Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
World Trade Centre, Centre No.1, 13th Floor, Cuffe Parade, Mumbai – 400 005
Tel. No. 022 6987 6666
E-mail: mercindia@merc.gov.in
Website: www.merc.gov.in

CASE No. 186 of 2024

In the matter of

Case of Maharashtra State Load Despatch Centre for Truing up of Annual Fixed Charges (AFC) for FY 2022-23 and FY 2023-24, provisional Truing up of AFC for FY 2024-25 and determination of AFC and Fees & Charges for the 5th Control Period from FY 2025-26 to FY 2029-30

Coram

Sanjay Kumar, Chairperson
Anand M. Limaye, Member
Surendra J. Biyani, Member

ORDER

Date: 28 March, 2025

In accordance with the first proviso to Section 31(2) of the Electricity Act (**EA**), 2003, the Maharashtra State Electricity Transmission Co. Ltd. (**MSETCL**), which is the State Transmission Utility (**STU**) in Maharashtra, operates the Maharashtra State Load Despatch Centre (**MSLDC**).

MSLDC has filed a Petition for Truing up of Annual Fixed Charges (**AFC**) for FY 2022-23 and FY 2023-24, provisional Truing up of AFC for FY 2024-25 and determination of AFC and Fees and Charges for the 5th Control Period from FY 2025-26 to FY 2029-30. The Truing-up of the **AFC** for FY 2022-23 and FY 2023-24 and provisional truing up of the AFC for FY 2024-25 is being considered under the Maharashtra Electricity Regulatory Commission (**MERC**) (Multi Year Tariff) Regulations, 2019 (**MYT** Regulations 2019), while the determination of the AFC and Fees & Charges for the 5th Control Period from FY 2025-26 to FY 2029-30 is being considered under the MERC (Multi Year Tariff) Regulations, 2024 (**MYT** Regulations 2024).

The Commission, in exercise of the powers vested in it under Sections 61 and 62 of the EA, 2003 and all other powers enabling it in this behalf, and after taking into consideration the submissions made by MSLDC, issues raised during the public consultation process and all other relevant material, has approved the Truing up of AFC for FY 2022-23 and FY 2023-24, provisional Truing up of AFC for FY 2024-25 as per MERC MYT Regulations 2019 and determination of AFC and Fees & Charges for the 5th Control Period from FY 2025-26 to FY 2029-30 as per the MERC MYT Regulations 2024.

Table of Contents

List of Tables

List of Abbreviations

A&G	Administration and General
ACDS	Adaptive Cyber Defence System
ADMS	Automatic Demand Management System
AFC	Annual Fixed Charges
ALDC	Area Load Despatch Centre
AMC	Annual Maintenance Contract
APTEL	Appellate Tribunal for Electricity
ARR	Aggregate Revenue Requirement
AVEVA PI	(Software System, should be defined if required)
BSM	Balancing and Settlement Mechanism
CAGR	Compounded Annual Growth Rate
Capex	Capital Expenditure
CERC	Central Electricity Regulatory Commission
CPD	Co-incident Peak Demand
CPI	Consumer Price Index
CSOC	Cyber Security Operations Centre
DA	Dearness Allowance
DC	Data Concentrator
DPR	Detailed Project Report
DSM	Deviation Settlement Mechanism
EPABX	Electronic Private Automatic Branch Exchange
FBSM	Final Balancing Settlement Mechanism
FOLD	Forum of Load Dispatchers
FOR	Forum of Regulators
GAMS	General Algebraic Modelling System
G-DAM	Green Day Ahead Market
GEPL	Gigaplex Estate Pvt. Ltd.
GFA	Gross Fixed Asset

G-TAM	Green Term Ahead Market
HIPS	Host-based Intrusion Prevention System
IEGC	Indian Electricity Grid Code
InSTS	Intra-State Transmission System
IoWC	Interest on Working Capital
LDCD	Load Despatch Centre Development
MBPPL	Mindspace Business Park Pvt. Ltd.
MERC	Maharashtra Electricity Regulatory Commission
MITL	Maharashtra Industrial Township Ltd.
MOD	Merit Order Despatch
MoP	Ministry of Power
MSETCL	Maharashtra State Electricity Transmission Company Limited
MSLDC	Maharashtra State Load Despatch Centre
NCIIPC	National Critical Information Infrastructure Protection Centre
NCPD	Non-Coincident Peak Demand
NLDC	National Load Despatch Centre
NSCS	National Security Council Secretariat
O&M	Operation and Maintenance
POSOCO	Power System Operation Corporation
PSSE	Power System Simulation for Engineering (related to grid studies)
QCA	Qualified Coordinating Agency (related to renewable energy scheduling)
RE-DSM	Renewable Energy Deviation Settlement Mechanism
REMC	Renewable Energy Management Centre
RLDC	Regional Load Despatch Centre
ROE	Return on Equity
RTM	Real-Time Market
RTU	Remote Terminal Unit
SAMAST	Scheduling, Accounting, Metering, and Settlement of Transactions in Electricity
SANTULAN	Likely related to NLDC's regulatory reports (Needs Definition)

SBI	State Bank of India
SCADA	Supervisory Control and Data Acquisition
SCADA-EMS	Supervisory Control and Data Acquisition - Energy Management System
SCUC	Security Constrained Unit Commitment
SIEM	Security Information and Event Management
SITC	Supply, Installation, Testing, and Commissioning
SLDC	State Load Despatch Centre
STOA	Short Term Open Access Users
STU	State Transmission Utility
T&D	Transmission and Distribution
TCR	Transmission Capacity Rights
TSU	Transmission System User
ULDC	Unified Load Despatch Centre
URTDSM	Unified Real-Time Dynamic State Measurement
VAPT	Vulnerability Assessment and Penetration Testing
WBES	Web-Based Energy Scheduling System
WPI	Wholesale Price Index
WRPC	Western Regional Power Committee

1 INTRODUCTION

1.1 Background

1.1.1 MSETCL, which is also the STU in Maharashtra as notified by Govt. of Maharashtra under EA 2003, operates the MSLDC. The MSLDC operates from two centres at Kalwa (Main Centre) and at Ambazari (Area Load Despatch Centre (**ALDC)**).

1.1.2 MSLDC has filed a Petition on 3 November, 2024 for approval of Truing-Up for AFC for FY 2022-23 and FY 2023-24, Provisional Truing-Up of AFC for FY 2024-25 under Regulation 5.1 (b) of the MYT Regulations 2019 and determination of AFC and Fees & Charges for the 5th Control period from FY 2025-26 to FY 2029-30 under Regulation 5.1 (a) of the MYT Regulations, 2024.

1.2 Petition and prayers of MSLDC

1.2.1 The Commission conveyed preliminary data gaps to MSLDC on 9 November 2024 and 10 November 2024. The Technical Validation Session (**TVS**) was held at the Office of the Commission on 27 November, 2024 with the MSLDC officials to discuss the queries raised by the Commission. The list of persons who attended the pre-admittance TVS discussion is at **Appendix** – I. Based on the discussions, MSLDC submitted its replies to the data gaps vide letter dated 18 November 2024. Further MSLDC submitted its Revised Petition incorporating the response to data gaps vide letter dated 03 December 2024.

1.2.2 The main prayers of MSLDC in its Revised Petition are as follows:

"

1. *Admit the MYT Petition in accordance with MERC MYT Regulations, 2024.*
2. *Allow truing-up for FY 2022-23 to FY 2023-24 of Maharashtra State Load Despatch Centre (MSLDC) based on the Audited Accounts and Allocation Statement for the respective financial year, and according to the applicable provisions under MERC (Multi Year Tariff) Regulations, 2019.*
3. *Allow and approve GFA and capitalization in true-up years as per audited account of the Petitioner as per detailed explanation submitted by the Petitioner.*
4. *Allow Provisional true up for FY 2024-25 of MSLDC according to applicable provisions under MERC (Multi Year Tariff) Regulations, 2019.*
5. *Approve O&M expenses as projected by the Petitioner for FY 2025-*

26 to FY 2029-30 during the next control period including impact of additional salary expenses due to introduction of new pay scale and wage revision arrear.

6. *Allow to submit the details in future regarding additional cost implication with respect to employee cost for implementation of recommendations as per "Workforce Adequacy Guidelines for Load Despatch Centres" report.*
7. *Approve MSLDC Charges for FY 2025-26 to FY 2029-30 as per MERC MYT Regulations 2024 that would help in recovery of consolidated ARR for respective years of the Control Period.*
8. *Allow MSLDC to use the LDCD fund, as created by the Hon'ble Commission in earlier MYT Order and MTR Order, for the purpose of financing the capitalization from FY 2022-23 onwards.*
9. *Request to revisit the norms for utilization of LDCD fund in the interest of MSLDC and other stakeholders and request Hon'ble Commission to suggest alternate remedy as felt appropriate so as to ensure adequate proceeds in LDCD fund, to fund the future infrastructure development work of MSLDC.*
10. *Consider the Key Performance Parameters (**KPI**) of FY 2022-23 and FY 2023-24 as submitted in the present Petition and approve the additional RoE on the basis of the KPI data.*
11. *Allow to submit the KPI data for FY 2024-25 onwards based on actual performance after completion of relevant financial year.*
12. *Continue the various charges i.e., Short-term Open Access Application Processing Fees, Registration or Connection Fees, Scheduling Fees/Charges and Re-Scheduling Fees, Renewable Energy Certificate Processing Fees as approved by the Hon'ble Commission in MSLDC MTR Order in Case No. 233 of 2022.*
13. *Approve the SLDC's request for relaxation of certain parameters as sought in the Petition, while approving this Petition.*
14. *Allow the Petitioner to file the mid-term review Petition with other licensees so that the last two years' fees and charges of present control period can be reviewed based on true-up of appropriate years. The same is requested under 'Regulation 149 Power to Relax' of MYT Regulations, 2024.*
15. *Allow the Petitioner for further submission, addition and alteration to this Petition as may be necessary from time to time.*
16. *Grant an opportunity in person before Hon'ble Commission during*

the hearing on the above matter.

17. *Condone any inadvertent omission/errors/short comings and permit the Petitioner to add/change/modify/alter this filing and make future submissions as may be required at a future date."*

1.3 Admission of Petition and Public Consultation Process

1.3.1 The Commission admitted the revised Petition on 04 December 2024 and directed MSLDC to publish a Public Notice in accordance with Section 64 of the EA 2003 in the prescribed abridged form and manner for inviting suggestions/objections on its MYT Petition. The Commission also directed MSLDC to reply expeditiously to all the suggestions and comments received.

1.3.2 MSLDC published the Public Notice inviting suggestions and objections in two daily English newspapers viz Hindustan Times on 08 December 2024 and Indian Express on 09 December 2024 and two Marathi newspapers viz. Punya Nagari, and Pudhari on 09 December 2024. The Petition and its Executive Summary were made available at MSLDC's offices and website (www.mahasldc.in). The Public Notice and Executive Summary of the Petition were also made available on the website of the Commission (www.merc.gov.in) in downloadable format.

1.3.3 The Commission received written suggestions/objections on MSLDC's MTR Petition from six objectors, namely:

(i.) Adani Electricity Mumbai Ltd. (**AEML**)

(ii.) Nidar Utility Panvel LLP (**NUPLLP**)

(iii.) Maharashtra State Electricity Distribution Co. Ltd. (**MSEDCL**)

(iv) Gigaplex Estate Private Limited (**GEPL**)

(v) KRC Infrastructure and Projects Private Limited (**KRCIPPL**)

(vi) Mindspace Business Parks limited (**MBPPL**).

1.3.4 The E-Public Hearing through video conferencing was held on 08 January 2025 at 10:30 Hrs. The list of persons who attended the Public Hearing is at **Appendix – II.**

1.3.5 The Commission has ensured that the due process contemplated under law to ensure transparency and public participation was followed at every stage, and an adequate opportunity was given to all concerned to express their views.

1.3.6 The suggestions and objections made in writing as well as during the e-Public Hearing, along with MSLDC's responses and the Commission's rulings, have been summarized in Section 2 of this Order.

1.4 Organization of the Order

1.4.1 This Order is organized in the following eight Sections:

- **Section 1** sets out the regulatory process undertaken by the Commission.
- **Section 2** sets out the suggestions / objections received, the responses of MSLDC and the Commission's rulings.
- **Section 3** deals with the Truing-up of AFC for FY 2022-23, and FY 2023-24.
- **Section 4** deals with the Provisional Truing-up of AFC for FY 2024-25.
- **Section 5** deals with the forecast for 5th MYT Control Period from FY 2025-26 to FY 2029-30.
- **Section 6** deals with determination of AFC and Fees & Charges and the mechanism for their recovery.
- **Section 7** deals with the compliance of previous directives, and new directives to MSLDC.
- **Section 8** deals with the applicability of the present Order.

2 SUGGESTIONS / OBJECTIONS RECEIVED, MSLDC'S RESPONSES AND COMMISSION'S RULINGS

2.1 Computation of Transmission Capacity Rights (TCR's)

Nidar Utilities Panvel LLP (NUPLLP) submission

2.1.1 NUPLLP stated that Base Transmission Capacity Rights (**TCR**) which is derived from Average of the Co-incident and Non-Coincident Peak demand of the user will play an important role in determining the STU Charges. Therefore, any under or over statement of Base TCRs will result in under / over recovery of transmission charges. NUPLLP further highlighted discrepancies in demand projections for determining the recovery of the MSLDC charges from various TSUs during the MYT Control Period (FY 2025-26 to FY 2029-30) vis-à-vis demand projections considered by the State Transmission Utility (**STU**) in its MYT Petition in Case No. 183 of 2024. The variations arise due to differing methodologies adopted by MSLDC and STU. MSLDC has assumed a flat 5% annual demand growth for each TSU. STU, in the Intra-State Transmission System (**InSTS**) Petition, has adopted the Compound Annual Growth Rate (**CAGR**) method for projecting demand for each TSU. NUPLLP has projected its demand based on data center consumers and past growth. These inconsistencies in estimating the Base TCR could significantly impact SLDC charge recovery. For instance, the variation in demand projections for NUPLLP ranges between 6 MW and 21 MW, leading to notable financial implications.

2.1.2 NUPLLP also stated that each distribution licensee has provided the demand projections of next 10 years under Resource Adequacy Plan (**RAP**) under the MERC (Framework for Resource Adequacy) Regulations 2024, whereby NUPLLP has submitted the same to the Commission on 18 October 2024. The said RAP with projection of 10 years has been submitted to MSLDC also but the same has been totally ignored by MSLDC while projecting the demand of NUPLLP and other TSU.

2.1.3 NUPLLP emphasizes that its demand projections, largely driven by HT Industrial consumers, align more accurately with RAP submitted to the Commission and MSLDC. Ignoring these RAP projections undermines the inherent growth patterns specific to NUPLLP's consumer base. NUPLLP recommends adopting its RAP-based demand estimates for determining SLDC charges to ensure accurate and equitable recovery.

MSLDC's Response

2.1.4 MSLDC clarified that the methodology for projecting the Base TCR is detailed in Chapter 8 of its Petition, adhering to the provisions of Regulation 123 of MERC Regulations, 2024. The Base TCR is calculated as the average of Co-incident Peak Demand (**CPD**) and Non-Coincident Peak Demand (**NCPD**). While projecting the Base TCR for System Users, MSLDC has studied the past four year's data (FY 2020-

21 to FY 2023-24) of sharing of TCR by individual System User and subsequently arrived at Base TCR for the State as whole. For future projections (FY 2025-26 to FY 2029-30), a conservative growth rate of 5% has been applied, with individual system user share is based on prevailing individual share for FY 2024-25.

2.1.5 MSLDC stated that the differences in Base TCR projections between SLDC, STU, and the Respondent stem from varying assumptions and growth rates. MSLDC has also stated that RAP projections represent peak demand and are not directly comparable to Base TCR, which is an average of CPD and NCPD. MSLDC has requested the Commission to review and approve the projections provided, considering the established methodology.

Commission's Analysis and Ruling

2.1.6 The Commission has noted the submission made by NUPLLP regarding the issues pertaining to Transmission Capacity Rights and response of the Petitioner in this regard. The Commission analysed the matter. Without getting into the contentions regarding inconsistency in approach adopted by STU and SLDC in their respective Petitions, the Commission has undertaken the computation of the TCR as per the provisions of the MYT Regulations, 2024. In order to address the concerns of the stakeholders regarding the Base TCR computation, the Commission has considered the actual data of Base TCR for latest 12 months (Jan 2024 to Dec 2024) available with the MSLDC/STU as per proviso 1 of Regulation 83.2 of MYT Regulations, 2024. The Base TCR computation has also been undertaken by the Commission in the InSTS Order in Case No. 208 of 2024 and the outcome of the same has been considered by the Commission in the MSLDC and STU Order as well to maintain consistency in approach in all its Orders.

2.1.7 Regarding the growth rate considered for projecting the Base TCR for the Control period, STU in the InSTS Petition has employed a CAGR method for projecting demand for each TSU. The purpose of RA plan submitted by the utilities is primarily to undertake the power procurement planning including that relating to planning reserve margin (**PRM**) whereas the estimation for Base TCR is the resultant of the demand contribution of the TSUs in the CPD and NCPD. While, the Commission has taken cognisance of the RA plan submitted by the utilities, however, it cannot be adopted as it for the purpose of Base TCR computation. Further, the Commission is also required to ensure consistent approach across all the utilities. Accordingly, the Commission has discussed the approach for projection of the Base TCR for the 5^{th} Control Period in detail in the InSTS Order in Case No. 208 of 2024 and the resultant Base TCR values have been considered in the present MSLDC Order for sharing of the MSLDC charges to ensure consistency in approach across Orders.

2.1.8 NUPLLP has also raised similar contentions in the matter of Case no. 208 of 2024 and the Commission has addressed the concerns therein. The resultant Base TCR values computed in the Order in Case no. 208 of 2024 have also been considered in the present MSLDC Order for sharing of the MSLDC charges to ensure consistency in approach across Orders.

2.2 Evaluation of Share of SLDC Fees to TSUs

AEML's submission

2.2.1 MSLDC has determined a percentage for sharing of total SLDC fees based on average of CPD and NCPD for the period from April 2024 to August 2024 i.e. 5 months. However same needs to be evaluated based on the average of CPD and NCPD for the previous 12 months. Also % share for sharing of TTSC, total STU Fees & SLDC fees should be same as per the % share in total Base TCR as per the provisions of MERC MYT Regulations.

2.2.2 As per Regulation 124 of MYT Regulation 2024, total SLDC fees to be shared in proportion of Adjusted Base TCR.

2.2.3 MSLDC in its formats has projected Adjusted Base TCR i.e. Base TCR excluding Partial Open Access consumers' (**POA**) demand, however MSLDC has not provided the details of POA demand used for evaluating Adjusted Base TCR.

MSLDC's Response:

2.2.4 The current methodology of using a 5-month period from April 2024 to August 2024 was chosen to reflect the most recent and relevant data.

2.2.5 With regard to sharing of total SLDC fees in proportion of Adjusted Base TCR, it is to inform that a meeting was conveyed at MSLDC on 14 August 2024 as per the ruing of the Hon'ble Appellate Tribunal for Electricity (**ATE**) in Appeal No. 9 of 2024 and as per the Commission's letter No. MERC/APTEL/Appeal/2024-25 No. 0472. The representatives of AEML-D, TPC-D and STU were present in the meeting. In the meeting, it was informed by MSLDC that the Distribution licensees will have to provide the required 15 minutes time block wise data of Partial Open Access consumers' billed demand for the past 12 months for calculating the Base TCR of TSU's. Except MSEDCL, all other Distribution Licensees have failed to provide data to STU.

2.2.6 After the receipt of data of Partial Open Access consumers' billed demand in 15 minute time block for past 12 months, calculation of CPD-NCPD after excluding the PoA consumers demand can be made.

Commission's Analysis and Ruling

2.2.7 The Commission has taken note of submission by AEML-D and response by MSLDC. The Commission has considered CPD and NCPD data available for the last 12 months i.e. from January 2024 to December 2024 which will reflect the most recent and relevant data.

2.2.8 With reference to the availability of data of Partial Open Access consumers, as submitted by MSLDC, AEML-D and TPC-D have expressed their inability to furnish 15-minute demand data as their POA consumer's OA Generators are located in MSEDCL's area and MSEDCL has not provided 15 minute generation data of AEML-D and TPC-D's POA consumers. The Commission is of the view that, AEML-D and TPC-D should have coordinated with STU and MSLDC to submit their 15 Minute data. The Commission notes that the concerned stakeholders involved in this matter have not taken enough efforts to resolve the issue of non-availability of the POA data through close coordination amongst themselves.

2.2.9 As per the provisions of the State Grid Code, such issues are expected to be taken up in the Grid Coordinate Committee (GCC) which has participation from all concerned stakeholders. The Commission has already specified the regulatory requirements in the MYT Regulations 2024 considering the directions of the Hon'ble APTEL and hence it is the responsibility of the implementing agencies to ensure that appropriate mechanism is established for collection of the necessary data required for implementation of the provisions of the Regulations. Further, the Commission is aware that, STU has preferred the Appeal (in DFR No. 535 0f 2024) seeking review and clarifications on the Hon'ble APTEL Judgement dated 5 July, 2024 passed in Appeal No. 95 of 2024 by way of filing the Review Petition and prayed to consider difficulties in implementing the computation method of Base TCR of Distribution Licensees excluding POA consumer's demand. Further, STU has also prayed the Hon'ble APTEL to modify/ clarify the operative part of the impugned Judgement dated 5 July, 2024. Hence, the Commission directs STU/SLDC to take up this issue of availability of POA data in the GCC and formulate a methodology for collation of billed Open Access Demand of Partial Open Access consumers from all the Distribution Licensees for onward submission to STU and MSLDC on monthly basis for calculating Adjusted Base TCR. The outcome of the appeal filed with the Hon'ble APTEL should also be appropriately considered while finalising the methodology.

2.2.10 Further, this issue has also been discussed in the InSTS Order in Case No. 208 of 2024 and the approach adopted therein in the matter of computation of Adjusted Base TCR has also been considered in the present Order to ensure consistency in approach.

2.3 Incorrect evaluation of share of SLDC Fees charges based on adjusted Base TCR

AEML's submission

2.3.1 The evaluation of SLDC fees based on the adjusted Base TCR has been deemed incorrect due to a misinterpretation of the methodology. According to the Hon'ble Appellate Tribunal for Electricity (**APTEL**) Judgment and the MYT Regulations, 2024, a portion of the SLDC fees, equivalent to the share of POA (Partial Open Access) demand, must be set aside, with the remaining fees distributed among TSUs (Transmission System Users) based on their adjusted Base TCR. The same understanding is also reflected in the SOR for MYT Regulations issued by the Commission.

2.3.2 However, MSLDC's methodology is only resulting in allocating the entire SLDC Fees in the revised ratio of Base TCRs, which only changes the ratios among Long-term TSUs, without reducing their liability of SLDC Fees due to the share of demand of their POA consumers.

2.3.3 A proper methodology requires calculating the adjusted SLDC fees by factoring in both normal and adjusted Base TCRs, ensuring a fair distribution. The absence of data on POA demand has further complicated the process, prompting a review Petition from the STU to clarify the APTEL Judgment and difficulties faced by STU in determination of the adjusted Base TCR due to non-availability of POA demand at 15 min Demand. Further, in its prayers in the InSTS MYT Petition, STU has requested the Commission to set proper guidelines and suitable mechanisms for evaluating Adjusted Base TCR based on difficulties being faced by it in getting the demand data.

2.3.4 AEML-D requested the Commission to either apply the said judgment by (a) directing MSEDCL to provide GCN containing 15 minute data for POA consumers of all distribution licensees or, in the interim, consider uniform allocation of ToD based GCN demand over 15 minute slots and determining Adjusted Base TCR for each TSU accordingly, and (b) determining Adjusted SLDC Fees for recovery from Long-term TSUs, using Adjusted Base TCRs as suggested in the comments shared by AEML-D. AEML-D has proposed interim measures, including uniform allocation of GCN demand or retaining the current Base TCR determination practices, to ensure compliance with the Judgment of the Hon'ble ATE while addressing the data availability challenges.

MSLDC's Response:

2.3.5 The reasons for not using the Adjusted Base TCR while sharing the total SLDC fees among the TSUs in explained in earlier reply to AEML-D query in this matter.

2.3.6 Once the 15 minutes time block-wise billed demand data for POA consumers is made available to the Petitioner, the Petitioner would follow the methodology for computation of annual MSLDC Charges payable by Transmission System Users based on Adjusted Base TCR as specified in Regulation 124.2 of MYT Regulations 2024.

2.3.7 In view of the above, the Petitioner request the Commission to continue with the present methodology of computation of annual MSLDC Charge payable by

Transmission System Users based on Base TCR as specified in Regulation 124.1 of MYT Regulations 2024.

Commission's Analysis and Ruling

2.3.8 The Commission has noted the objection by AEML-D and response of MSLDC. The Commission has already expressed its opinion in the matter of non-availability of the POA data in para 2.2.8 and 2.2.9 of this Order which is applicable in this issue as well.

2.3.9 Further the APTEL in its Order in Appeal No. 95 of 2024 & IA No. 2630 of 2023 dated 5 July 2024 has directed the following:

> *"However, in line with the MYT Regulations 2019, Base TCR as average of Coincident Peak Demand and Non-Coincident Peak Demand for TSUs as projected for 12 monthly period of each year (t) of the Control Period, excluding demand of POA should be considered."*

2.3.10 Accordingly, the Hon'ble APTEL has only directed STU to adjust the POA data from the Base TCR information to compute the Adjusted Base TCR and no other adjustments to the TTSC or SLDC/STU Fees & charges has been suggested. Accordingly, the Commission has adopted the same methodology for computing the Adjusted Base TCR for sharing of the relevant fees and charges. The approach adopted by the Commission for computation of the Adjusted Base TCR in the InSTS Order in Case No. 208 of 2024 has been considered in the MSLDC Order as well to ensure consistency in approach across various Orders.

2.4 Consideration of incorrect demand data for FY 2023-24 and demand projections for Control Period

Gigaplex Estate Private Limited's (GEPL) Submissions

2.4.1 MSLDC has considered the CPD and NCPD data for TCR and sharing of MSLDC Charges calculations for GEPL for FY 2023-24 and FY 2024-25. GEPL has noted some variations in the aforesaid data. The comparison of the data considered by MSLDC and the data as per GEPL's database is as follows:

Data for FY 2023-24: MSLDC V/S GEPL data

Particulars	CPD		NCPD	
FY 23-24	MSLDC Data (MW)	GEPL Data (MW)	MSLDC Data (MW)	GEPL Data (MW)
Apr	4.93	4.78	5.38	5.23
May	4.99	4.86	5.76	5.63
June	5.18	5.09	5.54	5.43
July	4.54	4.44	4.98	4.87
August	4.36	4.3	4.86	4.74

Particulars	**CPD**		**NCPD**	
FY 23-24	**MSLDC Data (MW)**	**GEPL Data (MW)**	**MSLDC Data (MW)**	**GEPL Data (MW)**
September	4.51	4.45	5.25	5.23
October	4.35	4.32	5.28	5.14
November	4.41	4.3	5.06	4.97
December	3.52	3.58	4.74	4.66
January	3.74	3.71	4.69	4.54
February	4	3.93	4.78	4.7
March	4.36	4.26	4.96	4.85
Total	**52.89**	**52.02**	**61.28**	**59.99**
Average	**4.41**	**4.34**	**5.11**	**5.00**

Data for FY 2024-25: MSLDC V/S GEPL data

Particulars	**CPD**		**NCPD**	
FY 24-25	**SLDC Data (MW)**	**GEPL Data (MW)**	**SLDC Data (MW)**	**GEPL Data (MW)**
April	4.98	4.97	5.33	5.3
May	5.05	4.94	5.69	5.59
June	4.93	4.99	5.95	5.8
July	3.99	3.87	5.23	5.08
August	3.99	3.87	5.29	5.3
Total	**22.94**	**22.64**	**27.48**	**27.07**
Average	**4.59**	**4.528**	**5.5**	**5.41**

2.4.2 Variation in the data should be noted, as it leads to erroneous Base TCR calculations and the errors in sharing of MSLDC fees and charges. This discrepancy may result in GEPL incurring higher fees and charges. GEPL requested the Commission to rectify the data to ensure accurate calculations.

MSLDC Response

2.4.3 MSLDC submitted that the Regulation 2 (17) and 2 (57) of the MYT Regulations, 2019, defines the Coincident and Non-Coincident Peak Demand as under:

"(17) "Coincident Peak Demand" means the demand as measured at G-T interface for the Distribution Licensee occurring at the time of system peak demand for the State;"

"(57) "Non-Coincident Peak demand" means the peak demand as measured at G-T interface for a Distribution Licensee during a period, which may or may not occur at the time of system peak demand in the State as a whole;"

2.4.4 Hence, the data for CPD and NCPD worked out by MSLDC for the said period is calculated by grossing up the T<>D end values with respective month's State

Transmission Loss to arrive at G<>T end as per the MYT Regulations 2019. The calculations are as follows:

Month	Monthly State Transmission Loss		GEPL CPD		GEPL NCPD	
	Loss in %	Factor	T<>D end as per DSM portal	G<>T end (calculated)	T<>D end as per DSM portal	G<>T end (calculated)
	A	B	C	D = (C / B)	E	F = (E / B)
Apr-23	3.71%	0.963	4.75	4.93	5.18	5.38
May-23	3.56%	0.964	4.82	4.99	5.56	5.76
Jun-23	3.42%	0.966	5.00	5.18	5.35	5.54
Jul-23	3.24%	0.968	4.40	4.54	4.82	4.98
Aug-23	3.22%	0.968	4.22	4.36	4.70	4.86
Sep-23	3.28%	0.967	4.36	4.51	5.08	5.25
Oct-23	3.53%	0.965	4.19	4.35	5.10	5.28
Nov-23	3.17%	0.968	4.27	4.41	4.90	5.06
Dec-23	2.94%	0.971	3.42	3.52	4.60	4.74
Jan-24	2.84%	0.972	3.64	3.74	4.56	4.69
Feb-24	3.07%	0.969	3.88	4.00	4.64	4.78
Mar-24	3.21%	0.968	4.22	4.36	4.80	4.96

KRC Infrastructure and Projects Private Limited's (KRCIPPL) submissions

2.4.5 MSLDC has considered the CPD and NCPD data for TCR and sharing of MSLDC Charges calculations for KRCIPPL for FY 2023-24 and FY 2024-25. KRCIPPL has noted some variations in the aforesaid data. The comparison of the data considered by MSLDC and the data as per KRCIPPL's database is as follows:

Data for FY 2023-24: MSLDC V/S KRCIPPL data

Particulars	CPD		NCPD	
FY 2023-24	MSLDC Data (MW)	KRCIPPL Data (MW)	MSLDC Data (MW)	KRCIPPL Data (MW)
April	5.19	5.04	5.22	5.06
May	5.14	4	5.37	5.16
June	5.27	5.12	5.7	5.53
July	4.52	4.39	5.71	5.55
August	4.26	4.16	5.51	5.38
September	4.83	4.68	5.53	5.36
October	4.65	4.5	5.46	5.32
November	4.19	4.06	4.88	4.76

Particulars	**CPD**		**NCPD**	
FY 2023-24	**MSLDC Data (MW)**	**KRCIPPL Data (MW)**	**MSLDC Data (MW)**	**KRCIPPL Data (MW)**
December	3.43	3.33	4.69	4.58
Jane	3.81	3.69	4.58	4.48
February	4.13	4.02	4.75	4.64
March	4.48	4.36	4.76	4.61
Total	**53.91**	**51.35**	**62.15**	**60.43**
Average	**4.49**	**4.28**	**5.18**	**5.04**

Data for FY 2024-25: SLDC V/S KRCIPPL data

Particulars	**CPD**		**NCPD**	
FY 2024-25	**MSLDC Data (MW)**	**KRCIPPL Data (MW)**	**MSLDC Data (MW)**	**KRCIPPL Data (MW)**
April	5.3	5.16	5.79	5.61
May	5.42	5.27	5.8	56.3
June	5.4	5.19	5.65	5.5
July	3.98	3.89	5.35	5.2
August	4.61	4.47	5.98	5.8
Total	**24.71**	**23.97**	**28.58**	**27.75**
Average	**4.94**	**4.79**	**5.72**	**5.55**

2.4.6 The variation in the data should be noted, as it leads to erroneous Base TCR calculations and error in the sharing of MSLDC fees and charges. This discrepancy may result in KRCIPPL incurring higher fees and charges. The Commission is requested to rectify the data to ensure accurate calculations.

