Provisional bill of variable cost of FBSM pool for first six month of FY 2019-20 from decrementing State Pool Participants (SPPs) Bill No. FBSM/No.2442 dt.30-12-20 MERC order 90 of 2020	197.88
Revised Fixed Cost Reconciliation Account under Intra state ABT for FY 2018-19 along with carrying Cost. Bill no and date71 / 06.01.2021 MERC order 90 of 2020	129.87
Revised Fixed Cost Reconciliation Account under Intra state ABT for FY 2019-20 along with carrying Cost Bill no and date 572 and 573 / 18.03.2021 MERC order no 42dt.17.05.2007 and 297dt. 03.10.2019 as per MERC order in Case No. 297 of 2018 dated 01st May 2019.	52.97
Provision JV For FY 2020-21	233.61
Total	1,064.14

4.5.93 MSEDCL has submitted FBSM expenses considered as per DSR for FY 2020-21 and FY 2021-22 for the period April 2020 to April 2021 as below:

Month	Amount (Cr.) FBSM
Apr-20	-2.70
May-20	-26.63

Month	Amount (Cr.) FBSM
Jun-20	-7.23
Jul-20	-7.76
Aug-20	-10.49
Sep-20	-32.07
Oct-20	-28.24
Nov-20	-26.74
Dec-20	-27.56
Jan-21	-30.40
Feb-21	-19.60
Mar-21	-10.92
Apr-21	-6.81
Total	-237.16

- 4.5.94 The Commission has scrutinized the sample bills submitted by MSEDCL and found it in Order. Accordingly, the Commission has approved the FBSM expenses as claimed by MSEDCL for FY 2020-21 and FY 2021-22.
- 4.5.95 Further, the Commission notes the Deviation Settlement Mechanism (DSM) is now operationalized from 11th October 2021 and deviation settlement is carried out by MSLDC on weekly basis based on 15 min drawl data of state entities. As per the provisions of the Regulation 55.1 of MYT Regulations, the Deviation Charges paid or earned by the Distribution Licensees as per the provision of MERC DSM Regulations, 2019 shall be recoverable/adjusted from the Beneficiary/ies through Tariff. However, the Additional Charges for Deviation (ADSM) paid by the Distribution Licensees in accordance with MERC DSM Regulations shall not be recoverable from the Beneficiary/ies through Tariff. Accordingly, the Commission vide data gaps had asked MSEDCL to confirm if it has included expenses against ADSM charges paid to DSM Pool during FY 2021-22. MSEDCL has confirmed that, it is not considered any ADSM charges paid in the power procurement expenses. Further only DSM Charges paid/received are considered under separate head in power procurement for FY 2021-22 as per MERC MYT Regulations, 2019.
- 4.5.96 As sought by the Commission, MSEDCL submitted the monthly bills against ISTS charges issued PGCIL for FY 2020-12 and FY 2021-22. The Commission verified and found that the summation of the monthly bills for FY 2020-21 and FY 2021-22 is equal to the claimed value for PGCIL charges by MSEDCL for FY 2020-21 and FY 2021-22. Based on the above verification, the Commission approves the PGCIL charges as claimed by the MSEDCL for FY 2020-21 and FY 2021-22.
- 4.5.97 Accordingly, upon scrutiny and verification, the Commission has approved the actual power purchase expenses as claimed by MSEDCL for FY 2020-21 and FY 2021-22 for the purpose of truing up of FY 2020-21 and FY 2021-22. The approved Power Purchase is shown in the table below.

Table 4-32: Power Purchase Expenses for FY 2020-21 as approved by the Commission (Rs. Crore)

	MTR Petition			Approved in this Order			
Generator Name	Energy Purchase (ex- bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	
KAPP	1,136.64	262.71	2.31	1,136.64	262.71	2.31	
TAPP 1&2	148.91	38.72	2.60	148.91	38.72	2.60	
TAPP 3&4	2,781.34	952.30	3.42	2,781.34	952.30	3.42	
SSP	855.76	175.43	2.05	855.76	175.43	2.05	
Pench	142.94	29.30	2.05	142.94	29.30	2.05	
Dodson I	51.70	7.66	1.48	51.70	7.66	1.48	
Dodson II	24.95	9.98	4.00	24.95	9.98	4.00	
Non Solar	10,024.97	5,400.53	5.39	10,024.97	5,400.53	5.39	
Solar	4,893.13	2,022.47	4.13	4,893.13	2,022.47	4.13	
Hydro incl. GPSS	4,000.95	847.12	2.12	4,000.95	847.12	2.12	
Bhusawal - 3	185.56	220.31	11.87	185.56	220.31	11.87	
Bhusawal - 4	2,180.34	1,141.67	5.24	2,180.34	1,141.67	5.24	
Bhusawal - 5	2,216.89	1,152.94	5.20	2,216.89	1,152.94	5.20	
Khaparkheda - 1 to 4	4,420.94	1,654.75	3.74	4,420.94	1,654.75	3.74	
Khaparkheda - 5	2,840.89	1,120.34	3.94	2,840.89	1,120.34	3.94	
Nashik- 3,4 & 5	641.98	704.46	10.97	641.98	704.46	10.97	
Chandrapur – 3 to 7	8,245.00	2,859.25	3.47	8,245.00	2,859.25	3.47	
Paras - 3	1,500.80	675.64	4.50	1,500.80	675.64	4.50	
Paras - 4	1,511.54	676.01	4.47	1,511.54	676.01	4.47	
Parli - 4	-	-	-	-	-	-	
Parli - 5	-	-	-	-	-	-	
Parli - 6	620.38	468.54	7.55	620.38	468.54	7.55	
Parli - 7	626.52	470.23	7.51	626.52	470.23	7.51	
Koradi - 6	394.62	370.55	9.39	394.62	370.55	9.39	
Koradi - 7	-	-	-	-	-	-	
GTPS Uran	1,950.77	423.03	2.17	1,950.77	423.03	2.17	
Parli Replacement U 8	894.37	671.18	7.50	894.37	671.18	7.50	
Chandrapur - 8	3,327.66	1,326.31	3.99	3,327.66	1,326.31	3.99	
Chandrapur - 9	3,313.77	1,328.82	4.01	3,313.77	1,328.82	4.01	
Koradi R U-8	2,397.88	1,168.17	4.87	2,397.88	1,168.17	4.87	
Koradi 9	2,531.15	1,207.08	4.77	2,531.15	1,207.08	4.77	
Koradi10	2,390.75	1,165.15	4.87	2,390.75	1,165.15	4.87	
MSPGCL Dhariwal	1,492.18	425.04	2.85	1,492.18	425.04	2.85	
IEPL	-	-	1	-	-	1	
KSTPS	4,833.72	1,048.93	2.17	4,833.72	1,048.93	2.17	
KSTPS III	1,007.89	275.12	2.73	1,007.89	275.12	2.73	
VSTP I	3,166.77	813.29	2.57	3,166.77	813.29	2.57	
VSTP II	2,499.63	584.63	2.34	2,499.63	584.63	2.34	
VSTP III	2,206.05	574.51	2.60	2,206.05	574.51	2.60	
VSTP IV	2,098.96	669.50	3.19	2,098.96	669.50	3.19	
VSTP V	1,233.04	400.94	3.25	1,233.04	400.94	3.25	
Kawas	343.08	200.48	5.84	343.08	200.48	5.84	
Gandhar	246.06	213.49	8.68	246.06	213.49	8.68	
KhSTPS-II	815.91	270.68	3.32	815.91	270.68	3.32	
SIPAT TPS 2	2,000.19	547.46	2.74	2,000.19	547.46	2.74	

	MTR Petition			Approved in this Order			
Generator Name	Energy Purchase (ex- bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	
SIPAT TPS 1	4,306.60	1,184.37	2.75	4,306.60	1,184.37	2.75	
Mauda I	1,349.58	907.79	6.73	1,349.58	907.79	6.73	
Mauda II	1,602.77	1,044.70	6.52	1,602.77	1,044.70	6.52	
NTPC Solapur	2,119.98	1,442.31	6.80	2,119.98	1,442.31	6.80	
Lara	1,006.82	445.61	4.43	1,006.82	445.61	4.43	
Gadarwara	253.64	139.42	5.50	253.64	139.42	5.50	
Khargone	324.72	203.59	6.27	324.72	203.59	6.27	
RRAS (Thermal)	=	(2.76)	-	-	(2.76)	-	
RRAS (Gas)	-	(0.46)	-	-	(0.46)	-	
NTPC Rebate	-	(167.97)	-	-	(167.97)	-	
NTPC NVVN Coal	129.61	44.68	3.45	129.61	44.68	3.45	
JSW	1,919.67	594.77	3.10	1,919.67	594.77	3.10	
CGPL	5,111.51	1,455.84	2.85	5,111.51	1,455.84	2.85	
APML 125 MW	579.59	294.39	5.08	579.59	294.39	5.08	
APML 1320 MW	9,059.60	4,167.68	4.60	9,059.60	4,167.68	4.60	
APML 1200 MW	6,367.78	3,019.15	4.74	6,367.78	3,019.15	4.74	
APML 440 MW	1,052.51	768.68	7.30	1,052.51	768.68	7.30	
GMR Warora/ EMCO	1,483.93	603.95	4.07	1,483.93	603.95	4.07	
RIPL 450 MW	974.11	545.25	5.60	974.11	545.25	5.60	
RIPL 750 MW	1,623.51	908.75	5.60	1,623.51	908.75	5.60	
Sai Wardha	923.35	455.03	4.93	923.35	455.03	4.93	
Short Term	4,084.93	1,176.16	2.88	4,084.93	1,176.16	2.88	
FBSM	-	(1,064.14)	-	-	(1,064.14)	-	
Inter State	14.29	9.75	6.82	14.29	9.75	6.82	
Reactive Charges	-	34.22			34.22	-	
Rebate	-	-	-	-	-	-	
PGCIL Charges	-	3,503.80	-	-	3,503.80	-	
Total	1,32,485.10	56,289.25	4.25	1,32,485.10	56,289.25	4.25	

Table 4-33: Power Purchase Expenses for FY 2021-22 as approved by the Commission (Rs. crore)

	MTR Petition				Approved in this Order		
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	
KAPP	1,080.01	245.55	2.27	1,080.01	245.55	2.27	
TAPP 1&2	(10.05)	(0.11)	0.10	(10.05)	(0.11)	0.10	
TAPP 3&4	3,187.55	1,120.08	3.51	3,187.55	1,120.08	3.51	
SSP	460.61	94.42	2.05	460.61	94.42	2.05	
Pench	98.51	20.19	2.05	98.51	20.19	2.05	
Dodson I	5.43	0.85	1.57	5.43	0.85	1.57	
Dodson II	27.00	11.16	4.13	27.00	11.16	4.13	
Non Solar	11,471.16	6,011.66	5.24	11,471.16	6,011.66	5.24	
Solar	5,484.53	2,188.54	3.99	5,484.53	2,188.54	3.99	

	MTR Petition		n	Approved in this Order			
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	
Hydro incl.GPSS	4,318.88	818.83	1.90	4,318.88	818.83	1.90	
Bhusawal - 3	456.87	290.24	6.35	456.87	290.24	6.35	
Bhusawal - 4	2,628.78	1,271.85	4.84	2,628.78	1,271.85	4.84	
Bhusawal - 5	2,628.78	1,271.85	4.84	2,628.78	1,271.85	4.84	
Khaparkheda - 1 to 4	3,247.14	1,394.65	4.30	3,247.14	1,394.65	4.30	
Khaparkheda - 5	3,236.13	1,414.43	4.37	3,236.13	1,414.43	4.37	
Nashik- 3,4 & 5	1,776.41	1,158.13	6.52	1,776.41	1,158.13	6.52	
Chandrapur - 3 to 7	7,700.68	2,909.77	3.78	7,700.68	2,909.77	3.78	
Paras - 3	1,170.07	625.85	5.35	1,170.07	625.85	5.35	
Paras - 4	1,170.07	624.68	5.34	1,170.07	624.68	5.34	
Parli - 6	785.86	525.84	6.69	785.86	525.84	6.69	
Parli - 7	785.86	525.84	6.69	785.86	525.84	6.69	
Koradi - 6	672.81	369.60	5.49	672.81	369.60	5.49	
Koradi - 7	112.90	109.36	9.69	112.90	109.36	9.69	
GTPS Uran	2,007.93	476.95	2.38	2,007.93	476.95	2.38	
Parli Replacement U 8	981.84	697.27	7.10	981.84	697.27	7.10	
Chandrapur - 8	2,987.24	1,262.17	4.23	2,987.24	1,262.17	4.23	
Chandrapur - 9	2,987.24	1,262.17	4.23	2,987.24	1,262.17	4.23	
Koradi R U-8	3,340.29	1,371.34	4.11	3,340.29	1,371.34	4.11	
Koradi 9	3,340.29	1,371.34	4.11	3,340.29	1,371.34	4.11	
Koradi10	3,340.29	1,371.34	4.11	3,340.29	1,371.34	4.11	
MSPGCL Dhariwal	1,328.68	374.64	2.82	1,328.68	374.64	2.82	
KSTPS	4,914.90	1,078.87	2.20	4,914.90	1,078.87	2.20	
KSTPS III	1,003.95	299.70	2.99	1,003.95	299.70	2.99	
VSTP I	3,181.55	903.49	2.84	3,181.55	903.49	2.84	
VSTP II	2,389.27	560.96	2.35	2,389.27	560.96	2.35	
VSTP III	2,046.94	538.01	2.63	2,046.94	538.01	2.63	
VSTP IV	2,263.67	704.95	3.11	2,263.67	704.95	3.11	
VSTP V	1,187.36	391.45	3.30	1,187.36	391.45	3.30	
Kawas	22.17	148.00	66.76	22.17	148.00	66.76	
Gandhar	57.85	178.80	30.91	57.85	178.80	30.91	
KhSTPS-II	1,021.48	363.36	3.56	1,021.48	363.36	3.56	
SIPAT TPS 2	2,235.38	617.62	2.76	2,235.38	617.62	2.76	
SIPAT TPS 1	3,653.12	1,058.67	2.90	3,653.12	1,058.67	2.90	
Mauda I	2,363.25	1,338.61	5.66	2,363.25	1,338.61	5.66	
Mauda II	2,368.06	1,409.87	5.95	2,368.06	1,409.87	5.95	
NTPC Solapur 2	-	-	-	-	-	-	
NTPC Solapur	2,901.35	1,886.24	6.50	2,901.35	1,886.24	6.50	
Lara	2,037.69	777.93	3.82	2,037.69	777.93	3.82	
Gadarwara	519.54	321.28	6.18	519.54	321.28	6.18	

		MTR Petitio	n	Approved in this Order			
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	
Khargone	455.65	258.38	5.67	455.65	258.38	5.67	
KhSTPS-I	-	0.72	-	-	0.72	-	
Farakka STPS	-	0.28	-	-	0.28	-	
RRAS (Thermal)	-	(13.63)	-	-	(13.63)	-	
RRAS (Gas)	-	(8.39)	-	-	(8.39)	-	
NTPC NVVN Coal	141.15	52.60	3.73	141.15	52.60	3.73	
JSW	855.16	259.29	3.03	855.16	259.29	3.03	
CGPL	785.97	249.96	3.18	785.97	249.96	3.18	
APML 125 MW	693.77	695.80	10.03	693.77	695.80	10.03	
APML 1320 MW	9,714.45	7,665.13	7.89	9,714.45	7,665.13	7.89	
APML 1200 MW	8,255.22	5,838.63	7.07	8,255.22	5,838.63	7.07	
APML 440 MW	1,794.13	1,390.47	7.75	1,794.13	1,390.47	7.75	
GMR Warora/ EMCO	1,393.46	579.77	4.16	1,393.46	579.77	4.16	
RIPL 450 MW	3,052.99	1,219.87	4.00	3,052.99	1,219.87	4.00	
RIPL 750 MW	5,088.31	2,033.11	4.00	5,088.31	2,033.11	4.00	
Sai Wardha	1,257.05	614.63	4.89	1,257.05	614.63	4.89	
G-DAM	38.94	25.72	6.61	38.94	25.72	6.61	
Short Term	4,020.10	1,785.58	4.44	4,020.10	1,785.58	4.44	
FBSM/DSM	(281.98)	(236.34)	8.38	(281.98)	(236.34)	8.38	
Inter-State purchase	11.60	8.64	7.45	11.60	8.64	7.45	
Others	-	(3.81)	-	-	(3.81)	-	
PGCIL Charges	-	3294.10	-	-	3294.10	-	
Total	1,44,253.32	69,478.78	4.82	1,44,253.32	69,478.78	4.82	

4.6 InSTS Charge and MSLDC Charge for FY 2020-21 and FY 2021-22

4.6.1 MSEDCL submitted the actual transmission charges and SLDC charges paid to MSETCL and MSLDC. The details are as follows:

Table 4-34: InSTS Charges for FY 20-21 and FY 21-22 as submitted by MSEDCL

	F	Y 2020-21		FY 2021-22			
Particular	MYT Order	MTR Petition	Deviation	MYT Order	MTR Petition	Deviation	
InSTS Charges	5,671.59	5,687.41	15.82	5,782.39	5,950.98	168.59	
MSLDC Charges	28.33	28.33	0.00	26.86	26.86	-0.00	
Total	5,699.92	5,715.74	15.82	5,809.25	5,977.83	168.59	

4.6.2 MSEDCL submitted that it has paid the transmission charges to STU as per the InSTS Order issued by the Commission from time to time. MSEDCL requested the Commission to approve the actual Transmission and MSLDC Charges as per the Audited Accounts.

Commission's Analysis and Ruling

- 4.6.3 The Commission has sought for the reconciliation of MSLDC charges and the InSTS charges with the Audited accounts of FY 2020-21 and FY 2021-22 in the query to the data gaps.
- 4.6.4 In reply to the data gaps MSEDCL has submitted the reconciliation statement. Upon review of the reconciliation statement the Commission noted that, the reconciliation statement submitted by MSEDCL does not clarifies why it has paid the InSTS charges and MSLDC charges higher than what the Commission has approved in the Case No. 327 of 2019 dated 30 March 2020 and Case No. 291 of 2019 dated 30 March 2020. Therefore, for FY 2020-21 and FY 2021-22, the Commission has considered the Transmission Charges and SLDC charges paid by MSEDCL as per the above respective Orders of the Commission for the purpose of truing up of FY 2020-21 and FY 2021-22.
- 4.6.5 Accordingly, InSTS charges and MSLDC charges as approved by the Commission for the purpose of true-up for FY 2020-21 and FY 2021-22 is summarized below:

Table 4-35: InSTS and MSLDC Charges for FY 2020-21 and FY 2021-22 as approved by the Commission (Rs. Crore)

Particular		FY 2020	-21	FY 2021-22			
	MYT Order	MTR Petitio n	Approve d in this Order	MYT Order	MTR Petition	Approved in this Order	
InSTS Charges	5,671.59	5,687.41	5,671.59	5,782.39	5,950.98	5,782.39	
MSLDC Charges	28.33	28.33	28.33	26.86	26.86	26.86	
Total	5,699.92	5,715.74	5,699.92	5,809.25	5,977.83	5,809.25	

4.7 O&M Expenses for FY 2020-21 and FY 2021-22

MSEDCL's Submission

Actual O&M Expenses

4.7.1 MSEDCL has submitted the O&M Expenses on actual basis as per its Audited Annual Accounts for FY 2020-21 and FY 2021-22 respectively, as shown below:

Table 4-36: O&M Expenses for FY 2020-21 and FY 2021-22 as submitted by MSEDCL (Rs. Crore)

Particulars	FY 2020-21 (Actual)	FY 2021-22 (Actual)
Employee Expenses (Net)	5,368.20	6,397.36
A&G Expenses (Net)	763.87	969.95
RM Expenses	1,036.21	1,367.95

Particulars	FY 2020-21	FY 2021-22	
Farticulars	(Actual)	(Actual)	
Total O&M Expenses	7,168.28	8,735.25	

4.7.2 It is submitted that there is an increase in the actual O&M expenses claimed for FY 2021-22 comparing to O&M of FY 2020-21. Breakup of components of employee expenses, A&G expenses and R&M expenses and difference between the heads in FY 2021-22 w.r.t. FY 2020-21 is shown in table below.

Table 4-37: Major components of O&M expenses for FY 21-22 over FY 20-21

Sr. No.	Particulars	FY 20-21	FY 21-22	Difference	Remark						
1. I	K - V										
1.1	Basic Salary	2,806.02	2,965.99	159.97	Due to increment in employee's salary, exp. has increased						
1.2	Expenditure on Outsourced Employees	497.08	584.29	87.21							
1.3	Dearness Allowance	473.22	656.58	183.35							
1.4	Earned Leave Encashment	384.66	414.90	30.25							
1.5	Other Allowances	167.75	175.01	7.25							
1.6	Overtime Payment	19.49	22.81	3.32							
1.7	Provident Fund Contribution	429.92	694.62	264.70	Due to increment & rise in DA, the PF has been increased						
1.8	Staff Welfare Expenses	89.92	163.24	73.32	Due to increase in Mediclaim premium, this exp. has increased						
1.9	Gratuity Payment	311.66	420.78	109.12							
2. A	Administration & General Expe	nses									
2.1	Rent Rates & Taxes	116.74	46.96	(69.78)	Actual expenditure						
2.2	Security Measures for Safety & Protection	161.78	175.46	13.67							
2.3	Advertisements	6.59	7.48	0.89							
2.4	Expenditure on Computer Billing	257.34	378.74	121.40	Actual expenditure						
2.5	Commission/Collection charges	60.69	85.95	25.26	Actual expenditure						
3. I	Repair & Maintenance Expenses	S									
3.1	Plant & Machinery	532.47	464.65	(67.82)	Actual expenses						
3.2	Civil Works	50.05	130.55	80.50	Actual expenses						
3.3	Lines & Cable Networks	433.98	711.81	277.83	Actual expenses						
3.4	Office Equipment	19.28	47.35	28.07							
3.5	Others	0.00	13.15	13.15							

- 4.7.3 Increment in employee expense to Rs. 159.97 Crores in FY 2021-22 is due to increment & rise in DA, increment in PF to Rs. 264.70 in FY 2021-22 and increment in Mediclaim premium to Rs. 73.32 Crores.
- 4.7.4 In the employee expenses, MSEDCL has reduced Rs. 5.43 Crore and Rs. 98.94 Crore towards Re-measurement of defined benefit plans in FY 2020-21 and FY 2021-22 respectively. In this regard, MSEDCL submitted that the Gratuity is recognised at the year-end by using projected unit credit method as on 31st March 2021 and 31 March 2022 respectively. It is unfunded defined benefit plan.

Normative O&M Expenses

- 4.7.5 MSEDCL has submitted 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.
- 4.7.6 As per the said Regulations relating to the Truing-up of O&M expenses:

"75.2

Provided also that at the time of true-up for each Year of this Control Period, the Operation and Maintenance expenses shall be derived on the basis of the Final Trued-up Operation and Maintenance expenses after adding/deducting the sharing of efficiency gains/losses, for the base year ending March 31, 2020, excluding abnormal expenses, if any, subject to prudence check by the Commission, and shall be considered as the Base Year Operation and Maintenance expenses.

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 that, in the Truing-up of the O&M 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 respective 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 respective 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:

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."

- 4.7.7 Considering the average WPI and CPI and provisions of the MERC (MYT) Regulations 2019, MSEDCL has calculated the O&M escalation factor. As per MYT Regulations, 2019 quoted above, if the number of consumers of Distribution Licensee are increased by more than 2% annually over the last 3 years, efficiency factor shall be considered as zero. Accordingly, considering the escalation factor with zero efficiency factor, MSEDCL has computed the normative O&M expenses for FY 2020-21 and FY 2021-22. Accordingly, the escalation factor derived for FY 2020-21 and FY 2021-22 are 4.24% and 5.06% respectively.
- 4.7.8 Considering the above escalation factor and O &M expenses for FY 2019-20 after considering the impact of sharing of gains computed in final True-up of FY 2019-20, MSEDCL has calculated the O&M Expenses for FY 2020-21.
- 4.7.9 MSEDCL has submitted that the 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 4-38: O&M Expenses for FY 2020-21 and FY 2021-22 by MSEDCL (Wires + Supply) as submitted by MSEDCL (Rs Crores)

	FY	2020-21	FY 2021-22		
Particulars	MYT Order	MTR Petition (Normative)	MYT Order	MTR Petition (Normative)	
O&M Expenditure for Wires business	4,543.31	4,698.89	4,717.50	4,936.62	
O&M Expenditure for Retail Supply business	2,446.40	2,530.17	2,540.19	2,658.18	
Operation and Maintenance Expenses	6,989.71	7,229.07	7,257.69	7,594.79	

4.7.10 MSEDCL has submitted that the Commission in its MYT Order dated 30th March 2020 in Case No. 322 of 2019 has added Rs. 582.11 Crores in FY 2020-21 to include the

impact of arrears on account of wage revision over and above derived normative O&M expenses, which were related to second and third instalment of the arrears proposed to be paid in FY 2020-21. MSEDCL submitted that second instalment of pay revision of Rs. 269.00 Crore has been given in the month of February 2021. Further, third instalment of pay revision of Rs. 355.00 Crore has been given in the month of December 2021. The wage revision related documents are attached as Annexure 11 to this Petition. Accordingly, for the purpose of true-up, MSEDCL has calculated total allowable O&M expenses for FY 2020-21, by considering Rs. 269.00 Crore and for FY 2021-22, by considering Rs. 355.00 Crore over and above derived normative O&M expenses for FY 2020-21 and FY 2021-22, as shown in the following table.

Table 4-39: O&M Expenses for FY 2020-21 and FY 2021-22 by MSEDCL (Wires + Supply) as submitted by MSEDCL (Rs Crores)

	FY 20	20-21	FY 2021-22	
Particulars	MYT Order	MTR Petition (Normative)	MYT Order	MTR Petition (Normative)
O&M Expenditure for Wires business	4,543.31	4,698.89	4,717.50	4,936.62
O&M Expenditure for Retail Supply business	2,446.40	2,530.17	2,540.19	2,658.18
Operation and Maintenance Expenses(A)	6,989.71	7,229.07	7,257.69	7,594.79
Impact of arrears - Wires business	378.37	174.85	0	230.75
Impact of arrears - Supply business	203.74	94.15	0	124.25
Sub Total (B)	582.11	269.00	-	355.00
Total O&M Expenses (C = A+B)	7,571.82	7,498.07	7,257.69	7,949.79

- 4.7.11 MSEDCL has submitted that as per Regulations 75.4 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.
- 4.7.12 MSEDCL submitted its R&M expenses are less due to the reasons mainly attributable to COVID-19 pandemic situation. Hence, MSEDCL requested the Commission to kindly relax these regulations for FY 2020-21, FY 2021-22 and allow expenses as per normal sharing of gains and losses. MSEDCL requested the Commission to allow the O&M Expenses as computed in above table.

Commission's Analysis and Ruling

4.7.13 The Commission observes that MSEDCL has claimed O&M expenses for FY 2020-21 and FY 2021-22 on normative basis while considering the same as controllable expense and shared the impact of efficiency gain/loss on account of its variation w.r.t actual/audited O&M expense during the year.

- 4.7.14 The Commission further observes that the actual O&M expense for FY 2020-21 is lower than the normative O&M expense, whereas the actual O&M expense for FY 2021-22 is higher than the normative O&M expenses. The Commission has verified the actual O&M expense claimed by MSEDCL from the audited accounts for FY 2020-21 and FY 2021-22.
- 4.7.15 It is observed that actual employee expense in the audited accounts of FY 2020-21 and FY 2021-22 are Rs. 5,372.39 Crore and Rs. 6,298.41 Crore, respectively as compared to Rs 5,368.20 Crore and Rs 6,397.36 Crore for the respective years, claimed in the petition.
- 4.7.16 The Commission vide data gaps sought the clarification regarding breakup of actual O&M expense as per audited accounts and reconciliation of actual claimed O&M expense submitted by MSEDCL in petition. It is observed that, employee expenses and A&G expenses claimed in petition are not matching with audited accounts. In reply to data gaps, MSEDCL submitted that total actual employee expense is Rs 5,373.63 Crore comprising of employee expense of Rs. 5,368.20 Crore as per audited accounts less Rs. 5.43 Crore other comprehensive income for FY 2020-21. Similarly, for FY 2021-22, MSEDCL submitted that actual employee expense as per audited accounts is Rs. 6397.36 Crores comprising of employee expense of Rs. 6298.42 plus Rs. 98.94 Crores other comprehensive income.
- 4.7.17 The Commission notes that, employee expense is major head in total O&M consisting of 75% to 89% of actual expense. MSEDCL has deducted expense towards other comprehensive income from actual O&M expenses for FY 2020-21 and added expense towards other comprehensive income in actual O&M expenses for FY 2021-22. MSEDCL has not submitted valid justification behind the expense and also it is not reflecting in audited accounts of MSEDCL. Hence, Commission has not allowed Rs. 5.43 Crores and Rs. 98.94 Crores for FY 2020-21 and FY 2021-22 claimed in employee expenses as other comprehensive income. Accordingly, the Commission has approved employee expense of Rs. 5,372.39 Crores and Rs. 6,298.41 Crores for FY 2020-21 and FY 2021-22 respectively.
- 4.7.18 The Commission noted the submission of MSEDCL regarding A&G expenses. The Commission has verified the A&G expense from audited accounts. It is observed that, there is mismatch in some of the heads submitted by MSEDCL in MTR formats and as per the audited accounts.
- 4.7.19 MSEDCL submitted that, A&G expense claimed in the petition covers addition of Rs. 25.41 Crores Payment to MPECS, Rs. 47.21 Crores Lease related payment and subtraction of Rs. 37.41 Crores due to impact of payment to MPECS in future years and Rs. 27.05 Crore claimed separately under Opex Scheme. Accordingly, total A&G expenses claimed by MSEDCL are Rs. 763.87 Crore as claimed by MSEDCL in MTR Petition formats for FY 2020-21. Similarly, MSEDCL has claimed Rs. 969.95 Crore A&G expense for FY 2021-22.

4.7.20 The Commission opines that, licensees shall book overall expense in the audited accounts and accordingly expenses booked in audited accounts shall be considered for truing up. Further, MSEDCL has restated the audited accounts and submitted it to the Commission. The Commission has scrutinized restated audited accounts and as per the restated audited accounts, A&G expenses of Rs. 692.29 Crores and Rs. 903.94 Crore are approved for FY 2020-21 and FY 2021-22 in line with the heads given in audited accounts. Further, the Commission has not considered expense towards OPEX schemes given in audited accounts as OPEX scheme expense is approved separately for FY 2020-21 and FY 2021-22. The Commission approves head wise A&G expenses for FY 2020-21 and FY 2021-22 as below:

Table 4-40: Actual A&G Expenses for FY 2020-21 and FY 2021-22 as approved by the Commission

		FY 20	020-21	FY 2021-22		
Sr. No.	Particulars	MTR Petition	Approved in the Order	MTR Petition	Approved in the Order	
1	Rent Rates & Taxes*	104.74		34.96		
2	Insurance	0.56	116.71	0.66	124.61	
3	Telephone & Postage, etc.	16.75		16.15		
4	Legal charges & Audit fee	12.37		31.41		
5	Professional, Consultancy, Technical fee	3.80	15.37	10.50	41.44	
6	Conveyance & Travel	7.35	7.35	7.29	7.29	
7	Electricity charges	32.21	32.21	32.98	32.98	
8	Water charges	5.64		6.86		
9	Security arrangements / Measures for Safety & Protection	161.78	161.78	175.46	175.46	
10	Fees & subscription	15.20	15.20	16.43	16.43	
11	Printing & Stationery	15.22	15.22	13.71	13.71	
12	Advertisements	6.59	6.59	7.48	7.48	
13	Vehicle Running Expenses Truck / Delivery Van	4.97	4.97	4.93	4.93	
14	Vehicle Hiring Expenses Truck / Delivery Van	45.71	45.71	57.33	57.33	
15	Expenditure on Computer billing	257.34	257.34	378.74	378.74	
16	Commission/Collection charges	60.69	60.69	85.95	85.95	
17	Miscellaneous Expenses	2.69	-	0.96	-	
18	Expenditure on meetings/conference	0.76	-	1.11	-	
19	Expenditure on upkeep of office premises	18.51	-	19.56	-	
20	Others	1.45	-	79.10	<u> </u>	
21	Payment to MPECS#	-	_	_	-	

		FY 2	020-21	FY 2021-22		
Sr. No.	Particulars	MTR Petition	Approved in the Order	MTR Petition	Approved in the Order	
22	Other Scheme Expenses	36.38	-	30.79	-	
23	Gross A &G Expenses	810.71	739.14	1,012.36	946.35	
24	Less: Expenses Capitalized	46.84	46.84	42.41	42.41	
25	Net A &G Expenses	763.87	692.29	969.95	903.94	

- 4.7.21 Accordingly, the Commission has approved Rs. 629.29 Crores and Rs. 903.94 under A&G expenses for FY 2020-21 and FY 2021-22.
- 4.7.22 The Commission also notes that R&M expense as percentage of actual O&M expense varies from 14% to 16% against the stipulated 20%.
- 4.7.23 The Commission is of the view that R&M expense need to be increased so as to ensure better power quality to the consumers. The present expenses on R&M are on the lower side which may be adversely impacting the power quality. The low spending on R&M activities is a matter of concern, as it directly affects the reliability and upkeep of the Distribution network which in-turn has a bearing on quality service to the consumers. During the public consultation process, many Consumers have complained about the supply quality of MSEDCL. In view of the above Commission has already specified norms for spending on R&M expense in the MYT Regulations, 2019. Regulation 75.6 of MYT Tariff Regulation states that if Repair and Maintenance expense is less than total O&M expense allowed then the saving in R&M expense shall not be set off against other heads of O&M expense. The relevant regulation is reproduced for reference:

"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"

- 4.7.24 The above provisions of the Regulations compel the Commission to disallow the saving against the R&M expenses and shall not be set off against the head of O&M expenses.
- 4.7.25 MSEDCL must maintain R&M expense at least 20% of allowed O&M expense. Currently, R&M expenses are lower than 20% of actual O&M expenses and hence, Commission has considered the impact of lower R&M expenses in subsequent section under sharing of gains/ losses for FY 2020-21 and FY 2021-22 as per MYT regulations, 2019.
- 4.7.26 R&M expenses are claimed as per audited accounts. Thus, the Commission considered actual O&M expenses as per audited accounts for FY 2020-21 and FY 2021-22.

Table 4-41: Actual O&M Expenses for FY 2020-21 and FY 2021-22 as approved by Commission (Rs. Crore)

	FY 2020-21			FY 2021-22			
Particulars	MYT Order	MTR Petition	Approved in this Order	MYT Order		MTR Petition	Approved in this Order
Employee Ex	penses	7,571.82	5,368.20	5,327.39	7,257.6	6,397.36	6,298.41
A&G Expens	ses		763.87	692.29		969.95	903.94
R&M Expens	M Expenses		1,036.21	1,036.21		1,367.94	1,367.94
Total O&M		7,571.82	7,168.28	7,100.90	7,257.6	9 8,735.25	8,570.30
Expenses							

- 4.7.27 As O&M expense is a controllable expense, the efficiency gains on account of lower actual O&M expense compared to normative expense has to be shared among MSEDCL and the consumer in accordance with the principles outlined under MYT Regulations, 2019. Further, the Commission has noted the submission of MSEDCL that Pay revision effect to an extent of Rs.582.11 Crore was allowed under MYT Order but actual wage revision impact is around Rs 624 Crore (Rs 269 Crore booked in FY2020-21 and Rs 355 Crore booked in FY 2021-22) and the same has been considered in the Petition. The Commission has carried out prudence check of the wedge revision related documents as submitted by MSEDCL. Accordingly, for the purpose of true-up, the Commission allows total O&M expenses for FY 2020-21 and FY 2021-22, by considering Rs. 269 Crore and Rs. 355 Crore over and above derived normative O&M expenses for FY 2020-21 and FY 2020-21 and FY 2021-22 respectively.
- 4.7.28 The Commission has applied the amended norms specified in Regulations 75 and 84 of the MYT Regulations, 2019 for approval of O&M Expenses for the Wires Business and Supply Business respectively. The relevant extract of the regulation are as given below for easy reference:
 - "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 March 31, 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 March 31, 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 March 31, 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:

- 4.7.29 As per the above provisions of MYT Regulations, 2019, the Base Year expenses for FY 2019-20 shall be escalated by an inflation factor with 30% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index (WPI) of the past five financial years and 70% weightage to the average yearly inflation derived based on the monthly Consumer Price Index (CPI) for Industrial Workers (all-India) of the past five financial years, as reduced by an efficiency factor of 1% to arrive at the permissible O&M expenses for each year of the Control Period. It is noted that MSEDCL has used WPI series of 2012-13 for the truing up years.
- 4.7.30 Considering the year-on-year variations in CPI and WPI and escalation factor as approved by the Commission is shown in the following table.

Table 4-42: Normative O&M Expenses for FY 2020-21 and FY 2021-22 (Wires + Supply) as approved by Commission

Year	WPI	WPI Inflation	СРІ	CPI Inflation
FY 2012-13	106.90	7.35%	215.17	10.44%
FY 2013-14	112.46	5.20%	236.00	9.68%
FY 2014-15	113.88	1.26%	250.83	6.29%
FY 2015-16	109.72	-3.65%	265.00	5.65%
FY 2016-17	111.62	1.73%	275.92	4.12%
FY 2017-18	114.88	2.92%	284.42	3.08%
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%
Average from FY 2016- 17 to FY 2020-21		2.38%		5.04%
Weightage		30%		70%
Escalation Factor				4.24%
Efficiency Factor				1% (not considered)
Escalation Factor for FY Factor	Y 2020-21	net of Efficie	ncy	4.24%
Average from FY 2017- 18 to FY 2021-22		4.63%		5.24%
Weightage		30%		70%
Escalation Factor				5.06%
Efficiency Factor				1% (not considered)

Year	WPI	WPI Inflation	СРІ	CPI Inflation
Escalation Factor for FY factor	5.06%			

- 4.7.31 The Commission has computed the escalation factor as specified according to the above provision of the MYT Regulations, 2019 and the same works out to 4.24% & 5.06% after reducing 0% efficiency factor (Increase in the number of consumers including open access consumers of at least 2 percent annually over the last 3 years) for FY 2020-21 and FY 2021-22 respectively. Thus, for the purpose of working out normative O&M expenses for FY 2020-21 & FY 2021-22, an escalation factor of 4.24% and 5.06% is has been considered.
- 4.7.32 To derive normative O&M expense for FY 2020-21, the Commission has escalated net entitled O&M expenses of FY 2019-20 with 4.24% for arrive at O&M expense norms for FY 2020-21 and to derive normative O&M expense for FY 2021-22, the Commission escalated 5.06% on the normative O&M expenses of FY 2020-21. The O&M expense approved for the purpose of truing up of FY 2020-21 and FY 2021-22 for Wires Business and Retail Supply of electricity is shown in following table.

Table 4-43: O&M Expenses for FY 2020-21 and 2021-22 (Wires + Supply) approved by Commission (Rs. Crore)

Particulars		FY 2020-21		FY 2021-22		
	MYT Order	MTR Petition	Approved in this Order	MYT Order	MTR Petition	Approved in this Order
O&M Expenditure for Wires business	4,542.31	4,698.98	4,620.34	4,717.50	4,936.62	4,854.09
O&M Expenditure for Retail Supply business	2,446.40	2,503.17	2,487.87	2,540.19	2,658.18	2,613.74
Impact of Wage Revision	582.11	269.00	269.00	-	355.00	355.00
O &M Expenses (Wires+Supply)	7,571.82	7,498.07	7,377.21	7,257.69	7,949.79	7,822.82

4.7.33 The Commission approves O&M expense of Rs. 7,377.21 Crore on Truing-up of ARR for FY 2020-21 and Rs. 7,822.82 Crore on Truing-up of ARR for FY 2021-22.

4.8 OPEX Scheme for FY 2020-21 and FY 2021-22

MSEDCL's Submission

4.8.1 MSEDCL submitted 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.

4.8.2 Based on approval accorded in the MYT Order in Case No. 322 of 2019 MSEDCL has incurred actual expenses of Rs 27.05 Crore and Rs. 31.67 Crore in FY 2020-21 and FY 2021-22 as against Rs 110.49 Crore and Rs. 110.49 Crore respectively. Following table shows the actual Opex Schemes expenses for FY 2020-21 and FY 2021-22.

Table 4-44: Opex Scheme for FY 2020-21 and 2021-22 as submitted by MSEDCL (Rs. Crore)

	FY 20	20-21	FY 2021-22	
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition
Opex scheme (Wires Business)				
Substation Monitoring System (SMS)	69.53	0.47	69.53	1.03
MSEDCL Cloud Projects	8.32	8.55	8.32	7.56
Annual Technical supports of SAP/HANA/Oracle software Licenses	5.94		5.94	
Vehicle Tracking Systems	0.53		0.53	
Sub Total	84.31	9.02	84.31	8.59
Opex Scheme (Retail supply)				
Consumer care centre	6.60	6.70	6.60	13.91
RF-DCU (Exp. of Interest & Tender)	4.80	2.78	4.80	1.61
MSEDCL cloud Projects	8.32	8.55	8.32	7.56
Annual Technical supports of SAP/HANA/Oracle software licences	5.94		5.94	
Vehicle Tracking Systems	0.53		0.53	
Sub Total	26.18	18.03	26.18	23.08
Total	110.49	27.05	110.49	31.67

Commission's Analysis and Rulings

4.8.3 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:

For Wire Business:

"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."

For Retail Supply Business:

- "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."
- 4.8.4 The Commission vide data gaps sought details of schemes proposed under OPEX along with cost benefits. MSEDCL in its reply to data gaps provided statement of benefits realised out of scheme roll-out. The Commission notes that due to Covid-19 pandemic and subsequent lockdown, MSEDCL has not been able to expend the amount approved against Opex in MYT Order in Case No.322 of 2019. From the statement of benefits demonstrated, the Commission is of the conclusion that the schemes such as CFC, RF-DCU, SMS etc under Opex have facilitated well to consumers and field staff during Covid-19 times. The Commission notes that OPEX on Sub Station Monitoring schemes is at presently at pilot stage. As and when the OPEX is operational, the Commission expects MSEDCL to submit the operational as well as tangible advantages (if any) so as to understand the Cost Benefit Analysis of this expenditure.
- 4.8.5 Considering the MSEDCL submission and as per Regulation 75.7 and 84.7 of MYT Regulation 2019, the Commission has approved OPEX schemes as claimed by MSEDCL as shown in following table below:

Table 4-45: Opex Scheme (Wires + Supply) for FY 2020-21 and 2021-22 Approved by the Commission (Rs. Crore)

	FY 2020-21			FY 2021-22		
Particulars	MYT Order	MTR Petition	Approved in this Order	MYT Order	MTR Petition	Approved in this order
Opex Scheme (Wires Business)						
Substation Monitoring System (SMS)	69.53	0.47	0.47	69.53	1.03	1.03
MSEDCL Cloud Projects	8.32	8.55	8.55	8.32	7.56	7.56
Annual Technical supports of SAP/HANA/Oracle software Licenses	5.94			5.94		
Vehicle Tracking Systems	0.53			0.53		
Sub Total	84.31	9.02	9.02	84.31	8.59	8.59
Opex Scheme (Retail supply)						
Consumer care centre	6.60	6.70	6.70	6.60	13.91	13.91
RF-DCU (Exp. Of Interest & Tender)	4.80	2.78	2.78	4.80	1.61	1.61
MSEDCL cloud Projects	8.32	8.55	8.55	8.32	7.56	7.56
Annual Technical supports of SAP/HANA/Oracle software licences	5.94			5.94		
Vehicle Tracking Systems	0.53			0.53		

	FY 2020-21			FY 2021-22		
Particulars	MYT Order	MTR Petition	Approved in this Order	MYT Order	MTR Petition	Approved in this order
Sub Total	26.18	18.03	18.03	26.18	23.08	23.08
Total	110.49	27.05	27.05	110.49	31.67	31.67

4.8.6 Thus, the Commission has approved Rs 27.05 Crore and Rs 31.67 Crore under head of OPEX schemes for FY 2020-21 and FY 2021-22 respectively.

4.9 Capital Expenditure and Capitalisation for FY 2020-21 and FY 2021-22

MSEDCL's Submission

4.9.1 MSEDCL has submitted that it has achieved a capitalization of Rs. 4,492.36 Crore and Rs. 3,442.01 Crore against an approved capitalisation of Rs. 5,385.16 Crore and Rs. 3,638.60 Crore for FY 2020-21 and FY 2021-22 respectively.

Table 4-46: Summary of Capitalization as submitted by MSEDCL for FY 2020-21 and FY 2021-22 (Rs. crore)

	FY 20)20-21	FY 2021-22		
Particulars	MYT approved	MTR Petition	MYT approved	MTR Petition	
Capitalization					
DPR Schemes	5,110.44	4,049.54	3,291.09	3,469.82	
Non DPR Schemes	274.72	442.82	347.51	-27.81	
Total	5,385.16	4,492.36	3,638.60	3,442.01	

4.9.2 As per the Annual Accounts, the addition to GFA is Rs. 4,526.15 Crore for FY 2020-21 and Rs. 3,467.47 Crore for FY 2021-22, whereas in Form 4.2 MSEDCL has shown capitalisation as Rs. 4,492.36 Crore and Rs 3,442.01 Crore for FY 2020-21 and FY 2021-22 respectively. MSEDCL has clarified that, in Form 4.2, only scheme-wise details have been shown, whereas in the annual accounts the addition to GFA is shown in total, including land and land rights, buildings, etc. The details are shown in the following table:

Table 4-47: Addition GFA as per Audited Accounts for FY 2020-21 and FY 2021-22, as submitted by MSEDCL

Sr. No.	Particulars	FY 2020-21	FY 2021-22
1	Capitalization as per Note of Annual Accounts	4,526.15	3,467.47
2	Capitalization as per Form 4 (A)	4,492.36	3,442.01
	Other Assets		
3	Land	3.17	7.83

Sr. No.	Particulars	FY 2020-21	FY 2021-22
4	Buildings	11.31	32.79
5	Vehicles	-0.04	-5.13
6	Furniture & Fixtures	0.65	-2.62
7	General Assets	2.89	-8.70
8	Other Civil Works	4.28	-23.10
9	Computer Software	11.53	24.39
	Total (2 to 8)	4,526	3,467

4.9.3 MSEDCL submitted breakup of general assets in following table for FY 2020-21 and FY 2021-22.

Table 4-48: Details of General Assets for FY 2020-21 and FY 2021-22, as submitted by MSEDCL

Particulars	FY 2020-21	FY 2021-22
Hydraulic works	0	-1.90
Communication	0.81	2.15
Equipment		
IT Equipment	0.20	-13.40
Office Equipment	1.21	4.48
Other Assets	0.63	0.08
Batteries & Charging		-0.04
Total	2.89	-8.64

4.9.4 MSEDCL has also submitted that the Commission in its previous orders has allowed the Capitalization towards schemes not forming part of any scheme, which are of the nature of General Assets, and has accordingly made revisions in the GFA to that extent. MSEDCL has further requested the Commission to approve capitalization as per audited accounts and revise the GFA accordingly.

Commission's Analysis and Rulings

- 4.9.5 The Commission has perused the capitalisation details of the schemes as claimed by MSEDCL for FY 2020-21 and FY 2021-22. The Commission notes that for certain schemes MSEDCL has claimed an excess capitalisation over and above their inprincipal approval cost.
- 4.9.6 The scheme wise excess capitalisation is provided in the table below:

Table 4-49: Excess Capitalisation claimed by MSEDCL in FY 2020-21 and FY 2021-22 (Rs. Crore)

S.No	Major Schemes	Excess Capitalization in FY 2020-21 over inprincipal approval	Excess Capitalization in FY 2021-22 over inprincipal approval
1	Infra Plan Works - II	455.91	699.96
2	SPA:PE	1717.89	1724.59
3	DDUGJY	-	254.97
4	DPDC / Non-Tribal	1672.53	2019.87
5	DPDC / SCP	638.55	812.67
6	DPDC / TSP + OTSP	1149.27	1260.52
	Total	5634.15	6772.58

- 4.9.7 The Commission notes that in MSEDCL's CAPEX basket above mentioned schemes have exceeded the project timeline and cost of the scheme is also increased beyond the in-principal approval of the scheme. Further, from CAPEX and Capitalisation sheets of the Regulatory formats, it is evident that few schemes are still within the in-principal approval limit but are delayed in project execution.
- 4.9.8 As emphasized in earlier orders in case of schemes with time over run excess interest gets incurred which finally gets capitalised as IDC. Due to excess capitalisation, an undue burden of excess IDC is being passed on to consumers, which is not justifiable. MSEDCL in its claim of capitalisation did not reduce IDC and claimed actual capitalisation. In case of schemes with excess capitalisation over and above the inprinciple approved capital cost, the Commission has disallowed 100% IDC on these schemes. The Commission has verified the DPR schemes submitted by MSEDCL in MTR petition and has disallowed Rs. 6.19 Crores in FY 2020-21 and Rs. 4.26 Crores and FY 2021-22.
- 4.9.9 Further Regulation 24.7 of MYT Regulations, 2019 specifies limit on capitalisation of non-DPR schemes that are allowable.

"The 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."

- 4.9.10 In line with the above Regulations, capitalisation towards non-DPR schemes has been allowed only up to that threshold level.
- 4.9.11 The Commission notes that, FY 2021-22, MSEDCL has shown retirement of assets of Rs. 606.73 Crore. The provision of Regulation 27.2 of MYT Regulations,2019 specifies the treatment to retirement or replacement or de-capitalisation of the assets as below.

"27.2 In case of the Generating Company or Licensee, if any fixed asset is capitalised on account of capital expenditure Scheme prior to April 1, 2020, the debt-equity ratio allowed by the Commission for determination of Tariff for the period ending March 31, 2020 shall be considered:

Provided that in case of retirement or replacement or de-capitalisation of the assets, the balance equity capital invested in the regulated Business approved in accordance with Regulation 27.1, shall be deducted from the regulatory equity of the Business:

Provided further that in case of retirement or replacement or de-capitalisation of the assets, the debt capital approved as mentioned above, shall be reduced to the extent of outstanding debt component based on documentary evidence, or the outstanding normative loan component, as the case may be, of the original cost of such assets.

- 4.9.12 Accordingly, the Commission has deducted the retirement of assets of Rs. 606.73 Crore from the regulatory equity and debt capital for FY 2021-22.
- 4.9.13 Based on the above, the Capitalization allowed for FY 2020-21 and FY 2021-22 is as follows:

Table 4-50: Capitalisation approved by Commission for FY 2020-21 and FY 2021-22 (Rs. Crore)

	FY	2020-21	FY 2021-22		
Particulars	MTR Petition	Approved in this Order	MTR Petition	Approved in this Order	
DPR	4,049.54	4,043.00	3,469.82	3,347.57	
Non DPR	442.82	442.59	-27.81	561	
%of Non DPR to DPR	10.94%	10.95%	-0.80%	17%	
Total Capitalisation	4,492.36	4,485.48	3,442.01	3,909.01	

- 4.9.14 As regards capitalisation of Non-DPR items for FY2021-22, the Commission notes that MSEDCL in its submission has wrongly deducted Rs 590 Crore under heading of Non-DPR items towards decapitalisation, the treatment of which has been already given under decapitalisation under heads of GFA, as elaborated under subsequent paragraph. Further, the Commission has verified the Non-DPR items as claimed under the MTR Petition vis-à-vis that considered at the time of MYT Order, which comprise items such as load management system, MIS backbone, rural electrification, schemes under MIDC interest free item etc. Thus, the Commission has approved the capitalisation claims of Rs 561 Crore as claimed by MSEDCL for FY2021-22.
- 4.9.15 Accordingly, the total capitalisation approved for FY 2020-21 and FY 2021-22 is summarized as shown below:

Table 4-51:	Capitalisation	for FY	2020-21 and	1 FY 2021-22	2 (Rs crore)

	FY 2020-21			FY 2021-22		
Particulars	MYT Order	MTR Petitio n	Approved in this Order	MYT Order	MTR Petition	Approved in this Order
Total Capitalisation	5,385.16	4,492.3 6	4,485.48	3,638.6	3,442.01	3,909.01

4.9.16 Thus, the Commission approves the capitalization of Rs. 4,485.48 Crores and Rs. 3,909.01 Crores for FY 2020-21 and FY 2021-22 respectively.

4.10 Depreciation for FY 2020-21 and FY 2021-22

MSEDCL's Submission

4.10.1 MSEDCL has submitted that, the Opening GFA for FY 2020-21 and FY 2021-22 as per Audited Accounts is Rs. 62,400.97 Crore and Rs. 66,927.14 Crore (excluding 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 2020-21 and FY 2021-22 for the purpose of True-Up which are summarized below.

Table 4-52: Depreciation as submitted by MSEDCL for FY 2020-21 and FY 2021-22 (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22
Opening GFA (Actual)	62,400.97	66,927.14
Opening GFA (Regulatory)	54,631.59	57,669.39
Less: Consumer Contribution and Grants	-	-
Net Opening GFA (Approved)	54,631.59	57,669.39
Depreciation (Actual)	3,031.64	2,968.79
Depreciation (Claimed in proportion to Actual)	2,65 4.18	2,558.13

Commission's Analysis and Rulings

- 4.10.2 The Commission has worked out allowable depreciation considering the approved Opening GFA for FY 2020-21 and FY 2021-22 on the revised capitalisation approved during the respective year.
- 4.10.3 Further, as per provision of MYT Regulations, 2019, consumer contribution and grants has been deducted from GFA while working out depreciation. The relevant Regulations is reproduced as under.
 - "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."
- 4.10.4 Further, as discussed in para 4.9.11 above MSEDCL has reported retirement of assets worth Rs. 606.73 Crores. The provisions of the Regulation
 - "28.1 The Generating Company, Licensee, and MSLDC shall be permitted to recover depreciation on the value of fixed assets used in their respective Businesses, computed in the following manner:
 - (a) The approved original cost of the fixed assets shall be the value base for calculation

of depreciation:

Provided that the depreciation shall be allowed on the entire capitalised amount of the new assets after reducing the approved original cost of the retired or replaced or de-capitalised assets.

4.10.5 Accordingly, the Commission has considered the retirement of assets of Rs. 606.73 Crore while computing the depreciation. The Commission has considered the opening GFA of Rs. 54,585.78 Crores and Rs. 57,498.17 for FY 2020-21 and FY 2021-22 respectively.

Table 4-53: Working for opening GFA for Depreciation of FY 2020-21 and FY 2021-22

Particulars		FY 2020-21	FY 2021-22
Opening GFA	A	54,585.78	57,498.17
Add: Capitalisation approved in a year	В	4,485.48	3,909.01
Less: Consumer Contribution and grants*	С	1,486.09	1,930.68
Less: De-capitalisation of assets	D	87.00	606.73
Closing GFA	E = A+B-C- D	57,498.17	58,869.77

^{*(}Excluded for the purpose of depreciation computation as per Regulations)

4.10.6 Based on the GFA addition during the year after deducting consumer contribution and grants and decapitalization of assets, the Commission has computed depreciation in proportion to actual depreciation claimed by MSEDCL as per regulatory provisions. The composite weighted average rate of depreciation is 4.77% and 4.99% for FY 2020-

21 and FY 2021-22 respectively. Accordingly, the depreciation approved for FY 2020-21 and FY 2021-22 is as follows:

Table 4-54: Summary of Depreciation for FY 2020-21 and FY 2021-22 (Rs. crore)

	FY 2020-21			FY 2021-22		
Particular	MYT Order	MTR Petition	Approved in this order	MYT Order	MTR Petition	Approved in this order
Depreciation	2,817.91	2,654.18	2,651.95	2,963.97	2,880.50	2,871.95

4.10.7 Thus, the Commission approves depreciation of Rs. 2,651.95 Crores and Rs. 2,871.95 Crores for FY 2020-21 and FY 2021-22 respectively.

4.11 Funding Pattern for FY 2020-21 and FY 2021-22

MSEDCL's Submission

- 4.11.1 MSEDCL has submitted that 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 deployed is more than 30% of the capital cost, equity more than 30% shall be treated as normative loan for the Licensee for determination of Tariff.
- 4.11.2 MSEDCL has submitted that the funding pattern for FY 2020-21 for the capitalization achieved by MSEDCL, in proportion to the funding pattern of capital Expenditure, is presented in the following table:

Table 4-55: Funding Pattern of Capitalization as submitted by MSEDCL for FY 2020-21 and FY 2021-22 (Rs. crore)

	FY 2020-2	21	FY 2021-22		
Particulars	Amount (Rs Crore)	Funding Mix (%)	Amount (Rs Crore)	Funding Mix (%)	
Total Capitalisation	4,492.36		3,442.01		
Less: Consumer Contribution	367.83		740.83		
Less: Grants	1,120.54		959.20		
Balance to be funded	3,003.99		1,741.98		
Equity	1,594.56	53%	445.97	25.60%	
Debt	1,409.42	47%	1,296.01	74.40%	
Normative Equity	901.20	30%	445.97	26%	
Normative Debt	2,102.79	70%	1,296.01	74%	

Commission's Analysis and Rulings

4.11.3 The Commission has ensured debt equity ratio is 70:30 and that equity is not claimed more than 30%, in the event of which the equity in excess of 30% shall be considered

as normative loan. The funding pattern for FY 2020-21 and FY 2021-22 for the capitalisation is approved by the Commission, in proportion to the funding pattern of capital expenditure adopted by MSEDCL and considering the approved capitalisation for the respective year. The approved funding pattern is presented in the following table:

Table 4-56: Funding of Capitalisation approved by Commission for FY 2020-21 and FY 2021-22

	FY 2020-21		FY 202	21-22
Particulars	Amount (Rs Crore)	Funding Mix (%)	Amount (Rs Crore)	Funding Mix (%)
Total Capitalisation	4,485.48		3,909.01	
Less: Consumer Contribution	367.27		841.34	
Less: Grants	1,118.83		1,089.34	
Balance to be funded	2,999.39		1,978.33	
Equity	1,592.12	53%	506.48	25.60%
Debt	1,407.27	47%	1,471.85	74.40%
Normative Equity	899.82	30%	593.50	30%
Normative Debt	2,099.57	70%	1,384.83	70%

4.11.4 The Commission has approved debt: equity as per regulatory provisions in the ratio of 70:30.

4.12 Interest Expenses for FY 2020-21 and FY 2021-22

- 4.12.1 MSEDCL has submitted that the computation of interest expenses has been done on a normative basis linked to normative opening loan and normative loan addition during the year.
- 4.12.2 MSEDCL submitted that the Regulation 30.5 of the MYT Regulation, 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. Accordingly, for arriving at the interest rate, MSEDCL has considered the weighted average interest rate of actual loan portfolio of FY 2020-21 and FY2021-22. The computation of weighted average interest rate of actual loan portfolio is shown in following table:

Table 4-57: Computation of weighted average interest rate for FY 2020-21 and FY 2021-22 (In Crores)

Particular	Formula	FY 2020-21	FY 2021-22
Outstanding Loan at the start of the		16,695.90	15,153.57
year	a	10,075.70	15,155.57
Loan drawl during the year	b	1,172.23	1,269.47
Loan repayment during the year	c	2,714.58	2,717.74

Particular	Formula	FY 2020-21	FY 2021-22
Balance outstanding at the end of the year	d = a+b-c	15 ,153.56	13,705.30
Average Loan of the year	e = Avg(a,d)	15,924.73	14,429.43
Interest Expense incurred during the year	f	1,589.88	1,421.22
Weighted Average Interest rate	g=f/e	9.98%	9.85%

- 4.12.3 MSEDCL has submitted that Regulation 30.3 of the MERC MYT Regulations, 2019 provides for loan repayment during a year equal to depreciation allowed.
- 4.12.4 MSEDCL has considered that 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, MSEDCL has computed the interest expenses on normative basis as summarized in table below:

Table 4-58: Interest Expenses for FY 2020-21 and FY 2021-22 as submitted by MSEDCL

	FY 2020-21		FY 202	21-22
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition
Normative Outstanding Loan at beginning of the year	12,892.08	12,093.31	12,817.74	11,541.93
Loan drawn	2,743.57	2,102.79	2,157.12	1,296.01
Loan Repayment	2,817.91	2,654.18	2,963.97	2,880.50
Normative Balance outstanding at the end of the year	12,817.74	11,541.93	12,010.89	9,957.44
Average Balance of Net Normative Loan	12,854.91	11,817.62	12,414.31	10,749.68
Interest Rate	10.28%	9.98%	10.28%	9.85%
Interest Expenses	1,320.86	1,179.84	1,275.59	1,058.79

- 4.12.5 MSEDCL has submitted that the Commission had approved Funding of Capitalization based on the approved capitalization in the MYT Order dated 30th March 2020. However, actual capitalization is lower than the approved capitalization. The normative loan drawl is also lower than that approved in MYT Order.
- 4.12.6 MSEDCL has requested to approve the normative interest expenses as submitted in the computation above.

Commission's Analysis and Rulings

4.12.7 The Commission has allowed the interest expenses on normative basis linked to the normative opening loan and normative loan addition approved during the year. Further, for arriving at the interest rate, the Commission has considered the weighted average interest rate of actual loan portfolio during the FY 2020-21 and FY 2021-22 in

accordance with Regulation 30.5 of the MYT Regulations, 2019. Regulation 30.5 of MYT Regulations, 2019 is reproduced as below:

- "30.5 The rate of interest shall be the weighted average rate of interest computed on the basis of the actual 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 loan portfolio during the concerned year shall be considered as the rate of interest:"
- 4.12.8 The Commission has noted that, MSEDCL has submitted the opening and closing balance of loan from different banks. Accordingly, Summary of opening and closing balance of loan from different banks is shown in below table:

Table 4-59: Summary of opening and closing balance of loan from different banks

Particulars	FY 2020-21	FY 2021-22
PFC		
Opening Balance of Loan	2,496.26	2,051.54
Less: Reduction of Normative Loan due		
to retirement or replacement of assets		
Addition of Loan during the year	102.58	322.20
Loan Repayment during the year	547.30	955.11
Closing Balance of Loan	2,051.54	1,418.63
Average Loan Balance	2,273.90	1,735.08
Applicable Interest Rate (%)	10.14%	10.83%
Interest Expenses	230.62	187.98
REC		
Opening Balance of Loan	14,061.69	12,393.80
Less: Reduction of Normative Loan due		
to retirement or replacement of assets		
Addition of Loan during the year	497.45	364.88
Loan Repayment during the year	2,165.35	1,760.69
Closing Balance of Loan	12,393.79	10,997.99
Average Loan Balance	13,227.74	11,695.89
Applicable Interest Rate (%)	10.39%	9.95%
Interest Expenses	1,346.15	1,164.72
MIDC		
Opening Balance of Loan	123.52	123.52
Less: Reduction of Normative Loan due		
to retirement or replacement of assets		
Addition of Loan during the year	-	-
Loan Repayment during the year	-	-
Closing Balance of Loan	123.52	123.52
Average Loan Balance	123.52	123.52
Applicable Interest Rate (%)	_	_
Interest Expenses	_	_
Other Loan Punjab national bank		

Particulars	FY 2020-21	FY 2021-22
Opening Balance of Loan	-	572.20
Less: Reduction of Normative Loan due		
to retirement or replacement of assets	-	
Addition of Loan during the year	572.20	127.04
Loan Repayment during the year	1	-
Closing Balance of Loan	572.20	699.24
Average Loan Balance	286.10	635.72
Applicable Interest Rate (%)	7.90%	7.90%
Interest Expenses	11.71	51.02
Punjab National Bank		
Opening Balance of Loan		0.00
Less: Reduction of Normative Loan due		0.00
to retirement or replacement of assets		0.00
Addition of Loan during the year		455.35
Loan Repayment during the year		0.00
Closing Balance of Loan		455.35
Average Loan Balance		227.68
Applicable Interest Rate (%)		7.30%
Interest Expenses		16.31
GOM		
Opening Balance of Loan	14.43	12.50
Less: Reduction of Normative Loan due		
to retirement or replacement of assets	-	
Addition of Loan during the year	-	-
Loan Repayment during the year	1.93	1.93
Closing Balance of Loan	12.50	10.57
Average Loan Balance	13.47	11.54
Applicable Interest Rate (%)	10.50%	10.50%
Interest Expenses	1.41	1.19
Total		
Opening Balance of Loan	16,695.90	15,153.57
Less: Reduction of Normative Loan due		
to retirement or replacement of assets	1	-
Addition of Loan during the year	1,172.23	1,269.47
Loan Repayment during the year	2,714.58	2,717.74
Closing Balance of Loan	15,153.56	13,705.30
Average Loan Balance	15,924.73	14,429.43
Applicable Interest Rate (%)	9.98%	9.85%
Interest Expenses	1,589.88	1,421.22

4.12.9 The Commission has computed interest expenses as shown in following table:

Table 4-60: Interest Expenses approved by the Commission for FY 2020-21 and FY 2021-22 (Rs. Crore)

		FY 2020-21	2020-21 FY 2021-22			
Particular	MYT Order	MTR Petition	Approved in this order	MYT Order	MTR Petition	Approved in this order
Opening Balance of Net Normative Loan	12,892.08	12,093.87	12,275.37	12,817.74	11,542.48	11,722.99
Addition of Normative Loan due to capitalisation	2,743.57	2,102.79	2,099.57	2,157.12	1,296.01	1,384.83
Repayment of Normative Loan	2,817.91	2,654.18	2,651.95	2,963.97	2,880.50	2,871.95
Closing Balance of Net Normative Loan	12,817.74	11,542.48	11,722.99	12,010.89	9,957.99	10,235.87
Average Balance of Net Normative Loan	12,854.91	11,818.17	11,999.18	12,414.31	10,750.24	10,979.43
Weighted average Rate of Interest on actual Loans (%)	10.28%	9.98%	9.98%	10.28%	9.85%	9.85%
Interest Expenses	1,320.86	1,179.89	1,197.96	1,275.59	1,058.84	1,081.42
Total Interest Expenses	1,320.86	1,179.89	1,197.96	1,275.59	1,058.84	1,081.42

4.12.10 Thus, the Commission approves Interest on Loan Capital of Rs. 1,197.96 Crores and Rs. 1,081.42 Crores for FY 2020-21 and FY 2021-22 respectively.

4.13 Return On Equity for FY 2020-21 and FY 2021-22

- 4.13.1 MSEDCL has submitted that Regulation 29 of the MYT Regulations, 2019, provides for Return on Equity (RoE) for Distribution Licensee for both Wire and Supply Business.
- 4.13.2 MSEDCL has submitted that 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 are divided into wires and supply business in the ratio of 90:10.
- 4.13.3 MSEDCL has not paid any income tax for FY 2020-21 and FY 2021-22. 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 4-61: RoE for Wires Business for FY 2020-21 and FY 2021-22 as per MSEDCL (Rs. crore)

	FY 20	20-21	FY 2021-22	
Particulars	MYT	MTR	MYT	MTR
	Order	Petition	Order	Petition
Return on Equity (Wires Business)				

	FY 20	20-21	FY 2021-22	
Particulars	MYT	MTR	MYT	MTR
	Order	Petition	Order	Petition
Regulatory Equity at the beginning of	10,848.5	11,153.9	11,297.95	11,965.0
year	7	5	11,297.93	3
Equity portion of Assets Capitalisation	449.38	811.08	449.38	401.37
Equity portion of Assets De-capitalised			-	-
Regulatory Equity at the end of the year	11,297.9	11,965.0	11,747.33	12,366.4
	5	3	11,747.33	0
Return on Computation				
Return on Regulatory Equity at the	1,8430.3	1,561.55	1,916.53	1,675.10
beginning of the year - 14%*(1)	0	1,301.33	1,910.33	1,073.10
Return on Normative Equity portion of Asset Capitalization - 14%*(2)/2	38.12	56.78	38.12	28.10
Interest on Equity portion above 30%				
equity				
Total Return on Regulatory Equity	1,878.42	1,618.33	1,954.65	1,703.20

Table 4-62: Additional RoE (Wires) for FY 2020-21 and FY 2021-22 (Rs. crore)

Particulars		FY 2020-21	FY 2021-22
Wires Availability above 98% (95% for MSEDCL)	%	98.95	97.47
Additional Rate of RoE for Wire Availability (a) (%)	%	1.50%	1.50%
Additional RoE Computation			
Return on Regulatory Equity at the beginning of the year	Rs. Crore	167.31	179.48
Return on Regulatory Equity addition during the year	Rs. Crore	6.08	3.01
Total Additional Return on Equity	Rs. Crore	173.39	182.49

4.13.4 The RoE for the Retail Supply Business as submitted by MSEDCL for FY 2020-21 and FY 2021-22 is as under:

Table 4-63: RoE for Supply Business for FY 2020-21 and FY 2021-22 as per MSEDCL (Rs. Crore)

	FY 202	0-21	FY 2018-19	
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition
RoE (Supply Business)				
Regulatory Equity at the beginning of year	1,206	1,240	1,256	1,330
Equity portion of Assets Capitalisation	50	90	50	45
Equity portion of Assets Decapitalised			1	-

	FY 202	0-21	FY 2018-19		
Particulars Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition	
Regulatory Equity at the end of the year	1,256	1,330	1,306	1,374	
Return on Computation					
Return on Regulatory Equity at the beginning of the year - 15.5% *(1)	226.47	192.17	235.85	206.13	
Return on Normative Equity portion of Asset Capitalization - 15.5%*(2)/2	4.69	6.98	4.69	3.46	
Interest on Equity portion above 30%					
Total Return on Regulatory Equity	231.16	199.15	240.54	209.59	

Table 4-64: Additional RoE (Supply Business) claimed by MSEDCL for FY 2020-21 and FY 2021-22 (Rs. crore)

Particulars		FY 2020-21	FY 2021-22
% of Assessed bills with respect total bills issued	%	28.88%	12.02%
during the year			
Additional Rate of RoE for Assessment of bills (a)	%	0.00%	1.00%
Collection Efficiency for the year	%	93.58	99.12
Additional Rate of Return for collection efficiency	%	0.00%	1.00%
(b)			
Total Additional Return on Equity $(c) = (a) + (b)$	%		2.00%
Additional RoE Computation			
Return on Regulatory Equity at the beginning of	Rs.		26.60
year	Crore		
Return on Regulatory Equity addition during the	Rs.		0.45
year	Crore		
Total Additional RoE	Rs.		27.04
	Crore		

4.13.5 MSEDCL has requested to approve the computation of RoE for wires and retail supply business as submitted in the table above.

Commission's Analysis and Rulings

- 4.13.6 The approved opening equity for FY 2020-21 is considered at Rs. 11,150.68 Crores and Rs. 1,239.41 Crores for wire and supply business respectively. Similarly, the approved opening equity for FY 2021-22 is Rs. 11,960.52 Crores and Rs. 1,339.39 Crores for wire and supply business respectively.
- 4.13.7 The Commission has approved the funding pattern based on the approved capitalisation for FY 2020-21 and FY 2021-22, as discussed in the earlier Section on interest expenses.

- 4.13.8 The Commission notes that MSEDCL has not paid Income tax in FY 2020-21 and FY 2021-22 and hence issue of grossing up of RoE with effective tax rate as envisaged in MYT Regulations 2019 does not arise.
- 4.13.9 The RoE approved for the purpose of truing up of FY 2020-21 and FY 2021-22 is as follows:

Table 4-65: RoE (Wires) for FY 2020-21 and FY 2021-22 approved by Commission (Rs. Crore)

Particulars	%	FY 2020-21	FY 2021-22
Equity at the beginning of the year		11,150.68	11,960.52
Equity portion of Assets Capitalization		809.83	455.83
Reduction in Equity Capital on account of			177
retirement / replacement of assets*			1//
Equity at the end of the year		11,960.52	12,239.34
Return on Computation			
RoE at the beginning of the year -@14.00%	14.00%	1,561.10	1,674.47
Return on Normative Equity portion of			
Asset	7.00%	56.69	31.91
Capitalization - @14.00%/2			
Total Return on Equity		1,617.78	1,706.38

^{(*}Reduction in equity capital on account of retirement of old fixed asset of Rs. 590 Crore submitted by MSEDCL in MTR format of capitalisation towards non-DPR scheme is treated in return on equity as per the Regulation 27.2 of MYT regulations, 2019)

4.13.10 As per MYT Regulations 2019, additional RoE shall be approved at the time of truing up of 1.5% for Distribution wire business on achieving wire availability of 95% (for MSEDCL). MSEDCL has claimed wire availability of 98.95% and 97.47% for FY 2020-21 and FY 2021-22 respectively. It is to be noted that, although MSEDCL has claimed wire availability of 98.95% and 97.47% for FY 2020-21 and FY 2021-22, several comments and objections were received in public consultation procedure regarding power quality and supply across the State as regards quality of power supply, performance on reliability indices and availability as such. It is important to ascertain performance for such important performance parameters through proper measurement of interruptions and devise procedure for automated recording of the supply availability and reliability indices thereof. With deployment of smart meters, such measurements and reporting would be readily available for verification of supply availability claims and entitlement of additional RoE thereon. Until such mechanism is put in place, the Commission has not considered the claim of additional RoE for true up years as of now. However, the Commission hereby directs MSEDCL 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. Upon scrutiny and prudence check of such submissions, the Commission may allow MSEDCL additional claim of RoE for FY 2020-21 and FY 2021-22 along with carrying cost.

- 4.13.11In view of above, the Commission has not allowed additional RoE to MSEDCL at this stage.
- 4.13.12 The RoE of supply business for the purpose of truing up of FY 2020-21 and FY 2021-22 is as follows:

Table 4-66: RoE (Supply) for FY 2020-21 and FY 2021-22 approved by Commission (Rs. Crore)

Particulars	%	FY 2020-21	FY 2021-22
Equity at the beginning of the year		1,239.41	1,329.39
Equity portion of Assets Capitalization		89.98	50.65
Equity at the end of the year		1,329.39	1,380.04
Return on Computation			
RoE at the beginning of the year - @15.50%	15.50%	192.11	206.06
Return on Normative Equity portion of			
Asset	7.75%	6.97	3.93
Capitalization - @15.5%/2			
Total Return on Equity		199.08	209.98

4.13.13 The Commission has noted submission of additional RoE claimed by MSEDCL for supply business based on collection efficiency and billing efficiency for FY 2021-22. MSEDCL has not claimed additional RoE for supply business for FY 2020-21 due to lower collection efficiency achieved. The Commission has done prudence check of collection efficiency and billing efficiency claimed by MSEDCL for FY 2021-22. Accordingly, the additional RoE of supply business approved by the Commission for FY 2020-21 and FY 2021-22 is as follows:

Table 4-67: Additional RoE (Supply Business) approved by the Commission for FY 2021-22 (Rs. Crore)

Particulars		FY 2021-22
% of Assessed bills with respect total bills issued during	%	12.02%
the year		
Additional Rate of RoE for Assessment of bills (a)	%	1.00%
Collection Efficiency for the year	%	99.12
Additional Rate of Return for collection efficiency (b)	%	1.00%
Total Additional Return on Equity $(c) = (a) + (b)$	%	2.00%
Additional RoE Computation		
Return on Regulatory Equity at the beginning of the year	Rs. Crore	26.59
Return on Regulatory Equity addition during the year	Rs. Crore	0.51
Total Additional RoE	Rs. Crore	27.09

Table 4-68: RoE approved by Commission for FY 2020-21 and FY 2021-22 (Wires+Supply) (Rs. Crore)

	FY 2020-21				FY 2021-22	2
Particulars	MYT Order	MTR Petition	Approved in this Order	MYT Order	MTR Petition	Approved in this Order
RoE for Wires Business	1,878.42	1,791.72	1,617.78	1,954.65	1,885.69	1,706.38
RoE for Retail Supply Business	231.19	199.15	199.08	240.54	236.63	237.08
Total Return on Equity	2,109.61	1,990.87	1,816.87	2,195.19	2,122.32	1,943.46

4.13.14 Thus, the Commission approves RoE of Rs. 1,816.87 Crore and Rs. 1,943.46 Crore for FY 2020-21 and FY 2021-22 respectively.

4.14 Interest on Working Capital & Interest for FY 2020-21 and FY 2021-22

- 4.14.1 MSEDCL has submitted 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 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.
- 4.14.2 MSEDCL submitted that from the month of March 2020 onwards, MSEDCL revenue collection was badly hampered due to lockdown situations. Also, the moratorium given by the Commission and relaxation given in Contract Demand revision for Industrial and Commercial (HT and LT) consumers further worsened the revenue recovery of the MSEDCL. Further, actual sales of subsidizing categories decreased, and the sales of the subsidized category have increased. Further, lower recovery from agricultural consumers which account to almost 30% of total sales of the MSEDCL coupled with lower recovery from public water works and street-light consumers has also worsened the financial situation.
- 4.14.3 MSEDCL submitted that COVID-19 and the resultant situation was prevailed for the whole of FY 2020-21. While partial unlock has taken place in phased manner, the complete normalization of business is yet to happen. Hence, the adverse financial impact due to lower sales of subsidizing category consumers continued in FY 2020-21.
- 4.14.4 The Interest on Working Capital (IoWC) and Interest on Security Deposit as submitted by MSEDCL for FY 2020-21 and FY 2021-22 is provided in the Table below:

Table 4-69: IoWC and Security Deposit for Wires Business for FY 2020-21 and FY 2021-22 as submitted by MSEDCL (Rs. crore)

	FY 20	20-21	FY 20	21-22
Particulars	MYT	MTR	MYT	MTR
	Order	Petition	Order	Petition
Computation of Working				
Capital				
O&M expenses for a month	370.76	406.15	384.98	430.61
Maintenance Spares at 1% of Opening GFA	567.22	511.66	615.69	552.40
1.5 months of expected revenue from charges for use of Distribution wires	1,377.42	1,323.63	1,374.84	1,371.32
Less: Amount held as SD from Distribution System Users	(831.67)	(852.54)	(873.25)	(906.31)
Total Working Capital	1,483.74	1,388.90	1,502.25	1,448.02
Requirement	1,403.74	1,300.90	1,302.23	1,440.02
Rate of Interest (% p.a.)	9.50%	8.57%	9.50%	8.50%
Interest on Working Capital	140.96	119.06	142.71	123.08
Actual Working Capital Interest		244.11		238.50
Interest on Security Deposit				
Rate of Interest (% p.a.)	6.50%	3.32%	6.50%	3.98%
Interest on Security Deposit	54.06	28.27	56.76	36.04

- 4.14.5 MSEDCL has submitted that the IoWC for Retail Supply business is computed as per Regulation 32.4 of MYT Regulation, 2019.
- 4.14.6 MSEDCL has calculated the IoWC as 8.57% and 8.50% computed above and paid interest on security deposit at 4.65% and 4.25% for FY 2020-21 and FY 2021-22 respectively. The IoWC and interest on amount held as security deposit from consumers for retail supply business computed by MSEDCL for FY 2020-21 and FY 2021-22 is provided in the table below:

Table 4-70: IoWC and Consumers' Security Deposit for Supply Business for FY 2020-21 and FY 2021-22 as per MSEDCL (Rs. crore)

	FY 2	020-21	FY 2021-22	
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition
O&M expenses for a month	199.64	218.69	207.30	231.87
Maintenance Spares at 1% of Opening GFA	63.02	56.85	68.41	61.38
1.5 months equivalent of the expected revenue from sale of electricity at the prevailing Tariff and including revenue from CSS and Additional Surcharge	9,734.33	9,305.54	10,102.93	10,980.02

	FY 2	020-21	FY 2021-22	
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition
Less: Amount held as security deposit	(7,485.02)	(7,672.82)	(7,859.27)	(8,156.79)
Less: One month equivalent of cost of Power Purchase, Transmission and MSLDC Charges	(5,960.70)	(5,167.08)	(5,853.95)	(6,288.05)
Total Working Capital Requirement	(3,448.72)	(3,258.82)	(3,334.58)	(3,171.57)
Rate of Interest (% p.a.)	9.50%	8.57%	9.50%	8.50%
Interest on Working Capital	-	-	-	-
Actual Working Capital Interest		2,197.01		2,146.49
Interest on Security Deposit				
Rate of Interest (% p.a.)	6.50%	3.32%	6.50%	3.98%
Interest on Security Deposit	486.53	254.43	510.85	324.34

Commission's Analysis and Ruling FY 2020-21:

- 4.14.7 The Commission analysed the submission of MSEDCL on working capital for FY 2020-21 and FY 2021-22 in admitted petition.
- 4.14.8 The Commission further notes that MSEDCL vide its letter dated 17 March 2023 made additional submission regarding requirement of IoWC for FY 2020-21. In the additional submission MSEDCL submitted the key issues on working capital requirement as summarized below.
- 4.14.9 MSEDCL has submitted that the Commission vide its Order 60 of 2022 dated 3 November 2022 allowed MSEDCL to withdraw the petition with liberty to raise the issue of working capital requirement in COVID-19 pandemic in MTR Petition. MSEDCL has submitted that due to COVID-19 pandemic, variation on amount of interest of working capital was beyond control of MSEDCL. This has been recorded by the Commission in MYT Order dated 30 March, 2020 in Case No. 322 of 2019. Therefore, no sharing of gains/losses on account of 'variation on amount of interest of working capital is done, as the same is treated as uncontrollable parameter.
- 4.14.10 Interest Cost of Revenue Shortfall: MSEDCL has submitted that, from the month of March 2020 onwards, its revenue collection was badly hampered due to lockdown situations. The actual revenue shortfall due to deferment of fixed charges and average billing during March 2020 to July 2020 comes to Rs. 2,054.31 Crs. Even though, the Commission directed the beneficiary consumers for the payment of deferred amount in the subsequent three billing cycles in equal interest free instalments, actual recovery has started only after January 2021. The shortfall in cash flows due to such delayed recoveries has been mitigated by availing additional Working Capital loans in the form of STL/MTL/BoE/WCDL. The interest cost of the revenue shortfall due to the Commission's directive comes to Rs. 147.27 Cr.

- 4.14.11 **Interest Burden due to poor collection:** The COVID-19 pandemic was one of the crises situations in which MSEDCL has worked as an extended arm to the State Government in its social responsibility. Since, the pandemic has hit hard to all the consumers and a large sector was financially affected due to shut down and layoffs, MSEDCL has to restrain itself from taking any coercive actions for recovery of the legitimate energy bills. Numerous regular paying consumers have defaulted during the pandemic period affecting the collection of seven months of the year. Due to lock down, collection centres were closed and only online payment option was available for the payment of energy bills affecting the offline collection. In view of such a force majeure condition, MSEDCL had to consider the delayed payments on humanitarian grounds. The Non-AG collection shortfall for first half of FY 2020-21 is Rs. 6,922.85 Cr. Interest on additional borrowing against shortfall in collection due to force majeure comes to Rs. 441.35 Cr.
- 4.14.12 In view of the above, MSEDCL has requested allow additional interest on working capital of Rs. 147.27 Cr. being interest cost of revenue shortfall to the MSEDCL due to the Commission's directives in wake of COVID-19 Pandemic situation and allow additional interest on working capital of Rs. 441.35 Cr. resulted on account of additional borrowings against shortfall in collection due to force majeure condition during the pandemic period. Accordingly, MSEDCL has claimed actual interest on working capital of Rs. 588.62 Crores for FY 2020-21.
- 4.14.13 Further MSEDCL has submitted that, the element of security deposit considered for calculation of normative working capital requirement as per the MYT Regulations is practically not available to meet out the genuine working capital requirement of the Company. As such, MSEDCL has requested to take the practical approach and allow the amount of interest on working capital as claimed.
- 4.14.14 Further, MSEDCL has submitted that, due to COVID-19 pandemic, variation on amount of interest on working capital was beyond control of MSEDCL. Therefore, no sharing of gains/losses on account of 'variation on amount of interest of working capital is done, as the same is treated as uncontrollable parameter. MSEDCL has requested the Commission to allow actual working capital requirement on account of COVID-19 during FY 2020-21 while dealing the present matter.
- 4.14.15 The Commission acknowledges the exceptional COVID-19 Pandemic situation and its impact on the review collection. Further MSEDCL was obliged to provide relief to the consumers from paying the monthly bills similar to normal condition. Accordingly, the Commission accepts the submission of MSEDCL and grant the relief by allowing the IoWC as requested by MSEDCL to that extent, which as per MSEDCL's estimate itself is Rs 588.62 Crore subject to prudence check.
- 4.14.16 However, the Commission is not inclined to accept the submission of MSEDCL to treat IoWC as un-controllable factor and not to consider for sharing of gains/losses. The Commission is allowing the IoWC as Rs. 588.62 Crore as per revised submission of

MSEDCL as an exceptional case for FY 2020-21 and considers the same for sharing of gain /losses over and above normative IoWC.

FY 2021-22:

- 4.14.17 For FY 2021-22, the Commission has sought MSEDCL to provide its computation of month-wise payment/receipts and month-wise working capital requirement. The Commission has considered the same for the purpose of computation of the IoWC considering continued situation of COVID-19 pandemic during FY2021-22 as against the normative working capital as per the provisions of the MYT Regulations. However, the interest rate for working capital has been considered linked to SBI MCLR as per provisions of MYT Regulations. Accordingly, the Commission has worked out IoWC and interest on security deposit on normative basis as specified under MYT Regulations, 2019 for computation of sharing of gains/losses for IoWC.
- 4.14.18 The Commission verified the actual Interest on Working Capital for FY 2021-22 from the restated audited accounts of MSEDCL and variation in figures was observed. Since the actual IoWC expense submitted by MSEDCL of Rs. 2,384.99 Crore (wires + supply business) in FY 2021-22 did not match the Audited Accounts, the Commission sought month wise working capital requirement. In reply to data gaps MSEDCL provided the month wise requirement of working capital and the Commission has computed actual IoWC expenses of Rs. 891.90 Crore (wires + supply business) for FY 2021-22 based on month wise working capital requirement submitted by MSEDCL in replies to data gaps.
- 4.14.19 Regulation 32.6 of MYT Regulations, 2019 specifies that the contribution of delay in receipt of payment to the actual interest on working capital shall be deducted from the actual interest on working capital, before sharing of the efficiency gain or efficiency loss. The relevant Regulations is reproduced as following:
 - "32.6 For the purpose of Truing-up for each year, the variation between the normative interest on working capital computed at the time of Truing-up and the actual interest on working capital incurred by the Generating Company or Licensee or MSLDC, substantiated by documentary evidence, shall be considered as an efficiency gain or efficiency loss, as the case may be, on account of controllable factors, and shared between it and the respective Beneficiary or consumer as the case may be, in accordance with Regulation 11:
 - Provided that the contribution of delay in receipt of payment to the actual interest on working capital shall be deducted from the actual interest on working capital, before sharing of the efficiency gain or efficiency loss, as the case may be."
- 4.14.20 Accordingly, the Commission has applied the above provisions of the Regulations for FY 2020-21 and FY 2021-22. The Commission has reduced IOWC by the amount of contribution of interest on actual delay payment charges for FY 2020-21 and FY 2021-22. Thus, the net actual IoWC works out to Rs. 560.80 Crores and Rs. 864.76 Crore for

- FY 2020-21 and FY 2021-22 respectively. This amount of net IoWC has been considered for the purpose of sharing of gains and losses on account of IoWC.
- 4.14.21 Under the MYT Regulations, 2019, IoWC expense is a controllable parameter, and any difference between the actual and the approved IoWC should be considered as efficiency gain or efficiency loss to be shared among MSEDCL and consumers in accordance with Regulations. The efficiency loss to the extent of the difference between the actual IoWC as per the Audited Accounts and that allowed on normative basis for FY 2020-21 and FY 2021-22 has been shared accordingly. The subsequent sections detailed the sharing of gains/losses.

Normative computation of IoWC for FY 2020-21 and FY 2021-22

- 4.14.22The Commission has reworked the IoWC in accordance with the norms specified in the MYT Regulations, 2019 and based on the parameters such as O&M Expenses, Wires ARR and Supply ARR approved in this Order.
- 4.14.236.14.10The Commission computed IoWC for Wire Business as per Regulation 32.3 of MERC MYT Regulations, 2019 which states that the interest rate on working capital shall be equal to Base rate on the date at which the petition is filed plus 150 basis points. The relevant extract of the said regulations is provided below:

"Distribution Wires Business

- (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:

Retail Supply of Electricity

- (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;"
- 4.14.24 As per the Regulation 32 of the MYT Regulations 2019, the Commission has allowed the interest on the amount of security deposit for the year on the basis of the actual interest paid by the Licensee. The Commission has reworked the IoWC in accordance with the Regulation 32 of MYT Regulations, 2019 norms and based on actual parameters such as the O&M Expenses, Wires ARR and Supply ARR approved in this Order for truing up.
- 4.14.25 It is to be noted that, as per MERC ((Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2021, the distribution licensees shall collect security deposit as per the following provision of regulations:
 - "13.1 Subject to the provisions of sub-section (5) of Section 47 of the Act, the Distribution Licensee may require any person to whom supply of electricity has been sanctioned to deposit a security in accordance with the provisions of clause of subsection (1) of Section 47 of the Act.
 - 13.2 The amount of the security referred to in Regulation 13.1 above shall be twice the average billing of the billing cycle period. For the purpose of determining the average billing under this Regulation 13.2, the average of the billing to the Consumer for the last Twelve (12) months, or in cases where supply has been provided for a shorter period, the average of the billing of such shorter period, shall be considered:

Provided that for Consumers having quarterly billing cycle, amount of the security shall be 1.5 times the average billing of the billing cycle period:

Provided further that in the case of seasonal Consumers, the billing for the season for which supply is provided shall be used to calculate the average billing for the purpose of this Regulation 13.2:

Provided further that in case of installation of pre-paid meters, the security deposit shall not be collected by the Distribution Licensee and that the Consumer shall be eligible for a rebate/incentive as approved by the Commission for making the pre-payment."

4.14.26 In line with the above provisions, MSEDCL shall collect security deposit as twice of average billing of the billing cycle period and 1.5 times of average billing cycle of the billing cycle period from AG consumers having quarterly billing cycle. It seems that, the current security deposit amount claimed by MSEDCL is lower for FY 2021-22 although MERC ((Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2021 is made effective from 25 February, 2021. The Commission has approved the security deposit for FY 2021-22 according to security deposit claimed by MSEDCL and reconciliation from

audited accounts. MSEDCL is directed to collect security deposit as per MERC ((Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2021 from FY 2023-24 onwards.

Table 4-71: IoWC and Security Deposit for Wires Business as approved by Commission for FY 2020-21 and FY 2021-22 (Rs. Crore)

	FY 20	20-21	FY 2021-22	
Particulars	MTR Petition	Approved in this order	MTR Petition	Approved in this order
O&M expenses for a month	406.15	399.60	430.61	423.74
Maintenance Spares at 1% of Opening GFA	511.66	491.27	552.40	517.48
One and half months equivalent of the expected revenue from sale of electricity including revenue from CSS and Additional Surcharge	1,323.63	1,259.51	1,371.32	1,319.94
Less: Amount of Security Deposit	(852.54)	(853.10)	(906.31)	(906)
Total Working Capital Requirement	1,388.90	1,297.28	1,448.02	1,354.85
Rate of Interest (%) = SBI Base Rate + 150 basis points	8.57%	8.57%	8.50%	8.50%
Interest on Working Capital	119.06	111.21	123.08	115.16
Actual interest on working capital	244.11	58.86	238.50	89.19
Interest on Security Deposit				
Rate of Interest (%) at Bank Rate	3.32%	3.31%	3.98%	3.98%
Interest on Security Deposit	28.27	28.23	36.04	36.04

Table 4-72: IoWC and Consumers' Security Deposit for Supply Business as approved by Commission for FY 2020-21 and FY 2021-22 (Rs Crore)

	FY 20)20-21	FY 2021-22		
Particulars	MTR Petition	Approved in this order	MTR Petition	Approved in this order	
O&M expenses for a month	218.69	215.17	231.87	228.17	
Maintenance Spares at 1% of Opening GFA	56.85	54.59	61.38	57.50	
One and half months equivalent of the expected revenue from sale of electricity including revenue from CSS and Additional Surcharge	9,305.54	9,305.54	10,980.02	10,980.02	
Less: Amount of Security Deposit	(7,672.82)	(7,677.92)	(8,156.79)	(8,157)	
Less: One month equivalent of cost of power purchase, Transmission Charges and MSLDC Charges	(5,167.08)	(5,165.76)	(6,288.05)	(6,274.00)	
Total Working Capital Requirement	(3,258.82)	(3,268.40)	(3,171.57)	(3,165.11)	
Rate of Interest (%) = SBI Base Rate + 150 basis points	8.57%	8.57%	8.50%	8.50%	

	FY 20)20-21	FY 2021-22	
Particulars	MTR Petition	Approved in this order	MTR Petition	Approved in this order
Interest on Working Capital	-		-	
Actual Interest on Working Capital	2,197.01	529.76	2,146.49	802.71
Interest on Security Deposit				
Rate of Interest (%) = at Bank Rate	3.32%	3.31%	3.98%	3.98%
Interest on Security Deposit	254.43	254.03	324.34	324.34

4.14.27 The IoWC and the Interest on Security Deposits from Consumers and Distribution System Users approved for FY 2020-21 and FY 2021-22 is as follows:

Table 4-73: IoWC as approved by Commission FY 2020-21 and FY 2021-22 (Wires+Supply) (Rs. Crore)

	FY 2020-21			FY 2021-22			
Particulars	MYT Order	MTR Petition	Approved in this order	MYT Order	MTR Petition	Approved in this order	
IoWC (Wire)	140.96	244.11	111.21	142.71	123.08	115.16	
IoWC (Supply)	-	2,197.01	-	1	1	-	
IoWC (Wire + Supply)	140.96	2,441.12	111.21	142.71	123.08	115.16	

Table 4-74: Interest on Security Deposit as approved by Commission FY 2020-21 and FY 2021-22 (Wires+Supply) (Rs. Crore)

	FY 2020-21			FY 2021-22			
Particulars	MYT Order	MTR Petition	Approved in this order	MYT Order	MTR Petition	Approved in this order	
Interest on CSD (Wire)	54.06	28.27	28.23	56.76	36.04	36.04	
Interest on CSD (Supply)	486.53	254.43	254.02	510.85	324.34	324.34	
Interest on CSD (Wire + Supply)	540.58	282.70	282.25	567.61	360.38	360.38	

4.14.28 Accordingly, the Commission approves IoWC of Rs. 111.21 Crores and Rs. 115.16 Crores for FY 2020-21 and FY 2021-22 respectively. Further, the commission approves Rs. 282.25 Crores and Rs. 360.38 Crores interest on security deposit for FY 2020-21 and FY 2021-22 respectively.

4.15 Other Finance Charges for FY 2020-21 and FY 2021-22

MSEDCL's Submission

4.15.1 MSEDCL submitted that the Regulation 30.8 of the MYT Regulations, 2019 provides that the finance charges shall be allowed at the time of True-up.

4.15.2 MSEDCL submitted that it has incurred Other Finance Charges amounting to Rs.32.19 Crores in FY 2020-21 and Rs. 45.47 Crore in FY 2021-22 under the headers of Guarantee charges, finance charges, stamp duty and service fee for which the details were submitted as following.:

Table 4-75: Other Finance Charges for FY 2020-21 and FY 2021-22 as per MSEDCL (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22
Guarantee Charges	20.83	20.93
Finance Charges	6.62	8.72
Stamp Duty	2.21	0.07
Service Fee i.e. Fund raising charges	2.53	15.76
Total Other Finance Charges	32.19	45.47

4.15.3 MSEDCL has further submitted that these charges depend on number of loans, LC required to be given to power suppliers, documentation for availing long term and working capital loans. It has hence claimed that these charges are beyond its reasonable control due to which MSEDCL requests commission to approve the charges on actual basis as provided in the Audited book of accounts.

Commission's Analysis and Ruling

- 4.15.4 The Commission has verified the other finance charges with the Audited Accounts and found it in order after reconciliation of Note 35 of audited statement provided by MSEDCL. Further, the commission has verified the finance charges breakup in replies to data gaps.
- 4.15.5 The Commission also analysed the past trends of other finance charges as percentage of closing GFA and find them in order with the current submission.

Table 4-76: Finance charge as a percentage of Closing Loan of Past years

Particulars	FY 2018-19	FY 2019-20
Other Finance Charges	26.11	22.08
Closing Loan	12,230.23	12,276.04
Other Finance Charge as % of Closing Loan	0.21%	0.18%

4.15.6 For FY 2020-21 and FY 2021-22, % of other finance charges w.r.t. closing loan balance is 0.27% and 0.44% respectively. Further, due to COVID-19 pandemic, utilities faced issues in financial arrangements and hence, loan borrowings increased. It results into increased finance charges and considering the same, the finance charges approved by the Commission for FY 2020-21 and FY 2021-22 are as below.

Table 4-77: Other Finance Charges for FY 2020-21 and FY 2021-22 as approved by Commission (Rs. Crore)

	FY 2020-21			FY 2021-22			
Particulars	MYT Order	in this		MYT Order	MTR Petition	Approved in this Order	
Other Finance Charges	-	32.19	32.19	-	45.47	45.47	

4.15.7 Thus, the Commission approves Rs 32.19 Crore and Rs. 45.47 Crore as Other Finance Charge for FY 2020-21 and FY 2021-22 respectively.

4.16 Provision for Bad Debts for FY 2020-21 and FY 2021-22

MSEDCL's Submission

- 4.16.1 MSEDCL has submitted that 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.
- 4.16.2 The amount written off towards bad debt as submitted by MSEDCL is Rs. 465.05 Crore for FY 2020-21 and Rs 459.62 Crore for FY 2021-22. MSEDCL has considered the provision for Bad and Doubtful Debts based on the audited receivables for FY 2020-21 and FY 2021-22 is given in the following table.

Table 4-78: Provision for Bad and Doubtful Debts for FY 2020-21 and FY 2021-22 as per MSEDCL (Rs. Crore)

	FY 20	20-21	FY 2021-22		
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition	
Opening Balance of provision for bad and doubtful debts	1	0.00	1	606.45	
Receivables	48,842.02	71,433.37	48,842.02	83,212.06	
Percentage of Receivables	1.50%	1.50%	1.50%	1.50%	
Provision for Bad and doubtful debts during the year.	732.63	1,071.50	732.63	1,248.18	
Actual bad and doubtful debts written off	732.63	465.05	732.63	459.62	
Closing Balance of Provision for bad and doubtful debts		606.45		1,395.02	
Closing balance as % of Receivables	0.00%	0.85%	0.00%	1.68%	

4.16.3 MSEDCL submitted that the above computed provision for Bad debts is further allocated between the wires business and retail supply business (in the ration of allocation matrix provided in the MYT Regulation, 2019), i.e 10% to wires business and 90% to supply business. Considering the allocation matrix as provided in the MYT

Regulations, 2019 the provision of bad and doubtful debts for wires and supply business computed by MSEDCL for FY 2020-21 and FY 2021-22 is as given below:

Table 4-79: Provision for bad and doubtful debt of wire and supply business for FY 2020-21 and FY 2021-22

	FY 20	20-21	FY 2021-22		
Particulars	MYT Order	Normative	MYT Order	Normative	
Bad debts provision for wires business	73.26	107.15	73.26	124.82	
Bad debt provision for retail supply business	659.37	964.35	659.37	1,123.36	
Bad Debt Provision	732.63	1,071.50	732.63	1,248.18	

4.16.4 MSEDCL has requested the Commission to approve the actual written off bad and doubtful debt as is Rs. 465.05 Crore for FY 2020-21 and Rs 459.62 Crore for FY 2021-22.

Commission's Analysis and Ruling

4.16.5 Regulation 76 and 85 of the MERC MYT Regulations, 2019 provides for the provision of bad and doubtful debts up to 1.5% of the amount shown as Trade Receivables or Receivables from Sale of Electricity excluding the provision made for unbilled revenue at the end of the year. The relevant extract of Regulation 76 and 85 of MYT Regulations, 2019 is provided below for reference purposes:

[Reg. 76, Wire Business]

"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:" [Reg. 76 for Wire Business]

[Reg. 85, Retail Supply Business]

"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 MERC 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:

- 4.16.6 The Commission has noted that MSEDCL has claimed Bad debt written off for FY 2020-21 and FY 2021-22.
- 4.16.7 Accordingly, the provision for Bad Debts derived based on bad and doubtful debts written off as per Note 20 of Audited Accounts. The Commission observed that as per Audited account Bad & doubtful debt written off is Rs 465.05 Crore and Rs 459.62 Crore for FY 2020-21 and FY 2021-22 respectively. Accordingly, the Commission has considered provision for Bad & doubtful debts for wires and supply business as Rs 465.05 Crore and FY 459.62 Crore for FY 2020-21 and 2021-22 as shown in table below.

Table 4-80: Summary of approved Provision for Bad Debts for FY 2020-21 and FY 2021-22 (Rs Crore)

	FY 2020-21			FY 2021-22		
Particular	MYT Order	MTR Petition	Approved in this Order	MYT Order	MTR Petition	Approved in this Order
Provision for Bad and Doubtful Debts	732.63	465.05	465.05	732.63	459.62	459.62

4.16.8 Thus, the Commission approves Rs 465.05 Crore and Rs 459.62 Crore for FY 2020-21 and FY 2021-22 towards Provision for Bad Debts.

4.17 Other Expenses for FY 2020-21 and FY 2021-22

- 4.17.1 MSEDCL has submitted that 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 tostaff and outsiders.
- 4.17.2 Accordingly, the details of other expenses as claimed by MSEDCL for the True-up years are as provided in the Table below:

Table 4-81: Other Expenses for FY 2020-21 and FY 2021-22 as submitted by MSEDCL (Rs. Crore)

	FY 20	20-21	FY 2021-22	
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition
Compensation for injuries, death to staff	1.32	0.61	1.39	1.99

	FY 20	20-21	FY 2021-22		
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition	
Compensation for injuries, death to others	15.98	11.08	16.78	16.03	
Loss on obsolescence of fixed Assets	1.72	-	1.81	-	
Sundry debit balances written off	1.90	0.34	1.99	6.42	
Non Moving Items	17.74	-	18.62	-	
Provision for Non Moving Items	-	15.69	-	90.79	
Other Sundry Expenses	8.13	74.95	8.54	198.01	
Incentive to Distribution Franchisee	-	2.47	-	0.64	
Interest to suppliers/Contractors*	-	0.23	-	0.03	
Other Interest and Charges	-	4.32	-	0.00	
Interest on security deposit on bill collection agency	-	0.02	-	3.73	
Other Expenses for previous years	-	3.81	6.08	-	
Provision against Court deposit (MM Cell)	-	0.17	-	205.49	
Write-off of WDV of scrapped assets	5.79		-	132.27	
TOTAL	52.58	113.70	55.21	655.40	

4.17.3 MSEDCL submitted that the amount under the head "interest to suppliers/contractor" as per the Audited Accounts included Delayed Payment Charges / Surcharge payable to MSPGCL, MSETCL, IPPs & Wind Generators for FY 2020-21 and FY 2021-22 and MSEDCL has not claimed the same.

Commission's Analysis and Ruling

- 4.17.4 MSEDCL submitted reconciliation of other expense from the audited accounts in response to a query raised. The Commission has verified the above Charges with the Audited Accounts.
- 4.17.5 In reply to data gaps, MSEDCL submitted the breakup of "Other Expenses" as per Note 37 of restated audited account.
- 4.17.6 Thus, the Commission has verified MSEDCL's submission with audited account. The Commission has done a prudence check on various heads under other expenses submitted by MSEDCL in petition and audited accounts. As per Note 37 of audited accounts, "Other Expenses" comprises only miscellaneous losses and sundry expenses. Other expenses are shown in Note 37 of Audited Account as Rs. 37.93 Crores and Rs. 455.51 Crores for FY 2020-21 and FY 2021-22. In MTR format of MSEDCL, there are multiple heads under other expenses which were not approved at the time of MYT Order. Further, MSEDCL's claim towards expenses such as Other Sundry Expenses, provision against court deposit, Write-off of WDV of scrapped assets and provision for non-moving items is higher resulting into higher claim of other expenses.

- 4.17.7 As the Commission considers audited accounts for truing up, the Commission approves other expenses based on audited accounts of FY 2020-21 and FY 2021-22.
- 4.17.8 Accordingly, Commission has approved the other expenses as shown in table below.

Table 4-82: Other Expenses for FY 2020-21 and FY 2021-22 as approved by the Commission (Rs. crore)

		FY 2020-	-21		FY 2021-	22
Particulars	MYT Order	MTR Petition	Approved in the Order	MYT Order	MTR Petition	Approved in the Order
Compensation for injuries, death to staff	1.32	0.61	-	1.39	1.99	-
Compensation for injuries, death to others	15.98	11.08	-	16.78	16.03	-
Loss on obsolescence of fixed Assets	1.72	-	1	1.81	-	-
Sundry debit balances written off	1.90	0.34	-	1.99	6.42	-
Non Moving Items	17.74	-	-	18.62	-	-
Provision for Non Moving Items	-	15.69	-	-	90.79	-
Other Sundry Expenses	8.13	74.95	9.08	8.54	198.01	215.02
Incentive to Distribution Franchisee	-	2.47	-	-	0.64	-
Interest to suppliers/Contractors*	-	0.23	-	-	0.03	-
Other Interest and Charges	-	4.32	-	-	0.00	-
Interest on security deposit on bill collection agency	-	0.02	-	-	3.73	-
Other Expenses for previous years	-	3.81	-	6.08	-	-
Provision against Court deposit (MM Cell)	-	0.17	-	-	205.49	-
Write-off of WDV of scrapped assets	5.79		-	-	132.27	-
Miscellaneous Losses	-	-	28.85	-	-	230.49
TOTAL	52.58	113.70	37.93	55.21	655.40	445.51

4.17.9 Thus, the Commission approved the Other Expenses to the extent of Rs. 37.93 Crore for FY 2020-21 and Rs 445.51 Crore for FY 2021-22

4.18 Contribution to Contingency Reserves for FY 2020-21 and FY 2021-22

- 4.18.1 MSEDCL has submitted 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.
- 4.18.2 MSEDCL has submitted that it is not getting full recovery of the revenue receivable from consumers. MSEDCL has managing its working capital requirement needby availing STL/MTL/LTL working capital loans from banks and financial institutions. As such MSEDCL can invest the amount of contingency reserve only if it gets sufficient quantum of loan from banks or financial institutions. MoP through its guidelines on additional prudential norms has restricted working capital borrowings @ 35% of the revenue which MSEDCL already crossed the same. Hence, MSEDCL is getting difficulties in availing loan and not able to invest the amount of contingency

- reserve. Secondly, MSEDCL's financials has been badly affected by the consequences of COVID-19 pandemic.
- 4.18.3 Considering the above difficulty and COVID-19 impact, it is requested to the Commission to consider positively and not to disallow contingency reserve amount and further provide relaxation from the last proviso to Regulations 35.1 of the MERC MYT Regulation, 2019.

Table 4-83: Contingency Reserve for FY 2020-21 and FY 2021-22 Submitted by MSEDCL (Rs. Crore)

	FY 20	20-21	FY 2021-22	
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition
Contribution to Contingency Reserve	157.56	157.56	171.02	171.02

4.18.4 MSEDCL has requested the Commission approve the contingency reserve contribution for FY 2020-21 and FY 2021-22 as submitted in the above table.

Commission's Analysis and Ruling

- 4.18.5 Regulation 36 of the MYT Regulations, 2019 provides for appropriation to the Contingency Reserve 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 amount is to be invested in securities authorized under the Indian Trusts Act, 1882 within six months of the close of the financial year.
- 4.18.6 The Commission noted the MSEDCL's claim of Rs 157.00 Crore and Rs 171.02 Crore towards contingency reserve for FY 2020-21 and FY 2021-22. The Commission has noted that MSEDCL was facing difficulties in availing loan due to COVID impact, so MSEDCL was not able to invest the amount in contingency reserve for FY 2020-21 and FY 2021-22. As no actual investment has been done by MSEDCL towards contingency reserve during FY 2020-21 and FY 2021-22, the Commission is not accepting the claim of MSEDCL for contingency reserves.

Table 4-84: Contingency Reserve Approved for FY 2020-21 and FY 2021-22 (Rs. Crore)

		FY 2020-2	1		FY 2021-22		
Particular	MYT Order	MTR Petition	Approved in this order	MYT Order	MTR Petition	Approved in this order	
Contribution to Contingency Reserves	157.56	157.56	-	171.02	171.02	-	

4.18.7 Thus, the Commission approves NIL amount towards Contribution to Contingency reserve for FY 2020-21 and FY 2021-22.

4.19 Income Tax for FY 2020-21 and FY 2021-22

- 4.19.1 MSEDCL has submitted Regulation 34 of the MYT Regulations, 2019 provides for Income Tax.
- 4.19.2 MSEDCL has submitted that it has not paid Income Tax in FY 2020-21 and in FY 2021-22, hence, it has not grossed up the Return on Equity by Income Tax.

Commission's Analysis

- 4.19.3 Regulation 34 of MYT Regulation, 2019 specifies the provision of Income Tax. The relevant extract of regulation is reproduced below:
 - "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 34.6:

Provided that no Income Tax shall be considered on the amount of efficiency gains and incentive approved by the Commission, irrespective of whether or not the amount of such efficiency gains and incentive are billed separately:"

Provided further that no Income Tax shall be considered on the amount of income from Delayed Payment Charges or Interest on Delayed Payment or Income from Other Business, as well as on the income from any source that has not been considered for computing the Aggregate Revenue Requirement:

- 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 effective tax rate of respective financial year.
- 34.3 The base 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 = Base rate of Return on Equity /(1-t), Where "t" is the effective tax rate
- 34.4 The effective tax rate shall be considered on the basis of actual tax paid in respect of financial year in line with the provisions of the relevant Finance Acts by the concerned Generating Company or Licensee or MSLDC, as the case may be:

- 34.6 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: Income Tax on any income stream from sources other than the Business regulated by the Commission shall not constitute a passthrough component in Tariff, and Income Tax on such other income shall be borne by the Generating Company or Licensee or MSLDC, as the case may be.
- 4.19.4 The Commission has noted that MSEDCL has not paid income tax in FY 2020-21 and FY 2021-22. Hence, it has not grossed up the return on equity by income tax.

4.19.5 In line with provisions of MYT Regulations, 2019 and as per submission of MSEDCL, the Commission has not considered any Income Tax for FY 2020-21 and FY 2021-22.

4.20 Incentive and Discounts for FY 2020-21 and FY 2021-22

MSEDCL's Submission

4.20.1 MSEDCL submitted that during FY 2020-21 and FY 2021-22, it has paid Rs.307.40 Crore and Rs. 367.37 Crore of incentives/discounts to the consumers for timely payment of bills as against Rs.322.38 Crore and Rs. 338.50 Crore, approved by in MYT Order dated 30 March 2020.

Table 4-85: Incentives and Discounts for FY 2020-21 and FY 2021-22 submitted by MSEDCL (Rs. crore)

	FY 20	20-21	FY 2021-22		
Particulars	MYT	MYT MTR		MTR	
	Ondon	Detition	Order	Petition	
	Order	Petition	Oruer	rennon	

4.20.2 MSEDCL has requested the Commission to approve the Incentives/discounts submitted as per the Audited book of accounts for FY 2020-21 and FY 2021-22 as above.

Commission's Analysis and Ruling

- 4.20.3 The Commission has observed the trend of Incentives and Discount for the past years. The approved Incentives and Discount for FY 2018-19 and FY 2019-20 is Rs. 287.38 Crore and Rs. 337.25 Crore, respectively, Thus, the present claim is in line with the past trends.
- 4.20.4 The Commission sought further break-up of "Incentives/Discounts" from MSEDCL and its reference in audited accounts. In reply to data gap, MSEDCL submitted that incentives/ discounts are booked under "prompt payment and incremental discount" in the audited accounts. Further it is submitted that this amount is deducted from 'Revenue from sale of power' as per Note 29 of restated audited accounts. The Commission has verified the incentive/discounts from the Audited Accounts, which is majorly the prompt payment discount, and taken the actuals as submitted by MSEDCL for FY 2020-21 and FY 2021-22.

Table 4-86: Incentives and Discounts approved by the Commission for FY 2020-21 and FY 2021-22 (Rs. crore)

	FY 2020-21			FY 2021-22		
Particulars	MYT Order	MTR Petition	Approved in this Order	MYT Order	MTR Petition	Approved in this Order
Incentives and Discounts	322.38	307.40	307.40	338.50	367.37	367.37

4.20.5 Thus, the Commission approves Rs 307.40 Crores and Rs 367.37 Crores for incentives/discounts in FY 2020-21 and FY 2021-22 respectively.

4.21 Additional Surcharge Refund for FY 2021-22

MSEDCL's Submission

- 4.21.1 MSEDCL has submitted that it has not made a refund of ASC for FY 2020-21.
- 4.21.2 MSEDCL has submitted that it has made a refund Rs 12.27 Crore of ASC for FY 2021-22. and has requested the Commission to allow the ASC refund as per the Audited Book of Accounts.
- 4.21.3 MSEDCL has submitted that Hon'ble Commission vide MTR Order dated 12th September 2018 in Case No. 195 of 2017 determined the Additional Surcharge (ASC) for the first time. Levy of ASC to Open Access consumer availing power from Group Captive power plant & IPP was started from the month of September 2018.
- 4.21.4 The Group captive consumers' M/s. JSW Steel Ltd. & Ors and M/. Sai Wardha Power Generation Ltd filed Appeal No. 311 & 315 of 2018 in APTEL against levy of ASC to group captive consumers. The Hon'ble APTEL vide Order dated 27th March, 2019 disallowed ASC to group captive consumers and set aside the portion of the Commission's Order which was discriminating between Captive & Group Captive Consumers. MSEDCL filed Civil Appeal No. 5074 of 2019 & 5075 of 2019 before the Hon'ble Supreme Court with Interlocutory Application for Stay against the APTEL Order dated 27th March 2019 in Appeal No 311 of 2018 and 315 of 2018 respectively.
- 4.21.5 MSEDCL submitted that Hon'ble Supreme Court vide Order dated 1st July 2019 granted stay on the APTEL Order dated 27th March 2019. MSEDCL again started levying Additional Surcharge to Group Captive Consumers from July-2019. The Hon. Supreme Court vide Order dated 10th December, 2021 in Civil Appeal No 5074/5075 of 2019 upheld the APTEL Order dated 27th March, 2019 and ruled as under:
 - "16. ...Therefore, as such once it is held that the captive consumers/captive users are not liable to pay the additional surcharge leviable under Section 42(4) of the Act, 2003, the appellant distribution licensee has to refund the same. However, considering the fact that there shall be huge liability on the appellant distribution license if they have to now refund the amount of additional surcharge recovered at a stretch, we direct that the additional surcharge already recovered from the captive consumers/captive users shall be adjusted in the future wheeling charges bills."
- 4.21.6 MSEDCL has submitted that as per the Hon. Supreme Court orders, MSEDCL immediately stopped levy of ASC to group Captive Consumers in January 2022. MSEDCL has adopted following methodology for refund of ASC.

For Non- Open Access Consumer:

4.21.7 Group Captive consumers who are presently not under open access, the ASC is being refunded in instalments through IT Billing system from the bill for the month of March-2022. The number of instalments are equal to number of months for which ASC was levied in their monthly Open Access bills and paid by the consumers.