MSLDC Response

2.4.7 As mentioned earlier, the data for CPD and NCPD computed by MSLDC for the said period is calculated by grossing up the T<>D end values with concerned month State Transmission Loss to arrive at G<>T end as per the MYT Regulations 2019. The calculations are as follows:

Month	**Monthly State Transmission Loss**		**KRC Infrastructure CPD**		**KRC Infrastructure NCPD**	
	Loss in %	**Factor**	**T<>D end as per DSM portal**	**G<>T end (calculated)**	**T<>D end as per DSM portal**	**G<>T end (calculated)**
	A	**B**	**C**	**D=(C/B)**	**E**	**F=(E/B)**
Apr-23	3.71%	0.963	5.00	5.19	5.03	5.22
May-23	3.56%	0.964	4.96	5.14	5.18	5.37

Month	Monthly State Transmission Loss		KRC Infrastructure CPD		KRC Infrastructure NCPD	
	Loss in %	Factor	T<>D end as per DSM portal	G<>T end (calculated)	T<>D end as per DSM portal	G<>T end (calculated)
	A	B	C	D=(C/B)	E	F=(E/B)
Jun-23	3.42%	0.966	5.09	5.27	5.51	5.70
Jul-23	3.24%	0.968	4.38	4.52	5.52	5.71
Aug-23	3.22%	0.968	4.13	4.26	5.33	5.51
Sep-23	3.28%	0.967	4.67	4.83	5.35	5.53
Oct-23	3.53%	0.965	4.49	4.65	5.26	5.46
Nov-23	3.17%	0.968	4.06	4.19	4.72	4.88
Dec-23	2.94%	0.971	3.33	3.43	4.55	4.69
Jan-24	2.84%	0.972	3.70	3.81	4.45	4.58
Feb-24	3.07%	0.969	4.01	4.13	4.60	4.75
Mar-24	3.21%	0.968	4.34	4.48	4.60	4.76

Commission's Analysis and Ruling – GEPL and KRCIPPL

2.4.8 The Commission has noted the submission of GEPL and KRCIPPL and response of MSLDC. The Base TCR is calculated as per the provisions of the MYT Regulation, 2024 by computing the CPD and NCPD by grossing up the T<>D values by with the respective month's State Transmission Loss to arrive at G<>T end values. The Commission has considered the actual data for latest 12 months (January 2024 to December 2024) available with MSLDC/STU as per proviso 1 of Regulation 83.2 of MYT Regulations, 2024. The details of the computation of the Adjusted Base TCR have been discussed in the Commission's InSTS Order in Case no. 208 of 2024 and the same approach has been adopted by the Commission in the present Order as well.

Mindspace Business Parks Private Limited (MBPPL) Submission

2.4.9 MBPPL have noted the variations in CPD and NCPD considered by MSLDC. The comparison of the data considered by MSLDC and the data as per MBPPL's database is as follows:

Data for FY 2023-24: SLDC V/S MBPPL data

Particulars	CPD		NCPD	
FY 23-24	MSLDC Data (MW)	MBPPL Data (MW)	MSLDC Data (MW)	MBPPL Data (MW)
April	10.72	10.32	11.52	11.12

Particulars	**CPD**		**NCPD**	
FY 23-24	**MSLDC Data (MW)**	**MBPPL Data (MW)**	**MSLDC Data (MW)**	**MBPPL Data (MW)**
May	10.41	10.06	11.27	10.92
June	10.39	10.09	12.05	11.81
July	8.44	8.23	10.07	10.03
August	8.99	8.72	9.92	9.82
September	8.68	8.69	10.16	9.81
October	9.74	9.5	10.82	10.56
November	9.13	8.86	10.19	9.93
December	7.77	7.54	9.38	9.16
Jane	7.21	7.12	8.88	8.64
February	7.52	7.34	9.01	8.95
March	8.95	8.72	9.89	10.21
Total	**107.93**	**105.69**	**123.16**	**120.96**
Average	**8.99**	**8.81**	**10.26**	**10.08**

Data for FY 2024-25: MSLDC V/S MBPPL data

Particulars	**CPD**		**NCPD**	
FY 24-25	**MSLDC Data (MW)**	**MBPPL Data (MW)**	**MSLDC Data (MW)**	**MBPPL Data (MW)**
Apr	10.74	10.9	11.95	12.16
May	10.38	10.33	11.84	12
Jun	10.75	11.05	11.09	11.09
Jul	8.03	8.44	10.07	9.91
Aug	8.34	8.15	9.59	9.45
Total	**48.64**	**48.87**	**54.54**	**54.61**
Average	**9.73**	**9.774**	**10.91**	**10.92**

2.4.10 Variation in the data should be noted, as it leads to erroneous Base TCR calculations and error in the sharing of MSLDC fees and charges. This discrepancy may result in MBPPL incurring higher fees and charges. MBPPL requested the Commission to rectify the data to ensure accurate calculations.

2.4.11 As regards annual demand growth rate of 5% considered by MSLDC for the control period, MBPPL has submitted its observations in the subsequent paragraphs.

2.4.12 MBPPL acknowledges that the growth rate observed in the past four years has been primarily driven by the shift in the work culture of its consumers from a traditional office-based setup to a hybrid work model, resulting in an increase in consumer demand. However, MBPPL would like to inform the Commission that the increase in demand during this period is largely due to the temporary changes in consumer behaviour driven by the COVID-19 pandemic and the subsequent transition to hybrid work arrangements. The projected load for the next control period for FY 2025-26 to FY 2029-30 for MBPPL Licensee is submitted to the Commission in the MYT Tariff Petition. The comparison of the projected load considered for Base TCR calculations by MSLDC V/S the projected load for MBPPL is as follows:

Particulars	**FY 2025-26**	**FY 2026-27**	**FY 2027-28**	**FY 2028-29**	**FY 2029-30**
	Projected	**Projected**	**Projected**	**Projected**	**Projected**
MBPPL Projection (MW)	10.5	10.80	11.00	11.20	11.40
MSLDC Projection for MBPPL (MW)	11.6	12.18	12.78	13.42	14.09

2.4.13 The load projections for MBPPL as submitted by MSLDC appear to be higher than anticipated. MBPPL does not foresee a 5% increase in load every year in the coming years.

2.4.14 It is important to note that MBPPL has not yet reached the pre-COVID consumption levels, and therefore, the demand trajectory for the upcoming years is expected to follow a non-linear growth pattern, reflecting the evolving nature of consumer behaviour and work culture. Given this context, the 5% growth rate projected by MSLDC for the period FY 2025-26 to FY 2029-30 is unlikely to be representative of the actual demand for MBPPL during the next control period. If the projections made by MSLDC are approved, MBPPL may incur higher SLDC fees and charges due to an inflated Base TCR. Therefore, MBPPL has requested the Commission to revise the Base TCR projections for MBPPL.

MSLDC Response

2.4.15 As mentioned earlier, the data for CPD and NCPD computed by MSLDC for the said period is calculated by grossing up the T<>D end values with concerned month State Transmission Loss to arrive at G<>T end as per the MYT Regulations 2019. The calculations are attached as follows:

Month	**Monthly State Transmission Loss**		**Mindspace Properties CPD**		**Mindspace Properties NCPD**	
	Loss in %	**Factor**	**T<>D end as per DSM portal**	**G<>T end (calculated)**	**T<>D end as per DSM portal**	**G<>T end (calculated)**
	A	**B**	**C**	**D=(C/B)**	**E**	**F=(E/B)**
Apr-23	3.71%	0.963	10.32	10.72	11.10	11.52
May-23	3.56%	0.964	10.04	10.41	10.87	11.27
Jun-23	3.42%	0.966	10.04	10.39	11.63	12.05
Jul-23	3.24%	0.968	8.17	8.44	9.74	10.07
Aug-23	3.22%	0.968	8.70	8.99	9.60	9.92

Month	Monthly State Transmission Loss		Mindspace Properties CPD		Mindspace Properties NCPD	
	Loss in %	Factor	T<>D end as per DSM portal	G<>T end (calculated)	T<>D end as per DSM portal	G<>T end (calculated)
Sep-23	3.28%	0.967	8.39	8.68	9.83	10.16
Oct-23	3.53%	0.965	9.39	9.74	10.44	10.82
Nov-23	3.17%	0.968	8.84	9.13	9.87	10.19
Dec-23	2.94%	0.971	7.54	7.77	9.10	9.38
Jan-24	2.84%	0.972	7.01	7.21	8.63	8.88
Feb-24	3.07%	0.969	7.29	7.52	8.73	9.01
Mar-24	3.21%	0.968	8.66	8.95	9.57	9.89

2.4.16 As regards to the second issue regarding MSLDC's projections, it is submitted that the Petitioner has provided the methodology for projecting the Base TCR for the system user in Chapter 8 of the petition filed before the Commission.

2.4.17 As per Regulation 123 of MYT Regulations, 2024, MSLDC Charges payable by the Transmission System Users shall be computed on the basis of Base TCR of the beneficiaries. Base TCR can be calculated as an average of CPD and NCPD. Accordingly, while projecting the Base TCR for System Users, the Petitioner has studied the past four year's data (FY 2020-21 to FY 2023-24) for sharing of Base TCR by individual System User and subsequently arrived at Base TCR for the State as a whole.

2.4.18 The Petitioner, based on the past years' experience, has conservatively considered the growth rate of 5% for projection of future Base TCR during the control period FY 2025-26 to FY 2029-30. The share of individual System User in the Base TCR during the control period FY 2025-26 to FY 2029-30 has been considered as per individual share prevailing during FY 2024-25.

2.4.19 In view of the above, the Petitioner submits that the Commission shall review the submission made by the Petitioner with regard to projections of Base TCR and approve the same as deemed fit for the control period.

<u>Commission's Analysis and Ruling - MBPPL</u>

2.4.20 The Commission has noted the submission of MBPPL and response of MSLDC. As explained by MSLDC in its response, the CPD and NCPD is computed by grossing up the T<>D values by considering the respective month State Transmission Loss to arrive at G<>T end values in line with the provisions of the Regulation. Further, the Commission has considered the actual data for latest 12 months (Jan 2024 to Dec 2024) data available with the SLDC/STU as per proviso 1 of Regulation 83.2 of MYT Regulations, 2024. The detailed approach has also been discussed in the

Commission's InSTS Order in Case No. 208 of 2024 and the same is adopted in case of the MSLDC Order as well.

2.4.21 Regarding the growth rate considered for projecting the Adjusted Base TCR for the Control period, STU, in the InSTS Petition, has employed CAGR method for projecting demand for each TSU. The Commission has discussed the approach for projection of the Adjusted Base TCR for the 5th Control Period in detail in the InSTS Order in Case No. 208 of 2024 and the resultant Adjusted Base TCR values have been considered in the present MSLDC Order for sharing of the MSLDC charges to ensure consistency in approach across Orders.

2.5 True-up for FY 2022-23 and FY 2023-24

MSEDCL Submission

2.5.1 In its Petition, MSLDC has considered depreciation same as that approved by the Commission its Mid Term Review Order (**MTR**) dated 31 March 2023 in Case No. 233 of 2022. However, it ought to have submitted it considering ratio of approved Gross Fixed Asset (**GFA**) and actual GFA in balance sheet. The Commission is requested to approve the depreciation for FY 2022-23 and FY 2023-24 considering the above ratio.

MSLDC's REPLY

2.5.2 MSLDC has given its detailed justification in Para 3.5 of its Petition. The capitalisation (and GFA addition) is from Load Dispatch Centre Development (**LDCD**) fund for FY 2022-23 and FY 2023-24 and hence actual GFA is different than GFA considered for depreciation. The Commission's observation in MTR Order (Case No 233 of 2022) may be referred in this regard as given below:

For FY 2022-23:

"*The addition to GFA for FY 2022-23 is not considered for computation of depreciation as the capitalization during FY 2022-23 is considered to be funded from LDCD Fund.*"

For FY 2023-24:

"The Commission has allowed LDCD fund to be used for funding capitalization for the 4th Control Period and is sufficient to meet capitalization approved for FY 2023- 24 and FY 2024-25. Accordingly, the Commission has not considered any addition to GFA to the extent of utilization of LDCD fund for these years. In case, MSLDC incurs funds in excess of LDCD fund balance, the same shall be assumed to be funded through debt and equity and hence would be eligible to claim depreciation, interest on loan and RoE on truing-up subject to prudence check."

2.5.3 MSLDC has followed the directives of Commission with respect of utilization of LDCD fund and hence funding for capitalization during FY 2022-23 and FY 2023-24 has been considered from the proceeds accumulated in LDCD fund created by the Commission. Therefore, instead of considering actual depreciation as reflected in its Annual account, MSLDC has considered depreciation for FY 2022-23 and FY 2023-24 as per amount approved by the Commission in its MTR Order in Case No 233 of 2022.

2.5.4 As the Petitioner has to follow the GFA amount as approved in Case No 233 of 2022, and the capitalization had been made from LDCD fund for which no depreciation is allowed, MSLDC considered the approved depreciation amount for FY 2022-23 and FY 2023-24 under True up of the said years, same as that was approved by the Commission based on approved GFA and relevant depreciation rate.

Commission's Analysis and Ruling:

2.5.5 MSLDC is allowed to fund its approved capitalisation through accumulated LDCD fund and depreciation, interest on loan and return on equity is not allowed on this capitalisation as per provisions of applicable MYT Regulation. Accordingly, the Commission has not considered any addition to GFA to the extent of utilization of LDCD fund for FY 2022-23 and FY 2023-24 to fund this capitalisation and hence actual GFA is different than GFA considered for depreciation. In accordance with the Regulations, MSLDC has considered the applicable depreciation amount for FY 2022-23 and FY 2023-24 under true up of the said years which is based on approved GFA and considering applicable depreciation rate as per the MYT Regulations. Further, the approval of the Commission on MSLDC's submission in this regard has been covered in the later part of this Order.

2.6 Provisional True-up for FY 2024-25 – Cost over-run due to delay in project implementation

MSEDCL Submission

2.6.1 MSLDC has proposed capitalization of many schemes in FY 2022-23 and FY 2023-24. The Commission is requested to disapprove of any cost escalation due to delay in project execution.

MSLDC's REPLY:

2.6.2 There is no cost escalation in the projects capitalized.

Commission's Analysis and Ruling:

2.6.3 The Commission, while approving the expenditure as part of the MYT process undertakes the necessary due diligence to ensure that only prudent expenses are allowed to be recovered by the licensees/MSLDC. This also includes review of the capitalization claimed by MSLDC. In the instant case, as regards with the delay in project execution, the Commission has observed that there is no cost escalation in the projects capitalized, hence there is no disallowance.

2.7 Ratio of non-DPR schemes to approved DPR capitalisation is higher than 20% limit

<u>MSEDCL Submission</u>

2.7.1 It is observed that the ratio of non-DPR capitalization to the Detailed Project Report (**DPR**) capitalization is around 70%, which is substantially higher than the limit of 20% as provided in MYT Regulations. MSLDC is taking undue advantage of relaxation provided to it regarding implementation of non-DPR schemes. Also, MSLDC has added multiple schemes which are very general in nature.

<u>MSLDC's REPLY:</u>

2.7.2 The nature of duties and responsibilities assigned to MSLDC under the EA requires certain operational expenses on upgradation of software/accounting system/technological changes on regular basis. These expenses fall under non-DPR project as per the ceiling of 20% approved by the Commission. MSLDC has brought this matter to the attention of the Commission during MTR Petition. The Commission's observation in this matter is relevant in this regard. The relevant part is reproduced below.

> *"3.8.8 Further, it is observed that the capitalisation towards non DPR is in excess of 20% of capitalisation of DPR schemes. However, in the MYT Order in Case No. 291 of 2019, the Commission has decided not to restrict the non-DPR capitalisation at 20% of DPR capitalisation for MSLDC. The relevant extract of the MYT Order reads as follows:*
>
> > *For any scheme with projected capital expenditure above Rs.100 Lakh, MSLDC is expected to submit a DPR for in-principle approval. The Commission observes that most of the capex schemes of MSLDC are small value schemes and Capitalisation against these is requirement based and periodic in nature. Further, the Commission is wary of the fact that MSLDC not only plays very critical role in ensuring the integrated operation of power system within the State but also responsible for real time operations for grid control and despatch of electricity within the State. Further, MSLDC has to tackle operational and technological challenges to manage the increasing quantum of renewable energy.* ***It is therefore essential that MSLDC's operations are not affected and it should be equipped to undertake necessary capital expenditure to meet the operational and technological challenges. Therefore, the Commission has reviewed MSLDC's request to approve the capitalization proposed under DPR***

and non-DPR schemes as submitted and accordingly, decides not to restrict the non-DPR capitalization at 20% of DPR capitalization approved for the year. *Accordingly, the Commission approves capitalization against DPR as well as non-DPR schemes as claimed by MSLDC, after verification from the audited annual accounts.*

Commission's Analysis and Ruling:

2.7.3 On the issue of restricting the non-DPR capitalization upto 20% ceiling, the Commission, in its past Orders, in view of increasing challenges in secured grid management, timely DSM accounting and energy settlement, need of study on reserve mechanism and ancillary operations etc on account of increase in RE contribution, has already taken a stand after duly recording the reasons for the relaxation being allowed to MSLDC. However, this does not mean that MSLDC has a blanket approval to undertake any scheme by classifying it as a non-DPR scheme. MSLDC has to adhere to the MERC (Approval of Capital Investment Schemes) Regulations, 2022 (hereinafter referred to as "**Capex Regulation, 2022**") while undertaking the Non-DPR schemes.

2.8 Approval of depreciation and interest & finance charges during truing process

MSEDCL Submission

2.8.1 MSLDC has considered interest on long term loan same as that approved by Commission its MTR Order dated 31 March 2023 in Case No 233 of 2022. However, it ought to have claimed interest expenses using normative depreciation as repayment.

MSLDC's REPLY:

2.8.2 MSLDC has calculated the interest expenses as per prevailing norms given in MYT Regulations and explained in Para 4.6. of the Petition As per Table 23 of the Petition, interest expenses, as calculated by the Petitioner, are different from the approved amount.

Commission's Analysis and Ruling:

2.8.3 The Commission has approved the interest and finance charges for FY 2024-25 after considering the repayment of loan equivalent to the depreciation approved for FY 2024-25 as per the provisions of the MYT Regulation 2019.

2.9 CAPEX and Capitalisation Plan for MYT Period FY 2025-26 to FY 2029-30

MSEDCL Submission

2.9.1 The following capex projects proposed by MSLDC should not be considered by Commission:

Capex Schemes	FY 2025-26	FY 2026-27	FY 2027-28
New Residential Tower at Airoli	800	800	870
Customizations in Short term Open access Software to accommodate regulatory changes, Orders of MoP, etc.	6,000		

2.9.2 The expenses for construction of residential units are general in nature and need to be shown separately. There are no provisions for such schemes in MYT Regulations 2024. Further, the cost estimate for Short Term Open Access (**STOA**) software is significant and Commission is requested to carry out due diligence.

MSLDC's REPLY:

2.9.3 MSLDC has provided the relevant details for projects to be implemented during the control period. The need of Residential Tower is already elaborated in data gap replies. Further, considering recommendations of the CABIL Report of the Forum of Regulators (**FOR**) Technical Committee Sub-Group (October-2018) number of staff in MSLDC Office will substantially increase thereby increasing the demand for more residential quarters. Hence, it is also proposed to construct a residential tower consisting of 8 Nos. of 2.5 BHK and 28 Nos. of 2 BHK quarters by dismantling the Panchganga and Sabarmati buildings. However, constructing a residential tower involves many official procedures, permissions and lot of time for completion. Hence, till the completion of all the procedures like administration approval, tender process, destruction of old buildings and construction of new tower, it will take lot of time and till that time the safety of MSLDC staff presently residing in Panchganga and Sabarmati buildings cannot be compromised.

2.9.4 As regards the cost of customisation of STOA software, it was typographical mistake i.e. it was erroneously mentioned as Rs. 60 Crore which is now actually Rs.10 Crore as corrected in revised Petition over five years period as given below:

Financial Year	Cost (Rs. in Crore)	Work Details
2025-26	6	Development cost approx. Rs. 2.5 Crore + Cloud hosting and database approx. Rs. 3.5 Crore
2026-27	1	Change request
2027-28	1	Change request
2028-29	1	Change request
2029-30	1	Change request
Total Scheme Cost:	**10**	

Commission's Analysis and Ruling:

2.9.5 As regards the quantum of capitalisation claimed by the MSLDC against the scheme of Customizations in Short term Open access Software to accommodate regulatory changes, Orders of MoP, etc., the Commission has verified that the cost of Rs. 60

Crore was included in the original Petition filed by MSLDC, however, in the revised Petition the value was revised to Rs. 6 Crore in FY 2025-26 along with Rs. 1 Crore each against change request for the period FY 2026-27 to FY 2029-30.

2.9.6 The Commission undertakes necessary due diligence while approving the capital expenditure schemes in line with the provisions of Capex Regulation, 2022.Further, MSLDC also needs to get the DPR in principally approved from the Commission and this process also entails detailed scrutiny of the scheme after which MSLDC is allowed to implement the project and recover the cost through the fees and charges.

2.10 Request to not levy rescheduling charges on MSEDCL which pay for bulk of MSLDC fees and charges.

MSEDCL Submission

2.10.1 Rescheduling charges should not be levied on Distribution Licensees like MSEDCL which pay for bulk of SLDC fees and charges.

MSLDC's REPLY:

2.10.2 The charges recovered by MSLDC is as per approval given by Commission. Further, the income from rescheduling charges is considered under income and same is reduced from ARR of MSLDC. This reduced ARR is used to determine the monthly charges to be paid. If rescheduling charges are not levied, then income will be reduced and ARR of MSLDC will be increased proportionately. Hence, MSLDC, as a regulated entity, will realise the income as per approval of the Commission only. MSLDC has presented its projection, and the Commission will determine the ARR and finalise the charges and fees, which will be followed by MSLDC for the next control period.

Commission's Analysis and Ruling:

2.10.3 The re-scheduling charges are applicable for revision in the schedules by the Distribution Licensees during the Intra-day operations in real time. MSLDC publishes schedule with zero revision prior to start of day of despatch. The re-scheduling is carried out by utilities based on variation in demand/generation on the day of despatch. Further, the income from rescheduling charges is considered under income and reduced from ARR. This reduced ARR is used to determine the monthly charges to be paid by the Distribution Licensees. Rescheduling charges act as a deterrent and reduce the instances of re-scheduling. These charges ensure that re-scheduling requests are raised only for genuine requirement of change in schedule. For re-scheduling, MSLDC has to make relevant changes in schedule and re-run the schedule and MOD. For handling repeated re-scheduling requests, a robust software is required. It also requires certain manpower engagement. As the ARR of MSLDC is reduced to the extent of re-scheduling charges, the impact on monthly MSLDC charges is reduced accordingly. The concerns regarding levy of re-scheduling charges were also raised by the Distribution Licensee in the Mid Term Review proceeding and to address these concerns, vide the MTR Order, the Commission had reduced the rescheduling charges from Rs. 2,250 per rescheduling to Rs. 1,000 per rescheduling request by the Utility. In view of the above discussion, the Commission is not inclined to exempt the Distribution Licensees from payment of re-scheduling charges.

2.11 Issue of transferring surplus to LDCD Fund

MSEDCL Submission

2.11.1 On final truing up for FY 2022-23 and FY 2023-24, there is surplus of Rs. 2,935.29 Lakh and Rs. 393.60 Lakh respectively. This surplus of Rs.2,935.29 Lakh and Rs. 393.60 Lakh for FY 2022-23 and FY 2023-24 may be used to meet out deficit in the state Deviation Settlement Mechanism (**DSM**) pool account as MSLDC has failed to comply with the provisions of raising DSM supplementary bills with the state entities as per the State DSM Regulations, 2019.

MSLDC's REPLY:

2.11.2 The surplus amount of Rs.2935.29 Lakh for FY 2022-23 and Rs.393.60 Lakh for FY 2023-24 pertains to the MSLDC Operative Account which is altogether different from the State Deviation Pool Account. Further, there is no regulatory provision to link both these accounts. As per the norms set for utilization of LDCD fund by the Commission, the surplus in the MSLDC Operative account shall be utilized for creation of new assets, meeting stipulated equity portion in asset creation, margin money for raising loan from financial institutions and funding of Research and Development (**R&D**) projects.

2.11.3 Supplementary bills issue is not directly relevant to the matters being addressed in the current MYT Petition. MSLDC recognizes the importance of the issue raised by MSEDCL and submits that MSLDC has initiated the issuance of supplementary bills following the procedure discussed with State Entities in July 2023. As directed by the Commission vide Order in Case No. 204 of 2022 dated 11 October 2023, draft supplementary bills were issued in November 2023 for verification, and a special meeting was convened on 4 December 2024 to address the finalization process of Supplementary bills. MSLDC is now issuing supplementary bills for the current period (from 11 November 2024 onwards) and will soon issue bills for the past period (11 October 2021 to 10 November 2024) after incorporating necessary revisions in the DSM bills.

Commission's Analysis and Ruling:

2.11.4 LDCD fund is formed by utilizing the surplus generated in the MSLDC Operative account, which is utilized for creation of new assets, meeting stipulated equity portion in asset creation, margin money for raising loan from financial institutions and funding of R&D projects. LDCD fund is not allowed to be used for revenue expenditure excluding for identified purposes mentioned in the MYT Regulation 2024. DSM account is entirely different and there is no linking of DSM account and MSLDC operative account. MSLDC is in the process of issue of the bills after incorporating necessary revisions in the DSM bills. In case the LDCD funds are diverted for other activities, the capitalization approved by the Commission will have to be funded through the non-LDCD fund route (typically debt and equity) which has its associated costs which will be recovered from the Distribution Licensees. Further, the Commission vide its Order dated 11 October 2023 in Case No. 204 of 2022 has already directed MSLDC to issue supplementary bills to address the issue of shortfall in the DSM pool and as per reply filed by MSLDC, it is observed that MSLDC has started issuing the same. In view of the above, the Commission does not accept the suggestion of MSEDCL and will not deviate from the provisions of the MYT Regulation 2024 regarding the utilization of the LDCD fund.

2.12 Issue of availability of Real time drawl data of T&D interface points of MSEDCL

MSEDCL Submission

2.12.1 MSEDCL has requested to make available real-time drawl data of Transmission and Distribution (**T&D**) interface points of MSEDCL i.e. the meter data on which DSM / ADSM computation is carried out, to minimize the deviation in real time by revising the demand. However, no efforts have been made by MSLDC.

2.12.2 The Commission is requested to issue directives to MSLDC in this regard.

MSLDC's REPLY:

2.12.3 MSLDC acknowledges the submission made by MSEDCL regarding the availability of real-time drawl data of T&D interface points, however, MSLDC clarifies that this issue is not directly relevant to the matters being addressed in the current MYT Petition.

2.12.4 MSLDC's further response on this issue is as under:

2.12.4.1 The State Transmission Utility (**STU**) is responsible for installing Special Energy Meters (**SEM**) at all Generation to Transmission (**G<>T**) and Transmission to Distribution (**T<>D**) interface points within the Intra-State Transmission System (**InSTS**) which are already mapped in DSM portal.

2.12.4.2 STU has also made availability of each interface meter data in the MDAS software at the State Energy Accounting Centre of MSLDC though Automatic Meter Reading (**AMR**).

2.12.4.3 Also, the metered data, along with DSM bills, is also made available on a web-based DSM application as per the MERC (Deviation Settlement Mechanism and related matters) Regulations, 2019 by MSLDC.

2.12.4.4 State Entities (including MSEDCL) can access this data using authorized User IDs and Passwords, ensuring transparency and ease of access.

2.12.4.5 Furthermore, the SCADA terminal extension for real time data visibility of system is also shared and made available to the Load Management Section of MSEDCL for better optimisation of resources. MSLDC has also taken up the issue of making available the real time data visibility of important Interface meters with STU.

Commission's Analysis and Ruling

2.12.5 The issue of Availability of Real time drawl data of T&D interface points of MSEDCL is not pertaining to the present MYT Petition. As per MSLDC's submission, the real time Supervisory Control and Data Acquisition (**SCADA**) terminal is extended for real time data visibility to the Load Management Section of MSEDCL for better optimisation of resources. The real time data pertaining to metered data, along with DSM bills, is also made available on a web-based DSM application by MSLDC. Further, as per Regulation 28.3 of the Maharashtra Electricity Grid Code (MEGC) 2020, Distribution Licensees shall develop control room having close communication with the MSLDC Control Centre to enable MSLDC to access real time drawl data. The Commission vide its letter dated 15 January 2025 directed MSEDCL to propose to contour of Distribution Licensee's Control Centre or Distribution System Operator (DSO) in line with Regulation 28.3 of MEGC 2020 mainly addressing aspect relating to Forecasting, Scheduling and Deviation accounting activities for all the RE generation capacity connected to distribution , in a separate proceeding before the Commission within 3 months from the date of notification of RE F&S (First Amendment) Regulations 2024. However, MSEDCL's response is awaited.

2.12.6 More importantly, since this issue is not pertaining to MYT Petition, the same may be resolved by MSEDCL in consultation with MSLDC and STU, and if regulatory intervention is deemed necessary, MSEDCL may approach the Commission under a separate proceeding.

3 TRUING-UP FOR FY 2022-23 and FY 2023-24

3.1 Background

3.1.1 MSLDC has sought Truing-Up of the expenses and revenue for FY 2022-23 and FY 2023-24 considering actuals as per the audited trial balance certified by Statutory Auditors, allocation statement prepared on the basis of audited Trial Balance and in accordance with the MYT Regulations, 2019. It has submitted reasons for variations in the actual expenses of FY 2022-23 and FY 2023-24 as compared to those approved in the Order dated 31 March 2023 in Case No. 233 of 2022 (**MTR Order**). Truing up of the ARR for FY 2022-23 and FY 2023-24 is in accordance with the provisions of the MYT Regulations, 2019.

3.1.2 The analysis underlying the Commission's approval is set out in the following Sections.

3.2 Operation and Maintenance Expenses

MSLDC's submission

FY 2022-23 and 2023-24

3.2.1 In accordance with the MYT Regulations, 2019, the Operations and Maintenance (**O&M**) Expenses includes expenditure on manpower, repairs, spares, consumables, insurance and overheads. Broadly, O&M Expenses consist of following expenditure heads:

- Employees Expenses
- Administration and General Expenses
- Repairs and Maintenance Expenses

3.2.2 Based on the Audited Accounts for FY 2022-23 and FY 2023-24, the O&M expenses are Rs. 3,680.99 Lakh and Rs.3,837.60 Lakh, respectively. The actual O&M expenses have marginally differed from O&M expenses approved by the Commission in Case No. 233 of 2022.

3.2.3 The Training Expenses as reflected in the audited accounts under Employees Expenses are now included in the A&G Expenses. To that extent, there is a variation in claimed and the Audited figures of Employees Expenses as well as A&G expenses.

3.2.4 The number of employees was around 112 in FY 2022-23 and 109 in FY 2023-24 and the employee expenses for both these years were also similar, without any great divergence. The employee expenses are based on revised pay scale which was implemented from October 2019 and applicable for FY 2022-23 and FY 2023-24.

3.2.5 The A&G expenses increased, due to increase in (i) electricity charges, (ii) upkeep of office, (iii) security charges, (iv) Vehicle running expenses and (v) outsource personnel salary. However, A&G expenses were reduced in FY 2023-24 in comparison to FY 2022-23 in case of legal charge and audit fee, water charges, purchased related Advertisement expenses, vehicle hiring expenses. Details of the above-mentioned expenses are provided in the Trial Balance (**TB**) and MYT format submitted along with the Petition.

3.2.6 The R&M expenses as per the audited statement have been claimed for truing up purpose. The R&M expenses on account of plant and machinery and office equipment have increased in FY 2023-24 in comparison with FY 2022-23.

3.2.7 The details of the actual O&M expenses incurred by MSLDC for FY 2022-23 and FY 2023-24 against approved by the Commission (in Case No. 233 of 2022) are shown in the Table below:

Table 1: Operation and Maintenance Expenses for FY 2022-23 and FY 2023-24 as submitted by MSLDC (Rs. Lakh)

Sr. No.	Particulars	FY 2022-23		FY 2023-24	
		MTR Order	MYT Petition	MTR Order	MYT Petition
A	*Normative O&M expenses*	*3,190.72*		*3,322.18*	
B	*Additional O&M expenses*	*34.25*		*188.91*	
1	Employees Expenses		2,308.47		2,422.05
2	Administration and General Expenses		1,123.35		1,106.13
3	Repairs and Maintenance Expenses		249.17		309.42
Total Operation and Maintenance Expenses		**3,224.97**	**3,680.99**	**3,511.09**	**3,837.60**

Commission's Analysis and Ruling

Employee Expenses

3.2.8 The Commission has noted the submissions of MSLDC and validated the information submitted by MSLDC from the allocation statement and audited trial balance.

3.2.9 It was observed that the number of employees at MSLDC has not varied much, i.e. 112 in FY 2022-23 and 109 in FY 2023-24 whereas, there is decrease in employee numbers due to retirement of employees. Accordingly, the number of employees is not impacting the employee expenses significantly.

3.2.10 In response to the query raised by the Commission, MSLDC provided the following broad reasons for the increase in the employee expenses:

- Impact of yearly increment on basic salary and consequential impact on other elements

- Impact of 2021 pay fixation arrears paid
- Change in DA rates
  - FY 2022-23 – changed from 17% to 38%
  - FY 2023-24 - changed from 38% to 47%
- Increase in bonus paid to employees every year
- Variation in number of trainings conducted in FY 2022-23 and FY 2023-24.