For Open Access Consumer:

- 4.21.8 The ASC amount in respect of live group captive open access consumers is being refunded limited to 50% of their Wheeling Charges or Transmission charges in every monthly open access bill as per the directives of the Supreme Court through IT Billing system from the bill for the month of March-2022.
- 4.21.9 MSEDCL has refunded amount to the tune of Rs. 12.27 Crore in the month of March 2022. MSEDCL is refunding the ASC in every month to eligible consumers to the tune of Rs. 15 Crore. The refund burden will be Rs. 180 Crore annually. The refund will continue at least for three years for such non-OA consumers and more than five years from open access consumers. Accordingly, the same is being claimed in the ARR. The Commission is requested to approve the same.

Commission's Analysis and Ruling

4.21.10 The Commission has verified the ASC Refund from audited accounts and considered the ASC Refund as submitted by MSEDCL for FY 2021-22. The Commission notes the submission of MSEDCL that refund has been made in March 2021. In view of the same, the present claim has been allowed.

Table 4-87: ASC Refund approved by Commission for FY 2021-22 (Rs. crore)

	FY 2021-22					
Particulars	MYT Order MTR Petition		Approved in this Order			
ASC Refund	-	12.27	12.27			

4.21.11 Thus, the Commission approves Rs 12.27 Crores as ASC refund for FY 2021-22.

4.22 Revenue from Sale of Power for FY 2020-21 and FY 2021-22

- 4.22.1 The revenue from sale of electricity has been considered by MSEDCL based on the Audited book of accounts. It has submitted that the though the revenue as shown in the Audited book of accounts consists of revenue from operations which includes various revenue items. 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.
- 4.22.2 Revenue from sale of electricity as per Audited book of accounts as shown in the Table below:

Table 4-88: Revenue for FY 2020-21 and FY 2021-22 as per MSEDCL (Rs crore)

D4'	FY 2	020-21	FY 2021-22		
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition	
Revenue from Sale of Power	80,918.00	73,309.04	84,400.00	85,903.28	

4.22.3 MSEDCL has also submitted the details of revenue of Rs. 354.07 Crore of others recovered from theft/malpractice, revenue from subsidy and grant and also miscellaneous charges from consumers for the FY 2020-21.

Commission's Analysis and Ruling

- 4.22.4 The Commission has verified the revenue from Note 29 of restated Annual Accounts for FY 2020-21 and FY 2021-22.
- 4.22.5 The category-wise revenue for FY 2020-21 and FY 2021-22 is as shown in the table below.

Table 4-89: Revenue from sale of Power for FY 2020-21 and FY 2021-22 (Rs. crore)

Particulars	FY 2020-21	FY 2021-22
LT-I BPL & Domestic	16,545.46	20,512.34
LT II Commercial	4,756.40	6,957.50
LT III PWW	401.09	462.79
LT IV Agriculture	12,384.96	11,580.36
LT V Industrial	5,510.48	7,647.18
LT VI Street Lighting	1,220.15	814.92
LT X Public Service	400.92	591.57
LT XI Charging Station	0.24	0.79
HT II Commercial	1,802.41	1,998.76
HT I Industrial	24,102.74	28,464.20
HT III Railway Traction	73.73	81.42
HT IV PWW	1,287.35	1,376.66
HT V Agriculture	565.54	584.15
HT VI Group Housing	234.31	173.48
HT IX Public Service	976.09	1,089.53
HT Electric Vehicle	2.81	7.71
HT Auxiliary Consumer	(0.08)	(0.29)
Income from Wheeling Charges claimed Separately.	(0.09)	-
Recoveries from Theft of Power/Malpractice	85.84	184.59
Sale of energy to Distribution Franchisee @ input	2,288.46	2,671.65
Standby charges	401.90	396.04

Particulars	FY 2020-21	FY 2021-22
Miscellaneous charges from consumers	268.32	307.91
Total incl. DF @Input	73,309.04	85,903.28

- 4.22.6 As highlighted in the section on sales in this chapter, there has been variation in category-wise actual sales for FY 2020-21 and FY 2021-22 compared to that approved in the MYT Order. The major variation being in Industrial and Agricultural category in FY 2020-21 and FY 2021-22.
- 4.22.7 Based on the above, the Commission approves the following actual revenue for FY 2020-21 and FY 2021-22.

Table 4-90: Revenue for FY 2020-21 & FY 2021-22 as approved by Commission (Rs. Crore)

	FY 2020-21			FY 2021-22			
Particulars	MYT Order	MTR Petition	Approved in this order	MYT Order	MTR Petition	Approved in this order	
Revenue from Sale of Power	80,918.00	73,309.04	73,309.04	84,400.00	85,903.28	85,903.28	

4.22.8 Thus, the Commission approves Rs 73,309.04 and Rs. 85,903.28 as Revenue from sale of electricity for FY 2020-21 and FY 2021-22

4.23 Non- Tariff Income for FY 2020-21 and FY 2021-22

- 4.23.1 MSEDCL has submitted that it has certain sources of Non-Tariff Income, viz. interest on arrears of consumers, DPC, interest on staff loans and advances, sale of scrap, interest on investments, rebate on power purchase, etc.,
- 4.23.2 MSEDCL has claimed a non-tariff income equal to Rs. 316.85 Crore for FY 2020-21 and Rs. 1,208.37 Crore for FY 2021-22. The Comparison of Non-Tariff Income as estimated by MSEDCL and as earlier approved by the Commission is presented in the Table below:

Table 4-91: Non-Tariff Income as submitted by MSEDCL for FY 2020-21 and FY 2021-22(Rs. Crore)

	FY 202	20-21	FY 2021-22	
Particulars	MYT Approved	MTR Petition	MYT Approved	MTR Petition
Rents of land or buildings	1.09	1.01	1.14	0.91
Sale of Scrap	54.65	31.18	57.39	41.66
Income from investments	19.43	1	20.40	26.10
Income from sale of tender documents	9.37	3.66	9.83	4.71

	FY 202	20-21	FY 2021-22	
Particulars	MYT Approved	MTR Petition	MYT Approved	MTR Petition
Prompt payment discount from REC/PFC	12.77	-	13.41	1
Other/Miscellaneous receipts	282.45	254.17	296.57	1,134.68
Revenue from subsidy & grant	-	-	-	0.30
Interest on Contingency Reserve Investments	-	26.82	-	-
Others		0.01		
Non-Tariff Income	379.75	316.85	398.73	1,208.37

- 4.23.3 MSEDCL has submitted that as provided in the Regulation 37.3 of MYT Regulation, 2019 it has not considered delayed payment charge and Interest on Delayed Payment as part of Non-Tariff Income.
- 4.23.4 MSEDCL has not considered the income from grants and contribution reported under non-tariff income for FY 2020-21 and FY 2021-22 as the treatment to the same is already considered while computing the depreciation for respective years.
- 4.23.5 MSEDCL also submitted that the breakup of 'Other/Miscellaneous receipts' details for the FY 2020-21 and FY 2021-22 as follows:

Table 4-92: Details of Other/Miscellaneous receipts for FY 2020-21 and FY 2021-22 as per MSEDCL (Rs. Crore)

Particulars	FY 2020-21		
Interest on loans & advances to	0.01		
supplier/contractors:			
Interest Income for prior period	3.74		
Interest income from investments in Bank	0.00		
Deposits			
Sundry Credit Balances written back	0.10		
Miscellaneous Receipts (NEF Subsidy taken only)	52.87		
Penalty charges recovered from vendor	98.06		
Other income related to prior period	11.69		
Profit on sale of Asset	0.04		
Others	13.43		
BG encashment	82.73		
Interest on Securities	6.28		
Restated Amount	-14.79		
Total	254.17		

Particulars	FY 2021-22
Interest income from investments in Bank	1.38
Deposits	
Sundry Credit Balances written back	137.10
Miscellaneous Receipts	2.43

Particulars	FY 2021-22
Penalty charges recovered from vendor	56.96
Other income related to prior period	0.88
Profit on sale of Asset	0.08
Others	9.37
Interest from Banks other than fixed deposit	343.82
Service charges from MNRE	59.71
GBI claims received from IREDA	8.86
Interest subsidy received from NEF Scheme	514.10
Total	1,134.68

Commission's Analysis and Ruling

- 4.23.6 The Commission notes that break-up of non-tariff income claimed by MSEDCL as provided under Form-9 of the Petition. The Commission has further verified from the Audited Accounts for FY 2020-21 and FY 2021-22.
- 4.23.7 Commission noted that "Other/Miscellaneous receipts" has increased steeply in FY 2021-22 as compared to FY 2019-20 and FY 2020-21. Thus, Commission analyzed the past trends of "Other/Miscellaneous receipts" as shown in the table below.

Table 4-93: Trend of Other/Miscellaneous receipts (Rs. crore)

Particulars	FY 2017-18	FY 2018-19	FY 2019-20	
Other/Miscellaneous	291.22	405.62	381.94	
receipts	291.22	403.02	301.94	

4.23.8 Further Commission sought the break-up of 254.14 Crore and Rs 1134.68 Crore of miscellaneous expense in FY 2020-21 and FY 2021-22 respectively. MSEDCL in reply to data gap submitted the same as shown in the table below:

Table 4-94: Details of Other/Miscellaneous receipts for FY 2020-21 & FY 2021-22 as (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	
Interest from Banks other than fixed Dep	0.00	343.82	
Interest income from investments in Bank	6.28	1.38	
Interest on Securities	0.01	0.01	
Interest on Staff Loans & Advances	0.01	0.01	
Interest on loans & advances to supplier	3.74	0.01	
Interest Income for prior period	0.04	-	
Commission for collection of Electricity bill	1.08	1.10	
Income from supervision charges	0.07	0.44	
Registration Fees	3.25	4.00	
Ground Rent on Material lying	0.10	0.05	
Sundry Credit Balances written back	52.87	137.10	
Miscellaneous Receipts	98.06	2.43	
Penalty charges Recovered from Vendor	82.73	56.96	
BG Encashment	-		

Particulars	FY 2020-21	FY 2021-22	
RTI Charges	0.01	0.02	
Receipts from REC, PFC, ICF training pr	0.60	1.68	
Recruitment Application Fees (new recur.)	0.04	0.02	
Profit on sale of Asset	11.69	0.08	
Other income related to prior period	8.36	0.88	
Other Transactions- Gain	-	0.09	
Cash discount received by MSEDCL	-	0.02	
Profit on sale of Stores	-	1.50	
Service Charges from MNRE (GoI)	-	59.71	
Agreement fees	-	0.44	
GBI claims received from IREDA	-	8.86	
Interest subsidy received under NEF Scheme	-	514.10	
Revenue from sale of newspaper scrap	-	0.00	
Total	268.95	1,134.68	
Less: Restated other income	14.79	-	
Total	254.17	1,134.68	

- 4.23.9 In the audited accounts, Interest on Non-Current financial investment is a part of non-tariff income which is not claimed by MSEDCL in their submission for FY 2021-22. However, the Commission has approved the non-tariff income based on audited accounts and details submitted by MSEDCL in replies to data gaps. Thus, the Commission has considered Rs 1,256.97 Crore as non-tariff income for FY 2021-22.
- 4.23.10 Based on the reconciliation of audited accounts and documentary evidence submitted in replies to data gaps, the Commission approved non-tariff income for FY 2020-21 and FY 2021-22 as per the table below:

Table 4-95: Non-Tariff Income for FY 2020-21 and FY 2021-22, as approved by Commission (Rs. crore)

	FY 2020-21			FY 2021-22		
Particulars	MYT Order	MTR Petition	Approved in the Order	MYT Order	MTR Petition	Approved in the Order
Rents of land or buildings	1.09	1.01	1.01	1.14	0.91	0.91
Sale of Scrap	54.65	31.18	31.18	57.39	41.66	-
Income from investments	19.43	-	-	20.40	26.10	1
Income from sale of tender documents	9.37	3.66	3.66	9.83	4.71	-
Prompt payment discount from REC/PFC	12.77	-	-	13.41	-	1
Other/Miscellaneous receipts	282.45	254.17	254.17	296.57	1,134.68	1,134.68
Revenue from subsidy & grant	-	-	-	-	0.30	0.30
Interest on Contingency Reserve Investments/	-	26.82	26.82	-	-	121.09

		FY 2020-21		FY 2021-22			
Particulars	MYT Order	MTR Petition	Approved in the Order	MYT Order	MTR Petition	Approved in the Order	
Interest on Non-Current Financial Investments							
Others		0.01	0.01				
Non-Tariff Income	379.75	316.85	316.85	398.73	1,208.37	1,256.97	

4.23.11 Thus, the Commission approves Non-Tariff Income of Rs. 316.85 Crore and Rs. 1256.97 Crore for FY 2020-21 and FY 2021-22 respectively.

4.24 Income from Wheeling Charges for FY 2020-21 and FY 2021-22

MSEDCL's Submission

4.24.1 MSEDCL had an income from Wheeling Charges of Rs. 0.09 Crore in actual as against Nil as approved value as per MYT Order during FY 2020-21 and Rs. 0.04 Crore against Nil as approved by the commission for FY 2021-22.

Table 4-96: Income from Wheeling Charges for FY 2020-21 and FY 2021-22 as submitted by MSEDCL (Rs. Crore)

	FY 2	2020-21	FY 2021-22	
Particulars	MYT	MTR	MYT	MTR
	Order	Petition	Order	Petition
Income from Wheeling Charges	-	0.09	ı	0.04

4.24.2 MSEDCL has submitted the actual value of income from wheeling charges submitted is as per audited book of accounts for FY 2020-21 and FY 2021-22.

Commission's Analysis and Ruling

- 4.24.3 The Commission vide data gaps sought clarification from MSEDCL and nature of the Wheeling charges claimed for the truing Up years. MSEDCL is reply submitted that the nature of income claimed for true up years is shown under head "Revenue from Operation" of restated audited accounts.
- 4.24.4 The Commission has verified the income of Wheeling Charges from the Audited Accounts and has considered them accordingly.

Table 4-97: Income from Wheeling Charges approved for FY 2020-21 and FY 2021-22 (Rs Crore)

		FY 2020-2	21	FY 2021-22			
Particular	MYT Order	MTR Petition	Approved in this order	MYT Order	MTR Petition	Approved in this order	
Income from Wheeling Charges	-	0.09	0.09	-	0.04	0.04	

4.24.5 Thus, the Commission approves Rs. 0.09 Crore and Rs 0.04 Crore as Income from Wheeling Charges for FY 2020-21 and FY 2021-22 respectively.

4.25 Income from Additional Surcharge for FY 2020-21 and FY 2021-22

MSEDCL's submission

4.25.1 MSEDCL has reported an income of Rs. 479.03 Crore for FY 2020-21 as against to the approved value Rs. 119.65 Crore and Rs. 402.62 Crore against Rs. 117.28 Crore approved in the MYT Order for FY 2021-22. The comparison of Actual value vis-à-vis approved value of Income from Additional surcharge is as shown in the Table below:

Table 4-98: Income from Additional Surcharge for FY 2020-21 and FY 2021-22 as per MSEDCL (Rs. crore)

	FY 2	020-21	FY 2021-22	
Particulars	MYT	MTR	MYT	MTR
	Order	Petition	Order	Petition
Income from Additional Surcharge	119.65	479.03	117.28	402.62

4.25.2 MSEDCL has submitted the actual value of income from additional surcharge submitted is as per audited book of accounts for FY 2020-21 and FY 2021-22.

Commission's Analysis

4.25.3 The Commission has verified Income from additional surcharge from audited accounts of MSEDCL for FY 2020-21 and 2021-22. For truing-up, the Commission approves the income from Additional Surcharge as per the audited accounts.

Table 4-99: Income from Additional Surcharge for FY 2020-21 and FY 2021-22 as approved by Commission (Rs. crore)

		FY 2020-21		FY 2021-22			
Particulars	MYT Order	MTR Petition	Approved in this order	MYT Order	MTR Petition	Approved in this order	
Income from Additional Surcharge	119.65	479.03	479.03	117.28	402.62	402.62	

4.25.4 Thus, the Commission approves Rs 479.03 Cr and Rs 402.62 Cr as Income from Additional Surcharge for FY 2020-21 and FY 2021-22 respectively.

4.26 Income from Open Access Charges for FY 2020-21 and FY 2021-22

MSEDCL's Submission

4.26.1 MSEDCL submitted that it has received an income from OA Charges of Rs. 213.07 Crore for FY 2020-21 as against Rs. 215.71 Crore and 129.92 Crore as against Rs. 214.92 Crore during FY 2021-22.

Table 4-100: Income from Open Access Charges FY 2020-21 and FY 2021-22 as per MSEDCL (Rs. crore)

	FY	2020-21	FY 2021-22		
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition	
Income from Open Access Charges	215.71	213.07	214.92	129.92	

- 4.26.2 MSEDCL has submitted that the Commission vide MYT Order dated 30th March 2020 in Case no. 322 of 2019 has not considered income towards the Transmission Charges proposed to be retained with MSEDCL to be a part of income from OA Charges. Accordingly, MSEDCL has excluded the transmission charges open access revenue from the income from OA charges.
- 4.26.3 MSEDCL has also submitted the details of actual open access charges collected for FY 2020-21 as shown in the table below:

Table 4-101: Details of Open Access charges collected for FY 2020-21 as per MSEDCL (Rs. Crore)

Particulars	FY 2020-21
Energy Charges Open Access	-
F.C.A Charges Open Access	-
Additional Charges Open Access	0.38
Adjustment to past billing Open Access	28.47
Cross Subsidy Surcharge Open Access	85.10
Wheeling Charge Open Access	79.23
Transmission Charge Open Access	262.74
Operating Charges Open Access	17.97
Threshold penalty Open Access	1.92
Total Income from Open Access Charges	475.81

Commission's Analysis and Ruling

- 4.26.4 The Commission has verified the income from Open Access Charges from the audited accounts.
- 4.26.5 In accordance with the ruling of the Commission in the Order in Case No. 361 of 2018 dated 14 June, 2019 and Regulations 14 (1) (v) of the DOA Regulations, 2019 (First Amendment),

"Distribution Licensees shall not retain the transmission charges collected from partial open access consumers and shall arrange to remit the same to STU in the immediate next billing cycle, as and when levied/collected from such open access consumers. STU shall maintain separate account of such revenue from transmission charges."

- 4.26.6 The Commission had asked MSEDCL to clarify the income from open access charges booked under the audited accounts and reconcile with claim. In reply to data gap MSEDCL has submitted that it is shown the income from Open Access under head "Revenue from Operation" of audited accounts for FY 2020-21 and FY 2021-22.
- 4.26.7 Further, the Commission notes the submission of MSEDCL on details of Open Access charges collected for FY 2020-21 as shown in above table. The Commission after reconciliation of submission of MSEDCL and regulatory provisions approves the income from Open Access charges as Rs. 213.07 Crores for FY 2020-21. Further, the details of open access charges collected for FY 2021-22 are not submitted by MSEDCL. Thus, the Commission has approved income from OA charges for FY 2021-22 based on audited accounts.

Table 4-102: Income from OA Charges approved for FY 2020-21 and FY 2021-22 (Rs. Crore)

		FY 2020-21	FY 2021-22			
Particulars	MYT Order	MTR Petition	Approved in this order	MYT Order	MTR Petition	Approved in this order
Income from Open Access Charges	215.71	213.07	213.07	214.92	129.92	129.92

4.26.8 Thus, considering above submission of MSEDCL the Commission approves Rs 213.07 Cr and Rs 129.92 Cr as Income from Open access in FY 2020-21 and FY 2021-22 respectively.

4.27 Income from Trading Surplus Power for FY 2020-21 and FY 2021-22

MSEDCL's Submission

- 4.27.1 MSEDCL submitted that it has received income of Rs. 126.21 Crore from trading of surplus power, as against Rs. 302.05 Crore earlier approved by the Commission for FY 2020-21. The actual income from trade of Surplus power for FY 2021-22 is Rs. 195.93 Crore as against a value of Rs. 319.75 Crore approved in the MYT Order.
- 4.27.2 MSEDCL submitted that the Commission in MYT Order has also ruled that it shall undertake prudence check of sale of surplus power for FY 2020-21 onwards. The detailed compliance to the said directives has been submitted by MSEDCL in the Petition under Chapter 'Compliance to Directives'.
- 4.27.3 The comparison of Actual income from trade in Surplus power to the approved Income is as shown in Table below:

Table 4-103: Approval vs. actual Income from surplus power traded for FY 2020-21 and FY 2021-22, as submitted by MSEDCL

	FY 2	020-21	FY 2021-22		
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition	
Income from Trading Surplus	302.05	126.21	319.75	195.93	

Commission's Analysis and Ruling

4.27.4 The Commission upon verification of the audited accounts has considered the income from trading of surplus power as submitted by MSEDCL for the purpose of truing up of ARR of FY 2020-21 and FY 2021-22.

Table 4-104: Income from Trading Surplus for FY 2020-21 and FY 2021-22 as approved by Commission (Rs. crore)

			FY 2021-22			
Particulars	MYT Order	MTR Petition	Approved in this order	MYT Order	MTR Petition	Approved in this order
Income from Trading Surplus	302.05	126.21	126.21	319.75	195.93	195.93

4.27.5 Thus, the Commission approves Rs 126.21 Crores and Rs. 195.93 Crores as Income from Trading surplus for FY 2020-21 and FY 2021-22.

4.28 Stabilization amount as per MYT Order

MSEDCL's Submission

4.28.1 MSEDCL has submitted that in the MYT Order, the Commission has allowed revenue recovery as shown in the following table. MSEDCL has considered the same.

Table 4-105 : Stabilisation amount as per MYT Order for FY 2020-21 and FY 2021-22 (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22
ARR approved by the Commission	80,163.00	81,721.00
Approved Revenue at existing tariff	85,021.00	88,667.00
Approved Revenue Gap	(4,858.00)	(6,946.00)
Projected Revenue at approved tariff	80,018.00	84,400.00
Additional Recovery from approved tariff	(4,103.00)	(4,267.00)
Previous Revenue Gap recovery allowed after adjustment of current year Revenue Gap	755.00	2,679.00

Commission's Ruling and Analysis

- 4.28.2 The current MTR, the Commission have received comments/ objections on the claim of MSEDCL towards stabilization amount. The Commission has noted objections filed in this respect and replies given by MSEDCL. The Commission has analysed each head of expense and revenue claimed by MSEDCL and its proposed treatment, and accordingly determined the ARR, Revenue Gap / Surplus over the 4th Control Period in accordance with the MYT Regulations. The Commission observes that under the MYT Order, it has allowed for recovery of past period revenue gap, other claims towards review order/change of law claims, the recovery of which was spread over the control period for the purpose of tariff balancing. The Commission has verified that such recovery of past period gaps shown under the head 'stablisation amount' as referred by MSEDCL in its summary table of MTR petition.
 - 4.28.3 As referred by many consumers in public consultation, the Commission agrees with the submission of MSEDCL that, it is past period revenue gap which the Commission has allowed in the MYT Order and same was discussed in detail in the Table 8-2 of the MYT Order. The Commission notes that, MSEDCL has claimed the same amount in its revised Tariff Petition.
 - 4.28.4 The Commission clarifies that, it has approved the past revenue gap of Rs. 755.00 and Rs 2,679.00 Crore, for FY 2020-21 and FY 2021-22 respectively in the MYT Order dated 30th March 2020. The same has been considered by the Commission as revenue gap FY 2020-21 and FY 2021-22. The Commission has done prudence check of the claim and explained in earlier chapter about appropriateness of the claim. Accordingly, the Commission approves stabilisation amount as per MYT Order 322 of 2019 in the current MTR Petition.
- 4.28.5 The Commission has noted the submission of MSEDCL, and the Commission has allowed recovery of past period revenue gap of Rs 755.00 Crore and Rs 2,679.00 Crore for FY 2020-21 and FY 2021-22 respectively.

4.29 Impact of Payment to MPECS for FY 2020-21 and FY 2021-22

MSEDCL's Submission

- 4.29.1 The Commission in the MYT Order dated 3 November 2016 had approved on a future basis the payment to MPECS for the years from FY 2020-21 to FY 2021-22 as following: Payment Approved to MPECS by the Commission.
- 4.29.2 MSEDCL has submitted that the Commission in the MYT Order approved Rs. 37.16 Crore and Rs. 34.15 Crore towards payment to MPECS for FY 2020-21 and FY 2021-22 respectively as the same was allowed under Order dated 2nd May, 2016. The Commission in the MYT Order also ruled that it shall consider the actual amount towards this head at the time of truing up of FY 2020-21 and FY 2021-22.
- 4.29.3 MSEDCL has claimed the Rs. 37.41 Crore for FY 2020-21 and Rs. 34.40 Crore for FY 2021-22 respectively.

Commission's Analysis

4.29.4 Commission vide its Order dated 2nd May 2016, the Commission has determined the monthly user charges to be paid to MPECS by MSEDCL and for the purpose of truing up, Commission has verified the same from the audited accounts and found that MSEDCL has paid Rs 37.41 Crore and Rs 34.40 Crore to MPECS.

Table 4-106: Impact of payment to MPECS for FY 2020-21 and FY 2021-22 as approved by Commission (Rs. crore)

		FY 2020-21			FY 2021-22			
Particular	MYT Order	MTR Petition	Approved in this order	MYT Order	MTR Petitio n	Approved in this order		
Impact of Payment to MPECS	37.16	37.41	37.41	34.15	34.40	34.40		

4.29.5 Thus, the Commission allows Rs 37.41 Crores and Rs. 34.40 Crores as Impact of payment to MPECS for FY 2020-21 and FY 2021-22.

4.30 Incremental and Consumption rebate for FY 2020-21 and FY 2021-22

MSEDCL's Submission

- 4.30.1 MSEDCL has submitted that the Commission in the MYT Order dated 30th March 2020 has approved cost towards incremental rebate.
- 4.30.2 MSEDCL has claimed Rs. 336.80 Crore towards Incremental Consumption and Bulk consumption rebate for FY 2020-21 as per the Audited Account as against Rs. 439.66 Crores as approved by the Commission.
- 4.30.3 MSEDCL has claimed Rs. 546.44 Cr towards Incremental Consumption and Bulk consumption rebate for FY 2021-22 as per the Audited Account as against Rs. 439.66 Crore as approved by the Commission.

Table 4-107: Incremental and Consumption and Bulk consumption Rebate by MSEDCL for FY 2020-21 and FY 2021-22 (In Crores)

	FY 2	020-21	FY 2021-22		
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition	
Incremental Consumption & Bulk Consumption Rebate	439.66	336.80	548.50	546.44	

Commission's Analysis

4.30.4 The Commission has noted MSEDCL submission and verified from audited accounts of FY 2020-21 and FY 2021-22. Accordingly, the Commission has approved

MSEDCL's claim for incremental consumption and bulk consumption rebate for FY 2020-21 and FY 2021-22.

Table 4-108: Incremental Consumption and Bulk consumption Rebate approved by Commission for FY 2020-21 and FY 2021-22 (In Crores)

	FY 2020-21			FY 2021-22		
Particulars	MYT Order	MTR Petition	Approved in this Order	MYT Order	MTR Petition	Approved in this Order
Incremental & Bulk Consumption Rebate	439.66	336.80	336.80	548.50	546.44	546.44

4.30.5 Thus, the Commission approves Rs 336.80 Cr and 546.44 Cr for Incremental consumption and Bulk Consumption Rebate for FY 2020-21 and FY 2021-22 respectively.

4.31 Sharing of Efficiency Gains and Losses for FY 2020-21 and FY 2021-22

MSEDCL's Submission

- 4.31.1 MSEDCL has submitted it has done the sharing of efficiency gains and losses in accordance with the controllable/uncontrollable factors and the mechanism of sharing gains/losses for these factors as defined by Regulation 9, 10 and 11 of MYT Regulations, 2019. The relevant extracts of the Regulations are as provided below for reference purposes:
 - "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."
- 4.31.2 The parameters like O&M Expenses and IoWC etc. for which the norms for computation have been defined in the Regulations have been computed by MSEDCL on normative basis.

- 4.31.3 **O&M Expenses:** MSEDCL has submitted that the actual O&M Expenses as per the Audited Accounts for FY 2020-21 is lower than that of allowed on normative basis and for FY 2021-22 are higher than that of allowed on normative basis.
- 4.31.4 **Interest on Working Capital:** MSEDCL has submitted that for FY 2020-21 due to COVID-19 pandemic, 'variation in amount of interest on working capital' was beyond control of MSEDCL. The same has been recorded in MYT Order dated 30.03.2020 in Case No. 322 of 2019. Therefore, no sharing on this account is done i.e., variation in amount of interest of working capital is treated as uncontrollable and in FY 2021-22 the actual IoWC expense as per the Audited Accounts is higher than that allowed on normative basis.
- 4.31.5 **Distribution Loss:** MSEDCL has submitted that the actual distribution loss (excluding EHV Sales) for FY 2020-21 is lower than that approved in the MYT Order and for FY 2021-22 the actual distribution loss (excluding EHV Sales) is higher than that approved in the MYT Order. The Summary of sharing of gains/(loss) on account of O&M Expenses and IoWC is as given in the Table below:

Table 4-109: Sharing of Efficiency Gains/(Losses) on O&M and IoWC Expenses as submitted by MSEDCL for FY 2020-21 and FY 2021-22 (Rs. crore)

Particulars	FY	Normative	Actual	Gain/ (Loss)	2/3 of Efficiency Gains passed on to consumers	1/3 of Efficiency Gains retained by MSEDCL	Net Entitlement after sharing
O&M Expenses		7,229.07	7,168.28	60.79	40.52	20.26	7,188.54
Interest on Working Capital	FY 2020-21	2,441.12	2,441.12	-	-	-	2,441.1
O&M Expenses		7,594.79	8,735.25	(1,140.46)	(760.31)	(380.15)	8,355.10
Interest on Working Capital	FY 2021-22	123.08	2,384.99	(2,261.9)	(1,507.94)	(754.0)	877.1

- 4.31.6 MSEDCL has submitted that it has computed the sharing of efficiency gain/ loss considering 18.01% and 16.00% for FY 2020-21 and FY 2021-22 respectively as approved distribution loss target (Excluding EHV Sales and OA Sales) against the actual distribution losses (Excluding EHV Sales and OA Sales)
- 4.31.7 The Summary of Sharing of gains/losses as on account of efficiency in Distribution Losses is shown in the Table below:

Table 4-110: Sharing of Gains/(Losses) due to Distribution Loss in FY 2020-21 and FY 2021-22 as submitted by MSEDCL

Particulars	FY 2020-21	FY 2021-22
Actual Distribution Loss	16.91%	16.57%
MYT approved Loss	18.01%	16.00%

Particulars	FY 2020-21	FY 2021-22
Sales Excl. EHV sales in MUs	96,176	1,04,978
EHV Sales in MUs	9,062	11,351
Total Sales in MUs	1,05,238	1,16,329
InSTS loss (Proposed)	3.17%	3.38%
Power Requirement at Ex-Bus Periphery (Actual) in MU	1,28,901	1,41,973
Power Requirement at Ex-Bus Periphery (Actual) in MU	1,30,509	1,41,082
Additional/ (lower) Power purchase due to higher distribution loss in MUs	(1,608.8)	890.6
Rate of PP (At average Variable Cost) Rs./kWh	2.49	3.28
Additional/(Lower) Power purchase Cost due to lower distribution loss	(400.00)	291.91
2/3 Efficiency gain/(loss)	266.67	(194.60)
1/3 Efficiency gain/(loss) to be borne by the consumers	133.33	(97.30)

4.31.8 The total impact of sharing of gains and losses of the three parameters as computed by MSEDCL for FY 2020-21 and FY 2021-22 is as shown in table below:

Table 4-111: Net Impact of sharing of gains and losses FY 2020-21 and FY 2021-22

Particulars	FY 2020-21	FY 2021-22
O&M Expenses	(40.52)	380.15
IoWC		753.97
Impact of Gain in Distribution Loss passed on Consumers	133.33	(97.30)
Total	92.81	1,037

Commission's Analysis and Ruling

4.31.9 As per the MYT Regulations 2019, Two-third of the efficiency gain and one third of (loss) has to be passed on to consumers which means, one-thirds of the gains is allowed to be retained by MSEDCL and two-thirds of the loss is required to borne by MSEDCL.

Effect of sharing of Gains and Loss on O&M Expenses

4.31.10 It is observed that actual R&M expenses of MSEDCL are lower than 20% of total O&M expenses in FY 2020-21 and FY 2021-22. Regulation 84.6 of MYT Regulations, 2019 specifies as below:

[Reg 75 Wire Business]

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.

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[Reg 84 Retail Supply Business]

84.6 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:

4.31.11 As R&M expenses are lower than 20% of total O&M expenses, the sharing of gains & losses is computed as below:

Table 4-112: Impact on Sharing of Gains/Loss on O&M Expenses due to R&M less than 20% for FY 2020-21 (Rs. Crore)

Particulars	Unit	FY 2020-21
Normative O&M Expenses	A	7,108.21
Actual O&M Expenses without Wage Revision	В	7,100.90
Impact of Wage Revision	С	269.00
Actual O&M Expenses with Wage Revision	D = B + C	7,377.21
Efficiency gain/loss	E = A-B	7.31
1/3rd of gains/ (loss)	F = 1/3*E	2.44
2/3rd of gains/ (loss)	G = 2/3*E	4.87
Net Entitlement after sharing of gains/ loss (I)	H = A + C - G	7,372.34
R&M Expenses - 20% of Actual Expenses without wage revision (as per Regulation above)	I = 20% * B	1,420.18
Actual R&M Expenses	J	1,036.22
Shortfall in R&M Expenses	K = J - I	(383.96)
1/3rd of loss due to lesser R&M	L = 1/3 * K	(127.99)
2/3rd of loss due to lesser R&M to be borne by MSEDCL	M =2/3*K	(255.97)
Total sharing of gain due to lesser O&M and loss due to lesser R&M	N = L-F	(125.55)
Net Entitlement after sharing of gain due to lesser O&M and loss due to lesser R&M	O =H+M	7,116.37

Table 4-113 : Impact on Sharing of Gains/Loss on O&M Expenses due to R&M less than 20% (Rs. Crore)

Particulars	Unit	FY 2021-22
Normative O&M Expenses	A	7,467.82
Actual O&M Expenses without Wage Revision	В	8,570.30

Particulars	Unit	FY 2021-22
Impact of Wage Revision	С	355.00
Actual O&M Expenses with Wage Revision	D = B + C	8,925.30
Efficiency gain/loss	E = A-B	(1,102.47)
1/3rd of gains/ (loss)	F = 1/3*E	(367.49)
2/3rd of gains/ (loss)	G = 2/3*E	(734.98)
Net Entitlement after sharing of gains/ loss (I)	H = A + C - F	8,190.31
R&M Expenses - 20% of Actual Expenses without wage revision (as per Regulation above)	I = 20% * B	1,714.06
Actual R&M Expenses	J	1,367.94
Shortfall in R&M Expenses	K = J - I	(346.12)
1/3rd of loss due to lesser R&M	L = 1/3 * K	(115.37)
2/3rd of loss due to lesser R&M to be borne by MSEDCL	M =2/3*K	(230.75)
Total sharing of gain due to lesser O&M and loss due to lesser R&M	N = L-F	(482.86)
Net Entitlement after sharing of gain due to lesser O&M and loss due to lesser R&M	O =H+M	7,959.57

Effect of sharing of Gains and Loss on IoWC

- 4.31.12 MSEDCL has submitted that due to COVID-19 pandemic, working capital requirement of MSEDCL increased due to shortfall in revenue. The Commission has raised a query on monthly working capital requirement of MSEDCL during FY 2020-21 and FY 2021-22. Based on the reply of MSEDCL on monthly working capital requirement, the Commission has derived actual IoWC for FY 2020-21 and FY 2021-22.
- 4.31.13 Further, MSEDCL has made additional submission to the Commission regarding actual IoWC for FY 2020-21 as on 17th March, 2023. The Commission has considered the submission of MSEDCL regarding working capital requirement and hence, approved IoWC of Rs. 588.62 Crore in line with the submission of MSEDCL as on 17th March, 2023. It is to be noted that, although Commission has considered MSEDCL's prayer regarding actual IoWC for FY 2020-21 due to COVID-19 pandemic, IoWC is a controllable factor as per MYT regulations, 2019 and it cannot be violated.
- 4.31.14 Accordingly, the Commission has derived sharing of gains/ losses on account of IoWC for FY 2020-21 and FY 2021-22 as below:

Table 4-114 : Sharing of Gains/Loss on IoWC Expenses, approved by Commission (Rs. Crore)

Particulars	FY	Normative value	Actual value	Gain/ (Loss)	2/3 of Efficiency Gains/ Losses retained by MSEDCL	1/3 of Efficiency Gains/losses passed on to Consumers	Net Entitlemen t after sharing
LoWC	2020-21	111.21	560.80	(449.6)	(299.7)	(149.9)	261.1
IoWC	2021-22	115.16	864.76	(749.6)	(499.7)	(249.9)	365.0

Effect of sharing of Gains and Loss on Distribution Loss

- 4.31.15 Variation in Distribution Loss is considered as a controllable parameter under MYT Regulations. Accordingly sharing of gains and loss on account of the same has been carried out every year at the time of true-up.
- 4.31.16 The Commission has approved AG sales for FY 2020-21 and FY 2021-22 as discussed in above section 4.2.15 of energy sales and observed that, actual distribution loss level is 22.72% and 23.54% for FY 2020-21 and FY 2021-22 which is higher than distribution loss approved in MYT Order dated 31 March 2023.
- 4.31.17 For truing up of FY 2020-21 and FY 2021-22, the Commission is considering marginal variable cost of MSEDCL power procurement, for computation cost of procurement of higher power quantum on account of higher distribution loss level of 22.72% and 23.54% for FY 2020-21 and FY 2021-22 respectively. Similar approach is adopted for sharing of gains/ losses for FY 2019-20.
- 4.31.18 Table below shows the effect of sharing of loss on account of variation in Distribution loss considering the reassessed Distribution loss level for FY 2020-21 and FY 2021-22. The Commission has considering loss level as 22.72% and 23.54% for FY 2020-21 and FY 2021-22 respectively with rate of power purchase at Marginal Variable Cost; and loss sharing ratio 2/3rd :1/3rd between MSEDCL and consumer, in accordance with provision of MYT Regulations, 2019 respectively.

Table 4-115: Efficiency Gains/Losses due to lower Distribution Loss in FY 2020-21 and FY 2021-22as approved by the Commission

Particulars	Unit	FY 2020-21	FY 2021-22
Actual Distribution Loss	%	22.72%	23.54%
MYT approved loss	%	18.01%	16.00%
Sales Excl. EHV sales in Mus	MU	89,454	96,211
EHV Sales in Mus	MU	9,062	11,351
Total Sales in Mus	MU	98,515	1,07,561

Particulars	Unit	FY 2020-21	FY 2021-22
InSTS loss	%	3.17%	3.18%
Power Requirement at Ex-Bus Periphery (Normative) in Mus	MU	1,22,041	1,30,280
Power Requirement at Ex-Bus Periphery (Actual) in Mus	MU	1,28,901	1,41,973
Additional/ (lower) Power purchase due to higher distribution loss in Mus	MU	6,860	11,692
Rate of PP (At marginal Variable Cost) Rs./kWh	Rs./kWh	3.62	3.66
Additional/(Lower) Power purchase Cost due to lower distribution loss	Rs. Crore	2,482	4,278
Efficiency gain/(loss) to be borne by MSEDCL	Rs. Crore	(1,654.75)	(2,852.01)
Efficiency gain/(loss) to be borne by the consumers	Rs. Crore	(827)	(1,426)

- 4.31.19 Total impact of additional power purchase to be borne by MSEDCL is estimated as Rs 1,655 Crores and Rs. 2,852 Crore for FY 2020-21 and FY 2021-22 (2/3rd of estimated avoided power purchase cost at average variable cost).
- 4.31.20 Accordingly, the total impact of sharing of gains and losses of the three parameters approved by the Commission for FY 2020-21 and FY 2021-22 is as shown in table below:

Table 4-116: Net Impact of sharing of gains and losses FY 2020-21 & FY 2021-22

Particulars	FY 2020-21	FY 2021-22
Sharing of gains/(loss) of O&M Expenses	125.55	482.86
Sharing of gains/(loss) of Interest on Working Capital	149.86	249.87
Sharing of gains/(loss) due to Distribution Loss	(1,654.75)	(2,852.01)
Total	(1,379.33)	(2,119.28)

4.32 Aggregate Revenue Requirement for FY 2020-21 and FY 2021-22

4.32.1 Based on the analysis, the summary of ARR for the Wires Business and Supply Business, as claimed by MSEDCL and as trued-up by the Commission for FY 2020-21 is presented in the Tables below.

Table 4-117: ARR for Wires Business for FY 2020-21 as approved by Commission (Rs. Crore)

	FY 2020-21					
Particulars	MYT Order (a)	MTR Petition (b)	Approved in the Order (c)	True Up (d) = (c)-(a)		
Operation &						
Maintenance	4,921.68	4,873.74	4,795.19	(126.49)		
Expenses						
Depreciation	2,536.12	2,388.76	2,386.76	(149.37)		
Interest on Loan Capital	1,188.77	1,061.90	1,078.17	(110.61)		
Interest on Normative Working Capital*	140.96	244.11	111.21	(29.74)		
Interest on deposit from Consumers and Distribution System Users	54.06	28.27	28.23	(25.83)		
Other Finance Charges	-	3.22	3.22	3.22		
Provision for bad and doubtful debts	73.26	46.50	46.50	(26.76)		
Opex Schemes	84.31	9.02	9.02	(75.29)		
Contribution to contingency reserves	141.81	141.80	-	(141.81)		
Income Tax		0.00		-		
Return on Equity Capital	1,878.42	1,791.72	1,617.78	(260.63)		
Aggregate Revenue Requirement	11,019.38	10,589.05	10,076.00	(943.31)		

Table 4-118: ARR for Supply Business for FY 2020-21 as approved by Commission (Rs. Crore)

		FY 2	2020-21	
Particulars	MYT Order (a)	MTR Petition (b)	Approved Value (c)	True Up (d) = (c)-(a)
Power Purchase Expenses	59,126.06	56,289.25	56,289.25	(2,836.81)
Operation & Maintenance Expenses	2,650.13	2,624.32	2,582.02	(68.11)
Depreciation Expenses	281.79	265.42	265.20	(16.60)
Interest on Loan Capital	132.09	117.99	119.80	(12.29)
Interest on Normative Working Capital*	-	2,197.01		-
Interest on Consumers Security Deposit	486.53	254.43	254.03	(232.50)
Other Finance Charges	-	28.97	28.97	28.97
Provision for bad and doubtful debts	659.37	418.54	418.54	(240.83)
Other Expenses	52.58	113.70	37.93	(14.65)
Income Tax	-	-		-
Intra-State Transmission Charges MSLDC charge	5,699.92	5715.74	5,699.92	(0.00)
Incentives/Discounts	322.38	307.40	307.40	(14.98)
Contribution to Contingency Reserves	15.76	15.76	-	(15.76)
Return on Equity Capital	231.16	199.15	199.08	(32.08)
RLC Refund		-		-

	FY 2020-21				
Particulars	MYT Order (a)	MTR Petition (b)	Approved Value (c)	True Up (d) = (c)-(a)	
ASC Refund		-		-	
Effect of sharing of gains/losses		92.8	(1,379.33)	(1,379.33)	
Past period surplus	-	-	-	-	
Revenue gap recovery allowed	755.00	755.00	755.00	-	
Impact of payment to MPECS	37.16	37.41	37.41	0.25	
Opex Scheme	26.18	18.03	18.03	(8.15)	
Incremental Consumption Rebate	439.66	336.80	336.80	(102.86)	
Total Revenue Expenditure	70,915.77	69,787.72	65,970.05	(4,945.72)	
Revenue from Sale of Power	80,918.00	73,309.04	73,309.04	(7,608.96)	
Non-Tariff Income	379.75	316.85	316.85	(62.90)	
Income from Additional Surcharge	119.65	479.03	479.03	359.39	
Income from Wheeling charges		0.09	0.09	0.09	
Income from Open Access charges	215.71	213.07	213.07	(2.65)	
Income from Trading of Surplus Power	302.05	126.21	126.21	(175.84)	
Net Aggregate Revenue Requirement	81,935.15	74,444.29	74.444.29	(7,490.87)	

Table 4-119: ARR for FY 2020-21 (Wires + Supply) as approved by Commission (Rs. Crore)

		FY 20	20-21	
Particulars	MYT Order	MTR Petition	Approved	True Up
	(a)	(b)	Value (c)	$(\mathbf{d}) = (\mathbf{c}) - (\mathbf{a})$
Power Purchase Expenses	59,126.06	56,289.25	56,289.25	(2,836.81)
Operation & Maintenance Expenses	7,571.81	7,498.07	7,377.21	(194.60)
Depreciation Expenses	2,817.91	2,654.18	2,651.95	(165.96)
Interest on Loan Capital	1,320.86	1,179.89	1,197.96	(122.90)
Interest on Normative Working Capital	140.96	2,441.12	111.21	(29.74)
Interest on Consumers Security Deposit	540.58	282.70	282.25	(258.33)
Other Finance Charges	-	32.19	32.19	32.19
Provision for bad and doubtful debts	732.63	465.05	465.05	(267.58)
Other Expenses	52.58	113.70	37.93	(14.65)
Income Tax	-	-		-
Intra-State Transmission Charges MSLDC charge	5,699.92	5,715.74	5,699.92	(0.00)
Incentives/Discounts	322.38	307.40	307.40	(14.98)
Contribution to Contingency Reserves	157.56	157.56	-	(157.56)
Opex Scheme	110.49	27.05	27.05	(83.44)
DSM Expenses	-	-		-
Return on Equity capital	2,109.58	1,990.87	1,816.87	(292.71)
RLC Refund	-	-	-	-
ASC Refund	-	-	-	-
Effect of sharing of gains/losses	-	92.81	(1,379.33)	(1,379.33)
Past Period Adjustment by Commission	-	-	-	-

	FY 2020-21			
Particulars	MYT Order (a)	MTR Petition (b)	Approved Value (c)	True Up (d) = (c)-(a)
Revenue Gap Recovery Allowed	755.00	755.00	755.00	-
Impact of payment to MPECS in future years	37.16	37.41	37.41	0.25
Incremental Consumption Rebate	439.66	336.80	336.80	(102.86)
Aggregate Revenue Requirement	81,935.15	80,376.77	76,046.12	(5,889.03)
Revenue from Sale of Power	80,918.00	73,309.04	73,309.04	(7,608.96)
Non-Tariff Income	379.75	316.85	316.85	(62.90)
Income from Open Access Charges	215.71	213.07	213.07	(2.65)
Income from Trading of Surplus Power	302.05	126.21	126.21	(175.84)
Income from Wheeling Charges	-	0.09	0.09	0.09
Income from Additional Surcharge	119.65	479.03	479.03	359.39
Net Aggregate Revenue Requirement	81,935.15	74,444.29	74,444.29	(7,490.87)
Revenue Gap/(Surplus)	(0.00)	5,932.49	1,601.84	1,601.84

4.32.2 Based on the analysis of ARR for Truing-up of accounts for FY 2021-22 the summary of ARR components as approved by the Commission is presented in the Tables below:

Table 4-120: ARR for Wires Business for FY 2021-22 as approved by Commission (Rs. Crore)

	FY 2021-22					
Particulars	MYT Order	MTR Petition	Approved Value	True Up		
	(a)	(b)	(c)	$(\mathbf{d}) = (\mathbf{c}) - (\mathbf{a})$		
Operation & Maintenance Expenses	4,717.50	5,167.37	5,084.84	367.34		
Depreciation	2,667.58	2,592.45	2,584.75	(82.82)		
Interest on Loan Capital	1,148.03	952.96	973.28	(174.75)		
Interest on Normative Working Capital*	142.71	123.08	115.16	(27.55)		
Interest on deposit from Consumers and Distribution System Users	56.76	36.04	36.04	(20.72)		
Other Finance Charges	-	4.55	4.55	4.55		
Provision for bad and doubtful debts	73.26	45.96	45.96	(27.30)		
Opex Schemes	84.31	8.59	8.59	(75.72)		
Contribution to contingency reserves	153.92	153.92	-	(153.92)		
Income Tax		0.00		-		
Return on Equity Capital	1,954.65	1,885.69	1,706.38	(248.27)		
Aggregate Revenue Requirement	10,998.72	10,970.60	10,559.55	(439.17)		

Table 4-121: ARR for Supply Business for FY 2021-22 as approved by Commission (Rs. Crore)

		FY	2021-22	
Particulars	MYT Order (a)	MTR Petition (b)	Approved Value (c)	True Up (d) = (c)-(a)
Power Purchase Expenses	60,568.92	69,478.78	69,478.78	8,909.86
Operation & Maintenance Expenses	2,540.19	2,782.43	2,737.99	197.80
Depreciation Expenses	296.40	288.05	287.19	(9.20)
Interest on Loan Capital	127.56	105.88	108.14	(19.42)
Interest on Normative Working Capital*	-	-	-	-
Interest on Consumers Security Deposit	510.85	324.34	324.34	(186.51)
Other Finance Charges	-	40.92	40.93	40.93
Provision for bad and doubtful debts	659.37	413.66	413.66	(245.71)
Other Expenses	55.21	655.40	445.51	390.30
Income Tax	-	-	-	-
Intra-State Transmission Charges MSLDC charge	5,809.25	5,977.83	5,809.25	0.00
Incentives/Discounts	338.50	367.37	367.37	28.87
Contribution to Contingency Reserves	17.10	17.10	-	(17.10)
Return on Equity Capital	240.54	236.63	237.08	(3.46)
RLC Refund		-		-
ASC Refund		12.27	12.27	12.27
Effect of sharing of gains/losses		1,036.8	(2,119)	(2,119.28)
Past period surplus	-	-	-	-
Revenue gap recovery allowed	2,679.00	2,679.00	2,679.00	-
Impact of payment to MPECS	34.15	34.40	34.40	0.25
Opex Scheme	26.18	23.08	23.08	(3.10)
Incremental Consumption Rebate	548.50	546.44	546.44	(2.06)
Total Revenue Expenditure	74,451.71	85,020.41	81,426.15	6,974.44
Revenue from Sale of Power	84,400.00	85,903.28	85,903.28	1,503.28
Non-Tariff Income	398.73	1,208.37	1,208.37	809.63
Income from Additional Surcharge	117.28	402.62	402.62	285.33
Income from Wheeling charges		0.04	0.04	0.04
Income from Open Access charges	214.92	129.92	129.92	(85.00)
Income from Trading of Surplus Power	319.75	195.93	195.93	(123.83)
Net Aggregate Revenue Requirement	85,450.69	87,840.15	87,840.15	2,389.45

Table 4-122: ARR for FY 2021-22 (Wires + Supply) as approved by Commission (Rs. crore)

	FY 2021-22				
Particulars	MYT Order (a)	MSEDCL Petition (b)	Approved Value (c)	True Up (d) = (c)-(a)	
Power Purchase Expenses	60,568.92	69,478.78	69,478.78	8,909.86	
Operation & Maintenance Expenses	7,257.69	7,949.79	7,822.81	565.14	
Depreciation Expenses	2,963.97	2,880.50	2,871.95	(92.03)	
Interest on Loan Capital	1,275.59	1,058.84	1,081.42	(194.17)	

		FY 20	21-22	
Particulars	MYT Order (a)	MSEDCL Petition (b)	Approved Value (c)	True Up (d) = (c)-(a)
Interest on Normative Working Capital	142.71	123.08	115.16	(27.55)
Interest on Consumers Security Deposit	567.61	360.38	360.38	(207.23)
Other Finance Charges	-	45.47	45.47	45.47
Provision for bad and doubtful debts	732.63	459.62	459.62	(273.01)
Other Expenses	55.21	655.40	445.51	390.30
Income Tax	-	-		-
Intra-State Transmission Charges MSLDC charge	5,809.25	5,977.83	5,809.25	0.00
Incentives/Discounts	338.50	367.37	367.37	28.87
Contribution to Contingency Reserves	171.02	171.02	-	(171.02)
Opex Scheme	110.49	31.67	31.67	(78.82)
DSM Expenses	-	-		-
Return on Equity capital	2,195.18	2,122.32	1,943.46	(251.73)
RLC Refund	-	-		-
ASC Refund	-	12.27	12.27	12.27
Effect of sharing of gains/losses	-	1,036.82	(2,119.28)	(2,119.28)
Past Period Adjustment by Commission	-	-		-
Revenue Gap Recovery Allowed	2,679.00	2,679.00	2,679.00	-
Impact of payment to MPECS in future years	34.15	34.40	34.40	0.25
Incremental Consumption Rebate	548.50	546.44	546.44	(2.06)
Aggregate Revenue Requirement	85,450.43	95,991.01	91,985.70	6,535.27
Revenue from Sale of Power	84,400.00	85,903.28	85,903.28	1,503.28
Non-Tariff Income	398.73	1,208.37	1,208.37	809.63
Income from Open Access Charges	214.92	129.92	129.92	(85.00)
Income from Trading of Surplus Power	319.75	195.93	195.93	(123.83)
Income from Wheeling Charges	-	0.04	0.04	0.04
Income from Additional Surcharge	117.28	402.62	402.62	285.33
Net Aggregate Revenue Requirement	85,450.69	87,840.15	87,840.15	2,389.45
Revenue Gap/(Surplus)	(0.27)	8,150.86	4,145.55	4,145.81

5 PROVISIONAL TRUE-UP FOR FY 2022-2023

5.1 Category Wise Sales for FY 2022-23

- 5.1.1 MSEDCL submitted that it has considered the actual sales till September 2022 and estimated the sales for remaining six months of FY 2022-23 considering historical trend.
- 5.1.2 The provisional sales for the FY 2022-23 excluding the sales in the areas of the Distribution Franchisee is provided as per the table below:

Table 5-1: Category-wise Sales for FY 2022-23 as submitted by MSEDCL

Tuble e 1. Category w	table 5-1. Category-wise bales for 1 1 2022-25 as submitted by MSEDCE						
Catagory	F	Y 2022-23 (MUs)					
Category	MYT Order	MYT Petition	Deviation				
Residential	24,908.16	25,691.93	783.78				
Commercial	9,844.71	7,714.52	(2,130.19)				
HT-Industries	36,308.73	36,797.52	488.36				
LT-Industries	8,259.83	9,109.36	849.53				
PWW	2,739.23	2,687.52	(51.70)				
Streetlight	2,555.71	1,052.34	(1,503.38)				
Agriculture	28,847.04	34,336.42	5,489.38				
Public Services	1,842.58	1,918.62	76.04				
Railways	83.72	109.11	25.39				
Others	740.32	877.41	137.09				
MSEDCL Excl. DF	1,16,130.02	1,20,294.33	4,164				

5.1.3 MSEDCL further submitted that, LT Agriculture sales for FY 2022-23 have been estimated based on the half yearly sales plus the sales for remaining six months keeping in view the water availability for irrigation in the state. The actual sales to Agriculture consumers will depend upon Rabi crop cultivation and the same shall be updated to the Commission during the months of February/ March 2023.

Commission's Analysis and Ruling

Provisional True-up of Non-AG Sales for FY 2022-23:

- 5.1.4 For provisional true-up of sales for FY 2022-23, the Commission has reviewed the actual sales of first half i.e. H1 (April, 2022 to September, 2022) as well as the estimated sales for H2 (October, 2022 to March, 2023) based on the historical sales trends claimed by MSEDCL vis-à-vis that approved in the MTR Order except the claim for AG Sales.
- 5.1.5 The variation in the sales estimate vis-à-vis that projected under MYT Order is 4164 MUs, although there is increase across few consumer categories. The variation in projected sales is mainly on account of variation in Sales of HT-Industrial, HT-Commercial, Residential, Agriculture, LT-Industrial i.e. 488.36 MUs, (2,130) Mus, 783.78 MUs, (1503.38) Mus, 849 MUs and variation in LT AG Sales (Metered and Un-

metered) of 5489.38 MUs as compared to that approved under MYT Order. For the purpose of Provisional True-up the Commission has provisionally accepted the actual sales reported for first half (April to September) for Non-AG consumer categories, whereas for the projection of sales for second half (October to March), the Commission has re-estimated category wise sales based on the historical trend in sales as provided by MSEDCL.

Provisional True-up of AG Sales for FY 2022-23:

- 5.1.6 As discussed in para 3.2.13 to 3.2.24 of Section for true-up for FY 2019-20 and similar in section for FY 2020-21 and FY 2021-22, the Commission has re-estimated the Ag sales based on the approach taken in MYT Order in Case No. 322 of 2019. The Commission has considered the Ag consumption norms same as approved in MYT Order while provisionally approving the AG Sales for FY 2022-23.
- 5.1.7 Approved Sales (for purpose of provisional true-up) for FY 2022-23 is as summarized in the table below:

Particulars	MYT Order	MTR Petition	Approved in this Order
HT Sales	43,307	43,413	45,196
LT Sales - Excluding AG Sales	45,300	43,430	44,356
LT Sales - AG Sales	27,524	33,451	27,167
MSEDCL Sales - Total	116,130	120,294	116,719
Energy Sales in Bhiwandi DF Area	3,589	3,364.62	3,364.62
Energy Sales in Malegaon DF Area	-	741.32	741.32
Energy Sales in Thane DF Area	-	545.76	545.76
Total Energy Sales (Incl. of DF Sales)	119,719	124,946	121,371

Table 5-2: Sales provisionally approved for FY 2022-23 (MU)

5.2 Energy Balance for FY 2022-23

MSEDCL's Submission

- 5.2.1 MSEDCL submitted that the quantum of sales in MU shown in table below represents the sales of MSEDCL excluding the sales in the area served by Distribution Franchisees in the year FY 2022-23 as submitted by MSEDCL. However, while calculating energy balance of MSEDCL as a whole, the sale to the consumers of the Distribution Franchisee area has also been considered.
- 5.2.2 MSEDCL submitted that since the Distribution Franchisee is an agent to MSEDCL as per the Franchisee Agreement, it has to consider the loss within the Franchisee area for Energy balance. Therefore, estimated energy balance for FY 2022-23 is computed as below:

Table 5-3: Energy Sales for FY 2022-23 (MUs) as submitted by MSEDCL

Particulars	MYT Order	MTR Petition
Energy Sales by MSEDCL for FY 2022-23	1,16,130.02	1,20,294.33
Add: Category wise sales in DF area	3,589.23	4,651.70
Add: OA Sales (Conventional)	3,983.40	4,631.00
Add: Solar Offset Units		
Add: Renewable OA	859.40	1,988.00
Total Energy sales MSEDCL	1,24,562.05	1,31,565.03

5.2.3 MSEDCL submitted that considering the principles discussed in energy balance for FY 2020-21 and FY 2021-22, it has computed the energy balance for FY 2022-23. The following table shows the provisional energy balance for FY 2022-23 as submitted by MSEDCL.

Table 5-4: Energy Requirement and Energy Balance for FY 2022-23 as submitted by MSEDCL

				FY 20)22-23
Sr. No.	Particulars	Calculation	UoM	MYT Order	MTR Petition
1	LT Agriculture Sales (Including D.F.)	a	MU	27,395	33,265
2	LT sales excluding Agriculture Sales (Including D.F)	b	MU	48,249	47,464
3	HT Sales excluding EHV level sales (Including D.F)	c	MU	32,916	31,366
4	Total Sales Including D.F. (Excluding EHV Sales)	d=a+b+c	MU	1,08,560	1,12,094
5	OA Sales (Renewables)	e	MU	859	1,988
6	OA Sales (Conventional)	f	MU	3,983	4,631
7	Retail Energy Sale to Consumers (Excluding EHV Sales)	A=d+e+f	MU	1,13,403	1,18,713
8	Sale due to Surplus Energy Traded	B=1%*(d+t)	MU	1,197	-0
9	Retail Energy Sale including surplus traded (Excluding EHV Sales)	C=A+B	MU	1,14,600	1,18,713
10	Total Power Purchase	D=g+h	MU	1,44,484	1,50,619
11	Power Purchase Quantum from Intra-State sources	g	MU	1,04,046	1,02,748
12	Power Purchase Quantum from Inter-State sources	h	MU	40,438	47,871
13	Inter-State Losses	i	%	3.10%	3.10%
14	Power Purchase Quantum from Inter-State sources at MS Periphery	j =h*(1-i)	MU	39,183	46,385
15	Add: FBSM	0		-	(331)
16	Power Quantum handled at Maharashtra Periphery	k =g+j	MU	1,43,229	1,48,802

				FY 20)22-23
Sr. No.	Particulars	Calculation	UoM	MYT	MTR
				Order	Petition
17	Infirm Non-PPA Wind Power	1=e/(1-q)	MU	888	2,053
18	Input for OA Consumption	m=f/(1-q)	MU	4,114	4,783
19	Total Power Purchase Quantum Handled	n=k+l+m-v	MU	1,47,657	1,55,638
20	Surplus Power Traded	O=B	MU	1,197	-0
21	Energy Requirement at G<>T Periphery	p=n-o	MU	1,46,460	1,55,639
22	Intra-State Transmission Loss	q	%	3.18%	3.18%
23	Intra-State Transmission Loss	r=p*q	MU	4,655	4,947
24	Net Energy requirement at T<>D Periphery	s=p-r	MU	1,41,805	1,50,691
25	EHV Sales	t	MU	11,159	12,852
26	Net Energy Available for Sale at 33kV	u=s-t	MU	1,30,645	1,37,840
27	Energy injected and drawn at 33kV	v	MU	573	905
28	Total Energy Available for Sale at 33kV	E=u+v	MU	1,31,219	1,36,935
29	Energy Available for Sale including Surplus traded (excl. OA Sales	F=E-l-m+o	MU	1,27,414	1,30,316
30	Distribution Loss (Excl. EHV Sales and OA Sales)	G=E-A	MU	17,816	18,222
31	Distribution Loss (Excl. EHV Sales and OA Sales)	H=G/F	%	14.0%	14.0%

5.2.4 MSEDCL has requested the Commission to approve the Energy Balance as per the above table.

Commission's Analysis and Ruling

- 5.2.5 The Energy Balance submitted by MSEDCL for FY 2022-23 is as per the format F1.4 approved for 4th Control period, in which Distribution Loss has been estimated excluding EHV sales.
- 5.2.6 The Commission has considered the Conventional Open Access Sales and RE Open Access Sales as submitted by the MSEDCL. The actual data up to September 2022 was made available by MSEDCL in response to queries raised. Accordingly, the submission by MSEDCL towards Open Access Sales is extrapolated further for FY 2022-23.
- 5.2.7 As discussed in para 5.1.6 above, the Commission has elaborated on its approach for estimation of AG sales for the purpose of provisional true-up of FY 2022-23 and for the purpose of Energy Balance and assessment of distribution losses thereof.
- 5.2.8 Based on the revised estimate of LT AG Sales by the Commission as approved in this Order, the approved sales including the DF sales, OA sale and solar offset units as available for the Energy Balance of FY 2022-23 is as shown below:

Table 5-5: Energy Available for Sale for FY 2022-23 (MU) as approved by the Commission

Particulars	MTR Order	MYT Petition	Approved in this Order
Energy Sales by MSEDCL for FY 2022-23	1,16,130.02	1,20,294.33	1,16,719
Add: Category wise sales in DF area	3,589.23	4,651.70	4,651.70
Add: Solar Offset Units	3,983.40	4,631.00	4,631.00
Add: OA Sales (Conventional)			
Add: Renewable OA	859.40	1,988.00	1,988.00
Total Energy sales MSEDCL	1,24,562.05	1,31,565.03	1,27,989.7

- 5.2.9 The Commission has followed a bottom-up approach while provisionally approving the Energy Balance for FY 2022-23. The quantum of sales to consumers is projected first. This energy requirement provides the basis for further grossing up for Distribution Loss, Intra-State loss and Inter-State loss to arrive at the actual energy input requirement to be procured.
- 5.2.10 For provisional truing-up of FY 2022-23, the Energy Balance reported by MSEDCL and approved by the Commission for FY 2022-23 is presented in the Table below.

Table 5-6: Energy Balance for FY 2022-23 as approved by the Commission

					FY 2022-23	3
Sr. No.	Particulars	Calculation	UoM	MYT Order	MTR Petition	Approved in this Order
1	LT Agriculture Sales (Including D.F)	a	MU	27,395	33,265	26981
2	LT Sales excluding Agriculture Sales (Including D.F)	ь	MU	48,249	47,464	48390
3	HT Sales excluding EHV level sales (Including D.F)	С	MU	32,916	31,366	32617
4	Total Sales including D.F (Excluding EHV Sales)	d=a+b+c	MU	1,08,560	1,12,094	107988
5	OA Sales (Renewables)	e	MU	859	1,988	1988
6	OA Sales (Conventional)	f	MU	3,983	4,631	4631
7	Retail Energy Sale to Consumers (Excluding EHV Sales)	A=d+e+f	MU	1,13,403	1,18,713	114607
8	Sale due to Surplus Energy Traded	B=1%*(d+t)	MU	1,197	0	0
9	Retail Energy Sale including surplus traded (Excluding EHV Sales)	C=A+B	MU	1,14,600	1,18,713	114606
10	Total Power Purchase	D=g+h	MU	1,44,484	1,50,619	145437
11	Power Purchase Quantum from Intra- State sources	g	MU	1,04,046	1,02,748	103903
12	Power Purchase Quantum from Inter- State sources	h	MU	40,438	47,871	41534
13	Inter-State Losses	i	%	3.10%	3.10%	3.10%
14	Power Purchase Quantum from Inter- State sources at MS Periphery	j=h*(1-i)	MU	39,183	46,385	40245

				FY 2022-23			
Sr. No.	Particulars	Calculation	UoM	MYT Order	MTR Petition	Approved in this Order	
	Add: FBSM		MU		(331)	272	
15	Power Quantum handled at Maharashtra Periphery	k=g+j	MU	1,43,229	1,48,802	144420	
16	Infirm Non-PPA Wind Power	1=e/(1-q)	MU	888	2,053	2053	
17	Input for OA Consumption	m=f/(1-q)	MU	4,114	4,783	4783	
18	Total Power Purchase Quantum Handled	n=k+l+m-v	MU	1,47,657	1,55,638	151256	
19	Surplus Power Traded	o=B	MU	1,197	0	0	
20	Energy Requirement at G<>T Periphery	p=n-o	MU	1,46,460	1,55,639	151256	
21	Intra-State Transmission Loss	q	%	3.18%	3.18%	3.18%	
22	Intra-State Transmission Loss	r=p*q	MU	4,655	4,947	4808	
23	Net Energy requirement at T<>D Periphery	s=p-r	MU	1,41,805	1,50,691	146448	
24	EHV Sales	t	MU	11,159	12,852	13383	
25	Net Energy Available for Sale at 33kV	u=s-t	MU	1,30,645	1,37,840	133065	
26	Energy injected and drawn at 33kV	v	MU	573	905	905	
27	Total Energy Available for Sale at 33kV	E=u+v	MU	1,31,219	1,36,935	132161	
28	Energy Available for Sale including Surplus traded (excluding OA Sales)	# F=E-l- m+o	MU	1,27,414	1,30,316	125542	
29	Distribution Loss (Excl. EHV Sales and OA Sales)	# G=E-A	MU	17,816	18,222	17554	
30	Distribution Loss (Excl. EHV Sales and OA Sales)	H=G/F	%	14.0%	14.0%	14.0%	

5.3 Distribution Loss for FY 2022-23

MSEDCL's Submission

- 5.3.1 In MYT Order dated 30th March 2020, in Case No. 322 of 2019, the Commission had approved distribution loss excl. EHV of 14.0 %. MSEDCL has considered the same targeted loss levels for estimation as shown below.
- 5.3.2 MSEDCL has requested the Commission to approve the Distribution Losses as submitted below in the table:

Table 5-7: Distribution Loss for FY 2022-23 as submitted by MSEDCL

Particulars	MYT Order	MTR Petition	Deviation	
Distribution Loss	14.0%	14.0%	-	

Commission's Analysis and Ruling

- 5.3.3 The Commission had stipulated the trajectory for reduction of Distribution Loss in its MYT Order for 4th Control period in Case No. 322 of 2019. Based on the revised formats and methodology for computation of Distribution Loss by considering the sales at the distribution periphery excluding EHV sales, the Distribution Loss level stipulated for FY 2022-23 was 14.00% in the MYT Order. That formed the basis for estimated approval of the Energy Balance in the MYT Order for that year. Accordingly, the Commission approves the same distribution losses as approved in the last MYT Order i.e. 14.00%.
- 5.3.4 Based on this, the approved Distribution Loss for FY 2022-23 is as shown in the Table below:

Table 5-8: Distribution Loss for FY 2022-23 as approved by the Commission

Particulars	MYT Order	MTR Petition	Approved in this Order
Distribution Loss	14.00%	14.00%	14.00%

5.4 Power Purchase Expenses for FY 2022-23

- 5.4.1 MSEDCL has sought Provisional Truing-up of the ARR for FY 2022-23 considering the power purchase till September 2022 (provisional) and projected power purchase for remaining 6 months of FY 2022-2023 considering sales projection with estimated Distribution losses.
- 5.4.2 The analysis underlying the Commission's approval for Provisional True-up of FY 2022-23 is set out in the following sections.

MSEDCL's Submission

5.4.3 MSEDCL submitted the estimation for H2 period of FY 2022-23 of sources are as follows:

MSPGCL:

- 5.4.4 MSEDCL submitted that it has considered the quantum of energy available for sale from MSPGCL stations based on the contracted capacity of each station and average month wise actual availability for last 3 years (i.e., FY 2019-20 to FY 2021-22). The auxiliary consumption has considered as approved by Commission in MYT Order in Case No. 322 of 2019.
- 5.4.5 Further, MSEDCL has submitted that the variable cost for H2 of FY 2022-23 is considered same as actual variable cost billed up to the month of September 2022 for each of the station and fixed cost is considered same as that approved by the Commission in MYT Order for FY 2022-23.

NTPC Stations:

- 5.4.6 MSEDCL submitted that it has considered the quantum of energy available for sale from NTPC stations based on the contracted capacity of each station and normative availability. The auxiliary consumption is considered as approved by Commission in MYT Order. MSEDCL has considered PGCIL Loss of 3.10% on the ex-bus energy to arrive at the total energy available at State Periphery.
- 5.4.7 MSEDCL has submitted that the variable cost for H2 of FY 2022-23 is considered based on the actual variable rate billed by NTPC stations up to August 2022. Accordingly, the variable cost is worked out for H2 of FY 2022-23 and the fixed cost is considered in line with the fixed cost approved by the Commission in its MYT Order in Case No. 322 of 2019.

IPP Stations:

- 5.4.8 MSEDCL submitted that it has considered the quantum of energy available for sale from IPPs based on the contracted capacity of each station and normative availability. The auxiliary consumption is considered as approved by the Commission in MYT Order.
- 5.4.9 MSEDCL submitted that the variable rates are considered based on the quoted escalable and non-escalable rates of the respective IPPs for FY 2022-23. In addition to this, MSEDCL has also continued the impact of actual rate of transportation and Change in Law claims made by respective IPPs in September 2022 and projected the same for H2 of FY 2022-23.
- 5.4.10 MSEDCL submitted that in case of APML stations (4 units) and RIPL stations (2 units), additional impact of Change in Law with respect to Coal shortfall is also considered in H2 of FY 2022-23 which is in line with the variable rates billed by such power stations in September 2022.

Table 5-9: Source-wise Power Purchase estimated for FY 2022-23 as submitted by MSEDCL

	PP (PP Quantum (MUs) PP Cost (Rs. Cost) PP Cost (Rs. /Un				PP Cost (Rs. Cost)			nits)
Source	Approved in MYT order	Estimated	Deviatio n	Approve d in MYT order	Estimate d	Deviation	Approve d in MYT order	Estima ted	Deviati on
MSPGCL	51,879.08	55,640.94	3,761.86	22,122.17	26,078.24	3,956.07	4.26	4.69	0.42
NTPC	27,631.72	35,548.81	7,917.10	10,931.57	15,420.91	4,489.34	3.96	4.34	0.38
NPCIL	4,932.23	4,420.04	(512.19)	1,475.51	1,391.31	(84.20)	2.99	3.15	0.16
SSP	1,209.94	826.91	(383.03)	248.06	169.52	(78.54)	2.05	2.05	(0.00)
Pench	136.50	105.20	(31.30)	27.98	21.57	(6.42)	2.05	2.05	0.00
Dodson	115.72	-	(115.72)	18.11	9.47	(8.64)	1.57		(1.57)
JSW	1,934.21	173.45	(1,760.8)	780.61	169.90	(610.71)	4.04	9.80	5.76
CGPL	5,157.89	3,721.39	(1,436.49)	1,623.54	2,032.18	408.64	3.15	5.46	2.31

	PP (Quantum (MU	Js)	PP	PP Cost (Rs. Cost)			PP Cost (Rs. /Units)		
Source	Approved in MYT order	Estimated	Deviatio n	Approve d in MYT order	Estimate d	Deviation	Approve d in MYT order	Estima ted	Deviati on	
Adani power	20,986.36	17,131.28	(3,855.08)	8,214.29	9,856.35	1,642.06	3.91	5.75	1.84	
GMR Warora/ EMCO	1,370.06	1,420.75	50.69	684.14	548.17	(135.97)	4.99	3.86	(1.14)	
Rattan India	1,884.11	8,256.55	6,372.44	1,387.59	3,209.20	1,821.61	7.36	3.89	(3.48)	
Sai Wardha		1,664.26	1,664.26		759.27	759.27		4.56	4.56	
Renewable	27,246.49	19,881.63	(7,364.87)	11,162.10	9,121.59	(2,040.51)	4.10	4.59	0.49	
Traders		1,770.95	1,770.95		1,036.10	1,036.10		5.85		
RECs		-	-		-	-				
Other Adjustments		-	-		0.03	0.03				
PGCIL Charges		-	-	3,661.91	3,661.91	0.00				
FBSM		(330.82)	(330.82)		1.90	1.90		(0.06)		
Inter State Purchase		4.22	4.22		3.02	3.02		7.14		
G -DAM		52.91	52.91		38.86	38.86		7.34		
Total Power Purchase	1,44,484	1,50,288	5,804	62,337.57	73,529	11,192	4.31	4.89	0.58	

- 5.4.11 MSEDCL has requested the Commission to approve the Power Purchase as per the above table.
- 5.4.12 MSEDCL has submitted the details of RE Purchase for FY 2022-23 are provided in table below:

Table 5-10: Source-wise RE Purchase estimate for FY 2022-23 as submitted by MSEDCL

Source	FY 2022-23				
Source	Quantum (MU)	Cost (in Rs. Crs).			
Wind	6,163.82	2,771.31			
SHP	764.16	229.98			
Bagasse based Cogen.	5,004.33	3,186.79			
Biomass	273.19	195.71			
MSW	0.39	0.20			
Total Non-Solar	12,205.88	6,383.99			
Total Solar	7,675.74	2,737.60			
Total	19,881.63	9,121.59			

Commission's Analysis and Ruling

5.4.13 The Commission notes that MSEDCL has estimated higher power purchase quantum against the approved under MYT Order (deviation of 5804 MUs). However, after detailed scrutiny of the estimates of the energy sales, the Commission observes that the deviation is mainly because of the higher requirement of power purchase quantum against the agriculture consumption as dealt in the Para 3.2.13 to 3.2.24 of this Order.

- In the said Para the Commission has considered the energy sales considering AG index norm approved in line with the MYT Order in Case no. 322 of 2019.
- 5.4.14 Accordingly, based on the total power purchase at G<>T periphery approved by the Commission in the Table 5-6, the Power purchase cost has been estimated based on the MOD principles after undertaking the detailed scrutiny of the submissions/claims made by MSEDCL and sought clarification on various counts as presented in the subsequent paragraphs.

MSPGCL:

- 5.4.15 The Commission has considered the Fixed cost, Energy Charge rate, availability and auxiliary consumption as provisionally approved by the Commission in the MSPGCL MTR Order in Case No. 227 of 2022.
- 5.4.16 Accordingly, based on the MoD principle, the power purchase quantum for FY 2022-23 is estimated as 60,026 MUs as against 55,640 MUs as estimated by MSEDCL. Further, power purchase cost from MSPGCL units is estimated as Rs. 26,139 Crore as against Rs. 26,078 Crore as estimated by MSEDCL.

NTPC:

- 5.4.17 The Commission has sought for the Sample copies of bills paid for NTPC till September 2022 in the data gap query and upon verification of the sample bills, the Commission found it in Order.
- 5.4.18 Accordingly, the Commission has considered the Variable cost of FY 2022-23 as submitted by MSEDCL. In addition, the Commission has considered the availability of NTPC stations as per MYT Order in Case No. 322 of 2019 and inter-state transmission Loss as 3.55 % based on average of all India loss provided by POSOCO for FY 2022-23 (till Feb 2023) to arrive at ex-bus energy to the total energy available at State Periphery.
- 5.4.19 Accordingly, after applying MOD principle for all available resources, the Commission has estimated the power purchase quantum from NTPC stations as 30, 044 MUs as against 35, 548 MUs as estimated by MSEDCL. Further, power purchase cost from NTPC units is estimated as Rs. 12, 858 Crore as against Rs. 15, 420 Crore as submitted by MSEDCL.

IPPs:

- 5.4.20 The Commission has sought for the Sample copies of bills till September 2022 in the data gap query and upon verification of the sample bills, the Commission found it in order.
- 5.4.21 Accordingly, the Commission has considered the Variable cost for IPPs for FY 2022-23 as submitted by MSEDCL as it has already factored in the impact of actual rate of

- transportation and Change in Law claims made by respective IPPs. Further, availability and Auxiliary consumption is considered as approved by the Commission in the MYT Order in Case no. 322 of 2020.
- 5.4.22 In line with above consideration and after applying MOD principle, the power purchase quantum from IPP stations is 27,964 MUs as against 32, 376 MUs as estimated by MSEDCL. Further, power purchase cost from IPPs is Rs. 14,533 Crore as against Rs. 16,775 Crore as estimated by MSEDCL.

RPO Compliance:

5.4.23 The Commission notes that MSEDCL has not complied with the stand alone RPO Target of FY 2020-21 and FY 2021-22 as discussed in Para 4.5.91 of this Order. Further, the Commission has allowed MSEDCL to carry forward the RPO shortfall till FY 2019-20 in FY 2022-23 vide Order in Case 49 of 2021. Accordingly, the Commission has sought for the details of RPO compliance in FY 2022-23 which it has submitted as below:

Table 5-11: RPO Compliance for FY 2022-23 as submitted by MSEDCL

Particulars	Actual Quantum (H1)	Estimated Quantum (H1 and H2)	Target Quantum
Solar	3, 677	7,696	11,508
Non Solar	6, 164	12, 236	16,542

- 5.4.24 The Commission notes that MSEDCL has not complied with the stand alone RPO target of FY 2022-23. Therefore, the Commission has sought details of the steps undertaken by MSEDCL towards meeting the cumulative shortfall and plans to address the same.
- 5.4.25 In response to this MSEDCL submitted that as on 31 October 2022, MSEDCL has contracted 5,928 MW capacity of Solar Power and 6,878 MW capacity of Non-Solar Power as detailed below:

Table 5-12: RPO Compliance for FY 2022-23 as submitted by MSEDCL

Sr. No.	Source	Contracted Capacity in MW	Commissioned in MW
1a	Solar (Centralized)	4428.00	3553.00
1b	Solar (MSKVY)	1478.00	537.86
1c	Solar (Kususm)	22.00	0.00
1	Total Solar	5928.00	4090.86
2a	Wind	3511.91	2839.36
2b	Bagasse based Co-		
20	generation	2634.70	2407.30
2c	Biomass	87.00	87.00

Sr. No.	Source	Contracted Capacity in MW	Commissioned in MW
2d	Small Hydro	327.33	320.68
2e	Wind-Solar Hybrid	300.00	0.00
2f	Municipal Solid Waste	17.19	4.00
2	Total Non-Solar	6878.13	5658.34
	Total RE	12806.13	9749.20

5.4.26 Further, it has submitted that to achieve RPO target, it the tenders are being aggressively called through transparent competitive bidding during last three financial years under Solar and Non-Solar category as below:

Table 5-13: RE Tenders floated for RPO Compliance, as submitted by MSEDCL

Sr. No.	Technology	No. of Tenders (Nos)	Toral Tendered Capacity (MW)	Rate discovered (Rs./unit)	Bid received in MW	Finalized contracted capacity (MW)
1	Solar	16	9620	2.41 to 3.10	4906	560
2	Wind	3	1142	2.65	208	161
3	Other than Wind in Non Solar	2	1000	2.62	1450	300
	Total	21	11762		6564	1068

- 5.4.27 In addition to above, under "Mukhyamantri Saur Krishi Vahini Yojana (MSKVY) MSEDCL has called tenders for 5645 MW capacity, however bid received only for 1084 MW at the rate Rs. 3.00 to 3.10 per unit and only 39 MW PPAs are executed by MSEDCL by 31 December 2022. Also, under the "Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhiyan" (PM-KUSUM) Scheme MSEDCL being nodal agency for "PM KUSUM-A" has floated tenders for 2605 MW through competitive bidding process, only 238.2 MW bids received at the rate RS. 2.93 to 4.12 per unit. However, only 31 MW PPAs are executed.
- 5.4.28 Regarding Non-solar, MSEDCL has floated tenders for Wind Power tenders for 1342 MW 'post expiry of EPA', however received response for only for 208.23 MW at the rate of Rs. 2.65/unit.
- 5.4.29 In view of above submissions, the Commission is of the opinion that despite aggressively floating tenders for Solar, MSEDCL is receiving poor response the various reasons including change in GST rate, Basic Custom Duty impact on Solar modules and cells and increase in cost of raw materials, etc.
- 5.4.30 Further, in case of non-solar the Commission agrees that due to disruptions in supply chain due to COVID-19 and increase in raw material cost there is a poor response from the non-Solar bidders. In addition, the delay in the SCOD due to Covid-19 has also impacted the non-compliance of RPO.

- 5.4.31 In view of the above and considering that, the presently it is provisional True-up of FY 2022-23, the Commission is not inclined to take any action against MSEDCL for nonfulfilment of RPO as envisaged in Regulation 12 of MERC RPO Regulations 2019. The finds it appropriate to allow MSEDCL to carry forward cumulative RPO shortfall till FY 2022-23 to the remaining years of the 4th Control Period i.e. FY 2024-25.
- 5.4.32 The Commission emphasizes that the carry forward of shortfall till FY 2022-23 to FY 2024-25 is subject to the provision of Penalty in form of reduction in the ARR as per Regulation 12.3 of RPO Regulations, 2019. Further, the Commission would perform RPO compliance status review for FY 2022-23 in next MYT Process as the year is not yet concluded.

Short-Term Power Purchase:

- 5.4.33 MSEDCL has filed petition for approval and adoption of tariff determined through transparent bidding process for procurement of short-term power for October-22 and March-23 to May-23 vide Case No. 148 of 2022 and approval for increase in ceiling rate for short term power purchase at higher cost than the ceiling rate approved by the Commission in its MYT Order. The relevant para of the order is reproduced below:
 - "11.6. MSEDCL has also requested to fix appropriate ceiling tariff for all future short term power procurement. The Commission notes that power procurement envisaged in present Petition falls under two tariff years i.e. FY 2022-23 (October-2022 & March-2023) and FY 2023- 24 (April-2023 & May-2023). For FY 2023-24 onwards, ceiling tariff will be revised during Mid Term Review Order and hence in the present Petition, the Commission is considering revising celling tariff for FY 2022-23 only. Weighted average tariff of Rs. 7.44/kWh (for procurements in October-2022 and March-2023) is discovered through competitive bidding in present process, the same shall act as ceiling tariff for procurement of short-term power through competitive bidding process for FY 2022-23. Any tariff discovered below such ceiling shall be considered as deemed adopted as per provisions of competitive bidding guidelines notified by the Central Government for short-term power procurement."
- 5.4.34 In reply to the data gap MSEDCL has provided the monthly quantum and rate for short term power purchase till September 2022 as shown in the table below:

Table 5-14: Short term Power Purchase in FY 2022-23 H1 as submitted by MSEDCL

Month	Power Purchase (Energy Exchange)			
WIOHUI	MUs*	Rate (Rs/kWh)		
Apr-22	415.77	8.64		
May-22	103.44	6.28		
Jun-22	220.88	3.65		
Jul-22	429.90	4.75		
Aug-22	507.40	5.74		
Sep-22	146.47	5.11		
Total	1823.86	5.89		

- 5.4.35 The Commission notes that till September 2022, MSEDCL has procured 1823.86 MUs at an average rate of Rs. 5.89 per unit which is under the ceiling tariff of Rs. 7.44 per unit for FY 2022-23 in Case no. 148 of 2022.
- 5.4.36 Accordingly, the Commission has provisionally approved the short-term power purchase till September 2022. Further, the Commission also notes that since the situation of coal availability has improved over the last few months and after the running the MOD for FY 2022-23, MSEDCL is able to meet its demand through its present contracted sources itself. Hence, the Commission has not approved any quantum for short-term purchase in H2 of FY 2022-23.

PGCIL Charges:

- 5.4.37 For FY 2022-23, MSEDCL has estimated the PGCIL Charges as Rs. 3,661.91 Crore, which amounts to y-o-y increase of over 11.29 % over FY2021-22. In response to clarification sought by the Commission w.r.t. significant increase in PGCIL charges, MSEDCL submitted copies of monthly bills against ISTS charges from PGCIL for FY 2019-20, FY 2020-21 and FY 2021-22. Further, MSEDCL has clarified that it has considered the actual PGCIL charges paid during H1 of FY 2022-23 and estimated accordingly for H2 of FY 2022-23.
- 5.4.38 The Commission upon analysis of month-wise ISTS bills of H1 of FY 2022-23 submitted, the Commission observes that annual escalation is 11.29 %. Further, actual annual impact of ISTS bills for FY 2022-23 would only be known at the end of the year. Hence, for the purpose of provisional true-up for FY 2022-23, has provisionally approved the PGCIL charges of Rs. 3,661.91 Crore for FY 2022-23 as estimated by MSEDCL. However, the same shall be subject to scrutiny and prudence check at the time of Truing-up of FY 2022-23.
- 5.4.39 Accordingly, the Commission approves following power purchase expenses for FY 2022-23:

Table 5-15: Power Purchase Expenses for FY 2022-23 as approved by Commission (Rs. Crore)

	MTR Petition		Approved in this Order			
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
KAPP	1,129.06	257.58	2.28	1,081.03	246.74	2.28
TAPP 1&2	(4.67)	0.20	(0.43)	-	0.20	-
TAPP 3&4	3,295.65	1,133.53	3.44	3,152.05	1,084.76	3.44
SSP	826.91	169.52	2.05	1,213.26	248.72	2.05
Pench	105.20	21.57	2.05	136.89	28.06	2.05
Subhansari Hydro	-	-	-	-	-	-
Dodson I	-	-	-	-	-	-
Dodson II	-	9.47	-	-	9.47	-
Renewable - Non Solar	12,205.88	6,383.99	5.23	12,205.88	6,383.99	5.23
Renewable - Solar	7,675.74	2,737.60	3.57	7,675.74	2,737.60	3.57
Hydro (including Ghatghar)	4,236.95	862.94	2.04	4,285.91	827.62	1.93
BHUSAWAL - 3	632.38	415.01	6.56	1,198.97	709.03	5.91
BHUSAWAL 4 & 5	5,960.40	3,085.34	5.18	7,018.42	1,074.51	1.53
KHAPARKHED A -1 to 4	4,312.73	2,027.32	4.70	4,972.63	586.46	1.18
KHAPARKHED A 5	3,290.77	1,692.15	5.14	3,509.21	1,909.37	5.44
NASHIK- 3 to 5	2,442.19	1,516.47	6.21	222.46	597.42	26.85
CHANDRAPUR - 3 to 7	8,408.62	3,883.43	4.62	10,564.48	5,328.66	5.04
Chandrapur 8 & 9	6,631.14	3,332.47	5.03	7,018.42	3,731.96	5.32
Paras - 3 & 4	2,968.25	1,350.36	4.55	3,334.26	1,522.52	4.57
PARLI UNIT-6 & 7	2,991.66	1,735.61	5.80	3,289.77	1,910.37	5.81
KORADI - 6	1,077.97	454.93	4.22	1,184.57	767.85	6.48
Koradi 8 to 10	9,940.63	4,082.92	4.11	11,719.50	5,838.86	4.98
GTPS URAN	1,407.80	763.88	5.43	-	211.19	-
Parli replacement U 8	1,339.45	875.43	6.54	1,707.94	1,123.52	6.58
KSTPS	4,678.80	1,193.99	2.55	4,498.25	1,166.05	2.59
KSTPS VII	811.90	232.33	2.86	880.62	242.14	2.75
KhSTPS II	1,102.47	542.01	4.92	1,036.52	518.29	5.00
VSTP I	3,037.55	816.91	2.69	3,010.05	812.48	2.70
VSTP II	2,429.97	611.39	2.52	2,410.54	608.48	2.52
VSTP III	2,010.21	520.82	2.59	1,983.55	516.71	2.60
VSTP IV	2,320.29	745.50	3.21	2,139.80	717.95	3.36
VSTP V	1,178.83	395.41	3.35	1,153.01	391.33	3.39

		MTR Petitio	n	Approved in this Order			
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	
KAWAS	1.46	184.84	1,268.90	-	182.14	ı	
GANDHAR	2.48	167.78	676.60	-	164.10	-	
SIPAT TPS 1	3,707.22	1,471.11	3.97	4,057.95	1,549.49	3.82	
SIPAT TPS 2	2,104.03	673.53	3.20	1,975.04	642.84	3.25	
MSTPS-I	2,868.45	1,783.74	6.22	2,597.69	1,663.29	6.40	
MSTPS-II	3,726.43	2,277.83	6.11	1,603.20	1,311.26	8.18	
Gadarwara - I & II	971.62	564.37	5.81	730.50	465.21	6.37	
Lara Chattisgarh - Stg. I - I & II	2,011.31	831.46	4.13	1,967.79	819.80	4.17	
Khargone - I & II	229.04	217.14	9.48	-	101.81	ı	
Solapur - I & II	2,283.12	2,157.32	9.45	-	984.68	-	
NTPC NVVN Coal	73.65	33.81	4.59	-	-	-	
JSW	173.45	169.90	9.80	-	82.64	-	
CGPL	3,721.39	2,032.18	5.46	3,507.83	1,935.28	5.52	
APML 125 MW	417.72	315.31	7.55	798.72	493.99	6.18	
APML 1320 MW	9,351.11	4,497.66	4.81	9,215.03	4,447.43	4.83	
APML 1200 MW	6,348.69	4,154.86	6.54	2,584.17	2,374.07	9.19	
APML 440 MW	1,013.75	888.53	8.76	690.79	735.57	10.65	
GMR Warora/ EMCO	1,420.75	548.17	3.86	1,373.82	535.78	3.90	
Sai Wardha	1,664.26	759.27	4.56	1,551.61	723.59	4.66	
RattanIndia Amravathi	8,256.55	3,209.20	3.89	8,242.91	3,204.96	3.89	
Short Term Power Purchase	1,770.95	1,036.10	5.85	1,823.86	1,074.96	5.89	
FBSM/DSM	(330.82)	1.90	(0.06)	23.00	1.90	0.83	
Inter State	4.22	3.02	7.14	4.22	3.02	7.14	
G-DAM	52.91	38.86	7.34	52.91	38.86	7.34	
PGCIL Charges	-	3,661.91	-	-	3,661.91	-	
Total	1,50,288	73,530	4.89	1,45,405	69,051	4.75	

5.4.40 The Commission observed that after considering MOD principle for FY 2022-23, the rate per unit of power procured of some of the stations in FY 2022-23 is extremely high (i.e., Gandhar, JSW) are not getting dispatched. Further, some of the high-cost generators has lower units of generation. However, based on the respective station's availability, MSEDCL has to bear the cost of fixed cost towards respective stations.

5.5 Intra State Transmission Charges for FY 2022-23

MSEDCL's Submission

- 5.5.1 MSEDCL submitted that the InSTS charges are taken actual up to September 2022 and estimated for remaining 6 months of FY 2022-23 as per the InSTS Order dated 30th March 2020 in Case No 327 of 2019.
- 5.5.2 Based on the above submission, the comparison of the approved and the estimated transmission charges for FY 2022-23 is as shown below. MSEDCL has requested the Commission to approve the below said Intra-State Transmission Charges.

Table 5-16: InSTS Charges for FY 2022-23 as submitted by MSEDCL (Rs. Crore)

Doutionlan	FY 2022-23				
Particular	MYT Order	MTR Petition	Deviation		
Intra-State Transmission Charges	5,885.89	5,885.89	-		
MSLDC Charges	29.18	29.18	-		
Total	5915.07	5915.07	-		

Commission's Analysis and Ruling

- 5.5.3 For FY 2022-23, the Commission has considered the actual Transmission Charges and SLDC charges paid by MSEDCL as per the Order dated 30 March 2020 in Case No. 327 of 2019 and dated 30 March 2020 in Case No. 291 of 2019 respectively for the purpose of provisional truing up of FY 2022-23
- 5.5.4 Accordingly, intra-state transmission charges and MSLDC charges as approved by the Commission for the purpose of provisional true-up for FY 2022-23 is summarized below:

Table 5-17: InSTS Charges and MSLDC Charges for FY 2022-23 as approved by the Commission (Rs. Crore)

	FY 2022-23				
Particular	MYT Order	MTR Petition	Approved in this Order		
Intra-State Transmission Charges	5,885.89	5,885.89	5,885.89		
MSLDC Charges	29.18	29.18	29.18		
Total	5915.07	5915.07	5915.07		

5.6 O&M Expenses for FY 2022-23

MSEDCL's Submission

5.6.1 MSEDCL submitted that it has estimated the O&M Expenses on normative basis for FY 2022-23 based on Regulation 75 and 84 of MERC MYT Regulations, 2019 provides for the O&M expenses norms for Distribution Wires and Retail supply business of electricity respectively.

5.6.2 MSEDCL has submitted that for computation of revised normative O&M expenses for FY 2022-23, revised normative O&M expenses for FY 2021-22 has been escalated by the escalation factor of 5.06% derived for FY 2021-22. MSEDCL has computed the O&M expense for Wires Business and Retail supply of electricity for FY 20122-23 as shown in figure.

Table 5-18: Operation & Maintenance Expenses for FY 2022-23, as submitted by MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition (Normative)
O&M Expenditure for Wires Business	4,898.36	5,186.36
O&M Expenditure for Supply Business	2,637.58	2,792.66
Operation & Maintenance Expenses	7,535.94	7,979.02

5.6.3 MSEDCL has requested to approve the same on a provisional basis for wires and supply business.

Commission's Analysis and Ruling

- 5.6.4 The Commission has applied the amended norms specified in Regulations 75 and 84 of the MYT Regulations, 2019 for approval of O&M Expenses for the Wires Business and Supply Business for FY 2022-23. The relevant extract of the regulation is as given below:
 - "75.3... 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."

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:

5.6.5 The Commission has computed the escalation factor as specified according to the above provision of the MYT Regulations, 2019 and the same works out to 5.06% after reducing 0% efficiency factor (Increase in the number of consumers including open access consumers of at least 2 percent annually over the last 3 years) for FY 2021-22. In accordance with the same, the revised normative O&M expenses as approved under this order for FY 2021-22 has been considered for arriving at the normative O&M expense of FY 2022-23.

5.6.6 For the purpose of deriving the escalation rate, CPI and WPI for the period FY 2017-18 to FY 2021-22 has been considered along as shown below.

Table 5-19: O&M expense escalation rate

Particulars	WPI	CPI
Average from FY18 to FY22	4.63%	5.24%
Weight	30%	70%
Escalation Factor		5.06%
Efficiency Factor		0%
Escalation Factor for FY 2021-22 & MYT Control Period net of efficiency		5.06%
factor	•	

5.6.7 The Commission has approved the revised Normative O&M Expenses FY 2021-22 as Rs. 7,467.82 Crore while Truing-up of FY 2021-22 in the Chapter-4 of this Order. Accordingly, as per the provision of the Regulations discussed above, the Commission has applied escalation of 5.06% on revised normative O&M Rs 7,467.82 Crore approved for FY 2021-22 in this Order, to arrive at O&M Norms for FY 2022-23 which works out to Rs 7,845.63 Crore.

Table 5-20: O&M Expenses for FY 2022-23 (Wires + Supply) approved by the Commission (Rs. crore)

Particulars	MTR Order	MTR Petition (Normative)	Approved in this Order
Normative O&M Expenditure for Wires Business	4,898.36	5,186.36	5,099.66
Normative O&M Expenditure for Supply Business	2,637.58	2,792.66	2,745.97
Normative Operation & Maintenance Expenses	7,535.94	7,979.02	7,845.63

5.6.8 Thus, the Commission provisionally approves Rs. **7,845.63** Crore as normative O&M Expense for FY 2022-23, which shall be subject to prudence check at the time of final true-up.

5.7 OPEX schemes for FY 2022-23

MSEDCL's Submission

5.7.1 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.

5.7.2 MSEDCL has considered the expenses till September 2022 (provisional) and projected expenses for remaining six months of FY 2022-23 as against Rs. 110.49 Crore approved by the Commission. Further, MSEDCL is also proposing certain new schemes for inclusion under the OPEX schemes. Following table shows the estimated OPEX Schemes expenses for FY 2022-23.

Table 5-21: OPEX Scheme for FY 2022-23 (Wires + Supply) submitted by MSEDCL (Rs. Crore)

	FY 202	FY 2022-23		
Particulars	MYT Order	MTR Petition		
Opex scheme (Wires Business)				
Substation Monitoring System (SMS)	69.53	21.30		
MSEDCL Cloud Projects	8.32	7.98		
Annual Technical supports of SAP/HANA/Oracle software Licences	5.94			
Vehicle Tracking Systems	0.53	0.77		
Demand Forecasting		0.68		
GIS		0.19		
Network analysis		0.19		
SAP S4 HANA		8.99		
SD wan		0.03		
Sub Total	84.31	40.12		
Opex Scheme (Retail supply)				
Consumer care centre	6.60	26.46		
RF-DCU (Expression of Interest & Tender)	4.80	4.80		
MSEDCL cloud Projects	8.32	7.98		
Annual Technical supports of SAP/HANA/Oracle software licences	5.94			
Vehicle Tracking Systems	0.53	0.77		
Demand Forecasting		0.68		
GIS		0.19		
Network analysis		0.19		
SAP S4 HANA		8.99		
SD Wan		0.03		
Sub Total	26.18	50.08		
Total	110.49	90.20		

Commission's Analysis and Rulings

5.7.3 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.

- 5.7.4 The Commission sought in data gap query regarding details of schemes proposed under OPEX along with monetary benefits. The Commission also asked whether the schemes proposed under OPEX qualify the conditionalities in Regulations 75.7 and 84.7 of MYT Regulations, 2019. Further, the Commission also enquired about selection of service provider for roll-out of OPEX schemes. are eligible. In reply to data gap query MSEDCL has submitted the projects wise Cost Benefits Analysis of OPEX schemes. MSEDCL asl clarified that the selection of service provider for various OPEX scheme projects, is done through competitive bidding process. The RFP / tenders are processed through e-tender portal of MSEDCL. The cost competitiveness is ensured in each OPEX scheme project, by awarding project to L1 bidder only, after ensuring rate reasonability.
- 5.7.5 It is observed that, MSEDCL has proposed new schemes under OPEX from FY 2022-23 onwards which were not approved in MYT Order in Case No. 322 of 2019. Further, during scrutiny of OPEX schemes approved in MYT Order and status of those schemes in truing up years FY 2020-21 and FY 2021-22, it is observed that OPEX schemes have not been implemented fully as approved in MYT Order.
- 5.7.6 With regards to new OPEX schemes it is observed that MSEDCL has only provided the intangible benefits of the scheme and fall short in demonstrating savings in O&M expenses. Hence, the Commission is not inclined to approve the OPEX schemes which were not approved OPEX basket at the time of MYT Order in Case No. 322 of 2019.
- 5.7.7 However, OPEX schemes approved by the Commission are shown in table below.

Table 5-22: OPEX Scheme for FY 2022-23 (Wires + Supply) approved by the Commission (Rs. Crore)

	FY 2022-23			
Particulars	MYT Order	MTR Petition	Approved in this Order	
OPEX scheme (Wires Business)				
Substation Monitoring System (SMS)	69.53	21.30	21.30	
MSEDCL Cloud Projects	8.32	7.98	7.98	
Annual Technical supports of SAP/HANA/Oracle software Licences	5.94	-	-	
Vehicle Tracking Systems	0.53	0.77	0.77	
Demand Forecasting	-	0.68	-	
GIS	-	0.19	-	
Network analysis	-	0.19	-	
SAP S4 HANA	-	8.99	-	
SD wan	-	0.03	-	
Sub Total	84.31	40.12	30.05	
OPEX Scheme (Retail supply)				
Consumer care centre	6.60	26.46	26.46	
RF-DCU (Expression of Interest & Tender)	4.80	4.80	4.80	

	FY 2022-23			
Particulars	MYT Order	MTR Petition	Approved in this Order	
MSEDCL cloud Projects	8.32	7.98	7.98	
Annual Technical supports of SAP/HANA/Oracle software licences	5.94	1	1	
Vehicle Tracking Systems	0.53	0.77	0.77	
Demand Forecasting	-	0.68	-	
GIS	-	0.19	-	
Network analysis	-	0.19	-	
SAP S4 HANA	-	8.99	-	
SD wan	-	0.03	-	
Sub Total	26.18	50.08	40.01	
Total	110.49	90.20	70.06	

5.7.8 Thus, the Commission provisionally approved Rs 70.06 Crore under head of OPEX scheme for FY 2022-23 shall be subjected to prudence check during Truing-up of FY 2022-23. Kindly note that for approval of these schemes during True-up, MSEDCL needs to show resultant saving in O&M expenses.

5.8 Capital Expenditure and Capitalisation for FY 2022-23

MSEDCL's Submission

5.8.1 MSEDCL has submitted that it has estimated the Capitalization for FY 2022-23 as Rs. 4.620.94 Crore which is as shown in the table below:

Table 5-23: Capitalization as submitted by MSEDCL for FY 2022-23 (Rs. crore)

Particulars	MYT Order	MTR Petition	Deviation
Capitalization	2,090.36	4,620.94	2,530.58

- 5.8.2 The scheme-wise details for Capital Expenditure and Capitalization have been submitted by MSEDCL in the regulatory formats along with the petition. MSEDCL has estimated a Capitalization of Rs. 159.83 Crore towards other assets, which is not forming part of any specific scheme.
- 5.8.3 MSEDCL submitted that the Commission in the past order had approved capitalization towards schemes not forming part of DPR or Non-DPR category of schemes. Accordingly, the Commission had revised the GFA to that extent. Hence MSEDCL has requested in the current petition to approve the Capitalization as submitted above.

Commission's Analysis and Rulings

5.8.4 The Commission noted that MSEDCL has estimated capitalization of Rs. 4,620.94 Crore for FY 2022-23, whereas the Commission has approved Capitalisation for FY

2022-23 is Rs. 2090.36 Crore in its MYT Order in Case No. 322 of 2019. The Commission sought justification for the significant deviation in Capitalisation. In reply MSEDCL clarified that, in MYT Petition, it had not submitted the schemes to be executed FY 2022-23 onwards, so the projection was on lower side. Subsequently new schemes have been initiated.

5.8.5 The Commission notes the following reasons submitted by MSEDCL for time over run in major schemes:

Name of Scheme	Justification for over run		
Infra Plan Works II	Planned year for project competition: 2014-15.		
	Reasons:		
	Time lapse while securing permissions from Forest Department,		
	Railways at Line crossing, National Highway Authority of India,		
	Municipal Corporation for laying of underground cables.		
R-APDRP B	Planned year for project competition: 2012-13.		
	Reasons:		
	Right of way constraints and objection by local bodies for road		
	excavation.		
Scada Part A	Planned year for project competition: 2013-14.		
	Reasons:		
	Network Connectivity issues		
IPDS & DDUGJY	Planned year for project competition: 2018-19.		
	<u>Reasons:</u>		
	 Due to delay in getting permissions and non-receipt of 		
	permissions from local, state and central Govt. Authorities there		
	is some change of scope.		
	 Due to facing local ROW there is some change in scope. 		
	Flood in Maharashtra.		
	Delay in getting permission from local & Govt. Authorities.		
	 Local ROW 		
	 Delay/non receipt of permission from Forest department. 		
	 Work suffered due to COVID-19 pandemic. 		
	Delay due to Cyclone in Maharashtra.		
	■ Change in tax regime (GST), Demonetization.		

5.8.6 The Commission notes that post notification of MERC (Approval of Capital Investment Schemes) Regulations, 2022 (CAPEX Regulations, 2022) the schemes are governed by conditionalities contained therein. Regulation 9.2 and 14.4 of MERC (Approval of Capital Investment Schemes) Regulations, 2022, specifies the provisions to be referred while allowing capitalisation.

. . . .

[&]quot;9.2. The Prudence Check for approval of the completed cost of DPR Schemes shall comprise detailed scrutiny of the following parameters inter-alia:

Variation with respect to scheduled completion date and justification thereof, and impact of delay in completion, if any, including impact on Interest During Construction (IDC) and inflation on the cost of the entire project."

"14.4. In case of delay in completion of the Capex Scheme beyond the schedule considered in the in-principle approval, the Commission shall adopt the following methodology for allowing excess Interest During Construction (IDC) on account of delay in completion of the Scheme, at the time of approval of completed cost.

Period of Delay (Percentage of original	Percentage Disallowance
Scheduled Completion Period)	of excess IDC
1% - 10%	0%
11% - 25%	10%
26% - 40%	20%
41-60%	40%
60%-80%	75%
Above 80%	100%

5.8.7 The Commission notes that MSEDCL in Regulatory formats has proposed to capitalise the IDC in respect of following schemes, which have substantial time-overrun:

Table 5-24: IDC claimed by MSEDCL for FY 2022-23 (Rs. crore)

Particulars	IDC Claimed
Infra Plan Works II	1.05
P:SI	0.02
DDUGJY	0.004470
IPDS	0.02
Total	1.09

- 5.8.8 In earlier Orders also the Commission emphasized that, additional capitalisation on account of time over run of the schemes, and undue burden of excess interest i.e. IDC, shall not be passed on to consumers and such IDC shall be disallowed. In view of the above provision of Capex Regulations, the IDC of Rs 1.09 Crores is disallowed for FY 2022-23.
- 5.8.9 Regulation 24.2 of MYT Regulations, 2019 specifies the provisions to be referred while allowing Capitalisation.

"The capital cost admitted by the Commission after prudence check shall form the basis for determination of Tariff:

Provided that prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan including the choice and manner of funding, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of Tariff."

- 5.8.10 The Commission notes that MSEDCL has submitted Rs 582.00 Crore under DPR pending/Yet to approved schemes. The Commission notes that RDSS is one of the proposed schemes, which is yet to be approved. RDSS is a target driven flagship scheme of Government of India. MSEDCL in this Petition has also not elaborated on nature of works, initiated under RDSS. Considering nature of works and MSEDCL's yearly capitalisation in past, the Commission allows token amount of Rs 50 Crore (i.e 10% of Rs 500 Crore) for RDSS (Loss reduction) schemes. The Commission has not considered these schemes of Rs. 531.74 crore which are yet to be approved for allowing capitalisation in FY 2022-23.
- 5.8.11 The Commission notes that MSEDCL has claimed capitalization of Rs 850 Crore under New Consumer scheme. Cumulative capitalisation proposed under New Consumer scheme surpasses the in-principally approved capital outlay. Hence, the Commission has restricted the phasing of New consumers scheme only up to in-principle approval during the control period and considered Rs 595 Crore only for capitalization purpose.
- 5.8.12 With regards to Infra Plan Works- II scheme, MSEDCL has claimed capitalisation to the tune of Rs. 300 Crores and Rs.120 Crores for FY 2022-23 and FY 2023-24. As mentioned in earlier paras, this scheme is already surpassed its timeline and need to be re-evaluated. The project cost is also increased substantially on account of increase in material cost. Hence, MSEDCL is suggested to close the Infra Plan-II scheme. For completing WIP works, the Commission is allowing 10% of the estimated capitalisation for FY 2022-23 and FY 2023-24.
- 5.8.13 The DPR Schemes allowed by the Commission are shown below in table:

Table 5-25 DPR Schemes allowed by the Commission in FY 2022-23 (Rs. Crore)

	S.No Schemes		Y 2022-23
S.No			Approved in this Order
1	Infra plan works II	300.00	30.00
2	New Consumer	850.00	595.00
3	AG Policy-2020	32.00	0.00
4	Total (A)	1,182.00	625.00
В	DPR Pending for Approval		
5	RDSS (Loss reduction)	500	50.00
6	RDSS (PMA)	7	0.00
7	DT metering plan	65	0.00
8	Reactive power management	10	0.00
	scheme		
9	Total (B)	582	50
10	Total (A)+(B)	1764.00	675.00

5.8.14 Based on the above, the capitalization provisionally allowed for FY 2022-23 is as follows:

Table 5-26: Capitalization approved by Commission for FY 2022-23 (Rs crore)

	FY 2022-23		
Particulars	MTR Order	MTR Petition	Approved in this Order
DPR Capitalisation amount (a)	774.28	4519.91	3,431.43
Non-DPR	124.51	101.03	100.89
Allowable Non-DPR Capped (b)	124.51	101.00	100.89
Total Capitalization (c = a+b)	898.79	4620.94	3,532.33

5.8.15 Summary of Capitalisation approved by the Commission is as follows:

Table 5-27: Summary of Capitalisation approved by Commission for FY 2022-23

Particulars	MYT Order	MTR Petition	Approved in this Order
Capitalisation	898.79	4,620.94	3,532.33

5.8.16 Thus, for provisional truing up the Commission approves the Capitalisation of Rs. 3,532.33Crores for FY 2022-23, which shall be subject to prudence check at the time of final true-up.

5.9 Depreciation for FY 2022-23

MSEDCL's Submission

- 5.9.1 MSEDCL has submitted that depreciation for FY 2022-23 has been computed by considering the opening GFA arrived at by excluding grants and Consumer contribution. Depreciation rate used for computation for FY 2022-23 is actual weighted average rate for FY 2021-22.
- 5.9.2 The depreciation computed by MSEDCL for FY 2022-23, and claimed for provisional true-up is as shown in the table below:

Table 5-28: Depreciation as submitted by MSEDCL for FY 2022-23 (Rs. crore)

Particulars	MYT Order	MSEDCL Petition
Opening GFA (Regulatory)		59,436.93
Depreciation	3060.76	2,968.79

5.9.3 MSEDCL has requested to allow the depreciation as submitted in the above table.

Commission's Analysis and Rulings

- 5.9.4 The Commission has considered the Opening GFA as the closing GFA approved for FY 2021-22 in Truing Up for computing the depreciation, and on the revised capitalization approved during FY 2021-22. Further, as per Regulation 26.2 (c) of the MYT Regulations, 2019, the Commission has excluded contribution from grants and consumer contribution for the purpose of computation of depreciation for FY2022-23. The relevant Regulations is reproduced as under.
 - "25.2 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."
- 5.9.5 The Commission sought yearly depreciation and GFA (with Asset class-wise break-up) having accumulated depreciation less than 70%, between 70% and 90% and greater than 90%. MSEDCL in its reply to data gap submitted the details of Depreciation as an Annexure to data gap and the same was reviewed. MSEDCL should maintain details of Depreciation and GFA in the same manner and should be furnished along with all future tariff Petitions. Accordingly, the Commission has approved opening GFA of Rs 58,571.17 for FY 2022-23. As regards Depreciation rate for computation for FY 2022-23, the same is considered as actual weighted average rate for FY 2021-22. Depreciation for FY 2022-23 are shown in table below:

Table 5-29: Depreciation approved for FY 2022-23 (Rs. crore)

Particulars	MYT Order	MTR Petition	Approved in this Order
Opening GFA	61,185.77	59,436.93	58,869.77
Depreciation	3060.76	2,968.79	2,688.58
% Depreciation	4.95%	4.99%	4.56%

5.9.6 Summary of depreciation approved by the Commission is as follows:

Table 5-30: Summary of Depreciation for FY 2022-23 (Rs. crore)

Particulars	MYT Order	MTR Petition	Approved in this Order
Depreciation	3,060.76	2,968.79	2,688.58

5.9.7 Thus, for provisional truing up of FY 2022-23, the Commission approves Depreciation expense at Rs. 2,688.58, which shall be subject to prudence check at the time of final true-up.

5.10 Funding Pattern for FY 2022-23

MSEDCL's Submission

- 5.10.1 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.
- 5.10.2 The funding pattern for FY 2022-23 for the capitalization estimated by MSEDCL, in proportion to the funding pattern of capital Expenditure, is presented in the following table:

Table: Funding Pattern proposed by MSEDCL (Rs. Crore)

Particular	Amount (Rs. crore)
Total Capitalization	4,620.94
Less: Consumer Contribution	125.02
Less: Grants	2,426.87
Balance to be funded	2,069.06
Equity	131.87
Debt	1,937.18
Equity (%)	6.00%
Debt (%)	94.00%

Commission's Analysis and Rulings

5.10.3 The Commission has considered the funding pattern for capitalization for FY 2022-23 in the same ratio as for the funding of proposed capital expenditure, in line with the methodology adopted by MSEDCL and after considering the approved quantum of capitalization as presented in the following table, subject to prudence check and review during the truing-up exercise.

Table 5-31: Funding Pattern approved by Commission (Rs. Crore)

Particular	Amount (Rs. crore)
Total Capitalization	3,532.33
Less: Consumer Contribution	95.57
Less: Grants	1,855.14
Balance to be funded	1,581.62
Equity	100.81
Debt	1,480.82

Particular	Amount (Rs. crore)
Equity (%)	6.00%
Debt (%)	94.00%

5.11 Interest expenses for FY 2022-23

MSEDCL's Submission

- 5.11.1 MSEDCL has submitted that the interest on long term loan for FY 2022-23 has been computed on normative basis linked to the normative loan addition during the year. Further, MSEDCL has considered the weighted average interest rate of actual loan portfolio of FY 2021-22.
- 5.11.2 MSEDCL has referred to Regulation 30.3 of MERC MYT Regulations, 2019, stating that the loan repayment is considered equal to depreciation.
- 5.11.3 Considering the normative opening balance of loan equivalent to closing balance of loan considered for FY 2021-22 and repayment equal to depreciation the interest expenses as computed by MSEDCL is provided in the table below:

Table 5-32: Interest Expenses for FY 2022-23, as submitted by MSEDCL (Rs. Crore)

Particulars	MYT Order	MSEDCL petition
Normative Outstanding Loan at beginning of the year	12,010.89	9,957.99
Less: Reduction of Normative Loan due to retirement of assets		
Loan Drawl	876.88	1,937.18
Loan Repayment	3,060.76	2,968.79
Normative Balance outstanding at the end of the year	9,827.01	8,925.84
Interest Rate	10,918.95	9,442.20
Average Balance of Net Normative Loan	10.28%	9.85%
Net Interest Expenses	1,121.94	930.01

Commission's Analysis and Rulings

- 5.11.4 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."
- 5.11.5 The Commission has considered the funding pattern for capitalization for FY 2022-23 in the same ratio as for the funding of proposed capital expenditure, in line with the methodology adopted by MSEDCL and after considering the approved quantum of

capitalization as presented in the following table, subject to prudence check and review during the truing-up exercise.

Table 5-33: Funding Pattern approved by Commission (Rs. Crore)

Particular	Amount (Rs. crore)
Total Capitalization	3,532.33
Less: Consumer Contribution	95.57
Less: Grants	1,855.14
Balance to be funded	1,581.62
Equity	100.81
Debt	1,480.82
Equity (%)	6.00%
Debt (%)	94.00%

5.11.6 Regulation 30.5 of MYT Regulations, 2019 is as below:

"30.5 The rate of interest shall be the weighted average rate of interest computed on the basis of the actual 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 loan portfolio during the concerned year shall be considered as the rate of interest:

Provided further that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest for actual loan shall be considered:"

5.11.7 The Commission notes the MSEDCL's submission for the opening and closing balance of loan from different banks. Accordingly, summary of opening and closing balance of loan from different banks is shown in below table:

Table 5-34Summary of opening and closing balance of loan from different banks

Particulars	FY 2022-23
PFC	
Opening Balance of Loan	1,418.63
Less: Reduction of Normative Loan due to	
retirement or replacement of assets	
Addition of Loan during the year	71.88
Loan Repayment during the year	318.99
Closing Balance of Loan	1,171.52
Average Loan Balance	1,295.07
Applicable Interest Rate (%)	9.00 to 11.00%
Interest Expenses	239.36
REC	
Opening Balance of Loan	10,997.99
Less: Reduction of Normative Loan due to retirement or replacement of assets	

Particulars	FY 2022-23
Addition of Loan during the year	41.66
Loan Repayment during the year	1,697.74
Closing Balance of Loan	9,341.91
Average Loan Balance	10,169.95
Applicable Interest Rate (%)	6.88% to 11.23%
Interest Expenses	1,007.09
MIDC	
Opening Balance of Loan	123.52
Less: Reduction of Normative Loan due to	
retirement or replacement of assets	
Addition of Loan during the year	-
Loan Repayment during the year	-
Closing Balance of Loan	123.52
Average Loan Balance	123.52
Applicable Interest Rate (%)	-
Interest Expenses	-
Other Loan Punjab national bank	
Opening Balance of Loan	699.24
Less: Reduction of Normative Loan due to	_
retirement or replacement of assets	10.07
Addition of Loan during the year	43.37
Loan Repayment during the year	7.40.61
Closing Balance of Loan	742.61
Average Loan Balance	720.93
Applicable Interest Rate (%)	7.80%
Interest Expenses Punjab National Bank	57.09
Opening Balance of Loan	455.35
Less: Reduction of Normative Loan due to	433.33
retirement or replacement of assets	
Addition of Loan during the year	59.51
Loan Repayment during the year	57.61
Closing Balance of Loan	514.86
Average Loan Balance	485.11
Applicable Interest Rate (%)	7.40%
Interest Expenses	36.55
GOM	
Opening Balance of Loan	10.57
Less: Reduction of Normative Loan due to	
retirement or replacement of assets	
Addition of Loan during the year	-
Loan Repayment during the year	1.93
Closing Balance of Loan	8.64
Average Loan Balance	9.60
Applicable Interest Rate (%)	10.50%
Interest Expenses	0.99

Particulars	FY 2022-23
Total	
Opening Balance of Loan	13,705.30
Less: Reduction of Normative Loan due to retirement or replacement of assets	
Addition of Loan during the year	216.42
Loan Repayment during the year	2,018.66
Closing Balance of Loan	11,903.06
Average Loan Balance	12,804.18
Applicable Interest Rate (%)	10.48%
Interest Expenses	1,341.29

5.11.8 Accordingly, as per provisions under the Regulations, the Commission has considered last available rate i.e., the weighted average Rate of interest as approved for FY 2021-22 which is 9.85%. The same has been allowed accordingly. The Opening loan for FY 2022-23 is considered same as closing balance of FY 2021-22 approved by the Commission.

Table 5-35: Interest Expenses approved by the Commission for FY 2022-23 (Rs. Crore)

Particulars	MTR Order	MSEDCL Petition	Approved in this Order
Opening Balance of Net Normative Loan	12,010.89	9,957.99	10,235.87
Less: Reduction of Normative Loan due to retirement or replacement of assets	1	1	-
Addition of Normative Loan due to capitalization during the year	876.88	1,937.18	1,480.82
Repayment of Normative Loan during the year	3060.76	2,968.80	2,688.58
Closing Balance of Net Normative Loan	9,827.01	8,926.4	9,028.11
Closing Balance of Gross Normative Loan	9,827.01	8,926.4	9,028.11
Average Balance of Net Normative Loan	10,918.95	9,441.64	9,631.99
Weighted average Rate of Interest on actual Loans (%)	10.28%	9.85%	9.85%
Interest Expenses	1,121.94	929.95	948.70
Expenses Capitalized	-	-	-
Total Interest Expenses	1,121.94	930.01	948.70

5.11.9 Thus, for provisional truing up the Commission approves Rs. 948.70 Crores for Interest Expense for FY 2022-23, which shall be subject to prudence check at the time of final true-up.

5.12 Other Finance Charges

MSEDCL's Submission

5.12.1 The Regulation 30.8 of the MYT Regulations, 2019 specifies that the finance charges shall be allowed at the time of True-up. The Commission in the MYT Order dated 30th

March 2020 in Case No. 322 of 2019 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 2022-23 and will claim the same during true-up.

Commission Ruling and Analysis

5.12.2 Regulation 30.8 of the MYT Regulation, 2019 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."

5.12.3 The Commission observes MSEDCL is not projecting any finance charges for FY 2020-23. The Commission shall approve the financial charges if any subject to prudence check at the time of final true-up of FY 2022-23.

5.13 Return on Equity for FY 2022-23

MSEDCL's Submission

- 5.13.1 MSEDCL has submitted that Regulation 29.1 of MYT Regulations, 2019 provides for RoE for Distribution Licensee for both Wires and Supply Business.
- 5.13.2 As per the allocations matrix provided in Regulation 68 of MYT Regulations, 2019 MSEDCL has assigned the fixed assets in the ratio of 90% to 10% between wires and supply business for computation of RoE. Therefore, MSEDCL has submitted that capital expenditure, capitalization, grants and equity are also divided in the same ratio.
- 5.13.3 For wires business, considering the provisions of the MYT Regulations, 2019 MSEDCL has calculated the return on equity for wires and supply business as shown in the tables below:

Table 5-36: RoE for Wires Business for FY 2022-23 as submitted by MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition
RoE (Wires Business)		
Regulatory Equity at the beginning of the year	11,747.33	12,366.40
Equity portion of Assets Capitalisation	338.22	118.68
Equity portion of Assets Decapitalised	1	-
Regulatory Equity at the end of the year	12,085.55	12,485.09
Return on Computation		
Return on Regulatory Equity at the beginning of the year- 14%*(1)	1,992.76	1,731.30
Return on Normative Equity portion of Asset Capitalization – 14%(2)/2	28.69	8.31

Particulars	MYT Order	MTR Petition
Interest on Equity portion above 30% equity		
Total Return on Regulatory Equity	2,021.45	1,739.60

5.13.4 For supply business, MSEDCL has computed the return on equity at 15.5% on average equity based upon the opening balance of equity and normative additions during the year in the table below:

Table 5-37: RoE for Supply Business for FY 2022-23 as submitted by MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition
Return on Equity (Supply Business)		
Regulatory Equity at the beginning of the year	1,306	1,374
Equity portion of Assets Capitalisation	38	13
Equity portion of Assets Decapitalised		
Regulatory Equity at the end of the year	1,343	1,388
Return on Computation		
Return on Regulatory Equity at the beginning of the year- 15.5%*(1)	245.23	213.05
Return on Normative Equity portion of Asset Capitalization – 15.5%(2)/2	3.53	1.02
Interest on Equity portion above 30% equity		
Total Return on Regulatory Equity	248.75	214.07

Commission's Analysis and Rulings

- 5.13.5 The closing equity approved for FY 2021-22 is Rs. 12,239.34 Crores and Rs. 1,380.04 Crores respectively for wire and supply business, details of which is explained in the chapter 4 -Truing up of FY 2020-21 and FY 2021-22 in the Order.
- 5.13.6 The opening equity for FY 2022-23 is considered same as the closing equity approved for FY 2021-22 at Rs. 12,239.34 Crores and Rs. 1,380.04 Crores for wire and supply business respectively.
- 5.13.7 The Commission has approved the funding pattern based on the approved capitalisation for FY 2022-23, as discussed in the Para 5.10.7 above for interest expenses.
- 5.13.8 No grossing up of RoE with effective Tax rate has been undertaken as MSEDCL has not paid any tax in FY 2021-22.
- 5.13.9 The RoE approved for the purpose of Provisional truing up of FY 2022-23 in accordance with the Regulation 29.1 of MYT Regulations, 2019, is as follows:

Table 5-38: Return on Equity (Wires) for FY 2022-23 approved by Commission (Rs. crore)

Particulars	MYT	MTR	Approved in
1 at uculais	Order	Petition	this Order
Equity at the beginning of the year	11,747.33	12,366.40	12,239.34
Equity portion of Assets Capitalization	338.22	118.68	90.72
Equity at the end of the year	12,085.55	12,485.09	12,330.07
Return on Equity Computation			
Return on Equity at the beginning of the year -@14.00%	1,992.76	1,731.30	1,713.51
Return on Normative Equity portion of Asset	28.69	8.31	6.35
Capitalization - @14.00%/2	26.09		0.55
Total Return on Equity	2,021.45	1,739.60	1,719.86

Table 5-39: Return on Equity (Supply) for FY 2022-23 approved by Commission (Rs. crore)

Particulars	MYT Order	MTR Petition	Approved in this Order
Equity at the beginning of the year	1,305.71	1,374.49	1,380.04
Equity portion of Assets Capitalization	37.58	13.19	10.08
Equity at the end of the year	1,343.29	1,387.68	1,390.12
Return on Equity Computation			
Return on Equity at the beginning of the year - @15.5%	245.23	213.05	213.91
Return on Normative Equity portion of Asset Capitalization - @15.5%/2	3.53	1.02	0.78
Total Return on Equity	248.75	214.07	214.69

Table 5-40: Summary of RoE approved by Commission (Wires+Supply) (Rs. crore)

Particulars	MTR Order	MTR Petition	Approved in this Order
RoE for Wires Business	2,021.45	1,739.60	1,719.86
RoE for Retail Supply Business	248.75	214.07	214.69
Return on Equity	2,270.20	1,953.67	1,934.55

5.13.10Thus, for provisional truing up the Commission approves Return on Equity of Rs. 1,934.55 Crore for FY 2022-23.

5.14 Interest on Working Capital for FY 2022-23

MSEDCL's Submission

5.14.1 MSEDCL has submitted that the IoWC for wires business has been computed in accordance with Regulation 32.3 of MERC MYT Regulations, 2019. Further, the said

- Regulation also provides that the normative rate of IoWC shall be base rate as on the date of filing of Petition plus 150 basis points, according to the Regulation.
- 5.14.2 Accordingly, the rate of interest considered for computation of working Capital by MSEDCL for wires business is 9.55% (8.05%+1.50%).
- 5.14.3 MSEDCL submitted that the Regulation 30.11 of MYT Regulations, 2019 provides for Interest on Security Deposit at Bank Rate.
- 5.14.4 MSEDCL has estimated the security deposit considering a nominal growth of 5% over previous year. Further, the Commission notified the MERC (Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2021 repealing the earlier Supply Code Regulations, 2005 Regulations is being amended and for the consumers having billing cycle of one month, it is modified from average bill of one month to average bill of two months. In order to comply the provisions of the regulations, MSEDCL issued Commercial Circular No. 336 dated 16th March 2022 for recovery of the Security Deposit.
- 5.14.5 MSEDCL has has considered actual amount of additional security deposit received as on 13th November 2022 in cash for calculation of interest on security deposit. Accordingly, MSEDCL has calculated interest on consumer security deposit for FY 2022-23 @ 4.25% for wires business. Interest on Working capital along with the interest on security deposit for wire business as shown in table below.

Table 5-41: IoWC and Security Deposit for Wires Business for FY 2022-23 as per MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition
Computation of Working Capital (Wire Business)		
O&M expenses for a month	399.74	432.20
Maintenance Spares at 1% of Opening GFA	648.43	583.60
One and half months equivalent of the expected revenue from charges for use of Distribution Wires	1,401.14	1,354.21
Less: Amount held as Security Deposit from Distribution System users	(916.91)	(1,030.80)
Total Working Capital Requirement	1,532.40	1,339.21
Rate of Interest (% p.a.)	9.50%	9.55%
Interest on Working Capital	145.58	127.89
Actual Working Capital Interest		-
Interest on Security Deposit		
Rate of Interest (% p.a.)	6.50%	4.25%
Interest on Security Deposit	59.60	43.81

5.14.6 MSEDCL has claimed that the IoWC for retail supply business has been computed in accordance with Regulation 32.4 of MERC MYT Regulation, 2019. 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.

5.14.7 The Computation of working capital interest for retail supply is as shown in the table below:

Table 5-42: IoWC and Interest Security Deposit for Supply Business for FY 2022-23 as submitted by MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition
Computation of Working Capital (Supply Business)		
O&M expenses for a month	215.24	232.72
Maintenance Spares at 1% of Opening GFA	72.05	64.84
One and half months equivalent of the expected revenue from sale of electricity at the prevailing Tariff, and including revenue from cross-subsidy surcharge and Additional Surcharge	10,491.73	12,513.30
Less: Amount held as security deposit	(8,252.23)	(9,277.24)
Less: One month equivalent of cost of Power purchase, Transmission Charges and MSLDC Charges	(6,180.93)	(6,620.38)
Total Working Capital Requirement	(3,654.14)	(3,086.75)
Rate of Interest (% p.a.)	9.50%	9.55%
Interest on Working Capital	•	-
Actual Working Capital Interest		-
Interest on Security Deposit		
Rate of Interest (% p.a.)	6.50%	4.25%
Interest on Security Deposit	536.40	394.28

5.14.8 MSEDCL has requested the Commission to approve the IoWC for wires business and supply business as shown in the computation above.

Commission Analysis and Ruling

- 5.14.9 Regulations 32.3 and 32.4 of the MERC MYT Regulation, 2019 provides for IoWC for Wire business and supply business of electricity. The relevant extract 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:"
 32.4 (b) Pate of interest on working capital shall be on normative basis and
 - 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:"
- 5.14.10The Commission has worked out the working capital requirement on a normative basis, which is based on the approved parameters as per this Order. Considering the negative impact of security deposit, the normative working capital requirement works out to be negative and considered as nil for supply business.

- 5.14.11As per Regulation 30.11 of MYT Regulation, 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:"
- 5.14.12As regards Consumer Security Deposit, the Commission has considered Regulation 30.11 of MYT Regulations, 2019 for computation of interest on security deposit and the rate of interest on security deposit is computed as the MCLR on 01 April 2022 plus 150 Basis points. Accordingly, the interest rate on consumer security deposit computed is 4.25% applied on security deposit for FY 2022-23 obtained by considering a nominal growth of 5% over the amount of consumer deposit collected from the consumers for the previous year.
- 5.14.13The Commission has reworked the IoWC in accordance with the MYT Regulations, 2019 norms and based on parameters such as the O&M Expenses, Wires ARR and Supply ARR approved in this Order.

Table 5-43: IoWC and Security Deposit for Wires Business as approved by Commission for FY 2022-23 (Rs. crore)

		FY 2022-	23
Particulars	MYT Order	MTR Petition	Approved in this order
O&M expenses for a month	399.74	432.20	424.97
Maintenance Spares at 1% of Opening GFA	648.43	583.60	529.83
One and half months equivalent of the expected revenue from sale of electricity including revenue from CSS and Additional Surcharge	1401.14	1,354.22	1,295.07
Less: Amount of Security Deposit	(917)	(1,031)	(952)
Total Working Capital Requirement	1,532.40	1,339.21	1,298.25
Computation of Working Capital Interest			
Rate of Interest (%) = SBI Base Rate + 150 basis points	9.50%	9.55%	9.55%
Interest on Working Capital	145.58	127.89	123.98
Interest on Security Deposit			
Rate of Interest (%) = SBI Base Rate + 150 basis points	6.50%	4.25%	4.25%
Interest on Security Deposit	59.60	43.80	40.40

Table 5-44: IoWC and Consumers' Security Deposit for Supply Business as approved by Commission for FY 2022-23 (Rs crore)

	FY 2022-23			
Particulars	MYT Order	MTR Petition	Approved in this order	
O&M expenses for a month	215.24	232.72	228.83	
Maintenance Spares at 1% of Opening GFA	72.05	64.84	58.87	
One and half months equivalent of the expected revenue from sale of electricity including revenue from CSS and Additional Surcharge	10,491.73	12,513.30	12,644.28	
Less: Amount of Security Deposit	(8252)	(9,277)	(8,565)	
Less: One month equivalent of cost of power purchase, Transmission Charges and MSLDC Charges	(6,180.93)	(6,620.38)	(6,247.16)	
Total Working Capital Requirement	(3,654.14)	(3,086.75)	(1,879.80)	
Computation of Working Capital Interest				
Rate of Interest (%) = SBI Base Rate + 150 basis points	9.50%	9.55%	9.55%	
Interest on Working Capital	-	-	-	
Interest on Security Deposit				
Rate of Interest (%) = SBI Base Rate + 150 basis points	6.50%	4.25%	4.25%	
Interest on Security Deposit	536.40	394	364.04	

5.14.14Accordingly, the IoWC and the Interest on Security Deposits from Consumers and Distribution System Users approved for FY 2022-23 is as follows:

Table 5-45: IoWC and Interest on Security Deposit as approved by Commission FY 2022-23 (Wires+Supply) (Rs. crore)

Particulars	MYT Order	MTR Petition	Approved in this Order
IoWC (Wire + Supply)	145.58	127.89	123.98
Interest on CSD (Wire + Supply)	596	437.80	404.44

5.14.15Thus, for provisional truing up the Commission approves IoWC and Interest on Consumer Security Deposit for FY 2022-23 at Rs. 123.98 Crore and Rs 404.44 Crore respectively.

5.15 Provision for Bad Debt for FY 2022-23

MSEDCL's Submission

5.15.1 MSEDCL has claimed provisioning towards Bad Debts for FY 2022-23 in line with Regulations 76 and 85 of the MYT Regulations 2019. The Regulation of bad and doubtful debt may be allowed up to 1.5% of the amount claimed as trade receivables or

- receivables in the Audited Accounts of the distribution licensee duly allocated for wires and supply businesses respectively.
- 5.15.2 MSEDCL has computed the provision for bad and doubtful debts for FY 2022- 23 as per the provisions of the MYT Regulations, 2019 considering the estimated receivables for FY 2022-23. The receivables are taken as per provisional till September 2022 in order to arrive at the receivables for FY 2022-23.
- 5.15.3 It has further submitted that for the interest part of receivables a y-o-y rise of 2% and 10% is taken for Non-AG and AG, while for the principle part a y-o-y rise of 2% and 10% is taken for Non-AG and AG respectively. MSEDCL stated that the provision of bad debts claimed for FY 2022-23 shall only be written-off after the approval of the Commission.
- 5.15.4 MSEDCL for estimation purpose has presently considered provisioning @1.50% instead of 7.50% (as Ag sales are more than 20% of total sales). 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 22-23 is shown in following table:

Table 5-46: Provision for Bad Debts for (Wires + Supply) Business for FY 2022-23 as submitted by MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition
Opening Balance of Provision for bad and doubtful debts	-	1,395.02
Receivables for the year	48,842	70,641.84
Provision for bad & doubtful debts during the year	1.50%	1.50%
Provision for Bad & Doubtful Debts during the year	732.63	1,059.63
Actual bad and doubtful debts written off	732.63	1,059.63
Closing Balance of Provision for bad and doubtful debts		1,395.02
Closing Balance as a % of receivables	0.00%	1.97%

5.15.5 MSEDCL submitted 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. The same is shown in following table:

Table 5-47: Provision for Bad Debts for Wires and Supply Business for FY 2022-23 as submitted by MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition
Bad Debt Provision for Wires business	73.26	105.96

Particulars	MYT Order	MTR Petition
Bad Debt Provision for Retail Supply business	659.37	953.66
Bad Debt Provision	732.63	1,059.63

Commission's Analysis and Ruling

- 5.15.6 The Commission observed that there is significant increase in total receivable of MSEDCL in FY 2022-23 compared to previous years. As per Audited accounts of FY 2021-22 Trade Receivables is Rs. 48,701.59 Crore and MSEDCL for FY 2022-23 has estimated Rs. 70,641.84 Crore which is 45% increase from the previous year.
- 5.15.7 The Commission observes that in view of the collection efficiency as reported by MSEDCL of around 95%, the estimated receivables for FY 2022-23 is very high. As can be observed the total receivable as projected by MSEDCL here is around Rs. 70,641.84 Crore which is almost 70.18% of the annual ARR FY 2022-23 of MSEDCL. This is an alarming situation. Regulatory accounting is on accrual basis but the low collection efficiency will have an adverse impact on MSEDCL's cash flow and financial stability. In view of the above, in their own interest and financial stability, MSEDCL needs to seriously work out an action plan for improving the collection efficiency. Such concrete and plan should be submitted to the Commission within 3 months of this order. The Commission also observes that during the public consultation process of the present petition, many consumers had highlighted the mounting arrears/receivables position of MSEDCL and raised their concerns and objection on the same. In this context, for provisional truing up Commission has considered the receivables at Rs. 48,701.59 Crore same as FY 2021-22 against Rs. 70,641.84 Crore as claimed by MSEDCL, however, the same shall be reviewed subject to prudence check at the time of true-up exercise.
- 5.15.8 Accordingly, for the provisional truing-up of FY 2022-23 the Commission has approved the provision for Bad Debts at Rs. 730.52 Crore, subject to subsequent truing-up after prudence check.

Table 5-48: Provision for Bad Debts (Wire) for FY 2022-23 as approved by Commission (Rs. crore)

	FY 2022-23		
Particulars	MTR Petition	Approved in this order	
Receivables for the year	7,064.18	4,870.16	
Opening Balance of Provision of Bad and Doubtful Debt as % of Receivables	1.50%	1.50%	
Provision for Bad & Doubtful Debts during the year	105.96	73.05	

Table 5-49:Provision for Bad Debts (Supply) for FY 2022-23 as approved by Commission (Rs. crore)

	FY 2022-23	
Particulars	MTR Petition	Approved in this order
Receivables for the year	63,577.66	43,831.43
Opening Balance of Provision of Bad and Doubtful Debt as % of Receivables	1.50%	1.50%
Provision for Bad & Doubtful Debts during the year	953.66	657.47

Table 5-50: Provision for Bad Debts for FY 2022-23 as approved by Commission (Rs. crore)

Particulars	MYT Order	MTR Petition	Approved in this Order
Provision for Bad & Doubtful Debts	732.63	1,059.62	730.52

5.15.9 Thus, the Commission has approved Rs 730.52 Crore (Wires + Supply business) towards provision for Bad & Doubtful Debts for FY 2022-23 subject to Truing up of FY 2022-23.

5.16 Other Expenses for FY 2022-23

MSEDCL's Submission

- 5.16.1 MSEDCL has claimed 'Other Expenses' comprising 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 2022-23 considering provisional figures for the first six months and projections for the remaining six months for FY 2022-23.
- 5.16.2 The details of other expenses as claimed by MSEDCL in the MYT Petition is provided in the table below:

Table 5-51: Other Expenses for FY 2022-23 as per MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition
Compensation for injuries, death to staff	1.45	2.09
Compensation for injuries, death to others	17.62	16.83
Loss on obsolescence of fixed Assets	1.90	-
Sundry debit balances written off	2.09	6.74
Non-Moving Items	19.56	-
Provision for Non-Moving Items	-	42.34
Others Sundry Expenses	8.97	207.91
Incentive to Distribution Franchisee	-	0.54

Particulars	MYT Order	MTR Petition
Interest to suppliers/Contractors*	-	-
Other Interest and Charges	1	37.47
Interest on security deposit on bill collection agency	1	0.17
Other Expenses for previous years	6.39	-
Total	57.97	314.10

Commission's Analysis and Ruling

- 5.16.3 For provisional truing-up of FY 2022-23, the Commission has noted the past trend of "Other Expense" and found the present claim of MSEDCL under "Other Expense" is not in line with the trend for past years, particularly in respect of the provisioning for non-moving items, other sundry expenses, other interest and charges etc. Thus, for the purpose of provisional true up, the Commission has considered the components under the other expense head in line with past trends or as approved under MYT Order with aggregate amount of Rs 57.97 Crore for FY 2022-23, which shall be trued-up, subject to prudence check at the time of truing up of FY 2022-23.
- 5.16.4 Accordingly, the Commission has approved the following towards Other Expenses, subject to prudence check at the time of true-up.

Table 5-52: Other Expenses for FY 2022-23 as approved by Commission (Rs. crore)

		FY 2022-23		
Particular	MYT Order	MTR Petition	Approved in this order	
Compensation for injuries, death to staff	1.45	2.09	1.45	
Compensation for injuries, death to others	17.62	16.83	17.62	
Loss on obsolescence of fixed Assets	1.90	-	1.90	
Sundry debit balances written off	2.09	6.74	2.09	
Non Moving Items	19.56	-	19.56	
Provision for Non Moving Items	-	42.34	8.97	
Others Sundry Expenses	8.97	207.91		
Incentive to Distribution Franchisee	-	0.54		
Interest to suppliers/Contractors*	-	-		
Other Interest and Charges	-	37.47		
Interest on security deposit on bill collection agency	-	0.17		
Other Expenses for previous years	6.39	-	6.39	
TOTAL	57.97	314.10	57.97	

5.16.5 Thus, for provisional truing up the Commission approves Rs 57.97 Crore under Other Expense for FY 2022-23 subject to prudence check at the time of Turing up of FY 2022-23.

5.17 Contribution to Contingency Reserve for FY 2022-23

MSEDCL's Submission

- 5.17.1 MSEDCL has estimated the provision for contribution to contingency reserves as per Regulation 35 of MYT Regulations, 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.
- 5.17.2 MSEDCL submitted that it is not getting full recovery of the revenue receivable from consumers. MSEDCL is managing its working capital requirement need by availing STL/MTL/LTL working capital loans from banks and financial institutions. As such MSEDCL can invest the amount of contingency reserve only if it gets sufficient quantum of loan from banks or financial institutions. MoP through its guidelines on additional prudential norms has restricted working capital borrowings @ 35% of the revenue which MSEDCL already crossed the same. Hence, MSEDCL is getting difficulties in availing loan and not able to invest the amount of contingency reserve. Secondly, MSEDCL's financials has been badly affected by the consequences of COVID-19 pandemic.
- 5.17.3 Considering the above difficulty and COVID-19 impact, MSEDCL has requested the Commission not to disallow contingency reserve amount and further provide relaxation from the last proviso to Regulations 35.1 of the MERC MYT Regulation, 2019.
- 5.17.4 MSEDCL has requested the Commission to allow the contribution to contingency reserves for FY 2022-23 by invoking its power to relax under Regulation 105 of the MYT Regulation, 2019.
- 5.17.5 MSEDCL has submitted the contribution to contingency reserves for FY 2022-23 at 0.25% of the estimated opening GFA (including grants and consumer contribution) as shown in the table:

Table 5-53: Contribution to Contingency Reserve for FY 2022-23 submitted by MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition
Contribution to Contingency Reserve	180.12	90.06

5.17.6 MSEDCL has submitted that it has claimed the investment on contingency reserves for FY 2022-23 on similar lines as the investment made in FY 2021-22 and will make the actual investment as per the provisions of the MYT Regulations, 2019 once the approval of the Commission is received.

Commission's Analysis and Ruling

- 5.17.7 Regulation 35 of the MYT Regulations, 2019 provides for appropriation to the Contingency Reserve 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 amount is to be invested in securities authorized under the Indian Trusts Act, 1882 within six months of the close of the financial year. Relevant Regulation are shown below:
 - "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 authorized 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.

5.17.8 The Commission notes that, MSEDCL has 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 is not allowing any amount towards Contribution to contingency reserves as shown in the following table:

Table 5-54: Contribution to Contingency Reserve for FY 2022-23 as considered by Commission (Rs. crore)

Particulars	MYT Order	MTR Petition	Approved in this Order
Opening GFA including Grant & consumer Contribution	-	706809.42	60,820.48
% of GFA	-	0.25%	0.25%
Contribution to Contingency Reserve	180.12	96.06	0.00

5.17.9 Thus, the Commission has not approved any Contribution to Contingency Reserve for FY 2022-23 provisionally. The Commission shall consider subject to be prudence check at time of truing up of FY 2022-23.

5.18 Income Tax for FY 2022-23

MSEDCL's Submission

5.18.1 MSEDCL has not paid any Income Tax for FY 2022-23. MSEDCL submits that Regulation 34 of the MYT Regulations, 2019 provides for Income Tax. Since there is no income tax claimed in FY 2021-22, MSEDCL on similar lines has not claimed any Income Tax for FY 2022-23 and hence it has not grossed up the return on equity by income tax. MSEDCL submitted that in case there is tax liability for FY 2022-23 and any income tax is paid, the Commission shall allow the claim on grossing up of return on equity by effective tax rate as per the provisions of the MYT Regulations, 2019.

Commission's Analysis

- 5.18.2 As per Regulation 34 of MYT Regulation, 2019 provides for income tax, the RoE shall be grossed up at the rate of effective Tax rate, as applicable.
- 5.18.3 In line with provisions of MYT Regulations, 2019 and based on the fact that MSEDCL has not paid income tax in FY 2022-23, the Commission has not considered any I. Tax for the purpose of provisional true-up for FY 2022-23 for the purpose of grossing up of Return on Equity.
- 5.18.4 Thus, the Commission provisionally approves NIL Income Tax for FY 2022-23.

5.19 Incentive and Discount for FY 2022-23

MSEDCL's Submission

- 5.19.1 MSEDCL has submitted that, the incentives and Discounts for FY 2022-23 at the same level of that of FY 2021-22.
- 5.19.2 MSEDCL has estimated the Incentives and discounts on a provisional basis based on the data available for first six months of FY 2022-23. For the remaining six months it has considered the same figures as of first six months. The Incentives and discounts as estimated provisionally by MSEDCL is as shown in the table below:

Table 5-55: Incentives and Discounts for FY 2022-23 submitted by MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition
Incentives/Discounts	355.43	367.37

Commission's Analysis and Ruling

5.19.3 The Commission noted the past trend of incentive and discount approved to MSEDCL. In truing up of FY 2019-20, FY 2020-21 and FY 2021-22, the Commission approved Rs 337.25 Crore, Rs 307.40 and Rs. 367.37 Crore respectively, after verifying it from the audited accounts. The Commission found the present claim of Incentive and Discount for FY 2022-23 is mostly in line with the past trend. For FY 2022-23, audited

accounts are not available at the time of issuance of Order. Based on the available information of first six months Incentives/Discounts comes out at Rs. 183.68 Crores. The Commission for the remaining six months considered it to be equal to first six months. Thus, the Commission has provisionally approved incentives and discounts as shown in the below table, subject to prudence check at the time of truing-up.

Table 5-56: Incentives and Discounts approved for FY 2022-23 (Rs. crore)

Particulars	MYT Order	MTR Petition	Approved in this Order
Incentives/Discounts	355.43	367.37	367.37

5.19.4 Thus, the Commission provisionally approves Rs 367.37 Crore for Incentives and Discount for FY 2022-23 subject to prudence check at the of Truing up of FY 2022-23.

5.20 Additional Surcharge Refund for FY 2022-23

MSEDCL's Submission

5.20.1 MSEDCL has stopped levy of additional surcharge to group captive consumers from since January 2022 and it has adopted methodology for refund of ASC. MSEDCL is refunding the ASC in every month to eligible consumers to the tune of Rs. 15 Crores. The refund burden will be Rs. 180 Crores annually. Accordingly, the same is being claimed in the ARR for approval of the same.

Commission's Analysis and Ruling

- 5.20.2 The Commission has examined claim of MSEDCL towards additional surcharge refund and find it appropriate. The claim of refund on account of additional surcharge is as per Hon. Supreme Court vide Order dated 10th December, 2021 in Civil Appeal No 5074/5075 of 2019.
- 5.20.3 Accordingly, the Commission approves the refund towards additional surcharge of Rs. 180 Crores for FY 2022-23.

5.21 Non- Tariff Income for FY 2022-23

MSEDCL's Submission

- 5.21.1 MSEDCL has submitted that 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.
- 5.21.2 MSEDCL has submitted that based on the information available for Non-Tariff Income for first six months and the projections for the remaining six months, Non-Tariff Income for FY 2022-23 has been estimated as given in the table below:

Table 5-57: Non-Tariff Income for FY 2022-23 as submitted by MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition
Rents of land or buildings	1.20	0.96
Sale of Scrap	60.25	43.74
Income from investments	21.42	-
Income from sale of tender documents	10.33	4.95
Prompt payment discount from REC/PFC	14.08	-
Other/Miscellaneous receipts	311.40	240.41
Revenue from subsidy & grant	-	0.50
Interest on Contingency Reserve Investments	-	27.41
Non Tariff Income	418.67	317.96

- 5.21.3 MSEDCL has submitted that in accordance with Regulation 37.3 of the MYT Regulations, 2019 it has not considered Delayed Payment Charges and Interest on DPC as non-tariff income.
- 5.21.4 MSEDCL has stated that it has not considered income from grants and contribution under non-tariff income as the treatment (i.e. excluded while calculating depreciation) to the same has already been considered while computing depreciation for FY 2022-23.

Commission's Analysis and Ruling

- 5.21.5 The Commission has examined various heads under which MSEDCL has proposed under Non-Tariff Income. As observed, these heads have been projected by MSEDCL based on the information available for Non-Tariff Income for first six months and the projections for the remaining six months Non-Tariff Income for FY 2022-23.
- 5.21.6 The Commission asked in data gap, sale of scrap in MYT Order in Case No. 322 of 2019 was Rs 60.25 Crore but MSEDCL has estimated Rs 43.74 Crore, In reply MSEDCL has submitted that it has estimated while considering the average of previous three year. MSEDCL has also stated that in this regards review has been taken and it is found that some of items such as R- APDRP interest converted into grant, sundry credit balance written back etc. are not of recurring nature. The same have been inadvertently considered while projecting "Other /Miscellaneous receipts". MSEDCL has submitted revised estimated expenses as provided in the above table. The Commission reviewed the past trend of major heads of Non-Tariff Income and found them to be mostly in line with the projections against those heads. Thus, the Commission approves Rs. 317.96 Crores as Non-Tariff Income on provisional basis for FY 2022-23 subject to prudence check at the time of Truing up.
- 5.21.7 In view of the above, the Commission has provisionally approved the following Non-Tariff Income for FY 2022-23.

Table 5-58: Non-Tariff Income for FY 2022-23, as approved by Commission (Rs. crore)

Particulars	MYT Order	MTR Petition (Provisional)	Approved in this order
Rents of land or buildings	1.20	0.96	0.96
Sale of Scrap	60.25	43.74	43.74
Income from investments	21.42	-	-
Interest from Franchisee	-	-	-
Income from sale of tender documents	10.33	4.95	4.95
Prompt payment discount from REC/PFC	14.08	-	-
Other/Miscellaneous receipts	311.40	240.41	240.41
Revenue from subsidy & grant		0.50	0.50
Interest on contingency reserve investment		27.41	27.41
Total	418.67	317.96	317.96

5.21.8 Thus, the Commission provisionally approves Rs. 317.96 Crore as Non-Tariff Income for FY 2022-23 subject to prudence check at the time of Truing up.

5.22 Income from Open Access Charges for FY 2022-23

MSEDCL's Submission

5.22.1 MSEDCL has estimated income from OA Charges in FY 2022-23 by considering the available information, MSEDCL has estimated the income from open access same as that approved by the Commission for FY 2022-23. The Income from Open Access charges as submitted by MSEDCL is as shown in the table below:

Table 5-59: Income from OA Charges for FY 2022-23 as submitted by MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition
Income from Open Access Charges	216.69	216.69

Commission's Analysis and Ruling

5.22.2 The Commission noted that, MSEDCL has estimated income from OA Charges in FY 2022-23 by considering the available information for the first six months till September 2022. Further, in accordance with the ruling of the Commission in the Order in Case No. 361 of 2018 dated 14 June, 2019 and Regulations 14 (1) (v) of the DOA Regulations, 2019 (First Amendment), Distribution Licensees shall not retain the transmission charges collected from partial open access consumers and shall arrange to remit the same to STU in the immediate next billing cycle, as and when levied/collected from such open access consumers. STU shall maintain separate account of such revenue from transmission charges.

5.22.3 A similar treatment is adopted while provisionally approving the income from OA charges in FY 2022-23. The present approval is on provisional basis and the same shall be true-up on actual basis, subject to prudence check. The approved income from Open Access Charges is as shown below.

Table 5-60: Income from Open Access Charges for FY 2022-23 as approved by Commission (Rs. crore)

Particulars	MYT Order	MTR Petition	Approved in this Order
Income from Open Access Charges	216.69	216.69	216.69

5.22.4 Thus, the Commission approves Rs. 216.69 Crore as Income from OA Charges for provisional truing up of FY 2022-23 subject to prudence check at the time of Truing up.

5.23 Impact of Payment to MPECS in FY 2022-23

- 5.23.1 The Commission in the MYT Order dated 3rd November 2016 has approved following amount towards payment to MPECS.
- 5.23.2 MSEDCL has submitted that the Commission in the MYT Order dated 30th March, 2020 has approved Rs. 31.14 Crore towards payment to MPECS for FY 2021-22 as the same was allowed under Order dated 2nd May, 2016. The Commission in the MYT Order also ruled that it shall consider the actual amount towards this head at the time of truing up of FY 2022-23.
- 5.23.3 In accordance with the same MSEDCL has claimed Rs. 31.14 Crores towards payment to MPECS for FY 2022-23.

Commission's Analysis and Ruling

5.23.4 Commission vide its Order dated 2nd May 2016, has determined the monthly user charges to be paid to MPECS by MSEDCL. The Commission shall consider the actual amount towards this head at the time of truing up of FY 2022-23.

Table 5-61:Impact of payment to MPECS for FY 2022-23 as approved by Commission (Rs. Crore)

	FY 2022-23		
Particular	MYT Order	MTR Petition	Approved in this Order
Impact of Payment to MPECS	31.14	31.14	31.14

5.23.5 Thus, for provisional truing up the Commission allows Rs 31.14 Crores as Impact of payment to MPECS for FY 2022-23, subject to prudence check at the time of truing up.

5.24 Incremental consumption and Bulk Consumption Rebate for FY 2022-23

MSEDCL's Submission

- 5.24.1 MSEDCL has submitted that Commission in the MYT Order dated 30th March 2020 has approved incremental rebate.
- 5.24.2 MSEDCL has estimated the incremental consumption and bulk consumption rebate at the same level as that approved by the Hon'ble Commission.

Table 5-62: Incremental consumption and bulk consumption rebate for FY 2022-23 as submitted by MSEDCL (Rs. Crore)

Particulars	MYT Order	MTR Petition
Incremental consumption and bulk	661.65	661.65
consumption rebate		

Commission's Analysis and Ruling

5.24.3 The Commission has noted the MSEDCL's submission, accordingly the Commission has considered Rs 546.44 Crore under Incremental consumption and bulk consumption for FY 2022-23 as per approved in FY 2021-22. The Commission has considered the same subject to prudence check at the time of truing up of FY 2022-23.

Table 5-63: Incremental consumption and bulk consumption rebate for FY 2022-23 as approved by the Commission (Rs Crore)

Particulars	MYT Order	MTR Petition	Approved in this Order
Incremental consumption and bulk consumption rebate	661.65	661.65	546.44

5.24.4 Thus, Commission has considered Rs 546.44 Crore under incremental consumption and bulk consumption rebate for FY 2022-23 subject to prudence check at the time of truing up of FY 2022-23.

5.25 Revenue Gap Recovery Allowed (Stabilisation Amount) for FY 2022-23

MSEDCL's Submission

5.25.1 MSEDCL has submitted Commission in the MYT Order had approved recover past revenue gap as shown in the Table below. MSEDCL has considered the same.

Table 5-64: Revenue Gap Recovery allowed for FY 2022-23(Rs. Crore)

Particulars	Formula	Amount (Rs Crore)
ARR approved by the Commission	A	84,021.00
Approved revenue at existing tariff	В	92,479.00

		Amount (Rs
Particulars	Formula	Crore)
Approved Revenue gap	C=A-B	(8,458.00)
Projected Revenue at Approved Tariff	D	88,039.00
Additional Recovery from approved tariff	E=D-B	(4,440.00)
Previous Revenue Gap recovery allowed after adjustment of current year Revenue Gap	F= E-C	4,018.00

Commission's Analysis and Ruling

- 4.32.3 The Commission clarifies that, it has approved the past revenue gap of Rs. 4,018.00 Crore for FY 2022-23 in the MYT Order dated 30 March 2020. The same has been considered by the Commission as revenue gap FY 2022-23. The Commission has done prudence check of the claim and explained in earlier chapter about appropriateness of the claim. Accordingly, the Commission approves stabilisation amount as per MYT Order 322 of 2019 in the current MTR Petition.
- 5.25.2 Accordingly, the Commission has approved the past revenue gap of Rs 4,018.00 Crore, in Provisional Truing up of revenue gap in FY 2022-23 subject to prudence check at the time of truing up of FY 2022-23.

5.26 Revenue from Sale of Electricity for FY 2022-23

MSEDCL's Submission

5.26.1 MSEDCL has submitted that based on the available information for six months for the financial year up till September 2022 and projection for the remaining 6 months the revenue for FY 2022-23 has been estimated by MSEDCL as shown in the table:

Table 5-65: Revenue from sale of power for FY 2022-23, as submitted by MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition
Revenue from sale power	88,039.00	99,280.78

5.26.2 MSEDCL has requested the Commission to approve the revenue from sale of power as shown in the Table.

Commission's Analysis and Ruling

5.26.3 The Commission observes that, the Revenue for FY 2022-23 submitted by MSEDCL is unaudited, which is based on the six months actuals i.e. FY 2022-23 (H1) and estimation for the remaining six months i.e. FY 2022-23 (H2). Thus, for the purpose of the Provisional True-up, the Commission has accepted the first half yearly revenue submitted by MSEDCL and estimated the remaining six months revenue based on the approved Sales for FY 2022-23 as discussed in the above section of the MYT Order.

5.26.4 The revenue estimated by the Commission is allowed on provisional basis and shall be considered at actuals at the time of final true up, subject to prudence check. The summary of the approved Revenue for FY 2022-23 is provided in the table below:

Table 5-66: Revenue for FY 2022-23, as approved by Commission (Rs. crore)

Particulars	MTR Order	MTR Petition	Approved in this Order
Revenue from sale of power	88,039.00	99,282.65	1,00,328.63

5.26.5 Thus, the Commission has approved Rs 1,00,328.63 Crore on provisional basis and shall be considered at actuals at the time of final true up of FY 2022-23, subject to prudence check.

5.27 Income from Additional Surcharge for FY 2022-23

MSEDCL's Submission

5.27.1 MSEDCL has submitted the Additional Surcharge for FY 2022-23 has been estimated by considering the actual income from additional surcharge for the first six months and has estimated it to remain for the remaining six months of the financial year. The income from additional surcharge as submitted y MSEDCL for FY 2022-23 is as shown in the Table below:

Table 5-67: Income from Additional Surcharge for FY 2022-23, as submitted by MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition
Income from Additional Surcharge	115.52	115.52

Commission's Analysis and Ruling

5.27.2 The Commission notes that, present projection of income from additional surcharge has been made on the basis of actual income during the first half of the financial year. For the purpose of provisional approval, the Commission approves the income from Additional Surcharge as projected by MSEDCL for FY 2022-23 subject to prudence check at the time of truing up.

Table 5-68: Income from Additional Surcharge for FY 2022-23, as approved by the Commission (Rs. crore)

Particulars	MTR Order	MTR Petition	Approved in this Order
Income from Additional Surcharge	115.52	115.52	115.52

5.27.3 Thus, the Commission has provisionally approved Rs 115.52 Crore income from additional surcharge for FY 2022-23.

5.28 Income from Trading of Surplus Power for FY 2022-23

MSEDCL's Submission

5.28.1 The income from trading of surplus power considered by MSEDCL as submitted by MSEDCL for FY 2022-23 is as shown in the Table below:

Table 5-69: Income from Trading of Surplus Power for FY 2022-23, as submitted by MSEDCL (Rs. crore)

Particulars	MYT Order	MTR Petition		
Income from Trading of Surplus Power	340.96	175.49		

Commission's Analysis and Ruling

5.28.2 The Commission has approved the income from Trading of Surplus Power projected by MSEDCL on provisional basis. The approved Income from Trading Surplus is as shown below.

Table 5-70: Income from Trading Surplus in FY 2022-23 as approved by Commission (Rs. crore)

Particulars	MYT Order	MTR Petition	Approved in this Order	
Income from Trading of Surplus Power	340.96	175.49	175.49	

5.28.3 Thus, the Commission has provisionally approved Rs 175.49 income from Trading surplus power for FY 2022-23 subject to prudence check at the time of Trueing up of FY 2022-23.

5.29 Segregation of Wires and Supply ARR

- 5.29.1 Regulation 68 of the MYT Regulations, 2019 outlines the requirement of separation of accounts of Distribution Licensee into Distribution Wires Business and Retail Supply Business. It also stipulates that, in the absence of separate accounting records, the Allocation Matrix specified in the Regulations should be used for apportioning the ARR.
- 5.29.2 MSEDCL has presented the Wires and Supply ARRs for FY 2022-23 based on the allocation matrix. As elaborated in earlier paragraphs, the Commission has analysed the various components of the respective ARRs in accordance with the Regulations, and has approved the ARR for FY 2022-23 as set out below.

5.30 Aggregate Revenue Requirement for FY 2022-23

MSEDCL's Submission

5.30.1 Based on the analysis, the summary of ARR for the Wires Business and Supply Business, as per provisional information available and as approved by the Commission, for FY 2022-23 is presented in the Table below.

Table 5-71: ARR for Wires Business for FY 2022-23 as per MSEDCL (Rs. Crore)

	FY 20	FY 2022-23			
Particulars	MYT Order	MTR Petition			
Operation & Maintenance Expenses	4,898.36	5,186.36			
Depreciation	2,754.68	2,671.91			
Interest on Loan Capital	1,009.74	836.96			
Interest on Normative Working Capital	145.58	127.89			
Interest on deposit from Consumers and Distribution System Users	59.60	43.81			
Other Finance Charges	-	-			
Provision for bad and doubtful debts	73.26	105.96			
Opex Schemes	84.31	40.12			
Contribution to contingency reserves	162.11	81.05			
Income Tax	-	-			
Return on Equity Capital	2,021.45	1,739.60			
Aggregate Revenue Requirement	11,209.09	10,833.67			
Less					
Income from Wheeling Charges	-	-			
Income from Open Access Charges	216.69	216.69			
Aggregate Revenue Requirement from Distribution Wires	10,992.41	10,616.99			
Revenue from Wires Business	_	-			
Revenue Gap/(Surplus)	10,992.41	10,616.99			

Table 5-72: ARR for Supply Business for FY 2022-23 as submitted by MSEDCL (Rs. Crore)

	FY 2022	2-23
Particulars	MYT Order	MTR Petition
Power Purchase Expenses (including InSTS Charges)	63,337.57	73,529.49
Operation & Maintenance Expenses	2,637.58	2,792.66
Depreciation Expenses	306.08	296.88
Interest on Loan Capital	112.19	93.00
Interest on Normative Working Capital	-	1
Interest on Consumers Security Deposit	536.40	394.28
Other Finance Charges	-	-
Provision for bad and doubtful debts	659.37	953.66
Other Expenses	57.97	314.10
Income Tax	-	-
Intra-State Transmission Charges MSLDC charge	5,915.07	5,915.07
Incentives/Discounts	355.43	367.37
Contribution to contingency reserves	18.01	9.01
Return on Equity Capital	248.75	214.07
Additional Surcharge Refund	-	180.00
Effect of sharing of gain/losses	-	-

	FY 2022	2-23	
Particulars	MYT Order	MTR Petition	
Impact of payments to MPECS	31.14	31.14	
Opex Scheme	26.18	50.08	
Incremental Consumption Rebate	661.65	661.65	
Aggregate Revenue Requirement for supply Business	73,903.39	85,802.45	
Stabilisation amount as per MYT order	4,018.00	4,018.00	
Total Revenue Expenditure	77,921.39	89,820.45	
Non-Tariff Income	418.67	317.96	
Income from Additional Surcharge	115.52	115.52	
Income from Trading of Surplus Power	340.96	175.49	
Net Aggregate Revenue Requirement	77,046.25	89,211.49	
Revenue from Sale of Power	88,039.00	99,280.78	
Revenue from Retail Supply Business	-	-	
Revenue Gap/(Surplus)	(10,992.75)	(10,069.30)	

Table 5-73: ARR (Wire+Supply) for FY 2022-23 as per MSEDCL (Rs. Crore)

	FY	FY 2022-23			
Particulars	MYT Order	MTR Petition			
Power Purchase Expenses	62,337.57	73,529.49			
Operation & Maintenance Expenses	7,535.94	7,979.02			
Depreciation Expenses	3,060.76	2,968.79			
Interest on Loan Capital	1,121.94	929.95			
Interest on Normative Working Capital	145.58	127.89			
Interest on Consumers Security Deposit	595.99	438.09			
Other Finance Charges	-	-			
Provision for bad and doubtful debts	732.63	1,059.63			
Other Expenses	57.97	314.10			
Income Tax	-	-			
Intra-State Transmission Charges MSLDC charge	5,915.07	5,915.07			
Incentives/Discounts	355.43	367.37			
Contribution to Contingency Reserves	180.12	90.06			
Opex Scheme	110.49	90.20			
Return on Equity Capital	2,270.20	1,953.67			
Additional Surcharge Refund	-	180.00			
Effect of sharing of gains/losses	-	-			
Impact of payments to MPECS in Future Years	31.14	31.14			
Incremental Consumption Rebate	661.65	661.65			
Aggregate Revenue Requirement from Retail Tariff	85,112.48	96,636.12			
Stabilisation amount as per MYT order	4,018.00	4,018.00			
Total Aggregate Revenue Requirement	89,130.48	1,00,654.12			
Less					
Non-Tariff Income	418.67	317.96			
Income from Open Access Charges	216.69	216.69			

	FY 2022-23			
Particulars	MYT Order	MTR Petition		
Income from Trading of Surplus Power	340.96	175.49		
Income from Wheeling Charges	-	-		
Income from Additional Surcharge	115.52	115.52		
Net Aggregate Revenue Requirement	88,038.65	99,828.47		
Revenue from sale of power	88,039.00	99,280.78		
Revenue from Retail Supply Business	-	-		
Revenue from Wires Business	-	•		
Revenue Gap/(Surplus)	(0.35)	547.69		

Commission's Analysis and Ruling

5.30.2 Based on the component-wise analysis set out in earlier Sections, the summary of the ARR for the Wires Business and Supply Business, as claimed by MSEDCL and as provisionally approved by the Commission, for FY 2022-23 is presented in the Tables below.

Table 5-74: ARR for Wires Business for FY 2022-23, as approved by Commission (Rs. Crore)

	FY 2022-23				
Particulars	MYT Order	MTR Petition	Approved in the order		
Operation & Maintenance Expenses	4,898.36	5,186.36	5099.66		
Depreciation	2,754.68	2,671.91	2,419.72		
Interest on Loan Capital	1,009.74	837.01	853.83		
Interest on Working Capital	145.58	127.89	123.98		
Interest on deposit from Consumers and Distribution System Users	59.60	43.81	40.44		
Other Finance Charges	-	-			
Provision for bad and doubtful debts	73.26	105.96	73.05		
Opex Schemes	84.31	40.12	30.05		
Contribution to contingency reserves	162.11	81.05	-		
Income Tax					
Return on Equity Capital	2,021.45	1,739.60	1,719.86		
Aggregate Revenue Requirement	11,209.09	10,833.72	10,360.59		
Aggregate Revenue Requirement from Distribution Wires	11,209.09	10,833.72	10,360.59		

Table 5-75: ARR for Supply Business for FY 2022-23, as approved by Commission (Rs. crore)

		FY 2022-23	
Particulars	MYT Order	MTR Petition	Approved in this Order
Power Purchase Expenses	62,337.57	73,529.00	69,050.90
Operation & Maintenance Expenses	2,637.58	2,793.00	2,745.97
Depreciation Expenses	306.08	297.00	268.86
Interest on Loan Capital	112.19	93.00	94.87
Interest on Working Capital	-	-	-
Interest on Consumers Security Deposit	536.40	394.28	364.00
Other Finance Charges	-	-	
Provision for bad and doubtful debts	659.37	953.66	657.47
Other Expenses	57.97	314.10	57.97
Income Tax	-		
Intra-State Transmission Charges MSLDC charge	5,915.07	5,915.07	5,915.07
Incentives/Discounts	355.43	367.37	367.37
Contribution to Contingency Reserves	18.01	9.01	-
Return on Equity	248.75	214.07	214.69
RLC refund		-	
ASC refund		180.00	180
Effect of sharing of gains/losses		-	
Past Period Adjustment by Commission		-	
Revenue Gap Recovery Allowed	4,018.00	4,018.00	4,018.00
Add: Impact of payment to MPECS in future years	31.14	31.14	31.14
Opex schemes	26.18	50.08	40.01
Incremental consumption rebate	661.65	661.65	546.44
Total Revenue Expenditure	77,921.39	89,820.46	84,552.74
Revenue from sales of Power	88,039.00	99,280.78	1,00,328.63
Non-Tariff Income	418.67	317.96	317.96
Income from Additional Surcharge	115.52	115.52	115.52
Income from Wheeling charges			-
Income from Open Access charges	216.69	216.69	216.69
Income from Trading of Surplus Power	340.96	175.49	175.49
Net Aggregate Revenue Requirement	89,130.83	1,00,106.44	1,01,154.28
Revenue Gap/(Surplus)	(11,209.44)	(10,285.98)	(16,601.53)

Table 5-76: Combined ARR for FY 2022-23 (Wires + Supply), as approved by Commission (Rs. crore)

		FY 2022-23	3
Particulars	MYT Order	MTR Petition	Approved in this Order
Power Purchase Expenses	62,337.57	73,529.49	69,050.90
Operation & Maintenance Expenses	7,535.94	7,979.02	7,845.63
Depreciation Expenses	3,060.76	2,968.79	2,688.58
Interest on Loan Capital	1,121.94	930.01	948.70
Interest on Normative Working Capital	145.58	127.89	123.98
Interest on Consumers Security Deposit	595.99	438.09	404.44
Other Finance Charges	-	-	-
Provision for bad and doubtful debts	732.63	1,059.63	730.52
Other Expenses	57.97	314.10	57.97
Income Tax			
Intra-State Transmission Charges MSLDC charge	5,915.07	5,915.07	5,915.07
Incentives/Discounts	355.43	367.37	367.37
Contribution to Contingency Reserves	180.12	90.06	-
Opex Scheme	110.49	90.20	70.05
DSM expenses	-		
Return on Equity Capital	2,270.20	1,953.67	1,934.55
RLC refund	-	-	-
Additional Surcharge Refund		180.00	180
Effect of sharing of gains/losses		-	-
Past Period Adjustment by Commission	-	-	-
Revenue Gap Recovery Allowed	4,018.00	4,018.00	4,018.00
Impact of payments to MPECS in Future Years	31.14	31.14	31.14
Incremental Consumption Rebate	661.65	661.65	546.44
Aggregate Revenue Requirement from Retail Tariff	89,130.48	1,00,654.18	94,913.34
Revenue from sale of Power	88,039.00	99,280.78	1,00,328.63
Non-Tariff Income	418.67	317.96	317.96
Income from Open Access Charges	216.69	216.69	216.69
Income from Trading of Surplus Power	340.96	175.49	175.49
Income from Wheeling Charges	-	-	-
Income from Additional Surcharge	115.52	115.52	115.52
Net Aggregate Revenue Requirement	89,130.83	1,00,106.44	1,01,154.28
Revenue Gap/(Surplus)	(0.35)	547.74	(6,240.94)

6 PROJECTION OF ARR FOR FY 2023-24 AND FY2024-25

6.1 Sales Projections for FY 2023-24 and FY 2024-25

MSEDCL's Submission

- 6.1.1 MSEDCL referred Regulation 82.1 of MYT Regulations, 2019, wherein 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
- 6.1.2 MSEDCL has submitted that the analysis of historical trend proved to be reasonably accurate and well-accepted method for estimating the load, number of consumers and energy consumption. Thus, energy consumption for various consumer categories are estimated primarily based on the CAGR of past years. If the trend is unreasonable /unsustainable due to isolated incidents/ developments, the growth factors have been corrected to arrive at more realistic projections.
- 6.1.3 The break-up of the past sales and the CAGR growth rates for different periods (5 years, 3 years and year on year) is provided in the following tables. It may be noted that, the 5 year CAGR growth rate is for the period between FY 2016-17 to FY 2021-22, while the 3 year CAGR growth rate is for the period between FY 2018-19 to FY 2021-22, whereas year on year is for FY 2021-22 over FY 2020-21.
- 6.1.4 MSEDCL has submitted Historical trend in HT Category sales growth (including sales in Franchisee Area) which is shown in table below:

Table 6-1: Historical Sales Growth and CAGR (HT Category)

Category	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	5 Year CAGR	3 Year CAGR	Y-O-Y Growth
HT-I Industries	23,366	28,470	31,381	30,258	28,473	34,128	8%	3%	20%
HT-II Commercial	1,825	1,926	1,805	1,815	1,203	1,378	-5%	-9%	14%
HT III Railways	86	66	77	76	68	85	0%	3%	25%
HT IV-PWW	1,702	1,911	1,900	1,916	1,917	2,068	4%	3%	8%
HT V Agricultural	1,331	974	1,413	1,103	1,036	1,116	-3%	-8%	8%
HT VI Bulk Supply (Housing Complex)	213	227	236	225	209	214	0%	-3%	3%
HT Temporary	4	5	5	7	-	-			
HT-IX Public services	922	1,003	1,004	1,010	848	951	1%	-2%	12%
MSPGCL AUX SUPPLY	179	218	184	158	120	245	7%	10%	104%
HT EV Charging Stations 11 KV	-	-	-	0	1	2			118%
HT EV Charging Stations 22 KV	•	-	0	8	4	14	0%	253%	258%
Total -HT Sales	29,628	34,799	38,004	36,577	33,879	40,200	6%	2%	19%

6.1.5 Historical trend in LT Category sales growth (including sales in Franchisee Area) is provided in following table.

Table 6-2: Historical Sales Growth and CAGR (LT Category) (MU)

Category	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	5 Year CAGR	3 Year CAGR	Y-O-Y Growth
LT Category									
LT I -BPL	61	55	41	84	73	53	-3%	9%	-28%
LT I Domestic	18,962	19,994	20,788	20,729	21,847	22,157	3%	2%	1%
LT II Non-Domestic	4,524	5,444	5,874	5,791	3,880	4,651	1%	-7%	20%
LT III PWW	691	707	803	802	856	903	5%	4%	5%
LT IV Agriculture	27,525	29,921	32,696	28,401	33,290	35,575	5%	3%	7%
LT V Power loom	3,270	3,551	3,645	3,762	3,117	3,813	3%	2%	22%
LT V Industrial General	5,114	4,903	5,138	5,077	5,911	7,001	6%	11%	18%
LT VI Streetlight	1,751	1,843	2,007	1,880	1,858	1,289	-6%	-14%	-31%
LT VII- Temporary Connection	16	17	24	28	-	-			
LT VIII Advertisement & Hoardings	4	5	4	3	-	-			
LT IX – Crematoriums & Burial Grounds	2	2	2	2	-	-			
LT X - Public services	361	431	504	499	488	565	9%	4%	26%
LT EV Charging	-	-	-	0	0	1			253%
P.D. Consumers	-5	-	ı	_	-	-			
Total LT Sales	62,275	66,874	71,526	67,058	71,281	76,007	4%	2%	7%
Total Sales	91,903	1,01,673	1,09,531	1,03,636	1,05,160	1,16.206	5%	2%	11%

CAGR considered for Sales Projection for FY 2023-24 and FY 2024-25

- 6.1.6 MSEDCL submitted that, sales in the past years have normal growth rate, with the considerable increase in the availability of power has resulted in the growth in sales of MSEDCL. Additional availability of power to the consumers have resulted in uninterrupted supply of power to all consumers (except AG with stipulated hours of supply) and hence resulted in increase in the consumption and in turn the sales of MSEDCL.
- 6.1.7 MSEDCL has considered the 3 years/5 years CAGRs for projecting the sales. Wherever, the trend is found to be unreasonable/unsustainable, the growth factors have been corrected to arrive at more realistic projections.
- 6.1.8 The category wise CAGRs considered for the Control Period from FY 2023-24 and FY 2024-25 along with the rationale for HT Category is as shown in the following table:

Table 6-3: CAGR Considered for Sales Projections (HT Category)

Consumer Category	CAGR Considered	Justification/Rationale
HT-Industry	3%	5 year CAGR coming quite high, hence realistic 3 year CAGR of 3% has been considered
HT-Commercial	2%	Un-realistic trends in CAGR observed due to change in category of some consumers from Commercial to Public Services. Hence, realistic growth rate of 2% has been Considered

Consumer Category	CAGR Considered	Justification/Rationale				
HT-	3%	Negative trend in CAGR observed due to migration of Railway/ Metro/ Monorail consumers to Open Access.				
Railways/Metro/MONO	370	Thus, nominal growth rate of 3% has been observed considering upcoming metro rail in Nagpur, Thane & Navi Mumbai				
HT-Public Water Works	3%	Varying trends in CAGRs observed in PWV category across all voltage levels. Howeve considering Government initiative of "Har Gha Jal", a realistic growth rate of 3% has bee considered				
HT –Agriculture	1%	Negative CAGRs, hence realistic rate of 1% considered				
HT-Agriculture Others	0%	Negative CAGRs, hence, 0% considered				
HT- Group Housing	0%	Negative CAGRs, hence, 0% considered				
HT-Public SerGovt	2%	Varying trends in CAGRs observed hence, a realistic growth rate of 2% has been considered				
HT Public Serother	2%	Varying trends in CAGRs observed hence, a realistic growth rate of 2% has been considered				
H.T. EV Charging Station 11 KV	10%	Considering Plan as per Maharashtra EV Policy, a realistic growth rate of 10% has been				
H.T. EV Charging Station 22 KV	10%	considered across all voltage level				

6.1.9 The Category wise CAGRs considered for the Control Period from FY 2023-24 and FY 2024-25 along with rationale for LT category is as shown in the following table:

Table 6-4: CAGR considered for Sales Projections (LT Category)

Consumer Category	CAGR Considered	Justification/ Rationale
LT-I (A): LT- BPL	4%	Considering the varying CAGRs, realistic growth of 5% considered
LT-I (B): LT- Residential (Other than BPL)		
1-100 Units	3%	Considering the varying CAGRs, realistic growth of 3% considered which in equivalent to 5 Yr. CAGR;

Consumer Category	CAGR Considered	Justification/ Rationale
101-300 Units	3%	Considering the varying CAGRs, realistic growth of 3% considered which in equivalent to 5 Yr. CAGR;
301-500 Units	3%	Considering the varying CAGRs, realistic growth of 3% considered which in equivalent to 5 Yr. CAGR of Domestic- consumer category as a whole
Above 501Units	3%	Considering the varying CAGRs, realistic growth of 3% considered which in equivalent to 5 Yr. CAGR of Domestic consumer category as a whole
LT-II: LT- Non- Residential		
0-20 KW	4%	Considering the varying CAGRs, realistic growth of 4%
>20-<=50KW	4%	Considering the varying CAGRs, realistic growth of 4%
>50 KW	4%	Considering the varying CAGRs, realistic growth of 4%
LT-III: LT-Public Water Works		
0-20 KW	5%	Considering the varying CAGRs, realistic growth of 5% considered which in equivalent to 5 Yr. CAGR of PWW consumer category as a whole
20-<=40 KW	5%	Considering the varying CAGRs, realistic growth of 5% considered which in equivalent to 5 Yr. CAGR of PWW consumer category as a whole
> 40 KW	5%	Considering the varying CAGRs, realistic growth of 10% considered which in equivalent to 5 Yr. CAGR of PWW consumer category as a whole
***LT-AG- Unmetered (Pump sets)	0%	No new connections, hence, 0%
LT-AG Metered (Pump sets)	4%	5 year CAGR 8%. Realistic growth of 4% which in equivalent to 3 Yr. CAGR
LT-AG Metered (Others)	8%	5 year CAGR 9%. Realistic growth of 8% which in equivalent to 3 Yr. CAGR

Consumer Category	CAGR Considered	Justification/ Rationale
LT V(A): LT Industry- Power Looms		
0-20 KW (Up to & incl. 27 HP)	3%	Considering the varying CAGRs, realistic growth of 5% considered which in equivalent to 5 Yr. CAGR of Power loom consumer category as a whole
Above 20KW (Above 27 HP)	3%	Considering the varying CAGRs, realistic growth of 5% considered which in equivalent to 5 Yr. CAGR of Power loom consumer category as a whole
LT V(B): LT Industry-General		
0-20 KW (Up to & incl. 27 HP)	4%	Considering the varying CAGRs, realistic growth of 4% considered
Above 20KW (Above 27 HP)	4%	Considering the varying CAGRs, realistic growth of 4% considered
LT VII(A) - Public services - Govt		
0-20 KW	6%	CAGRs are varying, realistic growth of 6% considered
>20-50 kW	6%	CAGRs are varying, realistic growth of 6% considered
>50 kW	6%	CAGRs are varying, realistic growth of 6% considered
LT VII(B) - Public services - Other		
0-20 KW	6%	CAGRs are varying, realistic growth of 6% considered
>20-50 kW	6%	CAGRs are varying, realistic growth of 6% considered
>50 kW	6%	CAGRs are varying, realistic growth of 6% considered
LT VI – Street Light		
Gram panchayat A, B & C Class Municipal Council	0%	Negative CAGRs, hence, 0% considered
Municipal corporation Area	0%	Negative CAGRs, hence, 0% considered

Consumer Category	CAGR Considered	Justification/ Rationale
LT VIII EV Charging Stations	10%	Considering Plan as per Maharashtra EV Policy, a realistic growth rate of 10% has been considered

Sales Projections for FY 2023-24 and FY 2024-25

6.1.10 MSEDCL has considered FY 2022-23 as the Base Year for projecting Sales of the 4th Control Period from FY 2023-24 and FY 2024-25. Based on the sales of FY 2022-23 and the CAGR as shown in above tables, MSEDCL projected the Sales for various categories. Sales projections of HT Categories for FY 2023-24 and FY 2024-25 is shown in the following table:

Table 6-5: Sales Projections – Excluding DF (HT Category) for FY 2023-24 and FY 2024-25 as submitted by MSEDCL (MU)

	FY 20	23-24	FY 2024-25		
Category	MYT	MTR	MYT	MTR	
	Approved	Projected	Approved	Projected	
HT-I Industries	37,757	37,901	39,263	39,038	
HT-II Commercial	1,974	1,792	2,015	1,828	
HT III Railways	85	112	87	116	
HT IV-PWW	1,791	1,863	1,836	1,919	
HT V Agricultural	1,365	896	1,408	906	
HT VI Bulk Supply	245	244	247	244	
(Housing Complex)	243	244	247	<i>∠</i> 44	
HT Temporary	6	-	6	-	
HT-IX Public services	1,257	1,204	1,315	1,227	
MSPGCL AUX SUPPLY	184	295	184	295	
HT Ag Others	285	283	294	283	
HT EV Charging Stations		5			
11 kV	-	3	-	6	
HT EV Charging Stations		52		50	
22 kV	-	53	-	58	
Total -HT Sales	44,949	44,648	46,655	45,919	

- 6.1.11 MSEDCL has considered FY 2022-23 as the Base Year for projecting Sales of the 4th Control Period from FY 2023-24 and FY 2024-25. Based on the sales of FY 2022-23 and the CAGR as shown in above tables, MSEDCL projected
- 6.1.12 Sales projections of LT Categories for FY 2023-24 and FY 2024-25 are as shown in the following table:

Table 6-6: Sales Projections – Excluding DF (LT Category) for FY 2023-24 and FY 2024-25 as submitted by MSEDCL (MU)

	FY 20	23-24	FY 2024-25		
Category	MYT Order	MTR Petition	MYT Order	MTR Petition	
LT I -BPL	52	57	55	60	
LT I Domestic	26,070	26,406	27,340	27,199	
LT II Non-Domestic	8,565	6,196	9,274	6,444	
LT III PWW	1,047	920	1,106	970	
LT IV Agriculture	28,067	34,369	28,626	35,308	
LT V Power loom	2,496	1,895	2,616	1,952	
LT V Industrial General	6,164	7,487	6,462	7,712	
LT VI Streetlight	2,719	1,052	2,892	1,052	
LT VII- Temporary Connection	24	-	24	-	
LT VIII Advertisement & Hoardings	6	-	6	-	
LT IX – Crematoriums & Burial Grounds	2	-	2	-	
LT X - Public services	683	754	728	795	
LT EV Charging Stations	0	2	0	2	
Total LT Sales	75,894	79,139	79,130	81,494	
Total Sales	1,20,843	1,23,787	1,25,785	1,27,413	

6.1.13 MSEDCL has proposed the introduction of kVAh based billing for HT consumers as per the directions of Commission. In view of the same, for the purpose of determination of revenue from kVAh based tariff MSEDCL has considered FY 2022-23 as the base year for projection of kVAh sales for FY 2023-24 and FY 2024-25 (i.e., for fourth and fifth year of the Control Period).

Sales projections for Distribution Franchisee for FY 2023-24 and FY 2024-25

- 6.1.14 MSEDCL has submitted the details of franchisee viz., Bhiwandi DF, Thane DF SMK area and Malegaon DF in the earlier sections. MSEDCL has projected sales for aforementioned DF's for FY 2023-24 to FY 2024-25.
- 6.1.15 MSEDCL further submitted that, Form "F1 MSEDCL Yearly Sales Forecast", MSEDCL has shown category wise sales of MSEDCL including DF. The category wise sales for DF is calculated in the respective form using the same methodology and CAGR for respective category used for MSEDCL.
- 6.1.16 MSEDCL has submitted the details of month wise sales in Form 1 of the Regulatory Formats.

Approach for No. of Consumers Projection for FY 2023-24 and FY 2024-25

- 6.1.17 Like Sales projections, MSEDCL has adopted the historical trend method for projecting category wise No. of Consumers of MSEDCL. Wherever, it is observed that, the trend is unreasonable/unsustainable, the growth factors have been corrected to arrive at more realistic projections.
- 6.1.18 Historical trend in number of Consumers in HT Category for MSEDCL (Excluding Bhiwandi Franchisee) is provided in the following table:

Table 6-7: Historical Growth and CAGR for No. of Consumers (HT Category)

Category	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	5 Year CAGR	3 Year CAGR	Y-O-Y Growth
HT-I Industries	13,560	13,998	14,353	14,614	14,954	14,945	2%	1%	0%
HT-II Commercial	3,098	3,137	3,165	3,242	3,125	3,076	0%	-1%	-2%
HT III Railways	24	79	82	88	93	101	33%	7%	9%
HT IV-PWW	995	967	983	1,004	1,026	1,027	1%	1%	0%
HT V Agricultural	1,430	1,435	1,446	1,463	1,468	1,419	0%	-1%	-3%
HT VI Bulk Supply (Housing Complex)	248	242	266	266	265	262	1%	-1%	-1%
HT Temporary	10	11	11	29	-	-	0%	0%	0%
HT-IX Public services	1,261	1,313	1,357	1,405	1,479	1,517	4%	4%	3%
MSPGCL AUX SUPPLY	28	28	27	27	28	28	0%	1%	0%
HT EV Charging stations 11 KV	ı	ı	ı	1	3	2	0%	0%	-33%
HT EV Charging Stations 12 KV	-	-	2	2	2	4	0%	0%	100%
Total -HT Sales	20,654	21,210	21,692	22,141	22,440	22,381	2%	1%	0%

6.1.19 Historical trend in number of Consumers in LT Category for MSEDCL (Excluding Bhiwandi Franchisee) is provided in the following table:

Table 6-8: Historical Growth and CAGR for No. of Consumers (LT Category)

Category	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	5 Year CAGR	3 Year CAGR	Y-O-Y Growth
LT I -BPL	2,09,731	1,76,998	3,50,243	3,74,631	3,03,229	2,29,668	2%	-13%	-24%
LT I Domestic	1,80,24,487	1,86,32,604	1,94,27,851	2,03,78,279	2,09,86,022	2,13,13,414	3%	3%	2%
LT II Non-Domestic	17,56,626	18,37,478	19,04,557	19,88,489	20,44,058	20,56,116	3%	3%	1%
LT III PWW	51,833	51,671	52,808	54,880	56,057	56,108	2%	2%	0%
LT IV Agriculture	41,03,781	41,79,004	42,44,685	43,20,830	43,82,159	45,12,918	2%	2%	3%
LT V Power loom	81,682	73,178	67,653	57,644	58,491	56,864	-7%	-6%	-3%
LT V Industrial General	3,16,776	3,07,183	3,15,673	3,45,753	3,72,968	3,81,297	4%	6%	2%
LT VI Streetlight	91,293	93,798	96,466	99,322	1,01,296	1,02,641	2%	2%	1%
LT VII- Temporary Connection	2,640	3,673	6,028	10,748	-	1	0%	0%	0%
LT VIII Advertisement Hoardings	2,527	2,543	2,742	3,163	-	1	0%	0%	0%
LT IX – Crematoriums Burial Grounds	180	244	229	268	-	-	0%	0%	0%

Category	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	5 Year CAGR	3 Year CAGR	Y-O-Y Growth
LT X - Public services	83,487	92,691	1,04,129	1,18,667	1,28,319	1,34,260	10%	9%	5%
LT EV Charging	-	-	-	28	66	145	0%	0%	0%
LT Prepaid	13,071	12,097	10,809	9,467	12,670	7,454	-11%	-12%	-41%
Total LT Consumers	2,47,38,114	2,54,63,162	2,65,83,873	2,77,62,169	2,84,45,335	2,88,50,885	3%	3%	1%
Total Consumers	2,47,58,768	2,54,84,372	2,66,05,565	2,77,84,310	2,84,67,775	2,88,73,266	3%	3%	1%

CAGR considered for Projection of No. of Consumer for FY 2023-24 and FY 2024-25

- 6.1.20 MSEDCL has considered the 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.
- 6.1.21 Following tables provide the CAGRs considered for projecting the number of consumers for FY 2023-24 and FY 2024-25 along with rationale as submitted by MSEDCL.

Table 6-9: CAGR considered for No. of Consumers Projections (HT Category)

Category	CAGR Considered	Justification/Rationale
HT-IND 11 KV	1%	3 Year CAGR of category as a whole considered
HT-IND 22 KV	1%	3 Year CAGR of category as a whole considered
HT-IND 33 KV	1%	3 Year CAGR of category as a whole considered
HT-IND EHV	1%	3 Year CAGR of category as a whole considered
HT-COMM 11 KV	1%	Realistic growth of 1% considered
HT-COMM 22 KV	1%	Realistic growth of 1% considered
HT-COMM 33 KV	1%	Realistic growth of 1% considered
HT-COMM EHV	1%	Realistic growth of 1% considered
HT RAILWAY/ METRO/MONO 11 KV	4%	3 & 5 year CAGR quite high. Realistic growth of 4%
HT RAILWAY/METRO/ MONO 22 KV	4%	3 year CAGR considered
HT RAILWAY/METRO/ MONO 33 KV	4%	3 year CAGR quite high. Realistic growth of 4%
HT RAILWAY/METRO/ MONO EHV	4%	Realistic growth of 4% considered
HT-PWW 11 KV	1%	3 Year CAGR of category as a whole considered
HT-PWW 22 KV	1%	3 Year CAGR of category as a whole considered
HT-PWW 33 KV	1%	3 Year CAGR of category as a whole considered
HT-PWW EHV	1%	3 Year CAGR of category as a whole considered
HT-AGRICULTURE 11 KV	1%	3 & 5 year CAGR negative. Realistic growth of 1%
HT-AGRICULTURE 22 KV	1%	3 year CAGR negative. Realistic growth of 1%
HT-AGRICULTURE 33 KV	1%	3 year CAGR considered
HT-AGRICULTURE EHV	1%	3 year CAGR quite high. Realistic growth of 1% considered
HT-AGRICULTURE OTHERS 11 KV	2%	5 year CAGR negative. 3 year CAGR considered
HT-AGRICULTURE OTHERS 22 KV	2%	3 year CAGR considered
HT-AGRICULTURE OTHERS 33 KV	2%	Realistic growth of 2%

Category	CAGR Considered	Justification/Rationale				
HT-GROUP HOUSING 11 KV	1%	5 year CAGR negative. Realistic growth of 1%				
HT-GROUP HOUSING 22 KV	1%	5 year CAGR negative. Realistic growth of 1%				
HT-GROUP HOUSING 33 KV	1%	Realistic growth of 1% considered				
HT-PUBLIC SERGOVT 11 KV	2%	5 year CAGR considered				
HT-PUBLIC SERGOVT 22 KV	2%	Realistic rate of 2% considered				
HT-PUBLIC SERGOVT 33 KV	2%	Realistic rate of 2% considered				
HT-PUBLIC SEROTHER 11 KV	2%	Y-o-Y growth rate of category as a whole considered				
HT-PUBLIC SEROTHER 22 KV	2%	Y-o-Y growth rate of category as a whole considered				
HT-PUBLIC SEROTHER 33 KV	2%	Y-o-Y growth rate of category as a whole considered				
HT-PUBLIC SEROTHER EHV	2%	Y-o-Y growth rate of category as a whole considered				
HT-EV CHARGING STATIONS 11 KV	10%	10% growth considered				
HT-EV CHARGING STATIONS 22 KV	10%	10% growth considered				

Table 6-10: CAGR Considered for No. of Consumers Projections (LT Category)

Consumer Category	CAGR Considered	Justification/Rationale
LT Category		
LT-I(A): LT-BPL	2%	3 year CAGR negative. 5 Year CAGR considered
LT-I (B): LT-Residential(Other than BPL)	3%	3 year CAGR considered
LT-II: LT- Non Residential		
0-20 KW	3%	3 year CAGR considered
>20-<=50 KW	3%	3 year CAGR negative. 5 Year CAGR of category as a whole considered
>50 KW	3%	3 & 5 year CAGR coming high. 5 Year CAGR of category as a whole considered
LT-III: LT-Public Water		
Works		
0-20 KW	2%	3 year CAGR considered
20-<=40 KW	2%	3 year CAGR considered
> 40 KW	2%	3 & 5 year CAGR coming high. 3 Year CAGR of category as a whole considered
LT-IV: LT-Agriculture		
***LT-AG-Unmetered (Pumpsets)	0%	5 year CAGR considered
LT-AG Metered (Pumpsets)	2%	Y-o-Y growth rate Considered
LT V(A) : LT Industry-		
Power Looms		
0-20 KW (Upto & incl.27 HP)	0%	3 & 5 year CAGR negative. Realistic growth of 0%
Above 20 KW (above 27 HP)	0%	3 & 5 year CAGR negative. Realistic growth of 0%

Consumer Category	CAGR Considered	Justification/Rationale
LT V(B): LT Industry- General		
0-20 KW (up to & incl. 27 HP)	4%	3 year CAGR negative. 5 Year CAGR of category as a whole considered
Above 20 KW (above 27 HP)	4%	3 year CAGR negative. 5 Year CAGR of category as a whole considered
LT VII(A) - Public services - Govt		
0-20 KW	10%	5 year CAGR of this slab quite high. 5 Year CAGR of category as a whole considered
>20-50 kW	10%	3 & 5 year CAGR individual slabs coming quite high. Realistic growth of 10% considered in line with 5 year CAGR of category as a whole considered.
>50 kW	10%	3 & 5 year CAGR individual slabs coming quite high. Realistic growth of 10% considered in line with 5 year CAGR of category as a whole considered.
LT VII(B) - Public services -		
Other		
0-20 KW	10%	Realistic growth of 10% considered
>20-50 kW	10%	3 & 5 year CAGR individual slabs coming quite high. Realistic growth of 10% considered in line with 5 year CAGR of category as a whole considered.
>50 kW	10%	3 & 5 year CAGR individual slabs coming quite high. Realistic growth of 10% is considered in line with 5 year CAGR of category as a whole considered.
Streetlight (LT-VI)		
Gram panchayat A, B & C Class Municipal Council	2%	5 Year CAGR of category as a whole considered
Municipal corporation Area	2%	5 Year CAGR of category as a whole considered
L.T .EV Charging Stations	10%	10% growth considered

6.1.22 MSEDCL submitted that, at present as well as for the future period, there is enough power availability. Considering the same, MSEDCL has taken an optimistic view and considered positive or zero growth for most of the consumer categories.

Number of Consumers for FY 2023-24 and FY 2024-25

6.1.23 MSEDCL has considered FY 2022-23 as the base year for projection of number of consumers for the ensuing years i.e. from FY 2023-24 to FY 2024-25. Based on the number of consumers for FY 2022-23 and CAGR shown the tables above, MSEDCL has projected the number of consumers (Excluding DF) for various categories as shown in the following table:

Table 6-11: No. of Consumers projections (HT Category) for FY 2023-24 and FY 2024-25

Catagowy	FY 2023-24	FY 2024-25
Category	Projected	Projected
HT-I Industries	15,285	15,496
HT-II Commercial	3,197	3,231
HT III Railways	113	120
HT IV-PWW & STP	1,042	1,051
HT V Agricultural	1,428	1,452
HT VI Bulk Supply (sHousing complex)	254	258
HT-VIII Public services	1,566	1,598
MSPGCL AUX SUPPLY	28	28
HT EV Charging Stations 11 KV	5	7
HT EV Charging Stations 22 KV	10	13
Total -HT Consumers	22,928	23,254

Table 6-12: No. of Consumer Projections (LT Category) for FY 2023-24 and FY 2024-25

Category	FY 2023-24	FY 2024-25
Category	Projected	Projected
LT I -BPL	1,94,960	1,98,534
LT I Domestic	2,03,03,905	2,09,13,023
LT II Non-Domestic	19,75,301	20,38,484
LT III PWW	55,071	56,175
LT IV Agriculture	42,92,730	43,35,613
LT V Power loom	34,424	34,424
LT V Industrial General	3,22,879	3,35,076
LT VI – Streetlight	99,477	1,01,837
LT VII - Public services	1,20,148	1,32,153
LT EV Charging Stations	525	919
LT Prepaid	10,334	10,334
Total LT Consumers	2,74,09,754	2,81,56,572
Total Consumers (Excl. DF)	2,74,32,682	2,81,79,826

Approach for Connected Load/Contract Demand Projection for Control Period

- 6.1.24 Like Sales projections, MSEDCL has adopted the historical trend method for projecting category wise load. Wherever, it is observed that, the trend is unreasonable/unsustainable, the growth factors have been corrected to arrive at more realistic projections.
- 6.1.25 Historical trend in Billing Demand in HT Category for MSEDCL (Excluding DF) is provided in the following table:

Table 6-13: Historical Growth and CAGR connected load/Contract Demand (HT Category) (kVA)

Category	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	5 Year CAGR	3 Year CAGR	Y-O-Y Growth
HT-I Industries	71,89,906	74,33,649	80,25,688	76,31,933	84,91,857	88,50,694	4%	3%	4%
HT-II Commercial	5,69,980	5,46,765	5,51,307	5,02,572	4,65,127	5,58,151	0%	0%	20%
HT III Railways	4,678	27,960	15,639	19,577	21,614	26,874	42%	20%	24%
HT IV-PWW	2,81,579	2,86,229	2,93,325	2,97,586	3,05,429	3,18,404	2%	3%	4%
HT V Agricultural	4,49,457	4,26,420	4,29,748	4,65,830	4,93,152	4,75,576	1%	3%	-4%
HT VI Bulk Supply (Housing Complex)	53,204	50,610	53,235	52,085	50,642	54,077	0%	1%	7%
HT Temporary	1,059	1,666	2,528	6,521	=	-	0%	05	0%
HT-IX Public services	2,60,391	2,54,829	2,55,751	2,41,247	2,38,630	2,95,596	3%	5%	24%
MSPGCL AUX SUPPLY	1,05,477	80,504	80,156	75,230	61,379	2,40,724	0%	0%	0%
HT EV Charging Stations 11KV	-	-	-	343	1,030	391	0%	0%	-62%
HV EV Charging stations 22 KV	-	-	1,004	4,721	4,028	9,854	0%	114%	145%
Total -HT Consumers	89,15,695	91,08,632	97,08,381	92,97,645	1,01,32,888	1,08,30,341	4%	4%	7%

6.1.26 Historical trend in Billing Demand in LT Category for MSEDCL (Excluding DF) is provided in the following table:

Table 6-14: Historical Growth and CAGR connected load/Contract Demand (LT Category)

Category	Unit	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	5 year CAG R	3 year CAG R	Y-O- Y Grow th
LT-I (A): LT- BPL	KW	21,245	18,547	40,892	45,163	36,496	27,895	6%	-12%	-24%
LT-I (B) : LT- Residential(Other than BPL)	KW	1,81,57,853	1,91,66,744	2,06,30,120	2,17,22,477	2,24,54,020	2,32,28,744	5%	4%	3%
LT-II : LT- Non Residential										
0-20 KW	KW	30,54,712	33,69,377	35,95,050	36,62,820	36,91,685	37,77,323	4%	2%	2%
>20-<=50 KW	KVA	2,93,322	2,84,148	3,30,884	2,98,523	2,92,153	3,31,106	2%	0%	13%
>50 KW	KVA	1,66,400	1,68,071	2,04,873	2,04,774	2,07,524	2,65,723	10%	9%	28%
LT-III : LT-Public Water Works										
0-20 KW	KVA	89,518	94,077	95,242	94,364	95,294	1,03,176	3%	3%	8%
20-<=40 KW	KVA	1,13,720	20,012	23,954	25,401	27,799	29,584	-24%	7%	6%
> 40 KW	KVA	14,521	14,179	29,826	28,551	33,494	37,383	21%	8%	12%
*** LT-AG- Unmetered (Pump sets)		78,32,128	75,39,611	74,22,998	73,67,595	75,14,426	79,03,903	0%	2%	5%
LT-AG Metered (Pump sets)	HP	1,27,02,129	1,35,37,093	1,40,68,615	1,44,97,380	1,47,88,803	1,49,63,501	3%	2%	1%
LT-AG Metered (Others)	HP	1,27,893	1,43,024	3,09,471	3,42,213	2,12,829	2,49,688	14%	-7%	17%
LT V(A) : LT Industry- Power Looms										

Category	Unit	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	5 year CAG R	3 year CAG R	Y-O- Y Grow th
190-20 KW (Upto & including 27 HP)	KW	1,84,446	1,82,964	1,82,179	1,39,817	1,38,532	1,33,734	-6%	-10%	-3%
Above 20 KW (above 27 HP)	KVA	1,80,153	1,85,858	2,19,882	2,28,658	2,52,104	2,55,155	7%	5%	1%
LT V(B) : LT Industry- General										
0-20 KW (Upto & including 27 HP)	KW	20,20,358	19,37,360	19,95,328	22,22,240	24,17,044	25,16,915	4%	8%	4%
Above 20 KW (above 27 HP)	KVA	14,25,584	13,50,857	16,46,183	17,96,444	19,93,245	21,45,026	9%	9%	8%
Street Light (LT-VI)										
Grampanchayat A, B & C Class Municipal Council	KW	2,04,399	1,96,144	1,96,761	1,99,598	1,99,828	2,60,694	5%	10%	30%
Municipal corporation Area	KW	1,79,931	1,91,497	1,99,560	2,05,105	2,07,694	2,24,642	5%	4%	8%
Temporary Connection (LT- VII)	KW									
Temporary Connection (Religious)	KW	3,294	2,717	4,224	6,976	-	-	-100%	-1005	0%
Temporary Connection (Other Purposes)	KW	12,443	15,414	25,638	44,015	-	-	-100%	-100%	0%
LT-VIII : LT- Advertisements & Hoardings	KW	6,281	6,464	6,599	7,599	-	-	-100%	-100%	0%
LT-IX : LT- Crematorium and Burial Grounds	KW	1,446	1,608	1,743	2,137	-	-	-100%	-100%	0%
LT X - Public services - Govt										
0-20 KW	KW	21,140	26,379	41,284	49,296	56,001	57,201	22%	11%	2%
>20-50 kW	KVA	2,562	3,291	4,326	4,959	5,895	6,382	20%	14%	8%
>50 kW	KVA	2,785	2,734	3,719	3,804	5,119	8,854	26%	34%	73%
LT X - Public										
services - Other 0-20 KW	KW	1,32,980	1,50,619	1,59,127	1,80,102	2,01,551	2,28,179	11%	13%	13%
>20-50 kW	KVA	25,870	27,833	33,221	35,643	36,413	47,295	13%	13%	30%
>50 kW	KVA	23,631	28,080	34,490	37,584	38,476	55,029	18%	17%	43%
LT EV Charging	11 7 1 1	-	20,000	144	382	469	1,308	0%	109%	179%

CAGR Considered for Connected Load/Contract Demand Projections

- 6.1.27 Like sales and no. of consumers. MSEDCL used the CAGR methodology for projecting the connected load, billing demand/contract demand. Wherever, it is observed that, the trend is unreasonable/unsustainable, the growth factors have been corrected to arrive at more realistic projections.
- 6.1.28 Following tables shows the CAGR considered for projection of Connected Load, billing demand/contract demand.

Table 6-15: CAGR considered for Contract Demand Projections (HT Category)

Category	CAGR
	Considered
HT-IND 11 KV	1%
HT-IND 22 KV	1%
HT-IND 33 KV	1%
HT-IND EHV	1%
HT-COMM 11 KV	2%
HT-COMM 22 KV	2%
HT-COMM 33 KV	2%
HT-COMM EHV	2%
HT RAILWAY/METRO/MONO 11 KV	5%
HT RAILWAY/METRO/MONO 22 KV	5%
HT RAILWAY/METRO/MONO 33 KV	5%
HT RAILWAY/METRO/MONO EHV	5%
HT-PWW 11 KV	2%
HT-PWW 22 KV	2%
HT-PWW 33 KV	2%
HT-PWW EHV	2%
HT-AGRICULTURE 11 KV	1%
HT-AGRICULTURE 22 KV	1%
HT-AGRICULTURE 33 KV	1%
HT-AGRICULTURE EHV	1%
HT-GROUP HOUSING 11 KV	1%
HT-GROUP HOUSING 22 KV	1%
HT-GROUP HOUSING 33 KV	1%
HT-GROUP HOUSING EHV	0%
HT-PUBLIC SERGOVT 11 KV	5%
HT-PUBLIC SERGOVT 22 KV	5%
HT-PUBLIC SERGOVT 33 KV	5%
HT-PUBLIC SERGOVT EHV	0%
HT-PUBLIC SEROTHER 11 KV	3%
HT-PUBLIC SEROTHER 22 KV	3%
HT-PUBLIC SEROTHER 33 KV	3%
HT-PUBLIC SEROTHER EHV	3%

Table 6-16: CAGR considered for Contract Demand Projections (LT Category)

Category	CAGR Considered
LT-I (A): LT- BPL	5%
LT-I (B): LT-Residential (Other than BPL)	5%
LT-II: LT- Non Residential	
0-20 kW	4%
>20-<=50 kW	4%

Category	CAGR Considered
>50 kW	4%
LT-III : LT-Public Water Works	
0-20 kW	2%
20-<=40 kW	2%
> 40 kW	2%
LT-AG Metered (Pump sets)	2%
LT-AG Metered (Others)	5%
LT V : LT Industry- Power Looms	
0-20 KW (Upto & including 27 HP)	0%
Above 20 KW (above 27 HP)	5%
LT V: LT Industry -General	
0-20 KW (Upto & including 27 HP)	4%
Above 20 KW (above 27 HP)	4%
LT VII(A) - Public services – Govt	
0-20 kW	6%
>20-50 kW	6%
>50 kW	6%
LT X - Public services – Other	
0-20 kW	6%
>20-50 kW	6%
>50 kW	6%
LT EV Charging	10%

Connected Load Projections for FY 2023-24 and FY 2024-25

6.1.29 MSEDCL submitted that, based on the connected load/contract demand or provisional billing demand for FY 2018-19 and CAGR shown the tables above, MSEDCL has projected the connected load/contract demand (Excluding DF) for various categories as shown in the following table:

Table 6-17: Connected Load/Contract Demand projections (HT Category) for FY 2023-24 and FY 2024-25 (kVA)

Category	FY 2023-24	FY 2024-25
Category	Projected	Projected
HT-I Industries	90,28,601	91,18,891
HT-II Commercial	5,80,705	5,92,321
HT III Railways	29,633	31,117
HT IV-PWW	3,34,452	3,42,778
HT V Agricultural	4,89,518	4,96,678

Category	FY 2023-24	FY 2024-25
Category	Projected	Projected
HT VI Bulk Supply (Housing	54,649	54,937
Complex)	34,049	34,937
HT-VIII Public services	3,14,962	3,25,168
MSPGCL AUX SUPPLY	2,40,724	2,40,724
HT EV Charging Stations 11 kV	424	441
HT EV Charging Stations 22 kV	10,659	11,086
Total -HT Consumers	1,10,84,327	1,12,14.141

Table 6-18: Connected Load/Contract Demand projections (LT Category) for FY 2023-24 and FY 2024-25

C.A	T T •4	FY 2023-24	FY 2024-25
Category	Unit	Projected	Projected
LT-I (A): LT- BPL	kW	30,756	32,294
LT-I (B) : LT-Residential(Other	kW	2,56,09,692	2,68,90,177
than BPL)	K VV	2,30,09,092	2,08,90,177
LT-II: LT- Non Residential			
0-20 kW	kVA	40,85,553	42,48,976
>20-<=50 kW	kVA	3,58,126	3,72,452
>50 kW	kVA	2,87,407	2,98,904
LT-III : LT-Public Water Works			
0-20 kW	kVA	1,07,586	1,09,861
20-<=40 kW	kVA	30,849	31,502
> 40 kW	kVA	38,981	39,806
LT-IV: LT-Agriculture			
*** LT-AG-Unmetered (Pump sets)	HP	79,03,904	79,03,904
LT-AG Metered (Pump sets)	HP	1,55,68,027	1,58,79,388
LT-AG Metered (Others)	HP	2,75,282	2,89,047
LT V : LT Industry- Power Looms			
0-20 KW (Upto & including 27 HP)	kW	1,33,735	1,33,735
Above 20 KW (above 27 HP)	kVA	2,81,309	2,95,375
LT V : LT Industry- General			
0-20 KW (Upto & including 27 HP)	kW	27,22,295	28,31,187
Above 20 KW (above 27 HP)	kVA	23,20,061	24,12,864
Streetlight (LT-VI)			
Gram panchayat A, B & C Class	kW	2,87,416	3,01,787
Municipal Council	K VV	2,87,410	3,01,767
Municipal corporation Area	kW	2,47,668	2,60,052
LT VII(A) - Public services - Govt			
0-20 kW	kW	64,271	68,128
>20-50 kW	kVA	7,171	7,602
>50 kw	kVA	9,949	10,546
LT VII(B)- Public services - Other			
0-20 kW	kW	2,56,382	2,71,765

Category	Unit	FY 2023-24	FY 2024-25	
Category	Omt	Projected	Projected	
>20-50 kW	kVA	53,141	56,330	
>50 kW	kVA	61,831	65,541	
LT EV Charging	kVA	1583	1742	

Commission's Analysis and Rulings

- 6.1.30 For the purpose of time series analysis of growth rates (sales, number of consumers and connected load/contract demand), the historical data and actual figures of FY 2022-23 (Sales, Number of consumers, Connected Load/Contract Demand) were available only upto first half i.e. FY 2022-23 (H1) as part of MTR Petition, whereas the Sales for the remaining six months i.e. FY 2022-23 (H2) were estimated. Hence, for the purpose of projections of Sales, the Commission has considered the approved Category-wise Sales for FY 2021-22 as the base year including approved AG Sales, as per rationale elaborated under True-up section for assessment of AG Sales for FY 2021-22.
- 6.1.31 Further, the Commission has analysed category-wise CAGR (5-yr, 3-yr and yr-to-yr) and also compared the actual growth vis-à-vis growth rates approved in earlier Order. The Commission has applied, in most cases 3 years CAGR considering FY 2021-22 as base year for projections of sales for FY 2023-24 and FY 2024-25. Where it is considered necessary because of aberrations in the reported year-on-year growth rates of certain categories, the Commission has applied the correction in growth rate considered projection projections or MSEDCL's upon reviewing rationale/justification provided by MSEDCL, to arrive at more realistic projections. Detailed rationale and category-wise growth factors considered for sales projections is covered in subsequent paragraphs.
- 6.1.32 The growth rates considered by the Commission are discussed in the following paragraphs:

HT I – Industry

6.1.33 3 years weighted average CAGR works out to be 2.8% as compared to MSEDCL's assumption of 3%. Thus, Commission has considered the 3 years CAGR growth rate of 2.8% for HT I–Industry.

HT II – Commercial

6.1.34 The 3 years weighted average CAGR for HT Commercial category works out to be negative. Hence, the Commission has considered the growth rate of 2% across the HT Commercial Category, which is same as considered by MSEDCL.

HT III - Metro/Monorail/Railways

6.1.35 3 years weighted average CAGR works out to be 3.1% as compared to MSEDCL's assumption of 3%. Thus, Commission has considered the 3 years CAGR growth rate of 3.1% for HT III – Metro/Monorail/Railways Category.

HT IV – Public Water Works (PWW)

6.1.36 3 years weighted average CAGR works out to be 2% as compared to MSEDCL's assumption of 3%. Thus, Commission has considered the 3 years CAGR growth rate of 2% for HT PWW Category.

HT V – Agriculture

6.1.37 The 3 years weighted average CAGR for HT V – Agriculture category works out to be negative. Hence, the Commission has considered the growth rate of 1% across the HT V – Agriculture Category, which is same as considered by MSEDCL.

HT VI – Group Housing Society

6.1.38 The 3 years weighted average CAGR for HT VI – Group Housing Society category works out to be negative. Hence, the Commission has considered the growth rate of 1% across the HT VI – Group Housing Society Category, which is same as considered by MSEDCL.

HT VIII – Temporary Supply

6.1.39 As regards the HT Temporary Supply Religious, the Commission expects zero growth rate for the ensuing years, which is same as considered by MSEDCL. Further, with rationalization of tariff categories, these categories would no longer be under operation, however, for the purpose of sales projections, the sales under these categories have been projected as such.

HT IX Public Services

6.1.40 The 3 years weighted average CAGR works out to be 4.6%, which is considered by the Commission across the entire sub-categories of HT IX Public Services.

HT X MSPGCL Aux. Supply

6.1.41 The Commission expects no growth in case of this category, hence, 0% growth rate considered in line with MSEDCL's submission. Further for HT X MSPGCL Aux. Supply EHV Category the 3 years weighted average CAGR works out to be 10%, which is considered by the Commission.

HT EV Charging Stations 22 kV

6.1.42 The Commission has applied 10% growth rate in case of this category in line with MSEDCL's submission.

LT I - Residential

6.1.43 The Commission has considered 3 –year CAGR, the weighted average of which works out to 8.7% for BPL and 2.2% for other than BPL category.

<u>LT II – Non-Residential</u>

6.1.44 The 3 Year CAGR is 4%, which has been applied for projecting the sales, in line with MSEDCL's submission.

LT III - PWW

6.1.45 3 years weighted average CAGR works out to be 4% as compared to MSEDCL's assumption of 0%. Thus, Commission has considered the 3 years CAGR growth rate for LT III – PWW category.

LT IV - Agriculture

6.1.46 The Commission has considered under True-up chapter, its views for the assessment of AG sales. Since MSEDCL had not complied the directives of the Commission which was given in the last MYT Order Case no. 322 of 2019. The Commission has consider to approved AG sales for FY 2019-20 to FY 2023-24 as per the AG consumption norms recommended in the Final Report by the AG Working Group approved in last MYT order.

LT V – Industry

- 6.1.47 As regards the LT Industry -Power Loom, 3 years weighted average CAGR works out to be 1.5% as compared to MSEDCL's assumption of 3%. Thus, Commission has considered the 3 years CAGR growth rate for LT-Power loom industry.
- 6.1.48 As regards the LT Industry -General, 3 years weighted average CAGR works out to be 10.9% as compared to MSEDCL's assumption of 4%. Thus, Commission has considered the 3 years CAGR growth rate for LT Industry-General.

LT VI – Street Light

6.1.49 The Commission expects no growth in case of this category, hence, 0% growth rate considered in line with MSEDCL's submission.

LT VII – Temporary Supply

6.1.50 The Commission expects no growth in case of this category, hence, 0% growth rate considered in line with MSEDCL's submission.

<u>LT VIII – Advertisement Hoardings and LT IX - Crematorium and Burial Grounds</u>

6.1.51 The Commission expects no growth in case of this category, hence, "NIL" growth rate is considered in line with MSEDCL's submission. Further, with rationalization of tariff categories, these categories would no longer be under operation and would be merged with LT Commercial and LT Residential (0-100) respectively, however, for the purpose of sales projections, the sales under these categories have been projected as such.

LT X Public Services

6.1.52 As regards the LT – Public Services, 3 years weighted average CAGR works out to be 3.8% as compared to MSEDCL's assumption of 6%. Thus, Commission has considered the 3 years CAGR growth rate for LT – Public Service Category.

HT EV Charging Stations 22 kV

- 6.1.53 The Commission has applied 10% growth rate in case of this category in line with MSEDCL's submission.
- 6.1.54 The Commission has applied the Category-wise growth rates as above for projecting the Sales in the DF areas.
- 6.1.55 Following table sets out the HT and LT sales projections approved by the Commission Excluding DF Sales for FY 2023-24 and FY 2024-25.

Table 6-19: Sales for FY 2023-24 and FY 2024-25 (Excluding DF Sales) as approved by the Commission (MU)

Consumer Category & Consumption Slab	FY 2023-24	FY 2024-25
HT Category		
HT-I Industries	39,614	40,738
HT-II Commercial	1,970	2,009
HT-III RAILWAYS/Metro/Mono	111	115
HT-IV Public Water Works (PWW)	1,857	1,895
HT -V AGRICULTURE	795	804
HT-VI GROUP HOUSING SOCIETY	232	235
HT-IX Public Services	1,197	1,252
HT-XV MSPGCL AUX SUPPLY	362	399
HT AG Others (Poultry)	275	278
H.T. EV CHARGING STATIONS 22 KV	58	64
TOTAL HT Category	46,472	47,788
LT-I (A): LT- BPL	59	65
LT-I (B): LT-Residential(Other than BPL)	26,196	26,762
LT - II Non-Domestic	6,732	7,002
LT - III PWW	926	963
LT-AG-Unmetered (Pump sets)	8,718	8,718
LT-AG Metered (Pump sets)	18,429	18,798
LT-AG Metered (Others)	235	252
LT V(A): LT Industry- Power Looms	1,996	2,026
Total LT V(B): LT Industry- General	7,808	7,926

Consumer Category & Consumption Slab	FY 2023-24	FY 2024-25
LT Street Light	896	896
LT - X - Public services	747	776
T L.T. EV Charging Stations	2	2
Total LT Category	72,745	74,187
MSEDCL Excl. D.F. Total sales	1,19,217	1,21,975

6.1.56 Following Table summarizes the projections approved by the Commission (including DF area Sales) from FY 2023-24 and FY 2024-25:

Table 6-20: Sales for FY 2023-24 and FY 2024-25 (Including DF Areas), as approved by Commission (MU)

	FY 2023-24			FY 2024-25			
Particulars	MYT Order	MTR Petition	Approved in the Order	MYT Order	MTR Petition	Approved in the order	
Sales excl. DF	120,843	123,787	119,217	125,785	127,413	121,975	
Sales (Bhiwandi DF)	3759	3462	3425	3938	3567	3492	
Sales (Malegaon DF)	-	764	754	-	787	767	
Sales (Thane DF)	-	562	558	-	580	571	
Total Sales	124,602	128,575	123,955	129,723	132,347	126,805	

6.1.57 As regards, the projection of Number of Consumers, Billing Demand/Contract Demand, the Commission has noted the submissions and its rationale provided across the consumer categories. The Commission for the purposed of projections has considered the 5 years CAGR for most of the consumers categories, wherever negative growth rates were observed, the Commission has considered the zero-growth rate for such consumer categories.

6.2 Distribution Loss for FY 2023-24 and FY 2024-25

MSEDCL's Submission

6.2.1 MSEDCL submitted that it has been achieving a significant reduction in distribution losses and these efforts shall be continued and will further be enhanced. However, the loss reduction is a slow process and as the loss levels come down, further reduction in loss becomes difficult. MSEDCL has considered the distribution losses (excl. EHV) for the Control Period FY 2023-24 and FY 2024-25 considering year on year reduction of 0.25% from the approved Distribution losses of FY 2022-23 i.e. 14.0%.

Table 6-21: Proposed Distribution Losses (%) for FY 2023-24 and FY 2024-25 as submitted by MSEDCL

	FY 2	023-24	FY2024-25		
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition	
Distribution Losses (Excluding EHV)	13.01%	13.0%	12.0%	12.0%	

Commission's Analysis and Ruling

6.2.2 The Commission had stipulated the trajectory for reduction of Distribution Loss in its MYT Order for 4th control period in Case No. 322 of 2019. Based on the revised formats and methodology for computation of Distribution Loss by considering the sales at the distribution periphery excluding EHV sales, the Distribution Loss level stipulated for FY 2023-24 and FY 2024-25 was 13.00% and 12.00% respectively. That formed the basis for estimated approval of the Energy Balance in the previous MYT Order for these years. Accordingly, the Commission approves the same distribution losses as approved in the MYT Order dated 31 March 2020 in Case No.322 of 2019.

6.3 Energy Balance for FY 2023-24 to FY 2024-25

MSEDCL's submission

6.3.1 MSEDCL has submitted that the quantum of sales in MU shown in the above sections represent the sales of MSEDCL excluding the sales in the area served by Distribution Franchisees. As per the methodology adopted by Commission for calculating energy balance of MSEDCL as a whole, the sale to the consumers within the Distribution Franchisee area have also been considered. Therefore, total energy sale for Control Period FY 2023-24 to FY 2024-25 computed by MSEDCL is as shown below:

Table 6-22: Total Energy Sales for FY 2023-24 and FY 2024-25 as submitted by MSEDCL (MU)

Particulars	FY 20	23-24	FY 2024-25		
Farticulars	Approved	Projected	Approved	Projected	
Energy Sales by MSEDCL	1,20,842.58	1,23,786.65	1,25,785.50	1,27,412.88	
Add: Category wise sales in DF area (Bhiwandi)	3,759.30	3,462.25	3,937.88	3,567.35	
Add: Category wise sales in DF area (Malegaon)	1	764.06	1	787.01	
Add: Category wise sales in DF area (Thane)	1	562.41	1	579.78	
Energy Sales including DF	1,24,601.88	1,28,575.37	1,29,723.38	1,32,347.02	
Add: OA Sales (Conventional)	3,983.40	4,863.00	3,983.40	5,106.00	
Add: OA Sales (Non-Conventional)	859.40	2,825.00	859.40	3,826.00	
Add: Energy Sales due to surplus	1,246.02	(0.03)	1,297.23	0.08	
Total Energy Sales	1,30,690.69	1,36,263.34	1,35,863.41	1,41,279.11	

6.3.2 The MSEDCL submitted the Energy Balance for FY 2023-24 to FY 2024-25 as summarized in the table below:

Table 6-23: Energy balance for FY 2023-24 and FY 2024-25 as submitted by MSEDCL (MUs)

				FY 20)23-24	FY 20	024-25
Sr. No	Particulars	Calculatio n	UoM	MYT Order	MTR Petition	MYT Order	MTR Petition
1	LT Agriculture Sales (Including D.F)	a	MU	27,939	34,151	28,498	35,073
2	LT Sales excluding Agriculture sales (including D.F)	b	MU	50,919	48,949	53,747	50,504
3	HT Sales excluding EHV level sales (including D.F)	c	MU	34,160	32,259	35,452	33,178
4	Total Sales including D.F (Excluding EHV Sales)	d = a+b+c	MU	1,13,018	1,15,359	1,17,698	1,18,754
5	OA Sales (Renewables)	e	MU	859	2,825	859	3,826
6	OA Sales (Conventional)	f	MU	3,983	4,863	3,983	5,106
7	Retail Energy Sale to Consumers (Excluding EHV Sales)	A=d+e+f	MU	1,17,860	1,23,041	1,22,540	1,27,686
8	Sale due to Surplus energy Traded	B=1%(d+t)	MU	1,246	-0	1,297	0
9	Retail Energy Sale to Consumers (Excluding EHV Sales)	C= A+B	MU	1,19,106	1,23,047	1,23,838	1,27,686
10	Total Power Purchase	D= g+h	MU	1,48,759	1,52,757	1,53,204	1,55,469
11	Power Purchase Quantum from Intra-State sources	g	MU	1,07,573	1,11,694	1,12,105	1,17,200
12	Power Purchase Quantum from Inter-State sources	h	MU	41,186	41,063	41,099	38,268
13	Inter-State Losses	i	%	3.10%	3.10%	3.10%	3.10%
14	Power Purchase Quantum from Inter-State sources at MS Periphery	j =h*(1-i)	MU	39,907	39,788	39,823	37,080
15	Add: FBSM		MU	-	-	-	-
16	Power Quantum handled at Maharashtra Periphery	k = g+j	MU	1,47,480	1,51.482	1,51,928	1,54,280
17	Infirm Non-PPA Wind Power	1 = e/(1-q)	MU	888	2,920	888	3,954
18	Input for OA Consumption	m=f/(1-q)	MU	4,114	5,023	4,114	5,274
19	Total Power Purchase Quantum Handled	n =k+l+m- v	MU	1,51,909	1,59,425	1,56,357	1,63,508
20	Surplus Power Traded	o =B	MU	1,241	-0	1,297	0
21	Energy Requirement at G<>T Periphery	p=n-o	MU	1,50,663	1,59,425	1,55,059	1,63,508

			FY 20	023-24	FY 2024-25		
Sr. No	Particulars	Calculatio n	UoM	MYT Order	MTR Petition	MYT Order	MTR Petition
22	Intra-State Transmission Loss	q	%	3.18%	3.18%	3.18%	3.18%
23	Intra-State Transmission Loss	r=p*q	MU	4,789	5,067	4,929	5,197
24	Net Energy requirement at T<>D Periphery	s=p-r	MU	1,45,874	1,54,357	1,50,131	1,58,310
25	EHV Sales	t	MU	11,584	13,217	12,026	13,593
26	Net Energy Available for Sale at 33kV	u=s-t	MU	1,34,290	1,41,141	1,38,105	1,44,718
27	Energy injected and drawn at 33kV	v	MU	573	905	573	905
28	Total Energy Available for Sale at 33kV	E=u+v	MU	1,34,863	1,40,236	1,38,678	1,43,813
29	Energy Available for sales including Surplus traded (excl. OA sales)	F=E-l-m+o	MU	1,31,107	1,32,548	1,34,974	1,34,88`1
30	Distribution Loss (Excl. EHV Sales and OA sales)	G= E-A	MU	17,002	17,189	16,138	16,127
31	% Distribution Loss (Excl. EHV Sales and OA sales)	H=G/F	%	13.0%	13.0%	12.0%	12.0%

Commission's Analysis and Ruling

- 6.3.3 The Commission has followed a bottom-up approach while approving the Energy Balance for FY 2023-24 and FY 2024-25. The quantum of sales to consumers is projected first. This energy requirement provides the basis for further grossing up for Distribution Loss, InSTS loss and ISTS loss to arrive at the actual energy input requirement to be procured.
- 6.3.4 Considering the total sales as approved earlier in this Chapter, the Commission has approved the pro-rata voltage-wise sales (excluding surplus Energy Trade projections) for FY 2023-24 and FY 2024-25 for calculating the Energy Balance. As the surplus energy traded is difficult to access the voltage at which it gets consumed, therefore, the Commission has not included in voltage-wise sales considered below. Accordingly, the voltage-wise sale (Excluding Surplus Energy Trade projections) approved for the Energy Balance is shown in the following Table:

Table 6-24: Voltage-wise sales considered in Energy Balance for FY 2023-24 & FY 2024-25 as approved by the Commission (MU)

	FY 2023-24			FY 2024-25			
Voltage Level	MYT Order	MTR Petition	Approved in this Order	MYT Order	MTR Petition	Approved in this Order	
Sales at > 66 kV (EHV Sales)	11,584	13,217	13,778	12,026	13,593	14,185	
HT Sales (Excl. EHV)	34,160	32,259	33,518	35,452	33,178	34,446	
LT Sales (Excl. AG Sales)	50,919	48,708	49,254	53,747	50,244	50,381	
LT AG Sales	27,939	34,392	27,405	28,498	35.332	27,792	
LT Sales - Total	78,858	83,100	76,659	82,245	85,576	78,173	
Total Sales	124,602	128,575	123,955	129,723	132,347	126,805	

- 6.3.5 The Commission has considered the approved sales comprising sales in the DF areas for calculation of the Energy Balance of FY 2023-24 and FY 2024-25. The Commission has considered a Distribution Loss reduction trajectory as approved in the earlier Section. As regards InSTS losses, the Commission has considered the actual intra-state transmission loss levels of FY 2022-23 as approved in TTSC Order as 3.18%. As regards Inter-State losses, the Commission has considered the actual inter-state transmission losses of 3.55% for import of inter-state power upto the state periphery as per as per 52 avg. weekly loss POSOCO (upto Feb2023).
- 6.3.6 Accordingly, Total Energy Sales to MSEDCL is approved for FY 2023-24 and FY 2024-25 as below:

Table 6-25: Total Energy Sales for FY 2023-24 & FY 2024-25 as approved by the Commission (MU)

		FY 2023-24		FY 2024-25			
Particulars	MYT Order	MTR Petition	Approved in the Order	MYT Order	MTR Petition	Approved in the order	
Sales excl. DF	120,843	123,787	119,217	125,785	127,413	121,975	
Sales (Bhiwandi DF)	3759	3462	3425	3938	3567	3492	
Sales (Malegaon DF)	-	764	754	-	787	767	
Sales (Thane DF)	-	562	558	-	580	571	
Total Sales Incl. DF	124,602	128,575	123,955	129,723	132,347	126,805	
Add: OA Sales (Conventional)	3,983	4,863	4,863	3,983	5,106	5,106	
Add: OA Sales (Non-Conventional)	859	2,825	2,825	859	3,826	3,826	
Add: Energy Sales due to surplus	1,246	(0.03)	(0.38)	1,297	0.08	(0.13)	
Total Energy Sales	1,30,691	1,35,263	1,17,865	1,35,863	1,41,279	1,21,552	

6.3.7 Based on the revised estimate of Sales by the Commission as approved in the above tables for FY 2023-24 and FY 2024-25, the Energy Balance for FY 2023-24 and FY 2024-25 is approved as shown in below tables:

Table 6-26: Energy Balance for FY 2023-24 as approved by the Commission

C _m	Particulars			FY 2023-24				
Sr. No.		Calculation	UoM	MYT	MTR	Approved in		
110.				Order	Petition	this Order		
1	LT Agriculture Sales (Including D.F)	a	MU	27,939	34,151	27,164		
2	LT Sales excluding Agriculture Sales (Incl. D.F)	b	MU	50,919	48,949	49.495		
3	HT Sales excluding EHV level sales (Incl. D.F)	С	MU	34,160	32,259	33,518		
4	Total Sales including D.F (Excl. EHV Sales)	d=a+b+c	MU	1,13,018	1,15,359	1,10,178		
5	OA Sales (Renewables)	e	MU	859	2,825	2,825		
6	OA Sales (Conventional)	f	MU	3,983	4,863	4,863		
7	Retail Energy Sale to Consumers (Excl. EHV Sales)	A=d+e+f	MU	1,17,860	1,23,047	1,17,866		
8	Sale due to Surplus Energy Traded	B=1%*(d+t)	MU	1,246	0	0		
9	Retail Energy Sale including surplus traded (Excl. EHV Sales)	C=A+B	MU	1,19,106	1,23,047	1,17,865		
10	Total Power Purchase	D=g+h	MU	1,48,759	1,52,757	1,46,395		
11	Power Purchase Quantum from Intra-State sources	g	MU	1,07,573	1,11,694	1,09,124		
12	Power Purchase Quantum from Inter-State sources	h	MU	41,186	41,063	37,270		
13	Inter-State Losses	i	%	3.10%	3.10%	3.55%		
14	Power Purchase Quantum from Inter-State sources at MS Periphery	j=h*(1-i)	MU	39,907	39,788	35,947		
	Add: FBSM		MU			841		
15	Power Quantum handled at Maharashtra Periphery	k=g+j	MU	1,47,480	1,51,482	1,45,913		
16	Infirm Non-PPA Wind Power	l=e/(1-q)	MU	888	2,920	2,920		
17	Input for OA Consumption	m=f/(1-q)	MU	4,114	5,023	5,023		
18	Total Power Purchase Quantum Handled	n=k+l+m-v	MU	1,51,909	1,59,425	1,53,855		
19	Surplus Power Traded	o=B	MU	1,246	0	0		
20	Energy Requirement at G<>T Periphery	p=n-o	MU	1,50,663	1,59,425	1,53,856		
21	Intra-State Transmission Loss	q	%	3.18%	3.18%	3.18%		
22	Intra-State Transmission Loss	r=p*q	MU	4,789	5,067	4,890		
23	Net Energy requirement at T<>D Periphery	s=p-r	MU	1,45,874	1,54,357	1,48,965		
24	EHV Sales	t	MU	11,584	13,217	13,778		
25	Net Energy Available for Sale at 33kV	u=s-t	MU	1,34,290	1,41,141	1,35,188		
26	Energy injected and drawn at 33kV	V	MU	573	905	905		
27	Total Energy Available for Sale at 33kV	E=u+v	MU	1,34,863	1,40,236	1,34,283		
28	Energy Available for Sale including Surplus traded (excluding OA Sales)	# F=E-l-m+o	MU	1,31,107	1,32,548	1,26,595		
29	Distribution Loss (Excl. EHV Sales and OA Sales)	# G=E-A	MU	17,002	17,189	16,417		

	Sr.	Particulars				FY 2023-24	
No.			Calculation	UoM	MYT Order	MTR Petition	Approved in this Order
	30	Distribution Loss (Excl. EHV Sales and OA Sales)	H=G/F	%	13.0%	13.0%	13.0%

Table 6-27: Energy Balance for FY 2024-25 as approved by the Commission

	Particulars	Calculation	UoM	FY 2024-25		
Sr. No.				MYT Order	MTR Petition	Approved in this Order
1	LT Agriculture Sales (Including D.F)	a	MU	28,498	35,073	27,533
2	LT Sales excluding Agriculture Sales (Incl. D.F)	b	MU	53,747	50,504	50,640
3	HT Sales excluding EHV level sales (Incl. D.F)	С	MU	35,452	33,178	34,446
4	Total Sales including D.F (Excl. EHV Sales)	d=a+b+c	MU	1,17,698	1,18,754	1,12,620
5	OA Sales (Renewables)	e	MU	859	3,826	3,826
6	OA Sales (Conventional)	f	MU	3,983	5,106	5,106
7	Retail Energy Sale to Consumers (Excl. EHV Sales)	A=d+e+f	MU	1,22,540	1,27,686	1,21,552
8	Sale due to Surplus Energy Traded	B=1%*(d+t)	MU	1,297	0	0
9	Retail Energy Sale including surplus traded (Excl. EHV Sales)	C=A+B	MU	1,23,838	1,27,686	1,21,552
10	Total Power Purchase	D=g+h	MU	1,53,204	1,55,469	1,48,137
11	Power Purchase Quantum from Intra-State sources	D	MU	1,12,105	1,17,200	1,12,459
12	Power Purchase Quantum from Inter-State sources	h	MU	41,099	38,268	35,678
13	Inter-State Losses	i	%	3.10%	3.10%	3.55%
14	Power Purchase Quantum from Inter-State sources at MS Periphery	j=h*(1-i)	MU	39,823	37,080	34,411
	Add: FBSM		MU			826
15	Power Quantum handled at Maharashtra Periphery	k=g+j	MU	1,51,928	1,54,280	1,47,696
16	Infirm Non-PPA Wind Power	l=e/(1-q)	MU	888	3,954	3954
17	Input for OA Consumption	m=f/(1-q)	MU	4,114	5,274	5274
18	Total Power Purchase Quantum Handled	n=k+l+m-v	MU	1,56,357	1,63,508	1,56,923
19	Surplus Power Traded	o=B	MU	1,297	0	0
20	Energy Requirement at G<>T Periphery	p=n-o	MU	1,55,059	1,63,508	1,56,923
21	Intra-State Transmission Loss	q	%	3.18%	3.18%	3.18%
22	Intra-State Transmission Loss	r=p*q	MU	4,929	5,197	4988
23	Net Energy requirement at T<>D Periphery	s=p-r	MU	1,50,131	1,58,310	1,51,935
24	EHV Sales	t	MU	12,026	13,593	14,185
25	Net Energy Available for Sale at 33kV	u=s-t	MU	1,38,105	1,44,718	1,37,750
26	Energy injected and drawn at 33kV	V	MU	573	905	905
27	Total Energy Available for Sale at 33kV	E=u+v	MU	1,38,678	1,43,813	1,36,845

				FY 2024-25		
Sr. No.	Particulars	Calculation	UoM	MYT Order	MTR Petition	Approved in this Order
28	Energy Available for Sale including Surplus traded (excluding OA Sales)	# F=E-l- m+o	MU	1,34,974	1,34,881	1,27,913
29	Distribution Loss (Excl. EHV Sales and OA Sales)	# G=E-A	MU	16,138	16,127	15,294
30	Distribution Loss (Excl. EHV Sales and OA Sales)	H=G/F	%	12.0%	12.0%	12.0%

6.4 Power Purchase Expenses for FY 2023-24 and FY 2024-25

MSEDCL's Submission

- 6.4.1 MSEDCL has considered the following sources of firm power for projecting the power purchase expenses for the balance period of 4th Control Period:
 - a. Maharashtra State Power Generation Company Limited (MSPGCL)
 - **b.** Purchase from Central Generating Stations
 - **c.** IPPs (JSW (Ratnagiri), Mundra UMPP CGPL, Adani Power Limited, Rattan India Limited, GMR Warora/EMCO Power Limited etc.)
- 6.4.2 MSEDCL submitted that it also buys power from other sources such as Sardar Sarovar Project (SSP) and Pench Hydro project, RE sources including co-generation, wind power and solar generation.
- 6.4.3 In addition to the above sources, in case of any shortfall from approved sources, when demand exceeds availability or for cost optimization, MSEDCL may also purchase the power from exchange/Traders or other sources at the market price through competitive bidding in accordance with the Guidelines of MoP.