3.2.11 The Commission has noted MSLDC's submission regarding the reasons for variation in the employee expenses. Accordingly, for Truing-Up for FY 2022-23 and FY 2023-24, the Commission has approved the actual Employee Expenses as submitted by MSLDC, as given below:

Table 2: Employee Expenses for FY 2022-23 and FY 2023-24, as approved by Commission (Rs. Lakh)

Particulars	FY 2022-23		FY 2023-24	
	MYT Petition	Approved in this Order	MYT Petition	Approved in this Order
Employee Expenses	2,308.47	2,308.47	2,422.05	2,422.05

3.2.12 **The Commission approves Employee Expenses of Rs. 2,308.47 lakh for FY 2022-23 and Rs. 2,422.05 Lakh for FY 2023-24 on Truing-up, as submitted by MSLDC.**

Administration & General Expenses (A&G)

3.2.13 The Commission had reviewed the submissions of MSLDC and validated the information submitted by MSLDC from the allocation statement and the audited trial balance.

3.2.14 From the details submitted by MSLDC, it is observed that the A&G expenses have mainly increased due to increase in (i) electricity charges, (ii) upkeep of office, (iii) security charges, (iv) Vehicle running expenses and (v) outsource personnel salary. However, A&G expenses have reduced in FY 2023-24 in comparison to FY 2022-23 in case of expenses related to legal charge and audit fee, water charges, purchased related Advertisement expenses, vehicle hiring expenses. The increase in the MSEDCL electricity tariff has resulted in increase of electricity charges and increase in the number of security guards hired has resulted in increase in the security related expenses. The variation in the fees and subscription is on account of the fees paid to the Commission for Mid Term Review process and payment of CIGRE membership fees.

3.2.15 The Commission has considered the justifications given by MSLDC for the increase in expenses in FY 2022-23 and decrease in expenses in FY 2023-24 and based on the same, the A&G Expenses approved by the Commission for FY 2022-23 and FY 2023-24 are shown in the table below:

Table 3: A&G Expenses for FY 2022-23 and FY 2023-24, as approved by Commission (Rs. Lakh)

Particulars	FY 2022-23		FY 2023-24	
	MYT Petition	Approved in this Order	MYT Petition	Approved in this Order
A&G Expenses	1,123.35	1,123.35	1,106.13	1,106.13

3.2.16 **The Commission approves A&G Expenses of Rs. 1,123.35 lakh for FY 2022-23 and Rs. 1,106.13 Lakh for FY 2023-24 on Truing-up, as submitted by MSLDC**.

Repairs and Maintenance Expenses

3.2.17 The Commission has noted the submissions of MSLDC with regards to the R&M expenses and also validated the amounts from the allocation statement and audited trial balance shared by MSLDC.

3.2.18 The Commission observed that there has been an increase in the R&M expenses on account of plant and machinery and office equipment were increased in FY 2023-24 in comparison with FY 2022-23.

3.2.19 While undertaking scrutiny of the capitalisation claimed by MSLDC for the truing up years, the Commission identified two non-DPR schemes under which the works carried out were of R&M nature rather than capex nature. The Capex Regulations, 2022 have clearly outlined the type of investment schemes for which MSLDC can seek the Commission's approval as well as schemes which shall not be allowed as capital investment schemes (DPR as well as non-DPR category). The two Schemes identified to be having R&M related nature include the following:

- Civil work of new SLDC building Airoli: Rs. 15.56 Lakh;
- Civil UPVC vertical fins for ventilation: Rs. 7.05 Lakh;

3.2.20 The capitalisation against both these schemes was claimed in FY 2022-23. These schemes cannot be considered as the capital schemes in line with the provisions of the Capex Regulations, 2022. Accordingly, these schemes are not being allowed as a part of capitalization for FY 2022-23, however, being nature of R&M related schemes, these schemes are being allowed as a part of the actual R&M expenses approved by the Commission for FY 2022-23.

3.2.21 Accordingly, upon Truing-Up for FY 2022-23 and FY 2023-24, the Commission has approved the following actual R&M Expenses:

Table 4: R&M Expenses for FY 2022-23 and FY 2023-24, as approved by Commission (Rs. Lakh)

Particulars	FY 2022-23		FY 2023-24	
	MYT Petition	Approved in this Order	MYT Petition	Approved in this Order
R&M Expenses	249.17	249.17	309.42	309.42
Shifting of R&M nature expenses from Capex to Opex	0.00	22.60	0.00	0.00
Total R&M Expense	**249.17**	**271.77**	**309.42**	**309.42**

3.2.22 **The Commission on Truing-up approves actual Repairs & Maintenance Expenses of Rs. 271.17 lakh for FY 2022-23 and Rs. 309.42 Lakh for FY 2023-24**.

3.2.23 Based on the above submission, the summary of O&M Expenses as submitted by MSLDC and as approved by the Commission on truing up of FY 2022-23 and FY 2023-24 are given below:

Table 5: Operation and Maintenance expenses for FY 2022-23 and FY 2023-24, as approved by Commission (Rs. Lakh)

Particulars	FY 2022-23			FY 2023-24		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Employee Expenses	-	2,308.47	2,308.47	-	2,422.05	2,422.05
A&G Expenses	-	1,123.35	1,123.35	-	1,106.13	1,106.13
R&M Expenses (including R&M nature expenses shifted from Capex to Opex)	-	249.17	271.77	-	309.42	309.42
Total O&M Expenses	**3,224.97**	**3,680.99**	**3,703.59**	**3,511.09**	**3,837.60**	**3,837.60**

3.2.24 **The Commission approves O&M expenses of Rs. 3,703.59 Lakh for FY 2022-23 and Rs. 3,837.60 Lakh for FY 2023-24 on Truing up of AFC, as claimed by MSLDC.**

3.3 Sharing of efficiency gains/losses on account of O&M Expenses

MSLDC's Submission

FY 2022-23 and FY 2023-24

3.3.1 Regulation 11 of MYT Regulation, 2019 in the matter of sharing of gain / loss on account of controllable factors specifies the following:

"11 Mechanism for sharing of gains or losses on account of controllable factors

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…….

(b) The balance amount of such gain shall be retailed 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…….

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

3.3.2 Further, as per Regulation 9.2 of the MYT Regulations, 2019, variation in O&M expenses corresponding to approved value are categorized as controllable expenses.

3.3.3 For true-up and sharing, the relevant clause of MERC MYT Regulations 2019 is given below:

"96.3 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 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:

Provided that 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 20% 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 80% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the past five financial years as per the Labour Bureau, Government of India, as reduced by an efficiency factor of 1% or as may be stipulated by the Commission from time to time, to arrive at the permissible Operation and Maintenance expenses for each year of the Control Period:

Provided further that, in the Truing-up of the O&M expenses for any *particular year of the Control Period, an inflation factor with 20% 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 80% 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.*

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

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

Provided further that efficiency gains shall not be allowed by deducting the impact of Wage Revision and comparison of such reduced value with normative value.

96.5 Provisioning of wage revision expenses shall not be considered as actual expenses at the time of true-up, and only expenses as actually incurred shall be considered."

3.3.4 In line with the relevant provisions of the MYT Regulations, MSLDC has considered the O&M expenses approved for FY 2021-22 as normative expenses after sharing of gain and loss but excluding wage revision arrear (as approved in Table 16 of Order in Case No. 233 of 2022). The normative expenses have been escalated with relevant Wholesale Price Index (**WPI**) and Consumer Price Index (**CPI**) data for computing the normative expenses for FY 2022-23 and FY 2023-24, which has been then compared with actual O&M expenses for determining the sharing of gain / loss. In line with the provisions regarding the escalation factor given in MYT Regulations, 2019, MSLDC has considered the past data of WPI and CPI and derived the escalation factors which are used to determine normative O&M expenses for FY 2022-23 and FY 2023-24. The details of escalation factors are given below:

Table 6: Determination of escalation factors to derive normative O&M expenses for FY 2022-23 and FY 2023-24, as submitted by MSLDC

Year	WPI	WPI inflation	CPI	CPI inflation
2018-19	119.8	4.26%	299.92	5.45%
2019-20	121.8	1.67%	322.5	7.53%
2020-21	123.4	1.31%	338.69	5.02%

Year	**WPI**	**WPI inflation**	**CPI**	**CPI inflation**
2021-22	139.4	12.97%	356.06	5.13%
2022-23	152.5	9.40%	377.62	6.06%
2023-24	151.4	-0.72%	397.21	5.19%
FY 2022-23				
Average from FY 2018-19 to FY 2022-23		5.92%		5.84%
Weightage		20%		80%
Escalation Factor				5.85%
Escalation Factor for FY 2022-23 after efficiency factor				**4.85%**
FY 2023-24				
Average from FY 2019-20 to FY 2023-24		4.93%		5.78%
Weightage		20%		80%
Escalation Factor				5.61%
Escalation Factor for FY 2023-24 after efficiency factor				**4.61%**

Note: Source of WPI: (Index files for WPI series (BASE: 2011-12)) - https://eaindustry.nic.in/download_data_1112.asp

Source of CPI: (Centre index) - https://labourbureau.gov.in/centre-index

3.3.5 Following the above principle and escalation factor derived above, the impact of sharing of gains/loss has been computed by MSLDC for O&M expenses for FY 2022-23 and FY 2023-24 and the same is presented in the following table.

Table 7: Sharing of Gain and Loss on account of O&M Expenses for FY 2022-23 and FY 2023-24, as submitted by MSLDC (Rs. Lakh)

Normative O&M calculation	**FY 2022-23**	**FY 2023-24**
Net Entitlement of MSLDC for previous year	3,064.45	3,369.13
Escalation Factor after deducting efficiency factor 1%	4.85%	4.61%
Normative O&M Expenses	3,213.19	3,524.52
Actual expenses	3,680.99	3,837.60
Sharing Gain and (Losses)	(467.80)	(313.09)
2/3rd Efficiency Gain or 1/3rd Efficiency Loss sharing	(155.93)	(104.36)
Net Entitlement after sharing of Gains / (Losses)	**3,369.13**	**3,628.88**

Commission's Analysis and Ruling

3.3.6 MSLDC has submitted 4.85% and 4.61% as the escalation factors for FY 2022-23 and FY 2023-24, respectively. The Commission has re-computed and certain minor variations are observed due to the rounding-off of CPI index values by MSLDC in its submission. The escalation factors approved by the Commission are given in the table below.

Table 8: Escalation Factor for FY 2022-23 and FY 2023-24, as approved by the Commission

2011-12 series				
Year	**WPI**	**WPI Inflation**	**CPI**	**CPI Inflation**
FY 2012-13	106.90		215.17	
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%
FY 2022-23	152.53	9.41%	377.62	6.05%
FY 2023-24	151.42	-0.73%	397.20	5.19%
Average from FY 2018-19 to FY 2022-23				
Average		5.93%		5.84%
Weight		20%		80%
Escalation Factor				5.86%
Efficiency Factor				1.00%
Escalation Factor for FY 2022-23 net of Efficiency Factor				**4.86%**
Average from FY 2019-20 to FY 2023-24				
Average		4.93%		5.78%
Weight		20%		80%
Escalation Factor				5.61%
Efficiency Factor				1.00%
Escalation Factor for FY 2023-24 net of Efficiency Factor				**4.61%**

3.3.7 For FY 2022-23 and FY 2023-24, MSLDC has computed the normative expenses based on the previous year's net entitlement after sharing of efficiency gains and losses. The Commission has considered the provisions of Regulation 96.3 of the MYT Regulation 2019 which states that at the time of true-up for each Year of the 4th Control Period, the O&M expenses shall be derived on the basis of the Final Trued-up O&M expenses after adding/deducting the sharing of efficiency gains/losses, for the year ending 31 March 2020, excluding abnormal expenses, if any, subject to prudence check by the Commission, and shall be considered as the Base Year O&M expenses. Further, the O&M expenses for each subsequent year shall be determined by escalating these Base Year expenses of FY 2019-20 by an inflation factor derived using the WPI and CPI indices considering weightage of 20:80. Further, the Commission while computing the normative O&M expenses for FY 2021-22 onwards in the MTR Order in Case No. 233 of 2022 had also considered the impact of wage revision allowed in Case no. 291 of 2019 amounting to Rs. 277.54 Lakh as part of the normative O&M expenses for FY 2020-21. These normative expenses for FY 2020-21 approved in the MTR Order formed the basis for computation of the normative O&M expenses for the future years. Accordingly, the Commission has considered the impact of the wage revision allowed in Case no. 291 of 2019. Further, the normative O&M expenses for the true-up years of FY 2022-23 and FY 2023-24 and the provisional true-up year FY 2024-25 have been computed based on provisions of the MYT Regulations, 2019.

3.3.8 Considering the same, the Commission has computed the normative O&M expenses of Rs. 3074.65 Lakh and Rs. 3,216.48 Lakh for FY 2022-23 and FY 2023-24 respectively.

3.3.9 Accordingly, the above approved normative O&M expenses are considered by the Commission for sharing of gains or losses on account of controllable factors as per Regulation 11 of the MYT Regulations, 2019.

3.3.10 Further, as discussed in paras 3.2.19 and 3.2.20 of this Order, the Commission has shifted certain R&M nature expenses from non-DPR capitalization to O&M expenses and allowed the recovery of such expenses as part of the actual O&M expenses in FY 2022-23. With regards to such expenditure, the Regulation 61.9 introduced after Regulation 61.8 of the MYT Regulations, 2019 as part of the MERC (Multi Year Tariff) (Second Amendment) Regulations, 2023 states the following:

"61.9 The Commission may consider any request for revision of the normative O&M expenses of the Transmission Licensee on account of consideration of some Schemes under O&M rather than Capital Investment on case-to-case basis, depending on the justification to be submitted by the Applicant and the life-cycle cost analysis:

Provided that if actual O&M expenses including the cost of some schemes considered under O&M rather than Capital Investment are lower than normative O&M expenses, then sharing of efficiency gains shall be done:

Provided further that if actual O&M expenses including the cost of some schemes considered under O&M rather than Capital Investment are higher than normative O&M expenses on this account, then no sharing of efficiency losses shall be done*"*.

3.3.11 The actual approved O&M expenditure of MSLDC is already higher than the normative expenses for the FY 2022-23 and accordingly, in line with the proviso 2 of the Regulation 61.9, the Commission has considered the sharing of gains / losses only between the normative O&M expenses and the actual O&M expenses excluding the cost of shifted schemes. The net entitlement so worked out has been considered for approval along with the expenses towards the R&M nature schemes (without any sharing of efficiency losses) for recovery through the ARR.

3.3.12 In accordance with the relevant MYT Regulations, the approved net entitlement of MSLDC for FY 2022-23 and FY 2023-24 is as shown in the table below:

Table 9: Sharing of gains/losses on account of O&M expenses for FY 2022-23 and FY 2023-24, as approved by the Commission (Rs. Lakh)

Normative O&M calculation	FY 2022-23	FY 2023-24
Previous year normative expense computed by escalating Base expenses for FY 2019-20 using WPI and CPI linked escalation factor (Regulation 96.3 of MYT Regulations, 2019 (a))	2,932.28	3,074.65
Escalation Factor (b)	4.86%	4.61%
Normative O&M Expenses [c = a × (1+b)]	**3,074.65**	**3,216.48**
Actual expenses (Excluding impact of shifting of Capex to Opex for FY 2022-23) (d)	3,680.99	3,837.60
Sharing Gain / (Losses) (e = c – d)	-606.34	-621.13
1/3rd Efficiency Loss share (f = e × 1/3)	-202.11	-207.04
Net Entitlement after sharing	**3,276.76**	**3,423.52**
Add: Impact of shifting of Capex to Opex	22.60	0.00
Net Entitlement	**3,299.36**	**3,423.52**

3.3.13 **The Commission approves a net entitlement of O&M expenses of Rs. 3,299.36 Lakh for FY 2022-23 and Rs. 3,423.52 Lakh for FY 2023-24 after sharing of gains/losses on Truing up of AFC.**

3.4 Interest on Working Capital (IoWC)

<u>MSLDC's Submission</u>

<u>FY 2022-23 and FY 2023-24</u>

3.4.1 The Regulation 32.5 of the MYT Regulations, 2019 specifies the following:

"32.5 MSLDC

The working capital requirement of the MSLDC shall cover:

(i) Operation and maintenance expenses for one month;

(ii) One and a half months equivalent of the expected revenue from levy of Annual Fixed Charges approved by the Commission for ensuing year/s:

Provided further that for the purpose of Truing-up for any year, the working capital requirement shall be re-computed on the basis of the values of revised normative Operation & Maintenance expenses and actual Revenue from sale of electricity excluding incentive, if any, and other components of working capital approved by the Commission in the Truing-up before sharing of gains and losses;

(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 Fees and Charges is filed, plus 150 basis points:

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 point."

3.4.2 Further, Regulation 2.1 (11) of the MYT Regulations 2019 provides that the Base Rate would be one-year MCLR as declared by the State Bank of India (**SBI**) from time to time.

3.4.3 In accordance with the MYT Regulations, 2019, MSLDC has computed IoWC by considering one month's normative O&M expenses and 1.5 months' receivables. For computing receivables, MSLDC has considered the actual revenue earned. Further, MSLDC submitted that there is no actual loan borrowed for meeting its working capital requirements.

3.4.4 As regards the interest rate, MSLDC has considered the interest rate equivalent to 150 basis point margin over the SBI MCLR prevailing during FY 2022-23 and FY 2023-24. The Petitioner has derived the weighted average MCLR (one-year period) for FY 2022-23 and FY 2023-24 based on actual MCLR prevailing during the year. The applicable interest rate for working capital calculation is explained below.

Table 10: SBI base rate (MCLR) prevailing during FY 2022-23 and FY 2023-24 and interest rate considered for working capital, as submitted by MSLDC (%)

Particulars	FY 2022-23	FY 2023-24
Weighted average MCLR	7.79%	8.56%
Plus: 150 basis point	1.5%	1.5%
Applicable interest rate (MSLR+150 Basis point)	**9.29%**	**10.06%**

3.4.5 The IoWC considered by MSLDC and approved for FY 2022-23 and FY 2023-24 are shown in the table below:

Table 11: Interest on Working Capital for FY 2022-23 and FY 2023-24, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2022-23		FY 2023-24	
	MTR Order	Petition	MTR Order	Petition
Interest on Working Capital	66.50	65.02	63.99	68.20

Commission's Analysis and Ruling

3.4.6 The IoWC is computed in line with the provisions of the MYT Regulations, 2019 for FY 2022-23 and FY 2023-24. The revised normative O&M expenses approved in this Order, prior to sharing of gains/losses and the actual Revenue recovered by MSLDC, net of rebate availed by Transmission System Users (**TSU**s) for prompt payment, based on revenue approved in applicable Orders for recovery have been considered for computing the IoWC. This is also in line with the approach adopted by the Commission for all other licenses in their respective Tariff Orders.

3.4.7 Accordingly, the Commission has considered the weighted average 1-year MCLR after adding 150 basis points to this, as per the provisions of the MERC MYT Regulation, 2019. The detailed working of the interest rate for computing the IoWC is provided in the following table:

Table 12: Interest Rate on Working Capital Loan for FY 2022-23, and FY 2023-24, as approved by Commission

Interest Rate on Working Capital						
FY	From	To	Days	Rate	Wtd Avg. Base Rate	IoWC Rate
FY 2022-23	01-04-2022	14-04-2022	14	7.00%	7.80%	9.30%
	15-04-2022	14-05-2022	30	7.10%		
	15-05-2022	14-06-2022	31	7.20%		
	15-06-2022	14-07-2022	30	7.40%		
	15-07-2022	14-08-2022	31	7.50%		
	15-08-2022	14-09-2022	31	7.70%		
	15-09-2022	14-10-2022	30	7.70%		
	15-10-2022	14-11-2022	31	7.95%		
	15-11-2022	14-12-2022	30	8.05%		
	15-12-2022	14-01-2023	31	8.30%		
	15-01-2023	14-02-2023	31	8.40%		
	15-02-2023	14-03-2023	28	8.50%		
	15-03-2023	31-03-2023	17	8.50%		
FY 2023-24	01-04-2023	14-04-2023	14	8.50%	8.57%	10.07%
	15-04-2023	14-05-2023	30	8.50%		
	15-05-2023	14-06-2023	31	8.50%		
	15-06-2023	14-07-2023	30	8.50%		

Interest Rate on Working Capital						
FY	From	To	Days	Rate	Wtd Avg. Base Rate	IoWC Rate
	15-07-2023	14-08-2023	31	8.55%		
	15-08-2023	14-09-2023	31	8.55%		
	15-09-2023	14-10-2023	30	8.55%		
	15-10-2023	14-11-2023	31	8.55%		
	15-11-2023	14-12-2023	30	8.55%		
	15-12-2023	14-01-2024	31	8.65%		
	15-01-2024	14-02-2024	31	8.65%		
	15-02-2024	14-03-2024	29	8.65%		
	15-03-2024	31-03-2024	17	8.65%		

3.4.8 The revised normative IoWC for FY 2022-23 and FY 2023-24 approved in this Order is as given in the table below:

Table 13:Normative Interest on Working Capital for FY 2022-23, and FY 2023-24, as approved by Commission (Rs. Lakh)

Particulars	FY 2022-23			FY 2023-24		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
1 month of O&M expenses	268.75	267.77	256.22	292.59	293.71	268.04
1.5 months of receivables	434.95	431.80	431.80	384.56	383.94	383.94
Total Working Capital Requirement	**703.69**	**699.57**	**688.02**	**677.15**	**677.65**	**651.98**
Interest Rate (%)	9.45%	9.29%	9.30%	9.45%	10.06%	10.07%
Interest on Working Capital	**66.50**	**65.02**	**63.98**	**63.99**	**68.20**	**65.62**

3.4.9 **The Commission approves a normative IoWC of Rs. 63.98 Lakh for FY 2022-23, and Rs. 65.62 Lakh for FY 2023-24 on Truing up of AFC**.

3.5 Sharing of efficiency gains/losses on account of Interest on Working Capital

<u>MSLDC's Submission</u>

<u>FY 2022-23 and FY 2023-24</u>

3.5.1 MSLDC has submitted that the IoWC shall be payable on normative basis notwithstanding that MSLDC has not taken any working capital loan from any outside agency. The Commission in Case No. 233 of 2022 had opined that as no actual IoWC has been paid, the entire amount would be considered as efficiency gain and would be shared as per Regulation 11 of the MYT Regulations, 2019 for FY

2022-23 and FY 2023-24. Therefore, two-third of IoWC is proposed to be shared as efficiency gain, as shown in table below.

Table 14: Sharing of gain / loss in case of Interest on Working Capital for FY 2022-23 and FY 2023-24, as submitted by MSLDC (Rs. Lakh)

Particular	MTR Order	Revised Normative	Actual IOWC	Efficiency gain	Shared with beneficiary	Net entitlement
Interest on Working Capital FY 2022-23	66.50	65.02	0.00	65.02	43.35	21.79
Interest on Working Capital FY 2023-24	63.99	68.20	0.00	68.20	45.47	22.73

Commission's Analysis and Ruling

3.5.2 Regulation 8.4 (a) of MYT Regulations, 2019 specifies that the amount of approved aggregate gain or loss to the MSLDC on account of controllable factors for the truing up years may be shared in accordance with Regulation 11 of the MYT Regulations, 2019.

3.5.3 Further, as per Regulation 9.2 of the MYT Regulations, 2019, variation in IoWC is a controllable factor. Thus, the impact of sharing of gains/loss has been considered on this account for FY 2022-23 and 2023-24.

3.5.4 Regulation 32.6 of the MYT Regulations, 2019 reads as follows:

> *"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/ies or consumer as the case may be, in accordance with Regulation 11:"*

3.5.5 MSLDC has submitted that it has not taken any actual working capital loans. Accordingly, the entire normative IoWC computed on Truing up of AFC for FY 2022-23 and 2023-24 shall be considered as an efficiency gain and shared with the consumers in accordance with Regulation 11 of MYT Regulations, 2019.

3.5.6 MYT Regulations, 2019 stipulates the manner in which the approved gain or loss on account of controllable factors is to be shared between the MSLDC and TSUs. Similarly, the Regulation 11 of the MYT Regulations, 2019 also stipulates the manner in which the approved gain or loss on account of controllable factors is to be shared between the MSLDC and TSUs

3.5.7 Accordingly, the sharing of gains/losses on account of IoWC on Truing up of AFC for FY 2022-23 and FY 2023-24 is as shown in the following table:

Table 15: Sharing of gains/losses on account of IoWC for FY 2022-23, and FY 2023-24, as approved by Commission (Rs. Lakh)

Particulars	Revised Normative	Actual for the Year	Efficiency Gain / (Loss)	2/3rd Efficiency Gain or 1/3rd Efficiency Loss shared with Beneficiaries	Net Entitlement of MSLDC
FY 2022-23	63.98	0.00	63.98	42.65	21.33
FY 2023-24	65.62	0.00	65.62	43.75	21.87

3.5.8 **The Commission approves a net entitlement of IoWC after sharing of gains/losses of Rs. 21.33 Lakh for FY 2022-23, and Rs. 21.87 Lakh for FY 2023-24 on Truing up of AFC in accordance with the MYT Regulations**.

3.6 RLDC Fees

MSLDC's Submission

FY 2022-23 and FY 2023-24

3.6.1 The Regional Load Despatch Centre (**RLDC**) Fees for FY 2022-23 are Rs. 829.15 Lakh. For FY 2023-24, total RLDC payment is Rs.1,129.32 Lakh. The Petitioner has considered the RLDC payment under Fees and Subscription (covered under A&G expenses). RLDC fees were deducted from Fees and Subscription head under A&G and remaining payments/fees are considered as Fees and Subscription under A&G expenses. The details, as per entries made in TB, for FY 2022-23 and FY 2023-24, have been provided in the Petition.

3.6.2 MSLDC has submitted that the Western Regional Power Committee (**WRPC**) charges are not applicable for MSLDC from FY 2016-17, and hence not reflected in the Audited Accounts.

3.6.3 MSLDC has paid performance linked incentive (**PLI**) to RLDC during FY 2023-24 for period FY 2020-21, FY 2021-22 and FY 2022-23. The payment towards PLI is the main reason for increased RLDC charges during FY 2023-24. The actual payment made against the approved charges, as determined by the Commission in Case No. 233 of 2022 is given below:

Table 16: RLDC Fees for FY 2022-23 and FY 2023-24, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2022-23		FY 2023-24	
	MTR Order	MYT Petition	MTR Order	MYT Petition
RLDC Fees	651.52	829.15	684.10	1,129.32

Commission's Analysis and Ruling

3.6.4 For FY 2022-23 and FY 2023-24, the Commission has verified the actual RLDC Fees paid by MSLDC from the Audited Trial Balance and allocation statement of MSLDC and accepted the submission of MSLDC.

3.6.5 Further, in response to the Commission's query regarding the increase in charges as compared to approved numbers, MSLDC submitted that during FY 2022-23, SLDC paid the additional charges related to STM 1 LINK WRPC & BHUJ TO WRLDC TO MSEDCL and REIMB TO STM 1 & BHUJ WRLDC TO MSEDCL (Communication Links) which were additional payments made by MSLDC. Further, during FY 2023-24, MSLDC has paid substantial amount towards performance linked incentives which has impacted the charges during the year.

3.6.6 Accordingly, the RLDC Fees approved by the Commission are as shown in the Table below:

Table 17: RLDC Fees Charges for FY for FY 2022-23, and FY 2023-24, as approved by Commission (Rs. Lakh)

Particulars	FY 2022-23			FY 2023-24		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
RLDC Fees	651.52	829.15	829.15	684.10	1,129.32	1,129.32

3.6.7 **The Commission approves the RLDC Fees as Rs. 829.15 Lakh for FY 2022-23, and Rs. 1,129.32 Lakh for FY 2023-24 on Truing up of AFC, as submitted by MSLDC**.

3.7 Capitalization

MSLDC's Submission

FY 2022-23 and FY 2023-24

3.7.1 The Commission approved capitalization of Rs. 837.1 Lakh for FY 2022-23 and Rs. 2,952.8 Lakh for FY 2023-24 in Case No. 233 of 2022. However, upon completion of the respective financial years, the actual capitalization was lower than the approved amount. The breakup of actual capitalization as DPR and Non-DPR schemes is as shown in the Table below:

Table 18: Actual Capitalization for FY 2022-23, as submitted by MSLDC (Rs. Lakh)

Asset Description	Capitalization
RTU & DC for ALDC Ambazari	0.73
70 SAS/RTUs Integration	46.02
H/w & S/w at Control Centre (SLDC - SITC of 80 RTUs)	24.78
SITC of auto. FSS & MS at ALDC, Ambazari	159.41
SITC 2 nos. elevators at MSLDC Airoli	38.18
SITC of New 240 Line Digital EPABX m/c	6.30
Civil Works of New SLDC Building Airoli	15.56
Civil UPVC vertical fins for ventilation	7.05
VDU and furniture for Cyber SOC	5.93
SITC of VC System at Control Room, SLDC	22.35
SITC of Backup Appliances with S/w & Tape Library	99.20
Proc of Client & Server Anti-Virus License	12.01
General asset total	107.70
TOTAL CAPITALISATION	**545.21**

Table 19: Actual Capitalization for FY 2023-24, as submitted by MSLDC (Rs. Lakh)

Asset Description	Capitalization
70 SAS/RTUs Integration	70.80
Extension of W.O. auto. FSS & MS at ALDC	67.26
Change Request DSM Software	84.00
SIC of LED video wall with controller & controller software	49.00
Fire Hydrant System Works	12.84
RFID based auto boom barrier with camera	16.24
General asset total	18.16
Total	**318.30**

3.7.2 MSLDC has submitted the status of DPR and Non DPR Capex scheme, their progress and expected completion targets in the Petition. Actual Capitalization is lower than the capitalization approved by the Commission in Order in Case No. 233 of 2022 as few schemes could not be initiated due to change in requirement at MSLDC level as per situation prevailed.

Commission's Analysis and Ruling

3.7.3 MSLDC has submitted the Work Completion reports for the DPR schemes as well as for major non-DPR schemes to ascertain the actual status of implementation and the put to use of assets against the capitalization claimed in FY 2022-23 and FY 2023-24 which have been examined by the Commission. The list of approved DPR schemes including the Commission's remarks is enclosed as **Appendix – IV** to this Order. Further, the justification for the Non-DPR schemes shared by MSLDC along with the Commission's remarks is enclosed as **Appendix – III** to this Order. Based on the justification and other available information, the Commission has approved the capitalization for the truing up period.

3.7.4 The Commission notes that in case of configuration of Remote Terminal Unit (**RTUs**) in SCADA system by MSLDC mainly depends on installation of IED's and RTU's in remote EHV substations by MSETCL. Further, MSETCL has to commission data communication link from EHV substations where RTU is located to the MSLDC. The activity of data integration can commence after completion of above activities by MSETCL, hence it is observed that there is delay in data integration of RTU's in SCADA system.

3.7.5 Further, it is observed that the capitalization towards non DPR is in excess of 20% of capitalization of DPR schemes. However, in the MYT Order in Case No. 291 of 2019, the Commission has decided not to restrict the non-DPR capitalization at 20% of DPR capitalization for MSLDC. The relevant extract of the MYT Order reads as follows:

> *"For any scheme with projected capital expenditure above Rs.100 Lakh, MSLDC is expected to submit a DPR for in-principle approval. The Commission observes that most of the capex schemes of MSLDC are small value schemes and Capitalisation against these is requirement based and periodic in nature. Further, the Commission is wary of the fact that MSLDC not only plays very critical role in ensuring the integrated operation of power system within the State but also responsible for real time operations for grid control and despatch of electricity within the State.* ***Further, MSLDC has to tackle operational and technological challenges to manage the increasing quantum of renewable energy. It is therefore essential that MSLDC's operations are not affected and it should be equipped to undertake necessary capital expenditure to meet the operational and technological challenges.*** *Therefore, the* ***Commission has reviewed MSLDC's request to approve the capitalisation proposed under DPR and non-DPR schemes as submitted and accordingly, decides not to restrict the non-DPR capitalization at 20% of DPR capitalisation approved for the year.*** *Accordingly, the Commission approves capitalisation against DPR as well as non-DPR schemes as claimed by MSLDC, after verification from the*

audited annual accounts."

3.7.6 Similar approach was adopted by the Commission in the MTR Order in Case no. 233 of 2022.

3.7.7 The General Assets claimed by MSLDC includes multifunction printer, desktops, laptops, MS-Office software, CCTV cameras, biometric systems, LED displays, sliding glass doors, voice lockers, motorized treadmill, kitchen utensils, RO-water purifiers, watercoolers etc., which are essential items required for security and day today work.

3.7.8 The Commission approves MSLDC's claim against capitalization of general assets in FY 2022-23 and FY 2023-24 as Rs. 58.26 Lakh and Rs. 18.16 Lakh respectively.

3.7.9 Further, the Regulation 10 of the Capex Regulations, 2022 notified by the Commission prescribes the following:

> *"10.1* ***All Non-DPR Schemes shall be required to be registered with the Commission on quarterly basis*** *in physical form, till the commencement of the web-portal referred in Regulation 19 of these Regulations, after which the Schemes shall be registered on the web portal:*
>
> *Provided that the Format specified in Appendix 1 for submission of DPR Schemes shall be applicable for Non-DPR Schemes also, to be filled-up as applicable/relevant:*
>
> *Provided further that the registration of the Non-DPR Schemes shall only be acknowledged by the Commission in accordance with the Format specified in Appendix 4, and shall not be construed as approval by the Commission:*
>
> ***Provided also that the Commission shall not consider Non-DPR Schemes that have not been registered with the Commission, for Final approval of completed cost in accordance with these Regulations****."*

3.7.10 It is observed that MSLDC has not registered any of the non-DPR schemes with the Commission as mandated by the provisions of the Capex Regulations, 2022. These Regulations have been notified on 22 July 2022. Hence, MSLDC should have registered the non-DPR schemes executed after 12 July 2022 i.e. part of the FY 2022-23 and entire FY 2023-24. However, the Commission also notes that this requirement has been prescribed for the first time through the new Regulations. Hence, the Commission, as a part of present MYT proceeding, has decided to consider these non-DPR schemes for approval. However, going forward, MSLDC is directed to ensure that all the non-DPR schemes are appropriately registered with the Commission and non-registration would lead to disallowance of the capitalisation against such non-registered non-DPR schemes.

3.7.11 Further, as discussed in paras 3.2.19 and 3.2.20 of the Order, the Commission has identified two schemes in which the works executed are of R&M nature and hence the expenses cannot be claimed under non-DPR capitalisation. The Capex Regulation, 2022 clearly defines the type of schemes which can be considered by the Commission under capital investment approval and those which will not be considered under capital investments schemes. Accordingly, the Commission has considered the expenses incurred towards these schemes under the actual R&M expenses for recovery during the FY 2022-23 i.e. the year in which the capitalisation had been sought. It is important that MSLDC designs it schemes taking due cognisance of the provisions of the Capex Regulations, 2022. The details of these schemes are given below:

- Civil work of new SLDC building Airoli – Rs. 15.56 Lakh
- Civil UPVC vertical fins for ventilation – Rs. 7.05 Lakh

3.7.12 Based on the above, the Commission approves capitalization for FY 2022-23 and FY 2023-24 as shown in the below Table:

Table 20: Capitalization for FY 2022-23 and FY 2023-24, as approved by Commission (Rs. Lakh)

Particulars	FY 2022-23	FY 2023-24
DPR Schemes		
SLDC - SITC of 80 RTUs	24.78	0.00
S/I/T/C of auto FSS and MS at ALDC Ambazari	159.41	67.26
70 SAS/ RTUs integration	46.02	70.80
DSM (Change request)	0.00	84.00
Total (DPR)	**230.21**	**222.06**
Non-DPR Scheme		
RTU-DC SLDC Airoli and Ambazari (two schemes jointly)	0.73	0.00
S/I/T/C 2 No of elevator at MSLDC Airoli	38.18	0.00
S/I/T/C of New 240 line digital EPBAX	6.30	0.00
S/I/T/C of video wall display unit 2X2	5.93	0.00
S/I/T/C of Backup appliance	99.20	0.00
S/I/T/C of anti-virus software along with server	12.01	0.00
S/I/T/C VC at control room	22.35	0.00
PSSE system study software (2nd keys)	49.45	0.00
General Asset: SLDC	58.26	18.16
Fire Hydrant System works	0.00	12.84
RFID based auto boom barrier with camera	0.00	16.24
7 LED screen at control room to show operational data	0.00	49.00
Total (N-DPR)	**292.40**	**96.24**
Total Capitalization	**522.61**	**318.30**

Particulars	FY 2022-23			FY 2023-24		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
DPR Schemes	259.74	230.21	230.21	2,269.00	222.06	222.06
NDPR Schemes	577.36	315.00	292.40	683.80	96.24	96.24
Capitalization	**837.1**	**545.21**	**522.61**	**2,952.80**	**318.30**	**318.30**

3.7.13 **The Commission approves Capitalization of Rs. 522.61 Lakh for FY 2022-23, and Rs. 318.30 Lakh for FY 2023-24 on Truing up of AFC**.

3.8 Depreciation

MSLDC's Submission

3.8.1 The Commission in its order in Case No. 233 of 2022 opined the following regarding claim of depreciation, during the fourth control period.

For FY 2022-23:

"The addition to GFA for FY 2022-23 is not considered for computation of depreciation as the capitalization during FY 2022-23 is considered to be funded from LDCD Fund."

For FY 2023-24:

"The Commission has allowed LDCD fund to be used for funding capitalisation for the 4th Control Period and is sufficient to meet capitalisation approved for FY 2023- 24 and FY 2024-25. Accordingly, the Commission has not considered any addition to GFA to the extent of utilization of LDCD fund for these years. In case, MSLDC incurs funds in excess of LDCD fund balance, the same shall be assumed to be funded through debt and equity and hence would be eligible to claim depreciation, interest on loan and RoE on truing-up subject to prudence check."

3.8.2 In line with the directives of Commission with respect to utilization of LDCD fund, the funding of capitalization during FY 2022-23 and FY 2023-24 has been considered from the proceeds accumulated in LDCD (Load Despatch Center Development) fund created by the Commission.

3.8.3 Therefore, instead of considering actual depreciation as reflected in its Annual account, MSLDC has considered depreciation for FY 2022-23 and FY 2023-24 as per amount approved by the Commission in its MTR Order in Case No. 233 of 2022. The reason for considering the depreciation amount as approved by the Commission is in its Order in Case No 233 of 2022 is that MSLDC was directed to consider approved GFA values in future Petitions. The relevant part from the said Order is reproduced below:

"3.9.10 The Commission has examined this issue and is of the opinion that MSLDC, in its Tariff Petitions, has to consider the opening values of GFAs which have been approved by the Commission in the past Orders. Submitting the Petition with opening values (GFA, Normative Loans, equity, etc.) different from those approved by the Commission in the earlier Orders leads to misrepresentation of the values in front of the stakeholders and hence needs to be avoided. Further, the Commission in the present Order has not considered MSLDC's request regarding approval of the past disallowed capitalisation which is the key reason for the difference in the opening values. Accordingly, MSLDC, in the next Petition, should use only the opening values as approved by the Commission in the present Petition.

3.9.11 Accordingly, the Commission has considered the closing GFA for FY 2018-19 approved in the MYT Order in Case No. 291 of 2019 which is considered as the opening GFA for FY 2019-20. The addition to GFA is considered based on the approved Capitalization and utilisation of LDCD fund."

3.8.4 Accordingly, as MSLDC has to adopt the GFA amount as approved in Case No 233 of 2022, and the capitalization had been made from LDCD fund for which no depreciation is allowed, it has considered the approved depreciation for FY 2022-23 and FY 2023-24 for True up years.

3.8.5 Against the approved depreciation of Rs. 115.60 Lakh (FY 2022-23) and Rs. 115.51 Lakh (FY 2023-24), MSLDC has claimed depreciation for truing up as Rs. 115.60 Lakh and Rs. 115.51 Lakh, for FY 2022-23 and FY 2023-24, respectively. The details are given below.

Table 21: Depreciation for FY 2022-23 and FY 2023-24, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2022-23		FY 2023-24	
	MTR Order	MYT Petition	MTR Order	MYT Petition
Deprecation	115.60	115.60	115.51	115.51

Commission's Analysis and Ruling

3.8.6 The Commission has considered the closing GFA for FY 2021-22 approved in the MYT Order in Case No. 233 of 2022 as the opening GFA for FY 2022-23. The addition to GFA for FY 2022-23 and FY 2023-24 is not considered for computation of depreciation as the capitalization during these years is funded through LDCD Fund.

3.8.7 The Commission has computed the depreciation for FY 2022-23 and FY 2023-24 in accordance with the MYT Regulation, 2019, as applicable, subject to the ceiling of

90% of GFA for individual asset classes, as applicable, and has approved the amount as given in the table below:

Table 22: Depreciation for FY 2022-23 and FY 2023-24, as approved by Commission (Rs. Lakh)

Particulars	FY 2022-23			FY 2023-24		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Opening Gross Fixed Assets	8,763.04	8,763.04	8,763.04	8,763.04	8,763.04	8,763.04
Add: Additional Capitalization during the year	-	-	-	-	-	-
Less: Retirement/Adjustments	-	-	-		-	-
Closing Gross Fixed Assets	**8,763.04**	**8,763.04**	**8,763.04**	**8,763.00**	**8,763.04**	**8,763.04**
Total Depreciation	**115.60**	**115.60**	**115.60**	**115.51**	**115.51**	**115.51**

Note: Capitalization of FY 2022-23, and FY 2023-24 is funded through LDCD Fund and hence not considered for the purpose of computation of depreciation.

3.8.8 **The Commission approves depreciation of Rs. 115.60 Lakh for FY 2022-23, and Rs. 115.51 Lakh FY 2023-24 on truing up of AFC**.

3.9 Interest on Long Term Loans

MSLDC's Submission

3.9.1 The interest on the existing actual loan for MSLDC has been repaid and hence, no actual loan is considered. From FY 2019-20 onwards, all loans are normative loans only.

3.9.2 For the purpose of estimating interest cost corresponding to new loans for new Capital Expenditure Schemes as per MYT Regulations 2019, the loan component is based on normative debt-equity ratio of 70:30. However, considering that the capitalization for FY 2022-23 and FY 2023-24 is funded through LDCD fund, no new additional normative loan has been considered.

3.9.3 As discussed in the depreciation section, the GFA as approved by the Commission in Case No 233 of 2022 has been considered by MSLDC as opening GFA for FY 2022-23 and therefore the approved amount of opening normative loan (derived based on approved GFA) has been considered as the opening normative loan for FY 2022-23. As capitalization is funded from LDCD fund, there is no addition in loan amount during FY 2022-23 and FY 2023-24, which is in line with the approach adopted by the Commission in its MTR Order in Case No 233 of 2022.

3.9.4 Further, MSLDC has considered the interest rate same as considered MSETCL. The depreciation calculated as part of the Petition is considered as loan repayment as per the provisions of the MYT Regulations, 2019.

3.9.5 The Interest on Normative Loans claimed by MSLDC for FY 2022-23, and FY 2023-24 are as follows:

Table 23: Interest on Long Term Loans for FY 2022-23 and FY 2023-24, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2022-23		FY 2023-24	
	MTR Order	MYT Petition	MTR Order	MYT Petition
Opening Balance of Net Normative Loan	730.92	730.92	615.32	615.32
Less: Reduction of Normative Loan due to retirement or replacement of assets	0.00	0.00	0.00	0.00
Addition of Normative Loan due to capitalization during the year	0.00	0.00	0.00	0.00
Repayment of Normative loan during the year	115.60	115.60	115.51	115.51
Closing Balance of Net Normative Loan	**615.32**	**615.32**	**499.82**	**499.81**
Average Balance of Net Normative Loan	**673.12**	**673.12**	**557.57**	**557.565**
Weighted average Rate of Interest on actual Loans (%)	8.93%	9.05%	8.93%	9.36%
Interest Expenses	60.11	60.92	49.79	52.19
Total Interest & Financing Charges	**60.11**	**60.92**	**49.79**	**52.19**

<u>Commission's Analysis and Ruling</u>

3.9.6 For the truing-up of AFC for FY 2022-23 and 2023-24, the closing loan for FY 2021-22 approved in the MTR Order in Case No. 233 of 2022 is considered as the opening loan for FY 2022-23. As the capitalization is funded through the LDCD Fund, no additional of normative loan is considered for FY 2022-23 and FY 2023-24. The repayment of normative loan is linked to the depreciation approved in the present Order. The Interest rate as considered by MSETCL in its MYT Petition is considered by MSLDC for computation of the interest expense on normative loans.

3.9.7 The Commission has noted the submissions and has considered the rate of interest as approved by the Commission for MSETCL in the MYT Order in Case No. 178 of 2024.

3.9.8 Based on the above, the Commission has approved the following interest on long term loan for FY 2022-23 and FY 2023-24:

Table 24: Interest on Long Term Loans for FY 2022-23 and FY 2023-24, as approved by Commission (Rs. Lakh)

Particulars	FY 2022-23			FY 2023-24		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Opening Balance of Normative Loan	730.92	730.92	730.92	615.32	615.32	615.32
Addition of normative loan due to capitalisation during the year	0.00	0.00	0.00	0.00	0.00	0.00
Repayment of Normative loan during the year	115.60	115.60	115.60	115.51	115.51	115.51
Closing Balance of Normative Loan	**615.32**	**615.32**	**615.32**	**499.82**	**499.81**	**499.81**
Weighted average Rate of Interest (%)	8.93%	9.05%	9.05%	8.93%	9.36%	9.36%
Normative Interest Expenses	**60.11**	**60.92**	**60.93**	**49.79**	**52.19**	**52.18**

Note: Capitalization for FY 2022-23 funded from LDCD Fund and hence no addition to the debt component during the year is considered.

3.9.9 **The Commission approves interest on long term loans of Rs. 60.93 Lakh for FY 2022-23, and Rs. 52.18 Lakh for FY 2023-24 on truing-up of AFC**.

3.10 Return on Equity (RoE)

MSLDC'S Submission

FY 2022-23 and FY 2023-24

3.10.1 The Regulation 29 of the MYT Regulations, 2019 provides as follows:

"29 Return on Equity

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

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

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

3.10.2 MSLDC has reproduced the observations made by the Commission to Return on Equity for True up of FY 2020-21 and FY 2021-22 in Case No 233 of 2022 as given below.

> *"3.11.13 In view of the above, the Commission is presently not allowing MSLDC to recover the additional RoE in absence of any framework to assess the performance. MSLDC is directed to resubmit its proposal within three months from the issue of this Order with a detailed proposal including similar framework operational in other parts of the country. MSLDC should also study the recommendations given in various reports issued by entities like the Forum of Regulators, etc. The framework should also outline how the data would be collated against the proposed parameters and process to be followed for validation of the performance data including timely compliances of Orders issued by the Commission. The framework will be applicable on a prospective basis only".*

3.10.3 MSLDC submitted that under MYT Regulation, 2024, the Commission has specified the mechanism / format for verifying performance of SLDC/STU. Based on the mechanism for monitoring the performance as specified in MYT Regulation, 2024, the Petitioner has submitted its performance against selected KPI during FY 2022-23 and FY 2023-24 for consideration of the Commission. Accordingly, MSLDC has requested the Commission to grant the additional RoE during FY 2022-23 and FY 2023-24.

3.10.4 Further, as explained earlier, no equity addition has been considered as funding for capitalization is considered from LDC development fund. The opening equity for FY 2022-23 is considered as per the approved value of closing equity for FY 2021-22 in the MTR Order in Case No 233 of 2022. The Return on Equity for FY 2022-23 and FY 2023-24 is shown in Table below:

Table 25:Return on Equity for FY 2022-23 and FY 2023-24, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2022-23		FY 2023-24	
	MTR Order	MYT Petition	MTR Order	MYT Petition
Regulatory Equity at the beginning of the year	1,267.45	1,267.45	1,267.45	1,267.45
Regulatory Equity at the end of the year	1,267.45	1,267.45	1,267.45	1,267.45
Return on Equity Computation				
Return on Regulatory Equity at the beginning of the year (base RoE + Additional RoE)	177.44	191.13 (@14%+ 1.08%)	177.44	191.26 (@14%+1.09%)
Return on Regulatory Equity addition during the year	0.00	0.00	0.00	0.00
Total Return on Equity	**177.44**	**191.13**	**177.44**	**191.26**

Commission's Analysis and Ruling

3.10.5 The Commission has noted the submissions of MSLDC. The closing equity for FY 2021-22 as approved in the MTR Order in Case No. 233 of 2022 is considered as the opening equity for FY 2022-23. As the additional capitalization is funded through LDCD fund, no equity addition is considered during the period FY 2022-23 to FY 2023-24.

3.10.6 As regards FY 2022-23 and FY 2023-24, the Commission notes that the MYT Regulations, 2019 do not specify any performance parameters for MSLDC for the additional return on equity. In this regard, the Commission in its Order in Case No. 291 of 2019 had directed as follows:

> *5.9.12 Accordingly there are various different KPIs identified by CERC and FOR for measuring the performance of the Load Despatch Centre, however, it is important for MSLDC also to study these KPIs and come up with its recommendations regarding the KPIs which can be considered by the Commission for linking it to the recovery of performance linked RoE. The recommendations could be accompanied with an entire framework for measuring, comparing and validating the KPIs.*
>
> *5.9.13 In view of the above discussion, the* ***Commission hereby directs MSLDC to approach the Commission with the proposal to fix the performance norms or Key Performance Indicators based on which MSLDC will be entitled to claim Additional RoE of 1.5% at the time of truing up within 3 months of this Order****.*

3.10.7 Thus, the Commission had directed MSLDC to approach the Commission with a proposal to fix up the performance norms or KPIs within 3 months of the aforesaid Order i.e. by the end of June 2020. The timely submission on part of MSLDC would have provided sufficient time for deliberations prior to fixing the norms. However, MSLDC approached the Commission only in April 2022, i.e., after completion of FY 2020-21 and FY 2021-22 for which truing up was being undertaken in the MTR proceeding and for which MSLDC was seeking to claim additional RoE could have been made. The observations of the Commission on this issue are outlined below:

> *"3.11.12 Thus, the Commission had directed MSLDC to approach the Commission with a* ***proposal to fix up the performance norms or KPIs within 3 months of the aforesaid Order i.e. by the end of June 2020.*** *The timely submission on part of MSLDC would have provided sufficient time for deliberations prior to fixing of the norms. However,* ***MSLDC approached the Commission only in April 2022****, i.e., after completion of the years FY 2020-21 and FY 2021-22 for which truing up is being considered in present Petition and a claim for additional RoE could have been made.* ***Fixing a***

***norm for a year on post facto basis after completion of that year is not appropriate**. Further, the proposal was not supported by any data to help assess the performance. Also, the parameters proposed by MSLDC are subjective in nature and for finalization of norms of performance, objective parameters which can be measured in an unambiguous manner, need to be considered. Further, process of Ring fencing of MSLDC is yet to achieved which would enable it to monitor the above KRAs for performance evaluation. The Commission had directed MSLDC to submit a report on the progress in this matter, every six months, to the Commission. However, MSLDC has not complied with this directive on a periodic basis and only submitted the update at the time of filing of the MTR Petition.*

*3.11.13 In view of the above, the **Commission is presently not allowing MSLDC to recover the additional RoE in absence of any framework to assess the performance. MSLDC is directed to resubmit its proposal within three months from the issue of this Order with a detailed proposal including similar framework operational in other parts of the country.** MSLDC should also study the recommendations given in various reports issued by entities like the Forum of Regulators, etc. The framework should also outline how the data would be collated against the proposed parameters and process to be followed for validation of the performance data including timely compliances of Orders issued by the Commission. **The framework will be applicable on a prospective basis only.**"*

3.10.8 Key takeaways from the MTR Order in Case No. 233 of 2022 are:

- MSLDC was directed to approach the Commission with a proposal to fix up the performance norms or KPIs within 3 months of the MYT Order i.e. by the end of June 2020. However, MSLDC approached the Commission only in April 2022 which is a case of significant delay in complying with the Commission's directions.

- Considering the delay in submission of the proposal, the Commission remarked that fixing a norm for a year on post facto basis after completion of that year is not appropriate.

- The Commission disallowed the additional RoE for FY 2020-21 and FY 2021-22 in absence of a framework, however, gave an opportunity to MSLDC to resubmit its proposal within three months from the issue of the MTR Order (by June 2023) with a detailed proposal including similar framework operational in other parts of the country and incorporating the recommendations given in various reports by entities like the Forum of Regulators, etc.

- MSLDC again failed to approach the Commission within the prescribed timelines. MSLDC submitted its proposal only on 10 January 2024 i.e. almost at the end of FY 2023-24. This is a case of significant delay in complying with the Commission's directions. Further, providing the proposal for deciding criteria for performance evaluation after or at the end of the year for which the performance is to be evaluated is not appropriate

3.10.9 MSLDC has requested the Commission during the present proceedings for additional RoE for FY 2022-23 and FY 2023-24 against selected KPIs which have been prescribed in the MERC MYT Regulations, 2024 for the 5th Control Period.

3.10.10 Accordingly, MSLDC is again approaching the Commission for fixing up norms and evaluating the performance of MSLDC against these norms on a post facto basis. The Commission has already taken a stand against this approach and had not approved the additional RoE for MSLDC during the MTR proceedings.

3.10.11 In view of the above, the Commission is not inclined to allow MSLDC to recover the additional RoE for the truing up years of FY 2022-23 and FY 2023-24. Further, the control period is nearing completion, and the Commission has already prescribed a new framework for the 5th Control period starting FY 2025-26. MSLDC will need to adhere to this framework going forward and accordingly, the Commission will not allow additional RoE during the truing up of FY 2024-25 during the next MYT proceedings.

3.10.12 In view of above, RoE is computed at the rate of 14% which is the base RoE as per MYT Regulations, 2019. The same has been considered by the Commission to approve the RoE.

3.10.13 Considering the above, the RoE approved by the Commission for FY 2022-23 and FY 2023-24 is as shown in the table below:

Table 26: Return on Equity for FY 2022-23, and FY 2023-24, as approved by Commission (Rs. Lakh)

Particulars	FY 2022-23			FY 2023-24		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Regulatory Equity at the beginning of the year	1,267.45	1,267.45	1,267.45	1,267.45	1,267.45	1,267.45
Addition to the Regulatory Equity due to capitalisation during the year	0.00	0.00	0.00	0.00	0.00	0.00

Particulars	FY 2022-23			FY 2023-24		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Regulatory Equity at the end of the year	1,267.45	1,267.45	1,267.45	1,267.45	1,267.45	1,267.45
Return on Regulatory Equity at the beginning of the year	177.44	191.13	177.44	177.44	191.26	177.44
Return on Regulatory Equity addition during the year	-	-	-	-	-	-
Total Return on Equity	**177.44**	**191.13**	**177.44**	**177.44**	**191.26**	**177.44**

3.10.14 **The Commission approves RoE of Rs. 177.44 Lakh for FY 2022-23, and Rs. 177.44 Lakh for FY 2023-24 on Truing up of AFC**.

3.11 Income Tax

MSLDC's Submission

3.11.1 MSLDC does not have a separate corporate existence i.e., it is not a separate Company and is being operated by MSETCL which is also being regulated by the Commission. Further, the expenditure/income pertaining to MSLDC activities is accounted separately in line with the Commission's directives for the purpose of regulatory reporting.

3.11.2 Neither a separate filing of Income Tax Returns in respect of MSLDC is done nor there is an allocation/claim of Income Tax towards MSLDC by MSETCL. However, in future if such allocation/claims are formulated, MSLDC shall be able to claim in future period in accordance with provisions outlined under MERC MYT Regulations over the control period. MSLDC humbly requested the Commission to kindly grant liberty to submit the relevant details, if required. In view of the above, MSLDC has not claimed Income Tax.

3.11.3 In view of the above, MSLDC has not claimed Income Tax for FY 2022-23, and FY 2023-24.

Commission's Analysis and Ruling

3.11.4 The Commission notes the submission of MSLDC in respect of Income Tax for FY 2022-23 and FY 2023-24 that MSLDC does not have a separate corporate status and is, therefore, not required to submit Income Tax returns and also that MSETCL has not allocated any Income Tax to MSLDC.

3.11.5 Further, the Regulation 34.2 of the MYT Regulation, 2019 states that the Return on Equity, including additional Return on Equity as allowed by the Commission under

Regulation 29 of the MYT Regulations, 2019 shall be grossed up with the effective tax rate of respective financial year.

3.11.6 Considering MSLDC's submission, no grossing up of RoE has been considered presently for FY 2022-23 and FY 2023-24 on Truing up.

3.12 Non-Tariff Income

MSLDC's Submission

3.12.1 Regulation 98 of the MYT Regulations, 2019 specifies as under:

> *"98.1 The amount of Non-Tariff Income relating to the MSLDC as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in determining the Fees and Charges of the MSLDC:*
>
> *Provided that the MSLDC shall submit full details of its forecast of Non-Tariff Income to the Commission in such form as may be stipulated by the Commission.*
>
> *98.2 The Non-Tariff Income shall include:*
>
> *a) Income from sale of scrap;*
>
> *b) Income from investments;*
>
> *c) Interest income on advances to suppliers/contractors;*
>
> *d) Income from rental from staff quarters;*
>
> *e) Income from sale of tender documents;*
>
> *f) Any other Non-Tariff Income:*
>
> *Provided that the interest earned from investments made out of Return on Equity of the MSLDC shall not be included in Non-Tariff Income."*

3.12.2 The interest income is not considered as non-Tariff income as discussed in earlier Orders of the Commission. The same approach has been followed in present Petition and MSLDC has not considered income from fixed deposits (as reflected in audited account) towards non-Tariff income. Further, the Commission had instructed MSLDC to include the interest earned from LDCD fund under non-Tariff income. MSLDC has considered the interest from LDCD fund under non-Tariff income for FY2022-23 and FY 2023-24. The details of LDCD fund and details of such interest income have been provided in the Petition.

3.12.3 MSLDC has requested the Commission to allow Non-Tariff Income as given below:

Table 27: Non-Tariff Income for FY 2022-23 and FY 2023-24, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2022-23		FY 2023-24	
	MTR Order	MYT Petition	MTR Order	MYT Petition
Non-Tariff Income	376.61	526.07	297.94	722.53

Commission's Analysis and Ruling

3.12.4 The Commission has noted the submission of MSLDC in respect of Non-Tariff Income. Further, it has verified the actual Non-Tariff Income from the audited Trial Balance of MSLDC for FY 2022-23 and FY 2023-24.

3.12.5 Based on the direction of the Commission in MTR Order in Case No. 233 of 2022, MSLDC has created LDCD Fund from FY 2018-19. Accordingly, the surplus available with LDCD fund post utilization of the amount for capitalization is considered for calculation of Income from Fixed Deposit Receipts (**FDR**) at the average Interest rate on which the FDR is invested by MSLDC. The Commission has examined the details submitted by MSLDC and the detailed computation is as follows:

Table 28: Computation of Interest Rate on FDs for FY 2022-23 and FY 2023-24, as approved by Commission (Rs. Lakh)

Particulars	FY 2022-23		FY 2023-24	
	MYT Petition	Approved in this Order	MYT Petition	Approved in this Order
Average LDCD fund	7,945.49	8,000.07	9,176.50	9,402.75
Interest rate	5.70%	5.70%	6.65%	6.65%
Income earned on LDCD fund	**452.85**	**455.96**	**610.30**	**625.41**

3.12.6 **The Commission approves Income earned on LDCD Fund of Rs. 455.96 Lakh for FY 2022-23 and Rs. 625.41 Lakh for FY 2023-24 respectively on Truing up of AFC**. The income earned on the LDCD fund is considered as the non-Tariff income. The variation in the MSLDC's claim v/s approved interest on LDCC fund has resulted in variation in approval of the non-Tariff income. The variation in interest in LDCD fund is on account of variation in capitalisation claimed by MSLDC and that approved by the Commission which in turn impacts the utilisation of the available LDCD fund.

3.12.7 Accordingly, the Non-Tariff Income (which also includes the income earned on LDCD fund) approved for FY 2022-23 and FY 2023-24 is as per the following table:

Table 29: Non-Tariff Income for FY 2022-23 and FY 2023-24, as approved by Commission (Rs. Lakh)

Particulars	FY 2022-23			FY 2023-24		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Non-Tariff Income	376.61	526.07	529.19	297.94	722.53	737.64

3.12.8 **The Commission approves Non-Tariff Income of Rs. 529.19 Lakh for FY 2022-23 and Rs. 737.64 Lakh for FY 2023-24 respectively on Truing up of AFC**.

3.13 Income from Open Access Charges

<u>MSLDC's Submission</u>

3.13.1 The actual income from Open Access Charges including Rescheduling Charges is Rs. 1,262.36 Lakh for FY 2022-23 and Rs. 1,736.91 Lakh for FY 2023-24 in line with the provisions of the MYT Regulations, 2019.

3.13.2 In the Final Balancing Settlement Mechanism (**FBSM**) framework (up to 10 October 2021), Rescheduling charges were calculated for the station as a whole during revisions for the same period /block. But in the DSM regime (from 11 October 2021), Rescheduling charges @ Rs. 2,250 per unit per revision are calculated unit wise and block wise. In FBSM, Discoms pay to generators as per actual generation, whereas, in DSM, payment is as per schedule. However, in DSM regime, 14 Discoms plus 72 generators / sellers are paying scheduling/ re-scheduling charges. Further, in DSM, first time generators are involved in deviation ambit. So, to minimize the deviation charges, the generators are keen to revise their schedules as close as to their actual generation. Hence, the number of revisions is more in DSM and that is reflected in income from re-scheduling charges. The income from re-scheduling charges has increased considerably in FY 2022-23. The re-scheduling charges from FY 2023-24 onwards were reduced on account of the directions of the Commission in the Order in Case No. 233 of 2022. Due to reduction of charges, the actual re-scheduling income reduced in FY 2023-24 in comparison to FY 2022-23. The relevant part of the Order is reproduced below:

"2.2.22 In view of this, the Commission is of the view that it would be appropriate to reduce the rescheduling charges from its present level considering that the revisions in schedules undertaken by the state entities helps MSLDC in deviation management and automation of scheduling/rescheduling services at MSLDC. Considering the suggestions of the Distribution Licensees, the Commission thinks it fit to rationalize and reduce the rescheduling charges to a level lower than 50% of the present level

for the time being. Accordingly, it is directed that the rescheduling charges shall be Rs. 1000/- per revision in schedule after finalization of the schedule on day-ahead basis and MSLDC (if felt necessary for any pressing reason) may make its detailed submission in next MYT Petition, if any change is required in these charges."

3.13.3 MSLDC has sought approval of the income from open access charges as given in the table below:

Table 30: Income from Open Access and Re-Scheduling Charges for FY 2022-23 and FY 2023-24, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2022-23		FY 2023-24	
	MTR Order	MYT Petition	MTR Order	MYT Petition
Income from open access charges	1,203.41	1,262.36	1,227.48	581.98
Income from Re-scheduling Charges	-	2,279.23	-	1,154.93

Commission's Analysis and Ruling

3.13.4 The Commission has examined the submission of MSLDC in respect of Income from Open Access Charges. The same has also been verified from the Audited Trial Balance for FY 2022-23 and FY 2023-24.

3.13.5 The Commission noted that the rescheduling charges are reduced in FY 2023-24 compared to FY 2022-23 and Commission acknowledges that this reduction is due to reduction in fee for rescheduling charges with effect from FY 2023-24.

3.13.6 Accordingly, the Income from Open Access Charges and re-scheduling charges approved for FY 2022-23 and FY 2023-24 are as shown below:

Table 31: Income from Open Access and Re-scheduling Charges for FY 2022-23 and FY 2023-24, as approved by Commission (Rs. Lakh)

Particulars	FY 2022-23			FY 2023-24		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Income from Open Access Scheduling Charges	1,203.41	1,262.36	1,262.36	1,227.48	581.98	581.98
Income from Re-scheduling Charges	-	2,279.23	2,279.23	-	1,154.93	1,154.93
Income from Open Access and Re-scheduling Charges	**1,203.41**	**3,541.59**	**3,541.59**	**1,227.48**	**1,736.91**	**1,736.91**

3.13.7 **The Commission approves Income from Open Access and Rescheduling Charges of Rs. 3,541.59 Lakh and Rs. 1,736.91 Lakh for FY 2022-23 and FY 2023-24, respectively for Truing up of AFC**.

3.14 Income from Monthly Operating Charges

MSLDC's Submission

3.14.1 MSLDC has received actual income from Monthly Operating Charges of Rs. 3,459.71 for FY 2022-23 and Rs. 3,076.61 Lakh for FY 2023-24. Monthly Operating Charges for these years have been collected as per norms approved by the Hon'ble Commission in its order in Case No. 233 of 2022.

Table 32: Income from Monthly Operating Charges for FY 2022-23 and FY 2023- 24, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2022-23		FY 2023-24	
	MTR Order	MYT Petition	MTR Order	MYT Petition
Income from Operating Charges (net of rebate)	3,479.56	3,454.41	3,076.50	3,071.52

Commission's Analysis and Ruling

3.14.2 The Commission has examined the submission of MSLDC in respect of Income from Monthly Operating Charges. It has also verified the same from the Audited Annual Accounts for FY 2022-23 and FY 2023-24.

3.14.3 The Income from Monthly Operating Charges approved for FY 2022- 23 and FY 2023-24 is as shown below:

Table 33: Income from Monthly Operating Charges for FY 2022-23 and FY 2023- 24, as approved by Commission (Rs. Lakh)

Particulars	FY 2022-23			FY 2023-24		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Income from Operating Charges (Net of rebate)	3,479.56	3,454.41	3,454.41	3,076.50	3,071.52	3,071.52

3.14.4 **The Commission approves income from Monthly Operating Charges of Rs. 3,454.41 Lakh for FY 2022-23 and Rs. 3,071.52 Lakh FY 2023-24 on Truing up of AFC**.