Assumptions for power purchase for FY 2023-24 to FY 2024-25

- 6.4.4 MSEDCL submitted that it has procured power from different sources on MOD Principle for optimum utilization of the sources at least cost. For projection of availability, it has considered the entire power available for all the tied-up sources during this period to meet the demand. Considering the capacity available and the demand projection, no power procurement from Traders or power exchange in projected for the period FY 2023-24 to FY 2024-25.
- 6.4.5 Further, MSEDCL submitted that a realistic approach has been adopted in projecting the power purchase availability based on the actual availability and considering upcoming projects in the period FY 2023-24 to FY 2024-25.

- 6.4.6 Further, MSEDCL submitted that for estimating the power purchase cost, merit order despatch principles have been considered. As per the provisions of MYT Regulations, 2019, MSEDCL has projected the monthly power requirement using the monthly sales projections and applying monthly MOD. While full fixed (capacity) charges have been considered for all the plants, the variable charges corresponding to the cheaper sources of power have been considered, whereas no variable charges have been considered in respect of energy not scheduled for power purchase (according to the merit order dispatch principles).
- 6.4.7 MSEDCL further submitted that for power procurement from competitive bidding route, the tariff has been considered based on the rate quoted for respective years as per the terms of the PPA with the escalation based on the CERC rates, wherever applicable.
- 6.4.8 However, it is observed that the rates discovered in PPA's are no longer applicable in actual case and all the IPP's have made 'Change in Law' claims due to various factors such as taxes and duties/coal shortfall etc. Owing to this, the energy rate considered in MoD stock for projecting power purchase for FY 2023-24 and FY 2024-25 is no longer the discovered rare of PPA. Accordingly, MSEDCL has considered the additional cost of 'Change in Law' over and above the rate discovered in PPA's for working out the MoD stack. Accordingly, power purchase quantum and cost are arrived from IPP's.

Source-wise Projection for FY 2023-24 and FY 2024-25 MSPGCL Stations

- 6.4.9 MSEDCL submitted the quantum of energy available for sale from MSPGCL stations based on the contracted capacity of each station and average month wise actual availability for last 3 years. In addition to this, the auxiliary consumption for all MSPGCL stations is considered as same as approved by the Commission in MYT Order in Case No. 322 of 2019.
- 6.4.10 The variable cost for FY 2023-24 and FY 2024-25 is worked out by considering the estimated variable cost considered for H2 of FY 2022-23 for each station and escalated the same by CAGR for last 4 years (i.e., FY 2017-18 to FY 2021-22). While the fixed cost is considered same as that approved by the Hon'ble Commission in MYT Order for FY 2023-24 and FY 2024-25.

NTPC Stations

6.4.11 MSEDCL submitted that the quantum of energy available for sale from NTPC stations are based on the contracted capacity of each station and normative availability for each of the stations. While the auxiliary consumption is considered as same as approved by the Commission in MYT Order in Case 322 of 2019. Further, it has submitted that PGCIL Loss of 3.10% on the ex-bus energy is considered to arrive at the total energy available at State Periphery.

6.4.12 The variable charges for existing NTPC stations have been projected based variable cost considered for H2 of FY 2022-23 and escalated the same by CAGR for last 4 years (i.e., FY 2017-18 to FY 2021-22). While the fixed cost is in line with the fixed cost approved by the Commission in MYT Order in Case No. 322 of 2019 for each of the stations.

IPP Stations

- 6.4.13 MSEDCL submitted that it has considered the quantum of energy available for sale from IPPs based on the contracted capacity of each station, normative availability and auxiliary consumption approved by the commission in MYT Order in Case no. 322 of 2019.
- 6.4.14 The variable rates are considered based on the quoted escalable and non-escalable rates of the respective IPPs for FY 2023-24 and FY 2024-25. Further, the impact of transportation and taxes and duties in addition to the discovered rate in PPA on similar lines as considered in H2 of FY 2022-23. While, in case of APML stations (4 units) and RIPL stations (2 units), additional impact of 'Change in Law' with respect to Coal shortfall is also worked out considering the same rate as estimated for H2 of FY 2022-23). The rate on account of 'Change in Law' claims due to coal shortfall is kept same for projecting rate of both the years.
- 6.4.15 Further, the fixed cost of all IPPs is considered based on the quoted non-escalable capacity charges of respective IPPs for FY 2023-24 and FY 2024-25 in their respective PPA.

Impact of MoP direction for blending of 6% imported coal

- 6.4.16 MSEDCL submitted that the impact of blending of 6% imported coal is already factored in the rates projected for H2 of FY 2022-23 and hence MSEDCL has not considered separate 6% impact for FY 2023-24 and FY 2024-25 for MSPGCL, NTPC, APML and RIPL stations. Further for GMR Warora and Saiwardha, the variable rate has been increased by Rs. 0.37 and Rs. 0.32 per unit respectively for FY 2023-24 and subsequently for FY 2024-25 to consider the impact of imported coal blending.
- 6.4.17 In case of CGPL and JSW, the variable rates excluding imported coal rates are escalated by CAGR of last 5 years for projecting rates for FY 2023-24 and FY 2024-25.
- 6.4.18 Accordingly, MSEDCL has computed the variable cost for each month of FY 2023-24 and FY 2024-25 based on above submissions.

Renewables

6.4.19 MSEDCL submitted that it has considered the net purchase from RE sources (i.e., Wind, Solar, Biogas, Biomass, MSW and Small Hydro) based on the actual trend in generation seen in the last 3-4 years in each of the sources. MSEDCL has considered

- the actual CUF for FY 2021-22 for each of the sources and computed expected generation in FY 2023-24 and FY 2024-25 based on expected addition in RE capacity during this period.
- 6.4.20 The variable rates considered for RE sources are the weighted average rates of all generators having PPA with MSEDCL. For estimating rates for FY 2023-24 and FY 2024-25, MSEDCL has also taken in to account the contracted capacity which are planned to be commissioned in the next 2 years as detailed below:

Table 6-28: RE Contracted capacity for FY 2022-23 to FY 2024-25, as submitted by MSEDCL (MW)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Solar (MW)	4351	6933	8448
Wind (MW)	3988	3865	3902
Bagasse (MW)	2931	3000	3000
Biomass (MW)	87	77	77
MSW (MW)	4	17	17
SHP (MW)	332	334	334

Power Purchase from Short Term Markets

- 6.4.21 MSEDCL submitted that, during the higher demand or shortage from regular sources due to various reasons including break downs, fuel shortage, etc., it may require to purchase power from exchanges and through short term power purchase tenders throughout the year. Hence, it is submitted that, considering volatile nature of short term power market and uncertainty in supply of power from long term sources on account of various reasons.
- 6.4.22 MSEDCL has requested the 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. Further, it has requested to consider the ceiling rate of Rs. 7.44 to Rs. 7.85 per unit as approved in Order dated 148 of 2022 for procurement of power on DEEP e-bidding portal/ power exchange during FY 2022-23 and FY 2024-25 considering the fact that overall discovered average rates on exchanges have increased significantly over the last 1-2 years during the recovery period of COVID-19and may show similar trend owing to the fact that demand may constantly rise in future years.

Inter State Transmission Charges

6.4.23 MSEDCL submitted that the PGCIL charges is considered same as approved by the Commission for FY 2023-24 and FY 2024-25 in MYT Order in Case No. 322 of 2019. Further, MSEDCL has not claimed any additional amount with respect to notification of CERC (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022 and CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2023 in the Petition and requested the Commission to approve additional charges if any as it deemed appropriate.

Impact on ECR due to installation Emission Control System (ECS) including Flue Gas Desulfurization (FGD)

- 6.4.24 The Ministry of Environment, Forest and Climate Change, Government of India (MoEFCC) on 7th December 2015, has notified the Environment (Protection) Amendment Rules, 2015 (MoEFCC Notification) which mandates that all thermal power plants are required to comply with the revised emission norms as specified in the MOEF Notification to control the SO2 by installation of Flue Gas De-sulphurizer (FGD) and NOx by Combustion Modification System. Accordingly, Hon'ble CERC has accorded in-principle approval of capital cost for installation of ECS and further, directed generators to file separate petitions for determination of tariff after implementation of the revised ECS as per provisions in Tariff Regulation, 2019. Further, Hon'ble MERC ordered that additional capital and operation expenditure and other consequential impact shall be considered on actual basis for reimbursement under Change in Law subject to prudent check.
- 6.4.25 After commissioning of the ECS assets, the generators will start the billing towards the cost of the ECS to the beneficiaries, resulting in increased variable cost of generation.

 MSEDCL submitted that the impact of additional expenditure towards implementation of ECS is currently not considered in the present petition.

Impact due to Fly Ash Transportation Charges

- 6.4.26 The Ministry of Environment, Forest & Climate Change (MOEFCC) issued notification dated 25th January 2016 prescribing bearing of the transportation cost of Fly Ash generated at power stations with the users of Fly Ash. As per the CERC as well as the Commission's directives, actual additional expenditure incurred by generators towards transportation of ash is admissible under "Change in Law". The Commission is therefore requested to kindly consider these charges as pass through as and when claimed by the Generating station for the respective years. It is also further submitted that any impact of such charges if allowed to the Generators in their respective Tariff Orders, then such cost may also be passed through in ARR of MSEDCL.
- 6.4.27 Following tables provide the summary of source wise power purchase quantum and cost for the period FY 2023-24 to FY 2024-25.

Table 6-29: Source wise Power Purchase quantum and cost for FY 2023-24 as submitted by MSEDCL

Generation	Power Pu	rchase Quar	ntum (Mus)	Power P	urchase Cost	t (Rs. Crore)	Per Unit cost (Rs. /unit)			
Stations	MYT Order	MTR Petition	Deviation	MYT Order	Devia		MYT Order	MTR Petition	Deviation	
MSPGCL	51,351	62,333.57	10,981.63	22,206	29,649.02	7,443.42	4.32	4.76	0.43	
NTPC	28,344	29,633.56	1,288.56	11,368	12,239.15	871.15	4.01	4.13	0.12	
NPCIL	4,946	4,372.52	(573.22)	1,515	1,389	(125.60)	3.06	3.18	0.11	
SSP	1,213	451.66	(761.34)	249	92.60	(156.40)	2.05	2.05	(0.00)	
Pench	137	96.75	(40.25)	28	19.83	(8.17)	2.04	2.05	0.01	
Subhansari		321.93	321.93		144.87	144.87		4.50	4.50	
Dodson	116	31.78	(84.22)	28	19.83	(7.85)	2.39	6.26	3.87	
JSW	1,462		(1,462.74)	663	164.67	(498.33)	4.53	-	(4.53)	
CGPL	5,172	4,694	(477.52)	1,685	2,666.43	981.43	3.26	5.68	2.42	
APML	21,044	12,169.08	(8,874.92)	8,246	7,997.85	(270.15)	3.92	6.55	2.64	
GMR Warora/ EMCO	1,374	1,493.28	119.46	717	620.98	(95.52)	5.22	4.16	(1.06)	
Rattan India	1,921	8,959	7,038.87	1,424	3,64.71	2,219.11	7.41	4.07	(3.35)	
Sai Wardha		1,791.9	1,791.94		838	838.29		4.68	4.68	
Renewable	31,679	26,408.9	(5,270.23)	12,583	11,859.37	(723.63)	3.97	4.49	0.52	
Traders	-		-	-	-	-			-	
PGCIL	-		1	3,845	3,845.01	0.01			-	
Total	1,48,759	1,52,757	3,998	64,557	75,168	8,089	4.34	4.92	(0.62)	

Table 6-30: Source wise Power Purchase quantum and cost for FY 2024-25 as submitted by MSEDCL

Generation	Power Pu	urchase Quantu	m (Mus)	Powe	r Purchase C	ost (Rs. Crore)	Per U	nit cost (R	s. /unit)
Stations	MYT Order	MTR Petition	Deviation	MYT Order	MTR Petition	Deviation	MYT Order	MTR Petition	Deviation
MSPGCL	51,409	65,656	14,246.86	22,516	31,924.58	9,408.99	4.38	4.86	0.48
NTPC	28,292	28,759.96	467.73	11,582	12,145.96	564.34	4.09	4.22	0.13
NPCIL	4,932	4,932.43	0.20	1,548	1,614.50	66.81	3.14	3.27	0.13
SSP	1,210	450.824	(759.18)	248	92.43	(155.57)	2.05	2.05	0.00
Pench	137	99.557	(39.95)	28	19.79	(8.21)	2.05	2.05	0.00
Subhansari		321	321.12		145	144.51		4.50	4.50
Dodson	116	31.78	(83.98)	33	25.18	(7.75)	2.85	7.92	5.08
JSW	652	-	(651.88)	424	192.64	(231.36)	6.50	-	(6.50)
CGPL	5,158	2,218.15	(2,939. 74)	1,742	1,601.02	(140.98)	3.38	7.22	3.84
APML	20,986	11,314.71	(9,671.65)	8,169	7,473.01	(695.99)	3.89	6.60	2.71
GMR Warora/ EMCO	1,370	1,489.20	119.14	750	637.91	(112.09)	5.47	4.28	(1.19)
Rattan India	1,831	8,935.20	7,104.20	1,413	3,744	2,330.69	-	4.19	4.19
Sai Wardha		1,787	1,787.04		830.47	(830.47)		4.65	4.65
Renewable	37,111	29,475.67	(7,635.69)	14,330	12,965.75	(1,364.25)	3.86	4.40	0.54
Traders	-		-			-			-
PGCIL	-	-	-	4,037	4,037	ı			-

Generation	Power Po	urchase Quantu	m (Mus)	Powe	r Purchase C	ost (Rs. Crore)	Per Unit cost (Rs. /unit)		
Stations	MYT Order	MTR Petition	Deviation	MYT Order	MTR Petition	Deviation	MYT Order	MTR Petition	Deviation
	Oruci	1 Cutton		Oruci	1 cutton		Oruci	1 Cutton	
Total	1,53,204	1,55,469	2,264	66,819	77,449	12965.75	4.36	4.98	0.62

Commission's Analysis and Ruling

6.4.28 As set out in the Section on Energy Balance, the Commission has approved the following Energy Input requirement at G<>T periphery for FY 2023-24 and FY 2024-25, as against MSEDCL's projection.

Table 6-31: Energy Input for FY 2023-24 to FY 2024-25 as approved by the Commission (MU)

Particulars	FY 2023-24	FY 2024-25
Energy Input Requirement at G<>T periphery (MSEDCL MYT Petition)	1,52,757	155,469
Energy Input Requirement at G<>T periphery (Approved in this Order)	1,46,380	148,122

6.4.29 Accordingly, for estimating the power purchase quantum and cost for FY 2023-24 and FY 2024-25, the Commission has adopted the following two-step approach:

Step-1: Station-wise analysis of projection of energy quantum and rates, as against the MSEDCL projections.

Step-2: Approval of Station-wise energy quantum and cost based on MOD principles for each month of the Control Period, and approval of total power purchase quantum and cost for respective periods.

6.4.30 Step-1 Analysis: Projection of available Power Purchase Quantum and Rate

MSPGCL

6.4.31 MSEDCL has provided the break-up of Station-wise power purchase quantum and cost of MSPGCL that has been considered for its projections. The Commission while scrutinising MSPGCL's MTR Petition in Case No.227 of 2022, has approved the cost and quantum of power purchase of its existing Stations/Units for the FY 2023-24 and FY 2024-25 as shown below.

Table 6-32: Generation Quantum of MSPGCL Stations for FY 2023-24 and FY 2024-25 as approved in Case No. 227 of 2022 (MUs)

	FY 20	23-24	FY 20	24-25
G	Gross	Net	Gross	Net
Station/Unit	generation	generation	generation	generation
Bhusawal - 3	1471	1310	1467	1306
Chandrapur - 3 To 7	11458	10564	11427	10536

Total	66,850	61,856	66,668	61,687
Parli Replacement U 8	1867	1708	1862	1703
Chandrapur 8 & 9	7466	7018	7446	6999
Koradi 8 To 10	12468	11720	12433	11687
Bhusawal 4 & 5	7466	7018	7446	6999
Khaparkheda 5	3733	3509	3723	3500
Parli Unit-6 & 7	3733	3386	3723	3377
Paras - 3 & 4	3676	3334	3666	3325
Gtps Uran	2249	2180	2243	2174
Nashik- 3 To 5	4427	3951	4415	3940
Koradi – 6	1328	1185	1325	1181
Khaparkheda -1 To 4	5507	4973	5492	4959

Table 6-33: Generation Cost of MSPGCL Stations for FY 2023-24 and FY 2024-25 as approved in Case No. 227 of 2022

	FY	2023-24	FY 2024-25			
Station/Unit	Energy Charge Rate (Rs. /kWh)	Annual Fixed Charges (Rs. Crore)	Energy Charge Rate (Rs. /kWh)	Annual Fixed Charges (Rs. Crore)		
Bhusawal - 3	4.408	173.17	4.461	177.83		
Chandrapur - 3 To 7	4.103	980.93	4.097	1134.32		
Khaparkheda -1 To 4	4.197	601.72	4.218	641.37		
Koradi – 6	3.319	298.53	3.368	308.26		
Nashik- 3 To 5	4.647	471.53	4.641	492.51		
Gtps Uran	6.760	122.34	6.760	127.51		
Paras - 3 & 4	3.483	457.21	3.510	562.63		
Parli Unit-6 & 7	5.100	462.65	5.096	482.26		
Khaparkheda 5	4.007	548.63	4.019	578.71		
Bhusawal 4 & 5	3.710	1032.59	3.746	1045.60		
Koradi 8 To 10	3.084	1946.11	3.119	1970.52		
Chandrapur 8 & 9	3.444	1212.64	3.442	1228.27		
Parli Replacement U 8	5.016	384.03	5.052	384.66		
Hydro (incl. Ghatghar)		288.63		310.24		
Hydro Lease rent	-	533.76	-	525.55		
Total	-	9,514.46		9,970.24		

- 6.4.32 For projecting the power purchase quantum and cost of existing Stations of MSPGCL, the Commission has taken the rates, available quantum and cost approved in the MSPGCL MTR Order in Case No. 227 of 2022. Further, for Hydro generation (including Ghatghar PSS) the Commission has considered the average of 3-year (FY 2020-FY 2022) actual generation as submitted by MSEDCL.
- 6.4.33 The Commission observes that while approving the ECR, average fuel cost escalation upto 1.5% p.a. has already been factored in estimation of ECR. It may be noted that exact figures of escalation factors and ECR rate for each station has been stipulated in MSPGCL MTR Order in Case No. 227 of 2022. Further, for Hydro (including Ghaghar PSS), the Commission has considered the approved the Lease rent of the Hydro Plants as other charges for FY 2023-24 and 2024-25.

- 6.4.34 Further, the Commission has not considered new Units of Bhusawal Unit 6 as submitted by MSEDCL in FY 2023-24 and FY 2024-25 at this stage because at present the unit is not yet approved by the Commission.
- 6.4.35 Accordingly, the projected quantum of energy generation from MSPGCL Stations and their Variable Cost has been limited to the extent of application of MOD principles for FY 2023-24 and FY 2024-25 for allowing the power purchase quantum and cost for the year.

NTPC

- 6.4.36 The units from NTPC Stations are projected at a PLF of 85% for thermal Stations, as per the CERC Tariff Regulations, 2019. The Commission notes that the variable cost for FY 2023-24 and FY 2024-25 is considered based on estimated variable cost considered for H2 of FY 2022-23 and escalated the same by CAGR for last 4 years (i.e. FY 2017-18 to FY 2021-22). Accordingly, the Commission has approved the Fixed Charges and variable cost payable to the NTPC Plants as projected by MSEDCL.
- 6.4.37 Further, the power purchase quantum and variable charge of the NTPC Generating Stations have been limited to the extent of application of MOD Principles. The NTPC generating stations such as Khargone I & II, Solapur I & II, Kawas and Gandhar are not getting despatched due to high energy cost. However, the Commission notes that the fixed charges of Rs. 1348 Crore and Rs. 1351 Crore for FY 2023-24 and FY 2024-25 respectively are to be paid by MSEDCL. Accordingly, the Commission has considered the same.

NPCIL

6.4.38 The Commission has approved the power purchase quantum and cost for NPCIL Generating Stations as submitted by MSEDCL. NPCIL Stations have been considered as 'Must Run' while applying MOD principles for FY 2023-24 to FY 2024-25. Truing-up will be undertaken considering actuals, subject to prudence check at the time of MYT process.

SSP, Pench, Dodson I & II

6.4.39 The Commission has approved the power purchase quantum and cost of power purchase from SSP, Pench, and Dodson I & II as proposed by MSEDCL. These Stations are included as 'Must Run' Stations while applying the MOD principles for approval of power purchase for FY 2023-24 and FY 2024-25. Truing-up will be undertaken considering actuals, subject to prudence check at the time of MYT process.

IPP Stations

6.4.40 The Commission has considered the quantum of energy available for sale from IPPs based on the contracted capacity, normative availability and auxiliary consumption of each station as approved by the Commission in MYT Order in Case No. 322 of 2019.

6.4.41 Further, the Commission notes that the rates of FY 2022-23 were derived based on the actual bills till September 2022 which has already factored in the impact of domestic coal shortfall and taxes and duties. Further, the Commission in this Order has carried out the provisional truing up of FY 2022-23. While provisional Truing up of FY 2022-23 the Commission has approved the MSEDCL's projections for FY 2022-23. Hence, for the purpose of projecting the variable charges for FY 2023-24 and FY 2024-25, the Commission has considered the rates of FY 2022-23 as approved by the Commission with 2.5% of escalation rate. Further the Commission also notes the submission of MSEDCL that, the fixed cost of all IPPs is considered based on the quoted non-escalable capacity charges of respective IPPs for FY 2023-24 and FY 2024-25 in their respective PPA.

Renewable Purchase

6.4.42 The Commission has specified the RPO targets for FY 2023-24 to FY 2024-25 under the RPO Regulation, 2019 as below:

Table 6-34: RPO Target for FY 2023-24 and FY 2024-25 as per PRO Regulations,2019

Financial Year	Quantum of purchase	e (in %) from RE sources
I maneiar I car	Solar	Non-Solar
2023-2024	10.50%	11.50%
2024-2025	13.50%	11.50%

- 6.4.43 The Commission notes that to comply with the above target, MSEDCL has considered the net purchase from RE Sources (i.e., Wind, Solar, Biogas, Biomass, MSW and Small Hydro) based on the actual trend in generation seen in the last 3-4 years in each of the sources. Further, it has considered the actual CUF for FY 2021-22 for each of the sources and computed expected generation in FY 2023-24 and FY 2024-25 based on expected addition in RE capacity during this period.
- 6.4.44 In view of above, the Commission asked MSEDCL to submit the detailed list of all RE generators with which it has contracted PPA, along with the PPA rates and cost. MSEDCL has provided the same in reply to the data gaps dated 4th January 2023 as detailed below:

Table 6-35: Source wise RE Contracted capacity and Commissioned capacity as on 31.10.2022, as submitted by MSEDCL (MW)

Sr. No.	Source	Contracted Capacity	Commissioned
1a	Solar (Centralized)	4428.00	3553.00
1b	Solar (MSKVY)	1478.00	537.86
1c	Solar (Kususm)	22.00	0.00
	Total Solar	5928.00	4090.86

Sr. No.	Source	Contracted Capacity	Commissioned
2	Wind	3511.91	2839.36
3	Bagasse based Cogeneration	2634.70	2407.30
4	Biomass	87.00	87.00
5	Small Hydro	327.33	320.68
6	Wind-Solar Hybrid	300.00	0.00
7	Municipal Solid Waste	17.19	4.00
	Total Non-Solar	6878.13	5658.34
	Total RE	12806.13	9749.20

- 6.4.45 The Commission notes that as on 31st October 2022, MSEDCL has contracted 5,928 MW capacity of Solar Power and 6,878 MW capacity of Non-Solar Power out of which only 4090 MW and 5658 MW of Solar and Non-Solar respectively is commissioned.
- 6.4.46 Therefore, for the purpose of approving RE generation, the Commission has considered the estimated generation and rate as submitted by MSEDCL. Further, it is estimated that 50% of capacity of the incremental capacity up to contracted capacity are to be commissioned in FY 2023-24 and next 50% in FY 2024-25. The estimated the generation from the incremental capacity is considered at 19% CUF for solar and 30% to 80% CUF for non-solar RE sources considering various Non-Solar RE sources like Wind, SHP, Biomass, Bagasse etc. and the power purchase rate is considered as the latest competitive discovered rates for RE projects.
- 6.4.47 Accordingly, the Commission has computed the average power purchase cost for Solar and Non-Solar as the weightage average rate for the total power purchase from the commissioned capacity till 31st October 2022 and the incremental capacity of Solar and Non -Solar during FY 2022-23 and FY 2023-24 as shown in Table 6-36.
- 6.4.48 In view of above, the Commission has estimated that in FY 2023-24 MSEDCL would procure 9, 530 MUs from Solar and 13,053 MUs from Non-Solar at the rate of Rs. 3.44 per unit and Rs. 5.40 per unit respectively. Further, in FY 2024-25 MSEDCL would procure 11,040 MUs from Solar and 13,014 MUs from Non-Solar at the rate of Rs. 3.34 per unit and Rs. 5.34 per unit respectively.

Table 6-36: Source wise Estimated Solar Generation in FY 2023-24 and FY 2024-25, as approved by the Commission (MUs)

Sources	Contracted Capacity	Commissioned as on 31.10.2022	Estimated Energy from Commissione d Capacity	Rate for Commissioned Capacity	Balance Energy upto Contracted Capacity	Rate for Balance Capacity	Total Estimated Energy till FY 2023-24	Balance Energy up to contracted Capacity	Rate for Balance Capacity	Estimate d Energy till FY 2024-25
	(a)	(b)	(c)	(d)	e =(b-a)*CUF/2	(f)	g=c+e	h =(b-a)*CUF	I=f	J = h + c
	MW	MW	MU	Rs. /kWh	MU	Rs. /kWh	MU	MU	Rs. /kWh	MU
Competitive Bidding	3300	2,450	5,369	2.67	707.37	2.67	6,077	1,414.74	2.67	6,784
Generic Tariff based	1128	1,103	1,837	6.49	20.81	2.67	1,858	41.61	2.67	1,879
200 MW with EESL	500	162	108	3.01	281.28	2.67	389	562.57	2.67	670
Solar MSKVPY	565	249	378	3.21	263.09	2.67	641	526.18	2.67	905
Solar MSKVPY (PSA MSPGCL)	413	127	212	3.08	238.01	2.67	450	476.02	2.67	688
Solar KUSUM	22	22	115	3.04	-	2.67	115	1	2.67	115
Total Existing PPA	5928	4,113	8,019	3.59	1,510.56	2.67	9,530	3,021.12	2.67	11,040
APPC for FY 2023-24 and FY 2024-2025							3.44			3.34

Table 6-37: Source wise Estimated Non-Solar Energy in FY 2023-24 and FY 2024-25, as approved by the Commission (MUs)

Sources	Contracted Capacity	Commissioned as on 31.10.2022	Estimated Energy for Commissioned Capacity	Rate for Commissioned Capacity	Balance Energy upto contracted Capacity	Rate for Balance Capacity	Estimated Energy till FY 2023-24	Balance Energy up to contracted Capacity	Rate for Balance Capacity	Estimated Energy till FY 2024-25
	(a)	(b)	(c)	(d)	e =(b-a)*CUF/2	(f)	g=c+e	h =(b-a)*CUF	I=f	J = h + c
	MW	MW	MU	Rs. /kWh	MU	Rs. /kWh	MU	MU	Rs. /kWh	MU
Wind 1	1246	573	1,004	2.70	884.32	2.70	1,889	1,120.14	2.70	2,125
Wind 2	2266	2,266	3,973	5.59	-	2.70	3,973	-	2.70	3,973
Baggase Cogen.	2635	2,407	5,183	6.39	599.18	6.39	5,782	379.48	6.39	5,563
Biomass	87	87	204	7.16	-	7.16	204	-	7.16	204
Small Hydro	327	320	617	4.21	16.86	4.21	633	11.65	4.21	628
Wind Solar Hybrid	300	=	-	-	525.60	3.50	526	499.32	3.50	499
MSW	17	4	0.36	6.16	45.55	6.16	46	21.64	6.16	22
Total Existing PPA	6878	5,657	10,981	5.66	2,071.52	4.06	13,053	2,032.23	3.63	13,014
APPC for FY 2023-24 and FY 2024-2025							5.40			5.34

- 6.4.49 Further, the Commission has computed the energy requirement for fulfilling the RPO target based on the total power purchase excluding energy purchased from Hydro stations. As per the analysis, Commission notes that MSEDCL have to procure a total of 14,685 MUs and 16,083 MUs for fulfilling the stand alone RPO targets of Solar and Non-solar respectively in FY 2023-24. Further, 19,115 MUs and 16,284 MUs for fulfilling the stand alone RPO targets of Solar and Non-solar respectively in FY 2024-25.
- 6.4.50 Accordingly, the Commission approves the total Renewable Energy quantum and the renewable energy purchase rate as shown in the table below:

Table 6-38: RE Purchase Quantum and Rate for FY 2023-24 and FY 2024-25, as approved by the Commission

	Gross		Solar			Non-Solar	
Particulars	Energy Generation (excl. Hydro) in MUs	RPO Target	Quantum (MUs)	Rate (Rs. /kWh)	RPO Target	Quantum (MUs)	Rate (Rs. /kWh)
Estimated Energy based on Commissioned Capacity			9,530	3.44		13,053	5.40
Balance energy as procured through Short Term			5,155	3.44		3,030	3.44
Total RE in FY 2023-24	1,39,854	10.50%	14,685	3.44	11.50%	16,083	3.38
Estimated Energy based on Commissioned Capacity			11,040	3.34		13,014	5.34
Balance energy as procured through Short term			8,075	3.44		3,270	3.44
Total RE in FY 2024-25	141596	13.50%	19,115	5.03	11.50%	16,284	4.96

- 6.4.51 In view of the above, considering the MSEDCL contracted RE capacity and estimated RE which would be available from the contracted RE sources, and RPO Targets for FY 2023-24 and FY 2024-25, the Commission observes that there will be a shortfall of 5155 MUs and 3030 MUs in the stand alone RPO targets of Solar and Non-solar respectively during FY 2023-24 and there is a shortfall of 8075 MUs and 3270 MUs in the stand alone RPO targets of Solar and Non-solar respectively during FY 2024-25.
- 6.4.52 Considering, The Commission in this view has decided to procure the shortfall renewable energy through Short term market at the weightage average rate of Rs. 3.44 per unit.

Short Term Purchase and DSM

- 6.4.53 The Commission notes that MSEDCL has submitted that it has not considered any projection of short-term purchase since the entire projected energy requirement would be met through the projected sources of power.
- 6.4.54 However, as discussed earlier in the Order the Commission has considered to procure RE Power for the RPO compliance through Short term.
- 6.4.55 Further, the Commission will consider the actual short-term power purchase and DSM adjustment, if any, subject to prudence check at the time of true-up.
- 6.4.56 Clause 11.4 of the MoP Guidelines for short-term procurement of power by Distribution Licensees through tariff-based bidding provides that:
 - "11.4 If the quantum of power procured and tariff determined are within the blanket approval granted by the Appropriate Commission in Annual Revenue Requirement (ARR) of the respective year, then the same will be considered to have been adopted by the Appropriate Commission.

In all other cases, the Procurer(s) shall submit a petition to the Appropriate Commission for adoption of tariff within 2 days from the date of signing of PPA. Appropriate Commission should communicate the decision within 7 days from the date of submission of petition."

- 6.4.57 In this context, the Commission notes 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 has requested the 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. Further, MSEDCL requested the 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.
- 6.4.58 The Commission notes that vide order in Case No. 148 of 2022 it had given approval for purchase of short-term purchase at a rate of Rs. 7.44 to 7.85 /kWh. However, since the situation of coal availability has improved over the last few months, it is considered that the MSEDCL may be able to meet its demand from its contracted sources itself.
- 6.4.59 Further, MSEDCL has submitted that in case such a situation arises again in summer months, MSEDCL may be allowed to purchase this power in order to meet the increase in demand. In this regard the Commission approves a ceiling rate of Rs. 5.13 /kWh (3 years average rate on power exchanges) for power procurement from short-term sources over the balance period of 4th Control Period, if required and subject to the conditions that all short-term power to be procured additionally as the need arises, through competitive bidding in accordance with the above said

MoP Guidelines, except in case of power procured from the Power Exchanges or under the Banking mechanism.

PGCIL Charges

6.4.60 The Commission approves the PGCIL Charges same as approved by the Commission for FY 2023-24 and FY 2024-25 in MYT Order in Case No. 322 of 2019.

Step-2 Analysis: Application of Merit Order Despatch Principle

- 6.4.61 The Commission has applied the MOD principles and prepared a Merit Order Stack of all thermal Generating Stations/sources in the ascending order of their per unit Energy Charges. The quantum of energy generation from each source is provisionally allowed along with the corresponding Variable Charge until the projected Energy Input requirement as approved, as per the Energy Balance, is met as per the MOD Stack.
- 6.4.62 The Commission has also worked out the monthly MOD stack for each month of for FY 2023-24 and FY 2024-25. For running the monthly MOD stack, the projected annual Energy Input requirement as approved is translated into the monthly requirement based on the monthly consumption pattern as submitted by MSEDCL.
- 6.4.63 Although the despatch from Generating Stations shall be subjected to the Merit Order, the recovery of Fixed Cost of such Stations shall be linked to its Availability. In view of this, the Commission has provisionally allowed the Fixed Charges for all the Stations as approved in Step-1 above.
- 6.4.64 The following table sets out the details of the power purchase approved from Stations/Units to be treated as 'Must Run' for FY 2023-24 and FY 2024-25.

Table 6-39: Power Purchase Cost from Must Run Stations/Unit for FY 2023-24, as approved by the Commission

		MTR Petitio	on	Approved in this Order				
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)		
KAPP	982.10	232.59	2.37	982.10	232.59	2.37		
TAPP 1&2	573.42	152.43	2.66	573.42	152.43	2.66		
TAPP 3&4	2,817.01	1,004.38	3.57	2,817.01	1,004.38	3.57		
SSP	451.66	92.60	2.05	1,213.26	248.75	2.05		
Pench	96.75	19.83	2.05	136.89	28.06	2.05		
Dodson I	5.32	0.89	1.68	51.65	8.67	1.68		
Dodson II	26.46	19.01	7.18	64.39	19.01	2.95		

		MTR Petitio	on	Approved in this Order			
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	
Subhansari Hydro	321.93	144.87	4.50	774.75	348.64	4.50	
Renewable - Non-Solar#	13,073.40	7,130.40	5.45	16,083.16	8,097.48	5.03	
Renewable – Solar#	13,335.55	4,728.98	3.55	14,684.62	5,056.14	3.44	
Hydro*	4,329.72	928.50	2.14	4,285.91	822.39	1.92	
Total	36,013	14,454	4.01	41,667	16,019	3.84	

Table 6-40: Power Purchase Cost from Must Run Stations/Unit for FY 2024-25, as approved by the Commission

		MTR Petit	tion	App	roved in th	is Order
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
KAPP	979.41	243.55	2.49	982.10	244.21	2.49
TAPP 1&2	1,143.71	319.23	2.79	1,146.84	320.11	2.79
TAPP 3&4	2,809.31	1,051.72	3.74	2,817.01	1,054.60	3.74
SSP	450.82	92.43	2.05	1,213.26	248.75	2.05
Pench	96.55	19.79	2.05	136.89	28.06	2.05
Dodson I	5.32	0.89	1.68	51.65	8.67	1.68
Dodson II	26.46	24.29	9.18	64.39	24.29	3.77
Subhansari Hydro	321.12	144.51	4.50	774.75	348.64	4.50
Renewable - Non-Solar#	13,135.57	7,180.49	5.47	16,283.50	8,077.09	4.96
Renewable – Solar#	16,340.10	5,785.26	3.54	19,115.41	6,464.53	3.38
Hydro*	4,318.88	922.98	2.14	4,285.91	835.79	1.95
Total	39,627	15,785	3.98	46,872	17,655	3.77

[#]Including GDAM

6.4.65 The power purchase from Thermal Generating Stations/Units as per MOD principles for FY 2023-24 and FY 2024-25, as approved by the Commission, is shown in the Tables below:

Table 6-41: Power Purchase Cost from Thermal Stations/Unit for FY 2023-24, as approved by the Commission

	N	ITR Petitio	on	Approved in this Order			
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	
BHUSAWAL - 3	173.88	225.26	12.95	1,198.97	701.66	5.85	
BHUSAWAL 4 & 5	6,809.79	3,568.74	5.24	7,018.42	3,636.17	5.18	
BHUSAWAL 6	3,732.37	1,955.62	5.24	-	-	-	

^{*}Hydro Includes Koyna, Bhira, Tillari and other Hydro Stations of MSPGCL

	N	ITR Petitio)n	Ap	proved in t	this Order
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
KHAPARKHEDA -1 to 4	4,636.48	2,168.59	4.68	4,755.87	2,597.76	5.46
KHAPARKHEDA 5	3,373.18	1,735.39	5.14	3,509.21	1,954.66	5.57
NASHIK- 3 to 5	2,025.55	1,406.21	6.94	3,497.91	2,097.14	6.00
CHANDRAPUR - 3 to 7	8,987.90	4,228.05	4.70	10,564.48	5,315.55	5.03
Chandrapur 8 & 9	6,807.36	3,460.26	5.08	7,018.42	3,629.68	5.17
Paras - 3 & 4	3,143.91	1,440.58	4.58	3,334.26	1,618.57	4.85
PARLI UNIT-6 & 7	3,361.18	1,963.66	5.84	-	462.65	-
KORADI - 6	1,045.82	486.18	4.65	1,184.57	691.64	5.84
Koradi 8 to 10	10,216.90	3,977.55	3.89	11,719.50	5,559.84	4.74
Parli replacement U 8	1,610.19	1,050.14	6.52	-	384.03	-
GTPS URAN	2,078.35	1,054.28	5.07	-	122.34	-
KSTPS	4,498.25	1,078.12	2.40	4,498.25	1,078.12	2.40
KSTPS VII	880.62	240.92	2.74	880.62	240.92	2.74
KhSTPS II	1,036.52	487.38	4.70	1,036.52	487.38	4.70
VSTP I	3,010.05	799.16	2.65	3,010.05	799.16	2.65
VSTP II	2,410.54	551.66	2.29	2,410.54	551.66	2.29
VSTP III	1,983.55	517.67	2.61	1,983.55	517.67	2.61
VSTP IV	2,139.80	669.14	3.13	2,139.80	669.14	3.13
VSTP V	1,153.01	417.20	3.62	1,153.01	417.20	3.62
SIPAT TPS 1	4,057.95	1,390.05	3.43	4,057.95	1,390.05	3.43
SIPAT TPS 2	1,975.04	717.31	3.63	1,975.04	717.31	3.63
MSTPS-I	2,838.07	1,854.86	6.54	1,692.94	1,324.22	7.82
MSTPS-II	950.88	1,037.50	10.91	-	580.72	-
Gadarwara - I & II	730.50	382.49	5.24	668.62	355.46	5.32
Lara Chattisgarh - Stg. I - I & II	1,967.79	746.97	3.80	1,967.79	746.97	3.80
Khargone - I & II	-	70.34	-	-	70.34	-
Solapur - I & II	-	973.08	-	-	973.08	-
KAWAS	-	136.05	-	-	136.05	-
GANDHAR	-	169.25	-	-	169.25	-
IPP - JSW	-	164.67	-	-	164.67	-
Mundra UMPP	4,694.48	2,666.43	5.68	1,518.07	1,189.97	7.84
Adani power 125 MW	163.31	197.84	12.11	434.62	325.21	7.48
Adani power 1320 MW	9,855.65	5,165.16	5.24	9,215.03	4,413.69	4.79
Adani power 1200 MW	2,096.64	2,163.35	10.32	1,084.92	1,642.42	15.14
Adani power 440 MW	53.48	449.51	84.05	15.98	430.24	269.18

	N	ATR Petitio	n	Approved in this Order			
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	
GMR Warora/ EMCO	1,493.28	620.98	4.16	1,373.82	551.03	4.01	
Rattanindia Amravati	8,959.68	3,642.71	4.07	8,242.91	3,319.58	4.03	
Sai Wardha	1,791.94	838.29	4.68	1,551.61	748.53	4.82	
Total PP from Thermal	1,16,743	56,868	4.87	1,04,713	52,781	5.04	

Table 6-42: Power Purchase Cost from Thermal Stations/Unit for FY 2024-25, as approved by the Commission

	N	ITR Petitio	n	Appro	ved in this	Order
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
BHUSAWAL - 3	72.27	184.94	25.59	1,163.56	696.93	5.99
BHUSAWAL 4 & 5	6,827.23	3,661.69	5.36	7,018.42	3,674.77	5.24
BHUSAWAL 6	4,505.97	2,438.46	5.41	-	-	-
KHAPARKHEDA -1 to 4	4,847.32	2,319.94	4.79	4,583.25	2,574.37	5.62
KHAPARKHEDA 5	3,393.17	1,776.31	5.23	3,509.21	1,988.93	5.67
NASHIK- 3 to 5	2,659.59	1,751.54	6.59	2,457.52	1,633.07	6.65
CHANDRAPUR - 3 to 7	9,666.67	4,715.64	4.88	10,564.48	5,462.21	5.17
Chandrapur 8 & 9	6,783.45	3,523.44	5.19	7,018.42	3,643.92	5.19
Paras - 3 & 4	3,154.83	1,494.06	4.74	3,334.26	1,732.82	5.20
PARLI UNIT-6 & 7	3,056.15	1,888.74	6.18	-	482.26	-
KORADI - 6	1,070.10	517.52	4.84	1,184.57	707.26	5.97
Koradi 8 to 10	10,980.42	4,278.94	3.90	11,719.50	5,626.15	4.80
Parli replacement U 8	1,585.50	1,067.63	6.73	-	384.66	-
GTPS URAN	2,734.43	1,382.75	5.06	-	127.51	-
KSTPS	4,485.96	1,110.09	2.47	4,498.25	1,112.11	2.47
KSTPS VII	878.22	242.55	2.76	880.62	242.91	2.76
KhSTPS II	1,033.69	489.23	4.73	1,036.52	490.26	4.73
VSTP I	3,001.82	821.84	2.74	3,010.05	823.21	2.73
VSTP II	2,403.95	564.67	2.35	2,410.54	565.71	2.35
VSTP III	1,978.13	524.17	2.65	1,983.55	525.06	2.65
VSTP IV	2,133.95	677.17	3.17	2,139.80	678.10	3.17
VSTP V	1,149.86	433.37	3.77	1,153.01	433.89	3.76
SIPAT TPS 1	4,046.86	1,426.63	3.53	4,057.95	1,429.15	3.52
SIPAT TPS 2	1,969.64	740.05	3.76	1,975.04	741.43	3.75
MSTPS-I	2,349.55	1,690.43	7.19	-	543.32	-
MSTPS-II	637.40	912.85	14.32	-	585.99	-
Gadarwara - I & II	728.50	394.35	5.41	362.56	228.08	6.29

	N	ITR Petitio	n	Appro	ved in this	Order
Generator Name	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)	Energy Purchase (ex-bus) (MUs)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
Lara Chattisgarh - Stg. I - I & II	1,962.41	766.67	3.91	1,967.79	768.18	3.90
Khargone - I & II	-	69.16	-	-	69.16	-
Solapur - I & II	ı	973.08	1	-	973.08	ı
KAWAS	-	137.90	-	=	137.90	Ī
GANDHAR	ı	171.73	1	-	171.73	ı
IPP - JSW	-	192.64	-	-	192.64	ı
Mundra UMPP	2,218.15	1,601.02	7.22	1,360.98	1,131.62	8.31
Adani power 125 MW	80.55	137.52	17.07	362.41	274.43	7.57
Adani power 1320 MW	9,828.72	5,273.73	5.37	9,215.03	4,498.31	4.88
Adani power 1200 MW	1,405.44	1,647.00	11.72	1,062.54	1,448.40	13.63
Adani power 440 MW	ı	414.77	-	52.64	440.96	83.77
GMR Warora/ EMCO	1,489.20	637.91	4.28	1,373.82	556.25	4.05
Rattanindia Amravati	8,935.20	3,743.69	4.19	8,242.91	3,383.31	4.10
Sai Wardha	1,787.04	830.47	4.65	1,551.61	756.88	4.88
Total PP from Thermal	1,15,841	57,626	4.97	1,01,250	51,936	5.13

6.4.66 The total power purchase cost and quantum approved by the Commission for FY 2023-24 and FY 2024-25 is summarised below, subject to truing-up for the respective years considering the actuals and after prudence check.

Table 6-43: Power Purchase Cost for FY 2023-24, as approved by the Commission

Generators	Energy Purchase (ex-bus) (MUs)	Capacity Charges (Rs Crore)	Variable Cost per unit (Rs/kWh)	Total Variable Charges (Rs Crore)	Net Other charges (Rs Crore)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
Must Run	41,667	308	3.64	15,177	534	16,019	3.84
MSPGCL Thermal	53,802	8,692	3.73	20,080	-	28,772	5.35
NTPC	27,475	5,340	2.14	5,885	-	11,225	4.09
IPPs and UMPP	23,437	4,350	3.60	8,436	1	12,785	5.46
PGCIL	=	3,845	-	-	-	3,845	-
Total	1,46,380	22,535	3.39	49,577	534	72,645	4.96

Table 6-44: Power Purchase Cost for FY 2024-25, as approved by the Commission

Generators	Energy Purchase (ex-bus) (MUs)	Capacity Charges (Rs Crore)	Variable Cost per unit (Rs/kWh)	Total Variable Charges (Rs Crore)	Net Other charges (Rs Crore)	Total Cost (Rs. Crore)	Rate per unit of power procured (Rs/kWh)
Must Run	46,872	335	3.58	16,795	526	17,655	3.77
MSPGCL Thermal	52,553	9,134	3.73	19,600	-	28,735	5.47
NTPC	25,476	5,397	2.01	5,123	-	10,519	4.13
IPPs and UMPP	23,222	4,140	3.68	8,543	-	12,683	5.46

Total	1,48,122	23,043	3.38	50,061	526	73,629	4.97
PGCIL	_	4,037	_	_	_	4,037	_

- 6.4.67 In view of the above, the Commission observes that significant quantum of surplus power is expected in FY 2023-24 and FY 2024-25 in case all contracted generating capacity is considered to be available. MSEDCL should ascertain that necessary fuel tie-up arrangements for such contracted generating capacity is in place or take necessary actions/remedial measures as per provisions of the contracts/PPA.
- 6.4.68 The following table shows the projected energy availability as against the energy requirement, and the corresponding surplus available which may have to be subjected to backing down/reserve shutdown over long/short duration or for few months during FY 2023-24 and FY 2024-25 in order to optimize its power purchase cost of operations.

Table 6-45: Surplus Energy Availability in FY 2023-24 and FY 2024-25 as estimated by the Commission

Particulars	Unit	FY 2023-24	FY 2024-25
Energy Available (Est.)	MU	1,82,230.82	1,87,435.37
Energy Requirement (Est)	MU	1,46,380.37	1,48,122.48
Surplus Energy Available (Est)	MU	35,850.45	39,312.89
Per Unit Average Power Purchase	Rs.	4.96	4.97
Cost	/kWh	1.50	1.57
	Rs.	17,791.76	19,541.71
Surplus Cost (Est.)	Crore	17,791.70	17,341.71

- 6.4.69 Thus, surplus energy of around 35850 MUs in FY 2023-24 and 39313 MUs in FY 2024-25. Considering per unit average power purchase cost for the respective year, the yearly revenue could be around Rs. 17792 Crores in FY 2023-24 and Rs. 19541 Crores in FY 2024-25. Hence, MSEDCL should explore various options for selling the surplus power through short-term/ medium-term bilateral contracts or through Power Exchanges in an optimal and efficient manner such that the revenue from surplus trade of power can help in optimizing effective cost of power procurement. In any case, in view of the likely surplus, any future long-term/medium-term contracting for power procurement during FY 2023-24 and FY 2024-25 (except of RE power procurement to meet RPO target) shall be demonstrated to meet the test of efficacy of power procurement and further optimization of overall cost of power procurement. Further, MSEDCL shall also review its PPAs and explore options to optimize the impact of the fixed cost of the contracted capacity.
- 6.4.70 In regard to ECS assets the Commission has not considered the impact of additional expenditure towards implementation of ECS is current in line with the MSEDCL submission. Further, the impact due to Fly Ash Transportation Charges would be considered at the time of truing up of FY 2023-24 and FY 2024-25 subject to prudence check.

6.5 Intra State Transmission Charges for FY 2023-24 and 2024-25

MSEDCL's Submission

6.5.1 MSEDCL has considered the InSTS charges same as approved by the Commission for FY 2023-24 and FY 2024-25 in MYT Order dated 30th March 2020. The following are the InSTS charges proposed by MSEDCL for approval of the Commission. MSEDCL has requested to approve the below said InSTS Charges.

Table 6-46: InSTS Charges for FY 2023-24 and FY 2024-25 as submitted by MSEDCL

	FY 2	023-24	FY 2024-25		
Particular	MYT Order	MTR Petition	MYT Order	MTR Petition	
Intra-State Transmission Charges	5977.94	5,977.94	6004.23	6,004.23	
MSLDC Charges	31.57	31.57	32.54	32.54	
Total	6009.51	6,009.51	6036.77	6,036.77	

6.5.2 MSEDCL submitted that it pays the transmission charges to STU as per the InSTS Order issued by the Commission from time to time. MSEDCL requested the Commission to approve the actual Transmission and MSLDC Charges as submitted by MSEDCL in the above table.

Commission's Analysis and Ruling

6.5.3 The Commission has approved MSEDCL's share of InSTS Charges and MSLDC Charges for FY 2023-24 and FY 2024-25 based on the respective Orders of the Commission approving the InSTS Charges in Case No. 284 of 2022 consequent to MYT Orders of the transmission licensees and based on the MTR Order issued for approving the AFC of MSLDC in Case No. 233 of 2022.

Table 6-47: InSTS Charges and MSLDC Charges for FY 2023-24 and FY 2024-25 as approved by the Commission (Rs. Crore)

		FY 2023-2	24	FY 2024-25			
Particular	MYT Order	MTR Petition	Approved in this Order	MYT Order	MTR Petition	Approved in this Order	
Intra-State Transmission Charges	5977.94	5,977.94	8,562.96	6004.23	6,004.23	8,605.77	
MSLDC Charges	31.57	31.57	30.76	32.54	32.54	33.01	
Total	6009.51	6,009.51	8,593.72	6036.77	6,036.77	8,638.78	

6.6 O&M Expenses for FY 2023-24 to FY 2024-25

MSEDCL's Submission

- 6.6.1 MSEDCL has worked out normative O&M as per Regulation 75 and 84 of the MYT Regulations, 2019. provides for the O&M Expenses norms for Distribution Wires Business and Retail Supply of electricity respectively.
- 6.6.2 Computation of revised normative O&M expenses for FY 2023-24 and FY 2024-25 are based on revised normative O&M expenses of previous year which has been escalated by the escalation factor of 5.06% derived for FY 2021-22.
- 6.6.3 MSEDCL has submitted that the 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 table below:

Table 6-48: Normative O&M Expenses for FY 2023-24 and 2024-25 submitted by MSEDCL (Rs. Crore)

Particulars	FY 20	23-24	FY 2024-25		
	MYT MTR		MYT	MTR	
	Approved	Projection	Approved	Projection	
O&M Expenditure	5,086.16	5,448.75	5,281.17	5,724.41	
(Wires Business)	3,000.10	3,440.73	3,201.17	3,724.41	
O&M Expenditure	2,738.70	2,933.94	2,843.71	3,082.37	
(Supply Business)	2,736.70	2,933.94	2,643.71	3,062.37	
Operation &	7,824.87	8,382.69	8,124.87	8,806.78	
Maintenance Expenses	7,024.07	0,302.09	0,124.07	0,000.70	

Commission's Analysis and Ruling

- 6.6.4 The Commission has worked out normative O&M as per Regulation 75 and 84 of the MERC MYT Regulations, 2019. The relevant extract of the regulations is as given below:
 - "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 March 31, 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 March 31, 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 March 31, 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:"

6.6.5 The Commission, for projecting the O&M Expenses for future years has considered the efficiency factor to be equal to zero for computing the escalation rate, since the growth of consumers of MSEDCL for the past three years is more than 3% as per the proviso of Regulation 75.3. The proviso is provided below:

"75.3

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:"

6.6.6 The escalation factor for O&M expenses is to be worked out on the inflation factor considering 30% and 70 % weightage for actual point-to-point WPI and CPI, respectively, in the previous five year which comes out at 3.83%, as shown in the following table:

Table 6-49: O&M expense escalation for FY 2023-24 and FY 2024-25
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Year	WPI	WPI Inflation	СРІ	CPI Inflation
FY 2017-18	114.88	2.92%	284.42	3.08%
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%
Average from FY 2017- 18 to FY 2021-22		4.63%		5.27%
Weightage		30%		70%
Escalation Factor				5.06%

- 6.6.7 New base normative expense for FY 2021-22 is escalated by 5.06% by two years to arrive new base of Normative O&M expense for FY 2023-24. Then new base Normative O&M expense for FY 2021-22 is escalated by 5.06% by three year to derive new O&M norms for FY 2024-25.
- 6.6.8 The total Normative O&M expense for FY 2023-24 and FY 2024-25 as approved by the Commission is shown in the table below.

Table 6-50: Normative O&M Expenses for FY 2023-24 and 2024-25 approved by Commission (Rs. Crore)

		FY 2023-24	!	FY 2024-25			
Particulars	MYT Approved	MTR Petition	Approved in this Order	MYT Approved	MTR Petition	Approved in this order	
O&M Expenditure for Wires Business	5,086.16	5,448.75	5,357.66	5,281.17	5,724.41	5,628.71	
O&M Expenditure for Supply Business	2,738.70	2,933.94	2,884.89	2,843.71	3,082.37	3,030.84	
Operation & Maintenance Expenses	7,824.87	8,382.69	8,242.55	8,124.87	8,806.78	8,659.55	

6.6.9 The Commission approves normative O&M expense of Rs. 8,242.55 Crore and Rs. 8,659.55 Crore for FY 2023-24 and FY 2024-25, respectively.

6.7 OPEX for FY 2023-24 and FY 2024-25

MSEDCL's Submission

- 6.7.1 MSEDCL has submitted 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.
- 6.7.2 MSEDCL has submitted that, the Commission has already approved Opex schemes in MYT Order in Case No. 322 of 2019. Estimation of Opex claimed by MSEDCL is based on the estimation and selection of vendor, award of contract and other factors. Accordingly, MSEDCL has submitted revised Opex for FY 2023-24 to FY 2024-25.
- 6.7.3 MSEDCL had already submitted all the details at the time of MYT process and now submitting the revised projections towards Opex schemes for FY 2023-24 to FY 2024-25. Though, the Commission has accorded its approval after due consideration, MSEDCL is re-submitting detailed justification, cost benefit analysis of such schemes as against capex schemes and savings in O&M expenses, wherever required.
- 6.7.4 The details of the Opex schemes as stated in the proviso of the Regulation including detailed justification are provided by MSEDCL in the petition.
- 6.7.5 The revenue expenditure details of the Opex schemes as provided by MSEDCL is shown in the table below:

Table 6-51: OPEX for FY 2023-24 and FY 2024-25 submitted by MSEDCL (Rs. Crore)

	FY 20	023-24	FY 2	024-25
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition
OPEX Schemes (Wire Business)				
Substation Monitoring System (SMS)	69.53	36.00	69.53	72.00
MSEDCL Cloud Project	8.32	7.97	8.32	7.97
Annual Technical Support of SAP/HANA/Oracle Software Licenses	5.94	-	5.94	-
Vehicle Tracking System	0.53	0.26	0.53	0.26
Demand Forecasting		2.73		2.73
GIS		1.13		1.13
Network analysis		1.32		1.32
SAP s4 Hana		8.05		7.06
SD wan		0.27		0.27
RDSS (Smart Metering)		270.53		1,110.83
Sub-Total	84.31	328.25	84.31	1,203.56
OPEX Schemes (Supply Business)				
Customer Care Center	6.60	27.20	6.60	27.20
RF-DCU (Exp. of Interest & Tender)	4.80	4.80	4.80	4.80
MSEDCL Cloud Project	8.32	7.97	8.32	7.97
Annual Technical Support of SAP/HANA/Oracle Software Licenses	5.94	-	5.94	-
Vehicle Tracking System	0.53	0.26	0.53	0.26
Demand forecasting	-	2.73	-	2.73
GIS	-	1.13	-	1.13
Network analysis	-	1.32	-	1.32
SAP s4 hana	-	8.05	-	7.06
SD wan	-	0.27	-	0.27
RDSS (Smart Metering)		270.53		1,110.83
Sub-Total	26.18	324.25	26.18	1,163.56
Total	110.49	652.51	110.49	2,367.12

Commission's Analysis and Ruling

6.7.6 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."
- 6.7.7 The Commission sought in data gap query regarding details of schemes proposed under OPEX along with monetary benefits. The Commission also asked whether the schemes proposed under OPEX are eligible. In reply to data gap query MSEDCL has submitted the Projects wise Cost Benefits Analysis of OPEX schemes. It is observed that, MSEDCL has proposed new schemes under OPEX from FY 2023-24 and FY 2024-25 onwards which were not approved in MYT Order 322 of 2019. Further, during scrutiny of OPEX schemes approved in MYT Order and status of those schemes in truing up years FY 2020-21 and FY 2021-22, it is observed that OPEX schemes were not implemented effectively as proposed by MSEDCL during MYT Order. As per MYT regulations, 2019, OPEX schemes shall result in savings in O&M expenses but current implementation of OPEX schemes by MSEDCL does not show such impact on O&M expense.
- 6.7.8 Accordingly, the Commission approves OPEX schemes as approved by the Commission is shown in table below.

Table 6-52: Opex for FY 2023-24 as approved by the Commission (Rs. Crore)

	FY 2024-25				
Particulars	MTR Petition	MYT Order	Approved in the Order		
Opex Schemes (Wire Business)					
Substation Monitoring System (SMS)	69.53	36.00	36.00		
MSEDCL Cloud Project	8.32	7.97	7.97		
Annual Technical Support of SAP/HANA/Oracle Software Licenses	5.94	-	-		
Vehicle Tracking System	0.53	0.26	0.26		
Demand Forecasting		2.73	-		
GIS		1.13	-		
Network analysis		1.32	-		
SAP s4 Hana		8.05	-		

		FY 2024-25	
Particulars	MTR Petition	MYT Order	Approved in the Order
SD wan		0.27	-
RDSS (Smart Metering)		270.53	
Sub-Total	84.31	328.25	44.23
Opex Schemes (Supply Business)			
Customer Care Center	6.60	27.20	27.20
RF-DCU (Expression of Interest & Tender)	4.80	4.80	4.80
MSEDCL Cloud Project	8.32	7.97	7.97
Annual Technical Support of SAP/HANA/Oracle Software Licenses	5.94	-	-
Vehicle Tracking System	0.53	0.26	0.26
Demand forecasting	-	2.73	-
GIS	-	1.13	-
Network analysis	-	1.32	-
SAP s4 Hana	-	8.05	-
SD wan	-	0.27	-
RDSS (Smart Metering)		270.53	
Sub-Total	26.18	324.25	40.23
Total	110.49	652.51	84.45

Table 6-53: Opex for 2024-25 as approved by the Commission (Rs. Crore)

		FY 2024-25				
Particulars	MTR Petition	MYT Order	Approved in the Order			
OPEX Schemes (Wire Business)						
Substation Monitoring System (SMS)	36.00	69.53	72.00			
MSEDCL Cloud Project	7.97	8.32	7.97			
Annual Technical Support of SAP/HANA/Oracle Software Licenses	-	5.94	-			
Vehicle Tracking System	0.26	0.53	0.26			
Demand Forecasting	2.73		-			
GIS	1.13		-			
Network analysis	1.32		-			
SAP s4 Hana	8.05		-			
SD wan	0.27		-			
RDSS (Smart Metering)	270.53					
Sub-Total	328.25	84.31	80.23			
OPEX Schemes (Supply Business)						
Customer Care Center	27.20	6.60	27.20			
RF-DCU (Exp. of Interest & Tender)	4.80	4.80	4.80			
MSEDCL Cloud Project	7.97	8.32	7.97			
Annual Technical Support of SAP/HANA/Oracle Software Licenses	-	5.94	-			
Vehicle Tracking System	0.26	0.53	0.26			

	FY 2024-25			
Particulars	MTR	MYT	Approved in	
	Petition	Order	the Order	
Demand forecasting	2.73	-	-	
GIS	1.13	-	-	
Network analysis	1.32	-	-	
SAP s4 hana	8.05	-	1	
SD wan	0.27	-	1	
RDSS (Smart Metering)	270.53			
Sub-Total	324.25	26.18	40.23	
Total	652.51	110.49	120.45	

6.7.9 The Commission approves Rs. 84.45 Crore and Rs. 120.45 Crore as expense towards Opex for FY 2023-24 to 2024-25 subject to prudence check at the time of truing up.

6.8 Capital Expenditure and Capitalization for FY 2023-24 & FY 2024-25

MSEDCL's Submission

6.8.1 MSEDCL has summarized the projection of capital expenditure and capitalization for FY 2023-24 to FY 2024-25 as shown in the table below. MSEDCL has submitted the scheme wise details of the Capital expenditure and capitalization for the control period along with the petition.

Table 6-54: Capitalisation and Capital Expenditure for FY 2023-24 & FY 2024-25 submitted by MSEDCL (Rs. Crore)

	FY 2	023-24	FY 2024-25		
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition	
Capital Expenditure	ı	10,576.77	1	14,869.22	
DPR Scheme	2,090.36	10,288.21	2,090.36	14,981.66	

Commission's Analysis and Ruling

6.8.2 Regulation 9.2 and 14.4 of MERC (Approval of Capital Investment Schemes) Regulations, 2022, specifies the provisions to be referred while allowing capitalisation.

" 9.2. The Prudence Check for approval of the completed cost of DPR Schemes shall comprise detailed scrutiny of the following parameters interalia:

• • •

. . . .

Variation with respect to scheduled completion date and justification thereof, and impact of delay in completion, if any, including impact on Interest During Construction (IDC) and inflation on the cost of the entire project."

"14.4. In case of delay in completion of the Capex Scheme beyond the schedule considered in the in-principle approval, the Commission shall adopt the following methodology for allowing excess Interest During Construction (IDC) on account of delay in completion of the Scheme, at the time of approval of completed cost.

Period of Delay (Percentage of original Scheduled Completion Period)	Percentage Disallowance of excess IDC
1% - 10%	0%
11% - 25%	10%
26% - 40%	20%
41-60%	40%
60%-80%	75%
Above 80%	100%

Infra Plan Works- II:

- 6.8.3 The Commission notes that it has approved Infra Plan Works -II + Additional Infra-II scheme with capital outlay of Rs. 7,784.22 Crores. The Commission accorded its in-principle approval to said scheme in 2013 with 2015 as completion year. The Commission observes that, the scheme has exceeded the approved Capex and timeframe for capex roll out by more than 8 years.
- 6.8.4 It is observed that MSEDCL has proposed capitalization only based on balancing numbers derived from capital expenditure made in prior years. No details of work in progress have been made available. Hence, the Commission directs MSEDCL to re-look at milestones of Infra plan II schemes and restricts it to 10% of the proposed capitalization for FY 2023-24 and FY 2024-25.

New Consumers:

6.8.5 The Commission vide its letter dated 02 March 2022 accorded in-principle approval to NSC scheme with capital outlay of Rs.2738.79 Crores. MSEDCL in its Petition has proposed following CAPEX and capitalisation for New Consumers scheme:

	Cumulativ e till FY 2018-19	FY 2019- 20 (Actual)	FY 2020- 21 (Actual)	FY 2021-22 (Actual)	FY 2022-23 (Estimated)	FY 2023-24 (Projection)	FY 2024-25 (Projection)	Total
Capital Expenditure	492	119	341	255	789	998	579	3573
Capitalisation	349	79	272	285	850	900	700	3435

6.8.6 The Commission noted that MSEDCL is projecting higher capex and capitalization than in-principle approval accorded by the Commission. The Commission do not

- find any logic of such proposal. Accordingly, the Commission restricted the capitalization up to capitalization approved by the Commission and allows only 70% of approved capitalization for projection years.
- 6.8.7 It is necessary on part of MSEDCL to roll out the New consumer scheme in non-discriminatory manner. During public consultation process, some of the objectors have objected on the way this scheme is being operational and consumers have been selectively picked up for DDF and departmental scheme. Hence, the Commission directs MSEDCL to form the guidelines for this purpose.

RDSS (System Strengthening):

- 6.8.8 The Commission notes that, Ministry of power has not yet approved this schemes hence, the Commission is not considering the said schemes for approval purpose.
- 6.8.9 As emphasized in earlier, some capitalisation is due to time over run of the schemes, and excess interest was incurred which would have been capitalised as IDC. Due to excess capitalisation, an undue burden of excess IDC is being passed on to consumers, which is not justifiable. In case of schemes with excess capitalisation over and above the in-principle approved capital cost, the Commission has disallowed 100 % IDC for these schemes.
- 6.8.10 The Commission has verified the DPR schemes submitted by MSEDCL and has not considered Rs. 6,669.74 Crores and Rs. 12,594.98 Crores in FY 2023-24 and FY 2024-25 respectively. DPR schemes such as RDSS (PMA), RDSS (System Strengthening), DT metering Plan and Reactive Power Management Schemes are pending for approval so the Commission is not approved for FY 2023-24 and FY 2024-25. Apart from this Some schemes such as Infra plan work-II, RDSS (Loss reduction) are partially allowed (i.e., 10% of schemes claimed in Petition) in provisional year. Allowable schemes by the Commission are shown below in table:

Table 6-55: Schemes Approved by the Commission for FY 2023-24 and FY 2024-25 (Rs. Crore)

		FY 20)23-24	FY 2024-25	
Sr. No	Schemes	MTR Petition	Approved in this Order	MTR Petition	Approved in this Order
1	Infra Plan work-II	120.00	12.00	-	-
2	New Consumer	900.00	630.00	700.00	490.00
3	RDSS (PMA)	6.74	-	6.74	-
4	RDSS (Loss Reduction)	5,500.00	550.00	6,500.00	650.00
5	RDSS (System Strengthening)	1,200.00	-	6,500.00	-
6	DT metering plan	35.00	ı	6.24	-
7	Reactive Power Management Scheme	100.00	-	22.00	-

		FY 20)23-24	FY 2024-25	
Sr. No	Schemes	MTR Petition	Approved in this Order	MTR Petition	Approved in this Order
8	Total	7,861.74	1,192.00	13,734.98	1,140.00

- 6.8.11 Further, in line with the regulatory provisions under Regulation 24.6 and 24.7 of MYT Regulations, 2019 quoted below for reference specifies to limit the capitalization of non-DPR schemes within 20% of capitalization allowed for DPR schemes, the Commission has accordingly limited the capitalization claimed towards non-DPR schemes for 4th Control Period.
 - "24.6 The Commission may approve, for each year of the Control Period, an additional amount equivalent to 20% of the total capital expenditure approved for that year, towards planned or unplanned capital expenditure that is yet to be approved by the Commission.
 - 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:

Provided further that the Generating Company or Licensee or MSLDC should ensure that expenses that would normally be classified as O&M expenses are not categorised under non-DPR schemes".

6.8.12 Hence, the capitalization approved by the Commission for FY 2023-24 and FY 2024-25 is as shown in the table below:

Table 6-56: Capitalisation approved by the Commission for FY 2023-24 and FY 2024-25 (Rs. Crore)

		FY 2023-24	l	FY 2024-25			
Particulars	MYT Order	MTR Petition	Approved in this Order	MYT Order	MTR Petition	Approved in this Order	
Approved DPR Capitalisation amount	656.07	3,381.74	3,004.30	652.57	1,921.44	1,711.43	
Pending/ yet to approve DPR	131.22	6842.00	550	130.52	13,035	650	
Sub-total	787.32	10,223.74	3,554.30	783.11	14,956.44	2,361.46	
Non DPR	34.51	64.48	64.34	30.00	25.22	25.08	
% of Non DPR to DPR	5.26%	0.63%	2.13%	4.60%	0.17%	1.29%	

		FY 2023-24	1	FY 2024-25		
Particulars	MYT Order	MTR Petition	Approved in this Order	MYT Order	MTR Petition	Approved in this Order
Allowable Non DPR Capped	34.51	64.48	64.34	30.00	25.22	25.08
Total Capitalisation	821.83	10,288.21	3,618.64	813.11	14,981.66	2,386.54
Allowed capitalisation	2090.36	10,288.21	3,618.64	2090.36	14,981.66	2,386.54

Table 6-57: Capitalisation approved by the Commission for FY 2023-24 and FY 2024-25 (Rs. Crore)

		FY 2023-24	4	FY 2024-25		
Particulars	MYT Order	MTR Petition	Approved in this Order	MYT Order	MTR Petition	Approved in this Order
Capital Expenditure	2090.36	10,288.21	3,618.64	2090.36	14,981.66	2,386.54

6.8.13 Thus, the Commission has allowed Capitalization of Rs. 3,618.64 Crore and Rs. 2,386.54 Crore for FY 2023-24 and FY 2024-25 respectively.

6.9 Depreciation for FY 2023-24 and FY 2024-25

MSEDCL's Submission

- 6.9.1 MSEDCL has stated that it has computed the depreciation in accordance with Regulation 28 of MYT Regulation, 2019, As per regulation 28.1(b) of the MYT Regulations, the individual asset is to be depreciated to the extent of 70% on the straight line basis as per the rates specified in the Regulations and remaining depreciable value as on 31st March of the year closing shall be spread over the balance useful life of the asset.
- 6.9.2 MSEDCL has submitted that depreciation has been computed by taking into account the opening balance of the assets ibn the beginning of the year and projected capitalization. It has further added that considering the actual weighted average of depreciation for FY 2021-22 as in line with the practice adopted by the Commission, the depreciation has been computed as shown in the table below:

Table 6-58: Depreciation for FY 2023-24 and FY 2024-25 submitted by MSEDCL (Rs. Crore)

	FY 20	023-24	FY 2024-25		
Particulars		MTR		MTR	
	MYT Order	Petition	MYT Order	Petition	
Opening GFA	62,438.45	61,665.81	63,677.44	66,242.84	
Depreciation	3,122.45	3,080.11	3,183.82	3,308.73	
% Depreciation	5.00%	4.99%	5.00%	4.99%	

6.9.3 MSEDCL has requested the Commission to allow depreciation as shown in above table.

Commission's Analysis and Ruling

6.9.4 The Commission has considered the Opening GFA for FY 2023-24 as Rs 60,451.39 Crore which is same as the closing GFA approved for FY 2022-23 in the provisional truing-up in this Order for computing the depreciation for pursuing years. Further, as per Regulation 25.2 (c), depreciation has not been allowed to the extent of GFA established through Consumer Contribution and Grants. The depreciation rates are as per MYT Regulations, 2019 works out to be 4.70%. The depreciation amount approved by the Commission for FY 2023-24 and FY 2024-25 is as shown in Table below:

Table 6-59: Depreciation for FY 2023-23 and FY 2024-25 as approved by the Commission (Rs. Crore)

		FY 2023-2	24	FY 2024-25		
Particulars	MYT	MTR	MTR Approved in		MYT MTR	
	Order	Petition	this Order	order	Petition	this Order
Opening GFA	62,438.45	61,665.81	60,451.39	63,677.44	66,242.84	61,999.42
Depreciation	3,122.45	3,080.11	2,762.36	3,183.82	3,308.73	2,820.60
% Depreciation	5.00%	4.99%	4.56%	5.00%	4.99%	4.56%

6.9.5 The Commission approves depreciation of Rs. 2,762.36 Crore and Rs. 2,820.60 Crore, for FY 2023-24 and FY 2024-25.

6.10 Funding Pattern for FY 2023-24 and FY 2024-25

MSEDCL's Submission

6.10.1 MSEDCL as submitted that 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.

6.10.2 MSEDCL has submitted that it has been the practice of the Commission to consider the consumer contribution, grants etc. in proportion to the funding pattern of capital expenditure. In line with the same methodology, MSEDCL has been considered the funding pattern for the revised projected capitalisation, in proportion to the funding pattern of the revised projected capital expenditure. MSEDCL further submitted that if the equity portion is more than 30% of the capitalisation to be funded, it has restricted the equity at 30% and balance amount to be considered as normative loan as per the provisions of the Regulations 27 of the MYT Regulations, 2019. The funding pattern of the revised proposed capitalisation is shown in the table below:

Table 6-73: Funding Pattern of the Capitalisation for FY 2023-24 and FY 2024-25 as submitted by MSEDCL (Rs Crore)

tis stant.	FY 20	`	FY 20	24-25
Particulars	MYT	MTR	MYT	MYT
	Order	Petition	Order	Petition
Funding pattern of capital				
expenditure				
Total Capital Expenditure	-	10,576.77	-	14,869.22
Consumer Contribution	-	100.00	-	100.00
Grants received during the year	-	5,952.11	-	8,921.99
Equity	-	192.83	-	40.16
Debt	-	4,331.83	-	5,807.06
Funding pattern of				
capitalization				
Total Capitalization	2,090.36	10,288.21	2,090.36	14,981.66
Consumer Contribution	115.64	97.27	110.81	100.76
Grants received during the year	735.73	5,789.72	739.67	8,989.46
Balance to be funded	1,238.99	4,401.22	1,239.89	5,891.44
Equity amount	371.70	187.57	371.97	40.77
Debt amount	867.29	4,213.65	867.92	5,850.98
Equity (%)	30%	4%	30%	1%
Debt (%)	70%	96%	70%	99%
Equity Portion above 30%	-	_	-	-
Equity Amount		187.57		40.47
Debt Amount		4,213.65		5,850.98
Equity (%)		4%		1%
Debt (%)		96%		99%

Commission's Analysis and Ruling

6.10.3 The Commission has considered the funding pattern for capitalization for FY 2023-24 and FY 2024-25 in the same ratio as for the funding of proposed capital expenditure, in line with the methodology adopted by MSEDCL, and after considering the approved quantum of capitalization. This would be subject to prudence check and reviewed during the Final Truing Up.

Table 6-60: Funding Pattern approved by Commission for FY 2023-24 and FY 2024-25 (Rs. Crore)

Particular	FY 2023-24	FY 2024-25
Total Capitalisation	3,618.64	2,386.54
Less: Consumer Contribution	34.21	16.05
Less: Grants	2,036.40	1,432.00
Balance to be funded	1,548.03	938.49
Equity	65.97	6.45
Debt	1,482.05	932.04
Equity %	4.00%	1.00%
Debt %	96.00%	99.00%

6.11 Interest on Long-Term Loan for FY 2023-24 and FY 2024-25

MSEDCL's Submission

- 6.11.1 MSEDCL has submitted that the calculation of interest expenses on long term loans depends in the outstanding loan, repayments and prevailing interest rates and hence the projected capital expenditure and funding of the same have a major bearing on the long-term expenditure.
- 6.11.2 MSEDCL has computed the interest on Long-Term Loan according the provisions stated out in Regulation 30.3 of MYT Regulations, 2019. The repayment of loan is computed as per Regulation 30.3 the extract of which is given below for reference:
 - "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."
- 6.11.3 MSEDCL has considered the interest rate on opening balance of loan for all years of the control period as equal to weighted average interest rate of loan computed for FY 2021-22. Considering the opening loan, normative loan addition during the year and loan repayment equal to depreciation and the interest rate, the interest Expenses for the period for the fourth control period from FY 2023-24 to FY 2024-25 as projected by MSEDCL is shown below:

Table 6-61: Interest Expenses for FY 2023-24 and FY 2024-25 as submitted by MSEDCL (Rs. Crore)

	FY 2023-24		FY 2024-25	
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition
Normative Outstanding Loan at the beginning of the year	9,827.01	8,925.84	7,571.85	10,059.38

FY		23-24	FY 2024-25	
Particulars	MYT	MTR	MYT	MTR
	Order	Petition	Order	Petition
Loan Drawl	867.29	4,213.65	867.92	5,850.98
Loan Repayment	3,122.45	3,080.11	3,183.82	3,308.73
Normative Outstanding Loan at the end of the year	7,571.85	10,059.38	5,255.96	12,601.62
Interest Rate	10.28%	9.85%	10.28%	9.85%
Gross Interest Expenses	893.88	934.97	659.04	1,116.00

6.11.4 MSEDCL has requested the Commission to allow the interest on long term loans as submitted in above table.

Commission's Analysis

6.11.5 Regulation 30.3 of the 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."

6.11.6 Regulation 30.5 of MYT Regulations, 2019 is as below:

"30.5 The rate of interest shall be the weighted average rate of interest computed on the basis of the actual 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 loan portfolio during the concerned year shall be considered as the rate of interest:

Provided further that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest for actual loan shall be considered:"

6.11.7 The has noted that, MSEDCL has submitted the opening and closing balance of loan from different banks. Accordingly, summary of opening and closing balance of loan from different banks is shown in below table:

Table 6-62: Summary of opening and closing balance of loan from different banks

Particulars	FY 2023-24	FY 2024-25
PFC		
Opening Balance of Loan	1,171.52	1,068.37
Less: Reduction of Normative Loan due to		
retirement or replacement of assets		-
Addition of Loan during the year		-

Particulars	FY 2023-24	FY 2024-25
Loan Repayment during the year	103.14	103.72
Closing Balance of Loan	1,068.37	964.65
Average Loan Balance	1,119.95	1,016.51
Applicable Interest Rate (%)	9.00 to 11.00%	9.00-11.00
Interest Expenses	208.60	199.55
REC		
Opening Balance of Loan	9341.91	7,711.75
Less: Reduction of Normative Loan due to		
retirement or replacement of assets		-
Addition of Loan during the year		-
Loan Repayment during the year	1,630.16	1,567.80
Closing Balance of Loan	7,711.75	6,143.95
Average Loan Balance	8,526.83	6,927.85
Applicable Interest Rate (%)	6.88% to 11.23%	6.88% - 11.23%
Interest Expenses	869.34	758.27
MIDC		
Opening Balance of Loan	123.52	123.52
Less: Reduction of Normative Loan due to		
retirement or replacement of assets		
Addition of Loan during the year	-	
Loan Repayment during the year	-	
Closing Balance of Loan	123.52	123.52
Average Loan Balance	123.52	123.52
Applicable Interest Rate (%)	-	
Interest Expenses	-	
Other Loan Punjab national bank		
Opening Balance of Loan	742.61	724.04
Less: Reduction of Normative Loan due to		
retirement or replacement of assets	-	-
Addition of Loan during the year	-	-
Loan Repayment during the year	18.57	74.26
Closing Balance of Loan	724.04	649.78
Average Loan Balance	733.33	686.91
Applicable Interest Rate (%)	7.80%	7.80%
Interest Expenses	58.08	56.48
Punjab and Sindh bank		
Opening Balance of Loan	514.86	514.86
Less: Reduction of Normative Loan due to		
retirement or replacement of assets	-	
Addition of Loan during the year	-	
Loan Repayment during the year	-	25.74
Closing Balance of Loan	514.86	489.12
Average Loan Balance	514.86	501.99
Applicable Interest Rate (%)	7.40%	7.40%

Particulars	FY 2023-24	FY 2024-25
Interest Expenses	38.20	37.86
GOM		
Opening Balance of Loan	8.64	6.71
Less: Reduction of Normative Loan due to		
retirement or replacement of assets	-	-
Addition of Loan during the year	-	-
Loan Repayment during the year	1.93	1.93
Closing Balance of Loan	6.71	4.78
Average Loan Balance	7.67	5.74
Applicable Interest Rate (%)	10.50%	10.50%
Interest Expenses	0.78	0.58
Total		
Opening Balance of Loan	11,903.06	10,149.26
Less: Reduction of Normative Loan due to		
retirement or replacement of assets	-	-
Addition of Loan during the year	-	-
Loan Repayment during the year	1,753.80	1,773.46
Closing Balance of Loan	10,149.26	8,375.80
Average Loan Balance	11,026.16	9,262.53
Applicable Interest Rate (%)	10.66%	11.37%
Interest Expenses	1,175.01	1,052.74

6.11.8 Accordingly, as per provisions under the Regulations, the Commission has considered last available rate i.e., the weighted average Rate of interest as approved for FY 2021-22 which is 9.85%. The same has been allowed accordingly. The Opening loan for FY 2023-24 is considered same as closing balance of FY 2022-23 approved by the Commission. The approved interest expenses for FY 2023-24 and FY 2024-25 are shown in table below:

Table 6-63: Interest Expenses approved by the Commission for FY 2023-24 (Rs. Crore)

Particular	MYT Order	MTR Petition	Approved in this Order
Opening Balance of Net Normative Loan	9,827.01	8,926.4	9,028.10
Less: Reduction of Normative Loan due to retirement or replacement of assets			-
Addition of Normative Loan due to capitalisation during the year	867.29	4,213.6	1,482.10
Repayment of Normative Loan during the year	3,122.45	3,080.1	2,762.40
Closing Balance of Net Normative Loan	7,571.85	10,059.9	7,747.80
Average Balance of Net Normative Loan	8,699.43	9,493.2	8,387.96

Particular	MYT Order	MTR Petition	Approved in this Order
Weighted average Rate of Interest on actual Loans (%)	10.28%	9.85%	9.85%
Interest Expenses	893.88	935.0	826.20

Table 6-64: Interest Expenses approved by the Commission for FY 2024-25 (Rs. Crore)

Particular	MYT Order	MTR Petition	Approved in this Order
Opening Balance of Net Normative Loan	7,571.85	10,059.9	7,747.80
Less: Reduction of Normative Loan due to retirement or replacement of assets			-
Addition of Normative Loan due to capitalisation during the year	867.92	5,851.0	932.00
Repayment of Normative Loan during the year	3,183.82	3,308.7	2,820.60
Closing Balance of Net Normative Loan	5,255.96	12,602.2	5,859.20
Average Balance of Net Normative Loan	6,413.91	11,331.1	6,803.52
Weighted average Rate of Interest on actual Loans (%)	10.28%	9.85%	9.85%
Interest Expenses	659.04	1,116.1	670.11

6.11.9 The Commission approves Interest expense of Rs. 826.20 Crores, and Rs. 670.11 Crores for FY 2023-24 and FY 2024-25.

6.12 Return on Equity for FY 2023-24 and FY 2024-25

MSEDCL's Submission

- 6.12.1 MSEDCL submitted that it has proposed RoE in accordance with Regulation 29.1 and 29.2 of the MYT Regulations, 2019 for both wire and supply business.
- 6.12.2 MSEDCL has stated that, The methodology of computation as followed by MSEDCL is as laid out in the Regulation 29.3 of the MYT Regulation, 2019, the relevant extract of which is provided below:
 - "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

- 6.12.3 MSEDCL as submitted that 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.
- 6.12.4 MSEDCL has submitted that it has been the practice of the Commission to consider the consumer contribution, grants etc. in proportion to the funding pattern of capital expenditure. In line with the same methodology, MSEDCL has been considered the funding pattern for the revised projected capitalisation, in proportion to the funding pattern of the revised projected capital expenditure. MSEDCL further submitted that if the equity portion is more than 30% of the capitalisation to be funded, it has restricted the equity at 30% and balance amount to be considered as normative loan as per the provisions of the Regulations 27 of the MYT Regulations, 2019.
- 6.12.5 MSEDCL has submitted that the return on equity capital is allocated on the proposed ratio of fixed assets between wires and retail supply business i.e. 90% to wires business and 10% to supply business as per the allocation matrix provided in MYT Regulations, 2019. Therefore, the capital expenditure, grants, equity and capitalization is divided into Wires and Supply business in the ratio of 90:10.
- 6.12.6 Accordingly, the RoE for wires and supply business for FY 2023-24 and FY 2024-25 for the wire and supply business is presented in the tables below:

Table 6-65: ROE for Supply business for FY 2023-24 and FY 2024-25 as submitted by MSEDCL (Rs. Crore)

	FY 20	23-24	FY 2024-25	
Particulars	MYT	MTR	MYT	MTR
	Order	Petition	Order	Petition
Regulatory Equity at the beginning of the year	1,343.29	1,387.68	1,380.46	1,406.44
Capitalization during the year	123.90	440.12	123.99	589.14
Equity portion of capitalization during the year	37.17	18.76	37.20	4.05
Reduction in Equity Capital on account of retirement				
/replacement of assets	-	-	-	-
Regulatory Equity at the end of the year	1,380.46	1,406.44	1,417.65	1,410.48
Return on Equity Computation				
Base Rate of Return on Equity				
Pretax RoE after considering effective Tax rate				
Return on Regulatory Equity at the beginning of year	252.28	215.09	259.26	218.00
Return on Regulatory Equity addition during the year	3.49	1.45	3.49	0.31
Interest on Equity portion above 30%	-	-	-	-

	FY 2023-24		FY 2024-25	
Particulars	MYT	MTR	MYT	MTR
	Order	Petition	Order	Petition
Total Return on Equity	255.77	216.54	262.76	218.31

Table 6-66: ROE for Wires business for FY 2023-24 and FY 2024-25 as submitted by MSEDCL (Rs. Crore)

	FY 20	23-24	FY 2024-25		
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition	
Regulatory Equity at the beginning of the year	12,085.55	12,485.09	12,420.08	12,653.90	
Capitalization during the year	1,115.09	3,961.10	1,115.90	5,302.30	
Equity portion of capitalization during the year	334.53	168.81	334.77	36.42	
Reduction in Equity Capital on account of retirement /replacement of assets	-	-	-	-	
Regulatory Equity at the end of the year	12,420.08	12,653.90	12,754.85	12,690.32	
Return on Equity Computation					
Base Rate of Return on Equity					
Pretax ROE after considering effective Tax rate					
Return on Regulatory Equity at the beginning of the year	2,050.14	1,747.91	2,106.88	1,771.55	
Return on Regulatory Equity addition during the year	28.37	11.82	28.39	2.55	
Interest on Equity portion above 30%	-		-	-	
Total Return on Equity	2,078.51	1,759.73	2,135.28	1,774.09	

6.12.7 MSEDCL has requested the Commission to approve the return on equity for both wheeling and supply business as per above projections.

- 6.12.8 As per Regulation 29.1 and 29.2 of MYT Regulations, 2019, the regulated rate of 15.5% and 14.0% is allowed for the Supply and Wires Business, respectively,. The relevant extract from the regulation is reproduced below for reference.
 - "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"
- 6.12.9 Accordingly, the Commission approves the RoE for FY 2023-24 and FY 2024-25 at the rate of 15.5% and 14.0% for the Supply and Wires Business, respectively.

- 6.12.10 As per Regulation 34 of MYT Regulation 2019, the income tax shall be allowed on ROE and the effective rate of ROE shall be computed by grossing up with the applicable income tax rate for the Licensee Company. The relevant clause of the regulation 34 is provided below for the purpose of quick reference:
 - "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/s, subject to the conditions stipulated in Regulations 34.2 to 34.6:.....
 - 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 effective tax rate of respective financial year.
 - 34.3 The base 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 = Base rate of Return on Equity / (1-t), Where "t" is the effective tax rate

- 34.4 The effective tax rate shall be considered on the basis of actual tax paid in respect of financial year in line with the provisions of the relevant Finance Acts by the concerned Generating Company or Licensee or MSLDC, as the case may be:"
- 6.12.11For projection over FY 2023-24 and FY 2024-25, RoE has been considered at ROE base rate at 14% and 15.50% for wire and supply business, in accordance with MYT regulation 2019. For the purpose of projections of pre-Tax RoE, the Commission observes that MSEDCL has not considered a tax rate for grossing up of ROE for FY 2023-24 and FY 2024-25.
- 6.12.12The Commission has considered the funding pattern as discussed in the previous Section of Interest expense for approving the RoE for the ensuing years. The approved closing balance of equity for FY 2021-22 in this Order is taken as the opening balance for FY 2022-23. Closing equity for Wire and Supply for FY 2022-23 is Rs. 12,330.07 Crore and Rs. 1,390.12 Crore respectively and the same is considered as opening balance of equity for FY 2023-24 for wire and Supply business.
- 6.12.13The following Tables show the RoE approved by the Commission for FY 2023-24 and FY 2024-25 for the Wires and Supply Business:

Table 6-67: ROE (Wires) for FY 2023-24 as approved by Commission (Rs. Crore)

Particular	MYT	MTR	Approved in
1 ai ucuiai	Order	Petition	this Order
Equity at the beginning of the year	12,085.55	12,485.09	12,330.07
Equity portion of Assets Capitalisation	334.53	168.81	59.38
Equity at the end of the year	12,420.08	12,653.90	12,389.44
Return on Equity Computation at			
14.00%			

Particular	MYT Order	MTR Petition	Approved in this Order
Return on Equity at the beginning of the year	2050.14	1,747.91	1,726.21
Return on Normative Equity portion of Asset Capitalisation	28.37	11.82	4.16
Total Return on Equity	2078.51	1,759.73	1,730.37

Table 6-68: ROE (Wires) for FY 2024-25 as approved by Commission (Rs. Crore)

Particular	MYT Order	MTR Petition	Approved in this Order
Equity at the beginning of the year	12,420.08	12,653.90	12,389.44
Equity portion of Assets Capitalisation	334.77	36.42	5.80
Equity at the end of the year	12,754.85	12,690.32	12,395.25
Return on Equity Computation at			
14.00%			
Return on Equity at the beginning of the year	2106.88	1,771.55	1,734.52
Return on Normative Equity portion of Asset Capitalisation	28.39	2.55	0.41
Total Return on Equity	2,135.28	1,774.09	1,734.93

Table 6-69: ROE (Supply) for FY 2023-24 approved by Commission (Rs. Crore)

Particular	MYT Order	MTR Petition	Approved in this Order
Equity at the beginning of the year	1343.29	1,387.68	1,390.12
Equity portion of Assets Capitalisation	37.17	18.76	6.60
Equity at the end of the year	1,380.46	1,406.44	1,396.72
Return on Equity Computation at 15.50%			
Return on Equity at the beginning of the year	252.28	215.09	215.47
Return on Normative Equity portion of Asset Capitalisation	3.49	1.45	0.51
Total Return on Equity	255.77	216.54	215.98

Table 6-70: ROE (Supply) for FY 2024-25 approved by Commission (Rs. Crore)

Particular	MYT Order	MTR Petition	Approved in this Order
Equity at the beginning of the year	1,380.46	1,406.44	1,396.72
Equity portion of Assets Capitalisation	37.20	4.05	0.64
Equity at the end of the year	1,417.65	1,410.48	1,397.36

Particular	MYT Order	MTR Petition	Approved in this Order
Return on Equity Computation at 15.50%			
Return on Equity at the beginning of the year	259.26	218.00	216.49
Return on Normative Equity portion of Asset Capitalisation	3.49	0.31	0.05
Total Return on Equity	262.76	218.31	216.54

Table 6-71: Summary of RoE (Wires and Supply) approved by the Commission (Rs. Crores)

	FY 2023-24				FY 2024-25	
Particulars	MYT Order	MTR Petition	Approved in this Order	MYT Order	MTR Petition	Approved in this Order
Return on Equity (Wires Business)	2,078.51	1,759.73	1,730.37	2,135.28	1,774.09	1,734.93
Return on Equity (Supply Business)	255.77	216.54	215.98	262.76	218.31	216.54
Return on Equity (Wire + Supply)	2,334.28	1,976.27	1.946.35	2,398.04	1,992.41	1,951.47

6.12.14Thus, the Commission has considered Rs 1,946.35 Crore and Rs 1,951.47 Crore Return on Equity for FY 2023-24 and FY 2024-25 respectively.

6.13 Interest on Working Capital for FY 2023-24 and FY 2024-25

MSEDCL's Submission

- 6.13.1 MSEDCL has worked out IOWC as per Regulation 32 of the MYT Regulations, 2019 which provides for IoWC for the Wires Business. The Regulation 32.3 of MYT Regulations, 2019 states that the interest rate on working capital shall be equal to Base rate on the date at which the petition is filed plus 150 basis points. Based on the above regulations MSEDCL has computed the interest rate as 9.55% for wires business.
- 6.13.2 MSEDCL has submitted that the interest on security deposit from consumers is has been computed on the basis of Regulation 30.11 of the MYT Regulation, 2019. The relevant extract of the regulation is as provided 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:"

- 6.13.3 Accordingly the interest rate on consumer security deposit has been estimated by MSEDCL as 4.25%. The security deposit collected from consumers for the future years of the control period has been decided considering a growth rate of 5% per Annum.
- 6.13.4 Detailed Computation of interest on working Capital for wires business for the Fourth Control Period is as shown in the table below:

Table 6-72: IOWC and Security Deposit for Wires Business for FY 2023-24 and FY 2024-25 as submitted by MSEDCL (Rs. Crore)

	FY 202	23-24	FY 2024-25		
Particulars	MYT	MTR	MYT	MTR	
	Order	Petition	Order	Petition	
Computation of Working Capital Requirement					
O&M expenses for a month	415.07	454.06	430.98	477.03	
Maintenance Spares at 1% of Opening GFA	667.25	626.63	686.06	720.81	
One and half months equivalent of the expected revenue from charges for use of Distribution Wires	1,414.00	1,450.30	1,426.93	1,649.09	
Less: Amount held as Security Deposit from Distribution System Users	(962.76)	(1,082.34)	(1,010.90)	(1,136.46)	
Total Working Capital Requirement	1,533.56	1,448.65	1,533.07	1,710.47	
Computation of Working Capital Interest					
Interest Rate (%) - SBI Base Rate +150 basis points	9.50%	9.55%	9.50%	9.55%	
Interest on Working Capital	145.69	138.35	145.64	163.35	
Computation of Interest on Security Deposit					
Interest Rate (%) - Bank Rate	6.50%	4.25%	6.50%	4.25%	
Interest on Security Deposit	62.58	46.00	65.71	48.30	

- 6.13.5 MSEDCL has submitted that the interest on working capital for supply business has been computed on the basis of Regulation 32.4 of MYT Regulations, 2019 which provides normative interest on working capital shall be equal to Base rate as on date on which the Petition for determination of tariff is filled plus 150 basis points. The relevant extract of the regulation is provided below for easy reference:
 - "32.4 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:"
- 6.13.6 Based on the above regulations has computed the interest on working capital for supply business at an interest rate equal to 9.55% for supply business for FY 2023-24 and FY 2024-25.
- 6.13.7 MSEDCL has further submitted that the Regulation 30.11 of the MYT Regulations, 2019 has computed the interest on security deposit shall be Bank Rate as on 1st April of the year for which the interest is payable as provided for the wires business.

Based on the above the Interest on working Capital for supply business as computed by MSEDCL is as provided in the table below:

Table 6-73: IOWC and Security Deposit for Supply Business for FY 2023-24 and FY 2024-25 as submitted by MSEDCL (Rs. Crore)

	FY 20:	23-24	FY 2024-25	
Particulars	MYT	MTR	MYT	MTR
	Order	Petition	Order	Petition
Computation of Working Capital Requirement				
O&M expenses for a month	223.50	244.50	232.07	256.86
Maintenance Spares at 1% of Opening GFA	74.14	69.63	76.23	80.09
One and half months equivalent of the expected revenue from sale of revenue from CSS and Additional Surcharge electricity	10,905.85	11,385.43	11,345.05	11,628.90
Less: Amount held as security deposit	(8,664.84)	(9,741.10)	(9,098.09)	(10,228.16)
Less: One month equivalent of cost of power purchase, transmission charges and MSLDC Charges	(6,521.85)	(6,764.80)	(6,818.14)	(6,957.12)
Total Working Capital Requirement	(3,983.20)	(4,806.35)	(4,262.89)	(5,219.43)
Computation of Working Capital Interest				
Interest Rate (%) – SBI Base Rate +150 basis points	9.50%	9.55%	9.50%	9.55%
Interest on Working Capital	-	-	-	-
Interest on Security Deposit				
Interest Rate (%) – Bank Rate	6.50%	4.25%	6.50%	4.25%
Interest on Security Deposit	563.21	414.00	591.38	434.70

6.13.8 MSEDCL has requested the Commission to allow the interest on working capital for wires and retail supply business as submitted in the table above.

Commission's Analysis and Ruling

- 6.13.9 The Commission has reworked the IoWC in accordance with the norms specified in the MYT Regulations, 2019 and based on the parameters such as O&M Expenses, Wires ARR and Supply ARR approved in this Order.
- 6.13.10The Commission computed IoWC for Wire Business as per Regulation 32.3 of MERC MYT Regulations, 2019 which states that the interest rate on working capital shall be equal to Base rate on the date at which the petition is filed plus 150 basis points. The relevant extract of the said regulations is provided below:

Distribution Wires Business

- (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:

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Retail Supply of Electricity

- (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:

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:

- 6.13.11As per Regulation 30.11 of the MYT Regulations, 2019 interest on security deposit shall be allowed at the bank rate as on 1st April of the year for which interest is payable. The relevant Regulation is quoted below for reference
 - "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 1stApril of the Year for which the interest is payable".
- 6.13.12Further, in Regulation 2.1 (10) bank rate is defined as Bank Rate as declared by the Reserve Bank of India from time to time.

- "(10) "Bank Rate" shall mean the Bank Rate as declared by the Reserve Bank of India from time to time;"
- 6.13.13As regards the rate for computing the IoWC and interest on Consumer Security Deposit for FY 2023-24 and FY 2024-25, the Commission has considered the same as 9.55% and 4.25% respectively. Considering the negative impact of security deposit, the normative working capital requirement works out to be negative and considered as nil for supply business.
- 6.13.14The IoWC approved for the Wires and Supply Business for FY 2023-24 and FY 2024-25 is shown in the following Tables.

Table 6-74: IoWC and Security Deposits for Wires Business, for FY 2023-24 as approved by Commission (Rs. Crore)

Particulars	MYT Order	MTR petition	Approved in this Order
O&M expenses for a month	415.07	454.06	446.47
Maintenance Spares at 1% of Opening GFA	667.25	626.63	544.06
One and half months equivalent of the expected revenue from sale of electricity including revenue from CSS and Additional Surcharge	1,414.00	1,450.31	1,325.40
Less: Amount of Security Deposit	-962.76	(1,082)	(999)
Total Working Capital Requirement	1,533.56	1,448.66	1,316.73
Computation of Working Capital Interest			
Rate of Interest (%) = SBI Base Rate + 150 basis points	9.50%	9.55%	9.55%
Interest on Working Capital	145.69	138.35	125.75
Interest on Security Deposit			
Rate of Interest (%) = RBI Bank Rate + 150 basis points	6.50%	4.25%	4.25%
Interest on Security Deposit	62.58	46.00	42.5

Table 6-75: IoWC and Security Deposits for Wires Business, for FY 2024-25 as approved by Commission (Rs. Crore)

Particulars	MYT Order	MTR petition	Approved in this Order
O&M expenses for a month	430.98	477.03	469.06
Maintenance Spares at 1% of Opening GFA	686.06	720.81	557.99

Particulars	MYT Order	MTR petition	Approved in this Order
One and half months equivalent of the expected revenue from sale of electricity including revenue from CSS and Additional Surcharge	1,426.93	1,649.10	1,353.79
Less: Amount of Security Deposit	-1,010.90	(1,136)	(1,049)
Total Working Capital Requirement	1,533.07	1,710.48	1,331.68
Computation of Working Capital Interest			
Rate of Interest (%) = SBI Base Rate + 150 basis points	9.50%	9.55%	9.55%
Interest on Working Capital	145.64	163.35	127.18
Interest on Security Deposit			
Rate of Interest (%) = RBI Bank Rate + 150 basis points	6.50%	4.25%	4.25%
Interest on Security Deposit	65.71	48.30	44.59

Table 6-76: IOWC and Security Deposits for Supply Business, for FY 2023-24, as approved by Commission (Rs. Crore)

Particulars	MYT Order	MTR Petition	Approved in this Order
O&M expenses for a month	223.50	244.50	241.41
Maintenance Spares at 1% of Opening GFA	74.14	69.63	60.45
One and half months equivalent of the expected revenue from sale of electricity including revenue from CSS and Additional Surcharge	10,905.85	11,385.43	11,425.40
Less: Amount of Security Deposit	-8,664.84	(9,741)	(8,993)
Less: One month equivalent of cost of power purchase, Transmission Charges and MSLDC Charges	-6,521.85	(6,764.80)	(6,769.91)
Total Working Capital Requirement	(3,983.20)	(4,806.35)	(4,036.51)
Computation of Working Capital Interest			
Rate of Interest (%) = SBI Base Rate + 150 basis points	9.50%	9.55%	9.55%
Interest on Working Capital	-	-	-
Interest on Security Deposit			
Rate of Interest (%) = SBI Base Rate + 150 basis points	4.25%	4.25%	4.25%
Interest on Security Deposit	563.21	414.00	382.00

Table 6-77: IOWC and Security Deposits for Supply Business, for FY 2023-24, as approved by Commission (Rs. Crore)

Particulars	MYT Order	MTR Petition	Approved in this Order
O&M expenses for a month	232.07	256.86	252.57
Maintenance Spares at 1% of Opening GFA	76.23	80.09	62.00
One and half months equivalent of the expected revenue from sale of electricity including revenue from CSS and Additional Surcharge	11,345.05	11,628.90	11,628.94
Less: Amount of Security Deposit	-9,098.09	(10,228)	(9,442)
Less: One month equivalent of cost of power purchase, Transmission Charges and MSLDC Charges	-6,818.14	(6,957.12)	(6,855.64)
Total Working Capital Requirement	(4,262.89)	(5,219.43)	(4,354.63)
Computation of Working Capital Interest			
Rate of Interest (%) = SBI Base Rate + 150 basis points	9.50%	9.55%	9.55%
Interest on Working Capital			-
Interest on Security Deposit			
Rate of Interest (%) = SBI Base Rate + 150 basis points	6.50%	4.25%	4.25%
Interest on Security Deposit	591.38	435	401.31

6.13.15Accordingly, the IoWC and the Interest on Security Deposits from Consumers and Distribution System Users approved by the Commission for FY 2023-24 and FY 2024-25 is as follows:

Table 6-78: IoWC and Interest on Security Deposit as approved by Commission FY 2023-24 and FY 2024-25 (Wires+Supply) (Rs. Crore)

	FY 2023-24			FY 2024-25			
Particulars	MYT Order	MTR Petition	Approve d in this Order	MYT Order	MTR Petition	Approve d in this Order	
IoWC (wires + Supply)	145.69	138.35	125.75	145.64	163.35	127.18	
Interest on CSD (Wires + Supply)	625.79	460.00	424.66	657.09	483.30	445.90	

6.13.16Thus, the Commission approves IoWC and Interest on Consumer Security Deposit Rs 125.75 Crore and Rs 424.66 Crore for FY 2023-24 respectively and Rs 127.18 Crore and Rs 445.90 Crore for FY 2024-25 respectively.

6.14 Other Finance Charges for FY 2023-24 and FY 2024-25

MSEDCL's Submission

- 6.14.1 MSEDCL has submitted that the regulation 30.8 of MYT Regulations, 2019 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."
- 6.14.2 MSEDCL has stated that, the Commission in the MYT Order dated 30th March 2020 in Case No. 322 of 2019 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 2023-24 to FY 2024-25 and will claim the same during true-up of respective years.
- 6.14.3 Therefore, in line with the above regulations, MSEDCL has not projected any finance charges for the Fourth Control Period from FY 2023-24 to FY 2024-25.

Commission's Analysis and Ruling

- 6.14.4 Regulation 30.8 of the MYT Regulation, 2019 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."
- 6.14.5 The Commission observes MSEDCL has not projected any finance charges for FY 2023-24 and FY 2024-25. Accordingly, the Commission has not considered any "Other Finance Charges" for the revised projection for FY 2023-24 and FY 2024-25. Same shall be considered at the time of truing-up of the respective year, in accordance with Regulation 30.8 of the MYT Regulations, 2019, subject to prudence check.

6.15 Provision for Bad Debts for FY 2023-24 and FY 2024-25

MSEDCL's Submission

6.15.1 MSEDCL has submitted that provision of bad and doubtful debts of the Fourth Control Period from FY 2023-24 to FY 2024-25 as per Regulation 76 and 85 of MYT Regulations, 2019 which provides that 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. As per the allocation matrix provided in the MYT Regulations, 2019. MSEDCL has separated the provision of bad and doubtful debts into wire and supply category.
- 6.15.2 MSEDCL has submitted that the provision for bad and doubtful 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. 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.
- 6.15.3 MSEDCL has submitted that for the projection of receivables it considered a y-o-y rise of 2% and 10% for the interest part of Non-AG and AG respectively and for the principle part it has considered a y-o-y rise of 2% and 5% is taken for Non AG and AG respectively.

Period	Particulars	Principal	Interest	Total
up to 31.03.2024 (Revised Projected)	Non AG	15,776.58	9,311.62	25,088.21
	AG	35,015.1	13,967.635	48,982.73
	Total	50,791.68	23,279.26	74,070.94
van to 21 02 2025	Non AG	16,092.12	9,497.85	25,589.97
up to 31.03.2025 (Revised Projected)	AG	38,765.85	15,364.40	52,130.25
(Keviseu Projecteu)	Total	52,857.97	24,862.25	77,720.22

6.15.4 MSEDCL for the estimation purpose has presently considered provisioning @1.50% instead of @7.50% (as Ag sales are more than 20% of total sales). However, MSEDCL reserves its right to seek claim on bad-debts at the time of truing-up as per the per provisions of MYT Regulations, 2019. MSEDCL has also submitted that it will write-off the bad debts as submitted on receiving the approval of the Commission. Thus, projection of Receivable and provision of bad debts for FY 2023-24 to FY 2024-25 is as shown in the tables below:

Table 6-79: Provision for Bad and Doubtful Debt for Wires Business for FY 2023-24 and FY 2024-25, as submitted by MSEDCL (Rs. Crore)

	FY 2	023-24	FY 2024-25	
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition
Bad Debt Provision for Wire Business	73.26	111.11	73.26	116.58
Receivables	4,884.20	7,407.09	4,884.20	7,772.02
% of Receivables	1.50%	1.50%	1.50%	1.50%

Table 6-80: Provision for Bad and Doubtful Debt for Supply Business for FY 2023-24 and FY 2024-25, as submitted by MSEDCL (Rs. Crore)

	FY 2	023-24	FY 2023-24	
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition
Bad Debt Provision for Supply Business	659.37	999.96	659.37	1,049.22
Receivables	43,957.82	66,663.84	43,957.82	69,948.20
% of Receivables	1.50%	1.50%	1.50%	1.50%

- 6.15.5 The Commission has observed that there is significant increase in total receivable of projected by MSEDCL for FY 2023-24 and FY 2024-25 as compared to FY 2021-22 i.e. latest True up year. As per Audited accounts of FY 2021-22 Trade Receivables of MSEDCL is Rs. 48,701.59 Crores, however, MSEDCL has considered Rs. 83,212.06 Crore for computation of Bad Debts for FY 2021-22 which is 16.48% higher than the previous year. However, the Commission is considering the same receivables as FY 2021-22 as per Audited accounts for computing the Bad debts for FY 2023-24 and FY 2024-25.
- 6.15.6 With regards to Supply business, the Commission observes that in view of the collection efficiency as reported by MSEDCL of around 95% and will be going to increase in the ensuing years, the estimates of receivables for FY 2023-24 and FY 2024-25 are very high. Besides, stringent measures should be initiated by MSEDCL to improve collection efficiency reduce receivable incl. recovery of past dues. It can be observed the total receivable as projected by MSEDCL for FY 2023-24 is around Rs. 74,070.94 Crore which is almost 70.52% of the annual ARR of MSEDCL. This is an alarming situation.
- 6.15.7 In view of the above, MSEDCL should strengthen its collection drive and put every efforts in clearing its receivable in a time bound manner. Any action/inactions that are detrimental to enhance collection efficiency otherwise pose undue burden on paying consumers and affects day to day cash flow management of MSEDCL itself.
- 6.15.8 The Commission also observes that during the public consultation process of the present petition, many consumers had highlighted about the mounting arrears/receivables position of MSEDCL and suggested for urgent action on the same in time bound manner. Thus, Commission is not inclined to pass on such effect to the consumers, for which MSEDCL will have to demonstrate significant efforts and results to the Commission. In this context, for projection of FY 2023-24 and FY 2024-25 the Commission has considered the receivables at Rs. 48,701.59 Crores same as FY 2021-22 against as claimed by MSEDCL.