3.15 Summary of Truing up for FY 2022-23 and FY 2023-24

MSLDC's Submission

3.15.1 Based on the above discussion, the head wise actual expenditure against actual receipts and surplus/ shortfall shown is summarized in the table below for FY 2022-23, and FY 2023-24, as submitted by MSLDC.

Table 34: MSLDC Final True-Up for FY 2022-23, as submitted by MSLDC (Rs. Lakh)

Particulars	Approved	Actual	Deviation	Net Entitlement after sharing of gains/(losses)
Operation & Maintenance Expenses	3,224.97	3,680.99	456.02	3,369.13
RLDC Fees and WRPC Charges	651.52	829.15	177.63	829.15
Depreciation Expenses	115.60	115.60	0	115.60
Interest on Loan Capital	60.11	60.92	0	60.92
Interest on Working Capital	66.50	65.02	-1.48	21.67
Reactive Energy Charges paid to Generators/TSUs	0.00	0.00	0	0.00
Income Tax	0.00	0.00	0	0.00
Total Revenue Expenditure	**4,118.70**	**4,751.68**	**632.17**	**4,396.47**
Return on Equity Capital	177.44	191.13	13.69	191.13
Total Expenditure for MSLDC	**4,296.13**	**4,942.81**	**646.67**	**4,587.60**
Less: Non-Tariff Income	376.61	526.07	149.46	526.07
Less: Income from Open Access charges	1,203.41	1,262.36	58.95	1,262.36
Less: Income from Rescheduling Charges	0.00	2,279.23	2,279.23	2,279.23
Annual Fixed Charges for MSLDC	**2,716.11**	**875.16**	**-1,840.96**	**519.95**
Revenue	**3,479.56**	**3,454.41**	**-25.15**	**3,454.41**
Revenue Gap / (Surplus)	**-763.45**	**-2579.24**	**-1,815.79**	**-2,934.46**

Table 35: MSLDC Final True-Up for FY 2023-24, as submitted by MSLDC (Rs. Lakh)

Particulars	Approved	Actual	Deviation	Net Entitlement after sharing of gains/(losses)
Operation & Maintenance Expenses	3,511.09	3,837.60	326.51	3,628.88
RLDC Fees and WRPC Charges	684.10	1,129.32	445.22	1,129.32
Depreciation Expenses	115.51	115.51	0.00	115.51
Interest on Loan Capital	49.79	52.19	2.40	52.19

Particulars	Approved	Actual	Deviation	Net Entitlement after sharing of gains/(losses)
Interest on Working Capital	63.99	68.20	4.21	22.73
Reactive Energy Charges paid to Generators/TSUs	0.00	0.00	0.00	0.00
Income Tax	0.00	0.00	0.00	0.00
Total Revenue Expenditure	**4,424.48**	**5,202.83**	**778.35**	**4,948.64**
Return on Equity Capital	177.44	191.26	13.82	191.26
Total Expenditure for MSLDC	**4,601.92**	**5,394.09**	**792.17**	**5,139.89**
Less: Non-Tariff Income	297.94	722.53	424.59	722.53
Less: Income from Open Access charges	1,227.48	581.98	-645.50	581.98
Less: Income from Rescheduling Charges	0.00	1,154.93	1,154.93	1,154.93
Annual Fixed Charges for MSLDC	**3,076.50**	**2,934.64**	**-141.86**	**2,680.45**
Revenue	**3,076.50**	**3,071.52**	**-4.98**	**3,071.52**
Revenue Gap/(Surplus)	**0.00**	**-136.87**	**-136.87**	**-391.07**

Commission's Analysis and Ruling

3.15.2 Based on the discussion above, the summary of the Truing-up of AFC for FY 2022-23 and FY 2023-24 approved by the Commission, is as shown below:

Table 36: Summary of Truing-up of AFC for FY 2022-23 and FY 2023-24, as approved by Commission (Rs. Lakh)

Particulars	FY 2022-23			FY 2023-24		
	MTR Order	**MYT Petition**	**Approved in this Order**	**MTR Order**	**MYT Petition**	**Approved in this Order**
Operation & Maintenance Expenses	3,224.97	3,680.99	3,703.59	3,511.09	3,837.60	3,837.60
Depreciation Expenses	115.60	115.60	115.60	115.51	115.51	115.51
Interest on Loan Capital	60.11	60.92	60.93	49.79	52.19	52.18
Interest on Working Capital	66.50	65.02	63.98	63.99	68.20	65.62
RLDC Fees	651.52	829.15	829.15	684.10	1,129.32	1,129.32
Reactive Energy Charges paid to Generators/TSUs	-	-	-	-	-	-
Income Tax	-	-	-	-	-	-
Total Revenue Expenditure	**4,118.70**	**4,751.68**	**4,774.24**	**4,424.48**	**5,202.83**	**5,200.25**

Particulars	FY 2022-23			FY 2023-24		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Return on Equity Capital	177.44	191.13	177.44	177.44	191.26	177.44
Total Expenditure for MSLDC	**4,296.14**	**4,942.81**	**4,950.69**	**4,601.92**	**5,394.09**	**5,377.69**
Less: Non-Tariff Income	376.61	526.07	529.19	297.94	722.53	737.64
Less: Income from Open Access charges	1,203.41	1,262.36	1,262.36	1,227.48	581.98	581.98
Less: Income from Rescheduling Charges	-	2,279.23	2,279.23	-	1,154.93	1,154.93
Annual Fixed Charges for MSLDC	**2,716.12**	**875.16**	**879.91**	**3,076.50**	**2,934.64**	**2,903.14**
Less: Impact of sharing of Gain / Loss	-	355.21	446.88	-	254.19	457.83
Less: Adjustment	-	-	-	-	-	-
Annual Fixed Charges for MSLDC	**2,716.12**	**519.95**	**433.03**	**3,076.50**	**2,680.45**	**2,445.31**
Revenue approved/actual	3,479.56	3,454.41	3,454.41	3,076.50	3,071.52	3,071.52
Revenue gap/(surplus)	**-763.44**	**-2,934.46**	**-3,021.37**		**-391.07**	**-626.21**

3.15.3 The detailed analysis underlying the Commission's approval for individual ARR elements is set out above. The variation in the ARR sought by MSLDC and that approved by the Commission in this Order is mainly on account of disallowance of additional RoE claimed by MSLDC in the truing up proceedings. Further, the Non-Tariff Income is higher on account of higher interest on LDCD fund which is impacted by higher surplus available during the year.

3.15.4 **Accordingly, on Truing-up of AFC a net Surplus of Rs. 3,021.37 Lakh and Rs. 626.27 Lakh for FY 2022-23 and FY 2023-24 respectively, has been approved for respective years and is considered towards contribution to the LDCD Fund.**

3.16 LDCD fund

MSLDC's Submission

3.16.1 The surplus, after considering net entitlement, is transferred to LDCD fund and interest income from LDCD fund is considered as non-tariff income. The details under true-up are given below.

Table 37: LDCD fund, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2022-23 (Actual)	FY 2023-24 (Actual)
Opening LDC Development Fund	6,750.87	9,140.12
Additions in LDC development fund during the year	2,934.46	391.07
Total LDC development fund	**9,685.33**	**9,531.18**
Less: Utilization for capital expenses	545.21	318.30
Net LDC development fund as on 31st March of the year	**9,140.12**	**9,212.88**
Average fund accumulated during the year	**7,945.49**	**9,176.50**
Interest rate	5.70%	6.65%
Income earned on LDCD fund	**452.85**	**610.30**

3.16.2 MSLDC has calculated the interest income on the basis of average LDCD fund during corresponding year, as per approach already adopted by the Commission. The same amount is already considered as non-tariff income by the Petitioner. For calculating the interest income, interest rate on the basis of weighted average of interest rate available for various fixed deposits schemes of SLDC, has been considered.

Commission's Analysis and Ruling

3.16.3 The Commission has considered the LDCD fund for funding the capitalization and interest earned on the balance LDCD Fund is passed on to the Beneficiaries as Non-Tariff Income.

3.16.4 Further, as the Commission has approved entire capitalization proposed by MSLDC in FY 2022-23 and FY 2023-24, the LDCD fund available at the beginning of FY 2022-23 is sufficient to fund the entire capitalization approved by the Commission for FY 2022-23 and FY 2023-24. The balance LDCD fund is carried forward to the next control period for utilization as per the guidelines of the Commission.

3.16.5 The Commission has also considered the interest income on the available LDCD fund considering the actual rate of interest. Accordingly, the summary of the LDCD fund utilization and the estimated interest income approved by the Commission is outlined in the table below:

Table 38: LDCD fund, as approved by Commission (Rs. Lakh)

Particulars	FY 2022-23	FY 2023-24
LDCD fund at the starting of year	6,750.87	9,249.63
Additions in LDC development fund during the year	3,021.37	626.21
Less: Utilization of LDCD Fund	522.61	318.30

Particulars	FY 2022-23	FY 2023-24
Less: Revenue Gap / (Surplus) of the Year as submitted in the present Petition	-	-
LDCD fund at the end of year	**9,249.63**	**9,557.54**
Average fund accumulated during the year	8,000.25	9,403.59
Interest rate	5.7%	6.7%
Income earned on LDCD fund	**455.97**	**625.41**

3.16.6 **Accordingly, Income from LDCD Fund of Rs. 455.97 Lakh and Rs. 625.41 Lakh for FY 2022-23 and FY 2023-24 respectively, has been approved for respective years. LDCD fund available for fund capitalization at the end for FY 2023-24 is Rs. 9,557.54 Lakh**.

4 PROVISIONAL TRUING UP OF AFC FOR FY 2024-25

4.1 Background

4.1.1 ARR projections for FY 2024-25 for MSLDC were approved in the MTR Order dated 31 March 2023 in Case No. 233 of 2022 in accordance with the MYT Regulations, 2019.

4.1.2 In the present Petition, MSLDC has sought provisional Truing-up of AFC for FY 2024-25 based on actual unaudited expenses from April 2024 to September 2024 (6 months) and estimates for various expenses and revenue for balance months of FY 2024-25, in accordance with the MYT Regulations, 2019.

4.1.3 The analysis underlying the Commission's approval is set out in the following Sections.

4.2 Operation and Maintenance Expenses

<u>MSLDC's Submission</u>

4.2.1 Regulation 96 of the MYT Regulations, 2019 provide for projection of O&M expense on a normative basis for MSLDC:

> *"96.2 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 20% 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 80% 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.*
>
> *96.3 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 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:

Provided that 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 20% 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 80% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the past five financial years as per the Labour Bureau, Government of India, as reduced by an efficiency factor of 1% or as may be stipulated by the Commission from time to time, to arrive at the permissible Operation and Maintenance expenses for each year of the Control Period:

Provided further that, in the Truing-up of the O&M expenses for any particular year of the Control Period, an inflation factor with 20% 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 80% 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, shall be applied to arrive at the permissible Operation and Maintenance expenses for that year."

4.2.2 In accordance with the above Regulation, to determine the normative O&M expenses for FY 2024-25, MSLDC considered the trued-up O&M expenses for FY 2023-24 after sharing of gain and loss.

4.2.3 Further, for projecting the O&M expenses for FY 2024-25, the escalation factors of 4.61 %, which is considered for FY 2023-24 (details are provided in true up chapter and considering CPI and WPI data as per methodology given in the MYT Regulations, 2019). The normative expenses for FY 2024-25 are projected as Rs.3,796.25 Lakh.

4.2.4 Further, MSLDC has claimed that a new pay scale (after wage revision effective from April 2023) has been introduced from the month of August 2024. Therefore, during FY 2024-25, employee expenses would be with a new pay scale for August 2024 - March 2025 period.

4.2.5 MSLDC has considered the impact of wage revision for remaining 6 months period during FY 2024-25 (Oct 2024 – March 2025). MSLDC has estimated that per month impact due to wage revision (i.e. increase in employee expenses due to wage revision) as Rs. 11.6 Lakh (derived based on pre wage revision and post wage revision salary expenses), which will result in additional expenditure of Rs. 69.61 Lakh in remaining six-month period.

4.2.6 Further, the MSLDC has provisionally calculated the impact of wage revision arrears, which is around Rs. 650 Lakh. The wage revision arrears have to be paid in three instalments and two instalments will be paid during FY 2024-25. The estimated expenditure during FY 2024-25 for wage revision arrears is Rs. 340.38 Lakh. MSLDC has proposed total O&M expenses of Rs. 4,206.25 Lakh during FY 2024-25 which includes normative O&M expenses plus additional salary expenses due to wage revision plus two instalments of wage revision arrears.

4.2.7 The Operation and Maintenance (**O&M**) expenses approved by the Commission for FY 2024-25 in Case No. 233 of 2022 and the expenses projected by MSLDC are summarized in Table as below:

Table 39: Operation & Maintenance expenses for FY 2024-25, as submitted by MSLDC (Rs. Lakh)

Particulars	Approved in (Case No 233 of 2022)	April - March (Estimated)
Normative O&M Expenses	3,459.06	3,796.25
Additional O&M Expenses	132.53	-
Total O&M Expenses	**3,591.59**	**4,206.25 (including additional salary expenses due to wage revision plus two instalments of wage revision arrears)**

Commission's Analysis and Ruling

4.2.8 The Commission has examined the submission of MSLDC in respect estimation of normative O&M expenses. For computing the normative O&M expenses for FY 2024-25, the Commission has considered the provisions of Regulation 96.3 of the MYT Regulation 2019 which states that at the time of true-up for each Year of the 4th Control Period, the O&M expenses shall be derived on the basis of the Final Trued-up O&M expenses after adding/deducting the sharing of efficiency gains/losses, for the year ending 31 March 2020, excluding abnormal expenses, if any, subject to prudence check by the Commission, and shall be considered as the Base Year O&M expenses. Further, the O&M expenses for each subsequent year shall be determined by escalating these Base Year expenses of FY 2019-20 by an inflation factor derived using the WPI and CPI indices considering weightage of 20:80. Considering that the provisional truing up is being done, the Commission has considered the escalation factor of 4.61% which was determined for the FY 2023-24 for determining the normative O&M expenses. Further, the Commission while computing the normative O&M expenses for FY 2021-22 onwards in the MTR Order in Case No. 233 of 2022 had also considered the impact of wage revision allowed in Case no. 291 of 2019 amounting to Rs. 277.54 Lakh as part of the normative O&M expenses for FY 2020-21. These normative expenses for FY 2020-21 formed the basis for computation of the normative O&M expenses for the future years. Accordingly, the Commission has considered the impact of the wage revision allowed in Case no. 291 of 2019 while computing the normative O&M expenses for the true-up years of FY 2022-23 and FY 2023-24 and the provisional true-up year FY 2024-25.

4.2.9 Considering the same, the Commission has computed the normative O&M expenses of Rs. 3,364.85 Lakh for FY 2024-25.

4.2.10 Further, MSLDC has submitted that a new pay scale (after wage revision) has been introduced from the month of August 2024 for MSLDC. Therefore, during FY 2024-25, employee expenses would be with a new pay scale for the period from August 2024 to March 2025 and the estimated per month impact due to wage revision (i.e. increase in employee expenses due to wage revision) has been estimated as Rs. 11.6 Lakh which will lead to additional expenditure of Rs. 69.61 Lakh in remaining six-month period of FY 2024-25. MSLDC has sought this impact to be allowed to be recovered over and above the normative O&M expenses.

4.2.11 Additionally, MSLDC has also sought additional recovery relating to the wage revision arrears payment of Rs. 650 Lakh out which Rs. 340.39 Lakh is payable in two instalments (Oct 2024 and March 2025) in FY 2024-25 and Rs. 309.61 Lakh in FY 2025-26 (September 2025).

4.2.12 The Commission has noted the submissions of MSLDC. Regulation 96.4 of the MYT Regulations, 2019 clearly states the following:

> *"96.4 The impact of Wage Revision, if any, may be considered at the time of true-up for any Year, based on documentary evidence and justification to be submitted by the Petitioner:*
>
> *Provided that if actual employee expenses are higher than normative expenses on this account, then no sharing of efficiency losses shall be done to that extent:*
>
> *Provided further that efficiency gains shall not be allowed by deducting the impact of Wage Revision and comparison of such reduced value with normative value.*
>
> *96.5 Provisioning of wage revision expenses shall not be considered as actual expenses at the time of true-up, and only expenses as actually incurred shall be considered."*

4.2.13 The Regulation is clear that the impact of wage revision, if any, may be considered by the Commission at the time of true-up of any years subject to necessary prudence check. Further, the impact will also not be allowed on a provisioning basis and will be considered only when the expenses are actually incurred. Further, the Commission while computing the normative O&M expenses for FY 2021-22 onwards in the MTR Order in Case No. 233 of 2022 had also considered the impact of wage revision allowed in Case No. 291 of 2019 amounting to Rs. 277.54 Lakh as part of the normative O&M expenses for FY 2020-21. These normative expenses for FY 2020-21 formed the basis for computation of the normative O&M expenses for the future years. Accordingly, the Commission has considered the impact of the wage revision allowed in Case No. 291 of 2019 while computing the normative O&M expenses for the true-up years of FY 2022-23 and FY 2023-24 and the provisional true-up year FY 2024-25.

4.2.14 Accordingly, the Commission does not deem it appropriate to allow the impact of wage revision as part of the provisional truing up process.

4.2.15 Notwithstanding the above, the wage revision arrear payment has already been started with one instalment paid in October 2024 and other instalments likely to be paid in March 2025 and September 2025. Further, the truing up of FY 2024-25 and FY 2025-26 is due only during the next MYT filing process which is due after 5 years. So, allowing recovery of this imminent expenditure after a period of 5 years will lead to accrual of carrying cost which is payable to the MSLDC and will unnecessarily burden the beneficiaries. Considering the same, the Commission allows recovery of the payment towards wage revision arrears in FY 2024-25 and FY 2025-26, over and above the normative O&M expenses.

4.2.16 Based on the above the Commission allows the following O&M expenses for recovery in FY 2024-25:

Table 40: Normative Operation and Maintenance expenses for FY 2024-25, as approved by the Commission (Rs. Lakh)

Particulars	MTR Order	MYT Petition	Approved in this Order
Normative O&M Expenses	3,591.59*	4,206.25	3,364.85#
Impact of wage revision arrears			
1st Instalment given in Oct-2024			170.02
2nd Instalment to be paid in March-2025			170.37
Total O&M Expenses	**3,591.59**	**4,206.25**	**3,705.24**

** Includes impact of wage revision (Case No. 291 of 2019) added in FY 2020-21 and additional O&M expenses (Opex Schemes as per Regulation 96.6 of MERC MYT Regulation, 2019) claimed in the MTR Petition*

 # Includes the impact of wage revision (Case No. 291 of 2019) added in FY 2020-21; Additional O&M (Opex Schemes as per Regulation 96.6 of MERC MYT Regulation, 2019) not considered as MSLDC has not claimed any expenses against this head.

4.2.17 **The Commission approves O&M expenses of Rs. 3,705.24 Lakh on provisional Truing up of AFC for FY 2024-25**.

4.3 Interest on Working Capital

MSLDC's Submission

4.3.1 The methodology as specified in the MYT Regulations, 2019 has been considered for calculation of IoWC for FY 2024-25. The IoWC shall be payable on a normative basis notwithstanding that MSLDC has not taken any working capital loan from any outside agency.

4.3.2 The SBI base rate (MCLR) prevailing as on the date of filing the Petition (10.45% applicable for FY 2024-25) plus 150 basis point has been considered for calculation of IoWC as given in the Table below:

Table 41: Interest on Working Capital for FY 2024-25, as submitted by MSLDC (Rs. Lakh)

Particulars	MTR Order	MYT Petition
Total Working Capital Requirement	712.02	763.24
Interest Rate (%)	9.45%	10.45%
Interest on Working Capital	**67.29**	**79.76**

Commission's Analysis and Ruling

4.3.3 The normative Interest on Working Capital is computed in accordance with the provisions of Regulation 32.5 of MYT Regulations, 2019. The normative O&M expenses excluding the impact of wage revision arrears as approved in earlier part of Order have been for computing the working capital requirement as per the provisions of the MYT Regulations, 2019. However, MSLDC has considered the impact of wage revision and wage revision arrears payment over and above the normative O&M expenses for computation of working capital requirement. Accordingly, there is a variation in the work capital requirement computed by the Commission and MSLDC and the consequential impact on the IoWC.

4.3.4 The Commission has considered the 1-year MCLR as on date of filing of Petition and the said rate is 8.95%. After adding 150 basis points to this, as per the Regulations, the interest rate for computing the IoWC works out to 10.45%.

4.3.5 Accordingly, the IoWC approved for FY 2024-25 is given in the table below:

Table 42: Interest on Working Capital for FY 2024-25, as approved by Commission (Rs. Lakh)

Particulars	MTR Order	MYT Petition	Approved in this Order
One month of O&M expenses	299.30	350.52	280.40
One and half months of receivables	412.72	412.72	412.72

Particulars	MTR Order	MYT Petition	Approved in this Order
Total Working Capital Requirement	**712.02**	**763.24**	**693.13**
Interest Rate (%)	9.45%	10.45%	10.45%
Interest on Working Capital	**67.29**	**79.76**	**72.43**

4.3.6 **The Commission approves Interest on Working Capital of Rs. 72.43 Lakh on provisional Truing up of AFC for FY 2024-25**.

4.4 RLDC Fees

MSLDC's Submission

4.4.1 The RLDC Fees and Charges for FY 2024-25 are payable as approved by Central Electricity Regulatory Commission (**CERC**) as per the provisions of the CERC (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2024. However, the same was not decided yet by CERC. It is further submitted that as per present mechanism, MSEDCL has been paying the bill to WRLDC and MSLDC is reimbursing the same to MSEDCL. MSLDC has considered the present monthly bill of WRLDC and considering the monthly expenses for April – June 2024 period, the MSLDC has assumed Rs. 62.17 Lakh as monthly expenses in these regard for FY 2024-25. MSLDC also submitted that the WRLDC charges have reduced recently as compared with the WRLDC charges payable earlier and this is due to a recent Order of CERC dated 30 November 2023 on the issue of "Removal of Difficulties for Recovery of Fee and Charges of Load Despatch Centre (LDC) charges" in pursuance of the provisions of the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2019. The CERC has opined the following about the recovery of RLDC charges after enactment of - General Network Access (GNA), Regulations (Petition No. 17/SM/2023).

> *" 8. Considering the difficulties raised by Grid-India in the computation of monthly LDC charges under the RLDC Fee & Charges Regulations after implementation of the GNA Regulations, in the exercise of our powers under Regulation 40 of the RLDC Fee & Charges Regulations, we hereby direct that LDC charges for distribution licensees, buyers and sellers shall be calculated on the basis of their GNA quantum under clauses (b) and (c) of Regulation 30 and Regulation 31 of the RLDC Fee and Charges Regulations. The calculation of LDC charges for inter-State transmission licensees and generating stations shall continue to be carried out in terms of clauses (a) and (b) of Regulation 30 of the RLDC Fee and Charges Regulations."*

4.4.2 Further, MSLDC stated that in FY 2023-24 other than monthly RLDC charges, they also had to pay performance linked incentive (PLI) to WRLDC. MSLDC has assumed that during FY 2024-25, Rs. 120 Lakh would be PLI related expenses considering the past data of PLI available for FY 2023-24. Considering the above, the projected RLDC fees for FY 2024-25 are Rs. 866.04 Lakh as given below:

Table 43: RLDC Fees for FY 2024-25, as submitted by MSLDC (Rs. Lakh)

Particulars	MTR Order	MYT Petition
RLDC Fees	718.30	866.04

Commission's Analysis and Ruling

4.4.3 For the purpose of provisional Truing up, the Commission has considered the RLDC Fees as proposed by MSLDC for FY 2024-25 subject to prudence check at the time of True up.

4.4.4 MSLDC had paid performance linked incentive (PLI) to RLDC during FY 2023-24 for FY 2020-21, FY 2021-22 and FY 2022-23. Accordingly, MSLDC has considered an estimated PLI of Rs. 120 Lakhs as payable during the FY 2024-25. The payment towards PLI is the main reason for increased RLDC charges during FY 2024-25.

4.4.5 Further, MSLDC has submitted that it is exempted from payment of WRPC charges from FY 2016-17 as per 23rd TCC /WRPC meeting held on 23 August 2016 and accordingly there is no payment toward WRPC charges considered for FY 2024-25.

4.4.6 The approved RLDC Fees and WRPC Charges are as shown in the following table:

Table 44:RLDC Fees for FY 2024-25, as approved by Commission (Rs. Lakh)

Particulars	MTR Order	MYT Petition	Approved in this Order
RLDC Fees and WRPC Charges	718.30	866.04	866.04

4.4.7 **The Commission approves RLDC Fees and WRPC Charges of Rs. 866.04 Lakh on provisional Truing up of AFC for FY 2024-25**.

4.5 Capitalization

MSLDC's Submission

4.5.1 Capitalization of Rs. 2,566.90 Lakh for FY 2024-25 was approved by the Commission in the MTR Order in Case No. 233 of 2022. MSLDC has now revised its capitalization estimates for FY 2024-25 considering capitalization anticipated for various existing as well as new schemes during the year. Accordingly, for the purpose of provisional truing up of FY 2024-25, revised estimate for capitalization to the tune of Rs. 1,623.94 Lakh is submitted.

4.5.2 Capitalization towards DPR and Non DPR schemes as proposed by MSLDC for FY 2022-23 is given in the table below:

Table 45: Capitalization for FY 2024-25, as submitted by MSLDC (Rs. Lakh)

Project Code	Capitalization
a) DPR Schemes	
DSM (Change request)	56.00
Change Request for modification in RE-DSM software	26
Upgradation of the Oracle Database Software from Standard Edition to the Enterprise Edition used for the DSM Software. (For DC-DR Active-Active Solution)	985
Additional: Construction of compound wall from main entrance gate (NH-6) to colony gate L= 326RMT X 2= 652RMT (Note submitted vide no SE/ALDC/NGP/Tech/416 Dt 05.10.2023) at ALDC	100
Sub-Total – DPR Schemes	**1,167.00**
b**) Non-DPR Schemes**	
Life extension of Krishna and Kaveri building	40
Structural strengthening of new MSLDC building	0
Staff recreation and rejuvenation activity	20
Hardware for reserve and ancillary services software (GAMS software)	25
IT infrastructure (Firewall, 2 No of FTP, Switches) at ALDC	7.94
SITC of desktop and Router at ALDC	3.07
SITC of desktop and Laptops at ALDC	15.14
Renovation & Modernization of Conference Hall at ALDC	24.01
Building renovation and modernization/life extension of building at ALDC	50
Furniture for office and equipment at ALDC	10
ALDC Misc expenses - life extension of building, Testing equipment, furniture	23
Purchase of 4 Nos. of PSSE Software Licenses at MSLDC, Airoli	99.02
Incidental SCADA expenses at ALDC	10
IT Infrastructure Development (Firewall, Router, Switches, Server, Desktop/Laptop/Printer) at ALDC	15
General Asset: SLDC	33.63
General Asset: ALDC	10.33
State specific customization in REMC software and allied additional requirement of hardware through change order	70.8
Sub-Total Non-DPR Schemes	**456.94**
Total	**1,623.94**

4.5.3 MSLDC has submitted the details of various schemes in the MYT Petition and subsequent submissions.

4.5.4 As regards capitalization of non-DPR schemes, MSLDC has quoted the extract from the MTR Order which highlighted that the Commission has not restricted the non-DPR capitalization up to 20% of the DPR capitalization considering that these schemes relate to the daily operations of MSLDC, and to ensure that the operations of MSLDC are not adversely affected and it is equipped to undertake necessary capital expenditure to meet the operational and technological challenges. This approach has been adopted by the Commission in its earlier Tariff Orders also.

4.5.5 MSLDC further stated that a significant portion of schemes capitalized within MSLDC are of low value (less than Rs. 100 Lakh) and includes capitalization of items procured on a continuous basis. Thus, considering the varied and intermittent nature of asset addition of lower value, it is difficult to prepare a DPR for the same.

4.5.6 In view of the above and based on the details of various projects submitted above, MSLDC requested the Commission to allow the capitalization proposed towards non-DPR scheme as claimed in the present Petition and without applying the criteria of 20% in case of MSLDC, as per approach adopted in Case No. 233 of 2022.

4.5.7 MSLDC requested the Commission to approve revised Capital Expenditure and Capitalization submitted above for FY 2024-25. Further, as directed by the Commission and based on the situation of LDCD, funds for capitalization for FY 2024-25 is proposed to be used from LDCD.

Commission's Analysis and Ruling

4.5.8 The Commission has examined the submissions of MSLDC in respect of capitalization claimed for both DPR and non-DPR schemes. MSLDC has provided scheme-wise details in its Petition outlining the nature of the work being undertaken and the progress of work.

4.5.9 The capitalization proposed by MSLDC for FY 2024-25 includes a few schemes for which the DPR is already approved, and the work is in progress. Also, there is one scheme (Upgradation of the Oracle database of the software for DSM application) for which the DPR is under consideration of the Commission and considering the important nature of the requirement, the capitalisation towards this scheme has been considered for approval for the purpose of provisional truing up. As regards the ongoing schemes, the Commission has considered capitalization as proposed by MSLDC for the purpose of approval in FY 2024-25. This includes a scheme related to DSM software development against which capitalisation of Rs. 49 Lakh was proposed in FY 2026-27. As per the information shared by MSLDC, this capitalisation claimed pertains to retention amount to be paid to the contractor as per original contract as the software has already been deployed satisfactorily) and is due in FY 2024-25. It was inadvertently considered by MSLDC in FY 2026-27 and hence it has been shifted to FY 2024-25 and approved for recovery by the Commission.

4.5.10 Further, MSLDC has proposed capital expenditure and capitalization of Rs. 26 Lakh for modification in Renewable Energy Deviation Settlement Mechanism (**RE-DSM**) Software at MSLDC. Considering the capital expenditure proposed by MSLDC, the scheme will need to be considered under non-DPR schemes. Further, as per the information shared by MSLDC, the work against this scheme is already completed. Considering the same, the Commission has considered this scheme for approval under non-DPR schemes instead of DPR scheme, as proposed by MSLDC in its Petition.

4.5.11 MSLDC has also proposed capital expenditure and capitalization of Rs. 100 Lakh on the scheme related to additional construction of compound wall from main entrance to colony gate at ALDC Ambazari. MSLDC has not yet got permission from the defence department for construction of the wall and hence the expenditure is likely to spill over to subsequent years. Since the permission from the defence is still pending, the capitalization against the scheme is not being considered by the Commission for the present financial year. The list of DPR schemes approved by the Commission is enclosed as **Appendix-IV** to this Order.

4.5.12 There are certain non-DPR schemes like "Hardware for reserve and ancillary services software (GAMS software)" which are contingent on the relevant guidelines or mechanism being notified by the Commission or other competent authority. Such schemes have not been considered by the Commission for provisional approval purpose. Also there are certain schemes for which sufficient details and its justification for assessing the need for the scheme have not been provided (e.g. General Assets: ALDC; ALDC Misc expenses - life extension of building, Testing equipment, furniture; etc.) and hence, such schemes have not been approved by the Commission presently, MSLDC may approach the Commission at the time of truing up for FY 2024-25 with all necessary supporting information / documentation and seek approval for the presently disallowed or other scheme actually implemented by MSLDC.

4.5.13 It is also observed that the capitalization towards non-DPR schemes is more than 20% of capitalization of approved DPR schemes. However, in the MYT Order in Case No 291 of 2019, the Commission has decided not to restrict the non-DPR capitalization to the limit of 20% of DPR capitalization for MSLDC. Relevant extract of the MYT Order reads as under:

> *"For any scheme with projected capital expenditure above Rs.100 Lakh, MSLDC is expected to submit a DPR for in-principle approval. The Commission observes that most of the capex schemes of MSLDC are small value schemes and Capitalization against these is requirement based and periodic in nature. Further, the Commission is wary of the fact that MSLDC not only plays very critical role in ensuring the integrated operation of power system within the State but also responsible for real time operations for grid*

control and dispatch of electricity within the State. Further, MSLDC has to tackle operational and technological challenges to manage the increasing quantum of renewable energy. It is therefore essential that MSLDC's operations are not affected and it should be equipped to undertake necessary capital expenditure to meet the operational and technological challenges. Therefore, the Commission has reviewed MSLDC's request to approve the capitalization proposed under DPR and non-DPR schemes as submitted and accordingly, decides not to restrict the non-DPR capitalization at 20% of DPR capitalization approved for the year. Accordingly, the Commission approves capitalization against DPR as well as non-DPR schemes as claimed by MSLDC, after verification from the audited annual accounts."

4.5.14 Having said the above, the Commission has examined the status of work for non-DPR schemes based on information shared by MSLDC in its Petition. Based on the review, it is observed that implementation of many of the non-DPR schemes are in progress and may not be completed in FY 2024-25. The Commission shall revisit the actual capitalization by MSLDC for FY 2024-25 while truing–up the actual expenses. The justification given by MSLDC for various non-DPR schemes along with the Commission's remarks is enclosed as **Appendix – III**.

4.5.15 In addition to the above, the Commission, in line with the discussion in the truing up section of the Order, has also identified certain schemes which include works which are of R&M nature instead of capital nature works. The Capex Regulations, 2022 clearly outlines the schemes which can be considered under DPR / non-DPR schemes and those which cannot be considered under capital expenditure. Accordingly, the schemes identified by the Commission (tabulated in Table 46 given below) cannot be considered as part of the capex schemes and hence not included in the provisionally approved capitalisation for the FY 2024-25. The cost has also not been considered under the provisionally approved O&M expenses as the approvals are presently based on normative computation of O&M expenses.

4.5.16 MSLDC, during the truing up process, should appropriately categorise the expenses under these schemes and seek approval of the Commission. In case MSLDC decides to seek approval of capitalisation against these schemes under non-DPR schemes, necessary justification (taking cognisance of the provisions of Capex Regulations, 2022) along with supporting documents, if any, needs to be submitted by MSLDC along with its Petition. Further, MSLDC should also ensure that all the non-DPR schemes have to be registered before starting work on the schemes as non-registration may lead to the dis-allowance of the capitalisation associated with such un-registered schemes.

Table 46: R&M nature of schemes included as part of non-DPR schemes for FY 2024-25, as identified by the Commission (Rs. Lakh)

Project Title	Capitalisation
Staff recreation and rejuvenation facilities	20.00
Life extension of Krishna and Kaveri building	40.00
Renovation & Modernisation of Conference Hall at ALDC	24.01
Building renovation and modernization / life extension of building at ALDC	50.00
Total expenses – R&M nature schemes	**134.01**

4.5.17 Further, it is observed that the actual capitalization achieved by MSLDC in the FY 2022-23, FY 2023-24 and FY 2024-25 has been significantly lower than the capitalisation approved by the Commission for the respective years in the MTR Order. The details are provided in the table below:

Table 47: Capitalisation trends – approved v/s actual/provisional

Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
	MTR Order	MYT Petition	MTR Order	MYT Petition	MTR Order	MYT Petition
Capitalisation	873.10	545.21	2952.80	318.29	2,566.90	1,623.94
Actual capitalization (%)		62.45%		10.78%		63.27%

4.5.18 As can be seen from the above table, the actual capitalisation achieved by MSLDC is significantly lower than the capitalisation approved by the Commission. The major variation is on account of the scheme related to "Renovation and modernization of existing SCADA at SLDC and ALDC" against which Rs. 20 Crores capitalisation was projected in both FY 2023-24 and FY 2024-25, which is yet to be implemented and now estimated to be completed by FY 2026-27 based on the capitalisation claimed by MSLDC. It is further noted that the "Monitoring Committee" (**MC**) was constituted by the Commission to monitor the progress of implementation of action points recommended by the High Level Committee (**HLC**) constituted to enquire into the partial grid disturbance event that occurred in the Mumbai Metropolitan Region (**MMR**) region on 12 Oct, 2020. This MC has submitted its progress report on 5 November, 2024 wherein it has been recommended that the action points related to "Monitoring of Works relating to PMU integration, SCADA data, Decision and Analytical Tools" should be monitored by the MSETCL's Control Room (War Room) for ensuring timely completion. Thus, the implementation of important schemes like "Renovation and modernization of existing SCADA at SLDC and ALDC" needs to be prioritised and ensured in a timely manner. The progress of these schemes needs to be reported to MSETCL Control room on a periodic basis by MSLDC.

4.5.19 Similarly, the Commission had also approved non-DPR schemes worth Rs. 6.84 Crore in FY 2023-24 against which MSLDC has been able to capitalise schemes worth Rs. 96.24 Lakhs which is significantly low. This trend reflects badly on the ability of MSLDC to execute larger quantum of capital expenditure. This is more concerning for the 5th Control Period wherein MSLDC has proposed significantly higher capitalisation as compared to the past trends. This requires MSLDC to revisit its approach towards implementation of schemes including but not limited to process of internal approvals, project design/specifications, appointment of contractors, project monitoring, mechanism to address issues in a timely manner, strong contractual framework which will ensure that the contractor is encouraged to complete the project in time and within approved cost, developing internal capability for addressing technical aspects of projects and project management related issues, etc.

4.5.20 Notwithstanding the above, based on the information shared by MSETCL, the capital expenditure schemes provisionally approved by the Commission for FY 2024-25 are as given in the table below:

Table 48: Capital Expenditure Schemes approved for FY 2024-25 by the Commission (Rs. Lakh)

Project Title	Capitalisation
a) DPR Schemes	
DSM (Change request)	56.00
DSM (Development of S/W for S&D, DS, SEA, DSM & Cloud)	49.00
Upgradation of the Oracle Database Software from Standard Edition to the Enterprise Edition used for the DSM Software. (For DC-DR Active-Active Solution)	985.00
Sub-Total – DPR Schemes	**1,090.00**
b) Non-DPR Schemes	
Change Request for modification in RE-DSM software	26.00
State specific customization in REMC software and allied additional requirement of hardware through change order	70.80
General Asset: SLDC	33.63
IT infrastructure (Firewall, 2 No of FTP, Switches) at ALDC	7.94
SITC of desktop and Router at ALDC	3.07
SITC of desktop and Laptops at ALDC	15.14
Furniture for office and equipment at ALDC	10.00
Purchase of 4 Nos. of PSSE Software Licenses at MSLDC, Airoli	99.02
Total – Non-DPR Schemes	**265.60**
Total Capitalisation	**1,355.60**

4.5.21 Accordingly, the Commission provisionally approves capitalization for FY 2024-25 as shown in the Table below:

Table 49: Capitalization for FY 2024-25, as approved by Commission (Rs. Lakh)

Particulars	MTR Order	MYT Petition	Approved in this Order
Capitalization	2,566.90	1,623.94	1,355.60

4.5.22 **The Commission approves Capitalization of Rs. 1,355.60 Lakh on provisional Truing up of AFC for FY 2024-25**.

4.6 Depreciation

MSLDC's Submission

4.6.1 The capitalization during FY 2024-25 is assumed to be funded through LDCD fund; hence, the depreciation against asset capitalized during FY 2024-25 has not been considered. Depreciation for FY 2024-25 has been projected considering the gross fixed asset amount on asset addition up to FY 2017-18 which was not funded through LDCD fund.

4.6.2 As there is no addition of asset from non-LDCD fund and depreciation is already allowed by the Commission for FY 2024-25 on the approved GFA, the approved depreciation is considered by MSLDC for FY 2024-25 for provisional true-up. The projected depreciation for FY 2024-25 is Rs. 114.13 Lakh as against the Commission's approved depreciation of Rs. 114.13 Lakh in Order in Case No. 233 of 2022 as given below.

Table 50: Depreciation for FY 2024-25, as submitted by MSLDC (Rs. Lakh)

Particulars	MTR Order	MYT Petition
Depreciation	114.13	114.13

Commission's Analysis and Ruling

4.6.3 The Commission has considered the closing GFA for FY 2023-24 approved in this Order as the opening GFA for FY 2024-25.

4.6.4 The capitalization during FY 2024-25 is considered to be funded through LDCD fund; hence, the depreciation against asset capitalized during FY 2024-25 has not been considered.

4.6.5 The Commission has computed the depreciation in accordance with the MYT Regulations, 2019 subject to the ceiling of 90% of GFA for individual asset classes separately and has approved the depreciation for FY 2024-25 as given in the table below:

Table 51: Depreciation for FY 2024-25 approved by the Commission (Rs. Lakh)

Particulars	MTR Order	MYT Petition	Approved in this Order
Opening Gross Fixed Assets	8,763.04	8,763.04	8,763.04
Add: Additional Capitalization during the year*	0.00	0.00	0.00
Less: Retirement/Adjustments	0.00	0.00	0.00
Closing Gross Fixed Assets	**8,763.04**	**8,763.04**	**8,763.04**
Total Depreciation	**114.13**	**114.13**	**114.13**

** Capitalization for FY 2024-25 is funded from LDCD Fund and hence additional capitalization during the year is not considered for the purpose of computation of depreciation.*

4.6.6 **The Commission approves depreciation of Rs. 114.13 Lakh on provisional Truing up of AFC for FY 2024-25**.

4.7 Interest on Long Term Loans

MSLDC's Submission

4.7.1 The debt requirement for the proposed capital expenditure in FY 2024-25 is envisaged to be funded through normative loans only, and no additional loan allocation from MSETCL has been considered for FY 2024-25 as there is no outstanding additional loan allocated.

4.7.2 The capitalization for FY 2042-25 is being funded through LDCD Fund. Accordingly, no new additional normative loan has been considered for FY 2024-25.

4.7.3 For the purpose of computation of interest expense for FY 2024-25, interest expense pertaining to normative loan for capitalization up to FY 2017-18 has been considered (i.e. related to non-LDCD fund-based assets).

4.7.4 MSLDC has considered the weighted average rate of interest as applicable to MSETCL. In accordance provisions of the MERC MYT Regulations, 2019, the repayment of loan has been considered equivalent to depreciation claimed during the year, as derived above.

4.7.5 The interest on loan for FY 2024-25 as submitted by MSLDC is shown in Table below:

Table 52: Interest on Long Term Loan for FY 2024-25, as submitted by MSLDC (Rs. Lakh)

Particulars	MTR Order	MYT Petition
Interest on Long-Term Loan	39.54	41.44

Commission's Analysis and Ruling

4.7.6 For provisional truing-up of AFC for FY 2024-25, the closing loan for FY 2023-24 approved in this Order has been considered as the opening loan for FY 2024-25. The capitalization approved for FY 2024-25 is funded through LDCD Fund and hence no addition of normative loan is considered for FY 2024-25.

4.7.7 Regulation 30 of the MYT Regulations, 2019 specifies that the repayment of loan shall be equal to the depreciation allowed in the respective years, and repayment is to be considered from the first year of commercial operation of the project.

4.7.8 MSLDC has considered the rate of interest of 9.36% for working out the interest on loan for FY 2024-25. This rate is the same as that considered for FY 2023-24. However, as per the stand taken by the Commission in the MYT Order in Case No. 233 of 2022 and also in the truing up for FY 2022-23 and FY 2023-24 in the present Order, the weighted average rate of interest of MSETCL's loan portfolio which is 9.05% for FY 2024-25 as approved by the Commission in MSETCL's MYT Order in Case No. 178 of 2024 has been considered. This is the weighted average rate of interest of MSETCL's loan portfolio at the beginning of FY 2024-25 in line with the provisions of the MYT Regulations, 2019.

4.7.9 Based on the above, the Commission has approved the following interest on long term loan for FY 2024-25:

Table 53: Interest on Loan for FY 2024-25, as approved by Commission (Rs. Lakh)

Particulars	MTR Order	MYT Petition	Approved in this Order
Opening Balance of Normative Loan	499.82	499.81	499.82
Add: Debt component of capitalization during the year*	0.00	0.00	0.00
Repayment of Normative loan during the year	114.13	114.13	114.13
Less: Reduction of Normative Loan due to retirement or replacement of assets	0.00	0.00	0.00
Closing Balance of Normative Loan	**385.69**	**385.68**	**385.69**
Weighted average Rate of Interest (%)	8.93%	9.36%	9.05%
Normative Interest Expenses	**39.54**	**41.44**	**40.06**
Actual Interest allocated by MSETCL to MSLDC	0.00	0.00	0.00
Total Interest Expenses	**39.54**	**41.44**	**40.06**

** Capitalization for FY 2024-25 funded from LDCD Fund and hence no addition to the debt component during the year is considered.*

4.7.10 **The Commission approves interest on long term loans of Rs. 40.06 Lakh on provisional Truing up of AFC for FY 2024-25**.

4.8 Return on Equity

MSLDC's Submission

4.8.1 Regulation 29 of MYT Regulations, 2019 specifies the rate of return on equity allowable for MSLDC on the equity capital pertaining to assets put to use. This Regulation also outlines the manner in which the return on equity has to be computed considering the equity capital at the beginning of the year and that added during the year.

4.8.2 The capitalization is assumed to be funded through LDCD fund and hence, no new equity would be added during FY 2024-25. The equity, as considered by the Commission, is based on approved GFA (funded through non-LDCD fund only), is considered for FY 2024-25. Hence, RoE projected for FY 2024-25 is based on the opening equity as on FY 2024-25 only and no new equity is added owing to the projected capitalization.

4.8.3 MSLDC has considered RoE at the rate of 14% on the opening equity. MSLDC has requested to allow the claim for additional RoE @ 1.5% during true-up based on actual data. The projected RoE for FY 2024-25 is shown in the table below:

Table 54: Return on Equity for FY 2024-25, as submitted by MSLDC (Rs. Lakh)

Particulars	MTR Order	MYT Petition
Return on Equity Computation		
Regulatory equity at the beginning of the year	1,267.45	1,267.45
Equity portion of capitalization during the year	0	0
Reduction of equity capital on account of retirement/replacement of Assets	0	0
Regulatory Equity at the end of the year	**1,267.45**	**1,267.45**
Return on Regulatory Equity at the beginning of the year	177.44	177.44
Return on Regulatory Equity addition during the year	0.00	0.00
Total Return on Equity	**177.44**	**177.44**

Commission's Analysis and Ruling

4.8.4 The closing equity for FY 2023-24 approved in this Order is considered as the opening equity for FY 2024-25. There is no addition to equity during the year as the capitalization during the year is being funded through LDCD fund. The return on equity is computed considering the rate of 14% on opening equity.

4.8.5 Considering the above, the RoE approved by the Commission for FY 2024-25 is as shown in the table below:

Table 55: Return on Equity for FY 2024-25, as approved by Commission (Rs. Lakh)

Particulars	MTR Order	MYT Petition	Approved in this Order
Regulatory Equity at the beginning of the year	1,267.45	1,267.45	1,267.45
Equity portion of capitalization during the year*	0.00	0.00	0.00
Reduction in Equity Capital on account of retirement / replacement of assets	0.00	0.00	0.00
Regulatory Equity at the end of the year	**1,267.45**	**1,267.45**	**1,267.45**
Return on Regulatory Equity at the beginning of the year	177.44	177.44	177.44
Return on Regulatory Equity addition during the year	0.00	0.00	0.00
Total Return on Equity	**177.44**	**177.44**	**177.44**

*****_Capitalization for FY 2024-25 funded from LDCD Fund and hence no addition to equity is envisaged for the FY 2024-25._

4.8.6 **The Commission approves Return on Equity of Rs. 177.44 Lakh on provisional truing up of AFC for FY 2024-25.**

4.9 Income Tax

MSLDC's Submission

4.9.1 In context of MSLDC's submissions regarding Income Tax in the previous chapters, MSLDC has not projected any Income Tax for FY 2024-25.

Commission's Analysis and Ruling

4.9.2 The Commission notes that MSLDC does not have separate corporate status and is, therefore, not required to submit Income Tax returns. The MYT Regulations, 2019 have enabling provisions to take into account any allocations/ claims by MSETCL towards Income Tax. The Commission shall consider them, if any, after prudence check, at the time of True up.

4.9.3 Further, Regulation 34.2 of the MYT Regulation, 2019 states that the rate of Return on Equity, including additional rate of Return on Equity as allowed by the Commission under Regulation 29 of the MYT Regulations, 2019 shall be grossed up with the effective tax rate of respective financial year.

4.9.4 Considering MSLDC's submission, no grossing up of RoE has been considered presently.

4.10 Non-Tariff Income

MSLDC's Submission

4.10.1 Regulation 98 of MERC Regulations, 2019 outlines the elements forming part of the Non-Tariff Income. The non-tariff income, excluding the interest from LDCD fund, is proposed to be projected considering average of actual non-tariff income, excluding interest income from LDCD fund, for FY 2022-23 and FY 2023-24. Further, the interest income from LDCD fund based on average LDCD fund during FY 2024-25 is also considered under Non-Tariff income.

4.10.2 The Non-Tariff Income as proposed is outlined in the following table.

Table 56: Non-Tariff Income for FY 2024-25, as submitted by MSLDC (Rs. Lakh)

Particulars	MTR Order	MYT Petition
Interest on LDCD Fund	126.90	558.94
Other Non-Tariff Income	27.56	87.01
Non-Tariff Income	**154.46**	**645.73**

Commission's Analysis and Ruling

4.10.3 The Commission has noted the submission of MSLDC in respect of Non-Tariff Income.

4.10.4 As discussed in the earlier section, the Commission has considered the interest on surplus available in LDCD Fund as Non-Tariff Income. Accordingly, the interest at the rate of 5.20% is considered on an average LDCD Fund balance during FY 2024-25.

4.10.5 The Commission approves the Non-Tariff Income for FY 2024-25, subject to True up, as given in the table below:

Table 57: Non-Tariff Income for FY 2024-25, as approved by Commission (Rs. Lakh)

Particulars	MTR Order	MYT Petition	Approved in this Order
Income earned on LDCD fund	126.90	558.72	616.05
Other Non-Tariff Income	27.56	87.01	87.01
Total Non-Tariff Income	**154.46**	**645.73**	**703.06**

4.10.6 **The Commission approves Non-Tariff Income of Rs. 703.06 Lakh on provisional Truing up of AFC for FY 2024-25**

4.11 Income from Open Access Charges

MSLDC's Submission

4.11.1 MSLDC has estimated income from Open Access Charges and income from rescheduling charges of Rs 581.98 Lakh and Rs. 1,154.93 Lakh for FY 2024-25, respectively, same as the actual income of open access charges and rescheduling charges in FY 2023-24.

Table 58: Income from Open Access for FY 2024-25, as submitted by MSLDC (Rs. Lakh)

Particulars	MTR Order	MYT Petition
Income from Open Access Charges	1,252.03	581.98 (OA charges) plus 1,154.93 (Rescheduling charges) = 1,736.91

Commission's Analysis and Ruling

4.11.2 The Commission has examined the submission of MSLDC in respect of Income from Open Access Charges and considered the same as submitted by MSLDC for provisional Truing up of FY 2024-25, subject to prudence check at the time of true-up.

4.11.3 The Commission has considered income from Open Access Charges and rescheduling charges same as FY 2023-24 shown in the table below:

Table 59: Income from Open Access and Rescheduling Charges for FY 2024-25 approved by Commission (Rs. Lakh)

Particulars	MTR Order	MYT Petition	Approved in this Order
Income from Open Access Charges	1,150.45	581.98	581.98
Income from Rescheduling Charges	101.58	1154.93	1,154.93
Total Income	**1,252.03**	**1,736.91**	**1,736.91**

4.11.4 **The Commission approves Income from Open Access and Rescheduling Charges of Rs. 1,736.91 Lakh on provisional Truing up of AFC for FY 2024-25**

4.12 Income from Monthly Operating Charges

MSLDC's Submission

4.12.1 MSLDC has an estimated income from Monthly Operating Charges of Rs. 3,301.79 Lakh for FY 2024-25 as approved in Case No. 233 of 2022. The income from Monthly Operating Charges projected for FY 2024-25 is as shown in the following table.

Table 60: Income from Monthly Operating Charges for FY 2024-25, as submitted by MSLDC (Rs. Lakh)

Particulars	MTR Order	MYT Petition
Income from Operating Charges	3,301.79	3,301.79*

** MSLDC has inadvertently indicated Rs. 3102.79 Lakh in the petition.*

Commission's Analysis and Ruling

4.12.2 The Commission has examined the submission of MSLDC in respect of Income from Monthly Operating Charges and approves the same as submitted by MSLDC for provisional True-up of AFC for FY 2024-25 as given in the table below:

Table 61: Income from Monthly Operating Charges for FY 2024-25, as approved by Commission (Rs. Lakh)

Particulars	MTR Order	MYT Petition	Approved in this Order
Income from Operating Charges	3,301.79	3,301.79	3,301.79

4.12.3 **The Commission approves Income from Monthly Operating Charges of Rs. 3,301.79 Lakh on provisional Truing up of AFC for FY 2024-25**.

4.13 Summary of Provisional Truing up of AFC for FY 2024-25

MSLDC's Submission

4.13.1 Based on the above discussion, the head-wise projected expenses for FY 2024-25 for provisional true up as submitted by MSLDC are summarized in the table below:

Table 62: Summary of Provisional Truing up for FY 2024-25, as submitted by MSLDC (Rs. Lakh)

Particulars	MTR Order	MYT Petition	Provisional Truing Up Requirement
Operation & Maintenance Expenses	3,591.59	4,206.25	614.66
Depreciation Expenses	114.13	114.13	0.00
Interest on Loan Capital	39.54	41.44	1.90
Interest on Working Capital	67.29	79.76	12.47
RLDC Fees and WRPC Charges	718.30	866.04	147.74
Reactive Energy Charges paid to Generators/TSUs	0.00	0.00	0.00
Income Tax	0.00	0.00	0.00
Total Revenue Expenditure	**4,530.84**	**5,307.62**	**776.77**
Return on Equity Capital	177.44	177.44	0.00
Total Expenditure for MSLDC	**4,708.28**	**5,485.07**	**776.79**
Less: Non Tariff Income	154.46	645.73	491.27
Less: Income from Open Access charges	1,252.03	581.98	-670.05
Rescheduling charges	0.00	1,154.93	1,154.93
Annual Fixed Charges for MSLDC	**3,301.79**	**3,102.42**	**-199.37**

Commission's Analysis and Ruling

4.13.2 Based on the discussion above, the summary of the Provisional Truing up of AFC for FY 2024-25 approved by the Commission is as shown below:

Table 63: Summary of Provisional Truing-up of AFC for FY 2024-25, as approved by Commission (Rs. Lakh)

Particulars	MTR Order	MYT Petition	Approved in this Order
Operation & Maintenance Expenses	3,591.59	4,206.25	3,705.24
Depreciation Expenses	114.13	114.13	114.13
Interest on Loan Capital	39.54	41.44	40.06
Interest on Working Capital	67.29	79.76	72.43
RLDC Fees and WRPC Charges	718.30	866.04	866.04
Reactive Energy Charges paid to Generators/TSUs	0.00	0.00	0.00
Income Tax	0.00	0.00	0.00
Total Revenue Expenditure	**4,530.84**	**5,307.62**	**4,797.90**
Return on Equity Capital	177.44	177.44	177.44
Total Expenditure for MSLDC	**4,708.28**	**5,485.07**	**4,975.34**
Less: Non Tariff Income	154.46	645.73	703.06
Less: Income from Open Access charges	1,252.03	581.98	581.98
Rescheduling charges	0.00	1,154.93	1,154.93
Annual Fixed Charges for MSLDC	**3,301.79**	**3,102.42**	**2,535.37**
Revenue approved/actual	3,479.56	3,301.79	**3,301.79**
Revenue gap/(surplus)	**-763.44**	**-199.37**	**-766.42**

4.13.3 The detailed analysis underlying the Commission's approval for individual ARR elements is set out above. However, the variation in the ARR sought by MSLDC and that approved by the Commission in this Order is mainly on account of lower approval of O&M expenses, Interest on Loan, Interest on working capital and difference in Non-Tariff income vis-à-vis that sought by MSLDC and that considered by the Commission as per past Regulatory approvals. Further, the Non-Tariff Income is considered after considering interest income on the average LDCD Fund available during FY 2024-25 and as stated in MTR Order in Case No. 233 of 2022.

4.13.4 **As against a Revenue surplus of Rs. 199.37 Lakh projected by MSLDC, there is a Revenue Surplus of Rs. 766.42 Lakh provisionally approved considering the provisions of MYT Regulations 2019 in this Order.** The key reason for variation between claimed and approved gap/surplus is on account of the lower normative O&M expenses and higher non-tariff income approved by the Commission. **The net Surplus of Rs. 766.42 Lakh is considered towards contribution to the LDCD Fund.**

4.14 LDCD fund

Commission's Analysis and Ruling

4.14.1 As discussed in the earlier, the Commission has considered the LDCD fund for funding the capitalization and interest earned on the balance LDCD Fund is passed on to the Beneficiaries as Non-Tariff Income.

4.14.2 The Commission has considered funding of the capitalisation approved for the truing up years and the provisional truing up year through the LDCD funds.

4.14.3 While computing the availability of fund at the end of FY 2024-25, MSLDC has not considered the additional of the provisional surplus for FY 2024-25 to LDCD fund balance. This is not in line with the approach adopted by the Commission in the MTR Order in Case No. 233 of 2022 wherein the Commission had considered the surplus on provisional truing up for addition into the LDCD fund. Same approach is considered by the Commission in the present Order as well.

4.14.4 The Commission has also considered the interest income on the available LDCD fund considering the actual rate of interest. Accordingly, the summary of the LDCD fund utilization and the estimated interest income approved by the Commission is outlined in the table below:

Table 64: LDCD fund, as approved by Commission (Rs. Lakh)

Particulars	FY 2024-25
LDCD fund at the starting of year	9,557.54
Additions in LDC development fund during the year	766.42
Less: Utilization of LDCD Fund	1,355.60
Less: Revenue Gap / (Surplus) of the Year as submitted in the present Petition	
LDCD fund at the end of year	**8,968.37**
Average fund accumulated during the year	9,262.96
Interest rate	6.65%
Income earned on LDCD fund	**616.05**

4.14.5 **Accordingly, income from LDCD Fund of Rs. 616.05 Lakh has been approved on truing up of AFC for FY 2024-25. LDCD fund available for funding capitalization at the end for FY 2024-25 is Rs. 8,968.37 Lakh**.

5 AFC FORECAST FOR 5TH MYT CONTROL PERIOD FY 2025-26 TO FY 2029-30

5.1 Background

5.1.1 MSLDC has submitted projections of revenue and expenses for the 5th MYT Control Period, which take into consideration the norms and principles outlined in MYT Regulation, 2024. Certain deviations and relaxations have been sought in the principles and parameters specified in the Regulations and are discussed below.

5.1.2 MSLDC has envisaged certain infrastructure development to be undertaken in the 5th MYT Control Period. MSLDC has submitted the details of the capital expenditure schemes proposed to be undertaken and their corresponding financing plans in accordance with the Capex Regulation, 2022 and MYT Regulations, 2024.

5.1.3 The analysis underlying the Commission's approval is set out below.

5.2 Operation & Maintenance Expenses

MSLDC's Submission

5.2.1 The O&M expenses have been projected over the control period as per Regulation 120 of MYT Regulation, 2024. The same is reproduced below.

"120.1 The Operation and Maintenance expenses for the MSLDC shall be computed in accordance with this Regulation.

120.2 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 five Years ending March 31, 2024 excluding abnormal Operation and Maintenance expenses, if any, subject to prudence check by the Commission: Provided that, the impact of the wage revision if any during the Trued-up year shall be included in the O&M expenses while determining the norms for the O&M expenses for the future year.

Provided that the average of such Operation and Maintenance expenses shall be considered as Operation and Maintenance expenses for the Year ended March 31, 2022, and shall be escalated at the respective escalation rate for FY 2022-23, FY 2023-24 and FY 2024-25, to arrive at the Operation and Maintenance expenses for the base year ending March 31, 2025:

Provided further that the escalation rate for FY 2022-23, FY 2023-24 and FY 2024-25 shall be computed by considering 20% 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 80% 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.

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 year ending March 31, 2025, excluding abnormal expenses, if any, subject to prudence check by the Commission, and shall be considered as the Base Year Operation and Maintenance expenses:

120.3 The Operation and Maintenance expenses for each subsequent year shall be determined by escalating these Base Year expenses of FY 2024-25 by an inflation factor with 20% 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 80% 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% of derived inflation factor 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 20% 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 80% 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% of derived inflation factor or as may be stipulated by the Commission from time to time, shall be applied to arrive at the permissible Operation and Maintenance Expenses.

120.4 Wage revision, if any, during the Control Period, shall be treated as part of employee expense as controllable parameter and compared vis-à-vis normative O&M expense. Hence, the impact of arrears of wage revision, if any, booked as part of employee expense in any particular year, shall be normalised annually over Control Period and shall be subject to treatment as per sharing of gains and loss as per Regulation 11 for the purpose of *true-up of O&M expense of respective years, subject to prudence check.*

120.5 Provision of expenses shall not be considered as actual expenses at the time of true-up, and only expenses as actually incurred shall be considered.

120.6 The MSLDC 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 MSLDC shall submit detailed justification, cost benefit analysis, and life-cycle cost analysis of such schemes as against capex schemes, and savings in O&M expenses, if any

120.7 The Commission may consider any request for revision of the normative O&M expenses of MSLDC on account of consideration of some Schemes under O&M rather than Capital Investment on case-to-case basis, depending on the justification to be submitted by the Applicant and the life-cycle cost analysis: Provided that if actual O&M expenses are lower than such revised normative O&M expenses on this account, then no sharing of efficiency gains shall be done to that extent.

120.8 The HRD expenses shall be booked under Employee expenses instead of A&G expenses from the first year of the Control Period. Projected HRD expenses will be minimum Five Percentage (5%) of the Employee Expenses for the respective financial year.

Provided that, if the expenses towards HRD falls below 5% of total Employee expenses allowed under these Regulations, then such savings in HRD expenses shall not be set off against Employee expenses.

120.9 MSLDC shall submit the roadmap for planning of HRD expenses in the MYT Petition. All the efforts shall be made to ensure that minimum seven days training per employee per annum is imparted as per the National Training Policy. MSLDC shall identify the institutes for training, capacity building and prepare the detailed plan in MYT Petition."

5.2.2 As per the aforesaid Regulation, projection of O&M expenses for the control period is determined on the basis of past five years' data of O&M expenses after sharing of gain and loss (i.e. FY 2019-20 to FY 2023-24). It is to be noted that for FY 2022-23 and FY 2023-24, MSLDC has considered the data submitted in this Petition under true up section and for other years, the data is as approved by the Commission in respective true-up year order.

5.2.3 The average of five years' expenses is considered as expenses for FY 2021-22, which is derived as Rs 3,071.03 Lakh. The same has been escalated with escalation factors derived as per provision given in the MYT Regulations, 2024, for FY 2022-

23 (escalation factor of 5.85%) and FY 2023-24 (escalation factor of 5.61%) and FY 2024-25 (escalation factor of 5.61%).

5.2.4 Further, MSLDC has worked out the normative O&M expenses for FY 2024-25 as given below:

Table 65: Projected normative O&M expenses for FY 2024-25, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Average (FY 2021-22)	Revised FY 2022-23	Revised FY 2023-24	Revised FY 2024-25
O&M Expenses after gain and loss	2,452.66	2,840.03	3,064.45	3,369.13	3,628.88	3,071.03	3,250.80	3,433.25	3,625.93

5.2.5 Considering the escalation factor, above O&M expenses for FY 2024-25 have been escalated for each year of control period to derive the normative O&M expenses as per escalation factor derived according to the MYT Regulations, 2024. It is to be noted that the escalation factor in this case (4.61%, which is derived for FY 2023-24 with latest data) is derived after considering efficiency factor of 1%, as mentioned in the MYT Regulations,2024.

5.2.6 Further, MSLDC has considered the impact of wage revision (additional employee expenses with new pay scale of Rs 11.6 Lakh/month) for each year during the control period with appropriate escalation factor. The impact of wage revision during FY 2025-26 is estimated as follows: the per month wage revision impact is used to work out the annual impact and then escalated using the escalation factor of 4.61%. From FY 2026-27 onwards the wage revision impact of the previous year has been escalated by escalation factor of 4.61%.

5.2.7 Further, during FY 2025-26, the Petitioner has considered the impact of wage revision arrear of Rs 309.61 Lakh, which is the last instalment to be paid for wage revision arrear in FY 2025-26. Considering all the above, the Petitioner has projected the total O&M expenses for the next control period.

Table 66: Projected Normative O&M Expenses for FY 2025-26 to FY 2029-30 (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Normative O&M Expenses	3,793.16	3,968.11	4,151.13	4,342.59	4,542.89
Impact of wage revision	145.64	152.35	159.358	166.74	174.43
Wage revision arrear	309.61				
Total O&M Expenses	**4,248.42**	**4,120.47**	**4,310.52**	**4,509.33**	**4,717.31**

Additional Manpower & related working with respect to "Workforce Adequacy Guidelines for Load Despatch Centers"

5.2.8 MSLDC has submitted that vide DO Letter No. 22-1306/4/2022-OM dated 25 November 2024, Joint Secretary, Ministry of Power, Govt. of India has issued "Workforce Adequacy Guidelines for Load Despatch Centers".

5.2.9 MSLDC has studied the "Workforce Adequacy Guidelines for Load Despatch Centers" and reviewed the present status of approved and available human resources. There is gap of ~ @ 50% in the expected resources to be available with SLDC and ALDC.

5.2.10 Apart from this, there are some functions which are carried out at SLDC and ALDC which are not considered in "Workforce Adequacy Guidelines Report". Further, in "Workforce Adequacy Guidelines Report", there are no specific manpower allocation guidelines regarding Sub-SLDCs.

5.2.11 MSLDC has submitted that it will be approaching the appropriate Authorities for approval of manpower in line with these Workforce Adequacy Guidelines Report and as required for undertaking additional functions. This will significantly increase the O&M costs as indicated in this Petition.