Table 6-81: Provision for Bad and Doubtful Debts for Wires Business, as approved by Commission (Rs. Crore)

Particulars	FY 2023-24				FY 2024-25	
	MYT Order	MTR Petition	Approve d in this Order	MYT Order	MTR Petition	Approve d in this Order
Bad Debt Provision for Wire Business	73.26	111.11	73.05	73.26	116.58	73.05
Receivables	4,884.20	7,407.09	4,870.16	4,884.20	7,772.02	4,870.16
% of Receivables	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%

Table 6-82: Provision for Bad and Doubtful Debts for Supply Business, as approved by Commission (Rs. crore)

	FY 2023-24			FY 2024-25			
Particulars	MYT Order	MTR Petition	Approve d in this Order	MYT Order	MTR Petition	Approve d in this Order	
Bad Debt Provision for Supply Business	659.37	999.96	657.47	659.37	1,049.22	657.47	
Receivables	43,957.82	66,663.84	43831.43	43,957.82	69,948.20	43,831.43	
% of Receivables	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	

Table 6-83: Provision for Bad and Doubtful Debts for Wire + Supply Business, as approved by Commission (Rs. crore)

	FY 2023-24			FY 2024-25			
Particulars	MYT Order	MTR Petition	Approve d in this Order	MYT Order	MTR Petition	Approve d in this Order	
Bad Debt Provision for Wire + Supply Business	732.63	1,111.06	730.52	732.63	1,165.80	730.52	

6.15.9 Thus, the Commission has approved Rs 730.52 Crore and Rs 730.52 Crore as Bad and doubtful Debts for FY 2023-24 and FY 2024-25 respectively.

6.16 Other Expenses for FY 2023-24 and FY 2024-25

MSEDCL's Submission

- 6.16.1 MSEDCL has claimed 'Other Expenses' comprising 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.
- 6.16.2 MSEDCL has submitted the nature of claims of various expenses under other expenses as following:
 - MSEDCL has submitted that the Interest to suppliers/contractors represents the expense on security deposits collected from collection agencies.
 - Non-Moving items written off included items of stores which are lying as non-moving for 2 years the realizable value of which is completely deprecated.
 - Incentive to distribution Franchisee is the incentive given to Distribution Franchisee for recovery of MSEDCL's arrears from live and PD consumers.
- 6.16.3 The projections for the FY 2023-24 and FY 2024-25 has been made on the basis of 5% increase over the previous year.

Table 6-84: Other Expenses for FY 2023-24 and FY 2024-25, as submitted by MSEDCL (Rs. crore)

Particulars	FY 2023-24	FY 2023-24	FY 2024-25	FY 2024-25
1 at uculats	Approved	Projected	Approved	Projected
Other Expenses	60.87	329.80	63.91	346.29

- 6.16.4 For the purpose of approval of other expense for FY 2023-24 and FY 2024-25, the Commission has noted the past trend of "Other Expense" and found the present claim of MSEDCL under "Other Expense" not to be on similar lines. Thus for the purpose of projections, the Commission has considered as per approved in MYT Order Rs 60.87 Crore and Rs 63.91 Crore for FY 2023-24 and FY 2024-25 respectively, which shall be trued-up subject to prudence check at the time of truing up of FY 2023-24 and FY 2024-25.
- 6.16.5 The Commission has approved the Other Expenses as shown in the Table below:

Table 6-85: Other Expenses for FY 2023-24, as approved by Commission (Rs. crore)

Particular	MYT Order	MTR Petition	Approved in this Order
Compensation for injuries, death to staff	1.53	2.19	1.53
Compensation for injuries, death to others	18.50	17.67	18.50
Loss on obsolescence of fixed Assets	1.99		1.99
Sundry debit balances written off	2.19	7.08	2.19
Non Moving Items	20.53		20.53
Provision for non moving items		44.46	
Other sundry expense	9.41	218.31	9.41
Incentive to distribution franchisee		0.57	
Other interest and charges		39.35	
Interest on security deposit on bill		0.18	
collection agency			
Other expenses for previous years	6.70		6.70
TOTAL	60.84	329.80	60.87

Table 6-86: Other Expenses for FY 2024-25, as approved by Commission (Rs. crore)

Particular	MYT Order	MTR Petition	Approved in this Order
Compensation for injuries, death to staff	1.60	2.30	1.60
Compensation for injuries, death to others	19.43	18.56	19.43
Loss on obsolescence of fixed Assets	2.09	10.50	2.09
Sundry debit balances written off	2.30	7.43	2.30
Non Moving Items	21.56		21.56
Provision for non moving items		46.68	
Other sundry expense	9.88	229.22	9.88
Incentive to distribution franchisee		0.60	
Other interest and charges		41.31	
Interest on security deposit on bill		0.19	
collection agency			
Other expenses for previous years	7.04	_	7.04
TOTAL	63.91	346.29	63.91

6.16.6 Thus, the Commission has Considered Rs 60.87 Crore and Rs 63.91 Crore under head of Other Expenses for FY 2023-24 and FY 2024-25 respectively.

6.17 Contribution to Contingency Reserves for FY 2023-24 and FY 2024-25

MSEDCL's Submission

- 6.17.1 MSEDCL submitted 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.
- 6.17.2 MSEDCL submitted that it is not getting full recovery of the revenue receivable from consumers. MSEDCL is managing its working capital requirement need by availing STL/MTL/LTL working capital loans from banks and financial institutions. As such MSEDCL can invest the amount of contingency reserve only if it gets sufficient quantum of loan from banks or financial institutions. MoP through its guidelines on additional prudential norms has restricted working capital borrowings @ 35% of the revenue which MSEDCL already crossed the same. Hence, MSEDCL is getting difficulties in availing loan and not able to invest the amount of contingency reserve. Secondly, MSEDCL's financials has been badly affected by the consequences of COVID-19 pandemic.
- 6.17.3 MSEDCL has stated that, Considering the above difficulty and COVID-19 impact, it is requested to Hon'ble Commission to consider positively and not to disallow contingency reserve amount and further provide relaxation from the last proviso to Regulations 35.1 of the MERC MYT Regulation, 2019.
- 6.17.4 MSEDCL has requested the Commission to allow the contribution to contingency reserves in line with submission made above by invoking its power to relax under Regulation 105 of the MYT Regulation, 2019. The Computation of contribution to contingency reserve as submitted by MSEDCL for the FY 2023-24 to FY 2024-25 is as presented in the table below:

Table 6-87: Contribution to Contingency Reserve for FY 2023-24 and FY 2024-25, as submitted by MSEDCL (Rs. crore)

	FY 20	23-24	FY 2024-25	
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition
Contribution to Contingency Reserves (Wire Business)	166.81	156.66	171.52	180.20
Contribution to Contingency Reserves (Supply Business)	18.53	17.41	19.06	20.02
Total contribution to Contingency Reserves	185.35	174.06	190.57	200.22

Commission's Analysis and Ruling

6.17.5 Regulation 35 of the MYT Regulations, 2019 provides for appropriation to the Contingency Reserve 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 amount is to be invested in securities authorized under the Indian Trusts Act, 1882 within six months of the close of the financial year. Relevant Regulation are shown below:

"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 authorized 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.

6.17.6 The Commission notes that, MSEDCL has 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 is not allowing any amount towards Contribution to contingency reserves as shown in the following table:

Table 6-88: Contribution to Contingency Reserve for FY 2023-24 and FY 2024-25 as approved by Commission (Rs. crore)

	FY 2023-24			FY 2024-25		
Particulars	MYT Approved	MTR Petition	Approved in this Order	MYT Approved	MTR Petition	Approved in this Order
Contribution to						
Contingency Reserves	166.81	156.66	-	171.52	180.20	-
(Wire Business)						
Contribution to						
Contingency Reserves	18.53	17.41	-	19.06	20.02	-
(Supply Business)						
Total contribution to	185.35	174.06		190.57	200,22	
Contingency Reserves	103.33	1/4.00	1	150.57	200.22	-

6.17.7 Thus, the Commission has not approved any Contribution to Contingency Reserve for FY 2023-24 and FY 2024-25 respectively. The Commission shall consider subject to be prudence check at time of truing up of FY 2023-24 and FY 2024-25 respectively.

6.18 Income Tax for FY 2023-24 and FY 2024-25

MSEDCL's Submission

6.18.1 MSEDCL submitted that Regulation 34 of the MYT Regulations, 2019 provides for Income Tax. Since there is no income tax claimed in FY 2021-22, MSEDCL on similar lines has not claimed any Income Tax for FY 2023-24 & FY 2024-25. Hence it has not grossed up the return on equity by income tax. MSEDCL submits that in case there is tax liability for FY 2022-23 and any income tax is paid, it requested the Commission to allow claim on grossing up of return on equity by effective tax rate as per the provisions of the MYT Regulations, 2019.

Commission's Analysis and Ruling

- 6.18.2 The Commission has noted that MSEDCL has not claimed income tax in FY 2023-24 and FY 2024-25 Hence, it has not grossed up the return on equity by income tax.
- 6.18.3 Thus, the Commission has not approved Income tax for FY 2023-24 and FY 2024-25.

6.19 Incentives and Discounts for FY 2023-24 and FY 2024-25

MSEDCL's Submission

- 6.19.1 MSEDCL submitted that for FY 2023-24 to FY 2024-25, the Incentives and Discounts are projected considering a nominal rise of 5% over previous year.
- 6.19.2 The incentives and discounts for the fourth control period as computed by MSEDCL is presented in the table below:

Table 6-89: Incentives and Discounts for FY 2023-24 and FY 2024-25 as submitted by MSEDCL (Rs. crore)

Particulars	FY 20)23-24	FY 2024-25	
I ul tieului b	MYT Order	MTR Petition	MYT Order	MTR Petition
Incentives and Discounts	373.20	385.73	391.86	405.02

6.19.3 The Commission noted the past trend of incentive and discount approved to MSEDCL as summarized under following table.

Table 6-90: Past trends of Incentive and Discounts (Rs Crore)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
Incentives and Discounts	337.25	307.40	367.37	367.37

6.19.4 The annual escalation of 5% for projecting Incentives and Discounts by MSEDCL appears to be reasonable. Accordingly, the Commission has approved the projection of Incentives/Discounts, as shown in the Table below:

Table 6-91: Incentives and Discounts as approved by Commission for FY 2023-24 and FY 2024-25 (Rs Crore)

	FY 2023-24			FY 2024-25		
Particulars	MYT Order	MTR Petition	Approv ed in this Order	MYT Order	MTR Petition	Approved in this Order
Incentives and Discounts	373.20	385.73	385.73	391.86	405.02	405.02

6.19.5 Thus, the Commission has Considered Rs 385.73 Crore and Rs 405.02 Crore under Incentives and discounts for FY 2023-24 and FY 2024-25 respectively.

6.20 Non-Tariff Income for FY 2023-24 and FY 2024-25

MSEDCL's Submission

- 6.20.1 MSEDCL has submitted that it has certain sources of Non-Tariff Income namely; interest on arrears of consumers, interest on staff loans and advances, sale of scrap, interest on investment etc. It has further submitted that an annual increase of 5% over the previous year has been considered for projecting non-Tariff Income for FY 2023-24 and FY 2024-25.
- 6.20.2 However, Regulation 37.3 of the MERC MYT Regulations, 2019 provides for non-inclusion of the Delayed Payment Charge and Interest on Delayed Payment in Non-Tariff Income.
- 6.20.3 In accordance with the above Regulation MSEDCL has submitted that it has not projected any delayed payment charges and interest on Delayed Payment in non tariff income. MSEDCL further stated that MSEDCL has not projected the deferred income since the consumer contribution and grants is being getting subtracted from

opening GFA. Following table shows the projected non-tariff income for FY 2023-24 and FY 2024-25

6.20.4 Following table shows the projected non-tariff income for the period FY 2023-24 and FY 2024-25

Table 6-92: Non-Tariff Income for the FY 2023-24 and FY 2024-25, as submitted by MSEDCL (Rs. Crore)

	FY 2	023-24	FY 2024-25		
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition	
Rents of land or buildings	1.26	1.00	1.32	1.05	
Sale of Scrap	63.27	45.93	66.43	48.23	
Income from investments	22.49	-	23.61	=	
Income from sale of tender documents	10.84	5.19	11.38	5.45	
Prompt payment discount from REC/PFC	14.78	-	15.52	11	
Other/Miscellaneous receipts	326.97	252.43	343.32	265.05	
Revenue from subsidy & grant	-	0.53		0.55	
Interest on Contingency Reserve					
Investments	-	28.78	-	30.21	
Total	439.60	333.86	461.59	350.55	

- 6.20.5 The Commission has examined various heads under which MSEDCL has proposed under Non-Tariff Income. These heads have been projected by MSEDCL with an increase of 5% over the income projected for previous years. The Commission reviewed the past trend of major heads of Non-Tariff Income and found them to be mostly in line with the projections against those heads. The Commission has accepted the projections of MSEDCL against these heads shall subject to prudence check at time of truing up of FY 2023-24 and FY 2024-25.
- 6.20.6 In view of the above, the Commission has approved the following Non-Tariff Income for FY 2023-24 and FY 2024-25.

Table 6-93: Non-Tariff Income as approved by Commission for FY 2023-24 (Rs. Crore)

	FY 2023-24				
Particulars	MYT Order	MTR Petition	Approved in this Order		
Rents of land or buildings	1.26	1.00	1.00		
Sale of Scrap	63.27	45.93	45.93		
Income from investments	22.49	1	-		
Income from sale of tender documents	10.84	5.19	5.19		
Prompt payment discount from REC/PFC	14.78	1	-		
Other/Miscellaneous receipts	326.97	252.43	252.43		

	FY 2023-24				
Particulars	MYT Order	MTR Petition	Approved in this Order		
Revenue from subsidy & grant	-	0.53	0.53		
Interest on Contingency Reserve Investments	-	28.78	28.78		
Total	439.60	333.86	333.86		

Table 6-94: Non-Tariff Income as approved by Commission for FY 2024-25 (Rs. Crore)

		FY 2024-25	5
Particulars	MYT Order	MTR Petition	Approved in this Order
Rents of land or buildings	1.32	1.05	1.05
Sale of Scrap	66.43	48.23	48.23
Income from investments	23.61	-	-
Income from sale of tender documents	11.38	5.45	5.45
Prompt payment discount from REC/PFC	15.52	-	-
Other/Miscellaneous receipts	343.32	265.05	265.05
Revenue from subsidy & grant	-	0.55	0.55
Interest on Contingency Reserve Investments	-	30.21	30.21
Total	461.59	350.55	350.55

6.20.7 Thus, the Commission has Considered Rs 333.86 Crore and Rs 350.55 Crore as Non-Tariff income for FY 2023-24 and FY 2024-25 respectively.

6.21 Stabilisation amount as per MYT Order for FY 2023-24 to FY 2024-25

MSEDCL's submission

6.21.1 MSEDCL has submitted that in the MYT Order, the Commission has allowed revenue recovery as shown in the following table. MSEDCL has considered the same.

Table 6-102: Stabilisation amount as per MYT Order for FY 2023-24 to FY 2024-25 (Rs Crore)

Particulars	Formula	FY 2023-24	FY 2024-25
ARR approved by the Commission	A	86,298.00	88,910.00
Approved Revenue at existing tariff	В	96,504.00	1,00,738.00
Approved Revenue Gap	C = A-B	(10,206.00)	(11,828.00)
Projected Revenue at approved tariff	D	91,883.00	95,927.00
Additional Recovery from approved tariff	E = D - B	(4,621.00)	(4,811.00)
Previous Revenue gap recovery allowed after adjustment			
of current year Revenue Gap	F = E-C	5,585.00	7,017.00

6.21.2 The Commission has approved the past revenue gap of Rs. 5,585.00 and Rs 7,017.00 Crore, for FY 2023-24 and FY 2024-25 respectively as approved in the MYT Order dated 30th March 2020. The same has been considered by the Commission as revenue gap in FY 2023-24 and FY 2024-25. The Commission has done prudence check of the claim and explained in earlier chapter about appropriateness of the claim. Accordingly, the commission approves stabilisation amount as per MYT Order 322 of 2019 in the current MTR Petition.

6.22 Impact of Payment to MPECS for FY 2023-24 and FY 2024-25

MSEDCL's submission

6.22.1 MSEDCL has submitted that the Commission in the MYT order dated 3rd November 2016 has approved following amounts towards payment to MPECS.

Financial year	Amount in Rs Crore
FY 2017-18	46.2
FY 2018-19	43.18
FY 2019-20	40.17

- 6.22.2 MSEDCL has stated that, The Commission in the MYT Order dated 30th March, 2020 has approved annual amount towards monthly user charges to be paid to MPECS by MSEDCL for each year of the Control Period, as the same was allowed under Order dated 2nd May, 2016. The following table summarizes the payment to be paid to MPECS during the FY 2023-24 to FY 2024-25
- 6.22.3 The monthly user charges approved by the Commission in the order has been considered by MSEDCL to determine the charges to be paid in the FY 2023-24 to FY 2024-25. The charges claimed by MSEDCL to be paid to MPECS in the period from FY 2023-24 to FY 2024-25 is as shown in the table below:

Table 6-95: Impact of Payment to MPECS submitted by MSEDCL for FY 2023-24 and FY 2024-25 (Rs. Crore)

Particulars FY :		2023-24	FY 2024-25		
1 articulars	MYT Order	MTR Petition	MYT Order	MTR Petition	
Impact of Payment to					
MPECS	28.13	28.13	21.14	21.14	

Commission's Analysis and Ruling

6.22.4 The Commission vide its Order dated 2nd May 2016, has determined the monthly user charges to be paid to MPECS by MSEDCL. The Commission shall consider the actual amount towards this head at the time of truing up of FY 2023-24 and FY 2024-25.

Table 6-96: Impact of Payment to MPECS Approved by the Commission for FY 2023-24 and FY 2024-25 (Rs. Crore)

	FY 2023-24			FY 2024-25			
Particulars	MYT Order	MTR Petition	Approved in this Order	MYT Order	MTR Petition	Approved in this Order	
Impact of Payment to MPECS	28.13	28.13	28.13	21.14	21.14	21.14	

6.22.5 Thus, the Commission has Considered Rs 28.13 Crore and Rs 21.14 Crore impact of Payment to MPECS for FY 2023-24 and FY 2024-25 respectively.

6.23 Income from Open Access Charges for FY 2023-24 and FY 2024-25

MSEDCL's Submission

- 6.23.1 MSEDCL has submitted that the income from Open Access Charges (including CSS, Transmission Charges, and Operating Charges etc.) which is inclusive of the Income from Wheeling charges has been estimated at the same level as that approved by the Commission.
- 6.23.2 The following table shows the income from Open Access Charges for the control period from FY 2023-24 to FY 2024-25.

Table 6-97: Income from Open Access Charges for FY 2023-24 and FY 2024-25, as submitted by MSEDCL (in Rs. crore)

Particulars	FY 2	023-24	FY 2024-25		
1 ar ticular 5	MYT Order	MTR Petition	MYT Order	MTR Petition	
Income from Open Access Charges	214.76	214.76	216.60	216.60	

Commission's Analysis and Ruling

6.23.3 The Commission has noted the submissions of MSEDCL, The present approvals are on projection basis and the same shall approved on the actual basis at the time of true-up, subject to prudence check. The summary of the approved revenue from OA charges is provided in the following table.

Table 6-98: Income from Open Access Charges for FY 2023-24 and FY 2024-25, as approved by Commission (Rs. crore)

	FY 2023-24			FY 2024-25		
Particulars	MYT Order	MTR Petition	Approved in this Order	MYT Order	MTR Petition	Approved in this Order
Income from Open Access Charges	214.76	214.76	214.76	216.60	216.60	216.60

6.24 Revenue from Sales of Electricity for FY 2023-24 and FY 2024-25

MSEDCL's Submission

6.24.1 MSEDCL has submitted that it has considered the projected sales, number of consumers, and Connected Load/ Contract/Billing Demand and prevailing tariff, MSEDCL has projected the year-wise revenue for FY 2023-24 to FY 2024-25 as summarized in the following Table.

Table 6-99: Revenue at existing Tariff for FY 2023-24 & FY 2024-25, as submitted by MSEDCL (Rs. crore)

FY		023-24	FY 2024-25		
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition	
Revenue from Sale of Power at Existing Tariff	91,883.00	90,422.16	95,927.00	92,354.58	

Commission's Analysis and Ruling

- 6.24.2 Considering the approved projected sales, number of consumers, and Connected Load/ Contract Demand as discussed in the above section of the MYT Order and with prevailing tariff, the Commission has estimated the Revenue from the existing Tariff for FY 2023-24 and FY 2024-25.
- 6.24.3 Thus, the total Revenue from the existing tariff is as shown in the following Table:

Table 6-100: Revenue at existing Tariff at Projected Sales for FY 2023-24 and FY 2024-25, as approved by Commission (Rs. crore)

	FY 2023-24			FY 2024-25		
Particulars	MYT Order	MTR Petition	Approve d in this Order	MYT Order	MTR Petition	Approved in this Order
Total Revenue at Existing Tariff	91,883.0	90,422.1	90,741.9	95,927.00	92,354.58	92,354.94

6.24.4 Thus, The Commission has Considered Rs 90,741.92 Crore and 92,354.94 Crore Revenue from sale of electricity for FY 2023-24 and FY 2024-25 respectively.

6.25 Additional Surcharge refund for FY 2023-24 and FY 2024-25

MSEDCL's Submission

- 6.25.1 MSEDCL has stopped levy of additional surcharge to group captive consumers from January 2022 and it has adopted methodology for refund of ASC as stated in pervious chapter.
- 6.25.2 MSEDCL has submitted that it has refunding the ASC in every month to eligible consumers to the tune of Rs. 15 Crore. The refund burden will be Rs. 180 Crore annually. Accordingly, the same is being claimed in the ARR and the Commission is requested to approve the same.

Commission's Analysis and Ruling

6.25.3 The Commission notes the submission of MSEDCL in view of the same, the Commission approves Additional surcharge refund of Rs 180.00 Crore and Rs 180.00 Crore for FY 2023-24 and FY 2024-25 respectively.

6.26 Income from Additional Surcharge for FY 2023-24 and FY 2024-25

MSEDCL's Submission

6.26.1 MSEDCL has estimated the income from Additional Surcharge same as that approved by the Commission for FY 2023-24 to FY 2024-25. The summary of projected incomes from Additional Surcharge projected by MSEDCL for FY 2023-24 to FY 2024-25 is as shown in the table below:

Table 6-101: Income from Additional Surcharge for FY 2023-24 and FY 2024-225 as submitted by MSEDCL (Rs. crore)

Particulars	FY 2023-	24	FY 2024-25		
	Approved	Projected	Approved	Projected	
Income from Additional Surcharge	112.63	112.63	109.46	109.46	

- 6.26.2 The detailed analysis of the Additional Surcharge as proposed by MSEDCL is elaborated in the Chapter on Tariff Methodology. However, it is observed that, the income from such charges would vary depending on the actual OA volume of the applicable category of OA consumer.
- 6.26.3 The Commission in the Data Gaps had sought the estimates of incremental revenue from Additional Surcharge claimed by MSEDCL, where MSEDCL had provided it excel workings for the same. It was observed that, MSEDCL while estimating the revenue from Additional Surcharges for the ensuing year, MSEDCL has considered the Additional Surcharge income from Thermal Power.
- 6.26.4 Thus, for the purpose of approval of projection, the Commission has estimated the Income of Additional Surcharge based on the approved Additional Surcharge

applied on the projected quantum of IPPs provided by MSEDCL. The approved income from Additional Surcharge for FY 2023-24 and FY 2024-25 as shown in the following Table.

Table 6-102: Income from Additional Surcharge for FY 2023-24 and FY 2024-25, as approved by Commission (Rs. crore)

	FY 2023-24			FY 2024-25		
Particulars	MYT Order	MTR Petition	Approv ed in this Order	MYT Order	MTR Petition	Approved in this Order
Income from Additional Surcharges	112.63	112.63	112.63	109.46	109.46	109.46

6.26.5 Thus, the Commission has Considered Rs 112.63 Crore and Rs 109.46 Crore incomes from additional surcharge for FY 2023-24 and FY 2024-25 respectively.

6.27 Income from Trading of Surplus Power for FY 2023-24 to FY 2024-25

MSEDCL submission

- 6.27.1 MSEDCL submitted that the Commission in the MYT Order dated 30th March, 2020 in Case No. 322 of 2019 has approved Income from Trading of Surplus Power for FY 2023-24 to FY 2024-25.
- 6.27.2 MSEDCL submitted that at present it has not estimated any income from trading of surplus power.

Table 6-103: Income from Trading of Surplus Power for FY 2023-24 to FY 2024-25 as submitted by MSEDCL (Rs Crore)

Particulars	FY 2023-24	FY 2023-24	FY 2024-25	FY 2024-25
raruculars	Approved	Projected	Approved	Projected
Income from Trading of Surplus				
Power	363.02	-	386.3	-

Commission's Rulings and Analysis

6.27.3 The Commission has noted that MSEDCL has not estimated any income from Trading of Surplus Power for FY 2023-24 and FY 2024-25. Thus, the Commission has considered Rs NIL Crore for Income from Trading of Surplus power for FY 2023-24 and 2024-25.

6.28 Incremental Consumption & Bulk Consumption Rebate for FY 2023-24 and FY 2024-25

MSEDCL submission

- 6.28.1 MSEDCL has submitted that the Commission in the MYT Order dated 30th March 2020 has accepted the MSEDCL proposal on allowing rebate for incremental consumption and approved cost towards Incremental Renate for each year of the Control period.
- 6.28.2 MSEDCL has submitted the estimated the Incremental Consumption rebate and bulk consumption rebate at the same level as that approved by the Commission.

Table 6-104: Incremental Consumption Rebate and Bulk Consumption Rebate for FY2023-24 to FY 2024-25

	FY 2023-24		FY 2024-25	
Particulars	Approved	Projected	Approved	Projected
Incremental Consumption Rebate	426.45	426.45	548.77	548.77

Commission's Rulings and Analysis

- 6.28.3 The Commission in its MYT order dated 30th March 2020 stated that, Detailed modalities for operationalization of rebate for incremental consumption along with relevant conditions for applicable consumer categories and eligible consumers etc. have been discussed under Tariff philosophy section separately. However, impact of such rebate has been estimated based on sales projections with some assumptions to be recovered as part of ARR component in line with regulatory accounting treatment given in case of discounts/prompt payment rebate etc.
- 6.28.4 Thus, in line with the MSEDCL's Proposal and Commission's view on allowing rebate for incremental consumption, the Commission accepts the proposal of MSEDCL. Thus the Commission has Considered approved costs towards Incremental Rebate as per MYT Order dated 30th March 2020. The summary of the approved costs towards Incremental Rebate is provided in the following table.

Table 6-105: Cost from Incremental Rebate for HT Consumers as approved by the Commission (Rs. Crore)

		FY 2023-24			FY 2024-25		
P	articulars	MYT Order	MTR Petition	Approve d in this Order	MYT Order	MTR Petition	Approved in this Order

Additional Cost						
towards Incremental	426.45	426.45	426.45	548.77	548.77	548.77
Rebate						

6.28.5 Thus, the Commission has considered Rs 548.77 Crore towards Incremental consumption Rebate and Bulk consumption rebate for FY 2023-24 and FY 2024-25 respectively.

6.29 Aggregate Revenue Requirement from FY 2023-24 to FY 2024-25

MSEDCL's Submission

6.29.1 The Allocation Matrix for segregation of the ARR between the Wires and Supply Business has been specified in Regulation 71 of the MYT Regulations, 2019. Based on this, MSEDCL has projected the Wires and Supply ARRs for Fourth Control Period from FY 2023-24 and FY 2024-25 as shown in the following Tables:

Table 6-106: Aggregate Revenue Requirement for Wires Business, as submitted by MSEDCL (Rs. crore)

	FY	FY	FY	FY
Particulars	2023-24	2023-24	2024-25	2024-25
1 at ticular s	MYT			MTR
	Order	MTR Petition	MYT Order	Petition
Operation & Maintenance				
Expenses	5,086.16	5,448.75	5,281.17	5,724.41
Depreciation	2,810.20	2,772.10	2,865.44	2,977.86
Interest on Loan Capital	804.49	841.48	593.13	1,004.40
Interest on Working Capital	145.69	138.35	145.64	163.35
Interest on deposit from				
Consumers and Distribution				
System Users	62.58	46.00	65.71	48.30
Other Finance Charges	-	-	-	-
Provision for bad and				
doubtful debts	73.26	111.11	73.26	116.58
Opex Schemes	84.31	328.25	84.31	1,203.56
Contribution to contingency				
reserves	166.81	156.66	171.52	180.20
Income Tax	-	-	-	-
Return on Equity Capital	2,078.51	1,759.73	2,135.28	1,774.09
Aggregate Revenue				
Requirement	11,312.02	11,602.42	11,415.46	13,192.75
Less				

	FY	FY	FY	FY
Particulars	2023-24	2023-24	2024-25	2024-25
Farticulars	MYT			MTR
	Order	MTR Petition	MYT Order	Petition
Income from wheeling				
charges	-	-	-	-
Income from open Access				
Charges	214.76	214.76	216.60	216.60
Aggregate Revenue				
Requirement from				
Distribution wires	11,097.26	11,387.66	11,198.85	12,976.14
Revenue from wires				
Business	-	-	-	
Revenue Gap /(Surplus)	11,097.26	11,387.66	11,198.85	12,976.14

Table 6-107: Aggregate Revenue Requirement for Supply Business, as submitted by MSEDCL (Rs. crore)

	FY 20	23-24	FY 2024-25		
Particulars		MTR		MTR	
	MYT Order	Petition	MYT Order	Petition	
Power Purchase					
Expenses (including					
Inter-State Transmission					
Charges)	64,554.92	75,168.09	66,819.60	77,448.70	
Operation &					
Maintenance Expenses	2,738.70	2,933.94	2,843.71	3,082.37	
Depreciation	312.24	308.01	318.38	330.87	
Interest on Loan Capital	89.39	93.50	65.90	111.60	
Interest on Working					
Capital	-	-	-	-	
Interest on Consumer					
Security Deposit	563.21	414.00	591.38	434.70	
Other Finance Charges	-	-	-	-	
Provision for bad and					
doubtful debts	659.37	999.96	659.37	1,049.22	
Other Expenses	60.87	329.80	63.91	346.29	
Income Tax	-	-	-	-	
Intra-State Transmission					
Charges	6,009.51	6,009.51	6,036.77	6,036.77	
Incentives/Discounts	373.20	385.73	391.86	405.02	
Contribution to					
contingency reserves	18.53	17.41	19.06	20.02	

	FY 20)23-24	FY 20)24-25
Particulars		MTR		MTR
	MYT Order	Petition	MYT Order	Petition
Return on Equity Capital	255.77	216.54	262.76	218.31
Additional Surcharge				
Refund	-	180.00	-	180.00
Effect of sharing of				
gains/losses	-	-	-	-
Impact of payment to				
MPECS in future years	28.13	28.13	21.14	21.14
Opex Scheme	26.18	324.25	26.18	1,163.56
Incremental				
Consumption Rebate	426.45	426.45	548.77	548.77
Aggregate Revenue				
Requirement for				
Supply Business	76,116.48	87,835.32	78,668.77	91,397.35
Stabilisation amount as				
per MYT Order	5,585.00	5,585.00	7,017.00	7,017.00
Total Revenue				
Expenditure	81,701.48	93,420.32	85,685.77	98,414.35
Less				
Non-Tariff Income	439.60	333.86	461.59	350.55
Income from Additional				
Surcharge	112.63	112.63	109.46	109.46
Income from Trading of				
Surplus Power	363.02	-	386.30	
Net Aggregate Revenue				
Requirement	80,786.22	92,973.83	84,728.43	97,954.34
Revenue from sale of				
Power	91,883.00	90,422.16	95,927.00	92,354.58
Revenue from Retail				
supply Business	-	-	-	-
Revenue Gap/(Surplus)	(11,096.78)	2,551.67	(11,198.57)	5,599.76

Table 6-108: Aggregate Revenue Requirement for Wires + Supply Business, as submitted by MSEDCL (Rs. crore)

	FY20	023-24	FY 2024-25	
Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition
	Order	rennon	Order	rennon
Power Purchase Expenses				
(including Inter-State	64,554.9			
Transmission Charges)	2	75,168.09	66,819.60	77,448.70

	FY20)23-24	FY 2024-25		
Particulars	MYT	MTR	MYT	MTR	
	Order	Petition	Order	Petition	
Operation & Maintenance					
Expenses	7,824.87	8,382.69	8,124.87	8,806.78	
Depreciation	3,122.45	3,080.11	3,183.82	3,308.73	
Interest on Loan Capital	893.88	934.97	659.04	1,116.00	
Interest on Working Capital	145.69	138.35	145.64	163.35	
Interest on Consumer Security					
Deposit	625.79	460.00	657.08	483.00	
Other Finance Charges	-	-	-	-	
Provision for bad and doubtful					
debts	732.63	1,111.06	732.63	1,165.80	
Other Expenses	60.87	329.80	63.91	346.29	
Income Tax	-	-	-	-	
Intra-State Transmission Charges	6,009.51	6,009.51	6,036.77	6,036.77	
Incentives/Discounts	373.20	385.73	391.86	405.02	
Contribution to contingency					
reserves	185.35	174.06	190.57	200.22	
Opex Scheme	110.49	652.51	110.49	2,367.12	
Return on Equity Capital	2,334.28	1,976.27	2,398.04	1,992.41	
Additional Surcharge Refund	-	180.00	-	180.00	
Effect of sharing of gains/losses	-	-	-	-	
Impact of payment to MPECS in					
future years	28.13	28.13	21.14	21.14	
Incremental Consumption Rebate	426.45	426.45	548.77	548.77	
Aggregate Revenue	87,428.5			1,04,590.1	
Requirement	0	99,437.74	90,084.23	0	
Stabilisation amount as per MYT					
Order	5,585.00	5,585.00	7,017.00	7,017.00	
Total Aggregate Revenue	93,013.5	1,05,022.7	0	1,11,607.1	
Expenditure	0	4	97,101.23	0	
Less	420.50	222.25	461.50	252.55	
Non-Tariff Income	439.60	333.86	461.59	350.55	
Income from Open Access	21476	21476	216.60	016.60	
charges	214.76	214.76	216.60	216.60	
Income from Trading of Surplus	262.02		206.20		
Power	363.02	-	386.30	-	
Income from Wheeling charges	-	-	-	_	

	FY20	023-24	FY 2024-25	
Particulars	MYT	MTR	MYT	MTR
	Order	Petition	Order	Petition
Income from Additional				
Surcharge	112.63	112.63	109.46	109.46
Net Aggregate Revenue	91,883.4	1,04,361.4		1,10.930.4
Requirement	9	9	95,927.28	9
	91,883.0			
Revenue from sale of Power	0	90,422.16	95,927.00	92,354.58
Revenue from Retail supply				
Business	-	-	-	-
Revenue from Retail wires				
Business	-	-	-	-
Revenue Gap/(Surplus)	0.49	13,939.34	0.28	18,575.90

- 6.29.2 As elaborated in earlier paragraphs, the Commission has undertaken component-wise analysis of the ARRs for FY 2023-24 and FY 2024-25 in accordance with the Regulations, and has approved them as set out earlier.
- 6.29.3 On that basis, the ARRs determined for FY 2023-24 and FY 2024-25 as shown in the following Tables:

Table 6-109: Aggregate Revenue Requirement for Wires Business FY 2023-24, as approved by Commission (Rs. crore)

Particulars	MYT Order	MTR Petition	Approved in this Order
Operation & Maintenance Expenses	5,086.16	5,448.75	5,357.66
Depreciation	2,810.20	2,772.10	2,486.12
Interest on Loan Capital	804.49	841.52	743.55
Interest on Working Capital	145.69	138.35	125.75
Interest on deposit from Consumers and Distribution System Users	62.58	46.00	42.47
Other Finance Charges		-	
Provision for bad and doubtful debts	73.26	111.11	73.05
Opex schemes	84.31	328.25	44.23
Contribution to contingency reserves	166.81	156.66	-
Income Tax			
Return on Equity Capital	2,078.51	1,759.73	1,730.37
Aggregate Revenue Requirement	11,312.02	11,602.47	10,603.19
Aggregate Revenue Requirement from Distribution Wires	11,312.02	11,602.47	10,603.19

Table 6-110: Aggregate Revenue Requirement for Supply Business FY 2023-24 approved by the Commission (Rs. crore)

Particulars	MYT	MTR Petition	Approved in
Power Purchase Expenses	Order 64,555	75,168.09	this Order 72,645.22
Operation & Maintenance Expenses	2,739	2,934	2,885
Depreciation	312	308	2,883
Interest on Loan Capital	89.39	93.50	82.62
Interest on Working Capital	09.39	93.30	62.02
Interest on Consumer Security Deposit	563.21	414.00	382.20
Other Finance Charges	303.21	414.00	362.20
Provision for bad and doubtful debts	659.37	999.96	657.47
Other Expenses	60.87	329.80	60.87
Income Tax	00.87	329.60	00.87
Intra-State Transmission Charges	-		
MSLDC	6009.51	6,009.51	8,593.72
Incentives/Discounts	373.20	385.73	385.73
Contribution to contingency reserves	18.53	17.41	-
Return on Equity Capital	255.77	216.54	215.98
RLC refund		-	
Additional surcharge refund		180.00	180
Effect of sharing of gains/losses		-	
Past period adjustment by Commission		-	
Revenue gap recovery allowed	5,585.00	5,585.00	5,585.00
Impact of payment to MPECS in future years	28.13	28.13	28.13
Opex Scheme	26.18	324.25	98.72
Incremental Consumption Rebate	426.45	426.45	426.45
Total Revenue expenditure	81,701.48	93,420.33	92,444.74
Revenue from sales of Power	91,883	90,422	90,741.92
Non-Tariff Income	439.60	333.86	333.86
Income from Additional surcharges	112.63	112.63	112.63
Income from Wheeling charges			-
Income from open Access charge	214.76	214.76	214.76
Income from Trading of Surplus Power	363.02	-	-
Total Revenue	93,013.01	91,083.40	91,403.17
Revenue Gap	(11,311.53)	2,336.92	1,041.57

Table 6-111: Aggregate Revenue Requirement for Wires + Supply Business FY 2023-24, as approved by Commission (Rs. crore)

Particulars	MYT Order	MTR Petition	Approved in this Order
Power Purchase Expenses	64,554.92	75,168.09	72,645.22
Operation & Maintenance Expenses	7,824.87	8,382.69	8,242.55
Depreciation	3,122.45	3,080.11	2,762.36
Interest on Loan Capital	893.88	935.03	826.17

Particulars	MYT Order	MTR Petition	Approved in this Order
Interest on Working Capital	145.69	138.35	125.75
Interest on Consumer Security Deposit	625.79	460.00	424.66
Other Finance Charges	-		
Provision for bad and doubtful debts	732.63	1,111.06	730.52
Other Expenses	60.87	329.80	60.87
Income Tax			
Intra-State Transmission Charges MSLDC	6,009.51	6,009.51	8,593.72
Incentives/Discounts	373.20	385.73	385.73
Contribution to contingency reserves	185.35	174.06	-
Opex schemes	110.49	652.51	84.45
DSM Expenses	-		
Return on equity capital	2,334.28	1,976.27	1,946.35
RLC refund	-	-	-
Additional surcharge refund	-	180.00	180
Effect of sharing of gains/losses	-	-	-
Past period adjustment by Commission	-	-	-
Revenue gap recovery allowed	5,585.00	5,585.00	5,585.00
Impact of payment to MPECS in future years	28.13	28.13	28.13
Incremental Consumption Rebate	426.45	426.45	426.45
Aggregate Revenue Requirement	93,013.50	1,05,022.80	1,03,047.93
Revenue from sales of Power	91,883.00	90,422.16	90,741.92
Non-Tariff Income	439.60	333.86	333.86
Income from open Access charges	214.76	214.76	214.76
Income from Trading of Surplus Power	363.02	-	-
Income from Wheeling charges			
Income from Additional surcharges	112.63	112.63	112.63
Total Revenue	93,013.01	91,083.40	91,403.17
Revenue Gap	0.49	13,939.39	11,644.76

Table 6-112: Aggregate Revenue Requirement for Wires Business FY 2024-25, as approved by Commission (Rs. crore)

Particulars	MYT Order	MTR Petition	Approved in this Order
Operation & Maintenance Expenses	5,281.17	5,724.41	5,628.71
Depreciation	2,865.44	2,977.86	2,538.54
Interest on Loan Capital	593.13	1,004.45	603.10
Interest on Working Capital	145.64	163.35	127.18
Interest on deposit from Consumers and Distribution System Users	65.71	48.30	44.59
Other Finance Charges		-	

Particulars	MYT Order	MTR Petition	Approved in this Order
Provision for bad and doubtful debts	73.26	116.58	73.05
Opex schemes	84.31	1,203.56	80.23
Contribution to contingency reserves	171.52	180.20	-
Income Tax			
Return on Equity Capital	2,135.28	1,774.09	1,734.93
Aggregate Revenue Requirement	11,415.46	13,192.80	10,830.32
Aggregate Revenue Requirement from Distribution Wires	11,415.46	13,192.80	10,830.32

Table 6-113: Aggregate Revenue Requirement for Supply Business FY 2024-25 approved by the Commission (Rs. crore)

Particulars	MYT Order	MTR Petition	Approved in this Order
Power Purchase Expenses	66,820	77,448.70	73,628.95
Operation & Maintenance Expenses	2,844	3,082	3,031
Depreciation	318	331	282
Interest on Loan Capital	65.90	111.61	67.01
Interest on Working Capital	-	-	-
Interest on Consumer Security Deposit	591.38	434.70	401.31
Other Finance Charges		-	
Provision for bad and doubtful debts	659.37	1,049.22	657.47
Other Expenses	63.91	346.29	63.91
Income Tax	-		
Intra-State Transmission Charges MSLDC	6036.77	6,036.77	8,638.78
Incentives/Discounts	391.86	405.02	405.02
Contribution to contingency reserves	19.06	20.02	1
Return on Equity Capital	262.76	218.31	216.54
RLC refund		-	
Additional surcharge refund		180.00	180.00

Particulars	MYT Order	MTR Petition	Approved in this Order
Effect of sharing of gains/losses		-	
Past period adjustment by Commission		-	
Revenue gap recovery allowed	7,017.00	7,017.00	7,017.00
Impact of payment to MPECS in future years	21.14	21.14	21.14
Opex Scheme	26.18	1,163.56	40.23
Incremental Consumption Rebate	548.77	548.77	548.77
Total Revenue expenditure	85,685.77	98,414.36	95,199.03
Revenue from sales of Power	95,927	92,355	92,354.94
Non-Tariff Income	461.59	350.55	350.55
Income from Additional surcharges	109.46	109.46	109.46
Income from Wheeling charges			-
Income from open Access charge	216.60	216.60	216.60
Income from Trading of Surplus Power	386.30	-	-
Total Revenue	97,100.95	93,031.20	93,031.55
Revenue Gap	(11,415.18)	5,383.16	2,167.47

Table 6-114: Aggregate Revenue Requirement for Wires + Supply Business FY 2024-25, as approved by Commission (Rs. crore)

Particulars	MYT Order	MTR Petition	Approved in this Order	
Power Purchase Expenses	66,819.60	77,448.70	73,628.95	
Operation & Maintenance Expenses	8,124.87	8,806.78	8,659.55	
Depreciation	3,183.82	3,308.73	2,820.60	
Interest on Loan Capital	659.04	1,116.05	670.11	

Particulars	MYT Order	MTR Petition	Approved in this Order
Interest on Working Capital	145.64	163.35	127.18
Interest on Consumer Security Deposit	657.08	483.00	445.90
Other Finance Charges	-		
Provision for bad and doubtful debts	732.63	1,165.80	730.52
Other Expenses	63.91	346.29	63.91
Income Tax			
Intra-State Transmission Charges MSLDC	6,036.77	6,036.77	8,638.78
Incentives/Discounts	391.86	405.02	405.02
Contribution to contingency reserves	190.57	200.22	-
Opex schemes	110.49	2,367.12	120.45
DSM Expenses	-		
Return on equity capital	2,398.04	1,992.41	1,951.47
RLC refund	-	-	-
Additional surcharge refund	-	180.00	180.00
Effect of sharing of gains/losses	-	-	_
Past period adjustment by Commission	-	-	-
Revenue gap recovery allowed	7,017.00	7,017.00	7,017.00
Impact of payment to MPECS in future years	21.14	21.14	21.14
Incremental Consumption Rebate	548.77	548.77	548.77
Aggregate Revenue Requirement	97,101.23	1,11,607.15	1,06,029.35
Revenue from sales of Power	95,927.00	92,354.58	92,354.94
Non-Tariff Income	461.59	350.55	350.55
Income from open Access charges	216.60	216.60	216.60
Income from Trading of Surplus Power	386.30	-	-

Particulars	MYT Order	MTR Petition	Approved in this Order
Income from Wheeling charges			-
Income from Additional surcharges	109.46	109.46	109.46
Total Revenue	97,100.95	93,031.20	93,031.55
Revenue Gap	0.28	18,575.96	12,997.80

ADDITIONAL CLAIMS AND NET RECOVERY FROM TARIFF

6.30 Impact of Review Order

MSEDCL's Submission

- 6.30.1 MSEDCL had filed a Petition Case No. 84 of 2020 for seeking review of MYT Order 322 of 2019 dated 30th March 2020 regarding an error in the energy input considered for computing efficiency loss on account of increased distribution loss. MSEDCL has also claimed the carrying cost of total impact.
- 6.30.2 The following Table shows the net impact allowed to MSEDCL on account of sharing of loss of higher distribution loss form FY 2014-15 onwards.

Particulars	Amount (Rs. Crore)
Incremental Principal Amount to be allowed on account of revision in Impact of Sharing of Distribution Loss	432
Revised Holding Cost workings (now from FY 2014-15 to FY 2020-21; Earlier it was worked out from FY 2017-18 to FY 2020-21)	-187
Impact of Review Order	246

- 6.30.3 The Commission had allowed Income Tax of Rs. 215.08 Crore against Rs. 213.89 Crore approved in MYT Order for FY 2017-18, thereby allowing an additional claim of Rs. 1.18 Crore against Income Tax.
- 6.30.4 Further, MSEDCL has submitted its reconciliation regarding impact of payment to MPECS for FY 2017-18.
- 6.30.5 Accordingly, MSEDCL has claimed Rs. 247.44 Crore as an additional impact of Review Order dated 30th June 2020 in the present MTR petition.

Commission's Analysis & Ruling

6.30.6 The Commission vide its Order dated 30th June 2020 had allowed MSEDCL certain claims in the Review Order 84 of 2020.

- 6.30.7 The Commission admitted that there was an error in the energy input considered for various years for computing efficiency loss on account of increased Distribution Loss. Accordingly, the Commission has revised the computation of sharing of efficiency gain/loss on account of increased Distribution Loss. In addition to this, the Commission also determined the holding cost on MSEDCL's share of efficiency loss recalculated in review Order.
- 6.30.8 Further, the Commission had allowed additional claim of Rs. 1.18 Crore against Income Tax approved for FY 2017-18.
- 6.30.9 In the review Order in Case No. 84 of 2020 regarding the claim of MSEDCL on impact of payment to MPECS for FY 2017-18, the Commission has granted opportunity to MSEDCL to justify its claim (without carrying MERC Order Case No.84 of 2020) during MTR proceeding by filing reconciliation with Audited Account. In the current petition, MSEDCL has submitted "Statement showing the amount of Rent paid to MPECS and Deposit maintained with MERC against User charges for use of Assets of MPECS" as an annexure with the petition. From the annexure, the Commission observed that the claim of MSEDCL of Rs. 0.26 Crores as an impact of payment to MPECS for FY 2017-18 is valid and hence, it is approved in the current MTR order.
- 6.30.10Accordingly, the impact of review order allowed to MSEDCL in the current MTR order is as shown in table below:

Particulars	Amount (Rs. Crore)
Incremental Principal Amount to be allowed on account of revision in Impact of Sharing of Distribution Loss	432
Revised Holding Cost workings (now from FY 2014-15 to FY 2020-21; Earlier it was worked out from FY 2017-18 to FY 2020-21)	-187
Additional claim as against income tax for FY 2017-18	1.18
Impact of payment to MPECS for FY 2017-18	0.26
Impact of Review Order	247.44

6.30.11. Accordingly, the Commission approves Rs. 247.44 Crore as a net impact of review Order in Case No. 84 of 2020 in the current MTR Order.

6.31 Carrying Cost in previous Gap and other Claims

MSEDCL's Submission

6.31.1 MSEDCL requested the Commission to allow the carrying cost on the previous gaps.

- 6.31.2 MSEDCL further submitted that the APTEL, New Delhi in its Judgement dated 8th April, 2015 in the matter of Reliance Infrastructure Limited Vs MERC and others, the APTEL has ruled that the carrying cost should be calculated for the period from the middle of the financial year in which the revenue gap had occurred upto the middle of the financial year in which the recovery has been proposed. This is because the expenditure is incurred throughout the year and its recovery is also spread out throughout the year.
- 6.31.3 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.
- 6.31.4 MSEDCL further submitted that, the Commission in MYT Order followed the similar principle. Accordingly, MSEDCL requested the Commission to allow the carrying cost on same principle so as to avoid any legitimate revenue loss.
- 6.31.5 MSEDCL submitted details of carrying cost on the revenue gap of FY 2019- 20 to FY 2022-23 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 6-115: Carrying Cost against regulatory assets and past gaps as submitted by MSEDCL

Particulars	FY 2019- 20	FY 2020-21	FY 2021-22	FY 2022-23	Total
Impact of Review Order		247.44			
Revenue Gap	11,515	5,932	8,151	548	
Total	11,515.64	6,179.93	8,151.12	548.09	
			•		
Interest Rate	9.66%	8.57%	8.50%	9.55%	9.55%
From	01-10- 2019	01-10-2020	01-10-2021	01-10-2022	
То	31-03- 2023	31-03-2023	31-03-2023	31-03-2023	
			•		
FY 2019-20	556.02				
FY 2020-21	987.19	264.89			
FY 2021-22	978.78	525.29	346.42		
FY 2022-23	1,099.74	590.18	778.43		

Particulars	FY 2019- 20	FY 2020-21	FY 2021-22	FY 2022-23	Total
Total	3,621.64	1,380.37	1,124.86	-	6,127.01

Commission's Analysis & Ruling

- 6.31.6 The MSEDCL has claimed carrying cost on revenue gap arising from Truing-up requirement as submitted in the present MTR Petition for the years FY 2019-20, FY 2020-21 and FY 2021-22 and provisional True-up of FY 2022-23. The resultant carrying cost has been spread over all the years of the control period.
- 6.31.7 Commission has verified the computations submitted by MSEDCL and has re computed the allowable carrying cost.
- 6.31.8 The carrying cost allowed by the Commission for FY 2019-20, FY 2020-21 and FY 2021-22 as shown in the Table below:

Table 6-116: Carrying Cost against regulatory assets and past gaps as allowed by the Commission

		the Commission			
Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	Total
Impact of Review		247.44			
Order		247.44			
Revenue Gap	9,309	1,602	4,146	-6,241	
Total	9,308.75	1,849.28	4,145.81	-6,240.59	
Interest Rate	9.66%	8.57%	8.50%	9.55%	9.55%
From	01-10-2019	01-10-2020	01-10-2021	01-10-2022	
То	31-03-2023	31-03-2023	31-03-2023	31-03-2023	
FY 2019-20	449.48				
FY 2020-21	798.00	79.27			
FY 2021-22	791.24	157.19	176.20		
FY 2022-23	888.99	176.61	395.93		
Total	2,927.71	413.06	572.12	-	3,913

6.32 Carrying Cost on unrecovered revenue gap

MSEDCL's Submission

6.32.1 MSEDCL submitted the computation of carrying cost on the unrecovered revenue gap as shown in following table.

Table 6-117: Carrying Cost on Unrecovered Revenue Gap submitted by MSEDCL

Revenue Recovery	Formula	FY 2023-24	FY 2024-25	Total
Total Revenue Gap for previous	a	26,394	14,101	
years				
Revenue Gap for current year	b	13,939	18,576	32,515
Total Revenue Gap upto current	c=a+b	40,334	32,677	
year				
Net Revenue Gap upto current	d	40,334	32,677	
year				
Recovery from Tariff hike	e	-26,233	-41,448	67,680
Revenue gap to be carried	f=d+e	14,101	-8,771	
forward				
Interest Rate	g	9.55%	9.55%	
Carrying Cost on unrecovered	h=a*g	1,260	1,347	2,607
Gap				
Carrying Cost on previous claims	i	6,127	-	
till FY 22-23				
Total Carrying Cost	j=h+i	7,387	1,347	8,734

Commission's Analysis & Ruling

- 6.32.2 The carrying cost on the Revenue gap for FY 2023-24 and FY 2024-25 resulting from revenue gap for past years from FY 2019-20 to FY 2022-23 has been spread by carrying forward the net revenue gap/surplus considering the recovery at existing rates and the incremental recovery from the hike in tariff proposed by MSEDCL.
- 6.32.3 Based on the tariff approved the in the current order the carrying cost on revenue gap carried forward in the future years of the control period as computed by the Commission for approval is given in the Table below:

Table 6-118: Carrying Cost on Unrecovered Revenue Gap approved by the Commission

Revenue Recovery	Formula	FY 2023-24	FY 2024-25	Total
Total Revenue Gap for previous	a	9,063	4,460	
years				
Revenue Gap for current year	b	11,645	12,998	24,643
Total Revenue Gap upto	c=a+b			
current year		20,708	17,458	
Net Revenue Gap upto current	d			
year		20,708	17,458	
Recovery from Tariff hike	e	-16,248	-23,327	-39,575
Revenue gap to be carried	f=d+e		-5,869	
forward		4,460		
Interest Rate	g	9.55%	9.55%	

Carrying Cost on unrecovered	h=a*g			
Gap	_	433	426	859
Carrying Cost on previous claims	i			
till FY 22-23		3,913		
Total Comming Cost	j=h+i			
Total Carrying Cost		4,346	426	4,772

6.33 Impact of Revenue Gap of MSPGCL Tariff Order

- 6.33.1 The Commission has performed the truing of FY 2019-20, FY 2020-21, and FY 2021-22, and Provisional truing up of FY 2022-23, as part of its MSPGCL MTR Order in Case No. 227 of 2022.
- 6.33.2 The impact of the same works out to a Gap of Rs. 1090.37 Crore. Accordingly, the Commission has considered the same to be allowed to MSEDCL as part of the Revenue Gap.

6.34 Net Recovery from Tariff

MSEDCL's Submission

6.34.1 MSEDCL has computed the net recovery from tariff as shown in following table.

Particulars	Amount Rs. Crore
Final True Up Requirement for FY 2019-20	11,515
Final True Up Requirement for FY 2020-21	5,932
Final True Up Requirement for FY 2021-22	8,151
Provisional True Up Requirement/Revenue Gap for FY 2022-23	548
Revenue Gap for FY 2023-24	13,939
Revenue Gap for FY 2024-25	18,576
Impact of Review Order (MYT Order)	247
Carrying Cost for previous gaps/impact and unrecovered gaps during Control Period	8,734
Total Revenue Gap for the MYT Period	67,643
Total Recovery	67,643

Commission's Analysis & Ruling

6.34.2 Based on the above rulings the net recovery of tariff as computed by the Commission to be approved in this order is as given in the table below:

Table 6-119: Net Recovery of Tariff as approved by the Commission

Particulars	MTR Petition	Approved in the Order
Final True Up Requirement for FY 2019-20	11,515	9,308.75

Final True Up Requirement for FY 2020-21	5,932	1,601.84
Final True Up Requirement for FY 2021-22	8,151	4,145.81
Provisional True Up Requirement/Revenue Gap for FY 2022- 23	548	(6,240.59)
Revenue Gap for FY 2023-24	13,939	11,644.27
Revenue Gap for FY 2024-25	18,576	12,997.52
Impact of Review Order (MYT Order)	247	247
Impact of true up of MSPGCL from FY 2019-20 to FY 2022-23		1,090.37
Carrying Cost for previous gaps/impact and unrecovered gaps during Control Period	8,734	4,771.60
Total Revenue Gap for the MYT Period	67,643	39,567
Total Recovery	67,643	39,567

6.34.3 From above Table, it can be observed that, the overall Cumulative Revenue Gap is Rs. 39,567 Crore as against the claim of MSEDCL of Rs. 67,643 Crore. The standalone revenue gap is Rs. 11,644 Crore for FY 2023-24 and Rs. 12,997.52 Crore for FY 2024-25. The remaining revenue gap recovery of Rs. 14,925 Crores is spread over for 2 years i.e., FY 2023-24 and FY 2024-25.

7 TARIFF PHILOSOPHY, TARIFF DESIGN AND CATEGORY-WISE TARIFFS FROM FY 2023-24 TO FY 2024-25

7.1 Overall Approach for Tariff Design

- 7.1.1 The Commission has kept in view the main objects of the Electricity Act, 2003 ("EA, 2003"), as set out in its Preamble, including the protection of the interest of consumers, the supply of electricity to all areas, promoting reliability, encouraging factors that would improve collection efficiency and the rationalisation of tariffs. The EA, 2003 also enjoins the Commission to maintain a healthy balance between the interest of the Utilities and the reasonableness of the cost of power being supplied to consumers. The Commission has also kept in view the principles of tariff determination set out in Sections 61 and Section 62 of the EA, 2003, the Tariff Policy, 2016 and the MYT Regulations, 2019, and also taken into considerations MSEDCL's submissions as well as the Public responses in these MTR proceedings.
- 7.1.2 The provision of electricity is an essential driver for development and influences social and economic change. The Commission has endeavoured to ensure that, industry and commerce is promoted, and at the same time interest of various consumer segments of society is protected. The Commission has also sought to ensure regulatory consistency for all stakeholders and a reasonable return for the Licensee.
- 7.1.3 Apart from tariff levels, the complexity of the tariff structure plays an important role in building transparency and limiting the discretionary power of Distribution Licensees (Discoms). A simpler tariff structure helps easy understanding by consumers and on the other hand, creation of many different categories gives discretionary power to Discoms while charging tariffs.
- 7.1.4 It is felt that the complexity in the tariff structure across the State needs to be reduced and accordingly efforts are required to simplify and rationalize the tariff structure, and also to make it harmonious across States.
- 7.1.5 As a progressive step towards simpler and rationalized tariff structure, in the MYT Order the Commission had reduced the number of categories from the existing tariff structure prevalent then. The efforts for rationalisation of tariff categories and slabs shall continue, however, as part of the Mid Term Review process, the Commission has retained the existing tariff categorisation and slabs as notified under MYT Order. However, the reclassification of certain category of consumers into the categories or clarifications for applicability of tariff category for certain class of consumers have been incorporated in this MTR Order upon considering the objections, comments and suggestions received through public consultation process as also upon scrutiny of submissions made by MSEDCL in this respect. The proposed categorisation and clarifications regarding classification of certain

consumer class, as elaborated in subsequent sections at Para 7.22 to para 7.24 of the Order.

7.1.6 Further, the Commission notes that Hon'ble APTEL, vide its Order in Appeal No. 106 of 2008, has ruled that the Commission has the power to design the tariff as per its own wisdom. It also mentions that the Commission does not need to seek public comments before announcement of the tariff. The relevant part of the APTEL Order in Appeal No. 106 of 2008 is reproduced below:

"

- 14) It is not the case of the appellant that the Commission had no power to create a tariff design different from the one proposed by the licensee. The Commission has the power to design the tariff as per its own wisdom. The Commission need not, before issuing the actual order, publicly announce the tariff it proposed and call for public comments. In fact this is not even the appellant's contention.
- 15) The rule of natural justice requires the Commission to issue a public notice about the ARR and Tariff petition of the licensee and to allow the public to make its submissions on the ARR and Tariff proposals. The Commission has, thereafter, to design the scheme for recovery of the ARR keeping in view various relevant factors. If the classification of the consumers can be supported on any of the grounds mentioned in section 62(3) it would not be proper to say that the tariff fixing was violative of principles of natural justice because the Commission did not issue a public notice of the tariff categories which the Commission had intended to create."
- 7.1.7 In view of above judgement, the Commission is proceeding with its intended approach of reducing the number of categories and slabs by merging similarly placed consumer categories while ensuring that the existing consumers in these categories are not significantly impacted.
- 7.1.8 In the last MYT Order in Case 322 of 2019, the Commission had addressed issues pertaining to change in definition of billing demand, changes in the methodology for computation of load factor incentives and creation of stabilizing mechanism for the variation on account of FAC in consumer bills. Similar approach and the conditions as outlined under MYT Order has been continued during MTR process as well with minor modifications, to ensure continuity and regulatory certainty in this respect.
- 7.1.9 Further, in line with the intentions of the Commission expressed in the last MYT Order in Case No. 322 of 2019, the Commission had introduced implementation of the kVAh based billing for all the HT Consumers of MSEDCL and had proposed to introduce the same for LT category consumers (above 20 kW) during MTR process upon review of preparedness of MSEDCL to introduce the same. The

Commission expresses its displeasure that MSEDCL has not completed exercise of kVAh meter installation and other system modifications for LT consumers (above 20 kW) to enable kVAh Metering for such consumers despite clear target for implementation specified in the last MYT Order in Case No. 322 of 2019. The Commission partly attributes this delay to the Covid-19 pandemic which impacted normal operations of MSEDCL. The Commission hereby directs that MSEDCL should complete this exercise within one year from date of issuance of this Order and also submit six monthly status report. The kVAh based meter data for LT category (above 20 kW) would be available for period of at least one year before next tariff exercise. Accordingly, MSEDCL should submit next Tariff Petition with applicability of kVAh metering/tariff for LT category (above 20 kW).

7.1.10 Some of the main tariff-related features of this Order are summarized below:

A] Reduction in Cross-subsidy with minimal increase in Tariff for Industries and Commercial categories:

- 7.1.11 The Commission has taken note of the views expressed during the public consultation process that the MSEDCL tariff for industries is considerably higher than that of industries in neighbouring States. The price of electricity, both in absolute and in relative terms, is an important factor in the competitiveness of industry. With the increase in availability of power (generation) in the State, a robust transmission network for a reliable supply, the Commission deems it fit to reduce the overall cross-subsidy with overall reduction in the Energy Charges (incl. FAC) and marginal increase in Fixed Charges. Further, the Commission has introduced kVAh based metering/billing for HT consumer categories in the 4th Control Period. Besides, Fuel Cost Adjustment as prevalent on the date of issuance of the Order is also merged into Energy Charge and accordingly, there is marginal reduction in Energy Charge for these consumers as against prevalent Tariff component of Energy Charge including FAC component. In addition, the Commission has continued the concessions on billing demand for steel and Ferro alloy industries and has retained the Rebate on incremental consumption and Bulk Supply Rebate linked to consumption (with a reverse telescopic slabsmodified), that was introduced under MYT Order for HT category, which would further benefit such industrial and commercial category consumers, subject to stipulated conditions.
- 7.1.12 The Commission has ensured that Tariff for Commercial category consumers (HT and LT) is actually reduced as compared to prevalent Tariff including FAC. Further, the Commission has ensured that the cross-subsidy from these consumer categories is reduced or maintained every year over the remaining period of the 4th Control Period (i.e. FY2023-24 and FY2024-25).

- 7.1.13 Further, the Commission in this Order has introduced the concept of incremental consumption rebate at the rate of Rs 0.75/kWh for LT categories, which would benefit most of LT consumers and more specifically LT-Industrial consumers including Powerloom consumers and LT-Commercial category, LT-Public Service and LT-Public Water Works consumers as well, as outlined under subsequent paragraphs of this Order.
- 7.1.14 It is envisaged that the overall average price of electricity for HT-industry would be would marginally increase than the prevailing prices, and that the ABR for HT industry would marginally increase by around 1%, whereas in case of LT-Industry the average price of electricity and ABR would actually reduce by around 1%. Further, in case of commercial category (HT and LT), the average price of electricity and ABR for these categories would reduce by around 1% during FY2023-24. In addition, the Commission has introduced concept of Rebate on incremental consumption for specified LT Categories incl. LT-Industry and LT-Commercial, above threshold value to promote additional consumption which will benefit utilisation of stranded capacity and incremental revenue earned by Utility through such measure would in turn benefit all consumers at large. The Commission has also retained the incremental consumption rebate and bulk Supply rebate, as introduced under MYT Order for HT categories. Such rebate would also be available for partial open access consumers and to new consumers added into the system, subject to conditions as stipulated.

B] Tariff for domestic category:

- 7.1.15 With measures initiated in terms of cross-subsidy rationalisation during MYT Order, the tariff for domestic category is now close to ACoS, which needs to be maintained. With significant increase in overall average cost of supply, the increase in tariff for various categories is inevitable. Thus, the Commission has increased the Energy Charges for domestic/residential consumers but has ensured that such revision in Energy Charges is minimal particularly for consumers with consumption below 100 units per month, with marginal increase in Fixed Charges for all the consumers. Further, the Commission has retained the benefit of telescopic slabs, which will benefit all domestic consumers.
- 7.1.16 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.

C] Protecting the interest of Powerloom industry:

7.1.17 During the proceedings, the Commission has received a number of suggestions for relaxation in tariff rise for Powerlooms considering present economic state of their operations. It is understood that, out of 24 lakh Powerlooms in India, around 8 lakh are in Maharashtra. These provide direct employment opportunities for nearly 10 lakh persons and around 50 lakh persons are dependent on the Powerloom business. During, the MYT Order the Commission had merged LT-Industry(General) and LT-Industry (Powerloom) sub-categories, however, lower tariff (discount/rebate) of (2.5%) was made applicable in Energy Charge Component (including FAC, if applicable) of Tariff for both slabs (<20 kW and > 20 kW) for Powerloom as against approved Energy Charge Component of Tariff applicable for respective slabs under LT-Industry. The same discount in Energy Charge (incl. FAC, if applicable) shall continue to be applicable for LT-Industry (Powerloom) during remaining period of 4th Control Period (i.e., FY 2023-24 and FY 2024-25). In addition, under this MTR Order, the Commission has introduced concept of incremental consumption rebate of Rs 0.75/kWh for specified LT categories including LT-Industry, which would also be available for Powerloom industry and would reduce burden on such consumers in case of increased consumption over the threshold baseline limit. The formulation for determination of threshold baseline limit is elaborated under subsequent paragraphs of this Order.

F] Domestic Water Supply and Water ATMs

- 7.1.18 Considering the difficulties and challenges faced with regard to providing adequate water, particularly Rural Water Supply schemes in the rural areas, Public Water Works need to be facilitated and the tariff for this category has been maintained below the ACoS.
- 7.1.19 The Commission notes that Water ATMs (RO/UV/UF)', has been initiated in remote areas of Vidarbha where there is severe water scarcity or flow of contaminated water. The Commission has approved 'Water ATM (RO/UV/UF) Water Purifier Plants which are operated by Gram panchayat / local body or women's self-help groups under LT Public Water Works category so that benefit of lower tariff would be available to all such 'Water ATMs'.

G] Metro / MonoRail/Railways

7.1.20 The Commission notes the ongoing development of Metro rail services in Maharashtra as a means of mass public transportation. Under earlier MTR Orders, the Tariff for such public transportation services (including Railway traction) was kept below the HT-Industrial tariff around ACoS at the time of MYT Order. While there has been significant increase in average cost of supply, the increase in tariff is inevitable, however, the Commission has ensured that such increase is only

marginal around 1%. Further, the Commission has continued with its earlier approach of maintaining lower Energy Charge for this category than that applicable for industrial category, in this order as well. Thus, the Commission has ensured that the Tariff/Energy Component of Tariff is below that applicable for HT-Industry category.

H] Payment discipline:

- 7.1.21 Based on the statistics presented by MSEDCL, the Commission notes that in respect of few consumer categories (viz. LT-AG, LT-PWW and LT-Streetlight), the collection efficiency is far lower and share of increment in yr-to-yr receivables is significantly higher. Tariff (Average Billing Rate) for these consumer categories is also below Average Cost of Supply thereby resulting in significant burden on cashflow of Utility and impacts all consumer segments in the long run. The Commission is concerned about the persistent delays in payments/ part payment by few consumers in these categories. While the issue of metering/billing for LT-Ag being addressed separately, there is need to remedy the situation and encourage these consumer categories for timely payment of bills as well as for liquidation of its arrears. In order to encourage the same, during the MYT Order, the Commission introduced consistent payment rebate of 1% to the consumers in these three categories for consistently making payments within due date. Under MTR Order the Commission rules to continue with such consistent payment rebate for LT-PWW and LT-Streetlight at 1% and enhances the rebate to 5% in case to LT-AG.
- 7.1.22 Such rebate would be monitored and offered on quarterly basis to only those consumers upon maintaining regular payment track record with the Utility. For example, if consumer makes regular payment of its monthly bill within due date during previous quarter then, such consumer shall be entitled to a rebate of 1% in its next monthly bill amount (excluding taxes and duties) for the subsequent quarter. In case of any default or non-adherence to bill payment within due date in previous quarter, such benefit of rebate shall be withdrawn for the full next billing quarter. However, the consumer shall be entitled to rebate in subsequent quarters in case it maintains payment track record within due date in the previous quarter. In case of consumer having quarterly billing, such scheme shall be monitored on six monthly basis and rebate shall be given in next quarterly bill.

I] Rebate for Advance Payment and Rebate for Pre-paid Meters:

7.1.23 During public hearing several consumers/objectors/stakeholders have expressed the need to avail facility of advance payment/pre-payment, if enabled so as to avail rebate/discount on billed amount. On the other hand, the Commission also observes that MSEDCL borrows funds to meet its working capital requirement and the allowable interest on such working capital is Base Rate (i.e. One year MCLR of SBI) plus 150 basis points. Thus, if advance payment is made by any consumer, it

- would help the cash flows of MSEDCL and support to part fund the working capital requirement of MSEDCL.
- 7.1.24 Thus, the Commission has allowed the advance payment/pre-payment of the bills for consumers for amount not exceeding 12 times average monthly bill for the past twelve months. Such facility shall be available for non-defaulting consumers as per their payment record for past 12 months. Such consumers shall be eligible to avail discount in graded manner on their monthly bills as per mechanism stipulated under subsequent paragraphs of this Order, so long as they maintain advance payment amount with Utility.
- 7.1.25 Further, the Commission notes that Rebate for pre-paid meter was introduced mainly to arrest the defaults in case of post-paid meter connections in areas where such defaults, thefts, commercial loss level are high. The Commission agrees with MSEDCL's suggestion to reduce the rebate from 5% to 2% in case of pre-paid meter connections.

J] Agriculture Metering and Billing:

- 7.1.26 As per Section 55 of the EA, 2003, Licensees are required to supply power to all consumers through correct meters. However, after even more than a decade, as many as 15 lakh out of 42 lakh (around 35%) agricultural consumers are being supplied through un-metered connections. Further, even in case of metered consumers, dismal state of metering and billing (compared to utility records, meters are present only 27% of metered AG consumers) has been highlighted by AG Working Group in its Report. Under the circumstance, an interim innovative approach using Feeder input based AG group metering and billing scheme will have to be adopted in future. Thus, under MYT Order in Case 322 of 2019, the Commission introduced such approach for implementation for 502 sample feeders that were selected for the study by AG Working Group constituted by the Commission, since the AMR/MRI feeder meter data and mapping of consumers/DTCs, indexing of AG/Non-AG consumers and framework for technical loss assessment on these feeders is already in place. Further, the Commission had specified condition that the billing based on Feeder input based Group metering scheme for identified 502 sample feeder shall be subject to ceiling of 3000 hours/HP/annum. Any shortfall/excess in billing in terms of 750 hours/HP/quarter shall be adjusted in subsequent quarters subject to ceiling of 3000 hours/HP/annum on fiscal yearly basis.
- 7.1.27 During the public hearing as well as through written submissions, some of the metered agriculture consumers connected on these identified 502 feeders have highlighted that they should be billed as per their meter reading as their meter records a lower consumption than the AG Index applicable for such feeder. The Commission observes that billing in case of metered connection in case of such

identified feeders would be appropriate, however, through extensive field survey of these feeders and as highlighted by AG Working Group in their Report, the Commission has noticed several discrepancies regarding meter data of the metered connections as available on record vis-à-vis ground reality with faulty meters, meter non-functional, meter not found on ground etc. Under the circumstances, the Commission opines that ample checks should be put in place to avoid mis-use/mis-representation of metered data for consumer billing purpose while addressing concerns of the metered AG consumers on such identified feeders. Accordingly, the Commission allows the billing for Metered AG connections on such identified 502 feeders subject to following conditions:

- a) This facility for billing in case of Metered AG connections on identified feeders shall be applicable in case of AG connections with static/electronic meter only. This billing arrangement shall not be applicable in case of electromechanical meters. This is to ensure correctness of metered consumption.
- b) Reading of the consumer meter is responsibility of MSEDCL. Bill should be based on reading taken through Photo Meter reading system only. Option of submitting photo of meter shall be made available to consumer.

While determining AG Index for the feeder, MSEDCL shall deduct the metered consumption of such consumers as well as deduct the connected load of such consumers for the purpose of determination of AG Index for the feeder.

- 7.1.28 For extending such Feeder based Group metering/billing scheme for all AG consumers across state would require detailed exercise of ensuring regular availability of AMR/MRI data for all feeders, addressing CT/PT errors, communication errors, mapping/indexing of consumers on feeders/DTCs, assessment of technical loss levels on these feeders, validating/updating records through field study and putting in place protocol for publishing feeder-wise energy accounting data in transparent manner in public domain. As part of MYT Order, the Commission had directed MSEDCL to submit roadmap and timebound action plan for undertaking such exercise within two months from issuance of the MYT Order. This exercise and progress on the same will be an important parameter for analysing the AG consumption for the two ensuing years. In their own interest, MSEDCL is advised to address and comply with this issue in mission mode.
- 7.1.29 In this context, the Commission observes that MSEDCL submitted the Roadmap for implementation of Feeder input based methodology after much delay in Feb 2021 albeit some delays is attributed to COVID-19 and lockdown situation prevalent then. Further, the Commission has noted that the plan and tendering activity for providing meters with AMR facilities for DTs of selected 502 Ag feeders is still under process. Under the circumstances, verification, validation of the data and addition of any further sample feeders for review of AG Index for FY2020-21 and FY2021-22 would not be

- appropriate without adopting all necessary steps/checks as outlined under para 4.2.20 to para 4.2.26 as outlined under MYT Order in Case 322 of 2019.
- 7.1.30 Further, the Commission noted from the additional submission of MSEDCL dated 17th Mar 2023 (which has come about much after conclusion of the public hearing/consultation process) and under relevant paragraphs of this Order regarding true-up, the Commission has expressed its views and rationale for non-consideration of such additional submission at this stage. However, the Commission would like to highlight an important point which is relevant in this context and hence relevant extract of the MSEDCL's submission is reproduced hereunder:

'During a Technical Validation session (TVS) before admitting the MTR Petition, the Hon'ble Commission directed the Petitioner to submit Ag sale calculations based on the index of Hon'ble MERC-selected feeders. The Petitioner followed this directive and used the approved feeder input-based methodology for the MERC-selected feeders. However, it is submitted that a significant discrepancy was observed between the actual billed sale and the estimated sale. As a result, the Petitioner also conducted an analysis of feeders not selected by Hon'ble MERC, using actual data and identified other sample feeders in accordance with the methodology provided by Hon'ble Commission in its Order. The Petitioner then determined the Agriculture Sale based on the index derived from these additional feeders.'(emphasis added)

- 7.1.31 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 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. The Commission observes that these 502 feeders were so selected upon extensive exercise of field survey, mapping of DTs and AG consumers and connected load thereon based on rigorous stratified random sample-based feeder selection approach. Any addition to the sample feeders will have to strictly follow all the steps outlined under MYT Order in Case 322 of 2019 and part substitution/replacement such identified 502 feeders of without valid reasons/justification is not envisaged. The representative was a part of all the Working group deliberations and was in agreement of the methodology adopted by the Commission while choosing these 502 feeders. The Commission also noted that MSEDCL has not provided any reasons/justification for the discrepancy noted and non-consideration of 502 sample feeders (partly or otherwise) as covered at the time of MYT Order.
- 7.1.32 The Commission hereby reiterates its directions given under MYT Order in Case 322 of 2019 regarding Feeder Input based AG sales estimation as outlined under para 4.2.20 to para 4.2.26 of said MYT Order and directs MSEDCL to strictly follow the same for

estimation of AG Sales and submit Action taken Report alongwith supporting data at the time of next tariff revision exercise.

- 7.1.33 Meanwhile, existing practice of HP based Tariff in case of un-metered AG consumers and meter based Tariff for metered AG consumers (as per prevalent classification of zones) will have to be continued for some time for all other AG consumers connected on Feeders other than identified 502 feeders, subject to approval of Feeder input based group metering scheme to cover all remaining feeders for the purpose of AG metering and billing. Once the feeder input based group metering scheme is operationalised to cover all such feeders as per roadmap to be approved, need for continuation of HP based Tariff for un-metered AG consumers or zone-based classification would not arise.
- 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.

K] Introduction of Feeder-wise Incentive/Dis-incentive for AG Consumers linked to Feeder level AT&C loss:

- 7.1.35 Distribution loss and collection efficiency has always been a major concern for Utility as well as for consumers, as voiced during public hearings. Higher distribution loss and lower collection efficiency affects the Utility cashflow, which ultimately affects consumers in terms of quality and reliability of supply apart from higher tariff to share burden of such inefficient/ sub-optimal performance on these important controllable performance parameters. Also, these two factors put additional burden on the consumers who are not responsible for the same. As highlighted in subsequent paragraphs, the Commission notes that for over 320 Feeders out of 502 sample AG feeders identified for AG index computations have reported loss level in excess of 20% and as per MSEDCL's submissions in MTR Petition, average collection efficiency from Agriculture consumers is below 60%, which means that the AT&C loss levels for the Feeder with AG dominant load is reported in excess of 50%.
- 7.1.36 The Commission opines that it is important that Feeder based AT&C loss levels should be closely monitored and corrective measures should be taken for improvement in this important performance parameter. However, setting the target and monitoring performance is necessary step but it would not be sufficient unless

it is accompanied by specific measures to encourage improvement in collection efficiency and disincentivise poor performance. Licensee and consumers, both can play important role in addressing this challenge. Though the Regulatory Accounting for the Distribution Licensees is on accrual basis, the high level of AT&C losses and inefficiency in receivables adversely impacts the cash flow and the functioning of the Distribution Licensee. All the consumers are required to bear effects of these systemic inefficiencies.

- 7.1.37 In this context, the Commission observes that there are large variations in performance on this important parameter of AT&C loss across circles/divisions and different feeders. Hence, there is need to introduce incentive/dis-incentive mechanism for active consumer participation in measures to identify and improve AT&C loss performance at feeder level. In this context, the Commission notes the judgment of Hon'ble Bombay High court dated 11 Feb 2004, which has upheld levy of T&D loss charge, linked to T&D loss level in the past.
- 7.1.38 Further, the Commission also notes that in the past, load shedding protocol or reliability charge measures were implemented based on Division wise Distribution Loss and Collection Efficiency. However, with surplus power situation in the State, Load Shedding is no more relevant and hence, Distribution Loss is no longer relevant for consumers as irrespective of loss level, consumer are not subjected to load shedding or there is no differentiation in tariff approved by the Commission. In order to create social awareness about the AT&C losses at Feeder level, particularly for Feeders with AG dominant load, there is an option of introducing incentive/disincentive mechanism linked to AT&C Loss level at Feeder level.
- 7.1.39 Under this mechanism AG consumers with AT&C losses above threshold limit-1 (say, AT&C loss level of 40%) shall be subjected to 100% AG tariff hike as approved in MTR Order and those AG Consumers connected to Feeders having AT&C loss level above threshold limit-2 (say, AT&C loss level of 30%) but below threshold limit-1 (i.e. AT&C loss level of 40%) shall be subjected to AG tariff hike of 50% as approved in MTR Order (i.e. such AG consumers shall receive discount of Rs 0.10 per unit or Rs 100/HP/month) as approved in this MTR Order and those AG Consumers connected to Feeders having AT&C loss level below threshold limit-2 (say, AT&C loss level < 30%) shall be entitled to receive discount (i.e. such AG consumers shall receive discount of Rs 0.20 per unit or Rs 200/HP/month) as approved in this MTR Order to any tariff hike as approved in MTR Order.
- 7.1.40 The Commission is aware that the situation can improve, with the proactive participation of the consumers and thus expects co-operation from the consumers. In order to garner support of consumers to achieve the envisaged AT&C loss reduction trajectory and improvement in its collection efficiency, the Commission has introduced such tariff differential for LT-AG consumers linked to AT&C loss level at Feeder level. The Commission hereby directs MSEDCL to submit list of

AG dominant feeders with their AT&C loss levels during FY2022-23 alongwith operational modalities for implementation of such differential Tariff for AG consumers, within three months from date of issuance of the Order and also provide wide publicity for same including publishing the same on its website to implement this arrangement. As MSEDCL follows quarterly billing cycle in case of AG consumers, the Commission does not foresee any difficulty in implementation of this directive after six months from date of issuance of this Order (i.e. from third quarter) of FY 2023-24 itself. Depending on the scrutiny and review of performance of such measures, the Commission shall revisit and/or modify such differential tariff treatment for LT-AG consumers linked to Feeder level AT&C loss during next Tariff revision exercise.

L] Advice to State Government on subsidy to Agriculture consumers:

- 7.1.41 The Commission recognises the need to provide support to the Agriculture sector. Therefore, it has consistently kept the tariff for Agricultural consumers very low as compared to the ACoS. The Commission is aware of the fact that the policies mandate that the cross subsidy in tariffs between the categories need to be gradually reduced and finally brought in the range of +/- 20%. There has been significant increase in average cost of supply, hence, the hike in tariff is inevitable. However, in this MTR Order, the Commission has strived to gradually reduce the crosssubsidy from 50% of ACoS to around 55% of ACoS in FY2023-24 and to around 60% of ACoS in FY2024-25 with increase in tariff for Agriculture. Further, the Commission opines that there is need to review the agriculture tariff design with linkages to cropping pattern, type of crop, agriculture land area coverage, geographic diversity, apart from connected load and agriculture pump set capacity. During the next tariff exercise for next Control Period, MSEDCL shall propose tariff for Agriculture consumers based on these parameters so that it can be finally decided after due public consultation process. MSEDCL may carry out a detail study and thereafter submit such proposal detailing all the pros and cons of the same. Thus, MSEDCL, may consult State Government and shall propose the revision/restructure in tariff design to be applicable for Agriculture consumers during next tariff revision exercise.
- 7.1.42 In addition, GoM is providing a substantial subsidy against even this lower tariff (determined by the Commission) under Section 65 of the EA, 2003. The Commission has noticed that despite the subsidy the residual recovery from the Agriculture sector is low as only part of the billed amount is recovered leading to increase in arrears. Agriculture consumption is approximately 28% of total electricity sales of MSEDCL. The lower recovery here severely affects the cash flows and finances of the Utility. The Commission opines that it is necessary for the Government to address the issue and consider the possibility of distribution of subsidy through direct benefit transfer or any other arrangements linking it to the recovery of amounts. The Government may consider categorisation of Agriculture

subsidy based on some transparent objective criteria linked with the efficiency of the Utility.

7.1.43 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 focussed efforts. Formation of separate agriculture company would enable monitoring and ensuring accountability towards both these category of consumers with two separate organisations, as their mandate would drive such focussed 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.

M] Improvements in Customer Service and consumer outreach and Automatic compensation as per Supply Code:

- 7.1.44 The Commission notes and appreciates several consumer centric IT initiatives undertaken by MSEDCL in the recent past such as Consumer Care Centres, Go-Green Initiative, SMS alerts, automated meter reading/billing, RF-DCUs pilots, Substation automation project, Cloud project for faster response etc. Many of these initiatives have facilitated in faster handling & resolution of consumer calls/grievances, reducing complaints of non-receipt of bills, facilitating faster bill payment options for consumers, improvements in attending to line/cable faults, aligning back-end infrastructure and support team management functions etc.
- 7.1.45 However, the Commission has also taken note of several difficulties and challenges expressed by consumers regarding redressal of their grievances qua metering, billing and payment issues during public process. The Commission has advised MSEDCL to further improve upon their consumer outreach activities and extend use of technological solutions through mobile alerts, e-bills through emails and more payment options to facilitate online payment & other modes of payment gateways. The Commission has also issued necessary directions as regards compliance to standard of performance and web publication key performance parameters on regular basis.
- 7.1.46 The Commission observes that Supply Code Regulations, 2021, notified on 24th February 2021, provides for Automatic compensation for failure for meeting standard of performance alongwith detailed modalities and conditions as specified under Annexure-II of said Regulations. Further, a time period of six months from

date of notification of said Regulations have been provided for the Distribution Licensee to implement automatic compensation mechanism.

- 7.1.47 The Commission noted that despite clear provisions and directives, MSEDCL has submitted that it will submit roadmap for implementation of automatic compensation mechanism within next 3 months, which is the gross violation and contravention of the provisions of the Supply Code Regulations, 2021. Hence, the Commission has directed MSEDCL to implement the automatic compensation mechanism at the earliest but not later than six months from issuance of this Order. MSEDCL should provide wide publicity for automatic compensation mechanism on its website and submit action taken report within six months from issuance of this Order.
- 7.1.48 In case of non-compliance of this directive, the Commission shall be forced to initiate proceedings for non-compliance and contravention of direction of Commission as per Section 142 of EA,2003. In that case, penal charges at the rate of Rs 1,00,000/- towards penalty for the contravention of the Order of the Commission and Rs 6000/- per day for continuing failure for the period of such contravention shall be levied.

N] Overall approach for cost reflective Tariff across categories

- 7.1.49 In general, the movement of tariffs towards the ACoS has been maintained such that inter-class cross-subsidy is reduced over the period. The Commission has also tried to ensure that even the intra-class cross-subsidy, i. e., the cross-subsidy provided by consumers in other slabs within the same category, is reduced, by reducing the difference between the highest and lowest slab rates.
- 7.1.50 The Commission therefore with the above key objectives has undertaken the Tariff determination process. The Commission observes that the inflation within our economy is close to 6% annually however, the Commission has endeavoured to keep the impact of Tariff revision to the minimal possible with the aim and object to promote economic development and socio- economic change. In fact, as compared to existing tariff (including FAC), there is marginal variation/increase in tariff across most of the consumer categories except Agriculture, Public Waterworks, which are still far below average cost of supply. Further, long term tariff design over balance period of 4th Control Period has been adjusted in such a manner that there is marginal variation over the period so that no tariff category suffers significant tariff variation over the period, which will help consumers plan its energy related costs/other measures in a planned manner.
- 7.1.51 The Commission believes that, if the goal of speedy economic growth combined with 24 x 7 electricity for all is to be achieved, it has to be appreciated that there are upward pressures on electricity tariffs because of likely increases in input costs

and the need to invest in strengthening and augmenting the network and other infrastructure. Commission has striven hard to address concerns of industrial and commercial consumers that tariff in the state, are relatively high compared to other neighbouring states. By ensuring marginal increase in the tariff and ensure crosssubsidy is maintained or reduced for these consumer category vis-à-vis their existing tariff (including FAC), it may be noted that these categories will continue to be cross-subsidising categories during 4th Control Period, albeit at a lower rate, in order to cross-subsidise agriculture and Public Water Works category so as to keep their tariffs relatively low and affordable.

O] Addressing concerns of Tariff categorization and applicability

- 7.1.52 Merging or elimination of existing consumer categories or classification or recategorization of certain class of consumers can be done considering the End Use, Energy Consumption, Socio-Economic Profile, Consumption Pattern/ Loan Factor etc. These factors have been examined by the Commission while deciding on merging of categories. The Commission has significantly reduced tariff categories, upon merging/re-classification of certain class of the consumers at the time of MYT Order in Case 322 of 2019. Similar approach has been continued without creation of any new category or sub-class but at the same time addressing concerns of the consumers and MSEDCL through clarifications regarding applicability of tariff category and modifying the scope, coverage of classification of Tariff category as covered under Tariff Schedule.
- 7.1.53 Some of the important clarifications and reliefs that have been granted pertain to Phalsheti (mango, cashew plantations and other horticulture activities), classification of home-stay, discount/lower tariff for residential premises of Defence colony personnel under HT-Group Housing, as elaborated under relevant paragraphs of the Order.
- 7.1.54 During public hearing, many consumers requested for considering (Phalsheti) plantation/horticulture and allied activities of mango plantations, cashew/coconut plantations under Agriculture category. The Commission has allowed all floriculture, horticulture, (including Phalsheti), nurseries and plantation activities currently classified under LT-IVI as LT-Agriculture (Others) to be re-classified under LT-IV(B) LT AG (metered) category.

7.2 Applicability of Tariffs

7.2.1 The revised Tariff as per this Order shall be applicable from 1 April, 2023. Where the billing cycle of a consumer is different from the date of applicability of the revised tariffs, the tariffs should be applicable for consumption on pro-rata basis. The bills for the respective periods as per the existing and revised tariffs shall be calculated based on the pro rata consumptions (units consumed during the

- respective periods arrived on the basis of average unit consumption per day multiplied with number of days in the respective period falling under the billing cycle).
- 7.2.2 The Commission has determined the revenue from the revised tariff as if they were applicable for the entire year. Any shortfall or surplus in actual revenue vis-à-vis the approved revenue requirement will be trued-up during Final True-up, as specified in the MYT Regulations, 2019.

7.3 Average Cost of Supply

7.3.1 Considering the Wires and Supply ARR for the Ensuing Years, past period adjustments and Energy Sales as approved by the Commission, the following Table summarizes the approved ACoS of MSEDCL for FY 2023-24 and FY 2024-25.

Table 7-1: Projected ARR and ACoS for FY 2023-24 and FY 2024-25, as approved by the Commission (Rs. Crore)

Particulars	Units	Formula	FY 2022-23	FY 2023-24	FY 2024-25	SUM over FY2024 & FY2025
Sales	MU	(a)	1,23,977	1,26,533	1,29,399	2,55,932
Net ARR	Rs. Cr	(b)	94,088	1,02,386	1,05,352	2,07,739
Revenue at Existing Tariff *	Rs. Cr	(c)	1,00,329	90,742	92,355	1,83,097
Revenue Gap/(Surplus)	Rs. Cr	(d1)=(b)-(c)	1	11,644	12,998	24,642
Past Period Revenue Gap [true-up period (FY20 to FY23) (incl. impact of Review Order, impact of true-up of MSPGCL and Carrying Cost (adjust)]	Rs. Cr	(d2)		4,925	10,000	14,925
Cum. Revenue Gap/(Surplus) over balance Control Period	Rs. Cr	(d) = (d1)+(d2)		16,570	22,997	39,567
ACoS	RsIWh	(e)=(b)/(a)*10		8.09	8.14	

*Note: Revenue at Existing Tariff for FY2023-24 and FY2024-25 is excl. FAC whereas Revenue at Existing Tariff for FY2022-23 is incl. FAC.

7.4 Balancing of ABR and ACoS for Revenue Recovery over the Control Period

- 7.4.1 From above Table, it can be observed that, the overall Cumulative Revenue Gap of Rs. 39,567 Crore is not evenly spread across FY 2023-24 and FY 2024-25. The standalone revenue gap in FY 2023-24 of Rs. 11,644 Crore, which, when combined with the net impact of past period Rs. 4,925 Crore works out to an approved Revenue Gap of Rs. 16,570 Crore for FY 2023-24. In FY 2024-25, the standalone revenue gap of Rs. 12,998 Crore, which, when combined with the net impact of past period Rs. 10,000 Crore works out to be an approved Revenue Gap of Rs. 22,997 Crore. Thus, cumulative revenue gap at Existing Tariff (excl. FAC) is estimated to be around Rs. 39,567 Crore.
- 7.4.2 However, while determining the tariff over the Control Period, the Commission has to ensure that several objectives are met simultaneously, such as
 - (a) revising the tariff to meet the approved ARR for the respective years alongwith recovery of approved past period gaps (incl. impact of review order and impact of true-up of MSPGCL and carrying cost),
 - (b) smoothen the retail tariff revision trajectory to protect any consumer category from tariffshock
 - (c) encourage efficient consumption by industry, commerce, domestic, agriculture and various other consumer segments and to ensure that tariff rates are competitive to continue to attract investment in the state,
 - (d) to meet the goal of gradual reduction in cross-subsidy levels.
- 7.4.3 Considering these different objectives harmoniously, the Commission by readjusted the projected revenue gap and spread the overall revenue gap of Rs. 39,567 Crore over FY 2023-24 and FY 2024-25. It has reworked the modified ARR for revenue recovery and the modified ACoS thereof for each year, accordingly, as summarised below:

Table 7-2: Modified ARR Recovery and Modified ACoS for FY 2023-24 and FY 2024-25 as approved by the Commission (Rs. Crore)

Particulars	Units	Formula	FY 2022-23	FY 2023-24	FY 2024-25	SUM over FY2024 & FY2025
Sales (Incl. of DF Sales)	MU	(a)	1,23,977	1,26,533	1,29,399	2,55,932
ARR	Rs Cr	(b)	94,088	1,02,386	1,05,352	2,07,739
Revenue at Existing taIf*	Rs Cr	(c)	1,00,329	90,742	92,355	1,83,097
ICoS	Rs/unit	(e)= (b)/(a) x 10		8.09	8.14	
ABR at Existing TariI	Rs/unit	(f) = (c)/(a) x 10	8.22	7.17	7.14	

Particulars	Units	Formula	FY 2022-23	FY 2023-24	FY 2024-25	SUM over FY2024 & FY2025
PU Revenue Gap/(Surplus)	Rs/unit	(g) = (d)/(a) x 10	1	0.92	1.00	
Cum. Revenue Gap for past true-up period [(FY20 to FY23) (incl. impact of Review Order, impact of true-up of MSPGCL and Carrying Cost (adjust)]	Rs Cr	(h)	1	4,925	10,000	14,925
Total ARR (to be recovered)	Rs Cr	(i)=(b)+(h)	94,088	1,07,312	1,15,352	2,22,664
PU Adjustment of Cum. Revenue Gap of past period	Rs/unit	(j)=(h)/(a) x 10	-	0.39	0.77	
ModifI ACoS	Rs/unit	$(\mathbf{k}) = (\mathbf{e}) + (\mathbf{j})$		8.48	8.91	
Revenue Gap/(Surplus) incl. adjustment of past period Revenue Gaps/(Surplus) over control period	Rs Cr	(1) = (d)+(h)	1	16,570	22,997	39,567
Incremental Revenue at Proposed Tariff	Rs Cr	(m)	-	16,248	23,327	39,575
Projected Revenue at PrIsed Tariff	Rs Cr	(n)=(c)+(m)	1,00,329	1,06,990	1,15,682	2,22,672
PU Revision in Tariff	Rs/unit	(o)=(m)/(a) x 10	-	1.29	1.80	
PU ABR (revised)	Rs/unit	$(\mathbf{P})=(\mathbf{f})+(\mathbf{o})$	8.22	8.46	8.94	
% hike in ABR over previous year			-	2.9%	5.6%	CAGR over FY2023 is 4.3%

^{*}Note: Revenue and ABR at Existing Tariff for FY2023-24 and FY2024-25 is excl. FAC whereas Revenue and ABR at Existing Tariff for FY2022-23 is incl. FAC.

7.5 Key Consideration for Tariff Design

- 7.5.1 Under this MTR order, the Commission has continued with its earlier approach for gradual reduction in the cross-subsidy levels across all c^{on}sumer categories in the 4th Control Period as compared to the levels determined in the previous MYT Order in Case No. 322 of 2019.
- 7.5.2 As against MSEDCL's projected total Revenue Gap of Rs. 67,643 Crore for recovery fo^r remaining period of the 4th Control Period (i.e. FY2023-24 and FY2024-25), which is approximately 13% hike (y-o-y) over existing tariff (incl. FAC), the Commission has determined the total Revenue Gap of Rs. 39,567 Crore,

- which translates to overall increase in tariff by around (4.3%) on y-o-y basis vis-à-vis Existing Tariff (incl. FAC).
- 7.5.3 MSEDCL had proposed an increase in Fixed Charges and Energy Charges for various categories in order to bridge the Revenue Gap over the Control Period. Increase in ACoS proposed by MSEDCL translates to 14% (FY2023-24) and 11% (FY2024-25). MSEDCL has proposed to meet such increase in ACoS, by way of increase in Energy Charge and Demand Charge, revision in wheeling charges, curtailment/rationalisation of incentives/rebates, revision in Cross-subsidy Surcharge, Additional Surcharge and several other measures for performance improvement over the remaining tenure of 4th Control Period for FY 2023-24 and FY 2024-25.
- 7.5.4 While determining the revised tariffs, the Commission has to consider the revision in the Demand Charges, Energy Charges and Wheeling Charge components and their impact on the overall ABR for any particular consumer category while keeping in view the principles outlined in the Tariff Policy, 2016 and MYT Regulations, 2019 for the reduction in the cross-subsidy levels.
- 7.5.5 For adjustment of projected revenue gap, the Commission has ensured only nominal increase in Energy Charges vis-à-vis prevalent Energy Charge (including FAC) more specifically for HT-Industrial and HT-Commercial categories, where kVAh based billing has been introduced. Further, the Commission has ensured that the benefit of incremental consumption rebate and bulk consumption rebate as introduced under MYT Order shall continue to be available to relevant categories without revising the baseline as decided in MYT Order, as outlined under subsequent paragraphs of this Order.
- 7.5.6 Further, the Commission has introduced the concept of incremental consumption rebate for LT categories, which would benefit most of LT consumers and more specifically LT-Industrial consumers including Powerloom consumers and LT-Commercial category, LT-Public Service and LT-Public Water Works consumers as well, as outlined under subsequent paragraphs of this Order. This being a fresh introduction of incentive, the Base line consumption is as given in the subsequent part of the Order.
- 7.5.7 Besides, as elaborated in the subsequent paragraphs, the regulatory principle necessitate wheeling charge should be determined so as to ensure recovery of approved wheeling ARR through wheeling charges, otherwise supply revenue would be cross-subsidising wire business of utility. In the past, there was cumulative over-recovery of wheeling charges (from FY 2019-20 to FY 2022-23) to an extent of Rs 227 Crore which alongwith projected increase in wire related costs as approved under Wire ARR needs to be adjusted through wheeling charges

- to be determined over remaining tenure of 4th Control Period i.e. over FY2023-24 and FY2024-25.
- 7.5.8 The Commission has ensured recovery of the Wires ARR (including past gaps in recovery of Wire ARR) through Wheeling Charges, and the rationale for determination of Wheeling Charges has been elaborated in Section 7.27 of this Order. The approved revision in Wheeling Charges has contributed towards meeting the entire Wheeling Cost alongwith past period wires business gaps, thereby further reducing the requirement to revise the Energy (Supply) Charge component of the tariff. The Energy (Supply) Charges have been revised such that the resultant ABR for subsidising category is only marginally increased and crosssubsidy levels are reduced or maintained at the level considering prevalent Tariff incl. FAC applicable for such consumer categories. to avoid any tariff shock, and the overall objective of cross-subsidy level reduction is met.
- 7.5.9 As elaborated in subsequent Sections, an upward revision in Demand Charges/Fixed Charges is necessary since, at their existing level, the revenue recovery from these Charges comprise only around 15% of total revenue whereas fixed cost of operations of licensee is around 55% of its total cost of operation. Thus, revenue though Fixed Charge/Demand Charge cover less than 27% of the Fixed Cost of MSEDCL"s operations. The Commission has approved an increase in Demand Charges / Fixed Charges such that the revenue recovery from fixed charges increases from present level of 15% p.a. to 15.6% for FY 2023-24 and to 16.9% for FY 2024-25. The detailed rationale for revision in Demand Charges/Fixed Charges is elaborated in Section 7.10 of this Order.

Stabilisation (buffer) for Fuel Cost Adjustment

7.5.10 As per MYT Regulations, 2019, the aggregate gain or loss to a Distribution Licensee on account of variation in cost of fuel, power purchase, and inter-State Transmission Charges shall be passed through under the Fuel Adjustment Charge (FAC) component of the Z-factor Charge (ZFAC), as an adjustment in its tariff on a monthly basis. Relevant part of the MYT Regulation is reproduced below:

"10.2 The aggregate gain or loss to a Distribution Licensee on account of variation in cost of fuel, power purchase, and inter-State Transmission Charges, covered under Regulation 9.1, shall be passed through under the Fuel Adjustment Charge (FAC) component of the Z-factor Charge (ZFAC), as an adjustment in its Tariff on a monthly basis, as specified in these Regulations and as may be determined in orders of the Commission passed under these Regulations, and shall be subject to ex-post facto approval by the Commission on a quarterly basis:"

7.5.11 Similar arrangement for passing on the variation in fuel and power purchase cost existed in all previous Tariff Regulations of the Commission. Such mechanism is in line with the provision of the EA, 2003 which mandates recovery of the fuel cost

in timely manner so that the Distribution Licensee are able to recover their legitimate power purchase cost variation. This has helped regular recovery of power purchase variations without accumulating it till next tariff revision. This provision also addresses the financial/cash flow issue of Distribution Licensee wherein the payment for power purchase is required to be made in timely manner at prevailing cost. At the same time, it also helps in reducing carrying cost burden on consumer which otherwise would have to be borne if such monthly levy accumulates and the gap is recovered through tariff revision in MYT or MTR as the case may be. Although, consumers are now well aware of this mechanism, there is general and reasonable expectation that once the tariff is approved by the Commission, to the extent possible, it should remain constant during the year and there should not be large variations due to FAC. The unknown variation in the tariff on account of FAC has adverse financial implications on all the categories especially Industrial and Commercial categories where the impact of FAC is generally higher. Variation in tariff is magnified when there is negative FAC leading to reduction in tariff during a particular month and positive FAC in the immediate next month thereby increasing the tariff.

7.5.12 Variation in FAC is either on account of change in fuel related costs, changes in source of power procurement, alternate source of power procurement or change in mix of power procurement. During the Public hearings, many suggestions were received on this issue and the consumers requested that an appropriate revised mechanism should be put in place wherein there is a minimum impact of FAC felt by the consumers. The Commission opines that this is a very reasonable expectation of the Consumers. To alleviate this issue to the extent possible and to minimise the impact of FAC, the Commission, while approving this Tariff Order, has built-in annual fuel cost escalation. The Commission is fully aware that in spite of approving this annual escalation rate, the possibility of FAC cannot be ruled out completely since this escalation covers only some sources that form a part of total FAC i.e the power purchase cost primarily of the PPA's covered under section 62 of the EA, 2003. To ensure stabilisation of tariffs to the extent possible, and to minimise the variation in FAC, the Commission in MYT Order had approved constitution of a FAC Fund with Distribution Licensee which can be built up over a period of time to be used for payment of FAC bills of Generating companies without immediately loading it on consumers. This has resulted into substantial amount of FAC Fund with the Licensees up to August, 2021. The fund so created was utilised in future months to offset the levy of FAC on Consumers for September 2021 onwards arising out of higher power purchase cost due to increase in demand and higher power purchase price prevailing in the market, high fuel cost etc. Finally, after exhaustion of all accumulated FAC fund, the Commission allowed levy of FAC to consumers from April 2022 onwards i.e. after 2 years of MYT Order being passed by the Commission. Thus such FAC Fund mechanism has ensured stable tariff for longer period and due to substantial increase in power purchase cost

in last year and impact of Change in Law claims due to Court Order, FAC was required to levy to the Consumers. Considering the effectiveness of such mechanism, the Commission proposes to continue with the mechanism for FY 2023-24 and FY 2024-25. The Commission also notes that in present MTR Order, it has tried to incorporate realistic price of power purchase, however considering current volatility of power market, need of levying FAC cannot be ruled out completely. However, it is expected that in order to provide stable tariff to consumers, Distribution Licensee may wait at least six months from issuance of this Order to balance out impact of variation in power purchase cost before levying it to consumers.

7.5.13 Therefore, using its powers for Removal of Difficulties under Regulations 106 of MYT Regulations, 2019, the Commission is making following changes in FAC mechanism stipulated under Regulation 10 of MYT Regulations, 2019:

Distribution Licensee shall undertake computation of monthly FAC as per Regulation 10 of the MYT Regulations, 2019 except for treatment to be given to negative FAC as follows:

- Negative FAC amount shall be carried forward to the next FAC billing cycle with holding cost.
- Such carried forward negative FAC shall be adjusted against FAC amount for the next month and balance negative amount shall be carried forward to subsequent month with holding cost.
- Such carry forward of negative FAC shall be continued till next tariff determination process.
- In case such FAC Fund is yet to be generated or such generated fund is not sufficient to adjust against FAC computed for given month, then Distribution Licensee can levy such amount to the consumers through FAC mechanism, upon seeking prior approval from the Commission.
- 7.5.14 In order to maintain transparency in management and use of such FAC Fund, the Distribution Licensee shall maintain monthly account of such FAC fund and upload it on its website for information of stakeholders.
- 7.5.15 As the Commission has continued concept of FAC fund as stated above to stabilize the increase in fuel prices and power purchase costs, the Commission has modified the FAC mechanism such that the Distribution Licensees shall submit the FAC computations on a monthly basis for prior approval, irrespective of whether FAC is chargeable in a month or whether some amount is accruing to the Fund on account of negative FAC.
- 7.5.16 The details of the FAC as per the Regulations, shall be submitted by the 15th of the every month prior to the month on which the FAC is proposed to be levied and the

Commission will endeavour to decide on the same within 10 days so that the same can be levied from the 1st of the subsequent month.

7.6 Proposed Tarif and Rationale of Tariff Hike as submitted by MSEDCL.

7.6.1 MSEDCL has submitted the following table summarizing the year on year increase in Average Billing Rate (ABR) along with the recovery from revised tariff.