5.2.12 Accordingly, MSLDC has requested the Commission to allow approaching the Commission separately for additional Manpower and Training Cost Budget after acceptance of "Workforce Adequacy Guidelines for Load Despatch Centers".

Commission's Analysis and Ruling

5.2.13 The Commission has examined the submission of MSLDC in respect of methodology for estimation of O&M expenses.

5.2.14 The O&M expenses have been projected over the control period as per Regulation 120 of MYT Regulation, 2024. The same is reproduced below.

> *"120.1 The Operation and Maintenance expenses for the MSLDC shall be computed in accordance with this Regulation.*
>
> *120.2 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 five Years ending March 31, 2024 excluding abnormal Operation and Maintenance expenses, if any, subject to prudence check by the Commission**: Provided that, the impact of the wage revision if any during the **Trued-up year shall be included in the O&M expenses while determining the norms for the O&M expenses for the future year.***
>
> *Provided that the average of such Operation and Maintenance expenses shall be considered as Operation and Maintenance expenses*

for the Year ended March 31, 2022, and shall be escalated at the respective escalation rate for FY 2022-23, FY 2023-24 and FY 2024-25, to arrive at the Operation and Maintenance expenses for the base year ending March 31, 2025:

Provided further that the escalation rate for FY 2022-23, FY 2023-24 and FY 2024-25 shall be computed by considering 20% 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 80% 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.

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 year ending March 31, 2025, excluding abnormal expenses, if any, subject to prudence check by the Commission, and shall be considered as the Base Year Operation and Maintenance expenses:b120.3 The Operation and Maintenance expenses for each subsequent year shall be determined by escalating these Base Year expenses of FY 2024-25 by an inflation factor with 20% 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 80% 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% of derived inflation factor 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 20% 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 80% 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% of derived inflation factor or as may be *stipulated by the Commission from time to time, shall be applied to arrive at the permissible Operation and Maintenance Expenses.,120.4* ***Wage revision, if any, during the Control Period, shall be treated as part of employee expense as controllable parameter and compared vis-à-vis normative O&M expense.*** *Hence, the impact of arrears of wage revision, if any, booked as part of employee expense in any particular year, shall be normalised annually over Control Period and shall be subject to treatment as per sharing of gains and loss as per Regulation 11 for the purpose of true-up of O&M expense of respective years, subject to prudence check.*

120.5 Provision of expenses shall not be considered as actual expenses at the time of true-up, *and only expenses as actually incurred shall be considered.*

5.2.15 It is evident from the above Regulation that the O&M expenses are to be derived on the basis of the average of the Trued-up O&M expenses after adding/deducting the share of efficiency gains/losses, for the five Years ending 31 March 2024 excluding abnormal O&M expenses, if any, subject to prudence check by the Commission. Further, the impact of the wage revision, if any, during the Trued-up year is expected to be included in the O&M expenses while determining the norms for the O&M expenses for the future years. As against this provision, it is observed that the trued up expenses considered by MSLDC are excluding the impact of wage revision in these years. Accordingly, the Commission, while computing the normative O&M expenses for the 5th Control Period have considered the trued-up O&M expenses after including the impact of wage revision allowed in the truing up Orders for the past years. Further, the O&M expenses for FY 2022-23 and FY 2023-24 are considered the same as that approved in the present Order. Accordingly, the average O&M expenditure for the past 5 years works out to Rs. 3,091.93 Lakh and is considered as the O&M expenditure for the year ending 31st March 2022. This O&M expenditure has been escalated at the respective escalation rate for FY 2022-23, FY 2023-24 and FY 2024-25, to arrive at the O&M expenses for the base year ending 31 March 2025. The escalation rates considered are 5.86%, 5.61% and 5.61% for FY 2022-23, FY 2023-24 and FY 2024-25 respectively. The base normative O&M expenditure is then escalated considering the escalation rate of 4.61% (5.61% - 1% efficiency factor) for the rest of the years in the 5th Control period to compute the normative O&M expenses.

5.2.16 Further, as regards the request of MSLDC regarding considering the additional impact of wage revision over and above the normative O&M expenses, Regulation 120.4 clearly states that wage revision, if any, during the Control Period, shall be treated as part of employee expense as controllable parameter and compared vis-à-vis normative O&M expense. Accordingly, the Commission has not considered the impact while computing the normative O&M expenses. Further, as discussed in the previous section (Provisional True-up of FY 2024-25), the 3rd instalment of the actual wage revision arrears for the previous control period which is payable in the month of September 2025 has been considered over and above the normative O&M expenses in FY 2025-26.

5.2.17 Based on the above the Commission has computed the O&M expenses for the 5th Control period as below:

Table 67: Operation and Maintenance expenses for FY 2025-26 to FY 2029-230, as approved by the Commission (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Normative O&M Expenses	3,819.10	3,995.27	4,179.57	4,372.37	4,574.07
Wage revision arrear of previous control period (3rd Instalment)	309.61				
Total O&M Expenses	**4,128.71**	**3,995.27**	**4,179.57**	**4,372.37**	**4,574.07**

5.2.18 The Commission approves projected O&M expenses of Rs. 4,128.71 Lakh for FY 2025-26, Rs. 3,995.27 Lakh for FY 2026-27, Rs. 4,179.57 Lakh for FY 2027-28, Rs. 4,372.37 Lakh for FY 2028-29 and Rs. 4,574.07 Lakh for FY 2029-30.

5.2.19 As regards MSLDC's submissions in the matter of the additional manpower requirements and related working pursuant to "Workforce Adequacy Guidelines for Load Despatch Centres" issued by the Joint Secretary, Ministry of Power, Govt. of India, MSLDC shall take appropriate steps for ensuring the implementation of these guidelines including reporting of its implementation status in next Multi Year Tariff Petition.

5.3 Interest on Working Capital

<u>MSLDC's Submission</u>

5.3.1 Regulation 32.5 of MYT Regulation, 2024 specifies the methodology for the calculation of Interest on Working Capital. MSLDC has considered the aforementioned methodology for calculation of IoWC for FY 2025-26 to FY 2029-30.

5.3.2 MSLDC has considered the interest rate of 10.45%, i.e. current base rate (MCLR) of 8.95% plus 1.5% (150 Base point) as per MYT Regulations, 2024

5.3.3 The estimated working capital requirement and interest computation thereon as submitted by MSLDC for FY 2025-26 to FY 2029-30 is shown in the table below:

Table 68: Interest on Working Capital for FY 2025-26 to FY 2029-30, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
One month of O&M expenses	354.03	343.37	359.21	375.78	393.11
One and Half months of receivables	435.40	605.52	884.37	1075.02	1212.94
Total Working Capital Requirement	**789.43**	**948.90**	**1,243.58**	**1,450.80**	**1,606.05**
Interest Rate (%)	10.45%	10.45%	10.45%	10.45%	10.45%
Interest on Working Capital	**82.50**	**99.16**	**129.95**	**151.61**	**167.83**

Commission's Analysis and Ruling

5.3.4 As per Regulation 32.5 of MYT Regulations, 2024, the working capital requirement includes one and half months' expected revenue from Annual Fixed Charges. Therefore, past period claims and surplus/gap, if any, has to be considered while determining the expected working capital requirement.

5.3.5 The normative O&M expenses approved for the control period have been considered for working out the working capital requirement in accordance with the MYT Regulations, 2024. Accordingly, this excludes the impact of wage revision arrears approved by the Commission for recovery over and above the normative O&M expenses.

5.3.6 Further, Regulation 32.5 (a) provides that the working capital requirement covers one and a half months equivalent of the expected revenue from levy of Annual Fixed Charges approved by the Commission for ensuing year(s). Further, the Regulation 119.1 outlines the components of the Annual Fixed Charges for MSLDC and the same does not include the component related to Performance Linked Incentive. Further the first proviso of Regulation 32.5 (a) also states the following:

> *"Provided further that for the purpose of Truing-up for any year, the working capital requirement shall be re-computed on the basis of the values of revised normative Operation & Maintenance expenses and actual Revenue from sale of electricity excluding incentive, if any, and other components of working capital approved by the Commission in the Truing-up before sharing of gains and losses;"*

5.3.7 Accordingly, the Commission has excluded the Performance Incentive component from the Annual Fixed Charge while computing working capital requirement.

5.3.8 The interest rate for working capital requirement is considered as per MYT Regulations, 2024 at 10.45% (8.95% Base Rate (MCLR) on the date of filing the Petition + 150 basis points).

5.3.9 Considering the above, the amount approved by the Commission toward IoWC computed for FY 2025-26 and FY 2029-30 is as given in the table below:

Table 69: Interest on Working Capital for FY 2025-26 to FY 2029-30, as approved by the Commission (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
One month of O&M expenses	318.26	332.94	348.30	364.36	381.17
One and Half months of receivables	384.21	392.50	444.53	488.65	525.74
Total Working Capital Requirement	**702.46**	**725.44**	**792.83**	**853.01**	**906.91**
Interest Rate (%)	10.45%	10.45%	10.45%	10.45%	10.45%
Interest on Working Capital	**73.41**	**75.81**	**82.85**	**89.14**	**94.77**

5.3.10 **The Commission approves the projected Interest on Working Capital of Rs. 73.41 Lakh for FY 2025-26, Rs. 75.81 Lakh for FY 2026-27, Rs. 82.85 Lakh for FY 2027-28, Rs. 89.14 Lakh for FY 2028-29 and Rs. 94.77 Lakh for FY 2029-30.**

5.4 RLDC Fees

MSLDC's Submission

5.4.1 MSLDC has submitted that RLDC Fees and Charges has to be decided as per Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2024.

5.4.2 MSLDC has projected the RLDC fees and charges for FY 2024-25 which includes payment towards PLI incentive also. For FY 2024-25, CERC has not notified charges for WRLDC as per RLDC Regulations, 2024. Therefore MSLDC, has considered the FY 2024-25 charges as base and escalated these charges with nominal 5% escalation factor. However, whenever CERC revises the WRLDC fees from FY2024-25 onwards, the impact of the same has to be borne by MSLDC.

5.4.3 Accordingly, MSLDC has sought approval of the proposed RLDC Fees for FY 2025-26 to FY 2029-30. Also, WRPC charges are not applicable for MSLDC w.e.f. FY 2016-17 and it will approach the Commission with the actual numbers at the time of Truing up.

Table 70: RLDC Fees for FY 2025-26 to FY 2029-30, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
RLDC Fees	909.34	954.81	1,002.55	1,052.68	1,105.31

Commission's Analysis and Ruling

5.4.4 The Commission has noted the submission of MSLDC in respect of RLDC Fees for FY 2025-26 to FY 2029-30 and has considered the same for approval, subject to True up. The fees will be subject to revision based on the revision of the WRLDC fees by the CERC for the Control Period starting FY 2024-25.

Table 71: RLDC Fees for FY 2025-26 and FY 2029-30, as approved by Commission (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
RLDC Fees	909.34	954.81	1,002.55	1,052.68	1,105.31

5.4.5 **The Commission approves projected RLDC Fees and Charges of Rs. 909.34 Lakh for FY 2025-26, Rs. 954.81 Lakh for FY 2026-27, Rs. 1,002.55 Lakh for FY 2027-28, Rs. 1,052.68 Lakh for FY 2028-29 and Rs. 1,105.31 Lakh for FY 2029-30.**

5.5 Capitalisation

MSLDC's Submission

5.5.1 MSLDC has planned to implement various schemes during the 5th MYT Control Period from FY 2025-26 to FY 2029-30. The Capex and Capitalization Plan for the MYT period is proposed considering the future challenges in grid operations and necessity of the various works need to be undertaken to cope up with the challenges.

5.5.2 Considering the actual capitalization achieved in the past period and the progress made so far, there has been some revision in the capitalization proposed during ensuring MYT period. For the MYT period viz. FY 2025-26 to FY 2029-30, MSLDC has proposed capital expenditure and capitalization considering the past progress and new schemes to be implemented in future.

5.5.3 In addition to the various ongoing DPR and non-DPR schemes, MSLDC envisages capital expenditure and capitalization towards some new schemes. The schemes so planned for the MYT period have been projected as per the requirement of different sections of SLDC together with ALDC.

5.5.4 While preparing the CAPEX and Capitalization Plan for FY 2025-26 to FY 2029-30, MSLDC has taken cognizance of the following provisions outline under the MERC MYT Tariff Regulations 2024:

> "*117.1 The MSLDC shall submit a detailed capital investment plan considering the provisions of the MERC(Approval of Capital Investment Schemes) Regulations, 2022, financing plan and physical targets for each Year of the Control Period based on the operational requirements prescribed by the Commission and recommendations of various Committees constituted*

for looking into matters related to strengthening and ring fencing of the State Load Despatch Centres by the Ministry of Power, Government of India or any such other statutory authorities, to the Commission for approval, as a part of the Multi-Year Aggregate Revenue Requirement for the entire Control Period.

117.2 The Capital Investment Plan shall be a least cost plan for undertaking investments and shall cover all capital expenditure projects of a value exceeding the limits prescribed by the Commission from time to time under the MERC (Approval of Capital Investment Schemes) Regulations, 2022."

5.5.5 While proposing the capital expenditure plan for the ensuring years, MSLDC has taken due care to propose DPR schemes and non-DPR schemes. DPR for the few new schemes proposed during the MYT period are under preparation and shall be submitted in due course for kind consideration and the necessary approval of Commission. Further, there are certain schemes whose estimated value is less than the threshold value of Rs. 100 Lakh, as specified by the Commission, which has been shown as non-DPR schemes. For considering the capitalization of non-DPR schemes the provision given in MYT Regulations, 2024 is given below:

"24.6 For the purpose of approval of projected capital expenditure plan and capitalization plan for Control Period, the Commission shall take into consideration historical trend of capitalization of approved capital schemes (DPR and Non-DPR), projected growth in the distribution network, consumer base & demand, expected growth in generation capacity addition and transmission network augmentation requirement, ongoing/pending capital schemes, status update of in-principal approved schemes, status of tie-up of funds for various capex schemes proposed by generation company, transmission licensee, distribution licensee, STU, SLDC, as the case may be".

"24.9 The cumulative amount of capitalization against non-DPR schemes for any Year shall not exceed 30% or such other limit as may be stipulated by the Commission through an Order, of the cumulative amount of capitalization approved against DPR schemes for that Year:

Provided that, in case MSLDC and STU the cumulative amount of capitalization against non-DPR schemes for any Year shall not exceed Average capital expenditure of past three years actually incurred or 30% of approved capital expenditure of previous years, whichever is lower, in case there is no approved capital expenditure for particular year".

Provided further that the Commission may allow capitalization against non-DPR schemes for any Year in excess of 30% or such other limit as may have been stipulated by the Commission through Order, on a request made by the Generating Company, ESSD or Licensee or MSLDC or STU."

5.5.6 In order to meet the operational and technological challenges, MSLDC has proposed the capital expenditure and capitalization plan of MSLDC from FY 2025-26 to FY 2029-30 as per following details:

Table 72: Summary of the Projected Capitalization for FY 2025-26 and FY2029-30, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
a) DPR Schemes					
DSM	75.00	110.00	-	-	-
DSM (Development of S/W for S&D, DS, SEA, DSM & Cloud)	-	49.00	-	-	-
Renovation and modernization of existing SCADA at SLDC and ALDC	-	2,600.00	-	-	-
Change Request for modification in DSM software	-	-	100.00	100.00	100.00
Customizations in Short term Open access Software to accommodate regulatory changes, Orders of MoP, etc.	600.00	100.00	100.00	100.00	100.00
Development of Analytical Tools for WAMS system.	300.00	300.00	300.00	-	-
Development of New QCA REDSM software based on MERC(F&S) First amendment notification	200.00	400.00	-	100.00	150.00
Customizations in REMC Scheduling & Accounting Software to accommodate regulatory changes, Orders of MoP, etc	250.00	100.00	100.00	100.00	100.00
Customizations in the State DSM Software to accommodate regulatory changes, Orders of MoP, etc	600.00	-	200.00	100.00	100.00
a) development of comprehensive cloud based platform for daily system report-(DSR), outage management, first time charging (FTC) - 5 Crore. (4+0.25 for 4 yrs)	400.00	25.00	25.00	25.00	25.00
b) Development of integrated data handling platform analytical software, analytics based on SCADA, Schedule, Meter and PMU data etc. having capability of integration with SCADA DSM MDM system ETC	500.00	500.00	100.00	100.00	100.00

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Development of Demand estimation software	250.00	750.00	-	-	-
Establishment of **CSOC** (Cyber Security Operation Centre) at SLDC	1,500.00	-	-	-	-
Implementation of advanced Cyber Security Solution for IT and OT Infrastructure of SLDC	1,000.00	500.00	-	-	-
Additional: Construction of compound wall from main entrance gate (NH-6) to colony gate L=326RMT X 2= 652RMT (Note submitted vide no SE/ALDC/NGP/Tech/416 Dt 05.10.2023)	100.00	-	-	-	-
33 kV Express feeder with OPGW cable for redundant power supply and data connectivity from 220kV Ambazari s/s	100.00	-	-	-	-
New Residential tower at MSLDC, Airoli	-	800.00	-	1,670.00	-
Consultancy for verification of existing setup for compliance of data centre norms	100.00	-	-	-	-
Development of data handling platform analytical software	500.00	500.00	100.00	100.00	100.00
Procurement of optimization tool software licence for SCED and SCUC in the State along with resource adequacy tool	300.00	50.00	50.00	50.00	50.00
Procurement of optimization tool software licence for SCED and SCUC in the State (GAMS)	120.00	-	40.00	20.00	20.00
Rate Contract for Services towards Integration of 260 SAS/DCs/RTUs of any make over IEC 104 protocol into SCADA System at MSLDC Kalwa and ALDC Ambazari	230.00	383.00	-	-	-
RE-DSM	-	250.00	-	-	-
Unified Communication Infrastructure (Communication Hub) interface at SCADA for Data acquisition of SCADA/REMC/URTDSM	-	500.00	500.00	-	-

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Upgradation of REMC SCADA entire system	-	500.00	600.00	-	600.00
Development of PSS-wise RE Forecasting Software for MSLDC.	-	600.00	50.00	50.00	50.00
Construction of new Data Centre with DC-DR Configuration	-	3,000.00	3,000.00	-	-
Replacement of UPS along with 300 Ah battery ALDC	-	100.00	-	-	-
Maharashtra State Unified Synchro phasor Project (MSETCL WAMS Project)	-	-	2,500.00	2,500.00	2,000.00
b) Non- DPR Schemes					
Incidental SCADA expenses at ALDC	10.00	10.00	10.00	10.00	10.00
IT Infrastructure Development (Firewall, Router, Switches, Server, Desktop/Laptop/Printer) at ALDC	95.00	80.00	-	90.00	80.00
Rooftop solar scheme at ALDC	-	-	-	-	-
Incidental SCADA expenses	25.00	25.00	25.00	50.00	50.00
Incidental REMC & URTDSM expenses	10.00	10.00	10.00	10.00	10.00
restructuring and beautification of Fountain area	25.00	-	-	-	-
Life extension of Panchganga and Sabarmati building.	50.00	-	-	-	-
Compliances of Fire & Safety Audit	25.00	25.00	-	-	-
Customizations in GNA invoice software to accommodate regulatory changes, Orders of MoP, etc.	50.00	50.00	50.00	50.00	50.00
ALDC building premises development Civil	10.00	10.00	10.00	10.00	10.00
Procurement of AC	15.00	-	15.00	-	15.00
Purchase of office equipment / furniture ALDC	10.00	20.00	25.00	10.00	25.00
48V 1000 Ah battery set along with charger and DCDV	25.00	-	-	-	-
IT ALDC	20.00	20.00	20.00	20.00	20.00
Replacement of 2 Nos. of 100KVA UPS.	-	50.00	-	-	-
Change in FBSM software as per APTEL / MERC Order	-	50.00	-	-	-

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Change Request for modification in FBSM software	-	50.00	-	-	-
Replacement of 440Nos of 400AH 2V VRLA Batteries	-	-	80.00	-	-
Customizations in Demand estimation software to accommodate regulatory changes, Orders of MoP, etc.	-	-	25.00	25.00	25.00
Purchase of Office furniture/ Equipment's	-	-	25.00	25.00	-
DG set	-	-	-	-	32.00
Total	**7,495.00**	**12,517.00**	**8,060.00**	**5,315.00**	**3,822.00**

5.5.7 A brief description of individual project/scheme planned during the MYT period along with the purpose/objective and intended benefit from the scheme has been provided in the Petition by MSLDC.

Commission's Analysis and Ruling

5.5.8 Regulation 117.2 to 117.4 of MYT Regulation, 2024 provides as under.

"117.2 The Capital Investment Plan shall be a least cost plan for undertaking investments and shall cover all capital expenditure projects of a value exceeding the limits prescribed by the Commission from time to time under the MERC (Approval of Capital Investment Schemes) Regulations, 2022.

117.3 The Capital Investment Plan shall be accompanied by such information, particulars and documents as may be required showing the need for the proposed investments, alternatives considered, cost/benefit analysis and other aspects that may have a bearing on the MSLDC Fees and Charges.

117.4 The Commission shall consider the Capital Investment Plan along with the Multi-Year Aggregate Revenue Requirement for the entire Control Period submitted by the MSLDC taking into consideration the prudence of the proposed expenditure and estimated impact on MSLDC Fees and Charges."

5.5.9 It is noted that MSLDC has proposed a total capitalisation Rs. 372.09 Crore (DPR + Non-DPR) over the MYT Control period FY 2025-26 to FY 2029-30. The proposed capitalisation is not at all consistent with the past trends / past performance. Further, there are only two schemes against which the DPR's are approved and capitalisation has been claimed against these schemes during the 5th Control Period. There are couple of schemes proposed which have an estimated capitalisation of Rs. 60 to 70 Crore and rest of the proposed schemes are in the range of Rs. 1 Crore to Rs. 25 Crore. This is far higher than the capitalisation achieved by MSLDC in the recent past which is in the range of Rs. 3 to 5 Crore.

5.5.10 In this context, following are the key observations of the Commission:

a) MSLDC is yet to submit DPRs for most of the schemes proposed to be executed in the 5th Control Period. Since the capitalization towards many of the schemes is projected by MSLDC from FY 2025-26 onwards, MSLDC should have by now submitted DPR of such schemes for in-principle approval of the Commission.

b) The cost estimation against the schemes is not backed by any detailed information, market survey, or budgetary quotes, etc., as required under MYT Regulations 2024 and is primarily based on their own internal estimation or based on similar nature of projects in past years. Also, inflated amount is considered as project cost. Accordingly, the reasonability of the projections is under question in absence of a strong basis for estimation. DPRs are yet to be prepared and submitted to the Commission for in principle approval.

c) The phasing of the Capitalisation is also such that there is significant capitalisation proposed in FY 2025-26, FY 2026-27 and FY 2027-28. Schemes proposed in FY 2025-26 should have been in advanced stage of preparation considering the timeline required for completion of the project, but that is not the case as DPRs for such schemes are yet to be prepared.

d) Following capitalization has been proposed by MSLDC for the 5th MYT Control period:

Table 73: Capitalisation proposed in the 5th Control Period, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	Total
DPR Capitalisation	7,125.00	12,117.00	7,765.00	5,015.00	3,495.00	35,517.00
NDPR Capitalisation	370.00	400.00	295.00	300.00	327.00	1,692.00
Total Capitalisation	**7,495.00**	**12,517.00**	**8,060.00**	**5,315.00**	**3,822.00**	**37,209.00**

e) The past capitalisation trend observed for MSLDC is given in the table below:

Table 74: Past capitalisation trends observed for MSLDC (Rs. Lakh)

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	Average (FY 2021-22 to FY 2023-24)	Average (5th Control period)
DPR	641.70	230.21	222.06	**364.66**	**7,103.40**
NDPR	158.99	315.00	96.24	**190.08**	**338.40**
Total	**800.69**	**545.21**	**318.30**	**554.73**	**7,441.80**

f) The capitalization proposed for the 5th control period is significantly higher than the past trends which have been in the range of Rs. 554.73 Lakh. The average capitalisation proposed in the 5th Control period is around Rs. 7,441.80 Lakhs which is way beyond what MSLDC has achieved in the past.

g) As regards the schemes proposed for implementation, it is observed that there is repetition in some of the schemes proposed by MSLDC. Further, few schemes have been proposed under DPR category, and similar works have also been proposed under non-DPR category as well.

h) For certain schemes, MSLDC has proposed expenditure with the purpose of just provisioning without any clarity on need of such work in future. For example, MSLDC has proposed Development of integrated data handling platform analytical software (Rs. 10 Crore), however, for further three years of the control period, it has also proposed Rs. 1 Crore each for change request in the said software. In the absence of proper clarity on the implementation of original software itself, it would not be appropriate to consider the expenses towards the change request of such software. Such provision for change requests has been proposed in number of schemes and the same has not been considered by the Commission presently in absence of adequate clarity on its actual requirement. In future, if need arises for such changes, MSLDC can take up work against such schemes, subject to provisions of the Capex Regulations, 2022 and MYT Regulations, 2024.

i) In case of certain non-DPR schemes, it is observed that cumulative expenditure for these schemes over the 5th Control Period is exceeding Rs. 1 Crore (i.e. the threshold value for DPR submission) and MSLDC should ideally submit DPRs for such schemes.

j) The capital investment plan is a critical activity for utilities since it not only impacts the Tariff payable by the consumers/beneficiaries, but it also indicates how the utility is prudent while assessing requirement of future expansion. MSLDC being established under the EA 2003 and the system operator for the entire State should have ensured more due diligence while proposing its capex requirements for the control period.

5.5.11 Having said that, many of the schemes are important and the need is emanating from the Regulations notified by the Commission. e.g. the Commission has notified the MERC (Forecasting, Scheduling and Deviation Settlement for Solar and Wind Generation) (First Amendment) Regulations, 2024 on 3 July, 2024 which has proposed extensive changes to the original Regulation. Consequently, new software needs to be developed to cope with the new regulatory changes. As the no. of RE generators in the State are very high, there will be large size of login facilities, and the data size will also be very large. Further, during or after trial mode operation, changes may be required in the software as per the observations and experience gained.

5.5.12 Similarly, MSLDC has proposed capital expenditure for customizations of the State DSM Software to accommodate regulatory changes, Orders of MoP, etc. The DSM software was developed as per framework defined in the MERC (Deviation Settlement Mechanism & related matters) Regulations, 2019 and was commissioned in October 2021. However, after the commencement of commercial operations certain issues were raised by stakeholders, and which were also appraised to the Commission. Accordingly, in its various Orders, the Commission directed MSLDC to make the arrangement in the scheduling as well as in the billing treatment with necessary modifications in the DSM software. Accordingly, the required change request Orders were issued to the M/s PWC (developer) for these modifications in the DSM software. Also, there are significant changes in Regulations at central level in DSM framework from 2022 onwards. Accordingly, CERC DSM Regulations have been notified, amended from time to time and implemented commercially which requires changes in DSM software at the State level to match with central scheduling & Despatch timelines, Power Market timelines etc. Currently CERC has notified Indian Electricity Grid Code (**IEGC**) 2023 and accordingly necessary changes in scheduling software would need to be incorporated in future as and when required. Further, Grid-India has also launched a new web-based software at central level as per new Regulations and modified their software for implementation of necessary open access and scheduling activities to make coherent with the power market policies and timelines. In order to incorporate the schedules as per modified Central Regulations, necessary modifications are essential at MSLDC end as well to smoothen the scheduling processes at State level. Further as per Forum of Load Dispatchers (**FOLD**) initiatives under MY-SCED project, Security Constrained Economic Despatch (**SCED**) may need to be implemented at intra state level and same principle shall be implemented in existing DSM software.

5.5.13 Hence, although the DPR for most of the schemes are yet to be submitted to the Commission for approval, considering the critical role of MSLDC as a system operator and the nature of the schemes proposed to be implemented during the Control Period, the Commission, as an exception, has approved capitalisation against certain identified DPR schemes for implementation during the 5th Control Period. The Commission is cognizant of the importance of these projects for the operational requirements of MSLDC and therefore has considered schemes for which DPRs are not yet approved for the purpose of approval.

5.5.14 Accordingly, considering the above situation, in order to approve the capitalisation, the Commission has categorized the DPR schemes into three major groups as below:

a) **Must Have schemes:** This primarily includes DPR schemes approved by the Commission and on which work is ongoing or expected to start shortly. This also includes some critical nature schemes (e.g. 33 kV Express feeder with OPGW cable for redundant power supply and data connectivity from 220kV Ambazari s/s)

b) **Should Have schemes:** The schemes are required to give desired effect as per existing MERC Regulations and MERC Guidelines.

c) **May Have schemes:** The schemes which are proposed by MSLDC in view of future requirements considering the sectoral changes to enhance working of MSLDC.

5.5.15 Apart from the above, there are certain schemes which appear to be cases of duplication of claim as similar work are proposed under different schemes. Such schemes are not considered for approval. In certain cases, the requisite permissions are awaited from authorities and hence not considered for approval presently. E.g. construction of compound wall at Ambazari – case of both duplication of schemes and non-availability of requisite permission from authority. Certain other schemes like construction of residential towers are also not considered presently in absence of approved DPR.

5.5.16 Based on above, the approach adopted by the Commission for allowing the capitalization for the schemes proposed by MSLDC in present Petition is as under:

a) **Must Have schemes:** 100% capitalisation considered against these schemes as proposed by MSLDC.

b) **Should Have schemes:** For such schemes proposed by MSLDC, there is no DPR available and neither the estimation is based on any established process like seeking budgetary quotes, etc. However, there schemes are important for enabling MSLDC to comply with the requirements of various Regulations and guidelines. Hence, under such category, the capitalisation considered for approval is equivalent to 50% of proposed capitalisation. MSLDC may execute these schemes by following due procedure prescribed in the Capex Regulations, 2022 and MYT Regulations, 2024, as applicable. In case the actual estimated cost is more than approved cost at the time of DPR preparation, the Commission may allow the same, subject to necessary prudence check as per the requirements of the Capex Regulations, 2022 and applicable MYT Regulations.

c) **May Have schemes:** All the other schemes have been categorised under this category of schemes (excluding disallowed schemes). MSLDC has not provided the requisite details for these schemes and also the need for these schemes is not clearly established presently. Further, the costing is still in preliminary stage and is not backed by any firm basis. Hence, the Commission has not considered any capitalisation against these schemes presently. MSLDC would be required to prepare DPRs for such schemes with details such justification, cost benefit analysis, reference budgetary quotes, alternatives considered, urgency for implementation etc. These DPRs would require to be submitted to the Commission and depending on the need for the proposed schemes, the Commission shall take a view regarding approval of these schemes in accordance with the provisions of the Capex Regulations, 2022 and applicable MYT Regulations, 2024.

5.5.17 Further, the phasing of capitalisation of certain schemes has also been changed to spread out the capitalisation over multiple years rather than concentrating it over certain years. This will enable MSLDC to execute the schemes within prescribed timelines. Notwithstanding this change in phasing, MSLDC can approach the Commission for approval of the DPRs considering the need for the project and the associated implementation timelines which may be approved by the Commission, subject to the provisions of the Capex Regulation, 2022 and MYT Regulations, 2024 and necessary prudence check.

5.5.18 The summary of proposed approval of the DPR Schemes is given in the below:

Table 75: Capitalisation against DPR schemes for the FY 2025-26 to FY 2029-30, as approved by the Commission (Rs. Lakh)

Particulars	**FY 2025-26**	**FY 2026-27**	**FY 2027-28**	**FY 2028-29**	**FY 2029-30**	**Total**
Must Have Schemes	175.00	1,410.00	1,300.00	-	-	2,885.00
Should Have Schemes	1,800.00	1,591.50	1,150.00	800.00	300.00	5,641.50
Total Capitalisation proposed for approval - DPR Schemes	**1,975.00**	**3,001.50**	**2,450.00**	**800.00**	**300.00**	**8,526.50**

Note: *As mentioned in para 5.5.16 (c), presently Commission has not approved any capitalisation under the "May have schemes" category.*

5.5.19 Further, the Regulation 24.9 MYT Regulation, 2024 states the following:

"The cumulative amount of capitalisation against non-DPR schemes for any Year shall not exceed 30% 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, in case MSLDC and STU the cumulative amount of capitalisation against non-DPR schemes for any Year shall not exceed Average capital expenditure of past three years actually incurred or 30% of approved capital expenditure of previous years, whichever is lower, in case there is no approved capital expenditure for particular year.

Provided further that the Commission may allow capitalization against non-DPR schemes for any Year in excess of 30% or such other limit as may have been stipulated by the Commission through Order, on a request made by the Generating Company, ESSD or Licensee or MSLDC or STU."