Table 7-3: Y-o-Y increase in ABR as submitted by MSEDCL

Particulars	Based on Approved Tariff for FY 22-23 incl. FAC	Proposed for FY 2023-24	Proposed for FY 2024-25
ABR in Rs./Unit	7.79	8.90	9.92
Y-o-Y Rise in ABR		14%	11%

- 7.6.2 MSEDCL submitted that there was a huge reduction in approved revenue gap visà-vis the revenue gap sought by MSEDCL in MYT Order dated 30th March 2020. MSEDCL further submitted 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.
- 7.6.3 MSEDCL has proposed a revision in fixed and energy charges for various categories in order to bridge revenue gap. MSEDCL submitted that 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.
- 7.6.4 A comparison of detailed Category/ Sub-category wise Existing and Proposed Fixed and Demand Charges and Energy Charges (Excluding Wheeling Charges) as proposed by MSEDCL under MTR Petition is shown in tables below:

Table 7-4: Comparison of Existing and Proposed Energy Charges (excl. Wheeling Charges) for HT Category as submitted by MSEDCL

		FY	2023-24	FY	2024-25
	Existing		y Charges		gy Charges
	Energy		s/kVAh)	(Rs/kVAh)	
Particulars	Charges with latest		% Change		% Change over
	FAC	Proposed	over	Proposed	FY 2023-24
	(Rs./kVAh)	Troposcu	FY 2022-23	Troposcu	Proposed
	(2200/22 (2222)		Approved		Troposed
HT I HT – Industry					
HT	8.24	9.32	13%	10.50	13%
EHV	8.24	9.32	13%	10.50	13%
HT I (B): HT – Industry					
(Seasonal)	0.55	0.70	120/	10.00	120/
HT EHV	8.55 8.40	9.70 9.50	13% 13%	10.90 10.60	12% 12%
HT II: HT – Commercial	0.4 U	9.30	13%	10.00	12%
H	13.15	14.80	13%	16.60	12%
EHV	13.10	14.80	13%	16.60	12%
HT III: HT-	13.10	11.00	1370	10.00	1270
Railways/Metro/Monorail					
HT	7.66	8.70	14%	9.80	13%
EHV	8.21	8.70	6%	9.80	13%
HT IV: HT – PWW and					
Sewage Treatment Plants					
HT	7.42	8.40	13%	9.40	12%
EHV	7.37	8.40	14%	9.40	12%
HT V(A): HT –					
Agricultural Pumpsets					
HT	4.34	4.80	11%	5.30	10%
EHV	4.34	4.80	11%	5.30	10%
HT V(B): HT –					
Agriculture – Others	6.10	6.10	00/	6.70	100/
HT EHV	6.10	6.10 6.10	0%	6.70	10% 10%
HT VI: HT – Group	0.10	0.10	0%	0.70	10%
Housing Societies					
(Residential)					
HT	6.70	7.60	13%	8.60	13%
EHV	6.80	7.60	12%	8.60	13%
HT VIII(A): HT- Public					
Services -Govt					
HT	8.89	10.10	14%	11.30	12%
EHV	9.24	10.10	9%	11.30	12%
HT VIII(B): HT-Public					
Services-Others					

Particulars	Existing Energy Charges with latest FAC (Rs./kVAh)	FY 2023-24 Energy Charges (Rs/kVAh)		FY 2024-25 Energy Charges (Rs/kVAh)	
		Proposed	% Change over FY 2022-23 Approved	Proposed	% Change over FY 2023-24 Proposed
HT	10.71	12.10	13%	13.70	13%
EHV	10.61	12.10	14%	13.70	13%
HT IX: HT- EV Charging Stations	_				
HT	5.80	6.10	5%	6.40	5%
EHV	5.95	6.25	5%	6.60	6%

Table 7-5: Comparison of Existing and Proposed Energy Charges (excl. Wheeling Charges) for LT Category as submitted by MSEDCL

		FY	2023-24	FY 2024-25 Energy Charges (Rs/kVAh)	
	Existing	_	gy Charges		
	Energy	(Rs	s/kVAh)		
Particulars	Charges with		% Change		% Change
	latest FAC	Proposed	over	Proposed	over
	(Rs./kVAh)	•	FY 2022-23	•	FY 2023-24
7.77.7.11.11.11.11.11.11.11.11.11.11.11.			Approved		Proposed
LT Residential					
LT I (A): LT-Residential-	4.44	1.50	0.04	1.70	110/
BPL	1.41	1.53	9%	1.70	11%
LT I (B): LT-Residential					
1-100 Units	4.01	4.50	125	5.10	13%
101-300 Units	8.79	10.00	14%	11.50	15%
301-500 Units	12.42	14.20	14%	16.30	15%
Above 500 Units (Balance					
Units)	14.21	16.30	15%	18.70	15%
LT II: LT- Non-					
Residential					
(A): 0-20 kW	8.74	9.60	13%	11.00	15%
(B): $> 20 \text{ kW} \text{ and } \le 50 \text{kW}$	12.94	14.90	15%	17.10	15%
I: > 50kW	15.31	17.40	14%	20.00	15%
LT III: LT-Public Water					
Works(PWW) & STP					
(A): 0-20 kW	2.98	3.40	14%	3.90	15%
(B): $> 20 \text{ kW} \text{ and } \le 40 \text{kW}$	4,59	5.30	15%	6.10	15%
(C): > 40kW	6.09	7.00	15%	8.00	14%
LT IV: LT- Agriculture					
LT IV(A): LT-GG Un-					
metered- Pumpsets	Rs	s./HP/Montl	Rs./HP/Month		

		FY	2023-24	FY	2024-25
	Existing	_	gy Charges	_	y Charges
Do wii ando wa	Energy Changes with	(Rs	s/kVAh)	(Rs	s/kVAh)
Particulars	Charges with latest FAC		% Change		% Change
	(Rs./kVAh)	Proposed	over FY 2022-23	Proposed	over FY 2023-24
	(2250 22 7 2222)		Approved		Proposed
Category 1 Zones (Above 1318 Hrs/HP/Annum)			•		
	270	125	150/	500	150/
(a) 0-5 HP	379	435	15% 15%	500	15% 15%
(b) Above 5HP – 7.5 HP	407	470		540	
(c) Above 7.5	455	525	15%	605	15%
Category 2 Zones (Above 1318 Hrs/HP/Annum)					
(a) 0-5 HP	287	330	15%	380	15%
(b) Above 5HP – 7.5 HP	319	365	14%	420	15%
(c) Above 7.5	367	420	14%	485	15%
LT IV(B): LT-					
Agriculture Metered					
Tariff-Pumpset	2.35	2.70	15%	3.10	15%
LTI(C): LT- Agriculture	2.04	4.50	1.40/	7 10	100/
Metered -Others	3.94	4.50	14%	5.10	13%
LT V: LT- Industry Total					
(i): 0-20 kW	6.11	6.90	13%	7.90	14%
(ii) Above 20 kW	7.25	8.20	13%	9.40	15%
LT VI: LT- Street Light	1.23	0.20	15%	9.40	13%
(A): Grampanchayat; A B					
& C Class Municipal					
Council	6.10	7.00	15%	8.00	14%
(B): Municipal corporation					
Area	7.46	8.60	15%	9.90	15%
LT VII (A): LT- Public Services- Govt					
(i) : $\leq 20 \text{ kW}$	3.93	4.40	15%	5.00	14%
(ii) : $> 20 \text{ kW} - \le 50 \text{kW}$	5.47	6.30	15%	7.20	14%
(iii): > 50kW	6.88	7.90	15%	9.00	14%
LT VII (B): LT-Public	0.00	,.,,	1270	7.00	2.70
Services- Others					
(i): ≤20 kW	5.47	6.30	15%	7.20	14%
(ii): $> 20 \text{ kW} - \le 50 \text{kW}$	8.68	10.00	15%	11.50	15%
(iii): > 50kW	8.99	10.30	15%	11.80	15%
LT VIII: LT- Electrical					
Vehicles (EV) Charging					
Station	5.00	5.20	4%	5.40	4%

Table 7-6: Comparison of Existing and Proposed Fixed Charges for HT Category as submitted by MSEDCL

		FY 2	2023-24	FY	2024-25
			Charges		ed Charges
	Existing Fixed		VA/mth)		kVA/mth)
Particulars	Charges		% Change		% Change over
	(Rs./kVA/mth)	Proposed	over	Proposed	FY 2023-24
		Troposcu	FY 2022-23	Troposcu	Proposed
			Approved		2100000
HT I HT – Industry					
HT, EHV	454	510	12%	572	12%
HT I (B): HT –					
Industry(Seasonal)					
HT, EHV	454	510	12%	572	12%
HT II: HT –					
Commercial					
HT, EHV	454	510	12%	572	12%
HT III: HT-					
Railways/Metro/Monor					
ail	4.5.4	710	100/	570	100/
HT, EHV	454	510	12%	572	12%
HT IV: HT – Public					
Water Works and					
Sewage Treatment Plants					
HT, EHV	454	510	12%	572	12%
HT V(A): HT –	434	310	1270	312	1270
Agricultural Pumpsets					
HT, EHV	454	89	11%	100	12%
HT V(B): HT –	757	07	1170	100	12/0
Agriculture – Others					
HT, EHV	454	89	11%	100	12%
HT VI: HT – Group	13 1	07	11/0	100	1270
Housing Societies					
(Residential)					
HT, EHV	454	406	12%	455	12%
HT VIII(A): HT-					
Public Services -Govt					
HT, EHV	454	510	12%	572	12%
HT VIII(B): HT-Public					
Services-Others					
HT, EHV	454	510	12%	572	12%
HT IX: HT- Electric		_			
Vehicles (EV) Charging					
Stations					
HT, EHV	75	76	9%	84	11%

Table 7-7 : Comparison of Existing and Proposed Fixed Charges for LT Category as submitted by MSEDCL

			FY 2	023-24	FY 2	024-25
		Existing	Fixed	Charges	Fixed	Charges
Particulars	Units	Fixed		% Change		% Change
	0	Charges	Proposed	over	Proposed	over
			· F · · · · ·	FY 2022-23	1	FY 2023-24 Proposed
				Approved		Froposeu
LT Residential						
LT I (A): LT-Residential-	D /C / 1	20	22	1.40/	26	120/
BPL LTL(D) LTD ::1 4:1	Rs/Conn/mth	28	32	14%	36	13%
LT I (B): LT-Residential	D /C / 1	107	110	100/	100	100/
1-100 Units	Rs/Conn/mth	105	118	12%	132	12%
101-300 Units	Rs/Conn/mth	105	118	12%	132	12%
301-500 Units	Rs/Conn/mth	105	118	12%	132	12%
Above 500 Units (Balance Units)	Rs/Conn/mth	105	118	12%	132	12%
Three Phase Charges	Rs/Conn/mth	350	393	12%	439	12%
LT II: LT- Non-	Ks/Com/mun	330	373	12/0	437	12/0
Residential						
(A): 0-20 kW	Rs/Conn/mth	427	480	12%	538	12%
(B): $> 20 \text{ kW} \text{ and } \le 50 \text{kW}$	Rs/kVA/mth	427	480	12%	538	12%
I: > 50kW	Rs/kVA/mth	427	480	12%	538	12%
LT III: LT-Public Water						
Works(PWW) & STP						
(A): 0-20 kW	Rs/kVA/mth	106	119	12%	133	12%
(B): $> 20 \text{ kW}$ and $\leq 40 \text{kW}$	RIVA/mth	129	144	12%	160	11%
(C): $> 40 \text{kW}$	Rs/kVA/mth	160	178	11%	198	11%
LT IV: LT- Agriculture						
LT IV(B): LT-						
Agriculture Metered Tariff-PIsets	D o /IID/moth	42	47	00/	5.1	00/
II(C): LT- Agriculture	Rs/HP/mth	43	47	9%	51	9%
Metered -Others	Rs/kW/mth	117	130	11%	145	12%
LT V: LT- Industry						
Total						
(i): 0-20 kW	Rs/Conn/mth	482	542	12%	608	12%
(ii) Above 20 kW	Rs/kVA/mth	321	360	12%	404	12%
LT VI: LT- Street Light						
(A): Grampanchayat; A B						
& C Class Municipal	D a /l-XX// 41-	117	121	100/	1 477	100/
Council (B): Municipal corporation	Rs/kW/mth	117	131	12%	147	12%
Area	Rs/kW/mth	117	131	12%	147	12%
LT VII (A): LT- Public		117	131	12,0	117	1270
Services- Govt						

			FY 2	023-24	FY 2024-25		
		Existing	Fixed	Charges	Fixed Charges		
Particulars	Units	Fixed Charges Proposed		% Change over FY 2022-23 Approved	Proposed	% Change over FY 2023-24 Proposed	
(i): ≤ 20 kW	Rs/Conn/mth	353	396	12%	444	12%	
(ii): $> 20 \text{ kW} - \le 50 \text{kW}$	Rs/kVA/mth	353	396	12%	444	12%	
(iii): > 50kW	Rs/kVA/mth	353	396	12%	444	12%	
LT VII (B): LT-Public Services- Others							
(i): $\leq 20 \text{ kW}$	Rs/Conn/mth	384	430	12%	482	12%	
(ii): $> 20 \text{ kW} - \le 50 \text{kW}$	Rs/kVA/mth	384	430	12%	482	12%	
(iii): > 50kW	Rs/kVA/mth	384	430	12%	482	12%	
LT VIII: LT- Electrical Vehicles (EV) Charging Station	Rs/kVA/mth	70	78	11%	87	12%	

7.7 Proposed Recovery from Tariff (ABR) as approved by Commission

7.7.1 The comparison of the existing tariffs, the tariffs proposed by MSEDCL and the tariffs approved by the Commission, as well as the percentage increase for each consumer category and the cross-subsidy t^{ra}jectory for the remaining pe^{ri}od of 4th Control Period (i.e. for FY2023-24 and FY2024-25) are given in the Tables below:

Table 7-8: Comparison of ABR for FY2023-24 and FY2024-25

Particulars	FY 2	023-24	FY 2024-25		
	MTR Petition	Approved by Commission	MTR Petition	Approved by Commission	
Average Billing Rate (ABR) (in Rs./Unit)	8.90	8.45	9.92	8.93	

Table 7-9: Average Billing Rate (ABR) and Cross Subsidy Trajectory as proposed by MSEDCL for FY 2023-24

Catagowy	Existing Average	9	Average Billing Rate (Rs/kWh)		erage Billing Rate to I Average Cost of apply (%)	% Increase/ Decrease in cross-	% increase in Tariff (%)
Category	Cost of Supply (Rs/kWh)	Existing Tariff for FY 2022-23	Proposed Tariff for FY 2023-24	Existing Tariff for FY 2022-23	Proposed Tariff for FY 2023-24	subsidy	
HT I (A): HT- Industry		9.86	11.03	115%	124%	9%	12%
HT– II: HT - Commercial		16.59	17.36	178%	195%	17%	5%
HT III: HT- Railways/Metro/Monorail		9.40	10.73	115%	121%	6%	14%
HT-IV: HT - Public Water Works (PWW)		8.90	9.93	103%	112%	9%	12%
HT V: HT - Agricultural Pumps		5.1	5.84	60%	66%	6%	10%
HT– VI: HT - Group Housing Societies (Residential)		8.35	9.39	97%	106%	9%	12%
HT VIII(A): HT- Public Services -Govt		10.52	12.14	127%	136%	9%	15%
HT VIII(B): HT-Public Services-Others		12.58	14.20	146%	160%	14%	13%
HT Total	8.90						
LT I: LT- Residential		8.51	9.38	102%	105%	3%	10%
LT II: LT- Non-Residential		12.91	15.10	154%	170%	16%	17%
LT III: LT-Public Water Works (PWW)		5.10	5.90	61%	66%	5%	16%
LT IV(C): LT- Agriculture Metered		4.13	4.51	51%	51%	0%	9%
LT V(B): LT- Industry		9.72	10.63	117%	119%	2%	9%
LT VI: LT- Street Light		8.02	9.73	95%	109%	14%	21%
LT VII (A): LT- Public Services- Govt		8.47	9.85	105%	111%	6%	16%
LT VII (B): LT-Public Services- Others		9.43	10.96	114%	123%	9%	16%
LT Total							

Table 7-10: Average Billing Rate (ABR) and Cross Subsidy Trajectory as proposed by MSEDCL for FY 2024-25

Category	Existing Average Cost of		Average Billing Rate (Rs/kWh)		rage Billing Rate Average Cost of ply (%)	% Increase/ Decrease in cross-subsidy	% increase in Tariff (%)
	Supply (Rs/kWh)	Existing Tariff for FY 2023-24	Proposed Tariff for FY 2024-25	Existing Tariff for FY 2023-24	Proposed Tariff for FY 2024-25		
HT I (A): HT- Industry		11.3	12.37	124%	125%	1%	12%
HT– II: HT - Commercial		17.36	19.40	195%	196%	0%	12%
HT III: HT- Railways/Metro/Monorail		10.73	12.04	121%	121%	1%	12%
HT- IV: HT - Public Water Works (PWW)		9.93	11.06	111%	111%	0%	11%
HT V: HT - Agricultural Pumps-		5.84	6.41	65%	61%	-5%	3%
HT- VI: HT - Group Housing Societies (Residential)		9.39	10.53	105%	106%	1%	12%
HT VIII(A): HT- Public Services -Govt		12.14	13.57	136%	137%	0%	12%
HT VIII(B): HT-Public Services-Others		14.20	16.01	160%	161%	2%	13%
HT Total	9.92						
LT I: LT- Residential		9.38	10.50	105%	106%	0%	12%
LT II: LT- Non-Residential		15.10	17.04	170%	172%	2%	13%
LT III: LT-Public Water Works (PI		5.90	6.55	66%	66%	0%	11%
LT IV(C): LT- Agriculture Metered		4.51	4.94	51%	50%	-1%	10%
LT V(B): LT- Industry		10.63	11.97	119%	121%	1%	13%
LT VI: LT- Street Light		9.73	10.97	109%	111%	1%	13%
LT VII (A): LT- Public Services- Govt		9.85	11.07	111%	112%	1%	12%
LT VII (B): LT-Public Services- Others		10.96	12.35	123%	124%	1%	13%
LT Total							

Table 7-11: Average Billing Rate (ABR) and Cross Subsidy Trajectory as approved by Commission for FY 2023-24

Cotogowy	Projected Average Cost of	Average Bi (Rs/U		Ratio of Average Projected Ave Supply	rage Cost of	% increase / decrease	% increase in
Category	Supply (Rs/kWh)	*Existing Tariff for FY 2022-23	Tariff for FY 2023-24	Existing Tariff for FY 2022-23	Tariff for FY-2023-24	in Cross- subsidy	tariff (%)
HT I–(A): HT - Industry		9.62	9.69	115%	115%	0%	1%
H– II: HT - Commercial		15.05	15.03	178%	178%	0%	0%
HT-III: HT - Railways/Metro/Monorail Traction		9.60	9.65	115%	114%	-1%	1%
H– IV: HT - Public Water Works (PWW)		8.67	8.91	103%	105%	2%	3%
-T V: HT - Agriculture Pumps		5.94	6.50	60%	77%	17%	9%
H– VI: HT - Group Housing Societies (Residential)		8.31	8.64	97%	102%	5%	4%
HT V–II: HT - Public Services]	11.72	12.08	146%	143%	-3%	3%
HT Total	0.46	9.69	9.78	115%	116%	1%	1%
–T I: LT - Residential	8.46	8.39	8.90	102%	105%	3%	6%
L– II: LT - Non-Residential		13.18	13.03	154%	154%	0%	-1%
LT-III: LT - Public Water Works (PWW)		5.34	5.85	61%	69%	8%	10%
L– IV: LT - Agriculture Metered		4.25	4.65	51%	55%	4%	9%
L– V : LT - Industry	1	9.38	9.25	117%	109%	-8%	-1%
L– VI: LT - Street Light	1	9.07	9.28	95%	110%	15%	2%
LT VII - Public Services	1	9.51	10.10	114%	119%	5%	6%
LT Total		7.41	7.79	90%	92%	2%	5%

^{*} Existing Tariff for FY 2022-23 is inclusive of FAC

Table 7-12: Average Billing Rate (ABR) and Cross Subsidy Trajectory as approved by Commission for FY 2024-25

Catagogra	Projected Average	Average Bi (Rs/U		Ratio of Average Projected Ave Supply	rage Cost of	% increase / decrease	% increase
Category	Cost of Supply (Rs/kWh)	Tariff for FY 2023-24	Tariff for FY 2024-25	Tariff for FY 2023-24	Tariff for FY-2024-25	in Cross- subsidy	in tariff (%)
HT I–(A): HT - Industry		9.69	10.09	115%	113%	-2%	4%
H– II: HT - Commercial		15.03	15.58	178%	174%	-3%	4%
HT-III: HT - Railways/Metro/Monorail Traction		9.65	10.11	114%	113%	-1%	5%
H– IV: HT - Public Water Works (PWW)		8.91	9.25	105%	104%	-2%	4%
-T V: HT - Agriculture Pumps		6.50	7.12	77%	80%	3%	9%
H– VI: HT - Group Housing Societies (Residential)		8.64	8.96	102%	100%	-2%	4%
HT V–II : HT - Public Services		12.08	12.74	143%	143%	0%	5%
HT Total	8.94	9.78	10.18	116%	114%	-2%	4%
–T I: LT - Residential	0.94	8.90	9.47	105%	106%	1%	6%
L- II: LT - Non-Residential		13.03	13.51	154%	151%	-3%	4%
LT-III: LT - Public Water Works (PWW)		5.85	6.56	69%	73%	4%	12%
L- IV: LT - Agriculture Metered		4.65	5.08	55%	57%	2%	9%
L– V : LT - Industry		9.25	9.64	109%	108%	-1%	4%
L- VI: LT - Street Light		9.28	9.66	110%	108%	-2%	4%
LT VII - Public Services		10.10	10.61	119%	119%	-1%	5%
LT Total		7.79	8.34	92%	93%	1%	7%

7.8 Tariff Philosophy proposed by MSEDCL and Commission's Rulings

MSEDCL submissions

7.8.1 MSEDCL has submitted the proposal of certain changes in the Tariff Philosophy and Tariff Design in the Petition. MSEDCL's submissions and the Commission's rulings are set out in the following paragraphs.

7.9 Full Cost Recovery

MSEDCL submissions

- 7.9.1 MSEDCL submitted that, the present Petition is based on full cost recovery of the total revenue gap computed for the previous years. Section 61 of the Act mandates that the Appropriate Commission, while determining tariff, shall not only ensure safeguarding of consumer's interests but shall also ensure the recovery of the cost of electricity in a reasonable manner.
- 7.9.2 MSEDCL submitted that the MTR period can be period can be utilized to re-visit the approach adopted by the Commission in MYT Order. MSEDCL humbly request the Commission to evolve a methodology during remaining two years of the fourth Control Period to re-determine the commercial principle to sustain growth, ensure financial viability of the Licensee, avoid financial losses and at the same time protect the consumer interests.

- 7.9.3 The Commission observes that determination of tariff that are cost reflective upon ascertaining reasonableness of all costs upon detailed scrutiny and prudence check is the primary objective of the tariff determination exercise through extensive public consultation process upon taking into consideration concerns of all stakeholders. At the same time, adherence to provisions outlined under Tariff policy, MYT Regulations and approach adopted through MYT Order process ensures regulatory certainty which is in the long term interest of the utility and the consumers alike.
- 7.9.4 As highlighted through public consultation process, the Commission is acutely aware of the fact that the tariff for industries (HT and LT) has reached significantly high level with high level of cross-subsidy. At the same time, tariff for some of the subsidised consumer categories particularly, Agriculture (HT and LT), Public Water Works (HT and LT) and Streetlight are below average cost of supply.
- 7.9.5 While determining the tariff for various consumer categories, the Commission has strived to strike a balance that tariff are reflective of cost of supply and difference in cross-subsidy is reduced in accordance with the provisions of Tariff Policy and MYT Regulations while ensuring that all reasonable costs and ARR as approved through this Order is recovered through tariffs.

7.10 Rationalization of Fixed Cost

MSEDCL submissions

- 7.10.1 MSEDCL has submitted that out of the total ARR, major expenses are fixed in nature and need to be incurred irrespective of any distribution / retail business undertaken by it. A similarity can be drawn in case of generator i.e. even if power plant is shut down, the generating companies need to incur expenses for employees, minor R&M to other assets, depreciation, obligation for loan repayment, interest on loan payments etc. MSEDCL also has similar type of fixed expenses which need to be incurred irrespective of any distribution / retail business undertaken by it. MSEDCL submits that ideally these fixed expenses should be recovered by a combination of Fixed & Demand Charges. MSEDCL has carried out the detailed exercise wherein the fixed cost obligations are mapped out and which it intends that the Commission may align the fixed charges accordingly.
- 7.10.2 MSEDCL further submitted that, all its expenditure excluding the variable cost (fuel related cost) of Power Purchase Expense is fixed in nature. Thus, ideally these fixed cost expenses should be recovered through Fixed/Demand Charges.
- 7.10.3 The Commission in the previous MTR Order dated 30th March 2020, had allowed recovery of only 16% to 18% through fixed charges as against 55% of recovery that should have been allowed then. This under-recovery has led to inadequacy of funds and unnecessary borrowings by MSEDCL. Further, the recovery from Fixed Charges is much lower which is against the basic principles of recovery of fixed costs through fixed charges as agreed by the Commission in the previous Tariff Orders. Since the fixed charges are inadequate, MSEDCL is required to borrow some amount to meet its working capital requirements for discharging its fixed liabilities. Also, not increasing the Fixed Charges will result in a corresponding impact on Energy Charges which may not be sufficient enough to meet the fixed charges obligation as the same depends on the consumption of the consumers which is fluctuating and seasonal in nature.
- 7.10.4 MSEDCL has sub^{mi}tted that in the last MYT order dated 30th March 2020, the Commission has accepted the prayer of MSEDCL for increase in the Fixed Charges to certain extent and this may be considered as a gradual approach to ensure proper recovery process for MSEDCL. This may not result into any undue tariff burden on the consumers because, to maintain the full cost recovery, the tariff will either have a corresponding change on fixed charges or energy charges.
- 7.10.5 Therefore, MSEDCL has proposed increasing the Fixed/Demand Charges for various categories for each category of consumers every year as a step towards gradual balancing the fixed charges recovery with fixed charges obligation. This is in line with the Commission's observation that the recovery of fixed costs should come from fixed charges and the fixed charge component of tariff needs to be gradually increased in due course of time to cover the actual fixed costs incurred by the licensee.

Commission's Analysis and Rulings

- 7.10.6 During the public consultation process, many consumers have opposed the proposal of MSEDCL to significant increase Fixed/ Demand Charges. However, it should be noted that the approved expenses of MSEDCL need to be recovered through the tariff, by way of Fixed Charges or Energy Charges or both. Therefore, not increasing the Fixed Charges will result in a corresponding impact on Energy Charges. With regard to the levy of Fixed Charges / Demand Charges, the Commission has explained the rationale in previous Tariff Orders including MTR Order in Case 195 of 2017. Similar approach and rationale for revision in Fixed Charge/Demand Charge has also been elaborated under MYT Order in Case 322 of 2019. This is also in accordance with the EA, 2003 and the Tariff Policy. As against the ratio of fixed cost to total ARR of 55%, the revenue recovery through Fixed/Demand charges is less than 15%.
- 7.10.7 With the increase now approved, revenue recovery from Fixed Charges is expected to increase gradually to around 17% of the total revenue. As rationalization of Energy Charges has also been undertaken simultaneously, the rationalization of Fixed Charges is unlikely to result in a significant tariff burden for consumers. Further, the Commission has approved a gradual increase in Fixed / Demand Charges over the remaining period of the 4th Control Period, just sufficient to keep the revenue recovery from Fixed Charges at around 16% to 17% of the total revenue of MSEDCL. Besides, the current revision allowed in Fixed/Demand Charges through this Order is comparable or lower than similar Fixed/Demand Charges in other states.

7.11 Continuation of 30 minutes Demand Integration Period for LT meters

MSEDCL submission

7.11.1 The Commission notified the Maharashtra Electricity Regulatory Commission (Electricity Supply Code and Standards of Performance of Distribution Licensee including Power Quality) Regulations, 2021 whereby it modified the definition of Maximum Demand to include Fifteen (15) minute time block instead of Thirty (30) minute time block to compute the Maximum Demand. The relevant extract is reproduced below:

"Maximum Demand" in kilowatts or kilo-volt-amperes, in relation to any period shall, unless otherwise provided in any general or special order of the Commission, mean four times the largest number of kilowatt-hours or kilo-volt-ampere-hours supplied and taken during any consecutive Fifteen (15) minutes blocks in that period:

Provided that Licensee shall continue to compute Maximum Demand in Thirty (30) minute blocks till the meters are replaced/re-programmed for Fifteen (15) minute blocks, as per the plan approved by the Commission." (Emphasis added)

7.11.2 MSEDCL has submitted that presently in MSE–CL network there are 1,34,900 nos. of 40 - 200 Amps CT Embedded meters functioning with Demand–Integration Period of 30 minutes. All 40 - 200 Amps CT Embedded meters has to be reprogrammed from Demand Integration Period of 30 minutes block to 15 minutes' block.

- 7.11.3 MSEDCL has submitted that to reprogram 1,34,900 nos. of 40-200 Amps CT Embedded meters, it shall approximately take time duration of minimum 18 months and estimated cost of such reprogramming is approximately Rs. 19 Cr.
- 7.11.4 MSEDCL further submitted that, under the proposed Detailed Project Report as per Revamped Distribution Sector Scheme (RDSS), all three phase meters will be replaced by smart meters in near future.
- 7.11.5 Further, it is to mention that since three phase LT consumers do not have much fluctuating loads, hence a shorter time interval of Maximum Demand calculation will not have much significant effect in Maximum Demand values for three phase LT consumers.
- 7.11.6 Considering time and cost involved, the Commission is humbly requested to allow MSEDCL to continue with Demand Integration Period of 30 minutes for existing three phase LT 40-200 Amps CT Embedded meters till replacement of existing three phase LT 40-200 Amps CT Embedded meters by smart meters under RDSS scheme.

Commission's Analysis and Rulings

- 7.11.7 The Commission has noted the difficulty expressed by MSEDCL to determine Maximum Demand in case of LT Consumers on 15-minute time block having existing three phase LT 40-200 Amps CT Embedded meters. Further, the Commission also notes the MSEDCL submission that as per RDSS scheme, such three phase meters are expected to be soon replaced with smart meter in near future. Further, the cost of reprogramming and time take for reprogramming of existing meters from Demand integration period of 30 minute to 15-minute timeblock is significant. Further, such LT consumers do not have fluctuating demand that would significantly vary the Maximum demand values in case of 15-minute demand integration instead of 30-minute demand integration period.
- 7.11.8 Hence, in exercise of its powers to relax as per Supply Code Regulations, 2021, the Commission hereby allows MSEDCL to continue with Demand Integration Period of 30 minutes for LT consumers with existing three phase LT 40-200 Amps CT Embedded meters till replacement of existing three phase LT 40-200 Amps CT Embedded meters by smart meters under RDSS scheme.

7.12 Multiple Sources of Supply

MSEDCL's Submission

7.12.1 The Commission MERC 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 source 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 source 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)

- 7.12.2 MSEDCL has submitted that presently under MSEDCL's jurisdiction there are 210 nos. of HT&EHV consumers who are availing double / multiple feeder supply of electricity.
- 7.12.3 MSEDCL further submitted that, the said double /multiple feeder supply arrangement has been provided by MSEDCL on the specific request of the consumer.
- 7.12.4 MSEDCL has submitted the proposal according to levy additional demand charges for each additional feeder. The demand rate approved by MERC for single feeder consumer will be applied additionally for each extra feeder.

- 7.12.5 The Commission notes that Regulation 3.2 of Supply Code Regulations, 2021 provides for recovery of additional fixed charges in case of double/multiple feeder supply connections sought by the Consumers. MSEDCL's proposal to levy additional demand charge for extra feeder is in pursuance of such provisions outlined under the Supply Code Regulations, 2021.
- 7.12.6 However, 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.

7.12.7 In view of above, the Commission rejects the MSEDCL's submission to levy additional demand charges for double/multiple feeder connections through this MTR process at this stage, however, grants it liberty to propose levy of such additional fixed charges alongwith proper justification and supporting for its claim at the time of next tariff exercise.

7.13 Rebate for Incremental Consumption

MSEDCL's Submission

- 7.13.1 In MYT Order dated 30th March 2020 in Case No. 322 of 2019 the Commission allowed rebate for incremental consumption with certain modifications to MSEDCL's proposal. The rebate for incremental consumption allowed at @Rs. 0.75/kVAh and further detailed modalities for operationalization of rebate for incremental consumption alognwith relevant conditions for applicable consumer categories and eligible consumers were laid out.
- 7.13.2 The Commission while providing detailed modalities in its MYT Order also stated as under:
 - "8.15.12 Detailed modalities for operationalization of rebate for incremental consumption along-with relevant conditions for applicable consumer categories and eligible consumers shall be governed as per following conditions:
 - 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).
 - 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 for a period of 3 years subject to reconsideration during the MTR.
 - The rebate shall be allowed to eligible consumers who consume power above threshold limit
 - The 3-year average monthly consumption by consumer from FY 2017-18 to FY 2019-20 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, such consumer shall be eligible for availing incremental rebate from the next billing cycle upon completion of 3-year period and 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.

- For the purpose of determination of In^{cr}emental consumption post MTR period of 4th Control Period, (i.e. for FY 2023-24 and FY 2024-25), baseline consumption (or monthly threshold consumption) shall be reset based on 3-year average from FY 2020-21 to FY 2022-23.
- 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 effected 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 from FY 2021-22 onwards and no such adjustment shall be undertaken for FY 2020-21 wherein monthly rebate shall continue considering emergent situation arising in FY 2020-21 due to global pandemic of COVID-19 and its possible fall out on annual electricity consumption by industry and society at large.
- For example, If a consumer's 3-year average annual consumption in 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) in FY 2021-22 onwards. 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 Commission has not considered isolated cases which may become Permanently Disconnected during the year in which a rebate has been availed for some months. The details of such cases, if any will be dealt based on the data as may be submitted by MSEDCL during MTR.
- The rebate shall be over and above the existing rebates subject to the fact that the consumer's total variable charges should not be less than Rs.4/ kVAh after accounting for all applicable rebates.
- The rebates would also be applicable to Open Access consumers, subject to conditions outlined above." (emphasis added)
- 7.13.3 MSEDCL has proposed to continue with such rebate as the opportunity for revenue recovery from such sources exceed the variable/incremental cost of sourcing of such power, and it would benefit MSEDCL to reduce burden of surplus/stranded power capacity.

- 7.13.4 MSEDCL further submitted that it is observed that some consumers are merging their existing connections by permanently disconnecting one of existing connection and shifting the load on existing another connection and increasing contract demand and availing benefit of incremental consumptions rebate. e.g. A1 consumer having Contract demand of 12100 kVA & A2 consumer having Contract demand of 3600 kVA. A1 got permanently disconnected and shifted load on A2. The resultant contract demand of A2 became 18000 kVA by marginal addition of new demand. Hence after merging the load the monthly consumption of A2 having 18000 kVA demand compared with 3 years average of A2's old demand i.e. 3600 considered for baseline consumption. Thus, consumer has availed more benefit of Incremental consumptions rebate.
- 7.13.5 MSEDCL has proposed for introduction of incremental consumption rebate is to increase consumption by existing / new consumers. However, the practices followed by certain consumers for getting benefit of incremental consumption rebate need to be restricted as there is no additional consumption by consumer. Hence, 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. However, if consumer increases their demand over and above the merged demand only that increased demand and consumption should be compared with the base load and incremental consumption should be considered while giving the benefit of such rebate.
- 7.13.6 MSEDCL further submitted that in order to encourage timely payments by defaulting consumers this rebate need to be governed by following conditions so as to create deterrent to defaulting consumers, if any.
- 7.13.7 Incremental Consumption Rebate will be available only if the consumer has no arrears with the Distribution Licensee, and payment is made within seven days from the date of electricity bill.
- 7.13.8 HT Industrial and HT Commercial consumers shall be allowed to revise their Contract Demand upto 2 times in a Billing cycle. Provided that subsequent to second change in Contract Demand in a Billing Cycle by HT Consumers, for the remaining period of that particular billing cycle, such benefit of rebate shall be withdrawn for the entire billing period. For subsequent Billing Cycle, rebate shall be restored if the consumer does not exercise its option of changing Contract Demand for the second time in that Billing Cycle.
- 7.13.9 In case of not availing a prompt payment discount i.e., non-adherence to bill payment within date for availing prompt payment discount for any billing month, such benefit of rebate shall be withdrawn for the entire period of next billing month.
- 7.13.10In case of any default or non-adherence to bill payment within the due date of Payment mentioned on the bill for any month in previous quarter, such benefit of rebate shall be withdrawn for the next quarter.

7.13.11However, the consumer shall be entitled to rebate in subsequent quarters in case it maintains payment track record within due date for every month in the previous quarter.

Commission's Analysis and Rulings

Continuation of Incremental Consumption Rebate for HT Categories:

- 7.13.12Under MYT Order in Case No. 322 of 2019, the Commission introduced the concept of incremental consumption rebate of Rs 0.75/kVAh for HT categories, namely, HT industries, HT commercial, HT public services, HT-PWW, HT Railways/Metro/Mono and HT-Group Housing Society (Residential)
- 7.13.13The Commission notes from the MSEDCL's submission as well as from the feedback received during public consultation process that the incremental consumption rebate has not only provided much needed relief to such HT consumers, particularly, after restoration of normally post COVID period, but also helped MSEDCL to retain/regain its consumption base. With surplus contracted energy available at its disposal, the Commission agrees with MSEDCL's suggestion to continue with incremental consumption rebate while exploring avenues for increasing sales within its distribution area as well as opportunities of surplus trading of power through power exchanges and inter-utility exchange within state. Thus, 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. So 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. In that sense, offering such rebate for incremental consumption to direct consumers as well as open access consumers would be in order, since aim for offering such rebate is to increase incremental consumption/sale by Licensee. Hence, the Commission opines that continuation of offering such rebate for incremental consumption to all consumers including partial open access consumers, during remaining period of the 4th Control Period, subject to clearly laid out conditions would be appropriate.
- 7.13.14In this context, the Commission observes that Regulation 81.4 of MYT Regulations 2019 allows for provisioning of such rebates,
 - "The Distribution Licensee may propose other rebates for inter-alia, taking supply at higher voltage, bulk consumption, power factor, etc. as a part of their petition and the revenue impact of the rebates shall be passed on through the Aggregate Revenue Requirement and tariffs, subject to the Commission's approval."
- 7.13.15In the MYT Order in Case 322 of 2019, the Commission has earlier stipulated that the such incremental consumption rebate mechanism was initially introduced for 3 years and subject to review at the time of MTR process alongwith revision of the baseline consumption for determination of incremental consumption for FY2023-24 and FY2024-25. The Commission is aware that consumption during COVID-19 period has suffered but the same has increased during later part of FY2021-22 and significantly increased during FY2022-

- 23. Thus, upon verification of these facts, the base line for determination of incremental consumption needs to be revised in line with principle already stipulated under MYT Order in Case No. 322 of 2019.
- 7.13.16Further, the Commission has noted the operational issues raised by MSEDCL and practices followed by some consumers upon amalgamation/merging of entity/load with permanent disconnection of the load of one of the entity, the Commission hereby rules 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.
- 7.13.17Further, the Commission opines that the conditions associated with the incremental consumption rebate should be simple and easy to implement and serve the purpose in the interest of consumer as well as utility. It should not be too onerous to implement and hence the Commission does not agree with the MSEDCL's suggestions to introduce additional conditions linking such incremental consumption rebate to availing of prompt payment discount, revision in contract demand over billing cycles, no arrears with utility as such. These additionally proposed conditionalities have remedial consequences separately.
- 7.13.18Thus, in line with the MSEDCL's Proposal and Commission's view on allowing rebate for incremental consumption with certain modifications to MSEDCL's proposal, the Commission in principle accepts the proposal of MSEDCL. The rebate for incremental consumption is allowed @ Rs 0.75/kVAh and further, it needs to be ensured that conditions and operational modalities are laid out clearly to avoid any discrimination and potential litigations are minimal.

Introduction of Incremental Consumption Rebate for LT Categories:

- 7.13.19The Commission notes that rationale provided for encouraging consumption/sales by way of offering incremental consumption rebate for HT category consumers and availed mainly by HT-Industry and HT-Commercial category consumers since its introduction through MYT Order equally holds good for LT Industrial and LT-Commercial category consumers as well.
- 7.13.20Further, when such LT-industry and LT-Commercial category consumers have also suffered in the past during COVID period as voiced out by many such consumers during public hearing, the incremental consumption rebate scheme would offer much needed relief when industrial and commercial activity is showing upward growth trends in consumption recently. The Commission notes that there are around 3.5 lakh consumers comprising LT-Industry, LT-Commercial, and LT-Public Service which form important part of cross-subsidising consumer segments that drive up industrial, commercial and economic activities across state and would benefit by way of introduction of such incremental consumption rebate mechanism. The Commission further notes that powerloom industry which is now merged with LT-Industry since MYT Order in Case No. 322 of 2019 would also benefit being eligible to avail such incremental consumption rebate. At this stage, the Commission has not introduced this rebate for other LT categories, namely, LT-

Residential, LT-Agriculture, LT-Streetlight and LT-EV charging, wherein the tariff is close to or lower than average cost of supply.

7.13.21Thus, the Commission hereby allows rebate for incremental consumption for these LT categories (namely, LT-Industry, LT-Commercial and LT-Public Service) at the rate @ Rs 0.75/kWh for remaining period of 4th Control Period (i.e. FY 2023-24 and FY2024-25) and further, it needs to be ensured that conditions and operational modalities are laid out clearly to avoid any discrimination and potential litigations are minimal.

Applicable Condition for operationalising of Incremental Consumption Rebate for HT and LT Categories for FY2023-24 and FY2024-25:

- 7.13.22Detailed modalities for operationalization of rebate for incremental consumption during remaining period of 4th Control Period (i.e. for FY 2023-24 and FY2024-25) for specified HT category (incl. EHV consumers) and LT Category along-with relevant conditions for applicable consumer categories and eligible consumers shall be governed as per following conditions:
 - 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 balance period of the 4th Control Period (i.e. for FY2023-24 and FY2024-25) subject to reconsideration during the next tariff process.
 - The rebate shall be allowed to eligible consumers who consume power above threshold limit.
 - The 3-year average monthly consumption by consumer from FY 2020-21 to FY 2022-23 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 and 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 for next control period, (i.e. beyond FY2024-25), baseline consumption (or monthly threshold consumption) shall be reset based on 3-year average from FY 2022-23 to FY 2024-25 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 effected 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 should not be less than Rs.4.75/kVAh after accounting for all applicable rebates.
- The rebates would also be applicable to Partial Open Access consumers, subject to conditions outlined above.
- 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.

7.14 Bulk Consumption Rebate

MSEDCL's Submission

- 7.14.1 MSEDCL has submitted that the Commission in its MYT Order dated 30th March 2020 referred to Regulation 81.4 of the MERC MYT Regulations, 2019 that allows for the provisioning of various rebates and on its own allowed 'Rebate for Bulk consumption' within HT- Industrial category. This rebate has been allowed to be passed through the ARR. The relevant extract of the Regulations is reproduced below:
 - "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."
- 7.14.2 MSEDCL requested the Commission to continue the bulk consumption rebate.

Commission's Analysis and Rulings

7.14.3 The Commission notes MSEDCL's submission and allows it to continue with bulk consumption rebate for remaining period of 4th Control Period (ie FY 2023-24 and FY2024-25) as per the same terms and conditions as stipulated under Para 8.16.1 to Para 8.16.7 under MYT Order in Case 322 of 2019. Partial Open Access consumer shall also be eligible for Bulk Consumption Rebate to the extent of electricity consumption from MSEDCL.

7.15 Proposal for Green Tariff as per MERC Case No. 134 of 2020

MSEDCL's Submission

7.15.1 MSEDCL submitted that the Commission 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. The relevant excerpts are reproduced below:

"17.8 Based on the above discussion and considering difficulties in stipulating Discom wise green tariff, the Commission by using its inherent regulatory powers rules that Green Power Tariff which would be uniform for all Distribution Licensees in the State is to be computed as difference between pooled power purchase cost of non-conventional and conventional sources of energy (only variable cost) for all Distribution Licensees in the State. While doing so, instead of computing year wise different tariff, uniform number for MYT control period is computed for providing certainty in rate. However, this approach may be reviewed at the time of MTR proceedings. Accordingly, computation of green power tariff is tabulated below:

Total	urement riod	Proc	on-RE pov curement e) for MY	(only	Diff Bet RE &Non-RE power		
	MU	Rs. Cr	Rs/kWh	MU			Rs/kWh
MSEDCL	141772	57440	4.05	586029	146412	2.5	1.55
AEML-D	13295	4691	3.53	38206	15367	4.02	-0.49
BEST Undertaking	2949	940	3.19	22534	7938	3.58	-0.34
TPC-D	3927	1491	3.8	22377	8069	3.61	0.19
MBPPL	58	17	2.88	348	161	4.19	-1.31
GEPL	41	12	2.88	248	101	4.08	-1.2
KRC	35	10	2.89	190	76	4.02	-1.14
Total	162077	64600	3.99	669968	178125	2.66	1.33

17.9 Thus, as per methodology explained above Rs. 1.33/kWh could be Green Power Tariff. However, as this concept is being introduced for the first time and also considering the fact that Distribution Licensee would be able to use such power consumed by consumers towards fulfilment of its RPO target, certain benefit of the same needs to be passed on to concerned consumers. Hence, the Commission decides to levy only 50% of charge determined above i.e. 0.66/kWh as Green Power Tariff to the consumer opting for meeting its 100% of power requirement through RE sources. Such Green Power Tariff would be in addition to regular tariff approved in MYT Order.

17.10 All electricity consumers in the State have the option to source 100% RE power by additionally paying above stated Green Power Tariff. Distribution Licensee shall issue monthly certificate to such consumers stating that all power requirement of such consumer has been sourced through RE sources.

17.11 The commission will undertake review of Green Power Tariff during MTR proceedings"

- 7.15.2 MSEDCL has submitted above methodology, the Commission uniform rate of Green tariff determined based on difference between pooled power purchase cost of non-conventional and conventional sources of energy (only variable cost) for all Distribution Licensees in the State. Further, instead of computing year wise different tariff, uniform number for MYT control period is computed. Now, MSEDCL 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
- 7.15.3 As per the methodology explained, MSEDCL proposed year wise specific green power tariff for FY 2023-24 and FY 2024-25 for consumers who opts for 100% RE power procurement from MSEDCL and the calculations are as follows:

Total	fo	RE power Procurement for FY 2023-24 (Projected)			n-RE po urement e) for FY Projecte	Diff Bet RE &Non-RE power	
	MU	Rs. Cr	Rs/kWh	MU	Rs. Cr	Rs/kWh	Rs/kWh
MSEDCL	26409	11859	4.49	126348	41772	3.31	1.18

The value of difference between RE and Non-RE power procurement (only variable) will change as per the figures approved by the Commission in the MTR order of FY 2023-24.

Total	fo	wer Proc r FY 202 (Projecte		Proc Variable	n-RE po urement e) for FY Projecte	Diff Bet RE &Non-RE power	
	MU	Rs. Cr	Rs/kWh	MU	Rs. Cr	Rs/kWh	Rs/kWh
MSEDCL	29476	12966	4.40	125993	42601	3.38	1.02

The value of difference between RE and Non-RE power procurement (only variable) will change as per the figures approved by the Commission in the MTR order of FY 2024-25.

7.15.4 MSEDCL also proposed to levy only 50% of charge determined i.e., Rs. 0.59/kWh and Rs. 0.51/kWh 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. Further, such Green Power Tariff would be in addition to regular tariff to be approved in MTR Order for FY 2023-24 and FY 2024-25.

- 7.15.5 The Commission determined Green Power Tariff for the consumers opting for meeting its 100% of power requirement through RE sources in the Case No. 134 of 2020 dated 22.03.2021, which is stipulated as Rs 0.66 per kWh as per the conditions and methodology specified under said Order.
- 7.15.6 On 6 June, 2022, Ministry of Power, GoI has notified Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022. The said rules mandate the State Commission to determine Green Power Tariff. The Commission has already determined the same vide its Order dated 22 March, 2021 as mentioned above.
- 7.15.7 Such Green Power Tariff would be in addition to regular tariff approved in MYT Order. The Commission observes that the concept of Green Tariff has been well appreciated by many stakeholders across state as it provides opportunity for consumers willing to meet their power requirement through green energy sources, however, the concept is still at nascent stage with limited participation.

- 7.15.8 Besides, there have been several developments since introduction of concept including COVID pandemic situation, which also has bearing on renewable energy development in the country. Other market related developments such as introduction of GDAM/GTAM and REC multiplier etc. are still evolving. Under the circumstance, the Commission is of the considered view that any change in mechanism of Green Tariff is not desirable at this stage and the same should continue for remaining period of the 4th Control Period. Thus, the Commission hereby approves the Green Tariff of Rs 0.66/kWh to be applicable during remaining period of 4th Control Period (i.e. FY 2023-24 and FY 2024-25).
- 7.15.9 However for ease of implementation and to comply with provisions of MoP Rules, the Commission stipulates following terms and conditions for levy of Green Power Tariff.
- 7.15.9.1 All consumers (Extra High Voltage, High Voltage and Low Voltage) shall be eligible for opting RE power on payment of Green Power Tariff.
- 7.15.9.2 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.
- 7.15.9.3 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.
- 7.15.9.4 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.
- 7.15.9.5 If the consumer is not an obligated entity under RPO Regulations, then that energy shall be counted towards RPO fulfilment of Distribution Licensee.
- 7.15.9.6 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.
- 7.15.9.7 Such an option will also be available for Open Access consumer for its balance consumption from the Distribution Licensee.
- 7.15.9.8 The Distribution Licensee will levy Green Power Tariff only for percentage of consumption opted by the Consumer.
- 7.15.9.9 Distribution Licensee shall issue Annual certificate to consumers stating percentage of power requirement of such consumer has been sourced through RE sources

- 7.15.9.10 Any requisition for green energy from a distribution licensee shall be for a minimum period of one year.
- 7.15.9.11 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.
- 7.15.9.12 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.
- 7.15.9.13 The Rules notified by MoP, GOI also specify that rating of the consumer based on the percent of green energy purchased by such consumer. The Commission notes that RPO specified for FY 2023-24 and FY 2024-25 is 22% and 25% respectively and is likely to be revised upwards going forward in next Control Period. As Distribution Licensee will already be meeting such consumption, it would not be correct to issue any certificate to individual consumer for RPO to be met by Distribution Licensee as a whole. The Commission has allowed the consumer the choice to opt for RE purchase in the steps of 25%. Accordingly, the Commission introduces the rating to be given by Distribution Licensee at the end of the financial year along with the electricity bill for the month of March specifying the percentage of power purchased from RE sources from his total consumption and rating as given below:

% of RE Purchase Opted	Rating		
>50% to 75%	Semi-Green		
>75% to 100%	Green		

7.16 Amendment in provisions regarding Prepaid Meters for LT CT Operated (Above 20kW) and HT Consumers

MSEDCL's Submission

7.16.1 MSEDCL submitted that the Commission has notified MERC (Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2021 (MERC Supply Code & SOP Regulations, 2021), which amongst various other things provides inter alia for installation of pre-paid meters, security deposit in case of pre-paid Meters and rebate thereof. In this context, the relevant extract of the said regulations is reproduced below:

"13. Security Deposit

...

13.2 The amount of the security referred to in Regulation 13.1 above shall be twice the average billing of the billing cycle period.

. . .

Provided further that in case of installation of pre-paid meters, the security deposit shall not be collected by the Distribution Licensee and that the Consumer shall be eligible for a rebate/incentive as approved by the Commission for making the pre-payment.

..

16.5. Payment of Bills

...

- 16.5.12 In case of pre-paid metering, the Licensee shall pay a rebate/incentive to the Consumer in accordance with the relevant orders of the Commission."
- 7.16.2 MSEDCL has submitted that as against MSEDCL proposal for reduction of pre-paid meter rebate from 5% to 2% of the consumer's total monthly bill, the Commission vide its MYT Order dated 30th March, 2020 in Case No. 322 of 2019 has continued such rebate of 5% in the Energy Charge (incl. FAC) for consumers having pre-paid meters.
- 7.16.3 MSEDCL has submitted that in view of aforementioned provisions of MERC Supply Code & SOP Regulations, 2021) and ruling of MYT Order 2020, various consumer's association and consumers having CT operated Meter (LT above 20kW) and HT Meter have approached MSEDCL with a request of installation of pre-paid meter so that the consumers can be exempted from payment of Security Deposit and will receive rebate entitled for pre-paid meters.
- 7.16.4 MSEDCL has submitted that it is observed that in case of consumers with HT & above 20 kW load metering is indirect metering i.e. meter is connected through CT/PT and hence disconnection / reconnection cannot be implemented in case of insufficient funds / payment of bills respectively. Hence, the request of consumers for installation of prepaid meters is not technically feasible.
- 7.16.5 In order to sort out this issue, MSEDCL has collected information from the various Meter manufacturers viz M/s. Schneider, M/s. Genus, M/s. Secure, M/s. Vision Tek, M/s. Avon and M/s. HPL whether the pre-paid meters could be installed to the LT consumers above 20 kW and HT consumers or otherwise. Meter manufactures have conveyed that they don't not have such product and further informed that concept of pre-paid meter cannot be made applicable of CT operated meter used for consumer above 20 kW and HT consumers.
- 7.16.6 MSEDCL further submitted that as per IS 16444 (Part 2), connect / dis-connect facility is not available for LT CT operated meters and HT meters as these meters are connected on secondary side of metering equipment. In absence of the connect/disconnect facility to these meters, pre-paid meters could not be installed to HT and LT (load above 20 kW) consumers.

- 7.16.7 In view of the above, MSEDCL has requested the Commission to allow pre-paid rebate only for consumers having LT Whole Current Meters.
- 7.16.8 MSEDCL further requested the Commission an amendment to the MERC (Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2021 to that effect may please be issued.

- 7.16.9 The Commission notes MSEDCL's submission that pre-paid meter cannot be installed in case of LT CT operated meters (load above 20 kW) and HT meters, in the absence of connect/disconnect facility to these meters. Further, the Commission also notes the compilation of responses filed by various meter vendors/ manufacturers about infeasibility of incorporating feature remotely operated disconnection/reconnection for pre-paid meters and as claimed by few meter manufacturers that such requirement is not in compliance provision in IS16444 (Part 2).
- 7.16.10 The Commission opines that the MSEDCL's demand to amend the Supply Code regulations cannot be dealt with as part of present proceedings which are limited to the exercise of determination of tariff under MTR process in accordance with the MYT Regulations, 2019.
- 7.16.11In this context, based on comments/objections raised by stakeholders during public consultation process, the Commission notes that the issue at the core is not as much about pre-paid meter installations as demanded by the consumers but the facility for advance payment or pre-payment, which can entitle the consumer to avail some form of rebate for such advance payment.
- 7.16.12The Commission notes that as per Regulation 30.11 of MYT Regulations, 2011 and Regulation 13.11 of Supply Code Regulations, 2021, the consumer is entitled to interest on security deposit at the rate of Bank Rate of Reserve Bank of India. Further, as per Regulation 36.2 of MYT Regulations, 2019, entitles the consumer to avail prompt payment rebate of 1% of bill amount excl. taxes, duties and cess, provided payment is made within 7 days of issuance of the bill. As per Regulation 36.2 of the MYT Regulations, 2019, the consumer is also eligible to avail discount for payments made through digital/online mode at the discount rates to be specified by the Commission through Orders from time to time. However, there is no provision for the rebate/discount for advance payment or pre-payment.
- 7.16.13During public hearing several consumers/objectors/stakeholders have expressed the need to avail such facility of advance payment/pre-payment, if enabled so as to avail rebate/discount on billed amount. On the other hand, the Commission also observes that MSEDCL require to borrow funds to meet its working capital requirement and the allowable interest on such working capital is Base Rate (i.e. One year MCLR of SBI)

plus 150 basis points. Thus, if advance payment is made by any consumer, it would only support to part fund the working capital requirement of MSEDCL.

7.16.14Thus, the Commission hereby allows the advance payment/pre-payment of the bills for consumers for amount not exceeding 12 times average monthly bill for the past twelve months. Such facility shall be available for eligible consumers only for non-defaulting consumers on record for at least past 12 months. Such consumers shall be eligible to avail discount in graded manner on their monthly bills, so long as they maintain advance payment amount in following manner:

Advance Payment Amount	Di	iscount in monthly bill	Ill	ustration discount*
maintained with Utility as on	applicable at the rate of		(%)	
date of monthly bill				
Advance Amount = Equiv. of	•	Percent Discount in monthly	•	(1/12) x 8.5% =
(Avg. Monthly Bill for past 12		Bill Amount = $1/12 x$ (SBI 1-		0.708% (monthly
months) x [No. of months, 9 to		yr MCLR as on 1^{st} Apr) + 150		bill discount)
12 months]		basis points		
Advance Amount = Equiv. of	•	Percent Discount in monthly	•	(1/12) x 8.2% =
(Avg. Monthly Bill for past 12		Bill Amount = $1/12 x$ (SBI 1-		0.683% (monthly
months) x [No. of months, 6 to		yr MCLR as on 1^{st} Apr) + 120		bill discount)
9 months]		basis points		
Advance Amount = Equiv. of	•	Percent Discount in monthly	•	(1/12) x $7.9%$ =
(Avg. Monthly Bill for past 12		Bill Amount = $1/12 x$ (SBI 1-		0.658% (monthly
months) x [No. of months, 3 to		yr MCLR as on 1^{st} Apr) + 90		bill discount)
6 months]		basis points		
Advance Amount = Equiv. of	•	Percent Discount in monthly	•	(1/12) x $7.6%$ =
(Avg. Monthly Bill for past 12		Bill Amount = $1/12 x$ (SBI 1-		0.633% (monthly
months) x [No. of months, upto	yr MCLR as on 1^{st} Apr) + 60		bill discount)	
3 months]		basis points		

^{*}Note: Assume SBI 1-year MCLR of 7% p.a.

7.16.15Further, the Commission notes that Rebate for pre-paid meter was introduced mainly to arrest the defaults in case of post-paid meter connections in areas where such defaults, thefts, commercial loss level are high. The Commission agrees with MSEDCL's suggestion to reduce the rebate from 5% to 2% in case of pre-paid meter connections.

7.17 Cheque related

MSEDCL's Submission

7.17.1 MSEDCL submitted that it has filed the Petition in Case No. 44 of 2021 before the Hon'ble Commission to apply ceiling of Rs. 10,000/- on acceptance of monthly electricity bill through cheque and to mandate online payment for any payment amounting to more than Rs. 10,000/- by invoking the clause removal of difficulties in

- implementation of MERC (Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2021.
- 7.17.2 Howev^{er}, The Commission vide its Order dated 23rd August, 2021 in Case No. 44 of 2021 stated that the Supply Code Regulations have been notified after due public consultation process. For any change in the Regulations, the opportunity of expressing their views is to be given to all stakeholders. Hon'ble Commission dismissed the case with liberty to MSEDCL to approach the Hon'ble Commission will all the details, during Mid-Term Review of tariff.
- 7.17.3 MSEDCL submitted that Regulation 16.5.6 of the MERC (Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2021 provides for cash payment limit of Rs. 5,000/ or limit as may be decided by the Commission.
- 7.17.4 MSEDCL submitted that it has enabled the online payment facility for its consumers since 2005. All types of payment mode such as debit card, credit card, net banking, UPI, digital wallets, cash card, paytm etc. are available. On an average around 90 lakhs LT consumers pay through online modes amounting to approximately Rs.1750 Crs. Per month. MSEDCL submits that Digital India Programme (Digital Programme) was launched by the Government of India (GoI) with an objective to ensure that the services of the government are made available to citizens electronically by improving online infrastructure and by increasing Internet connectivity or by making the country digitally empowered in the field of technology. Considering this, MSEDCL has initiated various activities to promote the online payment facilities like SMS to consumers informing various modes of online payment, wide publicity through newspaper, discount for online payment etc. As a result of these initiatives, average monthly online collection has been increased upto 58% in FY 2021-22 as compared to 11.89 % in FY 2015-16.
- 7.17.5 MSEDCL submitted that it has also introduced RTGS/NEFT payment facility to LT and HT consumers through virtual account system. Virtual accounts are created for all HT consumers and for LT consumers having bill amount above Rs. 5000/- (total around 90 lakhs Virtual accounts), which cover demand of around Rs. 3000 Crs per month. Currently all HT consumers are making payment of their monthly energy bills using Virtual Account system and LT consumers are being persuaded to adopt the system in addition to regular online payment options.
- 7.17.6 MSEDCL submitted that implementation of limit on cash acceptance will have adverse impact on its revenue realization. Currently, on an average around 80 lakhs consumers pay electricity bills by cash with monthly approximately of Rs. 1,100 Crs. Further, as per Section 269 ST of the Income-tax Act, 1961, limit for non-acceptance of cash above Rs. 2.00 lakhs have been already implemented by MSEDCL since April 2019. Even though the tendency of cash payment by consumer has not reduced, as expected.

- 7.17.7 MSEDCL submitted that due to COVID-19 lockdown situation and slowdown of economy, many consumers were not able to pay energy bills. As such arrears are being accumulated. Continuous efforts for revenue realization are done through recovery drivers. During the recovery drives many consumers prefer to pay the bill on the spot with cash. However, due to limitation for non-acceptance of cash above Rs. 5,000/-such payments cannot be accepted, and it results in non-realization of revenue.
- 7.17.8 MSEDCL further submitted that it has experienced following behavioral patterns of consumers towards preference to cash payment while making collection.
 - a) In Rural area consumer are not well acquainted with digital modes of payment and afraid to pay online or through net banking/cheque.
 - b) Ag consumer's day-to-day transactions are in cash and due to ongoing Ag Policy, 2020, they are paying their bills in cash, as they do not want to use any other mode of payment.
 - c) Senior citizens and housewives who are staying alone have difficulties in online payment.
 - d) In case of theft, bills which are always more than Rs. 5,000/-, consumer is reluctant to pay online.
- 7.17.9 MSEDCL further submitted that, as per average monthly collection data, there are around 3.11 lakhs consumer pay the bill amount above Rs. 5,000/- in cash with value of Rs. 370 Crs which is 35% of total cash collection per month. Due to restriction of acceptance of cash amount above Rs. 5,000/- MSEDCL is facing difficulty in realization of huge amount as above, which directly affects MSEDCL's funding arrangements.
- 7.17.10 MSEDCL further submitted that all consumer paying through cash currently will not easily adopt for online payment options which may lead to possibility of more cheque payments resulting to further delay in realization of bill amount to MSEDCL. Additionally, as per Regulation 16.5.6 of Supply Code and SoP Regulations, 2021, MSEDCL shall be compelled to pass on credit to consumers on T+3 days irrespective of cheque realization amount credited to MSEDCL account or not.
 - 7.17.11 MSEDCL submitted that it has banking transactions with Nationalized banks. Some of the key issues faced by MSEDCL with Nationalized banks in cheque clearances are:
 - a) Reluctance in accepting the Cheque collections due to higher quantum.
 - b) Delay in processing and realization of cheques
 - c) Delay in intimation of cheque dishonoured
 - d) Cheque wise clearing and return details are not provided

- e) Demand of cheque processing charges ranging from Rs. 6 to Rs. 12 per cheque by some banks.
- 7.17.12 As a result of these issues, even though updation of consumer ledger is not delayed due to Regulation 16.5.6, there is delay in realization of revenue to MSEDCL and additional manual work & reconciliation issues.
- 7.17.13 MSEDCL further submitted that the slab-wise payment analysis shows that consumers having average monthly bill payment above Rs. 20,000/- through cash mode area around 31,000 with amount of ~ Rs. 130 Crs and through cheque mode are around 41,000 with amount of Rs. 250 Crs
- 7.17.14 Considering the number of consumers and amount affected by limit of Rs. 5,000/- on acceptance of amount through cash and cheque as mentioned in para above, MSEDCL requests Hon'ble Commission
 - i. To increase the Cash acceptance limit from Rs. 5,000/- to Rs. 20,000/- for initial implementation to minimise the impact of MSEDCL's revenue realization
 - ii. To set the limit on acceptance of amount through Cheque / Demand Draft for Rs. 20,000/- to overcome cheque clearance related issues.
 - iii. All payments to MSEDCL above Rs. 20,000/- should be through online payment modes.

- 7.17.15 The Commission notes the MSEDCL's detailed submission in this regard and also the difficulty expressed in terms of limit on cash deposit as well as the operational challenges faced by it in terms of cheque processing. However, the Commission is of the considered view that the digital and online payments has become norm for modality of payment for availing services/supplies across all sector of economy and in line with the national and state agenda to limit the cash transactions. The provisions of the Supply Code Regulations were framed upon extensive public consultation process. The Commission also appreciates the efforts and initiatives taken by MSEDCL to further the cause of digital/online payment and various other modes of payment that has been made operational over the period. Thus, enhancing the limit for cash transactions from Rs 5000/- would not be appropriate at this juncture.
- 7.17.16However, considering the difficulties expressed by MSEDCL in rural areas, particularly for recovery in case of LT-Agriculture category consumers, the Commission enhances the allowable limit for the cash payment from LT-Agriculture category to Rs 10,000/-
- 7.17.17As regarding restricting cheque payment to 20000/-, the Commission notes that issues highlighted by MSEDCL in processing of cheques are mostly addressed by the provision of Supply Code Regulations 2021 which stipulated that for a consumer whose

cheque is dishonoured second time in any financial year then such facility of cheque payment will not be available for such consumer for balance period of that financial year. Hence, the Commission is not accepting suggestion of MSEDCL to limit payment through cheque to 20000/- only.

7.18 Clarification on Demand Charges for LT VI: LT – Street Light category

MSEDCL's Submission

7.18.1 MSEDCL submitted ^that the Commission in MYT Order dated 30th March, 2020 in Case No. 322 of 2019 has stipulated following applicability LT VI: LT- Street Light category for the Control Period.

"LT VI: LT- Street Light

Applicability:

This tariff category is applicable for ...

. . .

Note:

- **33**) The above street and other lighting facilities having 'Automatic Timers' for switching On/Off would be levied DemaCharges on the lower of the following—
- i) 50 percent of 'Contract Demand' or
- ii) Actual 'Recorded Demand'."
- 7.18.2 MSEDCL submitted that applicability of demand charges for streetlights having non-automatic / manual operations is not mentioned. MSEDCL requested the Commission to provide the clarity on the same.
- 7.18.3 MSEDCL further submitted that it is proposed that the demand charges for the street and other lighting facilities having 'Automatic Timers' for switching On/Off shall be charged Demand charges on "higher" of the following
 - i. Actual Recorded demand or
 - ii. 50% of contract demand.

Commission's Analysis & Rulings

7.18.4 The Commission has noted MSEDCL's submission and hereby clarifies that the Demand Charge for LT-VI: Streetlight category shall also cover the streetlights where Non-automatic/manual operations are covered. Further, the Commission also agrees with MSEDCL's suggestion that the Demand Charges shall be applicable on 'higher' of the actual recorded demand or 50% of the contract demand. The relevant changes in the Tariff Schedule shall be incorporated accordingly.

7.19 Clarification on Penalty for exceeding Contract Demand

MSEDCL's Submission

7.19.1 MSEDCL submitted that the Commission in MYT Order dated 30th March, 2020 in Case No. 322 of 2019 has stipulated detailed criteria for Penalty for exceeding Contract Demand wherein the Distribution licensee can enhance the Contract Demand of the consumer when the consumers exceed the Contract Demand on more than three occasions during a calendar year irrespective whether the Consumer submits an application for the same. The relevant extract is reproduced below:

"Penalty for exceeding Contract Demand

....

Further Distribution licensee can enhance the Contract Demand of the consumer when the consumer exceeds the Contract Demand on more than three occasions during a calendar year, irrespective whether the Consumer submits an application for the same or otherwise. However, before such revision of Contact Demand, Distribution Licensee must give 15 days' notice to such consumer. Also, the Consumer is liable to pay necessary charges as may be stipulated in the approved Schedule of Charges for the revised Contract Demand." (Emphasis added)

- 7.19.2 MSEDCL submitted that subsequently, the Commission has notified MERC Supply Code & SOP Regulations, 2021. As per regulations 7.6 of the aforementioned regulations distribution licensee is mandated to revise the Contract Demand to highest of demand recorded during a financial year. The relevant extract is reproduced below:
 - "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:

Provided that in case Consumer exceeds its Contract Demand on Three (3) occasions in any Financial Year, then Distribution Licensee 501ategorized501te such Consumer to apply for regularising its Contract Demand. In case Consumer refuses or fails to do so, Distribution Licensee shall revise its Contract Demand to the highest recorded Maximum Demand in that Financial Year in the immediate next ensuing bill:

... ,,

7.19.3 MSEDCL requested the Commission to revise the condition as per the MERC Supply Code & SOP Regulations, 2021.

Commission's Analysis and Rulings

7.19.4 The Commission notes the MSEDCLs submission in this regard and clarifies that the provisions of the Supply Code Regulations, 2021 shall prevail. Necessary modifications in the Tariff Schedule to reflect this change for reference to 'Financial Year' instead of 'Calendar Year' have been incorporated.

7.20 Eligibility to avail various incentives and rebates approved by the Commission *MSEDCL's Submission*

- 7.20.1 MSEDCL submitted that a high proportion of consumers in LT category do not pay on time resulting in blocking of revenue. Further, cost and expenses have to be incurred to take necessary steps to realize the unpaid dues of the electricity bill from the defaulting consumers. Thus, MSEDCL has to incur the administrative charges and expenses for service notice on such consumers.
- 7.20.2 Consumers paying regular bills within the timelines stipulated get prompt payment discount of 1%. Further, for normative working capital, Commission provides interest rate of about 8%-10% p.a. which is less than 1% per month. Such extra expenditure due to certain non-timely paying consumers gets passed on to other consumers.
- 7.20.3 MSEDCL further submitted that in order to encourage timely payments by defaulting consumers, it is high time that various applicable rebate(s) and incentives(s) need to be governed by following conditions so as to create deterrent to defaulting consumers, if any.
 - Various applicable rebate(s) and incentive(s) will be available only if the consumer has no arrears with the Distribution Licensee, and payment is made within seven days from the date of electricity bill.
 - In case of not availing a prompt payment discount i.e., non-adherence to bill payment within date for availing prompt payment discount for any billing month, benefit of various applicable rebate(s) and incentive(s) shall be withdrawn for the entire period of next billing month. As well as if consumer exceeds his contract demand in a particular month, in that month consumer will not be liable for any type of incentive or rebate approved by MERC.

- 7.20.4 The Commission does not agree with the MSEDCL's suggestion to restrict the eligibility of consumers to avail various rebates/discounts which would be governed as per various provisions and conditions stipulated from time to time. As regards availing prompt payment discount is concerned, it is consumer's prerogative, and it could avail it as per its cashflow and other business considerations. Non availing of prompt payment discount in any month should not lead to the consumer becoming ineligible to avail other discounts/rebates as available as per provisions of Order.
- 7.20.5 Further, treatment for exceeding contract demand shall be governed as per the conditions stipulated under the Order and the Tariff Schedule and consumer would be obliged to pay applicable penal charges, there is no need to link the eligibility of other incentive/rebates to this condition.

7.21 Sharing of Standby Charges for Mumbai Distribution Area

MSEDCL's Submission

- 7.21.1 MSEDCL has submitted that it is raising stand by bills as per the orders of Hon'ble Commission only. However, AEML is not paying the stand by charges from Oct-2021 onwards and is claiming that it has opted out of Stand by arrangement since Dec-2021. It is pertinent to mention that the stand by arrangement and the stand by charges thereof have been decided by Hon'ble Commission and hence neither MSEDCL nor any licensee in Mumbai distribution area can take unilateral decision to discontinue with the stand by arrangement.
- 7.21.2 MSEDCL has raised several other issues regarding operational modalities of standby operations and differences/disputes with AEML-D on the subject.
- 7.21.3 MSEDCL has further submitted that TPC-D vide letter dated 03.01.2023 has conveyed to MSEDCL that on account of development of the Real Time Market, it is able to manage its Power Procurement through available sources from the Real Time Market on intra- day basis. It has further stated that the mechanism of Stand by facility was envisaged at the time when real time market was not operational, or no power was available in real time. TPC-D has further stated that, it wishes to discontinue the Standby power facility with effect from 01.04.2023.
- 7.21.4 In this context, MSEDCL has submitted that in Real Time Market Power Procurement on intra-day basis can be effected only after 4-8 blocks. In this time period, it is obvious that TPC-D will draw excess power from grid which is eventually not good for grid health. TPC-D is indirectly asking for approval to overdraw huge quantum of power from the grid. There are already transmission constraints for bringing power to Mumbai and in this scenario overdrawing from the grid would further stress the grid. In order to avoid events such as the recent grid failure of 12.10.2020, transmission grid supplying power to Mumbai should not be overstressed.
- 7.21.5 MSEDCL has further argued that, during the said period of 4-8 blocks to reduce overdrawl of the state, SLDC will pick up MSEDCL's contracted resources such as Koyna Hydro Electric Power Plant. Thus, if TPC-D's request is accepted, TPC-D will indirectly utilize MSEDCL's cheaper contracted resources without the liability of standby charges. MSEDCL requests Hon. Commission to issue appropriate directives to TPC-D accordingly.

Commission's Analysis and Ruling

7.21.6 The Commission observes that the issues raised regarding standby power operations and modalities thereof are in the nature of the dispute or differences in operationalising the standby arrangement in vogue, which is beyond the present scope of regulatory process initiated in pursuance of the MYT Regulations for mid-term review of MTR Petition filed by MSEDCL. Further, such disputes/claims cannot be settled without

- giving either party an adequate opportunity for being heard, making their submissions and can be undertaken as part of separate proceedings to be initiated, if the parties deem it necessary, in case of un-resolved dispute and are at liberty to seek redressal through separate adjudicatory process.
- 7.21.7 Under the circumstances, the Commission has decided to proceed in terms of the principles outlined under its MYT Order in Case 322 of 2019 for sharing of standby charges amongst Mumbai distribution utilities, for the purpose of MTR process for remaining period of 4th Control Period (i.e. FY2023-24 and FY2024-25) only to the extent of modifications in pro-rata sharing ratio arising due to revision in Base TCR (Avg. CPD/NCPD) as finalised through Commission's TTSC Order for MTR (Case 284 of 2022).
- 7.21.8 Thus, the Commission had decided to continue to share the Stand-by charges amongst the three Mumbai Distribution Licensees and the Indian Railways (Mumbai Area) during remaining period of the 4th Control Period (i.e FY2023-24 and FY2024-25) as outline under subsequent paragraphs.
- 7.21.9 The Commission has determined Base TCR (average of CPD and NCPD) under its MTR Order for petition filed by STU for TTSC determination in Case 284 for 2022 for FY2023-24 and FY2024-25, wherein it has determined Base TCR for Distribution Licensees (Mumbai Area) incl. Indian Railways. Further, The Commission notes that STU in its InSTS tariff petition has submitted CPD and NCPD for Indian Railway for entire Maharashtra. In this regards the Commission has sought information in data gap query (23.02.2023) regarding the bifurcation of CPD and NCPD for Indian Railway for Mumbai and rest of Maharashtra other than Mumbai for determination of stand by charges for Indian Railways (Mumbai Area).
- 7.21.10In this context, STU has submitted that in respect of bifurcation of CPD and NCPD, SLDC has informed that the Indian Railway is treated as one entity for all over the Maharashtra. Therefore, bifurcation of CPD and NCPD data of Indian Railway Mumbai and Indian railway Maharashtra other than Mumbai are not available.
- 7.21.11Therefore, the Commission in this order has considered average of average CPD and NCPD (Base TCR) for Indian Railway (Mumbai) based on the Base TCR as approved by the Commission in MYT Order in Case in 322 of 2019. Further, for other three Mumbai Distribution Licensees, the Commission has considered Base TCR as approved in the InSTS Tariff Order dated 30 March 2023 in Case No. 284 of 2022, for determination of share of stand by charges of FY 2023-24 and FY 2024-25 as shown in the table below:

Table 7-13: Standby Charges for FY 2023-24 to FY 2024-25, as approved by the Commission

Distribution Licensee	Base TCR	% of Share of Mumbai Utilities & IR	Annual Share of Standby Charges (Rs. Crores)	Per month share of Standby Charges (Rs. Crores)
FY 2023-24				
TPCL-D	857.41	26.14%	103.53	8.63
AEML-D	1,531.17	46.69%	184.89	15.41
BEST	778.70	23.74%	94.03	7.84
IR (Mumbai)	112.17	3.42%	13.54	1.13
Total	3,279.45	100.00%	396	33.00
FY 2024-25				
TPCL-D	883.13	26.14%	103.52	8.63
AEML-D	1,577.10	46.68%	184.86	15.40
BEST	802.07	23.74%	94.01	7.83
IR (Mumbai)	116.13	3.44%	13.61	1.13
Total	3,378.43	100.00%	396	33.00

7.22 Additional Suggestions and clarifications for Tariff Applicability

MSEDCL's Submission

- 7.22.1 MSEDCL submitted that Commission in its past tariff Orders has explicitly spelt tariff applicability to various usages. With growth in economy, new usages patterns have emerged, which require clarification and confirmation of the Commission. Though the applicability specified by the Commission is representative, MSEDCL prays for confirmation on following usage categorization.
- 7.22.2 Following new usages have been identified and added in tariff applicability proposal.
- 7.22.3 Residential consumer category
- 7.22.3.1 Private corporate bodies Staff quarters / Hostels / Rest Houses.

MSEDCL has proposed to include private corporate bodies staff quarters/ Hostels/ Rest Houses under Residential category

7.22.3.2 Temporary purposes for public religious functions

MSEDCL is already charging residential rates to temporary purposes for public religions function, for areas where community prayers held and for functions to commemorate anniversaries of personalities and National or State events for which Public Holidays have been declared. MSEDCL has proposed to include Gopalkala Utsav and Maharashtra Day under this list.

7.22.3.3 Crematoriums and Burial Grounds for all purposes, including lighting

MSEDCL has proposed to include "electric kiln, water pumps, etc." under this list

7.22.4 Non- Residential or Commercial consumer category

- 7.22.4.1 Non-Residential, Commercial and Business premises, including Shopping Malls and Showrooms
 - MSEDCL has proposed to include Exhibition Centres, Ware Houses/Godowns, Resorts, Canteens/ Cafeterias, Tea shops, Logistics and Transportation services under this category.
- 7.22.4.2 MSEDCL has proposed to include Toll Collection plazas including lightings on Express / National / State Highways not included under any other categories under this category.
- 7.22.4.3 MSEDCL has proposed to include Mobile Shoppe's under this category.
 - 7.22.4.4 Separate Sports Clubs/facilities, Health Clubs/facilities, Gymnasiums, Swimming Pools not included in other o include in this category.

MSEDCL has proposed to include Training Centres under this category.

Commission's Analysis & Rulings

- 7.22.5 The Commission notes the MSEDCLs submission regarding the applicability and classification of various cases of consumption as per usage as proposed by MSEDCL under residential or non-residential/commercial category. The Commission hereby confirms such classification based on usage as proposed by MSEDCL. Necessary modifications in the Tariff Schedule to reflect this classification of usage under respective consumer category have been incorporated.
- 7.22.6 In addition, the Commission clarifies that residential staff quarters for defence establishments currently classified under HT-Group Housing which is used residential purpose and allied activities for defence personnel within the gated community of such defence colony/establishments. The defence establishment undertakes maintenance and upkeep of electrical infrastructure within such colony premises. The cost of electricity usage by residents are recovered from such defence personnel through their salary, which are unable to enjoy benefits of lower rate for consumption at lower slabs as applicable for residential category consumers due to nature of single point supply for HT-Group Housing category. During public hearing, the EME/defence personnel requested to create separate sub-class or apply lower tariff for defence colony/establishments under HT-Group Housing category. The Commission observes that relief for defence personnel is necessary, however creating separate subclass/category for this purpose would not be in line with overall philosophy of rationalisation and simplification of tariff categories and tariff slabs. Under the circumstances, the Commission decides to allow 20% reduction in Energy Charge (incl. FAC) for defence colony/establishments under the HT-Group Housing category.

- 7.22.7 The Commission hereby approves inclusion of private corporate bodies staff quarters/ Hostels/ Rest Houses under Residential category.
- 7.22.8 The Commission notes that MSEDCL is already charging residential rates to temporary purposes power supply for public religious functions, the Commission approves inclusion of Gopalkala Utsav and Maharashtra Day under this list
- 7.22.9 The Commission notes that MSEDCL is charging LT IX tariff category for Crematoriums and Burial Grounds. As proposed by MSEDCL, the Commission approves inclusion of terms "electric kiln, water pumps, etc." under this category.
- 7.22.10The existing applicable tariff for Non-Residential, Commercial and Business premises, including Shopping Malls and Showrooms. In order to have clarity in applicability of Non-Residential or Commercial tariff, the Commission approves inclusion of Exhibition Centres, Warehouses/Godowns, Resorts, Canteens/ Cafeterias, Tea shops, Logistics and Transportation services, Toll Collection plazas including lightings on Express / National / State Highways, Mobile Shoppes, Sports Clubs/facilities, Health Clubs/facilities, Gymnasiums, Swimming Pools and Training Centers under this category.

7.23 Modification in Tariff Applicability

MSEDCL's Submissions

7.23.1 Applicability of BPL category tariff

MSEDCL submitted that as per the exhaustive eligibility criteria prescribed by the Commission, applicability of BPL category will have to be assessed at the end of each financial year. MSEDCL submitted 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 –uch 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, MSEDCL 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.

7.23.2 Residential category

7.23.2.1 Single-phase household Flour Mills (Ghar-ghanti) used only for captive purposes MSEDCL has proposed to modify replace the term 'captive purposes' with 'self-use'.

- 7.23.3 Retail Gas Filling Stations including Gas bottling plants in the same premises.
- 7.23.3.1 The Commission in MYT Order has recognised 'retail gas filling station' as separate activity and categorised under Commercial Tariff. Further, during the proceedings before the Hon'ble Commission in Case No. 26 of 2022 (Order dated 18th July, 2022), issue of tariff categorization of two activities viz., Compression (Bottling) and Dispensing undertaken by CNG station raised. The Commission in the Order dated 18th July, 2022 opined as under
 - "14.7 ... At the same time it is also important to note that other somewhat similar activity (though not exactly similar to the CNG filling stations) of 508 at egorized he vehicle i.e. Petrol Pump is categorised under Commercial category. Therefore, even if 508 at egorized 508 on he Commission to relook the categorisation of 'retail gas filling station', the same cannot be done through present proceeding and needs to be undertaken through public consultation process in tariff proceeding" (Emphasis added)

As per the Tariff Orders of the Hon'ble Commission, CNG bottling plants fall under industrial category whereas retail sale of the gas fall under commercial category. Hence, it is proposed that 'Gas bottling and filling plants in the same premises' to be included under Commercial tariff category.

7.23.4 Ready-mix concrete or hot mix plants used for construction of infrastructure projects

Ready-mix Concrete (RMC) or hot mix plants or mining/ stone crushing plants exclusively used for construction of any infrastructures projects are included in construction activity. In order to get clarity and to avoid conflicts on this, MSEDCL proposed that the category for Ready-mix and Hot Mix plants used for construction of infrastructure projects mentioned in clause (i) of LT Commercial as Commercial category.

7.23.5 Categorisation of Ordinance Factories of Defence establishments

7.23.5.1 MSEDCL submitted that in MTR Petition in Case No. 195 of 2017 it had requested the Commission to provide the clarification regarding categorisation of Ordinance Factories and Ammunition Factories and decide the applicability of Tariff for such establishment. Hon'ble Commission vide its Order dated 12th September, 2018 in this matter ruled as under:

"9.8.8. The Commission clarifies that the activities of the Ordinance Factories and Ammunition Factories of the Defence Establishments are akin to the manufacturing/industrial activity. Hence, it would be appropriate to classify such Ordinance/Ammunition Factories as industrial and Industrial Tariff, at appropriate voltage level shall be applicable in such cases. However, other De508ategorizedlishments would continue to be categorised as Public Service and corresponding Tariff shall be applicable for other Defence Establishments

excluding Ordinance/Ammunition Factories, Suitable clarification has been incorporated in the Tariff Schedule as such." (Emphasis added)

- 7.23.5.2 However, no such explicit clarification was incorporated in ^{the} Tariff Schedule in MTR Order dated 12th September, 2018 as such. Subsequently, MSEDCL has again proposed inclusion of 'Ordinance Factories of Defence Establishments' under Industrial category. The same was ^{not} incorporated in the MYT Order dated 30th March, 2020.
- 7.23.5.3 MSEDCL has again proposed categorisation of Ordinance Factories of Defence Establishments under Industrial category. MSEDCL requests the Hon'ble Commission to provide clarification on this and decide the applicability of Tariff for such establishments.

7.23.6 Packaged drinking water plants

7.23.6.1 Packaged drinking water uses water from any source which has to be treated and disinfected, a process that mainly involve filtration, UV or ozone treatment or reverse osmosis (RO) before it is fit for human consumption. There are mainly four sections in a packaged drinking water plant: water treatment, bottling, quality control (lab) and overall utility. Considering nature of usage, MSEDCL proposed to charge Industrial Tariff to Packaged drinking water plants.

7.23.7 Dam operation including Lighting and other activities

- Motors and allied load used for dam operations i.e. opening / closing of dam gates to control water flow.
- In tariff order applicability for Construction of dam is mentioned.
- Due to this ambiguity tariff applied to the dam operation is HT Group Housing Societies (Residential).
- Industrial or Public Water Works tariff may not appropriate as not falling under Industrial activity or any water supply schemes.
- Benefit of dam water is availed by public at large hence dam operations proposed under Public Services Others category.

7.23.8 Accommodation facilities provided by religious trusts registered under Maharashtra Public Trust Act for devotees

- Accommodation facility (Bhakta Nivasa) is provided by various religious places to the devotees visiting at these places.
- These religious places registered under Maharashtra Public Trust Act.

- Though the charges / rent are taken from the visitors / devotees who availed the accommodation but are of less than the Hotels, lodge, guest house etc.
- Thus, services provided by these trusts are not commercial in nature, hence Public Service-Others is proposed to the accommodation facilities provided by religious trusts registered under Maharashtra Public Trust Act for devotees.

7.23.9 Water ATM (RO/UV/UF) Water Purifier Plants

7.23.9.1 The novel concept of 'water ATMs', has been initiated in remote areas of Vidarbha where there is severe water scarcity or flow of contaminated water. Majority of Water ATMs are being installed with the funds received from multinational Companies and state run Mahagenco under corporate social responsibility fund. In some cases, these machines are being handed over to Gram panchayat or directly to women's self-help groups for operation. Considering this MSEDCL proposed to charge such units under Public services (Others) category, if Gram panchayat or local body operates the same. Otherwise Non-residential tariff may be made applicable

7.23.10 Godowns and Warehouses

7.23.10.1 MSEDCL submitted that warehousing means are of storage goods, making maximum use of available space of storage of goods (Raw and Finished). Godowns and warehouses are third party logistic providers and meant for temporary storage of goods. There exists the cluster of warehouse outside Bhiwandi and Pune in Maharashtra. The facilities of godowns and warehouses are leased by owner to any company, who intend to store the goods near to its demand centre. Presently, the Commission has not explicitly mentioned usages for Godowns and warehouses in any category. Hence, MSEDCL proposed to classify the Godowns and warehouses in Non-Residential category.

Commission's Analysis and Rulings

7.23.11 MSEDCL has mentioned that assessment of energy consumption for BPL category at the end of each financial year is not justified for the reason that if such consumer consumes more than 360 units cumulatively at the end of any billing cycle, then –uch consumer should be billed at LTI (B) - Residential tariff for the remaining period. Hence, MSEDCL has proposed that eligibility of such consumer will be reassessed regularly cumulatively at the end of each billing cycle in a financial year. In this context, the Commission opines that MSEDCL has not cited any instances or mis-use 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. The Commission notes that total consumption reported under this BPL category is less than 60 MU. Hence, the Commission is of the view that the 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. Hence, the Commission rejects proposal of MSEDCL for assessment at the end of each billing cycle.
- 7.23.12MSEDCL has proposed to replace the term 'captive purposes' with 'self-use' for Single-phase household Flour Mills (Ghar-ghanti) under Residential category. The Commission observes that MSEDCL has not provided any justification for proposing such change or highlighted any incidences or demand from the consumers as such. The Commission is of the view that replacing term 'Captive purpose' with 'self-use' may lead to potential disputes and inconvenience to consumers. Thus, Commission rejects proposal of MSEDCL replace the term 'captive purposes' with 'self-use' for Single-phase household Flour Mills (Ghar-ghanti).
- 7.23.13MSEDCL has proposed that 'Gas bottling and filling plants in the same premises' to be included under Commercial tariff category. In this context, the Commission notes that in normal circumstances dominant use should be considered for categorising consumer in Tariff category. The Commission in its tariff Order has recognised 'retail gas filling station' as separate activity and categorised it under Commercial Tariff. Every CNG gas filling station must have facility of compressing and storing of natural gas so that it can fill Compressed Natural Gas into vehicles. It is also a fact that 90% of electricity consumption of CNG station is towards compression and storing / bottling of natural gas. Therefore, if concept of dominant use is made applicable then industrial tariff which is applicable for 'bottling plant' becomes applicable to CNG gas filling station. In view of this, the Commission categorise CNG Gas Filling stations under Industrial Category.
- 7.23.14MSEDCL has proposed that the category for Ready-mix and Hot Mix plants used for construction of infrastructure projects mentioned in clause (i) of LT Commercial as Commercial category. The Commission observes that activity of Ready-mix and Hot Mix plants for construction of infrastructure projects are in the nature of industrial activities to support infrastructure development and are typically for longer term (more than 2 years) duration at fixed locations unlike temporary connections for construction purposes at project site. The Commission hereby approves that Ready-mix and Hot Mix concrete plants used for construction of infrastructure projects are to be considered under Industrial category.
- 7.23.15MSEDCL has proposed categorisation of Ordinance Factories of Defence Establishments under Industrial category. The Commission hereby approves to apply industrial category for Ordinance Factories of Defence Establishments.
- 7.23.16MSEDCL has proposed that to charge Industrial Tariff to Packaged drinking water plants. The commission is of view that the process of packaging of drinking water is akin to manufacturing activity, hence the Commission approves to charge Industrial Tariff to Packaged drinking water plants.

- 7.23.17MSEDCL has proposed that Dam operation including Lighting and other activities under HT Group Housing Societies (Residential) tariff category. The Commission is of view that Industrial or Public Water Works tariff may not appropriate for Dam operations as same is not falling under Industrial activity or any water supply schemes. The commission also notes that benefit of dam water is availed by public at large hence dam operations appropriate under Public Services Others category as proposed by MSEDCL. Hence, the Commission approves to include dam operations appropriate under Public Services Others category.
- 7.23.18MSEDCL has proposed Religious trusts registered under Maharashtra Public Trust Act for devotees to be covered under Public Service-Others. The Commission hereby approves inclusion of Religious trusts registered under Maharashtra Public Trust Act for devotees under Public Service-Others category.
- 7.23.19MSEDCL has proposed to include Water ATM (RO/UV/UF) Water Purifier Plants which are operated by Gram panchayat or local body. The Commission notes that Water ATMs', has been initiated in remote areas of Vidharbha where there is severe water scarcity or flow of contaminated water. Majority of Water ATMs are being installed with the funds received from multinational Companies and state run Mahagenco under corporate social responsibility fund. After installation these machines are being handed over to Gram panchayat/local or directly to women's self-help groups for operation. The Commission approves to include Water ATM (RO/UV/UF) Water Purifier Plants which are operated by Gram panchayat / local body or women's self-help groups under LT Public Water Works category.
- 7.23.20MSEDCL has proposed to include Godowns and Warehouses under Non-Residential category. The Commission hereby approves to include Godowns and Warehouses under Non-Residential category.

7.24 Clarification regarding Tariff Applicability for specific categories

MSEDCL's Submission

7.24.1 Clarifications regarding categorization of Phalsheti

- 7.24.1.1 Various representations addressed in Agricultural Land to Government have been submitted to MSEDCL to categorize Phalsheti under Ag Pump-sets Category. However, in the current MYT Order, Phalsheti is not specifically mentioned under any category. Considering the difficulties in implementation, MSEDCL requested the Commission to specify the category for Phalsheti in Agricultural Land.
- 7.24.2 Clarification on applicability of Tariff to Hotels registered with the Ministry of Tourism, Government of India

- 7.24.2.1 Government of Maharashtra State issued the Government Resolution (G.R.) No. टीडीएस २०२०/९/प्र.क्र.५०२/पर्यटन, दि.०३ डिसेंबर, २०२० regarding promotion of tourism. In the said Government Resolution (G.R.), it has been ment "oned as below "केंद्र शासनाच्या पर्यटन मंत्रालयाकडे नोंदणीकृत असलेल्या हॉटेल व्यवसायिकांकडून दि. १ एप्रिल, २०२१ पासून वीज दर, वीज शुल्क, पाणी पट्टी, मालमत्ता कर, विकास कर, वाढीव चटई क्षेत्र निर्देशांक व अकृषिक कराची आकारणी औद्योगिक दराने करण्यात यावी. "
- 7.24.2.2 MSEDCL requested the Commission to clarify the categorization of the hotels registered with the Ministry of Tourism, Government of India.

Commission's Analysis and Rulings

- 7.24.3 Regarding categorization of Phalsheti MSEDCL has requested the Commission to specify the category for Phalsheti under Agricultural category. The Commission observes that during public hearing similar demand was raised by many consumers/objectors for considering plantation/horticulture and allied activities of mango plantations, cashew/coconut plantations under Agriculture category. In this respect, the Commission is of view that all floriculture, horticulture, (incl Phalsheti), nurseries and plantation activities currently classified under LT-IV(C) as LT-Agriculture (Others) shall be re-classified under LT-IV(B) LT AG (metered) category.
- 7.24.4 The Commission noted the MSEDCL's submission in respect of tariff to Hotels registered with the Ministry of Tourism, Government of India. Government of Maharashtra State issued the Government Resolution (G.R.) No. टीडीएस २०२०/९/प्र.क्र.५०२/पर्यटन, दि.०३ डिसेंबर, २०२०. As per the said resolution, the Government of Maharashtra has resolved as below:
 - The industrial category shall be applicable for Hotels registered under Ministry of Tourism, Government of India.
 - For the Hotels registered under state government tourism department, industrial tariff will be applicable after order of MERC.
 - MSEDCL shall file petition before MERC for applicability of industrial tariff during Mid Term review.
- 7.24.5 In this context, the Commission observes that MSEDCL has not proposed any revision in current classification but is only seeking clarification in this respect in view of the said Government Resolution. During the public hearing, similar demands were raised by few consumers as also many of the other consumers opposed such classification of hotels (particularly, five-star/luxury hotels) under industrial category. Further, there were many consumers seeking request for applicability of residential tariff for homestay type of activities rather than classifying it as commercial activity. On the other hand, there are demands to treat independent villa/bungalows rented out for

- tourism/hotel purposes to be classified as commercial category instead of residential or industrial category.
- 7.24.6 The Commission has taken note of all suggestions, objections and concerns expressed by MSEDCL and consumers/objectors and also taken into consideration implementation aspects associated with applicability of tariff for this category. The Commission notes that tourism is an important aspect of economic activity, however, the classification and applicability of tariff will have to be governed as per the usage/nature of purpose for electricity consumption as per principles outlined under Act/Regulations.
- 7.24.7 Further, the Commission observes that as per existing applicability under residential tariff category, 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 the previous financial year was up to 3600 units, are already covered under Residential category. 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.
- 7.24.8 Thus, the Commission hereby rules the applicability of tariff in respect of hotels, independent villas/bungalows rented for accommodation under tourism/commercial activity and home-stay type accommodation as outlined below:
 - Hotels and Independent Vilas/bungalows rented for accommodation for tourism/commercial activity shall be covered under commercial category.
 - Accommodation facilities provided covered under Home-stay shall be included under residential category, subject to the conditions specified as applicable for Residential Category.
- 7.24.9 In previous tariff Order, the Commission has included Dhobi/laundry under Industrial Consumer category, however intended effect was not passed on due to ambiguity in tariff schedule. MSEDCL should have brought such issue to the notice of the Commission so as to implement the Order in letter and spirit. Now for more clarity, Dhoby/Laundry has been added as separate item in Industrial Category.
- 7.24.10CIDCO being performing function of local body all water supply and sewage treatment plants of CIDCO needs to be categorised under Public Water Works category. Accordingly, same are included in PWW category with prospective effect. CIDCO has requested to give retrospective effect to such tariff categorisation, however the Commission is of the opinion that CIDCO should have been vigilant and approached earlier for change in tariff category. Further, retrospective change in tariff categorisation impacts revenue and ARR balance which is already trued up and closed.

- 7.24.11 JNPT has requested tariff categorisation for Shore Power Supply to ships berthing at the port. The Commission notes that concept of shore power supply is akin to Electrical Vehicle charging wherein like electric vehicle, ships are taking supply from Shore facility during the period for which ship is berth at the port. The Commission is determining tariff for electricity input to EV Charging facility, and it is upto Charging Station operator to levy appropriate charge to EV owner for charging of EV as per applicable rules. Similarly, in Shore Power Supply, the Commission will be deciding tariff for input electricity to Shore Power Supply facility, and charges for providing electricity to Ship shall be decided by the such facility operator. Supply of power to ship by Shore Power Supply facility operator shall not be considered as un-authorised use/diversion of electricity under the Electricity Act 2003. Further, as ports are covered under Public Service- Others category, connection to Shore Power Supply shall also be categorised under same category.
- 7.24.12Regarding Airtel objection that MSEDCL is levying Industrial Tariff for only Mobile Tower but not extending the same to allied telecom infrastructure, the Commission clarifies that Mobile Tower and other allied equipment required for transmitting the telecom singles needs to be categorised under Industrial Category. However, offices and retail outlets of telecom operators shall be categorised under respective tariff category as per applicability.
- 7.24.13Sewage Treatment plant operated by developer in Integrated Township Projects shall be categorised under Public Water Works category as said category already include STP plants owned or operated or managed by Societies/ Complexes.
- 7.24.14The Commission allows MIDC's request to categorise logistic parks as per Government of Maharashtra policy under Industrial Tariff Category.

7.25 Any Other submission

MSEDCL's Submission

7.25.1 Decisions of various Regulatory Forums

The Aggregate Revenue Requirement has been arrived at on the basis of firmed up data from various Utilities like MSPGCL, MSETCL, NTPC, etc. Also, this data in some cases is likely to be revised on account of various reasons including decisions by the appropriate regulatory forums and judicial authorities. This is likely to have an additional impact on revenue gap, which cannot be estimated at this stage. The Commission is humbly requested that as and when such impact is arrived at, the same may please be considered by the Commission and may permit recovery of the same with appropriate mechanism with immediate effect.

Commission Analysis and Rulings

7.25.2 The Commission has undertaken detailed scrutiny of the MTR petition filed by MSEDCL including various claims arising due to judgement/ orders of various authorities as claimed by MSEDCL has been duly verified subject to prudence check and in accordance with the provisions of MYT Regulations and principles of Mid-term review process, as covered under various chapters of this Order. Further, the Commission has also considered the impact of earlier Review Order as well as impact of MTR Orders issued in respect of MSPGCL MTR petition and impact of various transmission tariff order and MTR petition of STU that has bearing on the ARR of MSDCL. The necessary impact arising from these MTR Orders have already been factored in as covered under earlier chapters of this Order.

7.26 Revised Tariff with effect from 1 April, 2023

7.26.1 In pursuance of the MTR Regulations 2019 and upon conducting due regulatory process for the Mid-term review, the Commission hereby determines the revised Tariff for various consumer categories under HT and LT to be applicable for FY 2023-24 and FY 2024-25 as summarised under following Tables:

Table 7-14: Summary of LT Tariff for FY 2023-24, effective from 1 April, 2023

		FY 2023-24		
Category	Units	Fixed/Demand	Energy	Wheeling
		Charge	Charge	Charge
LT Residential				
LT I(A): LT - Residential-BPL	Rs/conn/mth	31.00	1.51	_
LT I(B): LT - Residential				
1-100 units	Rs/conn/mth	116.00	4.41	1.17
101-300 units	Rs/conn/mth	116.00	9.64	1.17
301-500 units	Rs/conn/mth	116.00	13.61	1.17
Above 500 units	Rs/conn/mth	116.00	15.57	1.17
Three Phase Charges	Rs/conn/mth	385.00	-	_
LT II: LT - Non-Residential				
(A) 0 - 20 kW	Rs/conn/mth	470.00	8.27	1.17
(B): $>20 \text{ kW} \text{ and } \le 50 \text{ kW}$	Rs/kVA/mth	470.00	12.63	1.17
(C): >50 kW	Rs/kVA/mth	470.00	14.93	1.17
LT III: LT - Public Water				
Works (PWW)				
(A): 0-20 kW	Rs/conn/mth	117.00	3.54	1.17
(B): $>20 \text{ kW} \text{ and } \le 40 \text{ kW}$	Rs/kVA/mth	142.00	5.49	1.17
(C): >40 kW	Rs/kVA/mth	176.00	7.28	1.17
LT IV: LT - Agriculture				
LT IV(A): LT - AG Un-				
metered - Pumpsets				
Category 1 Zones				
(a) 0-5 HP	Rs/HP/mth	466.00	-	117.00
(b) Above 5 HP - 7.5 HP	Rs/HP/mth	504.00	-	117.00
(c) Above 7.5 HP	Rs/HP/mth	566.00	-	117.00

		FY	Y 2023-24	
Category	Units	Fixed/Demand	Energy	Wheeling
		Charge	Charge	Charge
Category 2 Zones		-	-	-
(a) 0-5 HP	Rs/HP/mth	361.00	-	117.00
(b) Above 5 HP - 7.5 HP	Rs/HP/mth	395.00	-	117.00
(c) Above 7.5 HP	Rs/HP/mth	457.00	-	117.00
LT IV(B): LT - Agriculture	Rs/HP/mth	47.00	3.00	1.17
Metered Tariff - Pumpsets	KS/11F/IIItII	47.00	3.00	1.17
LT IV(C): LT - Agriculture	Rs/kW/mth	129.00	5.06	1.17
Metered – Others	IXS/ K VV / III UI	129.00	3.00	1.17
LT V: LT - Industry *				
(i): 0-20 kW	Rs/conn/mth	530.00	5.98	1.17
(ii): Above 20 kW	Rs/kVA/mth	353.00	7.08	1.17
LT VI: LT - Street Light				
(A): Grampanchayat; A B & C Class Municipal Council	Rs/kW/mth	129.00	6.63	1.17
(B): Municipal corporation Area	Rs/kW/mth	129.00	8.07	1.17
LT VII (A) - Public Services –				
Govt.				
(i) : $\leq 20 \text{ kW}$	Rs/conn/mth	388.00	4.13	1.17
(ii): $>20 - \le 50 \text{ kW}$	Rs/kVA/mth	388.00	5.94	1.17
iii): >50 kW	Rs/kVA/mth	388.00	7.45	1.17
LT VII (B) - Public Services -				
Others				
(i) : $\leq 20 \text{ kW}$	Rs/conn/mth	422.00	5.94	1.17
(ii): $>20 - \le 50 \text{ kW}$	Rs/kVA/mth	422.00	9.52	1.17
iii): >50 kW	Rs/kVA/mth	422.00	9.40	1.17
LT VIII – Electric Vehicle Charging Station	Rs/kVA/mth	75.00	6.08	1.17

^{*}Note: 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.

Table 7-15: Summary of LT Tariff for FY 2024-25, effective from 1 April, 2024

		FY 2024-25		
Category	Units	Fixed/Demand Charge	Energy Charge	Wheeling Charge
LT Residential				
LT I(A): LT - Residential- BPL	Rs/conn/mth	34.00	1.56	-
LT I(B): LT - Residential				
1-100 units	Rs/conn/mth	128.00	4.71	1.17
101-300 units	Rs/conn/mth	128.00	10.29	1.17
301-500 units	Rs/conn/mth	128.00	14.55	1.17
Above 500 units	Rs/conn/mth	128.00	16.64	1.17

		FY 2024-25		
Category	Units	Fixed/Demand	Energy	Wheeling
		Charge	Charge	Charge
Three Phase Charges	Rs/conn/mth	424.00	1	-
LT II: LT - Non-Residential				
(A) 0 - 20 kW	Rs/conn/mth	517.00	8.52	1.17
(B): $>20 \text{ kW} \text{ and } \le 50 \text{ kW}$	Rs/kVA/mth	517.00	13.01	1.17
(C): >50 kW	Rs/kVA/mth	517.00	15.38	1.17
LT III: LT - Public Water				
Works (PWW)				
(A): 0-20 kW	Rs/conn/mth	129.00	4.09	1.17
(B): $>20 \text{ kW} \text{ and } \le 40 \text{ kW}$	Rs/kVA/mth	156.00	6.33	1.17
(C): $>40 \text{ kW}$	Rs/kVA/mth	194.00	8.40	1.17
LT IV: LT - Agriculture				
LT IV(A): LT - AG Un-				
metered - Pumpsets				
Category 1 Zones				
(a) 0-5 HP	Rs/HP/mth	563.00	-	117.00
(b) Above 5 HP - 7.5 HP	Rs/HP/mth	607.00	-	117.00
(c) Above 7.5 HP	Rs/HP/mth	683.00	-	117.00
Category 2 Zones		-	-	-
(a) 0-5 HP	Rs/HP/mth	435.00	1	117.00
(b) Above 5 HP - 7.5 HP	Rs/HP/mth	476.00	-	117.00
(c) Above 7.5 HP	Rs/HP/mth	551.00	1	117.00
LT IV(B): LT - Agriculture Metered Tariff - Pumpsets	Rs/HP/mth	52.00	3.39	1.17
LT IV(C): LT - Agriculture Metered – Others	Rs/kW/mth	142.00	5.71	1.17
LT V: LT - Industry *				
(i): 0-20 kW	Rs/conn/mth	583.00	6.16	1.17
(ii): Above 20 kW	Rs/kVA/mth	388.00	7.30	1.17
LT VI: LT - Street Light	NS/K V TV/ III (II	300.00	7.50	1.17
(A): Grampanchayat; A B & C Class Municipal Council	Rs/kW/mth	142.00	6.83	1.17
(B): Municipal corporation Area	Rs/kW/mth	142.00	8.31	1.17
LT VII (A) - Public Services - Govt.				
(i): ≤ 20 kW	Rs/conn/mth	427.00	4.29	1.17
(ii): >20 - ≤ 50 kW	Rs/kVA/mth	427.00	6.18	1.17
iii): >50 kW	Rs/kVA/mth	427.00	7.75	1.17
LT VII (B) - Public Services				
- Others				
(i): ≤ 20 kW	Rs/conn/mth	464.00	6.18	1.17
(ii): >20 - ≤ 50 kW	Rs/kVA/mth	464.00	9.91	1.17
iii): >50 kW	Rs/kVA/mth	464.00	9.78	1.17
LT VIII – Electric Vehicle	D a /1-X7 A / 41-	90.00	6.50	1 17
Charging Station	Rs/kVA/mth	80.00	6.58	1.17

*Note: 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.

Table 7-16: Summary of HT Tariff for FY 2023-24, effective from 1 April, 2023

		FY 2023-24		
Category	Units	Fixed/Demand	Energy	Wheeling
		Charge	Charge	Charge
EHV				
HT I (A) HT - Industry	Rs/kVA/mth	499.00	8.12	_
HT I (B): HT - Industry (Seasonal)	Rs/kVA/mth	499.00	8.43	-
HT II: HT – Commercial	Rs/kVA/mth	499.00	12.83	-
HT III : HT -	Rs/kVA/mth	499.00	7.53	_
Railways/Metro/Monorail Traction				
HT IV: HT - Public Water Works	Rs/kVA/mth	499.00	7.53	-
HT V(A): HT - Agriculture Pumpsets	Rs/kVA/mth	88.00	5.26	_
HT V(B): HT - Agriculture - Others	Rs/kVA/mth	88.00	7.27	_
HT VI: HT - Group Housing Societies	Rs/kVA/mth	398.00	6.95	_
(Residential)				
HT VIII(A): HT - Public Services-Gov.	Rs/kVA/mth	499.00	9.53	-
HT VIII(B): HT - Public Services-	Rs/kVA/mth	499.00	10.40	_
Others	113/11 1 1 1/111111	133.00	100	
HT IX: HT – Electric Vehicle	Rs/kVA/mth	75.00	7.05	_
Charging Station				
HT				
HT I (A) HT - Industry Sub-total	Rs/kVA/mth	499.00	8.12	0.60
HT I (B): HT - Industry (Seasonal)	Rs/kVA/mth	499.00	8.43	0.60
HT II: HT – Commercial	Rs/kVA/mth	499.00	12.83	0.60
HT III: HT -	Rs/kVA/mth	499.00	7.53	0.60
Railways/Metro/Monorail Traction				
HT IV: HT - Public Water Works	Rs/kVA/mth	499.00	7.53	0.60
HT V(A): HT - Agriculture Pumpsets	Rs/kVA/mth	88.00	5.26	0.60
HT V(B): HT - Agriculture - Others	Rs/kVA/mth	88.00	7.27	0.60
HT VI: HT - Group Housing Societies	Rs/kVA/mth	398.00	6.95	0.60
(Residential)				
HT VIII(A): HT - Public Services-Gov.	Rs/kVA/mth	499.00	9.53	0.60
HT VIII(B): HT - Public Services-	Rs/kVA/mth	499.00	10.40	0.60
Others		.,,,,,		
HT IX: HT – Electric Vehicle	Rs/kVA/mth	75.00	6.90	0.60
Charging Station	,		2.7 0	3.33

Table 7-17: Summary of HT Tariff for FY 2024-25, effective from 1 April, 2024

		FY 2024-25		
Category	Units	Fixed/Demand	Energy	Wheeling
		Charge	Charge	Charge
EHV				
HT I (A) HT - Industry	Rs/kVA/mth	549.00	8.36	-
HT I (B): HT - Industry (Seasonal)	Rs/kVA/mth	549.00	8.68	-
HT II: HT – Commercial	Rs/kVA/mth	549.00	13.21	_
HT III : HT - Railways/Metro/Monorail Traction	Rs/kVA/mth	549.00	7.53	-
HT IV: HT - Public Water Works	Rs/kVA/mth	549.00	7.76	_
HT V(A): HT - Agriculture Pumpsets	Rs/kVA/mth	97.00	5.78	-
HT V(B): HT - Agriculture - Others	Rs/kVA/mth	97.00	7.99	-
HT VI: HT - Group Housing Societies (Residential)	Rs/kVA/mth	438.00	7.16	-
HT VIII(A): HT - Public Services-Gov.	Rs/kVA/mth	549.00	10.03	-
HT VIII(B): HT - Public Services- Others	Rs/kVA/mth	549.00	10.93	-
HT IX: HT – Electric Vehicle Charging Station	Rs/kVA/mth	80.00	7.60	-
HT				
HT I (A) HT - Industry Sub-total	Rs/kVA/mth	549.00	8.36	0.60
HT I (B): HT - Industry (Seasonal)	Rs/kVA/mth	549.00	8.68	0.60
HT II: HT – Commercial	Rs/kVA/mth	549.00	13.21	0.60
HT III : HT - Railways/Metro/Monorail Traction	Rs/kVA/mth	549.00	7.53	0.60
HT IV: HT - Public Water Works	Rs/kVA/mth	549.00	7.76	0.60
HT V(A): HT - Agriculture Pumpsets	Rs/kVA/mth	97.00	5.78	0.60
HT V(B): HT - Agriculture - Others	Rs/kVA/mth	97.00	7.99	0.60
HT VI: HT - Group Housing Societies (Residential)	Rs/kVA/mth	438.00	7.16	0.60
HT VIII(A): HT - Public Services-Gov.	Rs/kVA/mth	549.00	10.03	0.60
HT VIII(B): HT - Public Services- Others	Rs/kVA/mth	549.00	10.93	0.60
HT IX: HT – Electric Vehicle Charging Station	Rs/kVA/mth	80.00	7.40	0.60

7.27 Wheeling Charges

MSEDCL's Submission

Network Cost of MSEDCL

7.27.1 The Commission in the MYT Regulations, 2019 has specified the ratio of network and supply cost segregation. The same has been provided below for ready reference.

Table 7-18: Segregation 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	90%	10%
Reserves		
Return on Equity	90%	10%
Non-Tariff Income	10%	90%

7.27.2 MSEDCL has considered the same for the segregation of aggregate revenue requirement for the period FY 2023-24 to FY 2024-25 and arrived at the Wires Business and Retail Supply Business Cost. The following table provides the summary of the Network Cost of MSEDCL for FY 2023-24 to FY 2024-25.

Table 7-19: Network Cost of MSEDCL for FY 2023-24 to FY 2024-25

S. No.	Particulars	FY 2023-24	FY 2024-25
1	Operation & Maintenance Expenses	5,449	5,724
2	Depreciation	2,772	2,978
3	Interest on Loan Capital	841	1,004
4	Interest on Working Capital	138	163
5	Interest on deposit from Consumers	46	48
	and Distribution Systems Users		
6	Other Finance Charges	1	-
7	Provision for bad and doubtful debts	111	117
8	Open Schemes	328	1,204
9	Contribution to contingency reserves	157	180
10	Income Tax	-	-
11	Return on Equity Capital	1,760	1,774
12	Total Revenue Expenditure	11,602	13,193

7.27.3 MSEDCL submitted that the Regulation 73.2 of the MERC MYT Regulations, 2019 provides for computation of wheeling charges separately for LT voltage, HT voltage and EHT voltage levels. The relevant extract of such regulations are given below:

"73.2 The Wheeling Charges of the Distribution Licensee shall be determined by the Commission on the basis of a Petition for determination of Tariff filed by the Distribution Licensee in accordance with Part B of these Regulations:

Provided that the Wheeling Charges may be denominated in terms of Rupees/kWh or Rupees/kVAh or Rupees/kW/month or Rupees/kVA/month, for the purpose of recovery from the Distribution System User, or any such denomination, as may be stipulated by the Commission:

Provided further that the Wheeling Charges shall be determined separately for LT voltage, HT voltage, and EHT voltage, as applicable:"

- 7.27.4 Further, the Commission in MYT Order dated 30th March, 2020 in Case No. 322 of 2019 has determined the Wheeling Charges for LT, HT and EHV levels only.
- 7.27.5 Accordingly, MSEDCL submitted that for the balance years of the Control Period from FY 2023-24 to FY 2024-25, it has proposed Wheeling Charges for three levels only, EHV (66 kV and above), HT (combined wheeling charges for 33, 22 & 11 kV) and LT level.
- 7.27.6 MSEDCL further submitted that it does not maintain audited accounts for voltage wise assets and thus it does not have segregation of GFA between HT and LT levels. Hence, MSEDCL for the purpose of projection has considered GFA segregated into HT and LT as considered by the Commission in the Multi Year Tariff Order dated 30th March, 2020. MSEDCL further submitted that in order to arrive at the proportion of GFA for HT Level, it has added the GFA proportion for 33 kV, 22 kV and 11 kV voltage levels and the same is shown in the table below.

Table 7-20: Segregation of GFA FY 2023-24 to FY 2024-25

Particulars	FY 2023-24	FY 2024-25
HT (Excl EHV)	60%	60%
LT Level	40%	60%

- 7.27.7 MSEDCL has then applied ration of Voltage-wise GFA shown in the table above to arrive at GFA of HT (Excluding EHV Level) and LT levels assets which has been approved by the Hon'ble Commission in its Order 30th March 2020.
- 7.27.8 The Network Cost is apportioned among voltage level in the ratio of GFA as computed above:

Table 7-21: Network cost apportioned for FY 2023-24 to FY 2024-25 (Rs. Cr)

Particulars	FY 2023-24	FY 2024-25
HT (Excl EHV)	6,961	7,916
LT Level	4,641	5,277

7.27.9 MSEDCL has considered the voltage wise consumption (in kVAh also) as projected for the balance years of the Control Period i.e., from FY 2023-24 to FY 2024-25 for determining the wheeling charges. The projected consumption at different voltage levels is shown below:

Table 7-22: Voltage Wise Consumption for FY 2023-24 to FY 2024-25

Particulars	FY 2023-24	FY 2024-25
HT (Excl EHV)	32,637	33,565
LT Level	79,139	81,494

Note: HT in MkVAh and LT in MUs

7.27.10MSEDCL has submitted that, to arrive at the cost of wheeling at the various voltage levels, the total wire network cost (as computed above) has been apportioned to various voltage levels (i.e., HT (Excluding EHV) and LT) in the ratio of sales at respective voltage levels. The wire costs at higher voltage levels have been further apportioned to lower voltage levels in the same ratio, since the HT system is also being used for supply to the LT consumers.

Table 7-23: Calculation of Wheeling Cost for FY 2023-24

Particulars	Network Cost (Rs. Crs)	Sales(MUs)	% of Sales	Wheeling Cost (Rs. Crs)
HT (Excl EHV)	6,961	32,637	29%	2,033
LT Level	4,641	79,139	71%	9,570
Total	11,602	1,11,775	100%	11,602

Table 7-24: Calculation of Wheeling Cost for FY 2024-25

Particulars	Network Cost (Rs. Crs)	Sales(MUs)	% of Sales	Wheeling Cost (Rs. Crs)
HT (Excl EHV)	6,961	32,637	29%	2,033
LT Level	4,641	79,139	71%	9,570
Total	11,602	1,11,775	100%	11,602

7.27.11The Commission in the MYT Order dated 30th March 2020 in Case No. 322 of 2019, in addition to the allocation of yearly wheeling cost to recover projected ARR of wire business through wheeling charge, has also considered to recover the past period gaps in recovery of Wire ARR through Wheeling Charges over the ensuing years of the Control Period. The wheeling charge gap has been spread over the balance two years of the Control Period. MSEDCL has submitted the proposed recovery of Wires cost (incl. past period gaps for Wires business for ensuing years which is provided in the following table:

T. I.I. # 05.	TT7		1 . 1			
Table 7-25:	wire	recovery	incluaing	g past	perioa :	gaps

Particulars	Units	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Wheeling ARR	Rs.Cr	10,253	10,376	10,841	10,617	11,388	12,976
Recovery allowed	Rs.Cr	-	657	657	657	657	657
Wheeling Revenue	Rs.Cr	8,897	10,664	10,905	12,430	11,832	11,835
Gap	Rs.Cr	1,356	369	593	-1,156	213	1,798

7.27.12Accordingly, MSEDCL has submitted the proposed Wheeling Charges, which are given below:

Table 7-26: Proposed Wheeling Charges for FY 2023-24 to FY 2024-25

Particulars	Units	FY 2023-24	FY 2024-25
Wheeling Cost			
HT (Excl EHV)	Rs Cr	2,403	2,494
LT level	Rs Cr	11,314	11,756
Wheeled Units			
HT (Excl EHV)	MU	32,637	33,565
LT level	MU	79,139	81,494
PU Wheeling Charges			
HT (Excl EHV)	Rs/kVAh	0.74	0.74
LT level	Rs/kWh	1.43	1.44

7.27.13MSEDCL for the purpose of commercial settlement, proposed to continue Wheeling Losses which are already approved in MYT Order i.e. 7.5% at HT and 12% at LT.

Commission Analysis and Rulings

- 7.27.14 As per the Regulation 73.2 of the MYT Regulations, 2019, the Commission has determined Wheeling Charges for LT, and HT voltage levels only.
- 7.27.15The Commission in its every Tariff Order has directed MSEDCL to provide the Voltage wise GFA details, but the same have not been complied till date. Thus, in absence of Voltage-wise Network Cost, the Commission has considered estimate of the voltage wise GFA ratio considering assumptions on various parameters that influences the determination of GFA ratio such as 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. and accordingly derived the ratio for allocation of wheeling cost between HT and LT, which is summarised as under:

Table 7-27: Allocation of Wheeling Cost for FY 2023-24 and FY 2024-25, considered by Commission

Particulars	FY 2023-24	FY 2024-25
HT (Excl EHV)	31%	31%

LT Level	69%	69%
LI LCVCI	07/0	07/0

7.27.16Based on the GFA Ratio, the Commission has worked out the Voltage-wise energy sales, excluding EHV Sales, of HT and LT Levels for FY 2023-24 and FY 2024-25.

Table 7-28: Voltage-wise Wheeling Cost Allocation for computation of Wheeling Charges for FY 2023-24 and FY 2024-25

Particulars	FY 2023-24	FY 2024-25
HT (Excl EHV)	1,984	2,037
LT Level	8,620	8,793
Total	10,603	10,830

7.27.17In addition to the allocation of yearly wheeling cost to recover projected ARR of wire business through wheeling charge, the Commission in this present MTR Order has also considered to recover the past period surplus (from FY 2019-20 to FY 2023-24) for adjustment of Wire ARR through Wheeling Charges to an extent of Rs. 227 Crore of over recovery over FY 2023-24 and FY 2024-25 spread equally i.e. Rs. 113.5 Crore for each year. Thus, proposed recovery of Wires cost (incl. deferred recovery of past period gaps for wire business) for the ensuing years is provided in the following table:

Table 7-29: Total Wire Recovery including past period gaps for FY 2023-24 and FY 2024-25, as approved by the Commission

Particulars	Units	FY 19-20	FY 20- 21	FY 21- 22	FY 22- 23	FY 23- 24	FY 24- 25
Wheeling ARR	Rs Cr	10,039	9,863	10,430	10,144	10,388	10,614
Recovery allowed	Rs Cr		657	657	657	657	657
Wheeling Revenue	Rs Cr	8,897	10,664	10,905	12,017	11,301	11,206
Gap	Rs Cr	1,142	-144	182	-1,216	-255	64

7.27.18Thus, the voltage wise wheeled cost, wheeled units and approved Wheeling Charges so determined for FY 2023-24 and FY 2024-25 is summarised in the table below:

Table 7-30: Voltage-wise wheeling cost for FY 2023-24 and FY 2024-25 as approved by the Commission

Particulars	Units	FY 2023-24	FY 2024-25
Wheeling Cost			
HT (Excl EHV)	Rs Cr	1,962	2,016
LT Level	Rs Cr	8,527	8,701
Wheeled Units			
HT (Excl EHV)	MU	32,959	33,872
LT Level	MU	72,745	74,187
PU Wheeling			
Charges			

Particulars	Units	FY 2023-24	FY 2024-25
HT (Excl EHV)	Rs/kVAh	0.60	0.60
LT Level	Rs/kWh	1.17	1.17

- 7.27.19In case of HT category where kVAh billing is introduced, Wheeling charges in Rs/kVAh shall be applicable considering category wise power factor (0.98 pf), as approved in the above table. Further, the Commission approves Wheeling Loss of 7.5% at HT and 12% at LT as proposed by MSEDCL.
- 7.27.20Further, in this Order, the Commission has also determined the Wires and Supply components of the tariff separately for each consumer category. Accordingly, the Wheeling Charge component and Energy Charge component have been shown separately while computing the category-wise tariffs, except for the Residential BPL category. In case of the BPL category, no Wheeling Charges are apportioned considering the consumer profile of this category.

7.28 Cross Subsidy Surcharge

MSEDCL's Submission

- 7.28.1 MSEDCL submitted that 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.
- 7.28.2 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:
 - "...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:

..." (emphasis added)

- 7.28.3 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.
- 7.28.4 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 crosssubsidy element built into the tariff of such consumers."

7.28.5 MSEDCL has submitted that, the Central Government notified the revised Tariff Policy on 28th January, 2016 and has revised the "Surcharge Formula" as follows:

$$S = T - [C/(1 - L/100) + D + R]$$

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."

- 7.28.6 MSEDCL submitted that as per the provision of Section 42(2) of the Electricity Act, 2003, the cross-subsidy surcharge needs to be based on the current level of cross subsidy. Accordingly, the consumers who opted for Open Access need to be charged for the compensation of current level of cross subsidy which prevailed during that period and in order to avoid the burden of the same getting passed on other consumers who are with the Distribution Licensee.
- 7.28.7 MSEDCL further stated 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 minimum of the two values: Computed CSS and 20% of tariff. This has resulted in lower CSS applicable than current level of cross subsidy leading to incomplete recovery of Cross Subsidy from Open Access consumers.
- 7.28.8 For example, the CSS calculated by the Commission as per the Tariff Policy formula for HT Industry (General) at EHV level for FY 2020-21 was Rs. 3.39 per unit whereas the CSS approved for that category was Rs. 1.67 per unit only. This leads to loss of legitimate revenue due to lower level of approved CSS.
- 7.28.9 MSEDCL thus submitted that, such revenue deficit due to lower CSS approved is being passed on to the consumers of the MSEDCL during true-up exercise. This results in:
 - a) Substantial delay in revenue realisation which comes only after true-up exercise; and

- b) Further tariff increase of MSEDCL consumers at large, despite not being at any fault.
- 7.28.10OA consumers unduly get benefited due to less cross subsidy surcharge. As Industrial consumers are subsidising consumers, the more impact get loaded onto the Industrial category, raising its tariff further. Such increased industrial tariff will lead to more consumers opting for Open Access which will further add to revenue deficit, leading to requirement of further tariff hike, entering into vicious cycle. Therefore, as a principle, only those consumers who opt for Open Access during a particular period should pay the CS for period to maintain the prevailing level of cross subsidy and should not be loaded onto MSEDCL's consumers at large.
- 7.28.11MSEDCL, thus, submitted that, One of the reasons for tariff hike for MSEDCL was incomplete recovery of CSS as discussed above. There can be no ambiguity with the proposition that CSS is a compensatory charge to the Discom. This principle had been accepted even by the Appellate Tribunal, in several judgments earlier. MSEDCL would also like to add that, as has also been held by the Tribunal, CSS is not only to compensate the Discom for the loss of cross subsidy, it is also to compensate the remaining consumers of the Discom who have not taken open access.
- 7.28.12MSEDCL has determined the cross subsidy surcharge based on the Tariff Policy formula without putting any ceiling.
- 7.28.13MSEDCL requested the Commission to determine the cross-subsidy surcharge considering the formula prescribed by the NTP 2016 without putting any ceiling.

Computation of Cross Subsidy Surcharge for the Control Period

- 7.28.14Computation 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'.
- 7.28.15MSEDCL has submitted that 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 7-31: Computation of C for FY 2023-24 to FY 2024-25 as submitted by MSEDCL

Financial	Details of Power Purchase					
Year	MUs Rs. Crs* Rs./kWh					
2023-24	1,52,757	71,323	4.67			
2024-25	1,55,469	73,411	4.72			
*- Power Purchase Cost is excluding the PGCIL						
transmission C	harges					

7.28.16Computation of System Loss 'L': MSEDCL submitted that, 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 7-32: Computation of System Loss for FY 2023-24 to FY 2024-25 as submitted by MSEDCL

Particulars	EHV	HT Level	LT Level
Transmission Losses (%)	3.18%	3.18%	3.18%
Wheeling Losses LT (%)	0.00%	7.50%	12.00%
Total System Losses (%)	3.18%	10.44%	14.80%

7.28.17Computation of Wheeling Charge 'D': MSEDCL submitted that the projected wheeling charges as shown in the Chapter 9 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 2023-24 to FY 2024-25.

Table 7-33: Computation of Wheeling Charges and Transmission Charges for FY 2023-24 to FY 2024-25 as submitted by MSEDCL

Wheeling Charges and Transmission Charges										
Wheeling Charges (Rs./Unit)										
Particulars	EHV HT Level LT Le									
FY 2023-24	-	0.74	1.43							
FY 2024-25	ı	0.74	1.44							
Transmission Charges (Rs./Unit)										
Particulars	EHV	HT Level	LT Level							
FY 2023-24	0.77	0.77	0.77							
FY 2024-25	0.76	0.76	0.76							
Wheeling and T	Transmission Ch	arges (Rs./Un	it)							
Particulars	EHV	HT Level	LT Level							
FY 2023-24	0.77	1.50	2.20							
FY 2024-25	0.76	1.50	2.20							

- 7.28.18Computation of Average Billing Rate "T": MSEDCL stated that ABR has been taken as the effective average billing rate as per the proposed tariff for the FY 2023-24 to FY 2024-25.
- 7.28.19Computation of Cross Subsidy Surcharge "S": MSEDCL submitted that 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.

Table 7-34: Detailed computation of CSS for FY 2023-24 for HT Consumers as submitted by MSEDCL

	T (ABR)	С	WL	TL	L	$\mathbf{D} = \mathbf{WL} +$	CSS
Consumer Category	I (ABK)	C	WL	1L	L	Tx	Computed
	Rs./Un	it*	%	% %		Rs./l	Unit*
HT I HT - Industry							
HT	11.25	4.67	7.50%	3.18%	10.44%	1.50	4.53
EHV	10.55	4.67	0.00%	3.18%	3.18%	0.77	4.96
HT I (B): HT – Industry							
(Seasonal)							
HT	18.51	4.67	7.50%	3.18%	10.44%	1.50	11.79
EHV	9.80	4.67	0.00%	3.18%	3.18%	0.77	4.21
HT II: HT - Commercial							
HT	17.38	4.67	7.50%	3.18%	10.44%	1.50	10.66
EHV	16.84	4.67	0.00%	3.18%	3.18%	0.77	11.25
HT III: HT-							
Railways/Metro/Monorail							
HT	11.00	4.67	7.50%	3.18%	10.44%	1.50	4.28
EHV	9.77	4.67	0.00%	3.18%	3.18%	0.77	4.18
HT IV: HT - Public							
Water Works							
HT	9.99	4.67	7.50%	3.18%	10.44%	1.50	3.28
EHV	8.99	4.67	0.00%	3.18%	3.18%	0.77	3.40
HT V(B): HT -							
Agriculture - Others							
HT	7.14	4.67	7.50%	3.18%	10.44%	1.50	0.42
EHV	-	4.67	0.00%	3.18%	3.18%	0.77	-
HT VI: HT - Group							
Housing Societies							
(Residential)							
HT	9.39	4.67	7.50%	3.18%	10.44%	1.50	2.67
EHV	-	4.67	0.00%	3.18%	3.18%	0.77	-
HT IX: Public Services							
HT VIII (A): HT-Public							
Services-Govt. Edu.							
Institutions and Hospitals							
HT	12.14	4.67	7.50%	3.18%	10.44%	1.50	5.42
HT VIII (B): HT-Public							
Services-Others							
HT	14.38	4.67	7.50%	3.18%	10.44%	1.50	7.66
EHV	12.77	4.67	0.00%	3.18%	3.18%	0.77	7.18
HT X: HT- Electric							
Vehicles (EV) Charging							
Stations	7.46		7 5 00/	2 100:	10.4404	4 = -	0.50
HT	7.42	4.67	7.50%	3.18%	10.44%	1.50	0.70

Table 7-35: Detailed computation of CSS for FY 2023-24 for LT Consumers as submitted by MSEDCL

						D = WL +	CSS
Consumer Category	T (ABR)	C	WL	TL	L	Tx	Computed
0 0220 0220 0 000 0 0 1 J	Rs./Unit*		%	%	%	Rs./U	Jnit*
LT Residential							
LT I (A): LT-Residential-							
BPL	2.83	4.67	12.00%	3.18%	14.80%	2.20	-
LT I (B): LT-Residential							
1-100 Units	7.07	4.67	12.00%	3.18%	14.80%	2.20	-
101-300 Units	12.44	4.67	12.00%	3.18%	14.80%	2.20	4.76
301-500 Units	16.70	4.67	12.00%	3.18%	14.80%	2.20	9.02
Above 500 Units	18.09	4.67	12.00%	3.18%	14.80%	2.20	10.41
LT II: LT- Non-							
Residential							
(A): 0-20 kW	13.44	4.67	12.00%	3.18%	14.80%	2.20	5.76
(B): $> 20 \text{ kW} \text{ and } \le 50 \text{kW}$	18.75	4.67	12.00%	3.18%	14.80%	2.20	11.07
(C): $> 50 \text{kW}$	20.98	4.67	12.00%	3.18%	14.80%	2.20	13.30
LT III: LT-Public Water							
Works(PWW) & STP							
(A): 0-20 kW	5.05	4.67	12.00%	3.18%	14.80%	2.20	
(B): $> 20 \text{ kW} \text{ and } \le 40 \text{kW}$	7.24	4.67	12.00%	3.18%	14.80%	2.20	-
(C): > 40kW	9.02	4.67	12.00%	3.18%	14.80%	2.20	1.35
LT IV (C): LT-							
Agriculture Metered-							
others	7.72	4.67	12.00%	3.18%	14.80%	2.20	0.04
LT V: LT- Industry Total							
LT V- Industry (0-20 kW)	8.89	4.67	12.00%	3.18%	14.80%	2.20	1.21
LT V- Industry (Above 20	11.70	4.67	12 000/	2.100/	1.4.000/	2.20	4.21
kW)	11.79	4.67	12.00%	3.18%	14.80%	2.20	4.21
LT VI: LT- Street Light							
(A): Grampanchayat; A B &	09.05	1 67	12 000/	3.18%	1.4.900/	2 20	1 27
C Class Municipal Council (B): Municipal corporation	98.05	4.67	12.00%	3.18%	14.80%	2.20	1.37
Area	11.15	4.67	12.00%	3.18%	14.80%	2.20	3.48
LT VII (A): LT- Public	11.13	4.07	12.0070	3.1070	14.0070	2.20	3.40
Services- Govt							
(i): ≤ 20 kW	9.24	4.67	12.00%	3.18%	14.80%	2.20	1.56
(ii) : $> 20 \text{ kW} - \le 50 \text{kW}$	9.85	4.67	12.00%	3.18%	14.80%	2.20	2.17
(iii): > 50kW	11.94	4.67	12.00%	3.18%	14.80%	2.20	4.26
LT VII (B): LT-Public	1117		12.0070	0.1070	1		.,
Services- Others							
(i): ≤ 20 kW	8.75	4.67	12.00%	3.18%	14.80%	2.20	1.08
$(ii): > 20 \text{ kW} - \le 50 \text{kW}$	13.35	4.67	12.00%	3.18%	14.80%	2.20	5.67
(iii): > 50kW	13.34	4.67	12.00%	3.18%	14.80%	2.20	5.66

Consumer Category	T (ABR)	C	WL	TL	L	$D = WL + \\ Tx$	CSS Computed
	Rs./Uı	nit*	%	%	%	Rs./U	J nit*
LT IX: LT- Electrical							
Vehicles (EV) Charging							
Station	10.53	4.67	12.00%	3.18%	14.80%	2.20	2.85

Table 7-36: Summary of CSS for FY 2023-24 to FY 2024-25 for HT Consumers as submitted by MSEDCL

Communication Cotogory	FY 2023-24	FY 2024-25
Consumer Category	Rs./Unit	Rs./Unit
HT I HT - Industry		
HT	4.53	5.80
EHV	4.96	6.23
HT I (B): HT – Industry (Seasonal)		
HT	11.79	13.76
EHV	4.21	5.31
HT II: HT - Commercial		
HT	10.66	12.64
EHV	11.25	13.26
HT III: HT-		
Railways/Metro/Monorail		
HT	4.28	5.55
EHV	4.18	5.38
HT IV: HT - Public Water Works		
HT	3.28	4.34
EHV	3.40	4.44
HT V(B): HT - Agriculture -		
Pumpsets		
HT	-	-
EHV	-	-
HT V(B): HT - Agriculture - Others		
HT	0.42	1.02
EHV	-	-
HT VI: HT - Group Housing		
Societies (Residential)		
HT	2.67	3.75
EHV	-	-
HT VII: Public Services		
HT VII (A): HT-Public Services-		
Govt. Edu. Institutions and Hospitals		
HT	5.42	6.79
HT VII (B): HT-Public Services-		
Others		

Canauman Catagony	FY 2023-24	FY 2024-25
Consumer Category	Rs./Unit	Rs./Unit
HT	7.66	9.42
EHV	7.18	8.85
HT X: HT- Electric Vehicles (EV)		
Charging Stations		
HT	0.70	1.01
EHV	1	ı

Table 7-37: Summary of CSS for FY 2023-24 to FY 2024-25 for LT Consumers as submitted by MSEDCL

	FY 2023-24	FY 2024-25
Consumer Category	Rs./Unit	Rs./Unit
LT Residential		
LT I (A): LT-Residential-BPL	-	-
LT I (B): LT-Residential		
1-100 Units	-	
101-300 Units	4.76	0.08
301-500 Units	9.02	6.33
Above 500 Units	10.41	11.19
LT II: LT- Non-Residential		12.79
(A): 0-20 kW	5.76	
(B): $> 20 \text{ kW} \text{ and } \le 50 \text{kW}$	11.07	7.37
(C): > 50kW	13.30	13.51
LT III: LT-Public Water Works(PWW) & STP		16.10
(A): 0-20 kW	-	-
(B): $> 20 \text{ kW} \text{ and } \le 40 \text{kW}$	-	0.35
(C): > 40kW	1.35	2.33
LT IV (C): LT- Agriculture Metered- others	0.04	0.74
LT V: LT- Industry Total		
LT V- Industry (0-20 kW)	1.21	2.23
LT V- Industry (Above 20 kW)	4.12	5.55
LT VI: LT- Street Light		
(A): Grampanchayat; A B & C Class Municipal Council	1.37	2.43
(B): Municipal corporation Area	3.48	4.92
LT VII (A): LT- Public Services- Govt		
(i): ≤ 20 kW	1.56	2.65
(ii) : $> 20 \text{ kW} - \le 50 \text{kW}$	2.17	3.29
(iii): > 50kW	4.26	5.69
LT VII (B): LT-Public Services- Others		
(i): $\leq 20 \text{ kW}$	1.08	2.09

Congresson Cotogowy	FY 2023-24	FY 2024-25
Consumer Category	Rs./Unit	Rs./Unit
$(ii): > 20 \text{ kW} - \le 50 \text{kW}$	5.67	7.36
(iii): > 50kW	5.66	7.35
LT IX: LT- Electrical Vehicles (EV)	2.85	
Charging Station	2.03	3.43

7.28.20MSEDCL submitted that, 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 2023-24 to FY 2024-25 (i.e., balance period of the Control Period) need to be charged to compensate the level of cross subsidy which will prevail during FY 2023-24 to FY 2024-25 (i.e., balance period of the Control Period) and to avoid burden of the same on other consumers. MSEDCL, therefore requested the Commission to approve the CSS for FY 2023-24 to FY 2024-25 as computed above.

Commission's Analysis and ruling

- 7.28.21The Commission has taken a note of the concern raised by MSEDCL regarding the application of ceiling cap of +/- 20% across consumer categories as per the Para. 8.3 (2) of the Tariff Policy, 2016. However, the Commission further notes that MOP has recently notified Amendments to the Rules, namely, Electricity (Amendment) Rules, 2022 notified on 29th December 2022, wherein it has stipulated that cross-subsidy surcharge to be determined by the Appropriate Commission shall not exceed twenty percent (20%) of Average Cost of Supply. The relevant extracts of the notified Rule 13 is as under:
 - "13. Surcharge payable by Consumers seeking Open Access.-The surcharge, determined by the State Commission under clause (a) of sub-section (1) of section 86 of the Electricity Act, 2003 shall not exceed twenty per cent of the average cost of Supply." (emphasis added)
- 7.28.22The Commission has worked out the CSS by keeping the ceiling of 20% for most of the consumer categories in order to maintain the consistency with the principle adopted in the previous MYT Order and in line with provisions of Rule 13 as per MOP notified Electricity (Amendment) Rules, 2022.
- 7.28.23Further, the Commission has worked out the various components of CSS formulae based on the approved values for FY 2023-24 and FY 2024-25 and worked out the category-wise CSS for FY 2023-24 and FY 2024-25 for HT Consumers only, since the eligible consumers for OA lies within the HT consumers category only.
- 7.28.24The category-wise CSS computed for FY 2023-24 and FY 2024-25 is as shown under:

Table 7-38: Cross Subsidy Surcharge approved by Commission for FY 2023-24

Consumer Category	T (ABR	C	WL	TL	L	D = WL + Tx	CSS Compute d	20% of ACo S	Approve d CSS
		Unit*	%	%	%		Rs./Uı	Rs./Unit*	
HT Category - EHV (66)	xV and A	Above)							
HT I (A) (i): HT - Industry	9.29	4.70	0.00%	3.18%	3.18%	0.98	3.45	1.69	1.69
HT I (B): HT - Industry (Seasonal)	8.89	4.70	0.00%	3.18%	3.18%	0.98	3.05	1.69	1.69
HT II (A): HT - Commercial	14.57	4.70	0.00%	3.18%	3.18%	0.98	8.74	1.69	1.69
HT III (A): HT - Railways/Metro/Monor ail Traction	8.57	4.70	0.00%	3.18%	3.18%	0.98	2.73	1.69	1.69
HT IV: HT - Public Water Works (PWW)	8.13	4.70	0.00%	3.18%	3.18%	0.98	2.30	1.69	1.69
HT V(B): HT - Agriculture Others	1	4.70	-	3.18%	3.18%	0.98	-	1.69	-
HT VI: HT - Group Housing Societies (Residential)	-	4.70	0.00%	3.18%	3.18%	0.98	-	1.69	-
HT IX(B): HT - Public Services-Others	11.04	4.70	0.00%	3.18%	3.18%	0.98	5.21	1.69	1.69
HT Category - HT (33k	kV, 22kV	V and 11 kV)							
HT I (A) (i): HT - Industry	9.87	4.70	7.50%	3.18%	10.44%	1.58	3.05	1.69	1.69
HT I (B): HT - Industry (Seasonal)	11.28	4.70	7.50%	3.18%	10.44%	1.58	4.46	1.69	1.69
HT II (A): HT - Commercial	15.05	4.70	7.50%	3.18%	10.44%	1.58	8.22	1.69	1.69
HT III (A): HT - Railways/Metro/Monor ail Traction	10.03	4.70	7.50%	3.18%	10.44%	1.58	3.21	1.69	1.69
HT IV: HT - Public Water Works (PWW)	8.96	4.70	7.50%	3.18%	10.44%	1.58	2.14	1.69	1.69
HT V(A): HT - Agriculture Pumpsets	6.21	4.67	7.50%	3.18%	10.44%	1.50	-	1	-
HT V(B): HT - Agriculture Others	8.17	4.70	7.50%	3.18%	10.44%	1.58	1.34	1.69	1.34
HT VI: HT - Group Housing Societies (Residential)	8.64	4.70	7.50%	3.18%	10.44%	1.58	1.81	1.69	1.69
HT IX(A): HT - Public Services-Govt. Edu. Institutions and Hospitals	11.45	4.70	7.50%	3.18%	10.44%	1.58	4.62	1.69	1.69

Consumer Category	T (ABR	C	WL	TL	L	D = WL + Tx	CSS Compute d	20% of ACo S	Approve d CSS	
	Rs./	Unit*	%	%	%		Rs./Unit*			
HT IX(B): HT - Public Services-Others	12.49	4.70	7.50%	3.18%	10.44%	1.58	5.67	1.69	1.69	
HT X: HT – Electric Vehicle Charging Station	8.06	4.70	7.50%	3.18%	10.44%	1.58	1.24	1.69	1.24	

Table 7-39: Cross Subsidy Surcharge approved by Commission for FY 2024-25

Consumer Category	T (ABR)	C	WL	TL	L	D = WL + Tx	CSS Compute d	ACoS	Approve d CSS
	Rs./Un	it*	%	%	%		Rs./	Unit*	
HT Category - EHV (66kV and Above)									
HT I (A) (i): HT - Industry	9.68	4.70	0.00%	3.18%	3.18%	0.98	3.85	1.79	1.79
HT I (B): HT - Industry (Seasonal)	9.20	4.70	0.00%	3.18%	3.18%	0.98	3.37	1.79	1.79
HT II (A): HT - Commercial	15.14	4.70	0.00%	3.18%	3.18%	0.98	9.31	1.79	1.79
HT III (A): HT - Railways/Metro/Monorail Traction	8.85	4.70	0.00%	3.18%	3.18%	0.98	3.02	1.79	1.79
HT IV: HT - Public Water Works (PWW)	8.45	4.70	0.00%	3.18%	3.18%	0.98	2.63	1.79	1.79
HT V(B): HT - Agriculture Others	-	4.70	-	3.18%	3.18%	0.98	-	1.79	-
HT VI: HT - Group Housing Societies (Residential)	-	4.70	0.00%	3.18%	3.18%	0.98	-	1.79	-
HT IX(B): HT - Public Services-Others	11.66	4.70	0.00%	3.18%	3.18%	0.98	5.83	1.79	1.79
HT Category - HT (33kV, 22k	V and 11 k	(V)							
HT I (A) (i): HT - Industry	10.26	4.70	7.50%	3.18%	10.44%	1.57	3.44	1.79	1.79
HT I (B): HT - Industry (Seasonal)	11.79	4.70	7.50%	3.18%	10.44%	1.57	4.97	1.79	1.79
HT II (A): HT - Commercial	15.60	4.70	7.50%	3.18%	10.44%	1.57	8.78	1.79	1.79
HT III (A): HT - Railways/Metro/Monorail Traction	10.56	4.70	7.50%	3.18%	10.44%	1.57	3.74	1.79	1.79
HT IV: HT - Public Water Works (PWW)	9.30	4.70	7.50%	3.18%	10.44%	1.57	2.49	1.79	1.79
HT V(A): HT - Agriculture Pumpsets	6.21	4.67	7.50%	3.18%	10.44%	1.50	-	-	-
HT V(B): HT - Agriculture Others	8.93	4.70	7.50%	3.18%	10.44%	1.57	2.11	1.79	1.79

Consumer Category	T (ABR)	C	WL	TL	L	D = WL + Tx	CSS Compute d	20% of ACoS	Approve d CSS
	Rs./Un	it*	%	%	%		Rs./Unit*		
HT VI: HT - Group Housing Societies (Residential)	8.96	4.70	7.50%	3.18%	10.44%	1.57	2.14	1.79	1.79
HT IX(A): HT - Public Services-Govt. Edu. Institutions and Hospitals	12.09	4.70	7.50%	3.18%	10.44%	1.57	5.27	1.79	1.79
HT IX(B): HT - Public Services-Others	13.17	4.70	7.50%	3.18%	10.44%	1.57	6.35	1.79	1.79
HT X: HT – Electric Vehicle Charging Station	8.60	4.70	7.50%	3.18%	10.44%	1.57	1.78	1.79	1.78

7.28.25With the rationalisation effected by the Distribution Open Access Regulations, 2016 and its First amendment thereof, adoption of the CSS formulae in accordance with the Tariff Policy and MOP notified Electricity (Amendment) Rules, 2022 and the preferential tariff approved for purchase from RE sources, no concession would be provided to the RE sector in terms of discounted CSS levy. Thus, from the date of applicability of this Order, in case of an OA consumer purchases power from a RE source, the full CSS as determined above shall be payable. The CSS so approved as above shall be applicable on the energy actually consumed by the OA consumer, i.e., on the metered consumption.

7.29 Additional Surcharge

MSEDCL's submission

- 7.29.1 MSEDCL submitted that Section 42(4) provides the levy of Additional Surcharge to a consumer who receives supply of electricity from a person other than the distribution licensee of his area of supply. Regulation 14.8 of the Commission's Distribution OA Regulations, 2016 outlines the principles for determination and levy of Additional Surcharge
- 7.29.2 MSEDCL submitted that it has been casted by Universal Service Obligation (USO) under the Section 43 of the Electricity Act 2003. Hence, in order to cater to the consumer demand, it has to purchase power on long term basis from Mahagenco, NTPC under the MoU route and from IPPs through competitive bidding process. Petitioner further submitted that 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.
- 7.29.3 MSEDCL submitted that capacity addition was done by signing the PPAs with generating companies after due approval of the 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 various reasons such as increase in Open Access, RE capacity addition to fulfil RPO Target, RE capacity addition by CPP because of low tariff and Net Metering etc., resulting into surplus power availability.
- 7.29.4 Further, MSEDCL submitted that to fulfil the RPO targets set by the Commission, MSEDCL has to plan prospective power purchase from renewable energy sources. Also, as per the RPO Regulations 2019 notified on 27th December 2019, MSEDCL is required to procure at least 25% of power from Renewable Sources by FY 2024-25 which includes 13.5% of Solar and 11.5% of Non-Solar power. Keeping up pace with the RPO requirement, MSEDCL has tied up total 12,806 MW capacity of Renewable Energy as on 31st October 2022 of which 9,749 MW capacity is commissioned. This includes Wind Generation of 3,512 MW, Solar of 5928 MW, Bagasse based cogeneration of 2,635 MW, Biomass capacity of 87 MW, Small Hydro of 327 MW, Wind-Solar Hybrid of 300 MW & Municipal solid waste of 17 MW capacity. Further, by the end of FY 2024-25 to meet the RPO target, MSEDCL has planned to increase the solar capacity to 8,488 MW. Due to such addition of renewable power, the surplus power is expected to be continued further since the renewable energy is treated as "Must Run".
- 7.29.5 MSEDCL also submitted that due to lower prices of solar energy and MERC Net Metering Regulations 2019, various consumers are now converting to captive power plants (CPP) by installing solar projects through Developers. Due to this, the surplus power is also likely to increase further.
- 7.29.6 MSEDCL also submitted that 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.
- 7.29.7 MSEDCL further submitted that, 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.
- 7.29.8 MSEDCL also submitted that it has to plan in advance and procure the power on short term through bilateral transactions on DEEP Portal considering the historical trend of demand, coal shortage scenario, trend of rates in exchanges, etc.

- 7.29.9 MSEDCL submitted that it 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.
- 7.29.10MSEDCL further submitted that it 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. The details of back down quantum for the period April 2022 to September 2022 is provided in table below:

Particulars	Quantum (MU)
Backdown	4,424
Zero Schedule /RSD	3,448
Total	7,872

7.29.11MSEDCL submitted that it is in power surplus and will continue to be in surplus for balance years of the Control Period. However, 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.

Surcharge Computation as submitted by MSEDCL

- 7.29.12MSEDCL has submitted that it 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.
- 7.29.13MSEDCL has submitted that, the generation capacity tied up by MSEDCL becomes excess. In this situation, it 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. 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 the said MYT Order dated 3rd November 2016 and subsequently in MTR Order dated 12th September 2018 and in the fourth control period MYT Order dated 30th March 2020.

7.29.14MSEDCL has computed the Additional Surcharge as per DOA Regulations, 2016 based on the data for the FY 2022-23(upto September 2022) in line with the methodology adopted by the Commission in the MYT Order dated 30th March 2020.

Table 7-40: Additional Surcharge for FY 2023-24 as proposed by MSEDCL

Particulars Particulars	Reference	Unit	Value		
Step 1: Establishing contribution of OA to backing-down/stranded capacity					
OA volume for FY 2022-23 (Upto Sept-22)	(a)	MU	3,334		
Backing down quantum for FY 2022-23 (Upto Sept-22)	(b)	MU	7,872		
Ratio of OA to Backed down for FY 2022-23 (Upto	(c)=(b)/(a)	%	42%		
Sept-22)	(6) (6), (4)				
Step 2: Ascertaining Cost of Stranded Capacity					
Fixed cost of thermal generating sources for FY 2023-24	(d)	Rs. Crs	20,693		
Total Available MU from thermal generating stations for FY 2023-24	(e)	MUs	1,45,612		
Wt. Avg. per Unit FC of thermal generating stations for FY 2023-24	(f)=(d)/(e)x10	Rs./kWh	1.42		
Total projected backdown/RSD volume for FY 2023-24	(g)	MUs	24,496		
Projected Open Access volume for year for FY 2023-24	(h)	MUs	7,688		
Fixed Cost pertaining to backdown/RSD capacity for FY 2023-24	(i)=(f)*(h)/10	Rs. Crs	1,093		
Step 3: Determination of Additional Surcharge					
Per unit Additional Surcharge (to be applicable to OA consumers)	(j)=(i)/(h)*10	Rs./unit	1.42		

Table 7-41: Additional Surcharge for FY 2024-25 as proposed by MSEDCL

Particulars Particulars	Reference	Unit	Value		
Step 1: Establishing contribution of OA to backing-down/stranded capacity					
OA volume for FY 2022-23 (Upto Sept-22)	(a)	MU	3,334		
Backing down quantum for FY 2022-23 (Upto Sept-22)	(b)	MU	7,872		
Ratio of OA to Backed down for FY 2022-23 (Upto Sept-19)	(c)=(b)/(a)	%	42%		
Step 2: Ascertaining Cost of Stranded Capacity					
Fixed cost of thermal generating sources for FY 2024-25	(d)	Rs. Crs	21,037		
Total Available MU from thermal generating stations for FY 2024-25	(e)	MUs	1,49,903		
Wt. Avg. per Unit FC of thermal generating stations for FY 2024-24	(f)=(d)/(e)x10	Rs./kWh	1.40		
Total projected backdown/RSD volume for FY 2024-25	(g)	MUs	29,129		
Projected Open Access volume for year for FY 2024-25	(h)	MUs	8,932		
Fixed Cost pertaining to backdown/RSD capacity for FY 2024-25	(i)=(f)*(h)/10	Rs. Crs	1,253		

Particulars Particulars	Reference	Unit	Value
Step 3: Determination of Additional Surcharge			
Per unit Additional Surcharge (to be applicable to OA	(j)=(i)/(h)*10	Rs./unit	1.40
consumers)	4		

Table 7-42: Summary of Additional Surcharge

Particulars	FY 2023-24	FY 2024-25		
Proposed Additional Surcharge (Rs/Unit)	1.42	1.40		

- 7.29.15MSEDCL submitted that the Captive consumer is the consumer who has constructed, maintained and operate a captive generating plant and dedicated transmission Lines through its own cost for availing electricity for his own use and liable for exemption from additional Surcharges to meet the fixed cost incurred due to obligation to supply of Distribution Licensee.
- 7.29.16MSEDCL requested the Commission to approve the levy of Additional Surcharge to all Open Access consumer excluding those OA consumers who incur the expenditure and/or invest the money for constructing, maintaining or operating a captive generating plant and dedicated transmission lines.

Commission's Analysis and ruling

- 7.29.17The Commission has carefully examined the submissions of MSEDCL, as well as the objections filed by stakeholders with regard to the determination of Additional Surcharge and MSEDCL's replies. The Commission has examined the Section 42(4) of the EA, 2003, Clause 8.5.4 of the Tariff Policy, 2016 and Regulation 14.8 of the Distribution Open Access Regulations, 2016 ('DOA Regulations, 2016'). In light of said provisions of the respective Regulations and Tariff Policy, the Commission in its MYT Order and MTR had already recognized that there is 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.
- 7.29.18As the Commission has envisaged a power surplus scenario for FY 2023-24 and FY 2024-25, the levy of Additional Surcharge from OA consumers is found to be applicable for FY 2023-24 and FY 2024-25.
- 7.29.19Regarding the applicability of the Additional Surcharge, MSEDCL stated that the Additional Surcharge, being a compensatory amount payable towards the fixed cost of stranded power resulting from approved power purchase contracts, has to be determined commonly for all the OA Users.

7.29.20The Commission has examined the relevant provisions of EA, 2003, and Regulation 14.8 of the DOA Regulations, 2016 on which MSEDCL has relied. The relevant extracts read as follows:

"(a) Section 42 (4) of EA, 2003, stipulates that:

"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."

7.29.21The Commission has employed the same methodology as suggested by the MSEDCL for determination of the Additional Surcharge for 4th Control Period, the computation of which is provided below.

Table 7-43: Additional Surcharge for FY 2023-24 approved by the Commission (Rs/kWh)

Particulars	Reference	Unit	Value
Step-1: Establishing contribution of OA to backing-d	lown/stranded o	capacity	
OA volume for FY 2022-23 (Upto Sept22)	(a)	MU	6,619
Backing Down quantum for FY 2022-23 (Upto Sept22)	(b)	MU	26,679
Ratio to OA to Backed down for FY 2022-23 (Upto Sept22)	(c)=(b)/(a)	%	24.81%
Step-2: Ascertaining Cost of Stranded Capacity	ı	I	
Fixed Cost of Thermal Generating Sources for FY 2023-24	(d)	Rs. Crs	19,141
Total Available MU from Thermal Generating Stations for FY 2023-24	(e)	MUs	1,40,564
Wt. Avg. Per Unit FC of Thermal Generating Stations for FY 2023-24	(f)=(d)/(e) x10	Rs/kWh	1.36
Total Projected Backdown/RSD Volume for FY 2023-24	(g)	MUs	35,851
Projected Open Access Volume for year for FY 2023-24	(h)	MUs	7,688
Fixed Cost pertaining to Backdown/RSD capacity for FY 2023-24	(i)=(f)*(h)/10	Rs. Crs	1,047
Step-3: Determination of Additional	Surcharge		
Per Unit Additional Surcharge (to be applicable on OA Consumers)	j=(i)/(h)*10	Rs/kWh	1.36
Per Unit Additional Surcharge (to be applicable on OA Consumers)		Rs/kVAh	1.33

Table 7-44: Additional Surcharge for FY 2024-25 approved by the Commission (Rs/kWh)

Particulars	Reference	Unit	Value
Step-1: Establishing contribution of OA to backing	down/stranded	capacity	
OA volume for FY 2022-23 (Upto Sept22)	(a)	MU	6,619
Backing Down quantum for FY 2022-23 (Upto Sept22)	(b)	MU	26,679
Ratio to OA to Backed down for FY 2022-23 (Upto Sept22)	(c)=(b)/(a)	%	24.81%
Step-2: Ascertaining Cost of Stranded Capacity			
Fixed Cost of Thermal Generating Sources for FY 2023-24	(d)	Rs. Crs	19,484
Total Available MU from Thermal Generating Stations for FY 2023-24	(e)	MUs	1,40,564
Wt. Avg. Per Unit FC of Thermal Generating Stations for FY 2023-24	(f)=(d)/(e) x10	Rs/kWh	1.39
Total Projected Backdown/RSD Volume for FY 2023-24	(g)	MUs	39,314
Projected Open Access Volume for year for FY 2023-24	(h)	MUs	8,932
Fixed Cost pertaining to Backdown/RSD capacity for FY 2023-24	(i)=(f)*(h)/10	Rs. Crs	1,238
Step-3: Determination of Additional	Surcharge		
Per Unit Additional Surcharge (to be applicable on OA Consumers)	j=(i)/(h)*10	Rs/kWh	1.39
Per Unit Additional Surcharge (to be applicable on OA Consumers)		Rs/kVAh	1.36

- 7.29.22The Commission observes that for application of the Additional Surcharge, it has to be conclusively demonstrated that the contracted capacity has been stranded and that open access has partly resulted in causing such stranded capacity. Based on actual data for FY 2022-23 (Upto September 2023) and the workings provided in the above table, the case of stranded capacity on account of open access and hence the levy of Additional Surcharge is established. Besides, based on the approved power purchase projections and projection of available generation capacity as outlined under Chapter-6, the same is expected to continue for remaining period of 4th Control Period. Hence, for FY 2023-24 and FY 2024-25, the Commission approves the Additional Surcharge as per the above-mentioned table.
- 7.29.23However, for the purpose of billing, as kVAh based billing has been introduced for HT category consumers, Additional Surcharge (in kVAh terms) shall be applicable by multiplying category-wise power factor (0.98 pf) to be applied on Additional Surcharge (in per Rs/ kWh) so determined in above tables for respective years of the 4th Control Period.

Table 7-45: Summary of Additional Surcharge for FY 2023-24 and FY 2024-25 as approved by the Commission (Rs/kWh)

Particulars	FY 2023-24	FY 2024-25
Additional Surcharge (MTR Petition)	1.42	1.40
Additional Surcharge (Approved in this order)	1.36	1.39

8 COMPLIANCE OF EARLIER DIRECTIVES

The status of compliance by MSEDCL of the directives given in the previous MYT Order is set out below.

8.1 Surplus Power Trading

Directive

8.1.1 MSEDCL should explore various options for selling the surplus power through short-term/ medium-term bilateral contracts or through Power Exchanges in an optimal and efficient manner such that the revenue from surplus trade of power can help in optimizing effective cost of power procurement.

MSEDCL's Response

FY 2020-21

- 8.1.2 MSEDCL has been exploring the option of sell of surplus power through Energy Exchanges and participating in Short Term Tenders on DEEP E-bidding portal.
- 8.1.3 For doing this, during the lean demand period as and when surplus power is available, MSEDCL bids the power for sell in energy exchanges. In FY-2020-21, as and when feasible. MSEDCL has sold around 223 MUs amounting ~ Rs 87 Crores. at an average rate of Rs. 3.89 per unit.
- 8.1.4 In FY 2020-21, due to nationwide lockdown, the MSEDCL's power demand was less, however at the same time the rates in the market were also on lower side. Hence it was not feasible for MSEDCL to sell of power in exchanges. During this period instead of selling power in the market MSEDCL had given zero schedule to high cost generating units and purchased power from the market for optimising power purchase cost.
- 8.1.5 In addition to that MSEDCL also participated in the short-term tenders floated by various utilities such as Gigaplex Estate Pvt, Ltd, EON Kharadi Infrastructure Pvt Ltd, etc. However, as rates discovered in tenders were lower than as quoted by MSEDCL, MSEDCL could not succeed in the tenders. MSEDCL was successful in the tender floated by Maharashtra Airport Development Co Ltd. and thus in FY-2020-21 MSEDCL sold 63 MUs amounting Rs. 31 Crores at an average rate of Rs. 4.94 per unit.
- 8.1.6 Thus in FY 2020-21, MSEDCL has sold total 286 MUs amounting 117.83 Crores at an average rate of Rs. 4.12 per unit.

FY 2021-22

8.1.7 MSEDCL bidded the power for sell in energy exchanges, as and when feasible, In FY-2021-22, as and when feasible, MSEDCL had sold around 291 MUs amounting ~ Rs 167 Crores at an average rate of Rs. 5.76 per unit.

- 8.1.8 During the lean demand months, to manage the available surplus power, MSEDCL had given zero schedule to high cost generating units as per MoD to avoid the burden due to the running of generating units on technical minimum.
- 8.1.9 In addition to that MSEDCL had also participated in the short term tenders floated by various utilities such as Gigaplex Estate Pvt. Ltd, EON Kharadi Infrastructure Pvt. Ltd, Nidar Utilities Panvel LLP, Lakshimati Balaji Supply Chain Management Pvt. Ltd., Jawaharlal Nehru Port Trust, etc. However, as rates discovered in tenders were lower than that quoted by MSEDCL, MSEDCL could not succeed in the tenders. MSEDCL was successful in the tender floated by Maharashtra Airport Development Co. and thus in FY-2021-22 MSEDCL had sold 43 MUs amounting Rs. 22 Crores at an average rate of Rs. 5.27 per unit.
- 8.1.10 Thus in FY 2021-22, MSEDCL has sold total 334 MUs amounting 190 Crores at an average rate of Rs. 5.70 per unit.

FY 2022-23 (Upto Sept-22)

- 8.1.11 MSEDCL bids the power for sell in energy exchanges, as and when feasible, and sold around 195 MUs amounting ~ Rs 175 Crores . at an average rate of Rs. 9.00 per unit.
- 8.1.12 Further MSEDCL had participated and succeeded in the short term tender floated by BRPL Delhi and sold 21 MUs amounting ~11 Crores at an average rate of Rs. 5.13 per unit.
- 8.1.13 Further in FY 2022-23, under Banking arrangement with Tata Power Delhi Distribution Company Ltd (TPDDL) for the period from 16 June-2022 to 15 September-2022, MSEDCL exported 436 MUs (at Regional Periphery.) to TPDDL against the banked power supplied by TPDDL in the October-21, November-21, February-22 and March-23.
- 8.1.14 MSEDCL has also floated Power Banking Tender and issued LOA to successful bidder. As per the banking arrangement for the period from 21 June- 2022 to 15 September-2022, MSEDCL had exported 714 MUs (at Regional Periphery) to the utilities i.e. Punjab, BYPL Delhi and India Power Corporation Pvt Ltd, and these utilities shall supply the banked power at 110% premium to MSEDCL in the month of October- 2022 and March-2023 to May-2023 as per the LOA issued, expected MU to be imported from the other utilities during this period is around 785 MU.

Commission's Ruling

8.1.15 The Commission notes the initiatives by MSEDCL in terms of sale of surplus power, which it should continue upon assessing the economic feasibility of the transaction. Any revenue from sale of surplus power exceeding the marginal variable cost of power procurement would help in optimizing the overall power purchase cost.

- 8.1.16 With introduction of several market products on power exchanges such as Day Ahead market, Real time market, Term ahead market, there are multiple window of opportunities to trade surplus power/contracted capacity during lean season/peak and off-peak periods. Exploring such opportunities to maximise gains should be continuous process through market monitoring cell, in addition to exploring opportunities for sale of surplus power through short/medium/long term arrangements upon following due competitive tender process. Further, MSEDCL should also explore sale of surplus power to other deemed licensees such as SEZs as and when they initiate their power procurement through tender process.
- 8.1.17 MSEDCL should continue to explore opportunities for sale of surplus power to reduce burden of stranded/surplus power. Such revenue from sale of surplus power would be useful for passing on the benefit to consumers in terms of reduced cost of supply.
- 8.1.18 The commission appreciates MSEDCL's efforts in terms of executing power banking contracts. The Commission directs MSEDCL to carry out its power availability assessment based on its seasonal demand patterns & explore more avenues on banking front.

8.2 Trade Account for Market Operations

Directive

8.2.1 MSEDCL should maintain separate account of its market operations and should regularly undertake analysis of market information/transactions for future learning. The Commission shall scrutinise and undertake prudence check of such trading activities for efficacy of trading contracts, optimisation power purchase cost and shall also scrutinise reasons for missed opportunities (if any), at the time of MTR.

MSEDCL's Response

8.2.2 There is separate settlement account for Exchange wherein daily pay in/out takes place. MSEDCL analyses the market operations for future learning and accordingly incorporate it in the daily bids. Also MSEDCL analyses its transactions for future learnings. MSEDCL make optimum use of the various contracts at power exchange for efficient trading.

Commission's Ruling

8.2.3 The Commission notes the MSEDCL's submission in this respect.

8.3 Metering Faults, Meter Readings and Billing Issues

Directive

8.3.1 MSEDCL should review its billing related processes, identify current limitations/gaps and areas for improvement and take corrective steps and monitor the implementation

of necessary actions at the highest level. MSEDCL may also conduct a third-party process audit of its billing processes, including audit of its billing software/system.

MSEDCL's Response

8.3.2 **Centralized Billing System**: MSEDCL has implemented Centralized Billing system (Metering-Billing-Collection) for its 2.88+ crore consumer of various categories with HT/LT supply.

The features of centralized billing system are as below:

- The entire process from meter reading to bill generation is scheduled and automated without any manual intervention.
- Billing is completed from 1 to 25 of every month. Centralized Billing system has regulated the cash flow through scheduled billing activity i.e. billing of each consumer on fix date each meter to be read on fix date of every month.
- Centralized validation and sanitization of data has improved quality of billing resulting into reduction in billing complaints and losses. Average time taken from meter reading to bill distribution is reduced to 5 days. There is minimum delay in generating the MIS information due to centralized system.
- Centralized database of all consumers. Meter reading of single phase and three phase meters of LT consumers is done through mobile app.
- 8.3.3 **SMS Alerts and E-Bills through Email**: SMS are issued to consumers for various billing related services such as Bill Alerts, Bill reminders, Payment Acknowledgement, Meter Reading, Request for Self-Reading, Complaint Acknowledgement (LT Consumer), etc. Link to view and pay bill is sent through bill alert SMS. SMS for advance intimation of scheduled reading is sent to consumer. SMS are sent to consumers in Marathi and English language as per consumer preference. Monthly E-Bills are sent through e-mail to all consumers having registered mail ID. Also, for Go green registered consumers, E-Bills are sent to registered Email ID and Go-Green discount of Rs.10/- per bill is offered to such consumers.
- 8.3.4 Additional processes integrated with billing software to avoid manual intervention: Online application for new connection, load change, demand change, activity declaration/tariff change, name change, address correction etc. through consumer portal and mobile app.Online application for SD refund and its approval through system is implemented. Online provision for updating consumer profile i.e., contact details (mobile number/E-mail ID), PAN number, GST ID etc. Online applications authenticated through OTP on consumer's registered mobile number. Online application for Go-Green registration / de-registration. Open Access permission portal integrated with centralized billing system.

- 8.3.5 **Dashboard**: A centralized dashboard designed and used to present important KPI's at various office levels from state to sub-division level. This dashboard enables management for data driven decision based on latest information.
- 8.3.6 MSEDCL submits that internal audit for billing process of LT and HT billing is being carried out by third party auditors every year. The audit of billing software/system is being planned.

Commission's Ruling

- 8.3.7 The Commission appreciates the initiatives and the efforts taken by MSEDCL to adopt digitalisation of various processes associated with metering, billing and use of IT tools in various consumer centric processes. However, there is no denying the fact that there is scope for improvement in terms of service delivery and timely attention to consumer grievances with respect to billing errors/disputes, rectification/replacement of faulty meters, particularly in the rural and semi-urban areas as raised by several objectors during public hearing as well as through their written submission.
- 8.3.8 Further, the Commission expresses its displeasure that MSEDCL has not yet undertaken third party audit of its billing software/system despite such recommendation in the last MYT Order in Case 322 of 2019. The Commission hereby directs that MSEDCL should conduct a third-party process audit of its billing processes, including audit of its billing software/system and should submit action taken report with observations of third-party auditor within one year from date of issuance of this Order.
- 8.3.9 During public consultation exercise, MSEDCL submitted various measures undertaken by it in improvement in billing and efficacy of its centralised billing system. Apart from above one of the objector Shri Mahaveer Jain pointed out that billing delay (time elapsed between date of meter reading and date of issuance of bill) is increased to 10-20 days. The Commission re-iterates directions specified in Para 2.9.5 of the Order that exercise of preparation of zone wise process flow diagram (Start from Meter reading up to handing over of bills) needs to be done along with standardising timelines for effective billing management. The Commission will overview the said exercise during next MYT filing.
- 8.3.10 Further, the Commission observes that as per Supply Code Regulations, 2021, the MSEDCL and distribution licensees should provide various services including new connections/applications trough web based portal/interface, in the interest of ease of doing business as well as expeditious disposal of the applications, which has been initiated by MSEDCL. However, the implementation on this web based processing seem to be lacking, hence, MSEDCL should submit quarterly status report regarding the services rendered which has been mandated to be provided in online mode using web interface and also provide reasons for addressing delays/ measures taken to address the deficiencies in the same.

8.4 Harmonic Penalty

Directive

8.4.1 Under MYT Order in Case 322 of 2019, the Commission has observed that it is cognizant of the issue of power quality. Hence, in order to ensure that requisite data is available before next tariff determination process, the Commission laid down time frame for installation of power quality meter as per mandate of CEA Regulations. Accordingly, all Bulk Consumers with Contract Demand above 20 MVA shall install power quality meter by March 2021 (and above 10 MVA by March 2022) and share monthly data with Distribution Licensee. Also, Distribution Licensee needs to install power quality meter at their selected substations and share the data from these meters on its website.

MSEDCL's Response

- 8.4.2 Installation of power quality meters by the consumers having contract demand above 10MVA & 20MVA: MSEDCL submitted that out of total 57 nos of 20MVA consumers 06 nos. of consumers have installed power quality Meters. Further, out of 77 nos of 10MVA consumers, 12 nos of consumers have installed power quality Meters. MSEDCL mentions that the specifications for power Quality Meter/Analyser are already made available on MSEDCL website.
- 8.4.3 Status of installation of power quality meters at selected MSEDCL substations and availability of its data on MSEDCL website: MSEDCL has processed a proposal for procurement of 6626 nos of Power quality meters for installation at Power Transformers LV side having approximate tender cost of Rs 232 Crs. The specifications are also in process of approval. The scope includes providing end-to end solution including supply, installation, commissioning and provision of HES for data collection.
- 8.4.4 **Details of programs conducted for awareness of effects of Harmonics amongst consumers**: MSEDCL earlier conducted the workshops at Sangli, Pune, Vashi and Aurangabad with detailed discussions with the stakeholders regarding the harmonics and maintaining the same within prescribed levels. The workshop had extensive coverage on adequate topics. Power Quality and Standards, Impact of Harmonics on utility asset and operations, IEEE Provisions on Harmonics, Steps for Harmonics reduction, and financial impact of Power Quality.
- 8.4.5 However, considering the limited scope of awareness in workshops, MSEDCL has prepared awareness letters regarding harmonics and the same are being distributed by testing divisions at the time of routine testing of HT consumers (total 4303 nos upto Dec-22). The awareness letter/information is also made available online under consumer portal-Knowledge tab on MSEDCL Website.

Commission's Ruling

- 8.4.6 The Commission observes that the issue of power quality/harmonic distortions affect the consumer/utility alike. This issue was raised by MSEDCL in its MYT petition and requested for levy of harmonics penalty, however, availability of reliable data through measurement is the first step towards regulatory intervention and also would help MSEDCL and consumer to take corrective measures to address the harmonics/power quality issue at the source itself. In that sense, the awareness campaigns undertaken by MSEDCL is laudable initiative, however, that is not sufficient, unless MSEDCL undertakes installation of power quality meters at its select substations and make such data available in public domain. It is clarified that MSEDCL should undertake installation of such power quality meters in OPEX mode and use such generated data for further analysis and to initiate corrective measures, as necessary.
- 8.4.7 In this context, the Commission expresses its displeasure that even after 3 years since issuance of MYT Order in Case No. 322 of 2019, the MSEDCL has not yet finalized the tender specification for engagement of service provider on this critical power quality issue. The Commission hereby directs that MSEDCL should complete exercise of installation and measurement of planned power quality meters under OPEX mode at its substations and submit action taken report within one year from the date of issuance of this Order...

8.5 Accountability of Distribution Franchisees

Directive

8.5.1 Regarding, Prayas suggestions of making operational details of franchisee in public domain, the Commission is of the opinion that it will help in monitoring performance of franchisee as well as to analyse whether the intended purpose of introducing franchisee is being meet. Hence, the Commission directs MSEDCL to host on the lines indicated by Prayas Energy Group, the periodic performance details of franchisee area on its website.

MSEDCL's Response

8.5.2 In this regard, MSEDCL submits that the performance of operational Distribution Franchisee in MSEDCL is uploaded on MSEDCL website. The link for the same is as below:

 $\frac{\text{HTTP://WWW.MAHADISCOM.IN/WP-CONTENT/UPLOADS/2023/01/19.01.2023-PERFOMANCE-OF-DF-FOR-WEBSITE.PDF.}{}$

Commission's Ruling

8.5.3 The Commission notes the MSEDCL's submission in this matter.

8.6 ToD Features in 3 Phase Meters

Directive

8.6.1 The Commission also suggest to Distribution Licensees to include ToD features in three phase meters so that all new connection would have these facilities and need not be replaced if in future, depending upon feasibility, it is decided to introduce ToD tariff structure to 10 kW and above consumers.

MSEDCL's Response

8.6.2 MSEDCL submits that all three phase meters which MSEDCL is procuring presently are having ToD features.

Commission's Ruling

8.6.3 The Commission notes the MSEDCL's submission in this matter. However, the Commission further observes that there is need to enable dynamic and season ToD to respond to the market requirements and other technological developments taking place. MSEDCL should ensure that the meters are capable and programmable with ToD features so that such regulatory measure of dynamic ToD and Seasonal ToD could be implemented with ease in the interest of consumers as well as utility can harness the dynamic demand response features that would enable utility to optimise its power procurement and maximise gains in response to the real time market requirements. Accordingly, MSEDCL should ensure that all new meter procurement should include such features.

8.7 Reliability indices (SAIFI/SAIDI/CAIDI)

Directive

8.7.1 The Commission has taken serious note of the views expressed by the objectors/consumers during public hearing regarding the interruptions, performance on reliability indices and service quality standards suffered by consumers particularly in the rural area. Even the reliability indices (SAIFI/SAIDI/CAIDI) for Urban and Rural Areas vary significantly. The Commission has directed MSEDCL to initiate corrective actions in expeditious way particularly, where performances were consistently poor.

MSEDCL's Response

- 8.7.2 To minimise the interruptions, and to improve performance on reliability indices and service quality standards the following steps are taken:
 - Strengthening of HT/LT line network.
 - Providing Ring Main Unit system for alternative supply arrangement in urban/metropolitan areas.

- Bifurcation of overloaded HT feeders.
- Crimping of HT/LT line jumpers.
- Tree Trimming on HT/LT line, Regular DTC/ HT/LT line preventive maintenance work.
- Maintenance of Sub-station equipment's.
- 8.7.3 To carry out the above said work, the empanelled agencies are deployed at field offices. The routine maintenance work is carried out by the Preventive Maintenance (PM) agencies. So that uninterrupted & quality power supply will be provided to the consumers in Urban as well as Rural areas.
- 8.7.4 Further, separate agencies for Breakdown Maintenance are empanelled to restore power supply in minimum time. Above activities are implemented by the field offices to minimize the interruptions and to provide quality Power supply to the consumers. For any inconvenience in power supply (planned outages and breakdowns) are being informed to the consumers via SMS through mobile. MSEDCL in its submission submitted list of activities undertaken in Parbhani, OSmanabad, Hingoli & Washim, Circles. After effective preventive maintenance practices, the poor performance of Reliability Indices of Parbhani Circle, Osmanabad circle, Hingoli circle & Washim circle are improved as compared to April-2019.

Commission's Ruling

- 8.7.5 The Commission has taken note of the submission for the initiatives undertaken for select Circles. But MSEDCL's submission fall short in showcasing improvement in reliability indices, and it is not backed by supplementary data. Hence, the Commission further directs MSEDCL to closely monitor the Reliability Indices for all circles/divisions and publish such information on its website.
- 8.7.6 The Commission also notes that MSEDCL has been uploading the reliability indices on its website on regular interval, however sanctity of such indices becomes questionable when large number of consumers especially in rural area complaints about supply instructions. Hence, the Commission directs MSEDCL to submit methodology based on which it is computing reliability indices at present and action plan for computing such indices without human intervention. Said submission shall be filed within six month from date of this Order.

8.8 Automatic Compensation for Supply Failure and delay in issuance of connections

Directive

8.8.1 During the public hearing, the Commission had directed MSEDCL to furnish details (a) number of instances where automatic compensation has been paid by MSEDCL and

(b) Amount of compensation paid in last three years for supply failure and delay in issuing connections.

MSEDCL's Response

- 8.8.2 In reply to these directions, MSEDCL provided additional information through its submission dated 17 March 2023, wherein it submitted that it has been making concentrated efforts to achieve the standards of reliability fixed by the Commission. Detailed compliance undertaken by MSEDCL has already been provided in the original MTR Petition.
- 8.8.3 Following Table shows the reliability indices of MSEDCL as compared to other State Distribution Licensees:

Table 8-1: Comparison of Reliability Indices with other states

Distribution Licensee	Month / Quarter	SAIFI (No.)	SAIDI
			(Hours)
MSEDCL (Rural)	Dec-22	1.50	2.65
MSEDCL (Urban)	Dec-22	0.84	1.20
CSPDCL	Dec-22	5.86	2.97
(Chhattisgarh)			
DGVCL (Gujarat)	Dec-22	3.30	5.13
PGVCL (Gujarat)	Dec-22	5.51	8.52
UGVCL (Gujarat)	Dec-22	1.43	1.81
MGVCL (Gujarat)	Dec-22	3.28	3.88
BESCOM (Karnataka)	Jul-22	10.24	4.16

Source: Discoms Website

- 8.8.4 As can be seen from above, MSEDCL submitted that its reliability standards maintained are much better than those maintained by neighbouring states.
- 8.8.5 Further, several measures have been initiated by the Petitioner in terms of improvement in availability and quality of supply, reliability and investment in capital including IT infrastructure. It is to submit that, the basic need/objective of incurring the capital expenditure is to upgrade the existing distribution network to desirable standards so as to provide better network reliability and sustainable performance. In this context, it is relevant to mention the Revamped Distribution Sector Scheme (RDSS) proposed by the petitioner aims to carry out the works enabling improvement in the quality and reliability of power supply to consumers. The Petitioner has also proposed Enterprise GIS & Network Analysis Solution, Sub-station Monitoring System contributing performance of reliability indices. The Petitioner believes and will continue its concerted efforts to improve reliability indices to the extent targets set by the Commission.

8.8.6 Further, in compliance with the Daily Order dated 3 March 2023, MSEDCL submitted the details of compensation in the matter of standard of performance is provided in the table below. Such compensation has been provided in the matter of individual complaints dealing with issues such as delay in connection, load reduction/enhancement, billing complaint, etc.

Table 8-2: Amount of Compensation arising out CGRF Order

Particulars	Amount of Compensation (Rs.)
FY 2019-20	2,48,590
FY 2020-21	1,57,800
FY 2021-22	33,508
FY 2022-23#	7,000

Actuals up to 6 months

8.8.7 MSEDCL further submitted that, it shall provide roadmap for implementation of automatic compensation mechanism within next 3 months.

Commission's Ruling

- 8.8.8 In the context of automatic compensation for failure for compliance of standard of performance, the Commission would like to highlight that as per Regulation 25 of the MERC (Electricity Supply Code and Standard of Performance of Distribution Licensees including Power Quality) Regulations, 2021, notified on 24 February 2021, the provision of Automatic compensation for failure for meeting standard of performance has been enabled and detailed modalities and conditions have been specified under Annexure-II. Further, a time period of six months from date of notification of said Regulations have been provided for the Distribution Licensee to implement automatic compensation mechanism.
- 8.8.9 In this context, the Commission notes the submission of MSEDCL that it will submit road for implementation of automatic compensation mechanism within next 3 months is the gross violation and contravention of the provisions of the Supply Code Regulations, 2021. Hence, the Commission hereby directs MSEDCL to implement the automatic compensation mechanism at the earliest but not later than six months from issuance of this Order. MSEDCL should provide wide publicity for automatic compensation mechanism on its website and submit action taken report within six months from issuance of this Order.
- 8.8.10 In case of non-compliance of this directive, the Commission shall be forced to initiate proceedings for non-compliance and contravention of direction of Commission as per Section 142 of EA,2003. In that case, penal charges at the rate of Rs 1,00,000/- towards penalty for the contravention of the Order of the Commission and Rs 6,000/- per day for continuing failure for the period of such contravention shall be levied. In addition, additional RoE on availability of wires for uninterrupted supply would be suspended.

8.9 Net-metering procedure and Timelines for processing Applications

Directive

8.9.1 The Commission directs MSEDCL to comply with the process and the timelines specified under the Regulations for completing various activities.

MSEDCL's Response

8.9.2 MSEDCL submits that it has circulated Commercial Circular dated 21 January 2020 to provide information on enactment of MERC (Grid Interactive Rooftop Renewable Energy Generating Systems) Regulations, 2019 and its various provisions to field offices. MSEDCL upgraded online application portal in May 2020. Under this portal facility is provided to consumer to view application status, to receive SMS/E-mail about sanction. Further, MSEDCL has given Instructions to field offices to follow timelines specified under the Regulations for completing various activities vide Letter No. CE/Comm/GIRREGS Regulations 2019/No. 12627dated 20 July 2020. Standard operating procedure for installation of solar rooftop systems is issued on 12 May 2022 vide letter no. CE/COMM/Rooftop Solar/11837 dated 12 May 2022. SOP is uploaded on WWW.MAHADISCOM.IN/ISMART Mahavitaran web portal.

Commission's Ruling

- 8.9.3 The Commission observes that sharing of information regarding the notified regulations and circulars to the field offices is necessary to generate awareness about the notified regulations but does not automatically ensure implementation or compliance of the said Regulations within prescribed timelines unless supporting infrastructure and systems are put in place. The Commission also notes that there are several objections and concerns expressed by the stakeholders during public hearing and through written submissions regarding delays in implementation and timely processing of applications, delays in inspections, provisioning net-meter facilities and grant of interconnections of RTPV facilities.
- 8.9.4 The Commission hereby directs the MSDECL to submit detailed status report of circle-wise number of applications for net-metering/interconnections for RTPV systems as received, processed and pending during each month of FY 2022-23 within three months from date of issuance of this Order. MSEDCL should strictly adhered to timelines as per notified Regulations and procedures/practice directions in this respect.

8.10 Action Plan for Agriculture Sales Estimation and Feeder based Metering with AMR facilities

Directive

8.10.1 Under MYT Order in Case 322 of 2019, the Commission had directed MSEDCL to submit detailed roadmap and action plan for undertaking activities mentioned MYT

- Order in Case No. 322 of 2019 and also additional set of activities that MSEDCL wishes to undertake so as to improve the estimation process. The roadmap and the action plan shall be submitted to the Commission within two months from issuance of MYT Order in Case 322 of 2019.
- 8.10.2 Further, in MYT Order in Case 322 of 2019, the Commission had noted the status update regarding progress on completion of Feeder based metering and AMR facilities and further directed MSEDCL to ensure that various action points including metering of AG feeders as outlined under MYT Order shall be carried out by MSEDCL in timely manner.

MSEDCL's Response

- 8.10.3 For effective implementation of survey/consumer mapping activity, the guidelines vide Circular No. CE (Dist.)/9182 dated 21 April 2020 have been circulated to field offices.
- 8.10.4 The survey of the DTs in view of consumer mapping, Feeder-wise mapping of consumers (AG and Non-AG), indexing/geo-tagging of consumer data to DTC, finding working status of meters, etc. was completed.
- 8.10.5 The IT team has developed mobile application to collect the information for planning to operationalize the feeder-input based energy accounting and to further improve the estimation of AG consumption. MSEDCL submits that it is in process of implementing the directives regarding the DT metering on selected 502 AG feeders.
- 8.10.6 The detailed roadmap in this regard has been submitted to the Commission vide Letter No. Dir. (Op.)/Dist./ MERC /502 Feeders/03410 dated 09 February 2021.
- 8.10.7 In order to implement the DTs metering plan, the DPR for providing meter with AMR facility for all DTs of selected 502 Ag Feeders is submitted for approval of the Commission vide Letter No. CE (Dist.)/M-III/DPR/502 Feeders. /29761 dated 07 December 2021. The tendering activity for providing meter with AMR facility for DTs of selected 502 Ag Feeders is under process.

Commission's Ruling

8.10.8 The Commission notes that MSEDCL vide its letter dated 9 February 2021 submitted the Road-map for action points for enablement of feeder based metering. In said road-map, MSEDCL proposed (4) phases with timelines. Details of identified phases are as below:

			Action taken	Targeted Date
				of completion
Phase-I	Survey,	Physical	Circular issued 22	30 June 2020 revised
	Verification	of	April 2020	to
	Consumer,	DTC		

		Action taken	Targeted Date
			of completion
	connected on 502		30 September 2020
	feeder		& survey
			completed. #
Phase-II	Installation &	Circular issued 22	31 March 2021 #
	commissioning of	April 2020 &	
	AMR to all these	Testing letter	
	feeder	dated 24 April	
		2020	
Phase-III	Installation &	Circular issued 22	31 March 2022#
	commissioning of	April 2020	
	AMR to DTC meter on		
	502 Feeders		
Phase-IV	Data collection ,	Circular issued 22	Regular updating#
	Display, monitoring &	April 2020	
	estimation of Ag		
	consumption		

(# subjected and delayed due to clearance for the work due to Covid lock down)

From above identified phases, it is pertinent to note the activities identified in phase I were the part and facilitative work carried out to supplement AG study and had been completed prior to issuance of the MYT Order.

Progress of works identified under Phase II: MSEDCL submitted that out of the total 5405 Ag feeders, 5228 Nos. have been upgraded with AMR facilities. Further it is taking up the process to install AMR for the balance 177 Nos. It is clear that around 96.72% works is already completed under this phase. The Commission also recognises that timeline committed under this phase coincides with Covid-19 Pandemic and associated lockdown. Hence, preparedness of MSEDCL on this front is appreciated.

With regards to Phase III, the Commission acknowledges that on 7 December 2021, MSEDCL submitted DPR for activities of for installation & commissioning of AMR to DTC meter on 502 Feeders with capital outlay of Rs.108.38 Crores. The proposed scheme is evaluated by the Commission and observed that MSEDCL has proposed two distinct activities, i.e. providing AMR compatible metering (which is CAPEX component) and acquiring meter data for 5 years and associated work (OPEX component). OPEX component for acquiring meter data for 5 years amounts to Rs. 1.99 Crore. After perusal of tender conditions, the Commission observed that 70% of material cost & 100% cost of installation will get settled after operationalisation of scheme and receipt of 1st reading. Remaining 30% cost of material will be recovered @ 0.5% per month for 5 years and will get settled in billing for FMS activities. It is pertinent to note that in past, MSEDCL had rolled out DTC metering scheme under CAPEX mode. The said scheme has not reaped the desired benefits and DTC meters

installed at that time has not served any purpose during AG study. Hence, for keeping metering intact, it is necessary to built-in performance linked payment aspect while tendering for works like DTC meters.

Under MoP's Revamped Distribution Sector Scheme (RDSS) one of the component is installing communicable meters for DTs & Feeders. RDSS clearly stipulated that DTC metering activity needs to be undertaken as OPEX scheme with 85% of payment spread over the contract period and such expenses to be booked as Operational Expenses. Accordingly, the Commission referred back the DPR for DTC Metering with direction to execute the same based on guidelines stipulated for RDSS and book such expenses under O&M Expenses. Further, the Commission notes that MSEDCL has delayed in initiating Phase III activities, which could have been done even under partial lockdowns.

Phase IV is a continuous process and inputs from said works will be more reliable after completing roll out of Phase II & III.

- 8.10.9 Under MYT Order in Case 322 of 2019 in Para 4.2.20 to Para 4.2.26, the Commission has extensively deliberated on the need for Feeder Input based estimation of AG Sales, the methodology and meticulous process to be followed for selection of feeders and care to be taken for implementation of such Feeder input based AG estimation. Merely increasing sample size of feeders without ensuring appropriate steps for verification, validation, mapping of DTC, indexing of consumers and updation of records of the connected load of such consumers connected on the feeder in the register aligned with ground reality upon field survey, will not be proper.
- 8.10.10Further, ascertaining of the technical loss/commercial loss on such feeder is prerequisite for ascertaining the AG sales using AMR based feeder input mechanism. In this context, the Commission reiterates its observations and ruling outlined under MYT Order in Case 322 of 2019 that in order to have a credible arrangement of feeder input based methodology, (through operationalising the feeder input based methodology), it is important that feeder-based energy accounting data based on AMR/MRI is maintained and made available in automated manner without manual intervention and without need for assessment due to any reason (including but not limited to CT/PT errors, mapping errors, communication errors etc.). Further, estimation of feeder-wise technical losses (by segregating losses on account on wrong/non billing and unauthorised consumption (if any), mapping of AG and Non-AG consumers on the feeder, updating master data thereof and timely publishing this information in transparent manner on regular basis is essential, which will boost the confidence level of all stakeholders in ascertain a better estimation of actual AG consumption in the state using Feeder Input based methodology, in the absence of actual metering of entire AG consumers.
- 8.10.11The Commission further noted the opinion of AGWG that, despite existing limitations and constraints, the existing feeder input based methodology, which is based on

rigorous stratified random sample based feeder selection approach, is reasonably robust enough to represent the state-wide AG consumption within +/- range of 4%. However, the Commission feels that further refinements and improvements in the estimation would be possible if MSEDCL addresses the current limitations and difficulties and the methodology is extended to cover more number of feeders over the period of time.

- 8.10.12In this context, the Commission observes that the Roadmap for implementation of Feeder input based methodology was submitted after much delay in February 2021 albeit some delays is attributed to COVID-19 and lockdown situation prevalent then. Further, the Commission notes that plan and tendering activity for providing meters with AMR facilities for DTs of selected 502 AG feeders is still under process. Under the circumstances, verification, validation of the data and addition of any further sample feeders during FY2020-21 and FY2021-22 would not be appropriate without adopting all necessary steps/checks as outlined under para 4.2.20 to para 4.2.26 as outlined under MYT Order in Case No. 322 of 2019.
- 8.10.13Further, the Commission notes from the additional submission of MSEDCL dated 17 March 2023 (which has come about much after conclusion of the public hearing/consultation process) and the Commission has already expressed its views and rationale for non-consideration of such additional submission at this stage. However, the Commission would like to highlight an important point which is relevant in this context and hence relevant extract of the MSEDCL submission is reproduced hereunder:

'During a Technical Validation session (TVS) before admitting the MTR Petition, the Hon'ble Commission directed the Petitioner to submit Ag sale calculations based on the index of Hon'ble MERC-selected feeders. The Petitioner followed this directive and used the approved feeder input-based methodology for the MERC-selected feeders. However, it is submitted that a significant discrepancy was observed between the actual billed sale and the estimated sale. As a result, the Petitioner also conducted an analysis of feeders not selected by Hon'ble MERC, using actual data and identified other sample feeders in accordance with the methodology provided by Hon'ble Commission in its Order. The Petitioner then determined the Agriculture Sale based on the index derived from these additional feeders.' (emphasis added)

8.10.14The 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. The Commission observes that these 502 feeders were so

selected upon extensive exercise of field survey, mapping of DTs and AG consumers and connected load thereon based on rigorous stratified random sample-based feeder selection approach. Any addition to the sample feeders will have to strictly follow all the steps outlined under MYT Order in Case 322 of 2019 and part substitution/replacement of such identified 502 feeders without valid reasons/justification is not envisaged. The Commission also noted that MSEDCL has not provided any reasons/justification for the discrepancy noted and non-consideration of 502 sample feeders (partly or otherwise) as covered at the time of MYT Order.

- 8.10.15The Commission hereby reiterates its directions given under MYT Order in Case 322 of 2019 regarding Feeder Input based AG sales estimation as outlined under para 4.2.20 to para 4.2.26 of said MYT Order and directs MSEDCL to strictly follow the same for estimation of AG Sales and submit Action taken Report alongwith supporting data at the time of next tariff revision exercise.
- 8.10.16The Commission further rules that the Feeder input based AG Index methodology as finalised under MYT Order in Case 322 of 2019 and also adopted in this MTR exercise 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.

8.11 Contingency reserves

Directive

8.11.1 In MYT Order in Case No. 322 of 2019, the Commission has observed that considering the purpose of the fund, the Commission is of the view that the Licensee shall not invest the Contingency Reserves amount in market linked instruments such as Mutual Funds, etc., since the uncertainty associated with the Mutual Funds cannot be passed on to consumers. Therefore, the Commission in exercise of inherent powers to deal in the best interest of utility and consumers in just and equitable manner and also in exercise of "Power to remove difficulties" as per Regulation 102 of MYT Regulations, 2015 directs MSEDCL to ensure that contingency reserve is invested only in specified investment instruments, i.e., Fixed Deposit or Government Securities (G-Sec – 10 year).

MSEDCL's Response

8.11.2 MSEDCL submits that it has invested amount of Contingency reserve as per the Indian Trust Act, 1882 i.e. Government Securities as mentioned in MYT Order in Case No. 322 of 2019 (Clause No. 5.15.1).

Commission's Ruling

8.11.3 The Commission has noted MSEDCL's submission in this respect.

8.12 InSTS Transmission Charges for OA Consumer

Directive

8.12.1 In MYT Order in Case No. 322 of 2019, the Commission has observed that the Transmission charge Open access revenue of Rs 220.17 Cr and Rs 182.33 Crores in FY 2017-18 and FY 2018- 19 respectively is not allowed to be retained by MSEDCL. The Commission hereby directs to transfer such amount to STU in six months from the issuance of this Order with monthly equal instalments.

MSEDCL's Response

8.12.2 MSEDCL has remitted the Transmission charges amounting Rs 402.50 Crores for FY 2017-18 and FY 2018-19 to the STU in nine equal instalments ending on 13 June.2022.

Commission's Ruling

8.12.3 The Commission has noted MSEDCL's submission in this respect.

8.13 kVAh Metering

Directive

8.13.1 In MYT Order in Case No. 322 of 2019, the Commission observed that, after understanding the proposal and preparedness of MSEDCL, the Commission allows MSEDCL to implement kVAh based billing for HT Consumers at present. The same shall be effective from 1 April, 2020. As regards, the LT consumers above 20 kW load, the Commission directs MSEDCL to complete its meter conversion process alongwith other system modifications for such consumer categories and shall target to implement the same at the time of MTR i.e. by 1 April, 2023.

MSEDCL's Response

8.13.2 MSEDCL submits that as per billing data, out of total 1,12,324 No of above 20 kW live consumers, 40-200 A CT Embedded meters are installed to 91,301 No of consumers. For balance 21,023 consumers, meter installation work will be completed by Jan-2024. In addition to above, activity of reprogramming of already installed 14,518 nos. of 40-200 A CT Embedded meters is likely to be completed by May-2023.

Commission's Ruling

8.13.3 Based on MSEDCL's submission, the Commission understands that implementation of kVAh metering for LT category above 20 kW would not be possible under MTR process due to un-preparedness of MSEDCL, as installation of complete metering for eligible consumer will be completed not before January 2024 as per current status. Besides, revision in billing software and other implementation would require some time to roll the kVAh metering scheme/tariff thereof.

8.13.4 The Commission expresses its displeasure that MSEDCL has completed exercise of kVAh meter installation and other system modifications for LT consumers (above 20 kW) to enable kVAh Metering for such consumers despite clear target for implementation specified in the last MYT Order in Case 322 of 2019. The Commission hereby directs that MSEDCL should complete this exercise within one year from date of issuance of this Order and also submit six monthly status report. The kVAh based meter data for LT category (above 20 kW) would be available for period of at least one year before next tariff exercise. Accordingly, MSEDCL should submit Tariff Petition with applicability of kVAh metering/tariff for LT category (above 20 kW). In case of non-compliance of this directive, the Commission shall be forced to initiate proceedings for non-compliance and contravention of direction of Commission as per Section 142 of EA,2003. In that case, penal charges at the rate of Rs 1,00,000/- towards penalty for the contravention of the Order of the Commission and Rs 6000/- per day for continuing failure for the period of such contravention shall be levied.

8.14 Power Factor Recording

Directive

8.14.1 For smooth transition to new billing system and to keep Consumer aware at all times, the Commission directs MSEDCL to display PF (computed by considering leading and lagging RkVAh) recorded during the month in the bill of all the Consumer categories till further directions.

MSEDCL's Response

8.14.2 MSEDCL submits that the Power Factor (PF) is displayed in the bill issued to consumer is 'calculated PF' based on leading and lagging RkVAh.

Commission's Ruling

8.14.3 The Commission notes MSEDCL's submission in this respect.

8.15 kVAh Billing

Directive

8.15.1 While determining per unit charges in kVAh, the Commission has used category wise PF which could be lower than unity. This makes per unit tariff lower than the tariff which would have been determined in kWh term. Further, in case of Energy Balance, the utility shall always maintain sale in kWh only. Tax on Sale of Electricity and Electricity duty shall be converted from kVAh to kWh. All the OA transactions will be maintained in kWh sale only, kVAh based sales shall be converted in kWh based on the Power Factor for the month provided in the Energy Bills.

MSEDCL's Response

8.15.2 MSEDCL submits that the Open Access Energy Accounting & Billing is carried out on kWh basis. MSEDCL further submits that for the purpose of Energy Balance it is maintaining the HT sale in kWh.

Commission's Ruling

8.15.3 The Commission notes MSEDCL's submission in this respect.

8.16 AG Metering

Directive

8.16.1 The Commission directs MSEDCL that all the HVDS connections shall be released through prepaid meters only. Also, HVDS AG connections released earlier should also be converted into prepaid meters within 6 months. Also, in case of non-availability of prepaid meters, the released connections should be converted to prepaid meters within 6/12 months.

MSEDCL's Response

8.16.2 MSEDCL submits that the Tender (Tender No. MMD/T/NSC 01/0121/T-01) was floated for supply and fixing of 1,50,000 Prepaid Meters to AG HVDS Connections. Now, the LoA has been awarded to the agency M/s ZenMeter Solutions Pvt. Ltd. Bangalore vide letter no MMD/L-27/T-NSC- 01/0121/5763 dated 8 March 2022 & inspection call raised for 5000 nos. of meters is underway.

Commission's Ruling

- 8.16.3 In this context, the Commission expresses its displeasure that even after 3 years since issuance of MYT Order in Case No. 322 of 2019, the MSEDCL has not yet implemented pre-paid metering for agriculture with HVDS connections. There is no plan or timeline submitted for completion of this activity as on date.
- 8.16.4 The Commission hereby directs that MSEDCL should complete exercise of installation of Pre-paid meters for agriculture consumers with HVDS connections expeditiously and submit action taken report along with next tariff filing exercise.

8.17 Go Green Rebate

Directive

8.17.1 As far as proposal for rebate to consumers for opting for Go Green initiative is concerned, the same is allowed and costs pertaining to such rebate shall be allowed as pass through in ARR in line with Regulation 84.1 of MYT Regulations 2019. However, MSEDCL should maintain separate account of such rebates and details of consumers opting for such Go-Green initiative. Further, MSEDCL should also arrange awareness campaigns through mailers/bills, engage in outreach activities to promote this initiative and also through its customer care centres.

MSEDCL's Response

8.17.2 MSEDCL submits that a separate GL Account (Go Green discount to consumers) is created and various outreach activities have been undertaken by MSEDCL.

Commission's Ruling

8.17.3 The Commission notes the MSEDCL's submission in this respect.

8.18 Customer service & Consumer outreach

Directive

8.18.1 The Commission has advised MSEDCL to further improve upon their consumer outreach activities and extend use of technological solutions through mobile alerts, ebills through emails and more payment options to facilitate online payment & other modes of payment gateways.

MSEDCL's Response

8.18.2 MSEDCL submits consumer outreach activities and use of technological solutions through mobile alerts, e-bills through emails and payment options to facilitate online payment & other modes of payment gateways as under:

a) Online Consumer services:

MSEDCL has provided all consumer services through online platform Mobile App and consumer portal such as View & pay Energy Bill / Other charges / Estimate / Processing fee, View Bill History/ Payment History, Register Complaint, Apply for new connection/ Change in Name/ Address correction/ Load change/ change in contract demand / Solar Rooftop/ Ag Solar connection, Upload documents for various applications, Online approval of various applications, SMS / E-mail notification for application status, Track / View application status, Update contact details and consumer profile - Mobile number / E-mail / GST ID / PAN ID, Submit Self Meter Reading, Declaration of single shift operation for Industrial connection, Refund of Security Deposit, Tariff change / Change in consumer activity, No dues certificate, Go Green registration / de-registration .

b) Mobile Alerts and E-Bills through Email:

MSEDCL submits that SMS alerts / Notifications are issued to consumers for various services such as SMS to Consumer at every stage of New Connection/Change of name approval, Bill Alerts, Bill reminders, Payment Acknowledgement, Outage Notification, Meter Reading, Request for Self Reading, Complaint Acknowledgement (LT Consumer), and Acknowledgement for Mobile Registration etc. SMS are sent to consumers in Marathi and English language as per consumer preference. Monthly E-Bills are sent through e-mail to all consumers having

registered their e-mail ID. Also, for Go-green registered consumers, E-Bills are sent to registered mail ID and Go-Green discount of Rs.10/- per bill is offered to such consumers.

c) Various payment options to facilitate online payment to consumers:

Consumer is given facility for Online Payment through various channels such as Mahavitaran Website, Mahavitaran Mobile App for consumers, UPI QR Code printed on bills, Web link through bill alert SMS, Bharat Bill Payment Service (BBPS), NEFT/RTGS for all HT consumers and LT consumers having load above 20kW, ECS/EBPP/NACH, Centralized Group Bill Payment, Online payment for Agriculture consumers under AG policy 2020 Also following various payment modes are made available to consumers through multiple payment gateways such as; Net Banking, Credit / Debit Cards, Prepaid card, Cash Cards, Mobile Wallets.

Commission's Ruling

8.18.3 The Commission notes the MSEDCL's submission in this respect.

8.19 Provision for Bad Debt

Directive

8.19.1 Stringent measures should be initiated by MSEDCL to improve collection efficiency reduce receivable including recovery of past dues. MSEDCL should strengthen its collection drive and put every effort in clearing its receivable in a time bound manner.

MSEDCL's Response

- 8.19.2 MSEDCL submits that for 100 % recovery of past dues following initiatives are taken by it:
 - Disconnection notices are issued to consumers under default u/s. 56 immediately after due dates are over,
 - Prompt disconnection is being done of consumers if not paid even after expiry of notice period,
 - Legal notices through advocate are given to defaulting consumers through Junior Law Officer, even after issuing of notice if not paid due amount legal suite are filed against defaulter consumers,
 - Law Officer keeps the status of legal suite for necessary follow up,
 - Fortnightly review is taken by Corporate Office,
 - Targets for recovery are assigned for every month to all officers and performance is monitored,

• Instalment scheme is brought for facilitating recovery of accumulated arrears, No new connections are given in PD premises, Rigorous follow-up with all consumers in arrears, Appeal is made through various media, TV, Radio, Social media etc.

Commission's Ruling

8.19.3 From MSEDCL's submission dated 17 March 2023 following is evident:

Table 8-3: Permanently disconnected Ag consumer between 1 April 2019 to 15

March 2023

	No of Connection	Connected Load (kW)
HT AG	109	31457
LT AG	16949	87868

- 8.19.4 The Commission has noted that substantial quantum of bad debts is rising. MSEDCL has from time to time introduced the following Amnesty schemes to motivate consumers (more particularly Agricultural consumers and Public Water Works) to liquidate their arrears, by providing certain concessions:
 - Krishi Sanjivani Yojna
 - Public Water Supply Sanjivani Yojna
 - Power Loom Sanjivani Yojna
 - Navprakash Yojana
 - Jeevan Sanjivani Yojana
 - Abhay Yojana
- 8.19.5 Considering substantial live and permanently disconnected consumers, MSEDCL may prepare a scheme for recovery of the same in consultation with Government of Maharashtra.

8.20 Cross Subsidy Reduction Roadmap

Commission's directives

- 8.20.1 The Commission has determined Cross Subsidy Surcharge as per formula stipulated in National Tariff Policy and applied ceiling of 20% of ACoS in line with stipulations in Electricity (Amendment) Rules, 2022. The Commission in its MYT Order had laid down the road map for reduction in cross-subsidy for control period, which needs to be realigned, if required, during MTR process for allowing recovery of past gaps.
- 8.20.2 To have larger visibility on cross-subsidy reduction roadmap and its implication on consumer tariff, the Commission directs MSEDCL to submit 10 years roadmap for

Cross subsidy reduction and its implication on subsidised categories during next tariff filing so that it can be debated and decided through public consultation process.

8.21 Financial indiscipline and auditor's adverse remarks:

Commission's directives

8.21.1 The Commission notes the serious comments and allegations of the consumers on the financial indiscipline and auditor's adverse remarks in the Audited Reports. The Commission also notes that, MSEDCL's submission on the issues raised by consumers is not satisfactory and to the points. The Commission directs MSEDCL to submit point wise reply to such objections with action plan to take corrective action within six months from the date of this Order.

8.22 Releasing unmetered Ag Connections:

Commission's directives

8.22.1 The Commission is of the view that, releasing unmetered connections instead of converting unmetered to metered connection, is non-compliance of the Commission's directions. The Commission expresses its strong displeasure for non-compliance by MSEDCL on the directions of the Commission and directs MSEDCL to initiate the internal enquiry for releasing the un-metered Ag connections during FY 2020-21 and FY 2021-22 and submit the Zone-wise compliance report to the Commission within six months from the date of this Order.

8.23 Disputed amount of Generators under PPA with MSEDCL:

Commission's directives

8.23.1 The Commission notes that un-reconciled claimed amount of the generator represent the contingent liability for MSEDCL and it should be expeditiously resolved/ settled in terms of PPA including adjudication through regulatory process. Considering large quantum of disputed claims and its adverse implications, the Commission directs MSEDCL to file separate Petition within a month from date of this Order before the appropriate Commission for adjudication of all pending dispute by making concerned generator as a necessary party.

8.24 No. of AG Disconnections (TD/PD) and Pending Connections

Directive

8.24.1 During the public hearing, the Commission had directed MSEDCL to furnish details (a) Number of AG disconnections (TD/PD) carried out by MSEDCL in last (3) years vis-à-vis no. of AG connections released and whether such disconnected consumers have been removed from billing system for purpose of issuing electricity bill and energy

sales estimation and (b) Details of Pending connections of all the categories and their tenure of pendency (applications on web portal and also physical applications).

MSEDCL's Response

- 8.24.2 In reply to these directions, MSEDCL provided additional information through its submission dated 17th March 2023, wherein it provided details of Agriculture disconnection (TD/PD) and pending connections under Annexure-1 and Annexure-2, as summarised under following tables.
- 8.24.3 Following Table shows the details of HT and LT disconnections tagged as (PD) in the billing system for past three years:

(Annexure-1- A: Details of HT-AG tagged PD in Billing system for FY2019-20 to 2023)

T AG CONSUMERS TAGGED PI	IN IT BILLIN	IG SYSTEM	FOR FY 2019	TO 2023						
NOTE: LATEST PD CONSUME	RS HAVING	PD DATE	FROM 01.0	4.19 TO 15	.03.2023AI	RE CONSID	ERED)			
ZONE NAME	FY 20	19-20	FY 20	20-21	FY 20	21-22	FY 20	22-23	то	TAL
	NO OF CONS	CONN LOAD (KW)								
AURANGABAD ZONE	1	150	2	2000	1	150	0	0	4	2300
AURANGABAD REGION	1	150	2	2000	1	150	0	0	4	2300
BHANDUP (U) ZONE	0	0	0	0	2	234	0	0	2	234
IALGAON ZONE	1	180	4	864	9	2681	0	0	14	3725
NASIK ZONE	5	795	8	2710	7	1701	2	405	22	5611
KOKAN REGION	6	975	12	3574	18	4616	2	405	38	9570
AKOLA ZONE	1	53	0	0	1	400	0	0	2	453
AMARAVATI ZONE	1	123	0	0	0	0	0	0	1	123
CHANDRAPUR ZONE	4	640	4	695	5	5224	4	1106	17	7665
GONDIA ZONE	0	0	1	124	0	0	0	0	1	124
NAGPUR REGION	6	816	5	819	6	5624	4	1106	21	8365
BARAMATI ZONE	2	738	2	175	5	2665	3	363	12	3941
KOLHAPUR ZONE	3	693	3	305	26	6043	0	0	32	7041
PUNE ZONE	1	120	0	0	1	120	0	0	2	240
	6	1551	5	480	32	8828	3	363	46	11222
PUNE REGION			24	6873	57	19218	9	1874	109	31457

(Annexure-1- B: Details of LT-AG tagged PD in Billing system for FY2019-20 to 2023)

	MAHARASHTRA STATE ELECTRICITY DISTRIBUTION COMPANY LTD.										
LT AG CONSUMERS TAGGE	D PD IN IT BILLING SYSTEM FO	OR FY 2019	TO 2023								
(NOTE: LATEST PD CONS	SUMERS HAVING PD DATE F	ROM 01.0	4.19 TO 15.0	3.2023AI	RE CONSIDE	RED)					
REGION NAME	ZONE NAME	FY 2	019-20	FY 2	020-21	FY 2	021-22	FY 2	022-23	TO.	TAL
		NO OF	CONN	NO OF	CONN	NO OF	CONN	NO OF	CONN	NO OF	CONN
		CONS	LOAD (KW)	CONS	LOAD	CONS	LOAD	CONS	LOAD	CONS	LOAD
					(KW)		(KW)		(KW)		(KW)
AURANGABAD REGION	AURANGABAD ZONE	66	294	20	99	146	846	116	718	348	1956
AURANGABAD REGION	LATUR ZONE LATUR	44	212	87	458	408	2244	365	2131	904	5045
AURANGABAD REGION	NANDED ZONE	19	119	43	214	144	705	96	464	302	1501
AURANGABAD REGION		129	624	150	770	698	3794	577	3313	1554	8502
KOKAN REGION	BHANDUP (U) ZONE	34	121	43	123	522	1678	443	1233	1042	3154
KOKAN REGION	JALGAON ZONE	69	442	113	712	484	3089	397	2347	1063	6591
KOKAN REGION	KALYAN ZONE	32	104	45	127	433	1602	316	1115	826	2948
KOKAN REGION	KOKAN ZONE RATNAGIRI	56	173	103	318	474	1989	281	887	914	3367
KOKAN REGION	NASIK ZONE	150	699	242	1325	1186	6681	890	5396	2468	14101
KOKAN REGION		341	1538	546	2606	3099	15039	2327	10978	6313	30161
NAGPUR REGION	AKOLA ZONE	16	65	16	77	74	375	75	363	181	878
NAGPUR REGION	AMARAVATI ZONE	15	72	30	137	165	824	146	783	356	1816
NAGPUR REGION	CHANDRAPUR ZONE	50	186	31	112	200	826	433	1693	714	2816
NAGPUR REGION	GONDIA ZONE	42	138	21	70	112	342	205	689	380	1238
NAGPUR REGION	NAGPUR ZONE	73	336	125	482	673	3062	489	2063	1360	5943
NAGPUR REGION		196	796	223	877	1224	5428	1348	5590	2991	12692
PUNE REGION	BARAMATI ZONE	99	620	169	1029	1838	11111	1297	7563	3403	20323
PUNE REGION	KOLHAPUR ZONE	186	1137	105	668	747	4767	823	5004	1861	11576
PUNE REGION	PUNE ZONE	48	252	26	128	348	2092	405	2142	827	4615
PUNE REGION		333	2009	300	1825	2933	17970	2525	14710	6091	36514
MSEDCL		999	4967	1219	6079	7954	42232	6777	34591	16949	87868

Note:- Once the consumer is tagged as PD in IT System, its billing is automatically stopped in billing system and same is not being consider for AG Sale determination purpose. Whereas the Consumer and its details are retained in the IT system to enable field officers to take further action for recovery of the same while issuing new connection or though legal process.

8.24.4 Following Table shows status of progress of Agriculture Pump connections for past three years:

(Annexure-1- C: AG Connection Progress for past three years)

	Ag Pump Connection Progress for 3 Years (as on 28.02.2023)														
		Progres	s during I	FY 2019-	Progress during FY 2020-			Progress during FY 2021-22					Progress during FY 2022-23 as on February-2023		
Sr. No.	District	Convl	МЅКРУ	Total	Convl	MSKPY	Total	Convl	MSKPY	Solar Pump prop. in	Total Solar	Total	Convl	MSKPY	Total
1	AKOLA	2056	759	2815	868	384	1252	1312	170	HVDS 20	190	1502	1577	1	1578
2	BULDHANA	3309	1397	4706	1187	1778	2965	1683	1133	59	1192	2875	2732	27	2759
3	WASHIM	2293	2003	4296	967	2232	3199	1012	1703	22	1725	2737	2015	3	2018
4	AMARAVATI	2035	826	2861	1364	573	1937	3427	571	28	599	4026	4105	1	4106
5	YAVATMAL	3096	630	3726	1966	1179	3145	1947	389	57	446	2393	2081	0	2081
6	NAGPUR	1712	956	2668	1405	594	1999	2197	217	41	258	2455	3398	0	3398
7	WARDHA	1178	275	1453	1110	383	1493	1257	74	22	96	1353	2598	1	2599
8	BHANDARA	1509	489	1998	1494	875	2369	2182	668	34	702	2884	2905	0	2905
9	GONDIA	1567	511	2078	1167	339	1506	2301	207	10	217	2518	2647	0	2647
10	CHANDRAPUR	1566	851	2417	1018	142	1160	1146	73	24	97	1243	1489	0	1489
11	GADCHIROLI	1249	937	2186	821	551	1372	2156	343	22	365	2521	2054	1	2055
VIDARBHA		21570	9634	31204	13367	9030	22397	20620	5548	339	5887	26507	27601	34	27635
12	AURANGABAD	1750	1894	3644	1515	3976	5491	4292	959	68	1027	5319	3174	3	3177
13	JALNA	2229	4595	6824	2474	9419	11893	2466	2908	248	3156	5622	3865	38	3903
14	BEED	789	2229	3018	2702	5379	8081	2461	983	113	1096	3557	4649	15	4664
15	LATUR	1928	401	2329	1450	604	2054	2819	317	5	322	3141	4264	7	4271
16	OSMANBAD	782	995	1777	2566	2818	5384	3088	475	41	516	3604	4538	15	4553
17	HINGOLI	1619	1858	3477	1492	2499	3991	882	597	28	625	1507	1325	0	1325
18	NANDED	1265	897	2162	2410	1292	3702	2500	421	12	433	2933	2731	3	2734
19	PARBHANI	1708	1275	2983	801	3335	4136	766	861	111	972	1738	1375	12	1387
MAI	RATHWADA	12070	14144	26214	15410	29322	44732	19274	7521	626	8147	27421	25921	93	26014
	DARBHA & RATHWADA	33640	23778	57418	28777	38352	67129	39894	13069	965	14034	53928	53522	127	53649
20	MUMBAI	0	0	0	0	0	0	0	0	0	0	0	О	0	0
21	THANE	24	19	43	112	21	133	460	92	0	92	552	369	0	369
22	PALGHAR	106	93	199	243	98	341	665	146	0	146	811	617	0	617
23	RAIGAD	85	112	197	162	87	249	1274	50	0	50	1324	860	1	861
24	RATNAGIRI	101	326	427	356	263	619	863	108	0	108	971	831	0	831
25	SINDUDURG	236	86	322	302	127	429	1955	53	0	53	2008	1419	0	1419
	KONKAN	552	636	1188	1175	596	1771	5217	449	0	449	5666	4096	1	4097
26	A-NAGAR	3978	972	4950	4726	1394	6120	11470	1365	0	1365	12835	7642	11	7653
27	NASHIK	5640	1977	7617	4090	1803	5893	9293	1237	0	1237	10530	6970	3	6973
28	DHULE	418	186	604	1928	384	2312	3361	541	0	541	3902	2451	0	2451
29	JALGAON	1798	647	2445	3658	1064	4722	4765	1260	0	1260	6025	3226	5	3231
30	NANDURBAR	1447	243	1690	910	1477	2387	1215	1315	0	1315	2530	1233	0	1233
	NORTH HARASHTRA	13281	4025	17306	15312	6122	21434	30104	5718	0	5718	35822	21522	19	21541
31	PUNE	4203	779	4982	4690	723	5413	13169	423	0	423	13592	10807	0	10807
32	SATARA	3759	388	4147	6145	550	6695	9468	303	0	303	9771	8436	0	8436
33	SOLAPUR	5750	740	6490	5147	1040	6187	12112	847	0	847	12959	13710	1	13711
34	KOLHAPUR	1715	486	2201	3560	291	3851	5646	116	0	116	5762	5889	0	5889
35	SANGLI	2402	193	2595	4665	159	4824	8298	69	0	69	8367	9735	0	9735
	WESTERN MAHARASHTRA		2586	20415	24207	2763	26970	48693	1758	o	1758	50451	48577	1	48578
	REST OF HARASHTRA	31662	7247	38909	40694	9481	50175	84014	7925	0	7925	91939	74195	21	74216
	MSEDCL	65302	31025	96327	69471	47833	117304	123908	20994	965	21959	145867	127717	148	127865

8.24.5 Following Table shows status of progress of Agriculture Pump connections for past three years:

(Annexure-2: Summary of RCI/AG paid pending connections as on 14-Mar-2023)

ANNEXURE - 2 Maharashtra State Electricity Distribution Company Limited									
SUMMARY OF RCI/AG PAID PENDING AS ON 14-MAR-23									
TRF	UPTO_30DAYS	UPTO_1_6MTH	UPTO_6_12MTH	UPTO_1_2YR	UPTO_2_3YR	ABV_3YR	TOTAL		
1.RES	59791	38532	3365	1816	402	392	104298		
2.COMM	9406	5842	746	640	43	24	16701		
3.IND	1719	1835	374	323	55	21	4327		
4.AG	7159	19974	15454	37729	37456	18260	136032		
Grand Total	78075	66183	19939	40508	37956	18697	261358		

Commission's Ruling

- 8.24.6 The Commission notes the submission of MSEDCL in this respect. Appropriate directive part is provided in Para 8.19 of this Order.
- 8.24.7 The Commission has issued various directions through this Order and also specified timelines for compliance of these directions. The Commission 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. In case of non-compliance of the directives, the Commission shall be forced to initiate proceedings for non-compliance and contravention of direction of Commission as per Section 142 of EA,2003. In that case, penal charges at the rate of Rs 1,00,000/- towards penalty for the contravention of the Order of the Commission and Rs 6,000/- per day for continuing failure for the period of such contravention shall be levied.

9 SCHEDULE OF CHARGES

9.1 Background

- 9.1.1 MSEDCL has submitted that it recovers various miscellaneous and general charges from its consumers for various services provided as per the Schedule of charges approved by the Commission vide its Order dated 30 March, 2020 (Case No. 322 of 2019). 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 service specific costs, provision for schedule of charges has been made. Income from these charges form a part of the non-tariff income of MSEDCL.
- 9.1.2 MSEDCL stated that the provisions of Section 46 of the EA 2003 provides that the Commission may authorize a Distribution License 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.
- 9.1.3 MSEDCL also stated that 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;
- a 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."
- 9.1.4 MSEDCL stated that in accordance with the provisions of EA 2003; the Commission has notified MERC (Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2021 (Supply Code Regulations, 2021). MSEDCL submits that as per Regulation 19.1 of the Supply Code 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 EA 2003 together with such particulars as the Commission may require under the EA, 2003 and other relevant Regulations.

9.1.5 MSEDCL relied upon the Judgement of the High Court, Bombay, Aurangabad Bench in the Writ Petitions No. 6382/6383/6384 of 2020 dated 22 January 2021. As per said Judgement, 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 the High Court Judgement is reproduced below: -

- "....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..........."
- 9.1.6 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".
- 9.1.7 MSEDCL submitted 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.
- 9.1.8 MSEDCL stated that 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.
- 9.1.9 In petition it has stated 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.
- 9.1.10 MSEDCL submitted that, the existing Schedule of Charges has been enforced from 1 April 2020. During the year 2020, due to the Covid-19 pandemic and lockdown imposed by the Government, disruption to supply chains occurred. From the second year of the epidemic, the rising inflation has been seen. Further, the Russia-Ukraine war has also influenced the rise in material/ equipment prices. Prices of metals, raw materials, energy, food, non-food items. 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.
- 9.1.11 MSEDCL further stated that, as per Regulation 3.2 of Supply Code 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.
- 9.1.12 In view of the provisions of the MERC (Supply code and SOP including Power Quality) Regulation, 2021 MSEDCL have proposed following revision in Schedule of charges:

9.2 Revision in Schedule of Charges

MSEDCL Submission

- 9.2.1 MSEDCL have provided the necessary calculation to rationalize the proposed charges.
- 9.2.2 MSEDCL stated that 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 the Commission. the Commission had determined SoC applicable to MSEDCL vide its MYT Order in Case No. 322 of 2019 dated 30.03.2020.
- 9.2.3 In Petition it as stated that 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.

- 9.2.4 MSEDCL has stated that, If we compare the SCC for overhead and underground, it is observed that there is a marginal difference between charges (SCC) of Over Head (O/H) and Under Ground (U/G) system. But there is appreciable difference in the service standards being mandated by the Commission and rendered by MSEDCL to its Rural and Urban consumers. For this, the Commission has prescribed the norms of different service standards in respect of Rural and Urban consumers. Due to the U/G infrastructure, obviously urban consumers have more privilege to enjoy better quality power supply by paying meagre charges towards U/G infrastructure. On the contrary the tariff for Rural and Urban consumers is same. The cost of U/G infrastructure unfortunately is socialized even though the Rural Consumers are not being benefitted.
- 9.2.5 MSEDCL in its Petition has provided circle wise information of the power supply related to new consumers for the period FY 2018-19 to FY 2021-22. The following is abstract of information provided by MSEDCL for power supply released to the new consumers in its area.

Sr. No.	Consumer Category	FY 2018- 19	FY 2019-20	FY 2020-21	FY 2021-22
1	Residential	1319149	971786	618695	890259
2	Commercial	132351	139974	100242	143823
3	Industrial	18759	19217	21242	26891
4	Agriculture	66596	73305	72595	131410
5	Others	27330	30496	15890	22884
	Total	1564185	1234778	828664	1215267

- 9.2.6 From above, it is observed that power supply to @12-15 Lakhs new applicants is provided every year. Out of these 5-6 lakhs, new consumers are added in the Big/Metros cities. In metro cities power supply to consumers is mostly provided with U/G system
- 9.2.7 MSEDCL is unable to recover the expenses incurred for providing power supply to the consumers in Metro and Big Urban cities through U/G system, which are more than rural consumers or Semi urban consumers, supplied by overhead system. MSEDCL prepared estimates load slab wise with latest approved cost data and observed that there is huge difference in cost incurred and approved SOC for giving power supply to the consumers.

- 9.2.8 MSEDCL has submitted that 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. Further, MSEDCL submitted that 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.
- 9.2.9 MSEDCL in present proposal has followed the same estimation and worked out the service connection charges. MSEDCL has followed the service connection charges on the basis of 20 meters as the average length as approved in MYT order.
- 9.2.10 In present Petition MSEDCL has considered centages over and above the total estimated cost of materials is 25.50% on account of loading- unloading and handling charges for meter, Contingencies, insurance of material & price variation/ escalation.
- 9.2.11 MSEDCL 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.
- 9.2.12 MSEDCL in present Petition has proposed the separate charges for new consumers in bulk for residential complexes, in Metro/ Big cities as the connections are released on underground system only and hence the charges for underground connections are proposed.
- 9.2.13 Based on above MSEDCL Proposed normative service connection charges are as below Charges/Public Estimate

Table 9-1: Service Connection Charges for New Overhead Connection submitted by MSEDCL.

Sr. No.	CA	ΓEGORY	Existing SOC (w.e.f. 01-04-2022) RS.	Proposed SoC RS.	Justification
	Low	Tension (LT) Supply			
	a. Si	ingle Phase.			
	i.	For load up to 0.5 kW	1,300.00	1,700.00	The estimated amount to release one no of overhead connection is Rs. 1700/
1	ii.	For load above 0.5 kW and up to 7.5 kW	1,700.00	2,700.00	The estimated amount to release one no of overhead connection is Rs. 2700/
	b. T	b. Three Phase			
	i.	Motive power up to 27 HP or other loads up to 20 kW.	7,200.00	10,300.00	The estimated amount to release one no of overhead connection is Rs. 10300/

Sr. No.	CATEGORY		Existing SOC (w.e.f. 01-04-2022) RS.	Proposed SoC RS.	Justification
	ii.	Motive power above 27 HP but up to 107 HP or other loads above 20 kW but up to 80 kW.	12,600.00	As per Estimate on case to case basis	Proposed on actual basis as per the estimate to
	iii.	Motive power above 107 HP but up to 214 HP or other loads above 80 kW but up to 160 kW.	21,600.00	As per Estimate on case to case basis	recover all the legitimate cost for releasing new service connection.
	Higl	Tension (HT) Supply & E	Extra High Voltag	ge (EHV) Supply	
	i.	11kV Supply up to 1000 kVA.	2,20,000.00	As per Estimate on case to case basis	
	iii.	22kV Supply up to 1000 kVA.	2,60,000.00	As per Estimate on case to case basis	
	iv.	11kV above 1000 KVA up to 5000 kVA	2,58,000.00	As per Estimate on case to case basis	
2	vi.	22kV above 1,000 kVA up to 10,000 kVA	3,17,000.00	As per Estimate on case to case basis	
	vii.	33kV Supply up to 20,000 kVA.	3,68,000.00	As per Estimate on case to case basis	
	х.	EHV Supply and beyond SOP Cases	"At Actual" on case to case basis subject to ceiling of ₹ 5,00,000	As per Estimate on case to case basis	

Table 9-2: Service Connection Charges for New Underground Connection submitted by MSEDCL.

Sr. No.	CATEGORY.	Existing SOC (w. e. f. 01-04-2022) RS.	Proposed SoC RS.	Justification
1	L T. Supply.			
1	a. Single Phase			

Sr. No.		CATEGORY.	Existing SOC (w. e. f. 01-04-2022) RS.	Proposed SoC RS.	Justification
	i.	For load up to 0.5 kW	3,400.00	4,200.00	To extend the supply for releasing individual connections where infrastructure is generally not required.
	ii	For load up to 0.5 kW	3,400.00	15,000.00	The charges proposed are per consumer, to extend the supply for releasing new consumers in bulk for residential/commercial complexes where infrastructure is generally required.
	iii	For loads above 0.5 kW & up to 7.5kW	7,600.00	7,900.00	To extend the supply for releasing individual connections where infrastructure is generally not required.
	ii.	For loads above 0.5 kW & up to 7.5kW	7,600.00	25,000.00	The charges proposed are per consumer, to extend the supply for releasing new consumers in bulk for residential/ commercial complexes where infrastructure is generally required.
	b. T	hree Phase			
	i.	Motive power up to 27 HP or other loads up to 20 kW	13,800.00	19,600.00	To extend the supply for releasing individual connections where infrastructure is generally not required.
	ii.	Motive power up to 27 HP or other loads up to 20 kW	13,800.00	30,000.00	The charges proposed are per consumer, to extend the supply for releasing new consumers in bulk for residential/ commercial complexes where infrastructure is generally required.

Sr. No.		CATEGORY.	Existing SOC (w. e. f. 01-04-2022) RS.	Proposed SoC RS.	Justification	
	iii.	Motive power above 27HP but up to 67 HP or for other loads above 20 kW but up to 50 kW	24,300.00	As per Estimate on case to case basis		
	iv.	Motive power above 67HP but up to 134 (201)HP or for other loads above 50 kW but up to 100 kW(150)	46,900.00	As per Estimate on case to case basis	Proposed on actual basis as per the estimate to recover all the legitimate cost for releasing new service connection.	
	v.	Motive power above 134HP but up to 214 HP or for other loads above 100 kW but up to 160 kW	71,100.00	As per Estimate on case to case basis		
	c. Fo	or Metro and Big Cities	T	T		
	I	LT Single Phase for load up to 0.5 kW	-	4,200.00	To extend the supply for releasing individual connections where infrastructure is generally not required.	
	ii	LT Single Phase for load up to 0.5 kW		15,000.00	The charges proposed are per consumer, to extend the supply for releasing new consumers in bulk for residential/ commercial complexes where infrastructure is generally required.	
	iii	LT Single Phase for loads above 0.5 kW & up to 7.5kW	-	7,900.00	To extend the supply for releasing individual connections where infrastructure is generally not required.	
	Iv	LT Single Phase for loads above 0.5 kW & up to 7.5kW		25,000.00	required. The charges proposed are perconsumer, to extend the supply for releasing new consumers in bulk for residential/ commercial complexes where infrastructure is generally required.	

Sr. No.		CATEGORY.	Existing SOC (w. e. f. 01-04-2022) RS.	Proposed SoC RS.	Justification
	V	LT 3-Phase Motive power up to 27 HP or other loads up to 20 kW	-	19,600.00	To extend the supply for releasing individual connections where infrastructure is generally not required.
	vi	LT 3-Phase Motive power up to 27 HP or other loads up to 20 kW		30,000.00	The charges proposed are per consumer, to extend the supply for releasing new consumers in bulk for residential/ commercial complexes where infrastructure is generally required.
	vii	Motive power above 27HP but up to 67 HP or for other loads above 20 kW but up to 50 kW	-	As per Estimate on case to case basis	
	viii	Motive power above 67HP but up to 134 (201)HP or for other loads above 50 kW but up to 100 kW(150)	-	As per Estimate on case to case basis	Proposed on actual basis as per the estimate to recover all the legitimate cost for releasing new service connection.
	ix	Motive power above 134HP but up to 214 HP or for other loads above 100 kW but up to 160 kW	-	As per Estimate on case to case basis	
	H.T.	Supply			
	i.	11kV H.T supply up to 1000 kVA	2,53,000.00	As per Estimate on case to case basis	
2	ii.	22kV H.T supply up to 1000 kVA	2,64,000.00	As per Estimate on case to case basis	
	iii.	11kV above 1000 KVA up to 5000 kVA	3,05,000.00	As per Estimate on case to case basis	

Sr. No.		CATEGORY.	Existing SOC (w. e. f. 01-04- 2022) RS.	Proposed SoC RS.	Justification
	iv.	22kV above 1,000 kVA up to 10,000 kVA	3,23,000.00	As per Estimate on case to case basis	
	iv.	33kV H.T supply up to 20,000 kVA	3,78,000.00	As per Estimate on case to case basis	
	v.	EHV Supply and beyond SOP Cases	"At Actual" on case to case basis subject to ceiling of ₹ 5,00,000	As per Estimate on case to case basis	

Notes:

- 1. 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.
- 2. In case of extension of load entails any work or change in load slab, the normative charges will be applicable on the total load (existing) as well as additional load demanded) as per the load slabs indicated above.
- 3. The road opening charges vary from area to area hence will be levied on actual basis.
- 4. The GST will be levied extra as per applicable rates.

Commission's Analysis and Ruling

- 9.2.14 The Commission notes that MSEDCL considered average length of service wires as 20 metres which is the same as considered by the Commission in MYT Order in Case No.322 of 2019.
- 9.2.15 The Commission observes that proposed revision in LT-Service connection charges (SCC) (for overhead lines) amounts to increase of 30.76% (LT-single phase upto 7.5kW) to 40.05% (LT-3ph upto 20 kW) as against that existing SCC (as approved under MYT Order) whereas proposed revision in LT-Service connection charges (for underground) amounts to increase of 31.25% (LT-single phase upto 0.5 kW) and 411% where infrastructure is required, 3.9% for (LT-single phase above 0.5 kW upto 7.5% kW) and 328% where infrastructure is required.

- 9.2.16 The percentage rise proposed for three phase connection for Motive power up to 27 HP or other loads up to 20 kW is 42% and 211% where infrastructure is required. For three phase connections between 20kW/27HP to 50kW/67HP, between 50kW/67HP to 100kW/134HP and between 100kW/134HP to 160kW/214HP, MSEDCL has proposed that the charges will be as per estimate on case to case basis.
- 9.2.17 The commission observed that MSEDCL has proposed service connection charges separately for Metro and Big cities are same as that proposed for new underground connection.
- 9.2.18 The Commission observed that the SCC proposed for Motive power category and HT supply are as per estimate on case to case basis.
- 9.2.19 The Commission fully appreciates that the cost of individual services provided to the consumer needs to be fully recovered from the consumer. However, MSEDCL has only submitted the estimates and not demonstrated any material rate reasonability.
- 9.2.20 Further, Commission observed that MSEDCL where it has proposed charges on case to case basis/ or at actual where new infrastructure is required to be created and has factored infrastructure cost such as HT line conductor/cable, pole, DTC and other material required for providing infrastructure in proposed service connection charges.
- 9.2.21 The Commission in the Order dated 08 September 2006 in Case No. 70 of 2005, in the matter of Approval of MSEDCL's Schedule of Charges has clarified under "Service Line Charges" as below:

6) Service Line Charges:

While there is no denial that expenditure on infrastructure needs to be adequately compensated to the licensee, it is necessary to have a clear demarcation or limit to pass on the burden to the individual consumer. The extent to which the cost is to be recovered has already been stipulated in the Regulation 3.3.2 of Supply Code Regulations. As per the principles laid down in this Regulation, the licensee shall be authorized to recover all expenses reasonably incurred on works for laying service line from the distribution mains to the applicant's premises.

- 9.2.22 The Commission is of the view that, applying service line charges on 'Case to case basis may lead to discrimination between consumers. Further, there is possibility that, this discrimination may be observed across the circles or divisions who are responsible for releasing the service connections. Hence, the Commission is not inclined to approve service line charges on 'Case to case basis'.
- 9.2.23 The Commission also notes that, MSEDCL in its submission provided range of estimated amounts based on field conditions as shown in the table below.

Sr. No	Load of the consumer	Range of Estimated Amount of service connection charges required for Overhead System in Rural and semi urban Areas in Rs.	Range of Estimated amount of service connection charges required for Underground system in Metro and Big Cities in Rs.
1.	up to 0.5 kW	1700	15000
2.	0.5 up to 20 kW	1700 to 10300	15000 to 30000
3.	< 20 to 160 kW	1,28,120 to 4,39,377	2,79,203 to 9,95,576
4.	Above 160kW and up to 20MVA	6,51,833-10,44,847	10,27,119 to 22,88,986

From the above table, it is evident that the range of estimates is quite large and there could be a possibility that the cost of backbone infra is also factored in to it.

- 9.2.24 Further, the Commission notes that, the estimates submitted by MSEDCL are based on the provisional cost data of FY 2019-20. However, as discussed above the Commission is of the view that, the Service Connection Charges should be normative and uniform for all consumers of similar category across the State. During public consultation exercise, many objectors urged for determination of normative service connection charges.
- 9.2.25 In view of the above, the Commission finds it appropriate to apply escalation on the approved SoC in MYT Order dated 30 March 2020 for arriving the revised SOC for FY 2023-24 and FY 2024-25. For escalating the approved SOC rates in MYT Order, the Commission has considered the Wholesale Price Index (WPI) published by the Government of India for FY 2020-21, FY 2021-23 and FY 2022-23. The Commission has considered 3-year average of WPI inflation rate which works out to be 8.23%, the table for the same is as below:

Table 9-3: WPI Index and WPI Inflation for FY 2020-21 to FY2022-23

S.	Financial Year	WPI	WPI Inflation
No.	Financial Teal	Index	percentage
1	FY 2019-20	121.80	
2	FY 2020-21	123.38	1.29%
3	FY 2021-22	139.41	13.00%
4	FY 2022-23	153.92	10.41%
	Average WPI for FY 2020-21 to FY 2022-23		8.23%

- 9.2.26 Further, for Application Registration and processing Charges, the Commission has considered the three year average of CPI and WPI with 50% weightage to each for escalate previously approved charges under MYT Order dated 30 March 2020.
- 9.2.27 Further, the activities under miscellaneous and general charges are mostly labour incentive, the Commission has considered the three year average of CPI published by

- the Labour Bureau, Government of India to escalate previously approved charges in Order dated 30 March, 2020 on compounded basis.
- 9.2.28 Accordingly, three years average WPI works out to be 8.23%, 3-year average of CPI inflation rate works out to be 4.88%, and 50% of WPI and 50% of CPI works out to be 6.56% as shown in the Table below:

Table 9-4: CPI Index and CPI Inflation for FY 2020-21 to FY2022-23

S.No.	Year	CPI	CPI Inflation rate
1	FY 2019-20	322.50	
2	FY 2020-21	338.69	5.02%
3	FY 2021-22	356.06	5.13%
4	FY 2022-23	372.10	4.50%
Aver	age CPI from FY 2020	0-21 to FY 2022-23	4.88%
Avera	age WPI from FY 202	8.23%	
	50 % WPI and 5	6.56%	

- 9.2.29 The Commission also observes that, MSEDCL while proposing the SOC, it has also proposed separate rates for the items where additional infrastructure is required. The Commission is of the view that, the expenditure incurred on 33kV & 11kV infrastructure beyond service lines, forms a distinct part of wheeling business i.e. system of wires and associated facilities which form the part of wire business are expected to covered under Capex of the MSEDCL. Further, MSEDCL had not proposed such items in the MYT Petition. Accordingly, the Commission has not considered the items where additional infrastructure is required.
- 9.2.30 Further, while approving the revised SOC, the Commission, in case if the proposed rate of MSEDCL is lesser than the rate derived by the Commission with applying escalation on MYT approved rates the Commission has considered the rates proposed by MSEDCL. Accordingly, the approved Service Connection Charges as shown in table below.

Table 9-5: Service Connection Charges for New Overhead Connection approved by Commission.

Sr. No.		CATEGORY	As per MYT Order in Case No 322 of 2019	Proposed SoC by MSEDCL in MTR Petition (Rs.)	Charges approved by the Commission (Rs.)	
	Low	Low Tension (LT) Supply				
	a. Si	ngle Phase.				
1	i.	For load up to 0.5 kW	1,300.00	1,700.00	1,410.00	
	ii.	For load above 0.5 kW and up to 7.5 kW	1,700.00	2,700.00	1,840.00	

Sr. No.		CATEGORY	As per MYT Order in Case No 322 of 2019	Proposed SoC by MSEDCL in MTR Petition (Rs.)	Charges approved by the Commission (Rs.)
	b. Tl	nree Phase			
	i.	Motive power up to 27 HP or other loads up to 20 kW.	7,200.00	10,300.00	7,790.00
	ii.	Motive power above 27 HP but up to 107 HP or other loads above 20 kW but up to 80 kW.	12,600.00	As per Estimate on case to case basis	13,640.00
	iii.	Motive power above 107 HP but up to 214 HP or other loads above 80 kW but up to 160kW.	21,600.00	As per Estimate on case to case basis	23,380.00
	High	Tension (HT) Supply & Extra High	gh Voltage (EHV) Sup	pply	
	i.	11kV Supply up to 1000 kVA.	2,20,000.00	As per Estimate on case to case basis	2,38,110.00
	iii.	11kV above 1000 KVA up to 5000 kVA	2,58,000.00	As per Estimate on case to case basis	2,79,230.00
	iv.	22kV Supply up to 1000 kVA.	2,60,000.00	As per Estimate on case to case basis	2,81,400.00
2	vi.	22kV above 1,000 kVA up to 10,000 kVA	3,17,000.00	As per Estimate on case to case basis	3,43,090.00
	vii.	33kV Supply up to 20,000 kVA.	3,68,000.00	As per Estimate on case to case basis	3,98,290.00
	х.	EHV Supply and beyond SOP Cases	"At Actual" on case to case basis subject to ceiling of ₹ 5,00,000.00	As per Estimate on case to case basis	"At Actual" on case to case basis subject to ceiling of ₹ 5,41,500.00

Table 9-6: Service Connection Charges for New Underground Connection approved by Commission.

Sr. No.		CATEGORY	As per MYT order in Case No 322 of 2019	Proposed SoC by MSEDCL in MTR petition (Rs.)	Charges approved by Commission (Rs.)			
	LT.	Supply.						
	a. Sii	a. Single Phase						
	i.	For load up to 0.5 kW	3,400.00	4,200.00	3,680.00			
1	ii	For loads above 0.5 kW & up to 7.5kW	7,600.00	7,900.00	8,230.00			
	b. Three Phase							
		Motive power up to 27			14,940.00			
	i.	HP or other loads up to	13,800.00	19,600.00	14,740.00			
		20 kW						

Sr. No.	CATEGORY		As per MYT order in Case No 322 of 2019	Proposed SoC by MSEDCL in MTR petition (Rs.)	Charges approved by Commission (Rs.)
	ii.	Motive power above 27HP but up to 67 HP or for other loads above 20 kW but up to 50 kW	24,300.00	As per Estimate on case to case basis	26,300.00
	iii.	Motive power above 67HP but up to 134 (201)HP or for other loads above 50 kW but up to 100 kW(150)	46,900.00	As per Estimate on case to case basis	50,760.00
	iv.	Motive power above 134HP but up to 214 HP or for other loads above 100 kW but up to 160 kW	71,100.00	As per Estimate on case to case basis	76,950.00
	c. Fo	r Metro and Big Cities			
	i	LT Single Phase for load up to 0.5 kW	-	4,200.00	3,680.00.
	ii	LT Single Phase for loads above 0.5 kW & up to 7.5kW	-	7,900.00	8,230.00
	iii	LT 3-Phase Motive power up to 27 HP or other loads up to 20 kW	-	19,600.00	14,940.00
	iv	LT 3-Phase Motive power up to 27 HP or other loads up to 20 kW		30,000.00	14,940.00
	v	Motive power above 27HP but up to 67 HP or for other loads above 20 kW but up to 50 kW	-	As per Estimate on case to case basis	26,300.00
	vi	Motive power above 67HP but up to 134 (201)HP or for other loads above 50 kW but up to 100 kW(150)	-	As per Estimate on case to case basis	50,760.00
	vii	Motive power above 134HP but up to 214 HP or for other loads above	-	As per Estimate on Case to case basis	76,950.00

Sr. No.		CATEGORY	As per MYT order in Case No 322 of 2019	Proposed SoC by MSEDCL in MTR petition (Rs.)	Charges approved by Commission (Rs.)
		100 kW but up to 160 kW			
	H.T.	Supply			
	i.	11kV H.T supply up to 1000 kVA	2,53,000.00	As per Estimate on case to case basis	2,73,820.00
	ii.	22kV H.T supply up to 1000 kVA	2,64,000.00	As per Estimate on case to case basis	2,85,730.00
	iii.	11kV above 1000 KVA up to 5000 kVA	3,05,000.00	As per Estimate on case to case basis	3,30,100.00
2	iv.	22kV above 1,000 kVA up to 10,000 kVA	3,23,000.00	As per Estimate on case to case basis	3,49,580.00
	iv.	33kV H.T supply up to 20,000 kVA	3,78,000.00	As per Estimate on case to case basis	4,09,110.00
	v.	EHV Supply and beyond SOP Cases	"At Actual" on case to case basis subject to ceiling of ₹ 5,00,000	As per Estimate on case to case basis	"At Actual" on case to case basis subject to ceiling of ₹ 5,41,500.00

9.3 Cost of Meter, Metering Cubical etc.

MSEDCL Submission

- 9.3.1 As per MERC Supply Code 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.
- 9.3.2 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 Regulation 15.3 of the Supply Code Regulations, 2021.

9.3.3 The metering rates are proposed based on rates obtained through e-procurement in addition 4% indirect costs towards transportation from store to consumer premise, handling charges etc. The proposed rates are as under:

Table 9-7: Cost of Meter, Metering Cubical etc submitted by MSEDCL.

Sr. No.		Category	Existing Charges (₹)	Proposed Charges (₹)			
	Applicable in case consumer opts to purchase the meter, metering Cabinet/ cubicle from MSEDCL & in case						
of Lo		Burnt Meter & metering Cabinet/ cubicle.					
1		Single Phase					
a.		0A 6LoWPAN RF Meter without enclosure	₹ 820.00	₹ 820.00			
b.		60A Smart Meter (including GPRS communication dule) as per IS:16444 Part-I	₹ 2,610.00	₹ 2,610.00			
2	LT	Three Phase					
a.	10-	40A 6LoWPAN RF Meters without enclosure	₹ 1,520.00	₹ 1,770.00			
b.	10-60A Smart Meter (including GPRS communication Module) as per IS:16444 Part-I ₹ 3,790.00 ₹ 4,050.00						
3	LT-	-CT Operated Three Phase Metering Unit					
a.	250	0/5 A Meter with CTs & MCCB	₹ 22,500.00	₹ 22,500.00			
b.	40-	200A CT embedded Meter	₹ 13,840.00	₹ 14,200.00			
c.	i.	LT-CT Operated Three Phase Smart Meter (including GPRS Communications Module) as per 15:16444 Part-2 with Accuracy Class 0.5S and current rating of -/5 A.	₹ 3,570.00	₹ 3,570.00			
	ii.	Supporting CTs and MCCB for LT-CT Operated Three Phase Smart Meters as above	₹ 18,720.00	₹ 18,750.00			
4	HT	(Time of Day) TOD Meter					
a.	5A	rating with 0.5s accuracy class	₹ 2,420.00	₹ 2,420.00			
b.	1A rating with 0.5s accuracy class ₹ 2,650.00 ₹ 3,750.00						
c.	5A & 1A rating with 0.2s accuracy class		₹ 5,930.00	₹ 7,200.00			
5	HT Metering cubical including C.T. & P.T.						
a.	For 11 kV Supply		₹ 85,000.00	₹ 91,500.00			
b.	For	· 22 kV Supply	₹ 1,30,000.00	₹ 1,38,500.00			
c.	For	33 kV Supply	₹ 1,90,000.00	₹ 2,01,500.00			

Commission's Analysis and Ruling

- 9.3.4 The Commission observes that in recent years, metering technology has given new dimensions to billing practiced by Distribution Companies. Metering is no longer limited to the conventional application of billing alone. It also provides useful information for Analytics, Pricing mechanisms, revenue protection, Demand forecast, Energy management etc. Due to obsolescence in metering technology and for easy facilitation of billing data transfer MSEDCL has adopted new metering technologies.
- 9.3.5 The Commission noted that MSEDCL in present Petition by and large has not proposed any rise in Cost of Meter, Metering Cubical etc. However, for some items such as 1A rating with 0.5s accuracy class, 5A & 1A rating with 0.2s accuracy class for 10-40A, 6LoWPAN RF Meters without enclosure HT TOD meters, MSEDCL has proposed rise in charges. The Commission has approved the SoC by applying average of 3 years WPI inflation rate as discussed in above sections. Accordingly, the Commission approves the rates proposed by MSEDCL as indicated in table below, which would be applicable

only in case of a burnt or a lost meter or where a consumer opts to purchase the meter from MSEDCL.

Table 9-8: Cost of Meter, Metering Cubical etc approved by Commission.

Sr. No.		Category	MYT Order Existing Charges (Rs.)	MTR Petition Proposed Charges (Rs.)	Approved by the Commission (Rs.)
		ole in case consumer opts to purcha			cubicle from
		L & in case of Lost & Burnt Meter	: & metering Cal	binet/ cubicle.	
1		Single Phase		Τ	Ī
a.		80A 6LoWPAN RF Meter thout enclosure	820.00	820.00	820.00
b.	GP	PRS communication Module) as :: IS:16444 Part-I	2,610.00	2,610.00	2,610.00
2	LT	Three Phase			
a.		-40A 6LoWPAN RF Meters	1,520.00	1,770.00	1,650.00
b.	10- GP	PRS communication Module) as :: IS:16444 Part-I	3,790.00	4,050.00	4,050.00
3		-CT Operated Three Phase Meteri		,	
a.	250	0/5 A Meter with CTs & MCCB	22,500.00	22,500.00	22,500.00
b.	40-	-200A CT embedded Meter	13,840.00	14,200.00	14,200.00
c.	i.	LT-CT Operated Three Phase Smart Meter (including GPRS Communications Module) as per 15:16444 Part-2 with Accuracy Class 0.5S and current rating of -/5 A.	3,570.00	3,570.00	3,570.00
	ii.	Supporting CTs and MCCB for LT-CT Operated Three Phase Smart Meters as above	18,720.00	18,750.00	18,750.00
4	НТ	(Time of Day) TOD Meter		,	
a.	1	rating with 0.5s accuracy class	2,420.00	2,420.00	2,420.00
b.		rating with 0.5s accuracy class	2,650.00	3,750.00	2870.00
c.	5A & 1A rating with 0.2s accuracy class		5,930.00	7,200.00	6,420.00
5	НТ	Metering cubical including C.T.	& P.T.		
a.	For	r 11 kV Supply	85,000.00	91,500.00	91,500.00
b.	For	r 22 kV Supply	1,30,000.00	1,38,500.00	1,38.000.00
c.	For	r 33 kV Supply	1,90,000.00	2,01,500.00	2,01,500.00

Note:

i. 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.

- ii. Meter box will be provided by MSEDCL at its own cost.
- iii. The GST will be levied extra as per applicable rates.

9.4 Application Registration and Processing Charges:

MSEDCL Submission

9.4.1 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, 6-9% rise on existing charges is proposed.

Table 9-9: Application registration and processing charges submitted by MSEDCL.

Sr.	Particulars	Existing Charges	Proposed Charges
No.	1 at ticulars	(Rs.)	(Rs.)
1	Single Phase	110	120
2	Three Phase	160	170
3	LT (Agriculture)	160	170
4	HT Supply up to 33 kV	2,500	2,700
5	EHV Supply	5,100	5,400

Commission's Analysis and Ruling

9.4.2 The Commission had expressed its views in context of the above mentioned activities vide the Order dated September 8, 2006 in Case No. 70 of 2005. The relevant portion of the said Order is reproduced herein under:

"8) Application registration and processing charges:

As per Supply code regulation 4, in respect of Application for supply, the applicant is required to submit various documents and details. Besides, as per regulation no.4.1(ix), consumer is required to pay fee for processing the application or receipt thereof, based on schedule of charges approved by the Commission under regulation 18.

Following activities are involved in processing the application as mentioned in Regulation 5 of Supply Code:

- i) study of technical requirements of giving supply,
- ii) inspect the premises,
- iii) joint inspection along with an applicant to fix the position of service, mains, meters, sanction of load, etc.

However, all the above activities fall under normal activities of the Licensee's staff. As the expenditure on the staff is covered under ARR, the Processing fee should not include the expenditure towards the staff employed for processing the application to avoid double accounting. At the same time the Commission feels that there should be a minimum barrier to discourage frivolous or non-serious consumers.

In view of above, the Commission allows MSEDCL to collect a token amount towards the application processing or receipt thereof as indicated in Annexure-5."

9.4.3 In view of the above the Commission finds it appropriate to allow the Application Registration and Processing Charges by considering the escalation factor of three year average of WPI and WPI which works out to be 6.56%. Accordingly, approved charges for application registration and processing are mentioned in table below:

Table 9-10: Application Registration and Processing Charges approved by the Commission.

Sr. No.	Particulars	MYT Order Existing Charges (Rs.)	MTR Petition Proposed Charges (Rs.)	Approved by the Commission (Rs.)
1	Single Phase	110	120	120.00
2	Three Phase	160	170	170.00
3	LT (Agriculture)	160	170	170.00
4	HT Supply up to 33 kV	2,500	2,700	2,660.00
5	EHV Supply	5,100	5,400	5,400.00

9.5 Miscellaneous and General Charges:

MSEDCL Submission

9.5.1 The Charges of testing of electrical equipment are not revised. Whereas charges for testing of installation, changing of meter location within same premise, reconnection charges (proposed to encourage consumer for prompt payment and discourage from becoming a defaulter) are increased on notional basis.

Table 9-11: Miscellaneous and General Charges as proposed by MSEDCL.

Sr.		Cotogowy	Existing	Proposed		
No.		Category	Charges Rs.	Charges Rs.		
	Inst	tallation Testing Fees #				
	Lov	w Tension Services				
	a.	Single Phase	₹ 110.00	₹ 130.00		
	b.	Three Phase	₹ 220.00	₹ 250.00		
1	High Tension Services					
1	a.	Agricultural	₹ 600.00	₹ 600.00		
	b.	All categories except Agricultural	₹ 750.00	₹ 900.00		
	Renewable Energy Installations with Net Metering features					
	a.	Single Phase	₹ 500.00	₹ 500.00		
	b.	Three Phase	₹ 1,000.00	₹ 1,000.00		
	Rec	Reconnection Charges				
2	Lov	Low Tension Service at Meter incomer				
	a.	Single Phase	₹ 200.00	₹ 250.00		

Sr.	Catagory	Existing	Proposed			
No.	Category	Charges Rs.	Charges Rs.			
	b. Three Phase	₹ 400.00	₹ 450.00			
	At overhead mains					
	a. Single Phase	₹ 300.00	₹ 350.00			
	b. Three Phase	₹ 500.00	₹ 550.00			
	Reconnection in underground cable works					
	a. Single Phase	₹ 300.00	₹ 350.00			
	b. Three Phase	₹ 500.00	₹ 550.00			
	High Tension Supply	₹ 3,000.00	₹ 3,500.00			
	Changing location of meter within same premises at c	onsumers reques	st at consumer			
	request (Utility's services viz. Service Line Setup, Pol	es, HT-LT-EHV	Lines, DTCs,			
3	and Substations etc. are not required) *					
	a. Single Phase	₹ 385.00	₹ 500.00			
	b. Three Phase	₹ 1,000.00	₹ 1,200.00			
	Shifting of Utility's services (Service Line Setup, Pole	es, HT-LT-EHV	Lines, DTCs,			
1	and Substations etc.)					
4	a. Single Phase	At Actual	At Actual			
	b. Three Phase	At Actual	At Actual			
	A. Testing of Meters					
	a. Single Phase	₹ 220.00	₹ 220.00			
	b. Poly-phase meter/ RKVAH meter	₹ 880.00	₹ 880.00			
	c. LTMD (with/without CTs)	₹ 1,100.00	₹ 1,100.00			
	d. Tri vector Meter	₹ 1,100.00	₹ 1,100.00			
	e. Metering equipment like CT/PT per unit for LT	₹ 1,000.00	₹ 1,000.00			
	f. Metering equipment like CT/PT per unit for	₹ 2 000 00	₹ 2 000 00			
	HT up to and including 33kV	₹ 3,000.00	₹ 3,000.00			
	Metering equipment like CT/PT per unit for	₹ 5 000 00	₹ 5,000,00			
	g. EHT above 33 kV	₹ 5,000.00	₹ 5,000.00			
	Net Meter					
5	h. i. Single Phase	₹ 500.00	₹ 500.00			
	ii. Three phase LT CT Operated Bidirectional	₹ 1,100.00	₹ 1,100.00			
	iii. Three phase HT TOD Bidirectional	₹ 1,100.00	₹ 1,100.00			
	B. Testing of Meters at TQA Laboratories					
	a. Single Phase	₹ 2,000.00	₹ 2,000.00			
	b. Three Phase	₹ 9,500.00	₹ 9,500.00			
	c. LT CT OP Meters	₹ 10,000.00	₹ 10,000.00			
	d. HT ToD Meters	₹ 15,000.00	₹ 15,000.00			
	e. ABT/Apex	₹ 20,000.00	₹ 20,000.00			
	Summator Meter Module					
	f. i. Two module + Summator	₹ 46,500.00	₹ 46,500.00			
	ii. Three module + Summator	₹ 68,200.00	₹ 68,200.00			
•	•	•				

Sr. No.	Category		Existing Charges Rs.	Proposed Charges Rs.				
		iii. Four module + Summator	₹ 89,990.00	₹ 89,990.00				
	C. 0	C. Calibration of Testing Equipment of Other Utilities' request at TQA Laboratories						
	a.	Active/ Reactive Energy	Rs. 400 per	Rs. 400 per				
	b.	Active/ Reactive/ Apparent Power	load point	load point				
	c. Voltage							
	d.	Current	Rs. 500 per	Rs. 500 per				
	e.	Power Factor	load point	load point				
	f.	Frequency						
	Cable Testing and fault Detection on request of other utilities							
	33/11KV cable fault location		₹ 12,000.00	₹ 12,000.00				
6	33/11KV cable Hi-pot		₹ 4,500.00	₹ 4,500.00				
0	33/11KV Cable Identification		₹ 4,500.00	₹ 4,500.00				
	33/11KV Cable fault Identification		₹ 4,500.00	₹ 4,500.00				
	LT U.G. Cable Fault location and identification		₹ 4,500.00	₹ 4,500.00				
7	Tes	ting of Distribution Transformer	₹ 3,000.00	₹ 3,000.00				
			Rs. 750/- or	Rs. 750/- or				
8	Λdı	ministrative charges for cheque bouncing	Bank charges	Bank charges				
8	Aui	innistrative charges for cheque bouncing	whichever is	whichever is				
			higher	higher				

Note:

- 1. # Applicable only after first inspection for the release of new service connection.
- 2. * Inclusive of material, labour and all other costs.
- 3. The GST will be levied extra as per applicable rates

Commission's Analysis and Ruling

9.5.2 The Commission notes that MSEDCL has not provided detailed computation justifying its request for increasing various miscellaneous and general charges for providing various services to the consumers. It is also noted that there no major change in some of the activities. The Commission notes that, as most of the activities are labour incentive, the Commission has considered the three year average of CPI published by the Labour Bureau, Government of India to escalate previously approved charges in Order dated 30 March 2020 on compounded basis. The Commission has applied three years CPI rate where MSEDCL has proposed changes and where the proposed charges are less than that calculated as per methodology explain above, the Commission has considered charges as proposed by MSEDCL. Accordingly, approved charges for Miscellaneous and General activities are mentioned in table below:

Table 9-12: Miscellaneous and General Charges as approved by Commission.

Sr. No.	Category	MYT Order Existing Charges Rs.	MTR Petition Proposed Charges Rs.	Approved by the Commission (Rs.)
1	Installation Testing Fees #			

G		MYT Order	MTR Petition	Approved by the		
Sr. No.	Category	Existing	Proposed	Commission		
140.		Charges Rs.	Charges Rs.	(Rs.)		
	Low Tension Services					
	a. Single Phase	110.00	130.00	120.00		
	b. Three Phase	220.00	250.00	230.00		
	High Tension Services					
	a. Agricultural	600.00	600.00	600.00		
	b. All categories except Agricultural	750.00	900.00	790.00		
	Renewable Energy Installations with Net		1			
	a. Single Phase	500.00	500.00	500.00		
	b. Three Phase	1,000.00	1,000.00	1,000.00		
	Reconnection Charges					
	Low Tension Service at Meter incomer					
	a. Single Phase	200.00	250.00	210.0		
	b. Three Phase	400.00	450.00	420.0		
	At overhead mains					
2	a. Single Phase	300.00	350.00	310.00		
	b. Three Phase	500.00	550.00	520.00		
	Reconnection in underground cable works					
	a. Single Phase	300.00	350.00	310.00		
	b. Three Phase	500.00	550.00	520.00		
	High Tension Supply	3,150.00				
	Changing location of meter within same p					
	consumer request (Utility's services viz. S	-	, Poles, HT-LT-			
3	EHV Lines, DTCs, and Substations etc. ar		1			
	a. Single Phase	385.00	500.00	400.00		
	b. Three Phase	1,000.00	1,200.00	1,050.00		
	Shifting of Utility's services (Service Line DTCs, and Substations etc.)	Shifting of Utility's services (Service Line Setup, Poles, HT-LT-EHV Lines,				
4	a. Single Phase	At Actual	At Actual	At Actual		
	b. Three Phase	At Actual	At Actual	At Actual		
	A. Testing of Meters	At Actual	At Actual	At Actual		
	a. Single Phase	220.00	220.00	220.00		
	b. Poly-phase meter/ RKVAH meter	880.00	880.00	880.00		
	c. LTMD (with/without CTs)	1,100.00	1,100.00	1,100.00		
	d. Tri vector Meter	1,100.00	1,100.00	1,100.00		
	Metering equipment like CT/PT					
	e. per unit for LT	1,000.00	1,000.00	1,000.00		
_	Metering equipment like CT/PT					
5	f. per unit for HT up to and including	3,000.00	3,000.00	3,000.00		
	33kV					
	Metering equipment like CT/PT	5,000.00	5,000.00	5,000.00		
	g. per unit for EHT above 33 kV	3,000.00	3,000.00	3,000.00		
	Net Meter					
	h. i. Single Phase	500.00	500.00	500.00		
	ii. Three phase LT CT Operated	1,100.00	1,100.00	1,100.00		
	Bidirectional	1,100.00	1,100.00	1,100.00		

Sr. No.		Category	MYT Order Existing Charges Rs.	MTR Petition Proposed Charges Rs.	Approved by the Commission (Rs.)
		iii. Three phase HT TOD Bidirectional	1,100.00	1,100.00	1,100.00
	В. Т	Testing of Meters at TQA Laboratories			
	a.	Single Phase	2,000.00	2,000.00	2,000.00
	b.	Three Phase	9,500.00	9,500.00	9,500.00
	c.	LT CT OP Meters	10,000.00	10,000.00	10,000.00
	d.	HT ToD Meters	15,000.00	15,000.00	15,000.00
	e.	ABT/Apex	20,000.00	20,000.00	20,000.00
		Summator Meter Module			
	f.	i. Two module + Summator	46,500.00	46,500.00	46,500.00
	1.	ii. Three module + Summator	68,200.00	68,200.00	68,200.00
		iii. Four module + Summator	89,990.00	89,990.00	89,990.00
	C. Calibration of Testing Equipment of Other Utilities' request			st at TQA	
	Lab	oratories			
	a.	Active/ Reactive Energy	Rs. 400 per	Rs. 400 per	Rs. 400 per load
	b.	Active/ Reactive/ Apparent Power	load point	load point	point
	c.	Voltage			
	d.	Current	Rs. 500 per	Rs. 500 per	Rs. 500 per load
	e.	Power Factor	load point	load point	point
	f.	Frequency			
	Cab	le Testing and fault Detection on reque	est of other utilitie	S	
	33/1	11KV cable fault location	12,000.00	12,000.00	12,000.00
	33/1	11KV cable Hi-pot	4,500.00	4,500.00	4,500.00
6	33/1	11KV Cable Identification	4,500.00	4,500.00	4,500.00
	33/1	11KV Cable fault Identification	4,500.00	4,500.00	4,500.00
		U.G. Cable Fault location and ntification	4,500.00	4,500.00	4,500.00
7	Tes	ting of Distribution Transformer	3,000.00	3,000.00	3,000.00
			Rs. 750/- or	Rs. 750/- or	Rs. 750/- or Bank
8	Adr	ministrative charges for cheque	Bank charges	Bank charges	charges
0	bou	ncing	whichever is	whichever is	whichever is
			higher	higher	higher

9.6 Processing and Operating Charges for Open Access:

MSEDCL Submission

- 9.6.1 A steep increase is observed in the number of open access applications received at MSEDCL in the recent past. Approximately 250 nos of applications are being received every month. As per new promotional RE Policies by GoI and GoM, installation of RE power plants like Solar, Small Hydro are on rise. There is a substantial rise in inflation due to COVID-19 pandemic which has resulted in the increase in expenditure of MSEDCL.
- 9.6.2 In view of the above, there is a need to revise the processing charges and operating charges. The applicant wise details are to be made available on public domain.

9.6.3 **Operating Charges- Activities**

- i. Deployment of Engineers and staff.
- ii. As per DOA Regulations 2019, Individual SEM is being installed for every RE generator.
- iii. Software as per changes in Regulations and various Orders of the Commission
- iv. Separate IT system and IT manpower for processing of open access bills. As the volume of Open Access applications is increasing day to day basis, the expenditure of MSEDCL has increased with reference to the reasons cited above. In view of the above, the proposed Processing charges and Operating charges for the open access are as below:

Table 9-13: Processing and Operating Charges for Open Access submitted by MSEDCL.

Load Requisitioned (OA Capacity)		Processing Charges per Application (Rs)		Operating Charges per transaction/ Permissions (Rs)	
	Existing	Proposed	Existing	Proposed	
Up to 1 MW	14,500	20,000			
More than 1 MW and up to 5 MW	22,000	30,000	14,500	25,000	
More than 5 MW and up to 20 MW	44,000	60,000	28,000	40,000	
More than 20 MW	75,000	1,00,000			

Commission's Analysis and Ruling

- 9.6.4 The Commission noticed that MSEDCL has not submitted the expense heads for processing fee and operating charges/fees and detailed justification thereof. MSEDCL has submitted common reasons and explanation for all proposed charges for Open Access i.e. application processing charges and operating charges.
- 9.6.5 Though MSEDCL has mentioned the activities required to be carried out for Open Access consumers, the Commission is of the view that most of the above activities fall under normal activities of MSEDCL as a licensee. At the same time the Commission is of the view that there are a few services required to be provided by MSEDCL to Open Access consumers, where MSEDCL may incur some costs. The Commission also notes that MSEDCL has introduced various online facilities for the benefit of the Open Access consumers.
- 9.6.6 However, in the absence of any detailed justification and computations, the Commission has applied 3 years average of CPI inflation rate on the charges which

were approved in MYT Order. The summary of Open Access charges approved by the Commission is given table below:

Table 9-14: Processing and Operating Charges for Open Access approved by Commission.

Load	Processing	rocessing Charges per Application (Rs)		Operating Charges per transaction/ Permissions (Rs)		
Requisitioned (OA Capacity)	MYT Order Existing	MTR Petition Proposed	by Commissio n (Rs.)	MYT Order Existing	MTR Petition Proposed	Approved by Commissio n (Rs.)
Up to 1 MW	14,500	20,000	15,450.00			
More than 1 MW and up to 5 MW	22,000	30,000	23,440.00	14,500	25,000	15,450.00
More than 5 MW and up to 20 MW	44,000	60,000	47,890.00	28,000	40,000	29,830.00
More than 20 MW	75,000	1,00,000	79,920.00	28,000	40,000	29,030.00

10 APPLICABILITY OF THE ORDER

- 10.1.1 This Order shall come into effect from 1 April, 2023.
- 10.1.2 The Petition of Maharashtra State Electricity Distribution Company Limited in Case No. 226 of 2022 stands disposed of accordingly.

Sd/(Mukesh Khullar)
Member

Member

Member

(Abhijit Deshpande)
Secretary

Appendix-1 List of Persons who attended the Technical Validation Session Held on 24 January 2023

Sr no.	Name	Organization
1	Shri. Y.M. Gadkari	Director Commercial, MSEDCL
2	Smt. Swati Vyavahare	Executive Director, MSEDCL
3	Shri. Sanjay Patil	Chief Engineer, MSEDCL
4	Shri. Milind Digrajkar	Superintending Engineer, MSEDCL
5	Shri. Mandar Atre	Superintending Engineer, MSEDCL
6	Smt. Shailaja Sawant	General Manager, MSEDCL
8	Smt. Pallavi Sherkar	MSEDCL
9	Shri. Bhaskar Kulkarni	Consultant to MSEDCL
10	Shri. Ajit Pandit	Consultant Idam Infra
11	Shri. Anant Sant	Consultant Idam Infra

ANNEXURE –I TARIFF SCHEDULE FOR FY 2023-24 and FY 2024-25

MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.

APPROVED TARIFF SCHEDULE (With effect from 1 April 2023)

Maharashtra Electricity Regulatory Commission, in exercise of the powers vested in it under Sections 61 and 62 of the Electricity Act, 2003 and all other powers enabling it in this behalf, has determined, by its Mid Term Review Order dated **31March**, **2023** in Case No. 226 of 2022, the Tariff for supply of electricity by the Distribution Licensee, Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL) to various classes of consumers as applicable from **1 April**, **2023**

General

- 1. These tariffs supersede all tariffs so far in force.
- 2. The Tariffs are subject to revision and/or surcharge that may be levied by the Distribution Licensee from time to time as per the directives of the Commission.
- 3. The tariffs are exclusive of the separate Electricity Duty, Tax on Sale of Electricity and other levies by the Government or other competent authorities, which will be payable by consumers over and above the tariffs.
- 4. The tariffs are applicable for supply at one point only.
- 5. The Distribution Licensee may measure the Maximum Demand for any period shorter than 30 minutes/15 minutes of maximum use, subject to conformity with the Commission's Electricity Supply Code Regulations, 2021 where it considers that there are considerable load fluctuations in operation.
- 6. The tariffs are subject to the provisions of the applicable Regulations and any directions that may be issued by the Commission from time to time.
- 7. Unless specifically stated to the contrary, the figures of Energy Charge and Wheeling Charge are denominated in Rupees per unit (kWh or kVAh as case may be) for the energy consumed during the month.
- 8. Fuel Adjustment Charge (FAC) computed in accordance with provisions of MYT Regulations, 2019 and Commission's directions in this regard from time to time shall be applicable to all categories of consumers and will be charged over and above the base tariff.

LOW TENSION (LT) TARIFF

LT I (A): LT – Residential (BPL)

Applicability:

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.

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.

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.

The BPL tariff is applicable only to individuals and not to institutions.

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Consumption Slab	Fixed/Demand Charges (Rs. /Month)	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
BPL Category	31.00	1.51	-

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Consumption Slab	Fixed/Demand Charges (Rs. /Month)	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
BPL Category	34.0	1.56	-

LT I (B): LT – Residential

Applicability:

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:

- a. Private residential premises, Government/semi-Government residential quarters; Private corporate bodies staff quarters / Hostels / Rest Houses.
- 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;
- 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/ Firefighting Pumps and other equipment, etc.;
- 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;
- e. Telephone booths owned/operated by Persons with Disabilities/Handicapped persons;
- 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;
- g. Single-phase household Flour Mills (Ghar-ghanti) used only for captive purposes;
- 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;
- i. Home-stay facilities at tourist destinations and religious places.
- 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 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.
- 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:
 - (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.
- 1. Crematoriums and Burial Grounds for all purposes, including area lighting, Electric Kiln, water pumps etc.

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.

Provided that such temporary connection shall be subjected to 1.5 times of fixed charges.

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) and (j) above.

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Consumption Slab (kWh)	Fixed/Demand Charge (Rs. Per month) #(ref. note (o))	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
0-100 units	Cinala Diagram Da	4.41	1.17
101 – 300 units	Single Phase: Rs.	9.64	1.17
301 – 500 units	116.00 per month Three Phase – Rs.	13.61	1.17
Above 500 Units (Balance Units)	385.00 per month ^{\$\$}	15.57	1.17

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Consumption Slab (kWh)	Fixed/Demand Charge (Rs. Per month) #(ref. note (0))	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
0-100 units	Cinala Diagram Da	4.71	1.17
101 – 300 units	Single Phase: Rs.	10.29	1.17
301 – 500 units	128.00 per month Three Phase – Rs.	14.55	1.17
Above 500 Units (Balance Units)	424.00 per month ^{\$\$}	16.64	1.17

Note:

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.

- 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.
- o. Additional Fixed Charge of Rs 10 per connection per month shall be applicable for LT-Domestic category consumers in Urban Divisions of MSEDCL.

LT II: LT – Non-Residential or Commercial

Applicability:

A). 0-20kW

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:

- 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, Icecream 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;
- 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;

- 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;

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;

- a) Milk Collection Centres; Standalone milk refrigeration, storage centres;
- Sewage Treatment Plants/ Common Effluent Treatment Plants for Commercial Complexes not covered under the LT – Public Water Works or LT – Industry categories;
- 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.
- d) Temporary supply for any of the activity not covered under Residential category.

Provided that Temporary supply consumer shall pay 1.5 time applicable fixed/demand charges and 1.25-time applicable energy charge.

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.

B. 20 kW and \leq 50 kW and (C) > 50 kW

Applicability:

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).

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Consumption Slab (kWh)	Fixed/ Demand Charges	Energy Charges (Rs./kWh)	Wheeling Charges (Rs. /kWh)
LT II (A) 0-20 kW	Rs. 470.0/Month	8.27	1.17
LT II (B) $> 20 \text{ kW}$ and $\leq 50 \text{ kW}$	Rs. 470.0/ kVA/Month	12.63	1.17

Consumption Slab (kWh)	Fixed/ Demand Charges	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)		
LT II (C) > 50 kW	Rs. 470.0/ kVA/Month	14.93	1.17		
TOD Tariffs (in addition to above base Tariffs) (Rs/kWh)					
2200 Hrs - 0600 Hrs			-1.50		
0600 Hrs - 0900 Hrs & 1200 Hrs - 1800 Hrs			0.00		
0900 Hrs - 1200 Hrs			0.80		
1800 Hrs - 2200 Hrs			1.10		

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Consumption Slab (kWh)	Fixed/ Demand Charges	Energy Charges (Rs./kWh)	Wheeling Charges (Rs. /kWh)
LT II (A) 0-20 kW	Rs. 517.0/Month	8.52	1.17
LT II (B) $>$ 20 kW and \leq 50 kW	Rs. 517.0/ kVA/Month	13.01	1.17
LT II (C) > 50 kW	Rs. 517.0/ kVA/Month	15.38	1.17
TOD Tariffs (in addition to above	ve base Tariffs) (Rs/kWh)	
2200 Hrs - 0600 Hrs			-1.50
0600 Hrs - 0900 Hrs & 1200 Hrs - 1800 Hrs			0.00
0900 Hrs - 1200 Hrs			0.80
1800 Hrs - 2200 Hrs			1.10

<u>Note:</u> 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.

LT III: LT-Public Water Works (PWW) and Sewage Treatment Plants

Applicability:

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 (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 (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.

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.

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Consumption Slab (kWh)	Fixed/ Demand Charges	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
LT III(A): 0-20 kW	Rs. 117/Month	3.54	1.17
LT III(B): >20 kW and ≤40 kW	Rs. 142/kVA/Month	5.49	1.17
LT III(C): >40 kW	Rs. 176/ kVA/Month	7.28	1.17
ToD tariff (in addition to above base t	tariffs) (Rs/kWh)		
2200 Hrs - 0600 Hrs			-1.50
0600 Hrs - 0900 Hrs & 1200 Hrs - 1800 Hrs			0.00
0900 Hrs - 1200 Hrs			0.80
1800 Hrs - 2200 Hrs			1.10

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Consumption Slab (kW)	Fixed/ Demand Charges	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)	
LT III(A): 0-20 kW	Rs. 129.00/Month	4.09	1.17	
LT III(B): >20 kW and ≤40 kW	Rs. 156.00/kVA/Month	6.33	1.17	
LT III(C): >40 kW	Rs. 194.00/kVA/Month	8.40	1.17	
ToD tariff (in addition to above base tariffs) (Rs/kWh)				
2200 Hrs - 0600 Hrs			-1.50	
0600 Hrs - 0900 Hrs & 1200 Hrs -			0.00	
1800 Hrs			0.00	
0900 Hrs - 1200 Hrs			0.80	
1800 Hrs - 2200 Hrs			1.10	

LT IV: Agriculture

LT IV (A): LT - Agriculture Un-metered - Pumpsets

Applicability:

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.

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

	Fixed / Demand	Energy	Wheeling
Consumer Category	Charge	Charges	Charges (Rs/
	(Rs/ HP/ month)	(Rs./kWh)	HP/ month)
LT IV (A): LT - Agriculture Un-metered Tariff - Pumpsets			

Consumer Category	Fixed / Demand Charge (Rs/ HP/ month)	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs/ HP/ month)
Category 1 Zones*			
(a) 0-5 HP	466	-	117
(b) > 5 HP and \leq 7.5 HP	504	-	117
(c) > 7.5 HP	566	-	117
Category 2 Zones #			
(a) 0-5 HP	361	-	117
(b) > 5 HP and \leq 7.5 HP	395	-	117
(c) > 7.5 HP	457	-	117

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Consumer Category	Fixed / Demand Charge (Rs/ HP/ month)	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs/ HP/ month)
LT IV (A): LT - Agriculture	Un-metered Tariff - Pun	npsets	T
Category 1 Zones*			
(a) 0-5 HP	563	-	117
(b) > 5 HP and \leq 7.5 HP	607	-	117
(c) > 7.5 HP	683	-	117
Category 2 Zones #			
(a) 0-5 HP	435		117
(b) > 5 HP and \leq 7.5 HP	476		117
(c) > 7.5 HP	551		117

*Category 1 Zones (with consumption norm above 1,318 hours/HP/year)			
1) Bhandup (U)	2) Pune	3) Nashik	
4) Baramati	5) Jalgaon		
#Category 2 Zones (with consumption norm below 1,318 hours/HP/year)			
1) Amravati	2) Aurangabad	3) Kalyan	
4) Konkan	5) Kolhapur	6) Latur	
7) Nagpur (U)	8) Chandrapur	9) Gondia	
10) Nanded	11) Akola		

Note:

- 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.
- 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.

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.

LT IV (B): LT – Agriculture metered - Pumpsets

Applicability:

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.

This tariff is also applicable for floriculture, horticulture, nursery and plantation.

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.

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.

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Consumption Slab (kWh)	Fixed/ Demand Charge (Rs/ HP/ month)	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
All Units	47.0	3.00	1.17

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Consumption Slab	Fixed/ Demand Charge	Energy Charges	Wheeling Charges (Rs. /kWh)
(kWh)	(Rs/ HP/ month)	(Rs. /kWh)	
All Units	52.0	3.39	1.17

LT IV (C): LT – Agriculture – Others

Applicability:

This tariff category is applicable for use of electricity / power supply at Low / Medium Voltage for:

- a. Pre-cooling plants and cold storage units for Agricultural Products as defined under APMC Act, 1963 processed or otherwise;
- b. Poultries exclusively undertaking layer and broiler activities, including Hatcheries;
- 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;

- d. Aquaculture, Sericulture, Cattle Breeding Farms, etc;
- e. Tabela, which involves no associated industrial/commercial activity of sales counter, milk processing or Dairy/Chilling plant.

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Consumption Slab (kWh)	Fixed/ Demand Charge (Rs/ kW/ month)	Energy Charges (Rs./kWh)	Wheeling Charges (Rs./kWh)
All Units	129.0	5.06	1.17

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Consumption Slab (kWh)	Fixed/ Demand Charge (Rs/ kW/ month)	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
All Units	142.0	5.71	1.17

LT V: LT- Industry:

Applicability:

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.

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.

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 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 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. Flour Mill, Dal Mill, Rice Mill, Poha Mill, Masala Mill, Saw Mill, Cattle / Poultry Feed Manufacturing plants;

- b. Ice Factory, Ice-cream manufacturing units, Milk Processing and Chilling Plants (Dairy);
- 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,
- d. Ordinance / Ammunition Factories of Defence Establishments;
- e. Mining, Quarrying and Stone Crushing units;
- f. Garment Manufacturing units;
- g. Soap and cosmetics, Deodorant manufacturing, etc.
- h. LPG/CNG bottling plants and associated retail gas filling stations;
- i. Sewage Treatment Plant/ Common Effluent Treatment Plant for industries, and not covered under the LT Public Water Works category;
- 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);
- k. Brick Kiln (Bhatti), Biomass Pellet;
- 1. Biotechnology Industries covered under the Biotechnology Policy of Government of Maharashtra;
- m. Cold Storages not covered under LT IV (C) Agriculture (Others), Packaged Drinking water plant;
- n. Food (including seafood and meat) Processing units, Khandsari / Jaggery Manufacturing Units;
- o. Stand-alone Research and Development units;
- p. Telecommunications Towers and associated telecom infrastructure but does not cover offices/outlets etc.
- q. Powerlooms including other allied activities like, Warping, Doubling, Twisting, etc., connected at Low/Medium Tension only.
- r. Auxiliary Power Supply to EHV/Distribution Substations (but not for construction)
- s. Ready-mix Concrete or hot mix plants.
- t. Dhobi/Laundry activities

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Consumer Category	Fixed/Demand Charge	Energy Charges (Rs./kWh)	Wheeling Charges (Rs. /kWh)
LT-V: LT – Industry*			
(i) 0-20 kW	Rs. 530.0/Month	5.98	1.17
(ii) Above 20 kW	Rs. 353.0/ kVA/Month	7.08	1.17
ToD Tariffs (in addition to above base	Tariffs) (kWh)		
2200 Hrs-0600 Hrs.			(1.50)
0600 Hrs-0900 Hrs. & 1200 Hrs-1800 Hrs.			0.00
0900 Hrs-1200 Hrs.			0.80
1800 Hrs-2200 Hrs.			1.10

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Consumer Category	Fixed/Demand Charge	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
LT-V: LT – Industry*			
(i) 0-20 kW	Rs. 583.0/Month	6.16	1.17
(ii) Above 20 kW	Rs. 388.0/ kVA/Month	7.30	1.17
ToD Tariffs (in addition to above base	Tariffs) (kWh)		
2200 Hrs-0600 Hrs.			(1.50)
0600 Hrs-0900 Hrs. & 1200 Hrs-1800 Hrs.			0.00
0900 Hrs-1200 Hrs.			0.80
1800 Hrs-2200 Hrs.			1.10

Note:

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.

*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.

LT VI: LT – Street Light

Applicability:

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.

Street-lights in residential complexes, commercial complexes, industrial premises, etc. will be billed at the tariff of the respective applicable categories.

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);
- b. Traffic Signals and Traffic Islands;
- c. Public Water Fountains; and
- d. Such other public places open to the general public free of charge.

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Consumer Category	Fixed/Demand Charge (Rs/kW/Month)	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
LT VI: LT – Street Light			
(A) Gram Panchayat, A, B & C Class Municipal Councils	129.0	6.63	1.17
(B) Municipal Corporation Areas	129.0	8.07	1.17

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Consumer Category	Fixed/Demand Charge (Rs/kW/Month)	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
LT VI: LT – Street Light			
(A) Gram Panchayat, A, B & C Class Municipal Councils	142.0	6.83	1.17
(B) Municipal Corporation Areas	142.0	8.31	1.17

Note:

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) Actual 'Recorded Demand' or
- ii) 50 percent of 'Contract Demand'

LT VII: LT - Public Services

LT VII (A): LT - Government Educational Institutions and Hospitals

Applicability:

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;

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.

This Tariff is also applicable for electricity supply at Public Sanitary Conveniences;

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Consumption Slab (kWh)	Fixed/ Demand Charge	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
LT VII (A): LT - Public S	ervices –Government Educ	ational Institutions an	d Hospitals
$\underline{(i)} < 20 \text{ kW}$	Rs. 388.0/Month	4.13	1.17
(ii) >20 - ≤ 50 kW	Rs. 388.0/ kVA/Month	5.94	1.17
(iii) > 50 kW	Rs. 388.0/ kVA/Month	7.45	1.17
ToD Tariffs (in addition to	ToD Tariffs (in addition to above base Tariffs) (kWh)		
2200 Hrs-0600 Hrs			-1.50
0600 Hrs-0900 Hrs & 1200 Hrs-1800 Hrs			0.00
0900 Hrs-1200 Hrs			0.80
1800 Hrs-2200 Hrs			1.10

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Consumption Slab (kWh)	Fixed/ Demand Charge	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
LT VII (A): LT - Public	Services -Government Ed	ucational Institutions a	and Hospitals
$\underline{(i)} < 20 \text{ kW}$	Rs. 427.0/Month	4.29	1.17
(ii) >20 - ≤ 50 kW	Rs. 427.0/ kVA/Month	6.18	1.17
(iii) > 50 kW	Rs. 427.0/ kVA/Month	7.75	1.17
ToD Tariffs (in addition to above base Tariffs) (Rs/kWh)			
2200 Hrs-0600 Hrs			-1.50

Consumption Slab (kWh)	Fixed/ Demand Charge	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
0600 Hrs-0900 Hrs & 1200 Hrs-1800 Hrs			0.00
0900 Hrs-1200 Hrs			0.80
1800 Hrs-2200 Hrs			1.10

Note:

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.

LT VII (B): LT - Public Services - Others

Applicability:

This tariff category is applicable for electricity supply at Low/Medium Voltage for:

- 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 Panchayats, etc.
- 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;
- 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;
- d. Service-oriented Spiritual Organisations;
- e. Accommodation facilities provided by religious trusts registered under Maharashtra Public Trust Act for devotees.
- f. State or Municipal/Local Authority Transport establishments, including their Workshops
- g. Fire Service Stations; Jails, Prisons; Courts;
- h. Airports;
- i. Ports, Jetties and provision for Shore Power Supply;
- j. Railway/Metro/Monorail Stations, including Shops, Workshops, Yards, etc, if the supply is at Low/ Medium Voltage.
- k. Waste processing units and water ATM not covered under LT PWW category
- 1. All Students Hostels affiliated to Educational Institutions not covered under LT Public Service Government;
- m. All other Students' or Working Men/Women's Hostels;

- n. Other types of Homes/Hostels, such as (i) Homes/Hostels for Destitutes, Disabled Persons (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;
- o. Dam operation including Lighting and other activities, etc.

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Consumption Slab (kWh)	Fixed/ Demand Charge	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
LT VII (B): LT - Publ	ic Services – Others		
$\underline{(i)} < 20 \text{ kW}$	Rs. 422.0/ kVA/Month	5.94	1.17
(ii) >20 - ≤ 50 kW	Rs. 422.0/ kVA/Month	9.40	1.17
(iii) > 50 kW	Rs. 422.0/ kVA/Month	9.74	1.17
ToD Tariffs (in addition	ToD Tariffs (in addition to above base Tariffs) (Rs/kWh)		
2200 Hrs-0600 Hrs			-1.50
0600 Hrs-0900 Hrs & 1200 Hrs-1800 Hrs			0.00
0900 Hrs-1200 Hrs			0.80
1800 Hrs-2200 Hrs			1.10

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Consumption Slab (kWh)	Fixed/ Demand Charge	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
LT VII (B): LT - Publi	c Services – Others		
$\underline{(i)} < 20 \text{ kW}$	Rs. 464.0/Month	6.18	1.17
(ii) >20 - ≤ 50 kW	Rs. 464.0/ kVA/Month	9.78	1.17
(iii) > 50 kW	Rs. 464.0/ kVA/Month	10.13	1.17
ToD Tariffs (in additio	ToD Tariffs (in addition to above base Tariffs) (Rs/kWh)		
2200 Hrs-0600 Hrs			-1.50
0600 Hrs-0900 Hrs & 1200 Hrs-1800 Hrs			0.00
0900 Hrs-1200 Hrs			0.80
1800 Hrs-2200 Hrs			1.10

Note:

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.

LT VIII: LT – Electric Vehicle (EV) Charging Stations

Applicability:

This Tariff category is applicable for Electric Vehicle Charging Station including battery swapping station for electric vehicle.

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.

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.

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Consumption Slab (kWh)	Fixed/ Demand Charge (Rs./kVA/Month)	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
All Units	75.0	6.08	1.17
ToD Tariffs (in addition to above base Tariffs) (Rs/kWh)			
2200 Hrs-0600 Hrs			-1.50
0600 Hrs-0900 Hrs & 1200 Hrs-1800 Hrs			0.00
0900 Hrs-1200 Hrs			0.80
1800 Hrs-2200 Hrs			1.10

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Consumption Slab (kWh)	Fixed/ Demand Charge (Rs./kW/Month)	Energy Charges (Rs. /kWh)	Wheeling Charges (Rs. /kWh)
All Units	80.0	6.58	1.17
ToD Tariffs (in addition to a	bove base Tariffs) (Rs/kW	h)	
2200 Hrs-0600 Hrs			-1.50
0600 Hrs-0900 Hrs & 1200 Hrs-1800 Hrs			0.00
0900 Hrs-1200 Hrs			0.80
1800 Hrs-2200 Hrs			1.10

HIGH TENSION (HT) TARIFF

HT I: HT – Industry

HT I (A): Industry – General

Applicability:

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.

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 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. 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. Ordinance / 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 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);
- 1. 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

HT I (B): Industry - Seasonal

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 of in a financial year should be limited upto 9 months, and the category should be opted for by the consumer within first quarter of the financial year.

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Supply Voltage Level	Wheeling Charges (Rs. /kVAh)
EHV	-
HT	0.60

PLUS

Demand/Fixed Charge and Energy Charge (for all Supply Voltage Levels)

Consumer Category	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)
HT I: HT - Industry		
HT I(A): HT - Industry - General	499.0	8.12
HT I(B): HT - Industry - Seasonal	499.0	8.43
ToD tariff (in addition to above base tariffs) (Rs/kVAh)		
2200 Hrs - 0600 Hrs		-1.50
0600 Hrs - 0900 Hrs &		0.00
1200 Hrs - 1800 Hrs		0.00
0900 Hrs - 1200 Hrs		0.80
1800 Hrs - 2200 Hrs		1.10

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Supply Voltage Level	Wheeling Charges (Rs. /kWh)
EHV	-
HT	0.60

PLUS

Demand/Fixed Charge and Energy Charge (for all Supply Voltage Levels)

Consumer Category	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)
HT I: HT – Industry		
HT I(A): HT - Industry - General	549.0	8.36
HT I(B): HT - Industry - Seasonal	549.0	8.68
ToD tariff (in addition to above base tariffs) (Rs/kVAh)		
2200 Hrs - 0600 Hrs		-1.50
0600 Hrs - 0900 Hrs &		0.00
1200 Hrs - 1800 Hrs		0.00
0900 Hrs - 1200 Hrs		0.80
1800 Hrs - 2200 Hrs		1.10

Note:

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.

- 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.
- iii. Demand Charge shall be applicable at 75% of the above rates for Steel Plant operating with electric arc furnaces.

HT II: HT- Commercial

Applicability:

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:

- 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 & Service Stations, including Garages, Toll Collection plazas;-
- g. Tailoring Shops, Computer Training Institutes, Private Training centres, Typing Institutes, Photo Laboratories, Beauty Parlours and Saloons;
- h. Banks and ATM centres, Telephone Exchanges, TV Stations, Micro Wave Stations, Radio Stations;
- i. Common facilities, like Water Pumping / Lifts / Fire-Fighting Pumps and other equipment / Street and other common area Lighting, etc., in Commercial Complexes;
- j. Sports Clubs/facilities, Health Clubs/facilities, Gymnasiums, Swimming Pools not covered under any other category;
- k. External illumination of monuments/ historical/heritage buildings approved by Maharashtra Tourism Development Corporation (MTDC) or the concerned Local Authority;

- 1. 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;
- m. Milk Collection Centres, standalone milk refrigeration and storage centres;
- n. Sewage Treatment Plant/ Common Effluent Treatment Plant for Commercial Complexes, not covered under the HT- PWW category or HT I Industry
- 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. Temporary supply for any of the activity not covered under any other HT category Provided that Temporary supply consumer shall pay 1.5 time applicable fixed/demand charges and 1.25 time applicable energy charge.

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Supply Voltage Level	Wheeling Charges (Rs. /kVAh)
EHV	-
HT	0.60

PLUS

Demand/Fixed Charge and Energy Charge (for all Supply Voltage Levels)

Consumer Category	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)
All Units	499.0	12.83
ToD tariff (in addition to above base tariffs) (R	s/kVAh)	
2200 Hrs - 0600 Hrs		-1.50
0600 Hrs - 0900 Hrs &		0.00
1200 Hrs - 1800 Hrs		0.00
0900 Hrs - 1200 Hrs		0.80
1800 Hrs - 2200 Hrs		1.10

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Supply Voltage Level	Wheeling Charges (Rs. /kWh)	
EHV	-	
HT	0.60	

PLUS

Demand/Fixed Charge and Energy Charge (for all Supply Voltage Levels)

Consumer Category	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)
All Units	549.0	13.21
ToD tariff (in addition to above base tariffs) (Rs/kVAh)		
2200 Hrs - 0600 Hrs		-1.50
0600 Hrs - 0900 Hrs &		0.00
1200 Hrs - 1800 Hrs		0.00
0900 Hrs - 1200 Hrs		0.80
1800 Hrs - 2200 Hrs		1.10

<u>Note:</u> 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.

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.

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Consumption Slab	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)	Wheeling Charges (Rs. /kVAh)
EHV	499.0	7.53	-
HT	499.0	7.53	0.60

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Consumption Slab	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)	Wheeling Charges (Rs. /kVAh)
EHV	549.0	7.53	-
HT	549.0	7.53	0.60

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.

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Supply Voltage Level	Wheeling Charges (Rs. /kVAh)
EHV	-
HT	0.60

PLUS

Consumer Category	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)
All Units	499.0	7.53
ToD tariff (in addition to above base tariffs)	(Rs/kVAh)	
2200 Hrs - 0600 Hrs		-1.50
0600 Hrs - 0900 Hrs & 1200 Hrs - 1800 Hrs		0.00
0900 Hrs - 1200 Hrs		0.80
1800 Hrs - 2200 Hrs		1.10

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Supply Voltage Level	Wheeling Charges (Rs. /kWh)
EHV	-
HT	0.60

PLUS

Consumer Category	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)
All Units	549.0	7.76
ToD tariff (in addition to above base tariffs)	(Rs/kVAh)	
2200 Hrs - 0600 Hrs		-1.50
0600 Hrs - 0900 Hrs &		0.00
1200 Hrs - 1800 Hrs		0.00
0900 Hrs - 1200 Hrs		0.80
1800 Hrs - 2200 Hrs		1.10

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 including HT Lift Irrigation Schemes (LIS) irrespective of ownership.

This tariff is also applicable for floriculture, horticulture, nursery and plantation.

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

HT V(B): HT – Agriculture Others

Applicability:

- a. This tariff category is applicable for use of electricity / power supply at High Voltage for:
- b. Pre-cooling plants and cold storage units for Agriculture Products as defined under APMC Act 1963 processed or otherwise;
- c. Poultries exclusively undertaking layer and broiler activities, including Hatcheries;
- d. 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;
- e. Aquaculture, Sericulture, Cattle Breeding Farms, etc;

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Supply Voltage Level	Wheeling Charges (Rs. /kVAh)
EHV	-
HT	0.60

PLUS

Demand/Fixed Charge and Energy Charge (for all Supply Voltage Levels)

Consumption Slab	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)
HT V: HT Agriculture		
HT V (A): HT Agriculture Pumpsets	88.0	5.26
HT V (B): HT Agriculture Others	88.0	7.27

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Supply Voltage Level	Wheeling Charges (Rs. /kVAh)	
EHV	-	
HT	0.60	

PLUS

Demand/Fixed Charge and Energy Charge (for all Supply Voltage Levels)

Consumption Slab	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)
HT V: HT Agriculture		
HT V (A): HT Agriculture Pumpsets	97.0	5.78
HT V (B): HT Agriculture Others	97.0	7.99

HT VI: HT - Group Housing Society (Residential)

Applicability:

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:

- 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

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Consumption Slab	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)	Wheeling Charges (Rs. /kVAh)
EHV	398.0	6.95	-
HT	398.0	6.95	0.60

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Consumption Slab	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)	Wheeling Charges (Rs. /kVAh)
EHV	438.0	7.16	-
HT	438.0	7.16	0.60

Note: 20% reduction in Energy Charge (incl. FAC) shall be applicable for Serving Armed Forces/Paramilitary forces residential establishments covered under the HT-Group Housing category.

HT VIII: HT Public Services

HT VIII – (A): HT - Government Educational Institutions and Hospitals

Applicability:

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;

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.

This Tariff is also applicable for electricity supply at Public Sanitary Conveniences

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Supply Voltage Level	Wheeling Charges (Rs. /kVAh)
EHV	-
HT	0.60

PLUS

Demand/Fixed Charge and Energy Charge (for all Supply Voltage Levels)

Consumer Category	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)
All Units	499.0	9.53
ToD tariff (in addition to above base tariffs)	(Rs/kVAh)	
2200 Hrs - 0600 Hrs		-1.50
0600 Hrs - 0900 Hrs &		0.00
1200 Hrs - 1800 Hrs		0.00
0900 Hrs - 1200 Hrs		0.80
1800 Hrs - 2200 Hrs		1.10

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Supply Voltage Level	Wheeling Charges (Rs. /kWh)
EHV	-
HT	0.60

PLUS

Demand/Fixed Charge and Energy Charge (for all Supply Voltage Levels)

Consumer Category	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)
All Units	549.0	10.03
ToD tariff (in addition to above base tariffs)	(Rs/kVAh)	
2200 Hrs - 0600 Hrs		-1.50
0600 Hrs - 0900 Hrs &		0.00
1200 Hrs - 1800 Hrs		
0900 Hrs - 1200 Hrs		0.80
1800 Hrs - 2200 Hrs		1.10

HT VIII - (B): Public Service - Others

Applicability:

This tariff category is applicable for electricity supply at High Voltage for:

- 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 the State or Central Government, Local Self-Government bodies such as Municipalities, Zilla Parishads, Panchayat Samitties, Gram Panchayats, etc.
- 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;
- 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;
- d. Service-oriented Spiritual Organisations;
- 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;
- f. Fire Service Stations; Jails, Prisons; Courts.
- g. Airports
- h. Ports, Jetties and provision for Shore Power Supply
- i. Waste processing units and Water ATM not covered under HT IV category;

j. Dam operation including Lighting and other activities, etc.

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Supply Voltage Level	Wheeling Charges (Rs. /kVAh)
EHV	-
HT	0.60

PLUS

Demand/Fixed Charge and Energy Charge (for all Supply Voltage Levels)

Consumer Category	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)
All Units	499.0	10.40
ToD tariff (in addition to above base tariffs)	(Rs/kVAh)	
2200 Hrs - 0600 Hrs		-1.50
0600 Hrs - 0900 Hrs &		0.00
1200 Hrs - 1800 Hrs		0.00
0900 Hrs - 1200 Hrs		0.80
1800 Hrs - 2200 Hrs		1.10

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Supply Voltage Level	Wheeling Charges (Rs. /kWh)
EHV	-
HT	0.60

PLUS

Demand/Fixed Charge and Energy Charge (for all Supply Voltage Levels)

Consumer Category	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)
All Units	549.0	10.93
ToD tariff (in addition to above base tariffs)	(Rs/kVAh)	
2200 Hrs - 0600 Hrs		-1.50
0600 Hrs - 0900 Hrs &		0.00
1200 Hrs - 1800 Hrs		0.00
0900 Hrs - 1200 Hrs		0.80
1800 Hrs - 2200 Hrs		1.10

HT IX: HT – Electric Vehicle (EV) Charging Stations

Applicability:

This Tariff category is applicable for Electric Vehicle Charging Station including battery swapping station for Electric Vehicle

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.

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.

Rate Schedule

Tariff w.e.f. 1 April, 2023 to 31 March, 2024

Supply Voltage Level	Wheeling Charges (Rs. /kVAh)
EHV	-
HT	0.60

PLUS

Demand/Fixed Charge and Energy Charge (for all Supply Voltage Levels)

Consumer Category	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)
HT	75.0	6.90
ToD tariff (in addition to above base tariffs)	(Rs/kVAh)	
2200 Hrs - 0600 Hrs		-1.50
0600 Hrs - 0900 Hrs &		0.00
1200 Hrs - 1800 Hrs		0.00
0900 Hrs - 1200 Hrs		0.80
1800 Hrs - 2200 Hrs		1.10

Tariff w.e.f. 1 April, 2024 to 31 March, 2025

Supply Voltage Level	Wheeling Charges (Rs. /kWh)
EHV	-
HT	0.60

PLUS

Demand/Fixed Charge and Energy Charge (for all Supply Voltage Levels)

Consumer Category	Demand Charges (Rs. /kVA/month)	Energy Charges (Rs. /kVAh)
HT	80.0	7.4
ToD tariff (in addition to above base tariffs)	(Rs/kVAh)	
2200 Hrs - 0600 Hrs		-1.50
0600 Hrs - 0900 Hrs &		0.00
1200 Hrs - 1800 Hrs		0.00
0900 Hrs - 1200 Hrs		0.80
1800 Hrs - 2200 Hrs		1.10

MISCELLANEOUS AND GENERAL CHARGES

Fuel Adjustment Charge (FAC) Component of Z-factor Charge

The Fuel Adjustment Charge (FAC) component of the Z-factor Charge will be determined in accordance with the formula specified in the relevant Multi Year Tariff Regulations and any directions that may be given by the Commission from time to time, and will be applicable to all consumer categories for their entire consumption.

In case of any variation in the fuel prices and power purchase prices, the Distribution Licensee shall pass on the adjustments through the FAC component of the Z-factor Charge accordingly.

The details of the applicable Z_{FAC} for each month shall be available on the Distribution Licensee's website www.mahadiscom.in.

Electricity Duty and Tax on Sale of Electricity

Electricity Duty and Tax on Sale of Electricity shall be levied in addition to the tariffs approved by the Commission, and in accordance with the Government of Maharashtra stipulations from time to time. The rate and the reference number of the Government Resolution/ Order under which the Electricity Duty and Tax on Sale of Electricity are applied shall be stated in the consumers' energy bills. A copy of such Resolution / Order shall be provided on the Distribution Licensee's website www.mahadiscom.in

Power Factor Computation

Where the average Power Factor measurement is not possible through the installed meter, the following formula for calculating the average Power Factor during the billing period shall be applied:

$$Average\ Power\ Factor = \frac{Total\ (kWh)}{Total\ (kVAh)}$$
 Wherein the kVAh is = $\sqrt{\sum (KWh)^2 + \sum (RkVAh\ Lag + RkVAh\ Lead)^2}$

Further, average PF so computed can be considered as leading or lagging based on the following test:

If "RkVAh lead" > "RkVAh lag" then "Average P.F." is to be treated as "Lead P.F."

If "RkVAh lead" = < "RkVAh lag" then "Average P.F." is to be treated as "Lag P.F."

Power Factor Incentive

Applicable 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 having Contract Demand/Sanctioned Load above 20 kW.
- 2. Whenever the average Power Factor is more than 0.95 (lag or lead) and upto 1, an incentive shall be given at the rate of the following percentages of the amount of the monthly electricity bill, excluding Taxes and Duties:

Sr. No.	Range of Power Factor	8					
1	0.951 to 0.954	0.95	0%				
2	0.955 to 0.964	0.96	0.5%				
3	0.965 to 0.974	0.97	1.0%				
4	0.975 to 0.984	0.98	1.5%				
5	0.985 to 0.994	0.99	2.5%				
6	0.995 to 1.000	1.00	3.5%				

<u>Note:</u> Power Factor shall be measured/computed upto 3 decimals, after universal rounding off.

Power Factor Penalty

- Applicable 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 having Contract Demand/Sanctioned Load above 20 kW.
- 2. Whenever the average PF is less than 0.9 (lag or lead), penal charges shall be levied at the rate of the following percentages of the amount of the monthly electricity bill, excluding Taxes and Duties:

Sr. No.	Range of Power Factor	Power Factor Level	Penalty					
1	0.895 to 0.900	0.90	0%					
2	0.885 to 0.894	0.89	1.0%					
3	0.875 to 0.884	0.88	1.5%					
4	0.865 to 0.874	0.87	2.0%					
5	0.855 to 0.864	0.86	2.5%					
6	0.845 to 0.854	0.85	3.0%					
7	0.835 to 0.844	0.84	3.5%					
8	0.825 to 0.834	0.83	4.0%					
9	0.815 to 0.824	0.82	4.5%					
10	0.805 to 0.814	0.81	5.0%					
			•••					

Note: Power Factor shall be measured/computed upto 3 decimals, after universal rounding off.

Prompt Payment Discount

A prompt payment discount of one percent of the monthly bill (excluding Taxes and Duties) shall be provided to consumers for payment of electricity bills within 7 days from the date of their issue.

Delayed Payment Charges

In case the electricity bill is not paid within the due date mentioned on the bill, delayed payment charges on the billed amount, including the taxes, cess, duties, etc., shall be levied on simple interest basis at the rate of 1.25% on the billed amount for the first month of delay.

Discount for digital payment

A discount of 0.25% of the monthly bill (excluding taxes and duties), subject to a cap of Rs. 500/-, shall be provided to LT category consumers for payment of electricity bills through various modes of digital payment such as credit cards, debit cards, UPI, BHIM, internet banking, mobile banking, mobile wallets etc.

Rate of Interest on Arrears

The rate of interest chargeable on the arrears of payment of billed dues shall be as given below:

Sr. No.	Delay in Payment (months)	Interest Rate per annum (%)
1	Payment made after 60 days and before 90 days from the date of billing	12%
2	Payment made after 90 days	15%

Rebate for On-time regular payment for LT-AG, LT-PWW and LT-Streetlight

Rebate of 1% for On-time regular payment before due date shall be available for consumers under LT-PWW and LT-Streetlight and Rebate of 5% for LT-AG categories and the same shall be governed as per following conditions:

- a. Consumers under LT-PWW and LT-Streetlight shall be eligible for consistent payment rebate of 1% and rebate of 5% for LT-AG consumers, for consistently making payments within due date.
- b. Such rebate would be monitored and offered on quarterly basis to only those consumers upon maintaining regular payment track record with the Utility.
- c. For example, if consumer makes regular payment of its monthly within due date during previous quarter then, such consumer shall be entitled to a rebate of 1% in its next monthly bill amount (excluding taxes and duties) for the subsequent quarter.
- d. In case of any default or non-adherence to bill payment within due date in previous quarter, such benefit of rebate shall be withdrawn for the full next billing quarter.
- e. However, the consumer shall be entitled to rebate in subsequent quarters in case it maintains payment track record within due date in the previous quarter. In case of consumer having quarterly billing, such scheme shall be monitored on six monthly basis and rebate shall be given in next quarterly bill.

Rebate for consumers with Prepaid connections

Consumers with prepaid metered connections shall be entitled for rebate of 2% in the Energy Charge Rate (incl FAC) applicable for the consumer category.

Rebate on Incremental Consumption

Rebate for incremental consumption for applicable consumer categories and eligible consumers shall be governed as per following conditions:

- a) The rebate for incremental consumption shall be allowed at the rate of Rs 0.75/KVAh for incremental consumption.
- b) 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 under these categories.
- c) Further, the rebate for incremental consumption shall also be applicable for LT industries (incl powerloom), LT commercial and LT public services.
- d) The rebate shall be given to eligible consumers including open access consumers falling under above consumer categories to the extent of procurement from MSEDCL.
- e) The rebate shall be for a period of 3 years subject to reconsideration during the MTR.
- f) The rebate shall be allowed to eligible consumers who consume power above threshold limit.
- g) The 3-year average monthly consumption by consumer from FY 2020-21 to FY 2022-23 shall be considered as baseline consumption (or monthly threshold consumption) for determination of incremental consumption by such eligible consumers.
- h) In case of a consumer registered into system for duration lower than 3 years, such consumer shall be eligible for availing incremental rebate from the next billing cycle upon completion of 3-year period and 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.
- i) In case continuation of such incremented consumption rebate mechanism is found necessary and proposed by MSEDCL for next control period, (i.e. beyond FY2024-25), baseline consumption (or monthly threshold consumption) shall be reset based on 3-year average from FY 2022-23 to FY 2024-25 or such other benchmark, upon following due consultation process and upon prudence check.
- j) 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 effected in the last monthly (for March) billing period. No carry-forward of shortfall/excess shall be allowed from one year to next year.
- k) 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) in FY 2020-21 onwards. 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 adjustment for shortfall (or rebate already availed by consumer in earlier months, if any) shall be adjusted for recovery in monthly billing period for March.
- The Commission has not considered isolated cases which may become Permanently Disconnected during the year in which a rebate has been availed for some months. The details of such cases, if any will be dealt based on the data as may be submitted by MSEDCL during MYT Petition.
- m) The rebate shall be over and above the existing rebates subject to the fact that the consumer's total variable charges should not be less than Rs.4/kVAh after accounting all applicable rebates.
- n) The rebates would also be applicable to Open Access consumers, subject to conditions outlined above.

Rebate on Bulk Consumption

Rebate for Bulk consumption for eligible consumers within HT-Industrial category shall be governed as per following conditions:

- a. All HT-Industrial consumers with monthly consumption in excess of 1 lakh units per month (0.1 MU per month) shall be eligible to avail Rebate on Bulk Consumption with a reverse telescopic slab structure as outlined below: Thus, the Commission has decided to introduce "Bulk Consumption" rebate in a reverse telescopic manner for HT-Industrial consumers in following manner:
 - I. For monthly consumption (> 1 Lakh units to 1 MU) per month: 2%
 - II. For monthly consumption (> 1 MU to 5 MU) per month: 1.5%
 - III. For monthly consumption (> 5 MU) per month: 1%

(Note – Units referred are in kVAh such as Lakh kVAh or Million kVAh)

b. Bulk Consumption Rebate shall be applicable on the Energy Charge component including FAC of the Bill excluding taxes and duty.

Illustration:

Say a consumer consumes 15 MU during month then, its consumption more than 1 Lakh units upto 1 MU units rebate will be 2%/unit, for next 4 MU (i.e. upto consumption of 5

MU) rebate will be 1.5%/unit and for consumption in excess of 5 MU upto 15 MU, rebate will be 1%/unit.

Discount in Demand Charges for Single Shift operation of HT-Indusry

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.

Load Factor Incentive

- a. Consumers having Load Factor above 75% and upto 85% will be entitled to an incentive in the form of a rebate of 0.75% on the Energy Charges for every percentage point increase in Load Factor from 75% to 85%. Consumers having a Load Factor above 85% will be entitled to a rebate of 1% on the Energy Charges for every percentage point increase in Load Factor from 85%. The total rebate will be subject to a ceiling of 15% of the Energy Charges applicable to the consumer.
- b. This incentive is applicable only to consumers in the tariff categories HT I: Industry, HT II: Commercial and HT VIII: Public Services HT VIII (A) and HT VIII (B) only.
- c. The Load Factor incentive will be available only if the consumer has no arrears with the Distribution Licensee, and payment is made within seven days from the date of the electricity bill. However, it will be available to consumers in whose case payment of arrears in instalments has been allowed by the Distribution Licensee, and such payment is being made as scheduled. The Distribution Licensee shall take a commercial decision on the schedule for such payments.
 - 1. The Load Factor is to be computed as follows:

Load Factor = Consumption during the month in MU

Maximum Consumption Possible during the month in MU

Maximum consumption possible = Contract Demand (kVA) X Unity Power Factor X (Total no. of hours during the month, less actual interruptions hours recorded on meter for billing period)

In case the consumer exceeds its Contract Demand (including during the non-peak hours, i.e., 22:00 hrs to 06:00 hrs.) in any particular month, the Load Factor Incentive will not be payable to the consumer in that month

Penalty for exceeding Contract Demand

In case a consumer (availing Demand-based Tariff) exceeds his Contract Demand, he will be billed at the applicable Demand Charge rate for the Demand actually recorded, and also be charged an additional amount at the rate of 150% of the applicable Demand Charge (only for the Demand in excess of the Contract Demand).

In case a LT consumer with a sanction demand/ contract demand less than 20 kW records actual contract demand above 20 kW, he will be billed at the tariff applicable for the respective load slab approved by the Commission, in which recorded demand falls for that billing cycle only and also be charged an additional amount at the rate of 150% of the applicable charge for the Demand in excess of the Contract Demand.

Further Distribution licensee can enhance the Contract Demand of the consumer when the consumers exceeds the Contract Demand on more than three occasions during a calendar year, irrespective whether the Consumer submits an application for the same or otherwise. However, before such revision of Contact Demand, Distribution Licensee must give 15 days' notice to such consumer. Also, the Consumer is liable to pay necessary charges as may be stipulated in the approved Schedule of Charges for the revised Contract Demand.

Under these circumstances, the consumer shall not be liable for any other action under Section 126 of the EA, 2003, since the penal additional Demand Charge provides for the penalty that the consumer is liable to pay for exceeding his Contract Demand. In case a consumer exceeds his Contract Demand on more than three occasions in a calendar year, the action to be taken would be governed by the provisions of the Supply Code Regulations.

Additional Demand Charges for Consumers having Captive Power Plant

Consumers having a Captive Power Plant can opt for Standby Demand and Additional Demand Charges for such Standby Demand will be as follows:

- a. 25% of the Applicable Demand Charges for months when standby capacity is not utilized
- b. Demand Charges at the rate of 100% of Applicable Demand Charges for months when standby capacity is used under planned or un-planned shutdown of CPP
- c. In case recorded Demand exceeds Contract Demand + Standby Capacity, then applicable Demand Charge for the Demand actually recorded, and an additional amount at the rate of 150% of the applicable Demand Charge (only for the Demand in excess of the Contract Demand + Standby Capacity)
- d. In case no Standby capacity has been opted by consumer having CPP, then additional amount for exceeding Contract Demand be charged at 200% of applicable Demand Change (only for demand excess of Contracted Demand)

Consumers' Security Deposit

As specified under Regulations 13 of the MERC (Supply Code Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations,

2021, Consumer shall pay Security Deposit and will be entitle for interest on such Security Deposit.

Definitions

Maximum Demand

Maximum Demand in kilo-Watts or kilo-Volt Amperes, in relation to any period shall, unless otherwise provided in any general or specific Order of the Commission, mean twice (or four times for fifteen minute time block) the highest number of kilo-watt-hours or kilo-Volt Ampere hours supplied and taken during any consecutive thirty minute blocks (or fifteen minute time block) in that period, as the case may be.

Contract Demand

Contract Demand means the demand in kilo-Watt (kW) or kilo-Volt Amperes (kVA), mutually agreed between the Distribution Licensee and the consumer as entered into in the agreement or agreed through other written communication. (For conversion of kW into kVA, the Power Factor of 0.80 shall be applied.)

Sanctioned Load

Sanctioned Load means the load in kW mutually agreed between the Distribution Licensee and the consumer.

In case the meter is installed on the LV/MV side, the methodology to be followed for billing purpose is as follows

2% to be added to MV demand reading, to determine the kW or kVA billing demand, and

'X' units to the MVA reading to determine the total energy compensation to compensate the transformation losses, where is calculated as follows

'X' = (730 * kVA rating of transformer)/500 Units/month, to compensate for the iron losses, plus one percent of units registered on the LT side for copper losses.

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)

<u>During Declared Season</u>, 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.

<u>During Declared Off-season</u>, 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.

ANNEXURE – II :- REVENUE Revenue from revised Tariffs effective from 1 April, 2023

		Demand/ Fixe	ed Charges	Variable	Charges			Full year revenue (Rs. Crore)					Average
Category	No. of consumers	Units	Demand/ Fixed Charges	Energy Charges (Rs./unit)*	Wheeling Charge (Rs/ Unit)\$	Sales in MU/ MVAh #	Contract Demand in KVA/MVA	Fixed / Demand Charge	Energy Charge	Wheeling Charge	ToD Charges	Net Revenue	Billing Rate (Rs/kWh)
HT Category													
HT I(A): HT - Industry (General)	14,580	Rs/kVA/mth	499	8.12	0.60	40,337	92,20,659	5,521	32,736	1,653	(827.71)	39,083	9.69
HT I(C): HT - Industry (Seasonal)	601	Rs/kVA/mth	499	8.43	0.60	189	75,059	45	160	11	(2.32)	213	11.27
HT I - Industry (Sub-Total)	15,181					40,527	92,95,718	5,566	32,896	1,664	(830.03)	39,297	9.70
HT II: HT - Commercial	3,180	Rs/kVA/mth	499	12.83	0.60	2,066	5,75,010	344	2,650	120	(8.10)	3,106	15.03
HT III: HT - Railways/Metro/Monorail Traction	111	Rs/kVA/mth	499	7.53	0.60	126	35,375	21	95	6	-	122	9.65
HT IV: HT - Public Water Works (PWW)	1,042	Rs/kVA/mth	499	7.53	0.60	1,957	3,31,772	199	1,474	110	(37.48)	1,745	8.91
HT V(A): HT - Agriculture Pumpsets	957	Rs/kVA/mth	88	5.26	0.60	901	4,00,887	42	474	21	-	537	5.96
HT V(B)): HT - Agriculture Others	459	Rs/kVA/mth	88	7.27	0.60	289	83,456	9	210	17	-	236	8.17
HT VI: HT - Group Housing Societies (Residential)	252	Rs/kVA/mth	398	6.95	0.60	240	54,893	26	167	14	-	207	8.64
HT VIII(A): HT - Public Services- Government	421	Rs/kVA/mth	499	9.53	0.60	352	84,296	50	336	21	(4.11)	403	11.45
HT VIII(B): HT - Public Services-Others	1,145	Rs/kVA/mth	499	10.40	0.60	887	2,27,236	136	922	47	(11.34)	1,094	12.33
HT - MSPGCL-Aux Supply	30	Rs/kVA/mth	-	-	-	439	2,40,724	-	-	-	-	-	-
HT IX: HT – Electric Vehicle Charging Station	14	Rs/kVA/mth	75	6.90	0.60	59	37,344	3	41	4	-	48	8.06
Sub-Total HT Category	22,790					47,844	1,13,66,709	6,398	39,265	2,024	(891.05)	46,795	9.78
LT Category													
LT I(A): LT - Residential-BPL Category (0-30 units)	1,93,366	Rs/conn/mth	31	1.51	-	59	30,024	7	9	-	-	16	2.72
LT I(B): LT - Residential	-	-	-	-	-	-	2,46,53,162	-	-	-	-	-	-
0-100	1,38,29,046	Rs/conn/mth	116	4.41	1.17	16,965	-	1,925	7,484	1,989	-	11,398	6.72

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		Demand/ Fixe	d Charges	Variable Charges				Full year revenue (Rs. Crore)					Average
Category	No. of consumers	Units	Demand/ Fixed Charges	Energy Charges (Rs./unit)*	Wheeling Charge (Rs/ Unit)\$	Sales in MU/ MVAh #	Contract Demand in KVA/MVA	Fixed / Demand Charge	Energy Charge	Wheeling Charge	ToD Charges	Net Revenue	Billing Rate (Rs/kWh)
101-300	50,23,062	Rs/conn/mth	116	9.64	1.17	6,987	-	699	6,733	819	-	8,251	11.81
301-500	8,17,300	Rs/conn/mth	116	13.61	1.17	1,072	-	114	1,460	126	-	1,699	15.85
Above 500	2,96,470	Rs/conn/mth	116	15.57	1.17	1,171	-	41	1,823	137	-	2,001	17.10
Three Phase Connection	-	Rs/conn/mth	385	-	-	-	-	-	-	-	-	-	-
LT I: LT - Residential (Sub-Total)	2,01,59,243	-	-	-	-	26,255	2,46,83,186	2,786	17,509	3,071	-	23,366	8.90
LT II(A): LT - Non-Residential (0-20 kW)	19,08,815	Rs/Conn/mth	470	8.27	1.17	4,954	40,06,985	1,077	4,097	581	-	5,755	11.62
LT II(B): LT - Non-Residential (>20 kW and \leq 50 kW)	23,939	Rs/kVA/mth	470	12.63	1.17	907	3,51,239	198	1,145	106	2.15	1,452	16.01
LT II(C): LT - Non-Residential (Above 50 kW)	6,066	Rs/kVA/mth	470	14.93	1.17	872	2,81,880	159	1,302	102	3.69	1,566	17.97
LT II: LT - Non-Residential (Sub- Total)	19,38,819	-	-	-	-	6,732	46,40,103	1,434	6,544	789	5.85	8,773	13.03
LT III(A): LT - Public Water Works (0-20 kW)	52,897	Rs/kVA/mth	117	3.54	1.17	672	1,10,272	15	238	79	-	332	4.94
LT III(B): LT - Public Water Works (>20 kW-40 kW)	1,091	Rs/kVA/mth	142	5.49	1.17	106	31,619	5	58	12	-	76	7.17
LT III (C): LT - Public Water Works (Above 40 kW)	555	Rs/kVA/mth	176	7.28	1.17	149	39,954	8	108	17	-	134	9.02
LT III: LT - Public Water Works (Sub-Total)	54,542	-	-	-	-	926	1,81,846	29	404	109	-	542	5.85
LT IV(A): LT - AG Un-metered- Pumpsets (Category 1 Zones)	0	0	-	-	-	-	-	-	-	-	-	-	
(a) 0 - 5 HP	555908	Rs/HP/mth	467	-	117.00	2,337	27,86,735	1,561	-	391	-	1,953	
(b) > 5 HP - 7.5 HP	131244	Rs/HP/mth	504	-	117.00	335	6,57,917	398	-	92	-	490	
(c) Above 7.5 HP	0	Rs/HP/mth	566	-	117.00	60	-	-	-	-	-	-	
LT IV(A): LT - AG Un-metered- Pumpsets (Category 2 Zones)	-	-	-	-	-	-	-	-	-	-	-	-	
(a) 0 - 5 HP	5,84,163	Rs/HP/mth	361	-	117.00	5,205	29,28,372	1,267	-	411	-	1,678	
(b) > 5 HP - 7.5 HP	1,98,401	Rs/HP/mth	395	-	117.00	744	9,94,572	471	-	140	-	611	

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		Demand/ Fixe	d Charges	Variable	Charges				Full year	r revenue (Rs	s. Crore)		Average
Category	No. of consumers	Units	Demand/ Fixed Charges	Energy Charges (Rs./unit)*	Wheeling Charge (Rs/ Unit)\$	Sales in MU/ MVAh #	Contract Demand in KVA/MVA	Fixed / Demand Charge	Energy Charge	Wheeling Charge	ToD Charges	Net Revenue	Billing Rate (Rs/kWh)
(c) Above 7.5 HP	-	Rs/HP/mth	457	-	117.00	36	-	-	-	-	-	-	
LT IV(A): LT - AG Un-metered- Pumpsets (Sub-Total)													
LT IV(B): LT -AG Metered-Pumpsets	27,82,070	Rs/HP/mth	47	3.00	1.17	18,429	1,54,15,399	869	5,533	2,160	-	8,563	4.65
LT IV(C): LT - AG Metered-Others	28,709	Rs/KW/mth	129	5.06	1.17	235	2,68,727	42	119	28	-	188	8.00
LT IV - LT - Agriculture (Sub-Total)	42,80,495	-	-	-	-	27,382	2,30,51,722	4,608	5,652	3,222	-	13,482	4.92
LT V (A): LT - Industry - Powerlooms													
(i): 0-20 kW	29,754	Rs/Conn/mth	530	5.83	1.17	412	1,33,735	19	240	48	-	307	7.46
(ii): Above 20 kW	4,670	Rs/kVA/mth	353	6.91	1.17	1,584	2,74,611	116	1,094	186	(34.37)	1,362	8.60
LT V (A): LT - Industry - Powerlooms Total	34,424	-	-	-	-	1,996	4,08,346	135	1,334	234	(34.37)	1,669	8.36
LT V(B): LT - Industry - General	-												
(i): 0-20 kW	2,59,589	Rs/Conn/mth	530	5.98	1.17	3,074	26,69,943	165	1,837	360	-	2,362	7.69
(ii): Above 20 kW	61,646	Rs/kVA/mth	353	7.08	1.17	4,734	22,75,444	964	3,353	555	(10.84)	4,861	10.27
LT V(B): LT - Industry - General Total	3,21,235	-	-	-	-	7,808	49,45,387	1,129	5,190	915	(10.84)	7,224	9.25
LT V: LT - Industry Total	3,55,659	-	-	-	-	9,804	53,53,733	1,264	6,524	1,149	(45.21)	8,892	9.07
LT VI (A) Street Light-Gram Panchayat, A,B&C Class MCs	68,378	Rs/KW/mth	129	6.63	1.17	553	2,88,654	45	367	65	-	476	8.61
LT VI (B) Street Light - Municipal Corporation Areas	29,811	Rs/KW/mth	129	8.07	1.17	343	2,48,735	39	277	40	-	356	10.36
LT VI Street Light (Sub-Total)	98,188	-	-	-	-	896	5,37,390	83	644	105	-	832	9.28
LT VII (A) Public Services-Government													
(i) 0-20 kW	41,394	Rs/Conn/mth	388	4.13	1.17	58	62,452	19	24	7	-	50	8.64
(ii) 20 kW-50 kW	485	Rs/kVA/mth	388	5.94	1.17	13	6,968	3	8	1	(0.19)	12	9.53
(iii) Above 50 kW	200	Rs/kVA/mth	388	7.45	1.17	16	9,667	5	12	2	(0.15)	18	11.36

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		Demand/ Fixe	d Charges	Variable	Charges				Full year	r revenue (Rs	s. Crore)		Average
Category	No. of consumers	Units	Demand/ Fixed Charges	Energy Charges (Rs./unit)*	Wheeling Charge (Rs/ Unit)\$	Sales in MU/ MVAh #	Contract Demand in KVA/MVA	Fixed / Demand Charge	Energy Charge	Wheeling Charge	ToD Charges	Net Revenue	Billing Rate (Rs/kWh)
LT VII (A) Public Services- Government (Sub-Total)	42,078	-	-	-	-	86	79,087	27	43	10	(0.34)	80	9.27
LT VII (B) Public Services-Others													
(i) 0-20 kW	68,103	Rs/Conn/mth	422	5.94	1.17	345	2,49,126	34	205	40	-	280	8.11
(ii) 20 kW-50 kW	2,604	Rs/kVA/mth	422	9.40	1.17	130	51,637	26	122	15	(0.96)	163	12.51
(iii) Above 50 kW	1,275	Rs/kVA/mth	422	9.74	1.17	185	60,081	30	180	22	(1.18)	231	12.49
LT VII (B) Public Services-Others (Sub-Total)	71,981	-	-	-	-	660	3,60,843	91	507	77	(2.15)	674	10.20
LT VII Public Services	1,14,059	-	-	-	-	747	4,39,930	118	551	88	(2.48)	754	10.10
LT VIII – Electric Vehicle Charging Station	330	Rs/kVA/mth	75	6.08	1.17	2	9,100	1	1	0	0.02	2	11.00
Sub-Total LT Category	2,70,01,334	-	-	-	-	72,745	5,88,97,009	10,324	37,829	8,533	(41.83)	56,643	7.79
Distribution Franchisees													
Bhiwandi	-	-	-	4.90	-	3,892	-	-	-	-	-	2,592	6.66
Thane	-	-	-	-	-	770	-	-	1	-	-	529	6.86
Malegaon	-	-	-	-	-	1,281	-	-	1	-	-	697	5.44
Stand By Charges	-	-	-	-	-	-	-	-	396	-	-	396	-
LF/ Incentives/Discount	-	-	-	-	-	-	-	-	(605)	-	-	(605)	-
MSEDCL Total Revenue	2,70,24,124	-	-	-	-	1,26,533	7,02,63,718	16,721	76,884	10,557	(932.88)	1,07,047	8.46

ANNEXURE – III:- REVENUE

Revenue from revised Tariffs effective from 1 April, 2024

		Demand/ Fixed		Variable		12 022			Full vear	revenue (Rs.	. Crore)		
Category	No. of consumers	Units	Demand/ Fixed Charges	Energy Charges (Rs./unit)*	Wheeling		Contract Demand in KVA/MVA	Fixed / Demand Charge	Energy Charge	Wheeling Charge	ToD Charges	Net Revenue	Average Billing Rate (Rs/kWh)
HT Category													
HT I(A): HT - Industry (General)	14,780	Rs/kVA/mth	549	8.36	0.60	41,482	95,26,362	6,276	34,679	1,699	(851.20)	41,803	10.08
HT I(C): HT - Industry (Seasonal)	611	Rs/kVA/mth	549	8.68	0.60	195	77,550	51	169	12	(2.39)	229	11.77
HT I - Industry (Sub-Total)	15,391					41,677	96,03,912	6,327	34,848	1,711	(853.58)	42,032	10.09
HT II: HT - Commercial	3,214	Rs/kVA/mth	549	13.21	0.60	2,108	5,86,513	386	2,784	122	(8.26)	3,285	15.58
HT III: HT - Railways/Metro/Monorail Traction	121	Rs/kVA/mth	549	7.53	0.60	130	42,373	28	98	6	1	132	10.11
HT IV: HT - Public Water Works (PWW)	1,061	Rs/kVA/mth	549	7.76	0.60	1,997	3,40,972	225	1,550	112	(38.24)	1,848	9.25
HT V(A): HT - Agriculture Pumpsets	969	Rs/kVA/mth	97	5.78	0.60	911	4,04,899	47	527	21	1	595	6.54
HT V(B)): HT - Agriculture Others	471	Rs/kVA/mth	97	7.99	0.60	292	85,385	10	233	17	-	260	8.93
HT VI: HT - Group Housing Societies (Residential)	256	Rs/kVA/mth	438	7.16	0.60	243	55,444	29	174	14	-	217	8.96
HT VIII(A): HT - Public Services- Government	446	Rs/kVA/mth	549	10.03	0.60	369	88,512	58	370	22	(4.30)	446	12.09
HT VIII(B): HT - Public Services-Others	1,182	Rs/kVA/mth	549	10.93	0.60	928	2,34,111	154	1,015	49	(11.86)	1,206	13.00
HT - MSPGCL-Aux Supply	34	Rs/kVA/mth	-	-	-	482	2,40,724	-	-	-	-	-	_
HT IX: HT – Electric Vehicle Charging Station	16	Rs/kVA/mth	80	7.40	0.60	65	41,089	4	48	4	1	56	8.60
Sub-Total HT Category	23,160					49,201	1,17,23,932	7,269	41,646	2,079	(916.24)	50,077	10.18
LT Category													
LT I(A): LT - Residential-BPL Category (0-30 units)	1,97,234	Rs/conn/mth	34	1.56	-	65	31,525	8	10	-	-	18	2.80
LT I(B): LT - Residential	-	-	-	-	-	-	2,56,47,633	-	-	-	-	-	-
0-100	1,42,62,697	Rs/conn/mth	128	4.71	1.17	17,332	-	2,191	8,164	2,033	-	12,387	7.15
101-300	51,80,575	Rs/conn/mth	128	10.29	1.17	7,138	-	796	7,347	837	-	8,980	12.58

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		Demand/ Fixed	Charges	Variable	Charges				Full year	revenue (Rs.	. Crore)		Average
Category	No. of consumers	Units	Demand/ Fixed Charges	Energy Charges (Rs./unit)*	Wheeling Charge (Rs/ Unit)\$		Contract Demand in KVA/MVA	Fixed / Demand Charge	Energy Charge	Wheeling Charge	ToD Charges	Net Revenue	Billing Rate (Rs/kWh)
301-500	8,42,929	Rs/conn/mth	128	14.55	1.17	1,095	-	129	1,593	128	-	1,851	16.90
Abive 500	3,05,767	Rs/conn/mth	128	16.64	1.17	1,196	-	47	1,990	140	1	2,177	18.21
Three Phase Connection	-	Rs/conn/mth	424	-	-	-	-	-	1	1	1	-	-
LT I: LT - Residential (Sub-Total)	2,07,89,201	-	-	-	-	26,826	2,56,79,158	3,171	19,104	3,139	-	25,414	9.47
LT II(A): LT - Non-Residential (0-20 kW)	19,58,161	Rs/kVA/mth	517	8.52	1.17	5,152	41,67,265	1,215	4,390	604	-	6,209	12.05
LT II(B): LT - Non-Residential (>20 kW and ≤ 50 kW)	24,558	Rs/kVA/mth	517	13.01	1.17	943	3,65,289	227	1,227	111	2.24	1,566	16.61
LT II(C): LT - Non-Residential (Above 50 kW)	6,223	Rs/kVA/mth	517	15.38	1.17	907	2,93,156	182	1,394	106	3.84	1,686	18.60
LT II: LT - Non-Residential (Sub-Total)	19,88,941	-	-	-	-	7,002	48,25,709	1,623	7,011	821	6.08	9,461	13.51
LT III(A): LT - Public Water Works (0-20 kW)	53,977	Rs/kVA/mth	129	4.09	1.17	699	1,15,254	18	286	82	-	385	5.52
LT III(B): LT - Public Water Works (>20 kW-40 kW)	1,114	Rs/kVA/mth	156	6.33	1.17	110	33,048	6	70	13	-	89	8.06
LT III (C): LT - Public Water Works (Above 40 kW)	567	Rs/kVA/mth	194	8.40	1.17	155	41,760	10	130	18	-	158	10.20
LT III: LT - Public Water Works (Sub- Total)	55,657	-	-	-	-	963	1,90,062	34	485	113	-	632	6.56
LT IV(A): LT - AG Un-metered-Pumpsets (Category 1 Zones)	0	0	-	-	-	-	-	-	-	-	-	-	
(a) 0 - 5 HP	555908	Rs/HP/mth	563	-	117.00	2,337	27,86,735	1,884	1	391	1	2,275	
(b) > 5 HP - 7.5 HP	131244	Rs/HP/mth	607	-	117.00	335	6,57,917	479	1	92	1	572	
(c) Above 7.5 HP	0	Rs/HP/mth	683	-	117.00	60	-	-	-	-	-	-	
LT IV(A): LT - AG Un-metered-Pumpsets (Category 2 Zones)	-	-	-	-	-	-	-	-	-	-	-	-	
(a) 0 - 5 HP	5,84,163	Rs/HP/mth	435	-	117.00	5,205	29,28,372	1,529	-	411	-	1,940	
(b) > 5 HP - 7.5 HP	1,98,401	Rs/HP/mth	476	-	117.00	744	9,94,572	568	-	140	-	707	
(c) Above 7.5 HP	-	Rs/HP/mth	551	-	117.00	36	-	-	-	-	-	-	

		Demand/ Fixed	Charges	Variable	Charges				Full year	revenue (Rs.	. Crore)		Average
Category	No. of consumers	Units	Demand/ Fixed Charges	Energy Charges (Rs./unit)*	Wheeling Charge (Rs/ Unit)\$		Contract Demand in KVA/MVA	Fixed / Demand Charge	Energy Charge	Wheeling Charge	ToD Charges	Net Revenue	Billing Rate (Rs/kWh)
LT IV(A): LT - AG Un-metered- Pumpsets (Sub-Total)													
LT IV(B): LT -AG Metered-Pumpsets	28,42,723	Rs/HP/mth	52	3.39	1.17	18,798	1,57,23,708	981	6,366	2,205	-	9,552	5.08
LT IV(C): LT - AG Metered-Others	28,709	Rs/KW/mth	142	5.71	1.17	252	2,82,165	48	144	30	-	222	8.79
LT IV - LT - Agriculture (Sub-Total)	43,41,148	-	-	-	-	27,768	2,33,73,468	5,489	6,510	3,269	-	15,268	5.50
LT V (A): LT - Industry - Powerlooms													
(i): 0-20 kW	29,754	Rs/Conn/mth	583	6.01	1.17	418	1,33,735	21	251	49	-	321	7.68
(ii): Above 20 kW	4,670	Rs/kVA/mth	388	7.12	1.17	1,608	2,88,342	134	1,145	189	(34.90)	1,433	8.91
LT V (A): LT - Industry - Powerlooms Total	34,424	-	-	1	-	2,026	4,22,077	155	1,396	238	(34.90)	1,754	8.65
LT V(B): LT - Industry - General	-												
(i): 0-20 kW	2,76,458	Rs/Conn/mth	583	6.16	1.17	3,120	27,76,741	193	1,922	366	-	2,481	7.95
(ii): Above 20 kW	65,652	Rs/kVA/mth	388	7.30	1.17	4,806	23,66,463	1,102	3,508	564	(11.00)	5,163	10.74
LT V(B): LT - Industry - General Total	3,42,110	-	-	-	-	7,926	51,43,204	1,295	5,431	930	(11.00)	7,644	9.64
LT V: LT - Industry Total	3,76,534	-	-	-	-	9,953	55,65,281	1,450	6,826	1,167	(45.90)	9,398	9.44
LT VI (A) Street Light-Gram Panchayat, A,B&C Class MCs	69,807	Rs/KW/mth	142	6.83	1.17	553	3,08,824	53	378	65	-	495	8.95
LT VI (B) Street Light - Municipal Corporation Areas	30,434	Rs/KW/mth	142	8.31	1.17	343	2,66,116	45	285	40	-	371	10.80
LT VI Street Light (Sub-Total)	1,00,241	-	-	-	-	896	5,74,940	98	663	105	-	866	9.66
LT VII (A) Public Services-Government													
(i) 0-20 kW	44,892	Rs/kVA/mth	427	4.29	1.17	60	66,200	23	26	7	-	56	9.30
(ii) 20 kW-50 kW	527	Rs/kVA/mth	427	6.18	1.17	13	7,387	4	8	2	(0.20)	13	10.09
(iii) Above 50 kW	217	Rs/kVA/mth	427	7.75	1.17	17	10,248	5	13	2	(0.15)	20	12.01
LT VII (A) Public Services-Government (Sub-Total)	45,636	-	-	-	-	90	83,834	32	47	11	(0.35)	89	9.92
LT VII (B) Public Services-Others													

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		Demand/ Fixed	Charges	Variable	Charges				Full year	revenue (Rs.	. Crore)		Average
Category	No. of consumers	Units	Demand/ Fixed Charges	Energy Charges (Rs./unit)*	Wheeling Charge (Rs/ Unit)\$		Contract Demand in KVA/MVA	Fixed / Demand Charge	Energy Charge	Wheeling Charge	ToD Charges	Net Revenue	Billing Rate (Rs/kWh)
(i) 0-20 kW	74,269	Rs/kVA/mth	464	6.18	1.17	359	2,64,074	41	222	42	1	305	8.51
(ii) 20 kW-50 kW	2,840	Rs/kVA/mth	464	9.78	1.17	135	54,736	30	132	16	(1.00)	177	13.13
(iii) Above 50 kW	1,391	Rs/kVA/mth	464	10.13	1.17	192	63,686	35	195	23	(1.23)	252	13.08
LT VII (B) Public Services-Others (Sub-Total)	78,499	•	-	-	ı	686	3,82,495	107	548	80	(2.23)	734	10.70
LT VII Public Services	1,24,135	•	-	-	•	776	4,66,329	139	595	91	(2.58)	823	10.61
LT VIII – Electric Vehicle Charging Station	363	-	80	6.58	1.17	2	10,010	1	2	0	0.03	3	11.75
Sub-Total LT Category	2,77,76,219	-	-	-	-	74,187	6,06,84,955	12,006	41,197	8,706	(42.37)	61,866	8.34
Distribution Franchisees													
Bhiwandi	-	-	-	-	-	3,923	-	1	-	-	-	2,639	6.73
Thane	1	1	-	-	1	773	-	1	-	1	1	545	7.05
Malegaon	-	-	-	-	-	1,316	-	-	-	-	-	733	5.57
Stand By Charges	-	-	-	-	-	-	-	-	396	-	-	396	-
LF/ Incentives/Discount	-	-	-	-	-	-	-	-	(636)	-	-	(636)	-
MSEDCL Total Revenue	2,77,99,378	-	-	-	-	1,29,399	7,24,08,887	19,275	82,603	10,784	(958.61)	1,15,620	8.94

Note:

Tariff category along with numbering in this Form is kept in line with that approved in MTR Order, which may not be case wherever it is not explicitly mentioned.

^{*} Energy Charge 'Unit' refers Rs/kVAh for all HT Categories and Rs/kWh for all LT Categories

^{\$} Wheeling charges 'Unit' refers Rs/kVAh for all HT Categories and Rs./kWh for all LT Categories except, LT AG - Un-Metered, where Wheeling Charges is in Rs/HP/mth

[#] Sales in Mn kVAh for all HT Categories and MU for all LT Consumer Categories

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ANNEXURE IV – Monthly Approved Stack approved for FY 2023-24 and FY 2024-25

		Apr	-23	May	-23	Jun		Jul-		Aug		Sep		Oct		Nov		Dec	-23	Jan-	-24	Feb	-24	Mar	-24
Generator Name	VC Per unit (Rs./kWh)	Energy (MU)	VC Rs. Cr.)																						
Must Run Stations			011)		011)		C11)		C11)		(21.)		C11)		C11)		011)		011)		(21.)		<i>(11)</i>		<i>(11)</i>
KAPP	2.37	80	19	83	20	80	19	83	20	83	20	80	19	83	20	80	19	83	20	83	20	78	18	83	20
TAPP 1&2	2.66	47	12	49	13	47	12	49	13	49	13	47	12	49	13	47	12	49	13	49	13	45	12	49	13
TAPP 3&4	3.57	231	82	239	85	231	82	239	85	239	85	231	82	239	85	231	82	239	85	239	85	223	80	239	85
SSP	2.05	99	20	103	21	99	20	103	21	103	21	99	20	103	21	99	20	103	21	103	21	96	20	103	21
Pench	2.05	11	2	12	2	11	2	12	2	12	2	11	2	12	2	11	2	12	2	12	2	11	2	12	2
Dodson I	1.68	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1
Dodson II	-	5	-	5	-	5	-	5	-	5	-	5	-	5	-	5	-	5	-	5	-	5	-	5	-
Subhansari Hydro	4.50	65	29	65	29	65	29	65	29	65	29	65	29	65	29	65	29	65	29	65	29	65	29	65	29
Renewable - Non-Solar	5.03	922	464	1,100	554	1,454	732	2,313	1,164	1,603	807	1,011	509	421	212	884	445	1,599	805	1,245	627	1,628	820	1,904	959
Renewable - Solar	3.44	1,188	409	1,293	445	1,134	390	1,049	361	1,102	379	988	340	1,077	371	1,249	430	1,186	408	1,201	414	1,382	476	1,835	632
Hydro (including Ghatghar)	-	500	-	630	-	278	-	241	-	245	-	415	-	525	-	183	-	133	-	207	-	301	-	630	-
Stations under MOD																									
KSTPS VII	1.45	72	10	75	11	72	10	75	11	75	11	72	10	75	11	72	10	75	11	75	11	70	10	75	11
VSTP II	1.54	198	30	204	31	198	30	204	31	204	31	198	30	204	31	198	30	204	31	204	31	191	29	204	31
VSTP IV	1.56	175	27	181	28	175	27	181	28	181	28	175	27	181	28	175	27	181	28	181	28	170	26	181	28
VSTP III	1.59	163	26	168	27	163	26	168	27	168	27	163	26	168	27	163	26	168	27	168	27	157	25	168	27
KSTPS	1.60	369	59	381	61	369	59	381	61	381	61	369	59	381	61	369	59	381	61	381	61	356	57	381	61
VSTP V	1.62	95	15	98	16	95	15	98	16	98	16	95	15	98	16	95	15	98	16	98	16	91	15	98	16
VSTP I	1.64	247	40	255	42	247	40	255	42	255	42	247	40	255	42	247	40	255	42	255	42	239	39	255	42
SIPAT TPS 1	2.17	333	72	344	75	333	72	344	75	344	75	333	72	344	75	333	72	344	75	344	75	322	70	344	75
SIPAT TPS 2	2.42	162	39	167	41	162	39	167	41	167	41	162	39	167	41	162	39	167	41	167	41	156	38	167	41
Lara Chattisgarh - Stg. I - I & II	2.69	161	43	167	45	161	43	167	45	167	45	161	43	167	45	161	43	167	45	167	45	156	42	167	45
GMR Warora/ EMCO	2.71	113	30	116	31	113	30	116	31	116	31	113	30	116	31	113	30	116	31	116	31	109	29	116	31
Koradi 8 to 10	3.08	961	296	993	306	961	296	993	306	993	306	961	296	993	306	961	296	993	306	993	306	929	286	993	306
Rattanindia Amravati	3.18	676	215	698	222	676	215	698	222	698	222	676	215	698	222	676	215	698	222	698	222	653	208	698	222
Sai Wardha	3.25	127	41	131	43	127	41	131	43	131	43	127	41	131	43	127	41	131	43	131	43	123	40	131	43
KORADI - 6	3.32	97	32	100	33	97	32	100	33	100	33	97	32	100	33	97	32	100	33	100	33	94	31	100	33
Chandrapur 8 & 9	3.44	575	198	594	205	575	198	594	205	594	205	575	198	594	205	575	198	594	205	594	205	556	192	594	205
Paras - 3 & 4	3.48	273	95	282	98	273	95	282	98	282	98	273	95	282	98	273	95	282	98	282	98	264	92	282	98
BHUSAWAL 4 & 5	3.71	575	213	594	221	575	213	594	221	594	221	575	213	594	221	575	213	594	221	594	221	556	206	594	221
KhSTPS II	3.60	85	31	88	32	85	31	88	32	88	32	85	31	88	32	85	31	88	32	88	32	82	30	88	32
Adani power 1320 MW	3.78	755	286	781	295	755	286	781	295	781	295	755	286	781	295	755	286	781	295	781	295	730	276	781	295

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	VC Per	Apı	-23	May	-23	Jun	-23	Jul-	23	Aug	-23	Sep	-23	Oct	-23	Nov	-23	Dec	-23	Jan	-24	Feb	-24	Mar	-24
Generator Name	unit (Rs./kWh)	Energy (MU)	VC Rs. Cr.)																						
KHAPARKHEDA 5	4.01	288	115	297	119	288	115	297	119	297	119	288	115	297	119	288	115	297	119	297	119	278	111	297	119
CHANDRAPUR - 3 to 7	4.10	866	355	895	367	866	355	895	367	895	367	866	355	895	367	866	355	895	367	895	367	837	343	895	367
KHAPARKHEDA -1 to 4	4.20	408	171	421	177	408	171	204	86	421	177	408	171	421	177	408	171	421	177	421	177	394	165	421	177
BHUSAWAL - 3	4.41	107	47	111	49	107	47	-	-	111	49	107	47	111	49	107	47	111	49	111	49	104	46	111	49
Gadarwara - I & II	4.37	60	26	62	27	60	26	-	-	62	27	60	26	62	27	60	26	62	27	62	27	58	25	62	27
NASHIK- 3 to 5	4.65	324	151	335	156	324	151	-	-	274	127	324	151	335	156	324	151	335	156	335	156	256	119	335	156
MSTPS-I	4.63	233	108	43	20	219	102	-	1	-	-	233	108	240	111	233	108	11	5	240	111	-	-	240	111
Adani power 125 MW	4.81	72	34	-	-	-	-	-	1	-	-	72	34	74	36	72	34	1	-	74	36	-	-	72	35
Mundra UMPP	4.65	424	197	-	-	-	-	-	-	-	-	339	158	438	204	158	73	-	-	159	74	-	-	-	-
Adani power 1200 MW	4.85	417	202	-	-	-	-	-	-	-	-	-	-	668	324	-	-	-	-	-	-	-	-	-	-
Adani power 440 MW	4.85	-	-	-	-	-	-	-	-	-	-	-	-	16	8	-	-	-	-	-	-	-	-	-	-
MSTPS-II	4.80	-	-	-	-	=	-	-	ı	-	-	-	-	-	-	-	-	ı	-	-	-	-	-	-	-
Parli replacement U 8	5.02	-	-	-	-	=	-	-	ı	-	-	-	-	-	-	-	-	ı	-	-	-	-	-	-	-
PARLI UNIT-6 & 7	5.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IPP - JSW	5.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Khargone - I & II	5.04	-	-	-	-	=	-	-	ı	-	-	-	-	-	-	-	-	ı	-	-	-	-	-	-	-
Solapur - I & II	5.14	-	-	-	-	=	-	-	ı	-	-	-	-	-	-	-	-	ı	-	-	-	-	-	-	-
GTPS URAN	6.76	-	-	-	-	=	-	-	ı	-	-	-	-	-	-	-	-	ı	-	-	-	-	-	-	-
GANDHAR	14.84	-	-	-	-	=	-	-	-	=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
KAWAS	18.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

The above table depicts projection of month-wise MoD stack based on approved variable charge for FY 2023-24. However, actual operation of MoD stack shall be governed as per, MERC DSM Regulations, 2019, and the State Grid Code and amendments thereof. Accordingly the actual MoD stack shall vary based on the energy charge inclusive of FAC, if any, of various generating stations.

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	VC Per	Apr	-24	May	-24	Jun-	24	Jul-	24	Aug	-24	Sep	-24	Oct	-24	Nov	-24	Dec-	-24	Jan	-25	Feb	-25	Mar	r-25
Generator Name	unit (Rs./kWh)	Energy (MU)	VC Rs. Cr.)																						
Must Run Stations					ĺ				ĺ										ĺ						
KAPP	2.49	80	20	83	21	80	20	83	21	83	21	80	20	83	21	80	20	83	21	83	21	78	19	83	21
TAPP 1&2	2.79	94	26	97	27	94	26	97	27	97	27	94	26	97	27	94	26	97	27	97	27	91	25	97	27
TAPP 3&4	3.74	231	86	239	89	231	86	239	89	239	89	231	86	239	89	231	86	239	89	239	89	223	84	239	89
SSP	2.05	99	20	103	21	99	20	103	21	103	21	99	20	103	21	99	20	103	21	103	21	96	20	103	21
Pench	2.05	11	2	12	2	11	2	12	2	12	2	11	2	12	2	11	2	12	2	12	2	11	2	12	2
Dodson I	1.68	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1
Dodson II	-	5	-	5	-	5	-	5	-	5	-	5	-	5	-	5	-	5	-	5	-	5	-	5	-
Subhansari Hydro	4.50	65	29	65	29	65	29	65	29	65	29	65	29	65	29	65	29	65	29	65	29	65	29	65	29
Renewable - Non-Solar	4.96	912	452	1,089	540	1,420	704	2,269	1,126	1,581	784	1,000	496	406	201	939	466	1,680	833	1,303	646	1,655	821	2,031	1,007
Renewable - Solar	3.38	1,547	523	1,683	569	1,476	499	1,366	462	1,434	485	1,287	435	1,402	474	1,625	550	1,544	522	1,564	529	1,799	608	2,389	808
Hydro (including Ghatghar)	-	500	-	630	-	278	-	241	-	245	-	415	-	525	-	183	-	133	-	207	-	301	-	630	-
Stations under MOD																									
KSTPS VII	1.48	72	11	75	11	72	11	75	11	75	11	72	11	75	11	72	11	75	11	75	11	70	10	75	11
VSTP II	1.58	198	31	204	32	198	31	204	32	204	32	198	31	204	32	198	31	204	32	204	32	191	30	204	32
VSTP IV	1.59	175	28	181	29	175	28	181	29	181	29	175	28	181	29	175	28	181	29	181	29	170	27	181	29
VSTP III	1.62	163	26	168	27	163	26	168	27	168	27	163	26	168	27	163	26	168	27	168	27	157	26	168	27
KSTPS	1.64	369	60	381	62	369	60	381	62	381	62	369	60	381	62	369	60	381	62	381	62	356	58	381	62
VSTP V	1.66	95	16	98	16	95	16	98	16	98	16	95	16	98	16	95	16	98	16	98	16	91	15	98	16
VSTP I	1.67	247	41	255	43	247	41	255	43	255	43	247	41	255	43	247	41	255	43	255	43	239	40	255	43
SIPAT TPS 1	2.27	333	76	344	78	333	76	344	78	344	78	333	76	344	78	333	76	344	78	344	78	322	73	344	78
SIPAT TPS 2	2.55	162	41	167	43	162	41	167	43	167	43	162	41	167	43	162	41	167	43	167	43	156	40	167	43
GMR Warora/ EMCO	2.77	113	31	116	32	113	31	116	32	116	32	113	31	116	32	113	31	116	32	116	32	109	30	116	32
Lara Chattisgarh - Stg. I - I & II	2.80	161	45	167	47	161	45	167	47	167	47	161	45	167	47	161	45	167	47	167	47	156	44	167	47
Koradi 8 to 10	3.12	961	300	993	310	961	300	993	310	993	310	961	300	993	310	961	300	993	310	993	310	929	290	993	310
Rattanindia Amravati	3.26	676	221	698	228	676	221	698	228	698	228	676	221	698	228	676	221	698	228	698	228	653	213	698	228
Sai Wardha	3.33	127	42	131	44	127	42	131	44	131	44	127	42	131	44	127	42	131	44	131	44	123	41	131	44
KORADI - 6	3.37	97	33	100	34	97	33	100	34	100	34	97	33	100	34	97	33	100	34	100	34	94	32	100	34
Chandrapur 8 & 9	3.44	575	198	594	205	575	198	594	205	594	205	575	198	594	205	575	198	594	205	594	205	556	191	594	205
Paras - 3 & 4	3.51	273	96	282	99	273	96	282	99	282	99	273	96	282	99	273	96	282	99	282	99	264	93	282	99
BHUSAWAL 4 & 5	3.75	575	216	594	223	575	216	594	223	594	223	575	216	594	223	575	216	594	223	594	223	556	208	594	223
KhSTPS II	3.62	85	31	88	32	85	31	88	32	88	32	85	31	88	32	85	31	88	32	88	32	82	30	88	32
Adani power 1320 MW	3.88	755	293	781	303	755	293	781	303	781	303	755	293	781	303	755	293	781	303	781	303	730	283	781	303
KHAPARKHEDA 5	4.02	288	116	297	119	288	116	297	119	297	119	288	116	297	119	288	116	297	119	297	119	278	112	297	119
CHANDRAPUR - 3 to 7	4.10	866	355	895	367	866	355	895	367	895	367	866	355	895	367	866	355	895	367	895	367	837	343	895	367
KHAPARKHEDA -1 to 4	4.22	408	172	421	178	408	172	32	13	421	178	408	172	421	178	408	172	421	178	421	178	394	166	421	178

Approval of Final Truing-up for FY 2019-20, FY 2020-21 and FY 2021-22, Provisional Truing-up for FY 2022-23 and Revised Projections & Tariff for FY 2023-24 to FY 2024-25 for MSEDCL

	VC Per	Apr	-24	May	-24	Jun-	24	Jul	-24	Aug	-24	Sep	-24	Oct	-24	Nov	-24	Dec-	24	Jan-	25	Feb	-25	Mar	-25
Generator Name	unit (Rs./kWh)	Energy (MU)	VC Rs. Cr.)																						
BHUSAWAL - 3	4.46	107	48	111	49	107	48	-	-	111	49	107	48	111	49	107	48	111	49	111	49	68	31	111	49
NASHIK- 3 to 5	4.64	324	150	150	70	324	150	-	-	130	60	324	150	335	155	324	150	72	34	335	155	-	-	140	65
Gadarwara - I & II	4.54	60	27	-	-	59	27	-	-	1	-	60	27	62	28	60	27	-	-	62	28	-	-	-	-
Adani power 125 MW	4.93	72	35	-	-	1	-	-	-	1	-	72	35	74	36	72	35	-	-	74	36	-	-	-	-
Mundra UMPP	4.77	424	202	-	-	1	-	-	-		-	385	183	438	209	46	22	-	-	68	33	-	-	-	-
Adani power 1200 MW	4.97	395	196	-	-	-	-	-	-	-	-	-	-	668	332	-	-	-	-	-	-	-	-	-	-
Adani power 440 MW	4.98	-	-	-	-	-	-	-	-	-	-	-	-	53	26	-	-	-	-	-	-	-	-	-	-
Parli replacement U 8	5.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MSTPS-I	4.88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PARLI UNIT-6 & 7	5.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Khargone - I & II	5.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IPP - JSW	5.29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MSTPS-II	5.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Solapur - I & II	5.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GTPS URAN	6.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GANDHAR	14.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
KAWAS	18.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

The above table depicts projection of month-wise MoD stack based on approved variable charge for FY 2024-25. However, actual operation of MoD stack shall be governed as per, MERC DSM Regulations, 2019, and the State Grid Code and amendments thereof. Accordingly the actual MoD stack shall vary based on the energy charge inclusive of FAC, if any, of various generating stations.