5.5.20 As regards the non-DPR schemes, the Commission has examined the schemes proposed by MSLDC and the justification for the same provided by MSLDC. Based on the scrutiny, the Commission has approved the non-DPR schemes against which capitalisation will be allowed for recovery through the present Order. The Commission has also ensured that the capitalisation against the approved non-DPR schemes is within the limit of 30% of the capitalisation of the DPR schemes approved by the Commission in the present Order. Further, the Regulation 10 of the Capex Regulations, 2022 notified by the Commission prescribes the following:

"10.1 ***All Non-DPR Schemes shall be required to be registered with the Commission on quarterly basis*** *in physical form, till the commencement of the web-portal referred in Regulation 19 of these Regulations, after which the Schemes shall be registered on the web portal:*

Provided that the Format specified in Appendix 1 for submission of DPR Schemes shall be applicable for Non-DPR Schemes also, to be filled-up as applicable/relevant:

Provided further that the registration of the Non-DPR Schemes shall only be acknowledged by the Commission in accordance with the Format specified in Appendix 4, and shall not be construed as approval by the Commission:

Provided also that the Commission shall not consider Non-DPR Schemes that have not been registered with the Commission, for Final approval of completed cost in accordance with these Regulations*."*

5.5.21 Accordingly, MSLDC is directed to follow the requirement prescribed above for all the non-DPR schemes to be undertaken from FY 2025-26 onwards. Any non-compliance with the requirement will lead to the cost against such non-registered schemes not being considered by the Commission for approval at the time of truing up process.

5.5.22 In addition to the above, the Commission, in line with the discussion in the truing up section of the Order (paras 3.2.19 and 3.2.20), has also identified certain schemes which include works which are of the R&M nature instead of capital nature works. The Capex Regulations, 2022 clearly outlines the investment schemes which can be considered under DPR / non-DPR schemes and those which cannot be considered under capital expenditure. Accordingly, the schemes identified by the Commission (tabulated in Table 76 below) cannot be considered as a part of the capex schemes and hence not included in the provisionally approved capitalisation for FY 2025-26 to FY 2029-30. Also, as the O&M expenses for the 5th Control period are being approved on normative basis, hence, the Commission has not considered the cost associated with these schemes under O&M expenses presently. MSLDC, during the truing up process, should appropriately consider these schemes under the appropriate head and seek approval of the Commission. Further, MSLDC should also ensure that registration of all the non-DPR schemes is done in accordance with the Capex Regulations, 2022 before starting work on the schemes as non-registration of non-DPR schemes may lead to disallowance the cost associated with such un-registered schemes. The details of the non-DPR schemes considered under R&M are given below:

Table 76: R&M nature Schemes for FY 2025-26 to FY 2029-30, as identified by the Commission (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Capex to Opex Transfer					
Life extension of Panchganga and Sabarmati building.	50.00	-	-	-	-
ALDC building premises development Civil	10.00	10.00	10.00	10.00	10.00
Total	**60.00**	**10.00**	**10.00**	**10.00**	**10.00**

5.5.23 Accordingly, the Commission approves the Capitalization for FY 2025-26 to FY 2029-30 as shown in the following table:

Table 77: Scheme-wise Capitalization for FY 2025-26 to FY2029-30, identified for approval by Commission (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
a) DPR Schemes					
DSM	75.00	110.00	-	-	-
Renovation and modernization of existing SCADA at SLDC and ALDC	-	1,300.00	1,300.00	-	-
Customizations in Short term Open access Software to accommodate regulatory changes, Orders of MoP, etc.	300.00	-	-	-	-
Development of New QCA REDSM software based on MERC (F&S) First amendment notification	100.00	200.00	-		
Customizations in REMC Scheduling & Accounting Software to accommodate regulatory changes, Orders of MoP, etc	125.00	-	-	-	-
a) development of comprehensive cloud-based platform for daily system report - (DSR), outage management, first time charging (FTC) – Rs. 5 Crore (4 + 0.25 for 4 years)	200.00	-	-	-	-

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
b) Development of integrated data handling platform analytical software, analytics based on SCADA, Schedule, Meter and PMU data etc having capability of integration with SCADA DSM MDM system ETC	-	-	250.00	250.00	-
Development of Demand estimation software	125.00	375.00	-	-	-
Establishment of CSOC (Cyber Security Operation Centre) at SLDC	375.00	375.00	-	-	-
Implementation of advanced Cyber Security Solution for IT and OT Infrastructure of SLDC	250.00	250.00	250.00	-	-
33 kV Express feeder with OPGW cable for redundant power supply and data connectivity from 220kV Ambazari s/s	100.00	-	-	-	-
Procurement of optimization tool software licence for SCED and SCUC in the State along with resource adequacy tool	150.00	-	-	-	-
Procurement of optimization tool software licence for SCED and SCUC in the State (GAMS)	60.00	-	-	-	-
Rate Contract for Services towards Integration of 260 SAS/DCs/RTUs of any make over IEC 104 protocol into SCADA System at MSLDC Kalwa and ALDC Ambazari	115.00	191.50	-	-	-
Unified Communication Infrastructure (Communication Hub) interface at SCADA for Data acquisition of SCADA/REMC/URTDSM	-	-	250.00	250.00	-
Upgradation of REMC SCADA entire system	-	-	250.00	300.00	300.00

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Development of PSS-wise RE Forecasting Software for MSLDC.	-	150.00	150.00	-	-
Replacement of UPS along with 300 Ah battery ALDC	-	50.00	-	-	-
Sub-Total – DPR Schemes	**1,975.00**	**3,001.50**	**2,450.00**	**800.00**	**300.00**
b) Non-DPR Schemes					
Incidental SCADA expenses	25.00	25.00	25.00	50.00	50.00
Compliances of Fire & Safety Audit	25.00	25.00	-	-	-
Procurement of AC	15.00	-	15.00	-	15.00
Purchase of office equipment / furniture ALDC	10.00	20.00	25.00	10.00	25.00
48V 1000 Ah battery set along with charger and DCDV	25.00	-	-	-	-
Replacement of 2 Nos. of 100KVA UPS.	-	50.00	-	-	-
Replacement of 440Nos of 400AH 2V VRLA Batteries	-	-	80.00	-	-
DG set	-	-	-	-	32.00
Sub-Total – Non-DPR Schemes	**100.00**	**120.00**	**145.00**	**60.00**	**122.00**
Total	**2,075.00**	**3,121.50**	**2,595.00**	**860.00**	**422.00**

5.5.24 The Commission has considered all the DPR Schemes listed in the Table 77 above for approval. However, as regards the non-DPR schemes, the Commission has restricted the approved capitalisation to 30% of the approved DPR capitalisation for each year of the control period. Accordingly, the non-DPR capitalisation in FY 2029-30 is restricted to Rs. 90 Lakh as against Rs. 122 Lakh considered in the above table. Accordingly, the Commission has approved the capitalisation for the 5th Control Period as given below:

Table 78: Capitalization for FY 2025-26 to FY2029-30, as approved by Commission (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
DPR Schemes	1,975.00	3,001.50	2,450.00	800.00	300.00
Non-DPR Schemes	100.00	120.00	145.00	60.00	90.00#
Total Capitalization	**2,075.00**	**3,121.50**	**2,595.00**	**860.00**	**390.00**

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Non-DPR as % of DPR	**5.06%**	**4.00%**	**5.92%**	**7.50%**	**30.00%**

 # Capitalisation approval against non-DPR schemes for FY 2029-30 is restricted to Rs. 90 Lakh (30% of DPR capitalisation approved by the Commission) as against Rs. 122.00 Lakh in Table 77 above.

5.5.25 **The Commission approves the projected Capitalization of Rs. 2,075.00 Lakh for FY 2025-26, Rs. 3,121.50 Lakh for FY 2026-27, Rs. 2,595.00 Lakh for FY 2027-28, Rs. 860.00 Lakh for FY 2028-29 and Rs. 390.00 Lakh for FY 2029-30.**

5.5.26 The scheme wise approval given in the present Order is provisional in nature and subject to changes based on the DPRs approved by the Commission during the 5th Control Period. The list of DPR schemes considered for approval is provided at **Appendix-IV** of the Order.

5.5.27 It is clarified that as and when MSLDC approaches the Commission following proper procedure prescribed in the Capex Regulations, 2022 and MYT Regulations, 2024, and submits DPRs along with all relevant documents, the scheme cost may be revised at that point of time as part of the DPR approval process, subject to prudence check. The revised cost will be considered as approved cost during the truing up process for relevant years. MSLDC is also at liberty to take up any new schemes, as deemed necessary during the 5th Control period, subject to following the procedure prescribed in the Capex Regulations, 2022 and MYT Regulations, 2024.

5.5.28 MSLDC should also ensure that the schemes are appropriately designed to include only the capex nature of activities in line with the guidelines provided in the Capex Regulations, 2022 and R&M nature of expenses should be included as part of the R&M expenses under the O&M expenses.

5.5.29 It is also mandatory for MSLDC to register all the non-DPR schemes with the Commissions in line with the provisions of the Capex Regulations, 2022. In absence of registration, the Commission may disallow recovery of cost against such schemes.

5.5.30 By adopting the above-mentioned approach, the Commission is enabling MSLDC to execute the required schemes by following due procedure prescribed under the applicable Regulations.

5.5.31 Accordingly, the procedure prescribed under the Capex Regulations 2022 and the MERC MYT Regulations 2024 approval of the proposed investments must be followed scrupulously by MSLDC. The present approval does not prevent MSLDC to undertake critical projects which are not forming part of the present approval, albeit following the required prescribed under relevant Regulations for getting the requisite approvals and the associated cost can be claimed at the time of truing-up for the period FY 2025-26 to FY 2029-30, subject to prudence check.

5.6 Utilization of the LDCD Fund

<u>MSLDC's Submission</u>

5.6.1 As per the directive of the Commission with respect to creation and utilization of LDCD fund in Case No. 291 of 2019 and in Case No. 233 of 2022, the fund can be used for capitalization. MERC MYT Regulations, 2024 also contain an enabling provision for creation of the LDCD Fund. The Commission had made the following observations in the MTR Order in Case No. 233 of 2022:

"5.6.3 The Commission has considered LDCD fund for funding the capitalisation and interest earned on the balance LDCD Fund is passed on to the Beneficiaries as Non-Tariff Income.

5.6.4 Further, as the Commission has not entirely approved the capitalisation proposed by MSLDC in FY 2023-24 and FY 2024-25, the LDCD fund available at the beginning of FY 2023-24 is sufficient to fund the entire capitalisation approved by the Commission for FY 2023-24 and FY 2024-25. The balance LDCD fund is carried forward to the next control period for utilisation as per the guidelines of the Commission."

5.6.2 Further, the relevant Regulation with respect to LDCD fund is reproduced below for reference:

"118 LDC Development Fund

118.1 The Commission may permit MSLDC to create and maintain a separate development fund for such purposes and from such sources of income, as the Commission may consider appropriate, on a Petition filed by MSLDC.

118.2 MSLDC shall be entitled to utilise the money available in the LDC development fund for creation of new assets, meeting stipulated equity portion in asset creation, margin money for raising loan from the financial institutions and funding of R&D projects.

118.3 The LDC development fund shall not be utilized for revenue expenditure except to meet the short fall, if any, in the annual charges allowed by the Commission or to meet the contingency expenses which were not foreseen at the time of making the application for fees and charges and are considered necessary for the efficient power system operation. However, such drawals from the said fund shall be recouped from the expenditure allowed by the Commission under the respective heads at the time of truing up.

118.4 MSLDC shall not be entitled to claim Return on Equity, Interest on Loan and Depreciation on account of asset created through the LDC development Fund.

118.5 MSLDC shall maintain separate records of the LDC development fund.

MSLDC shall also maintain the year wise utilisation of funds and details of assets created out of it. These records shall be submitted to the Commission during the filing of Truing-up Petition.

118.6 Excess corpus available in the LDC development Fund after utilisation for the purpose of undertaking capital expenditure shall be invested by MSLDC in appropriate instruments with the intent to ensure optimum utilisation of the un-utilised funds.

Provided that the income earned through these investments will be passed on to the Beneficiaries as part of the Non-Tariff Income.

Provided that in case the excess corpus is not invested by MSLDC in appropriate interest-bearing instruments, then the normative interest income, computed at the weighted average Bank Rate, as applicable for the year, shall be included under the non-tariff income of the MSLDC.

118.7 MSLDC shall maintain all necessary accounting records as well as documentary evidence to demonstrate that the investments made, and the interest earned out of these investments are prudent. These records shall be submitted to the Commission during the filing of Truing-up Petition."

5.6.3 Following the above approach, the capitalization during the control period is proposed to be funded partially from LDCD fund to the extent possible, considering the proposed capitalization and proceeds accumulated in the LDCD fund. As per provisions in the Regulations, MSLDC has not made claim for RoE, interest on Loans and depreciation for the assets funded through LDCD fund. Considering the surplus during truing up of FY 2022-23 and FY 2023-24 and capitalization during FY 2024-25 and FY 2025-26, the LDCD fund amount at the beginning of FY 2026-27 is Rs 93.94 Lakh, whereas the asset creation projected during FY 2026-27 is amounting to Rs. 12,517.00 Lakh, indicating that only partial asset of Rs. 93.94 Lakh would be created from the LDCD fund. The remaining asset amounts to Rs. 12,423.06 Lakh would be funded through non-LDCD fund and hence depreciation, interest on loan and RoE have been claimed for that part.

5.6.4 MSLDC has indicated the broad contour of utilization of the fund as indicated by the Commission below:

- This Fund will be utilized by MSLDC for the purpose of funding of the capitalization approved for the period FY 2025-26 to FY 2029-30. In case the fund is not sufficient to meet the approved capitalization, the balance capitalization not funded through the fund will be deemed to be funded through debt and equity in accordance with the provisions of the applicable MYT Regulations.
- No addition to the normative loan and equity capital against the proposed capitalization funded through the LDCD fund and hence MSLDC will not be eligible

to claim RoE, interest on Loans and depreciation on asset addition funded through the LDCD Fund.

- MSLDC shall maintain a separate record of the funds available in the LDCD Fund and its year-wise utilization and records will be submitted to the Commission as part of MSLDC's next Tariff Petition. The amount equivalent to the approved capitalization can be withdrawn from the fund and utilized by MSLDC on issue of the truing up order for the relevant years.
- Excess corpus available in the LDCD Fund after utilization against approved capitalization shall be invested by MSLDC in appropriate instruments with the intent to ensure optimum utilization of the un-utilized funds. The funds can be invested in Fixed Deposit and Flexible Fixed Deposit in Nationalized Bank and the option for investment in Government securities would be examined to ensure that the unutilized fund keeps on generating optimal income which can be passed on to the beneficiaries.
- The income earned through these investments will be passed on to the Beneficiaries as part of the Non-Tariff Income.

5.6.5 Considering the above guidelines, the fund utilization and interest income from LDCD fund (to be treated under non-tariff income) is given below:

Table 79: LDCD Fund details, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Opening LDC Development Fund	7,588.94	93.94	0.00	0.00	0.00
Additions in LDC development fund during the year	0.00	0.00	0.00	0.00	0.00
Total LDC development fund	7,588.94	93.94	0.00	0.00	0.00
Less: Utilization for capital expenses	7,495.00	93.94	0.00	0.00	0.00
Less: Utilization for revenue expenses	0.00	0.00	0.00	0.00	0.00
Less: Utilization of LDCD fund to meet shortfall	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00
Net LDC development fund as on 31st March of the year	**93.94**	**0.00**	**0.00**	**0.00**	**0.00**
Average fund accumulated during the year	3,841.44	46.97	0.00	0.00	0.00
Interest rate	6.65%	6.65%	0.00	0.00	0.00
Income earned on LDCD fund	**255.48**	**3.12**	**0.00**	**0.00**	**0.00**

5.6.6 Additionally, MSLDC has also presented certain issues that it faces with the present process of creation and utilisation of the LDCD fund as prescribed in the MYT Regulations, 2024. It has also presented a brief comparison of the provisions related to LDCD fund under the CERC (Fees and Charges of RLDC) Regulations, 2024 and the MERC MYT Regulations 2024. Based on the comparison MSLDC has concluded that under CERC norms, the RLDCs/ National Load Despatch Centre (**NLDC**) is allowed to use the proceeds from LDCD fund for creation of Assets and such amount drawn from the LDCD fund has been treated as loan. As per normal loan, interest on loan, depreciation is allowed on the assets created through LDCD fund. This approach will ensure adequate proceeds in LDCD fund all the time.

5.6.7 Considering the above, MSLDC has requested the Commission to revisit the norms for utilization of LDCD fund in the interest of MSLDC and other stakeholders and suggest alternate remedy as felt appropriate so as to ensure adequate proceeds in LDCD fund, to fund the future infrastructure development work of MSLDC.

Commission's Analysis and Ruling

5.6.8 The Commission has noted the submissions of MSLDC regarding the creation and utilisation of the LDCD fund. The Commission has considered the LDCD fund available at the beginning of FY 2025-26 for funding the capitalization and interest earned on the balance LDCD Fund is passed on to the Beneficiaries as Non- Tariff Income.

5.6.9 Further, as the Commission has not entirely approved the capitalization proposed by MSLDC in FY 2025-26 to FY 2029-30, the LDCD fund available at the beginning of FY 2025-26 is sufficient to fund the entire capitalization approved by the Commission for the period FY 2025-26 to FY 2028-29. The balance LDCD fund at the end of FY 2028-29 is carried forward to the next Year and will be sufficient to fund only part of the capitalisation approved for the FY 2029-30. The remaining assets for the period will be funded through debt and equity funding as per the guidelines of the Commission.

5.6.10 The Commission has also considered the interest income on the available LDCD fund considering the actual rate of interest of 6.65% approved by the Commission for FY 2023-24 in this Order. Accordingly, the summary of the LDCD fund utilization and the estimated interest income approved by the Commission is outlined in the table below:

Table 80: LDCD Fund utilization, as approved by Commission (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Opening LDC Development Fund	**8,968.37**	**6,893.37**	**3,771.87**	**1,176.87**	**316.87**
Additions in LDC development fund during the year	0.00	0.00	0.00	0.00	0.00
Total LDC development fund	**8,968.37**	**6,893.37**	**3,771.87**	**1,176.87**	**316.87**
Less: Utilization for capital expenses	2,075.00	3,121.50	2,595.00	860.00	316.87
Net LDC development fund as on 31st March of the year	**6,893.37**	**3,771.87**	**1,176.87**	**316.87**	**0.00**

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Average fund accumulated during the year	7,930.87	5,332.62	2,474.37	746.87	158.43
Interest rate	6.65%	6.65%	6.65%	6.65%	6.65%
Income earned on LDCD fund	**527.46**	**354.66**	**164.56**	**49.67**	**10.54**

5.6.11 **The Commission approves projected income from LDCD fund of Rs. 527.46 Lakh for FY 2025-26, Rs. 354.66 Lakh for FY 2026-27, Rs. 164.56 Lakh for FY 2027-28, Rs. 49.67 Lakh for FY 2028-29 and Rs. 10.54 Lakh for FY 2029-30. A portion of the Capitalisation approved for FY 2029-30 is funded through debt and equity as the LDCD fund is expected to be exhausted in FY 2029-30.**

5.6.12 Further, the Commission has also noted the request of MSLDC regarding revisiting the framework for creation and utilisation of the LDCD fund in line with the framework notified by the Hon'ble CERC. The Commission is of the opinion that MSLDC had sufficient opportunity to represent the issue during the process of preparation of the MERC MYT Regulations 2024 and the related stakeholder consultations undertaken by the Commission. However, MSLDC did not raise this issue during the consultation process, and it would not be possible for the Commission to revisit the matter during the present MYT process as any change in the Regulation will require wider stakeholder consultation before it can be adopted. Accordingly, MSDC may approach the Commission during public consultation of draft MYT Regulations for next control period.

5.7 Depreciation

MSLDC's Submission

5.7.1 MSLDC has calculated depreciation for FY 2025-26 to FY 2029-30 in accordance with the MYT Regulations, 2024 and based on the projected capitalization during each year of the Control Period. The depreciation of the asset created from LDCD fund has not been considered as per directives of the Commission.

5.7.2 MSLDC has considered that the capitalization during FY 2025-26 is funded from LDCD fund for which the depreciation has not claimed. However, depreciation for the asset funded through non-LDCD funds during FY 2026-27 to FY 2029-30 has been claimed.

5.7.3 During the 5th control period, MSLDC has considered the depreciation approved by the Commission in MTR Order on existing assets for FY 2024-25 as depreciation on existing asset for each year under the 5th control period. The rational for the same is already discussed in the provisional true-up chapter.

5.7.4 The depreciation for asset created post 1st April, 2025 (FY 2025-26 to FY 2029-30) has been calculated in Format 4.1 (N) as per the depreciation rate specified in MYT

Regulations 2024. The depreciation claimed for FY 2025-26 to FY 2029-30 as estimated by MSLDC is given in the Table below:

Table 81: Depreciation for FY 2025-26 and FY 2029-30, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Opening Gross Fixed Assets	8,763.04	8,763.04	21,186.10	29,246.10	34,561.10
Add: Additional Capitalization during the year	0.00	12,423.06	8,060.00	5,315.00	3,822.00
Less: Retirement/Adjustments	0.00	0.00	0.00	0.00	0.00
Closing Gross Fixed Assets	8,763.04	21,186.10	29,246.10	34,561.10	38,383.10
Total Depreciation	**114.13**	**656.80**	**1,621.36**	**2,342.41**	**2,924.18**

Commission's Analysis and Ruling

5.7.5 The Commission has allowed LDCD fund to be used for funding capitalization for the 5th Control Period and is sufficient to meet the capitalization approved for the period from FY 2025-26 to FY 2028-29 and partially for FY 2029-30. Accordingly, the Commission has not considered any addition to GFA to the extent of utilization of LDCD fund for these years. In case, MSLDC incurs capex in excess of LDCD fund balance, the same shall be assumed to be funded through debt and equity and hence would be eligible to claim depreciation, interest on loan and RoE on truing-up subject to prudence check.

5.7.6 In case of existing assets, the Commission has allowed depreciation as per the rates derived based on actual depreciation for FY 2017-18 and asset value for assets. For new asset addition considered since FY 2029-30, the depreciation has been calculated at rates prescribed in the MYT Regulations for "New Assets". The Commission has computed the depreciation in accordance with the MYT Regulations, 2024 subject to the ceiling of 90% of GFA for individual asset classes separately and has approved the following amount:

Table 82: Depreciation for FY 2025-26 to FY 2029-30 for existing assets, as approved by the Commission (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Opening Gross Fixed Assets	**8,763.04**	**8,763.04**	**8,763.04**	**8,763.04**	**8,763.04**
Add: Additional Capitalization during the year	0.00	0.00	0.00	0.00	0.00
Less: Retirement/Adjustments	0.00	0.00	0.00	0.00	0.00
Closing Gross Fixed Assets	**8,763.04**	**8,763.04**	**8,763.04**	**8,763.04**	**8,763.04**
Total Depreciation	**106.01**	**94.17**	**89.60**	**86.35**	**81.40**

Table 83: Depreciation for FY 2025-26 to FY 2029-30 at new assets, as approved by the Commission (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Opening Gross Fixed Assets	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Add: Additional Capitalization during the year	0.00	0.00	0.00	0.00	73.13
Less: Retirement/Adjustments	0.00	0.00	0.00	0.00	0.00
Closing Gross Fixed Assets	**0.00**	**0.00**	**0.00**	**0.00**	**73.13**
Total Depreciation	**0.00**	0.00	0.00	0.00	**5.41**

Table 84: Total Depreciation for FY 2025-26 to FY 2029-30, as approved by Commission (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Opening Gross Fixed Assets	**8,763.04**	**8,763.04**	**8,763.04**	**8,763.04**	**8,763.04**
Add: Additional Capitalization during the year	0.00	0.00	0.00	0.00	73.13
Less: Retirement/Adjustments	0.00	0.00	0.00	0.00	0.00
Closing Gross Fixed Assets	**8,763.04**	**8,763.04**	**8,763.04**	**8,763.04**	**8,836.17**
Total Depreciation	**106.01**	**94.17**	**89.60**	**86.35**	**86.80**

5.7.7 **The Commission approves the projected Depreciation of Rs. 106.01 Lakh for FY 2025-26, Rs. 94.17 Lakh for FY 2026-27, Rs. 89.60 Lakh for FY 2027-28, Rs. 86.35 Lakh for FY 2028-29 and Rs. 86.80 Lakh for FY 2029-30.**

5.8 Interest and Finance Charges

MSLDC's Submission

5.8.1 There are no actual loans for MSLDC, and loans are normative loan only. The debt requirement for assets not funded through LDCD fund is proposed to be as per debt: equity ratio of 70:30 as given in Regulation 27 of MYT Regulations, 2024 and the debt is considered as normative loan.

5.8.2 The debt is considered as normative loan as per the above provision. Partial funding of asset created during FY 2026-27 and full funding for asset created during FY 2027-28 to FY 2029-30 has been considered from non -LDCD fund. The addition in normative loan in is projected as 70% of capitalization, which is not funded through LDCD fund.

5.8.3 The yearly depreciation as calculated above, is considered as loan repayment for each year. MSLDC has considered the rate of interest as per rate proposed for FY 2024-25.

5.8.4 The interest expenses for FY 2025-26 to FY 2029-30 are provided in the Table as given below:

Table 85: Interest on Long-Term Loans for FY 2025-26 to FY 2029-30, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Opening Balance of Normative Loan	385.68	271.55	8,310.89	12,331.53	13,709.62
Add: Debt component of capitalization during the year	0.00	8,696.14*	5,642.00	3,720.50	2,675.40
Less: Repayment of Normative loan during the year	114.13	656.80	1,621.36	2,342.41	2,924.18
Closing Balance of Normative Loan	**271.55**	**8,310.89**	**12,331.53**	**13,709.62**	**13,460.84**
Weighted average Rate of Interest (%)	9.36%	9.36%	9.36%	9.36%	9.36%
Normative Interest Expenses	**30.76**	**401.66**	**966.07**	**1,218.73**	**1,271.58**

** The value of debt component was wrongly mentioned in the Petition and hence was rectified and presented in the above table.*

Commission's Analysis and Ruling

5.8.5 The closing loan for FY 2024-25 approved in this Order is considered as the opening loan for FY 2025-26. The repayment for each year is considered equivalent to the depreciation approved for the respective year, in this Order.

5.8.6 No addition to normative loan is considered on the capitalization approved for the 5th Control period to the extent it is funded through the LDCD Fund. No interest cost is admissible on such capitalization funded through the LDCD Fund. For funding requirements beyond those funded through LDCD fund, a debt : equity ratio of 70:30 may be considered.

5.8.7 As discussed earlier, the interest rate considered for normative loans of MSLDC is the weighted average rate of interest of MSETCL considered for the 5th Control period as per the MSETCL's MYT Petition in Case No. 232 of 2022 and as approved by Commission for MSETCL in its Order in Case No. 178 of 2024. The rate is 9.05% and the same is considered for computing the interest on loans for the control period for MSLDC.

5.8.8 Based on the above, the interest on loan approved by the Commission for the Control period is as given in the Table below:

Table 86: Interest on Loan Capital for FY 2025-26 to FY 2029-30, as approved by Commission (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Opening Balance of Normative Loan	385.69	279.68	185.51	95.91	9.56

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Add: Debt component of capitalisation during the year	0.00	0.00	0.00	0.00	51.19
Repayment of Normative loan during the year	106.01	94.17	89.60	86.35	60.75#
Closing Balance of Normative Loan	**279.68**	**185.51**	**95.91**	**9.56**	**0.00**
Weighted average Rate of Interest (%)	9.05%	9.05%	9.05%	9.05%	9.05%
Normative Interest Expenses	**30.11**	**21.05**	**12.73**	**4.77**	**0.43**

 # Restricted to the minimum of Opening balance of loan plus addition to loan during the year or depreciation approved in the order.

5.8.9 **The Commission approves the projected Interest on Long Term Loans of Rs. 30.11 Lakh for FY 2025-26, Rs. 21.05 Lakh for FY 2026-27, Rs. 12.73 Lakh for FY 2027-28, Rs. 4.77 Lakh for FY 2028-29 and Rs. 0.43 Lakh for FY 2029-30.**

5.9 Return on Equity

MSLDC's Submission

5.9.1 MSLDC has worked out the Return on Equity (RoE) for the 5th Control Period in accordance with the MYT Regulations, 2024. RoE is based on the projected year-wise equity quantum. Up to FY 2024-25, no new equity has been added as yearly capitalization is assumed to be funded through LDCD fund. Hence, the opening equity amount prevailing during FY 2022-23 is continued up to FY 2024-25. Assets capitalized during FY 2025-26 are fully funded through LDCD fund. Hence, no additional equity and return on equity is considered accordingly. For FY 2026-27 (partially) to FY 2029-30, assets capitalized are considered to be funded through non LDCD fund and therefore 30% of cost asset has considered as equity addition during each year and return on equity as per the norms have been claimed for FY 2026-27 to FY 2029-30.

5.9.2 MSLDC has considered RoE for FY 2025-26 to FY 2029-30 in accordance with the above provisions under the MYT Regulations,2024. MSLDC has considered RoE at rate of 14% on the opening equity and for half year on equity added during the year.

5.9.3 The projected RoE for next control period is shown in the table below:

Table 87: Return on Equity for FY 2025-26 to FY 2029-30, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Total Return on Equity	177.44	438.33	868.47	1,149.35	1,341.22

Commission's Analysis and Ruling

5.9.4 The Commission has considered the closing equity for FY 2024-25 approved in this Order as the opening equity for FY 2025-26.

5.9.5 No addition to normative equity is considered on the capitalization approved in this Order to the extent it is funded from the LDCD Fund. No RoE is admissible on such capitalization funded from the LDCD Fund. For funding requirements beyond those funded through LDCD fund, a debt: equity ratio of 70:30 may be considered.

5.9.6 The Regulation 29.1 and 29.2 (iv) of the MYT Regulation 2024 states the following:

"29 Return on Equity

29.1 Return on Equity shall be allowed in two parts viz. Base Return on Equity, and Performance Linked Return on Equity linked with actual performance:

Provided that, the Return on Equity allowed at the time of MYT Proceedings shall be inclusive of both Base Return on Equity and Performance Linked Return on Equity:

Provided further that Performance Linked Return on Equity considered at the time of MYT Proceedings is on provisional basis and may undergo change at the time of True-up based on level of performance on various parameters stipulated in these Regulations:

……."

"29.2 Return on Equity at the time of MYT Proceedings

…….

*iv. Return on equity for MSLDC and STU shall be allowed on the amount of equity capital determined in accordance with Regulation 27 for the assets put to use, **at the rate of 14.00 per cent per annum** in Indian Rupee terms and **additionally Performance Linked Incentive** shall be allowed subject to the conditions as specified in the Regulation 125 and Regulation 134, respectively."*

5.9.7 The Commission has considered a rate of 14% for computing the RoE as per Regulation 29.2 (iv) of MYT Regulations, 2024 as claimed by MSLDC.

5.9.8 As per Regulation 29.1 of MYT Regulations, 2024, RoE is allowed in two parts i.e. Base RoE and Performance Linked RoE linked to actual performance. In case of MSLDC, as mentioned in Regulation 29.2 (iv), MSLDC is eligible to earn Performance Linked Incentive (**PLI**) in addition to the RoE at 14%. Further, as per the second proviso of Regulation 29.1 of MYT Regulations, 2024, the Performance Linked Incentive is envisaged to be allowed on a provisional basis at the time of MYT proceedings itself, and necessary adjustments would be done to the same in case the actual performance of MSLDC is inferior to the target at the time of truing up process. However, MSLDC has not claimed the performance linked incentive in the Petition and included the following prayers in its submission:

"10. Consider the Key Performance Parameters (KPI) of FY 2022-23 and FY 2023-24 as submitted in the present Petition and approve the additional RoE on the basis of the KPI data.

11. Allow to submit the KPI data for FY 2024-25 onwards based on actual performance after completion of relevant financial year."

5.9.9 The Commission has already provided its ruling regarding consideration of the KPI for FY 2022-23 and FY 2023-24 and allowing additional RoE on the basis of the KPI data for these years. The same decision will apply for FY 2024-25 as well. As regards the prayer to allow submission of KPI data for the 5th Control Period based on actual performance after completion of relevant financial year, Regulation 126 of the MYT Regulations 2024 clearly states the timelines for submission of the KPI related information and supporting documents. The relevant extract of the Regulation is reproduced below for reference:

*"126.2 MSLDC shall **submit its actual performance against each of the key performance indicators to the Commission on an annual basis** alongwith with supporting documents.*

126.3 The Commission shall evaluate the overall performance of the MSLDC, on the basis of weightage specified in the table below."

5.9.10 MSLDC shall submit the KPI related information in accordance with the Regulation mentioned above. MSLDC also needs to publish the actual performance data on its website immediately after submission of the same to the Commission. The impact of the actual performance will be allowed at the time of the truing up for relevant years.

5.9.11 Notwithstanding the fact that MSLDC has not claimed the Performance Linked Incentive in its Petition, in line with the provisions of Regulation 29.1 read along with Regulation 29.2 (iv), the Commission deems it appropriate to allow the Performance Linked Incentive as part of the projected ARR for the 5th Control Period to avoid the burden of carrying cost at the time of truing up.

5.9.12 Accordingly, the Base RoE and Performance Linked Incentive approved by the Commission for FY 2025-26 to FY 2029-30 is as given in the Table below:

Table 88: Base RoE for FY 2025-26 to FY 2029-30, as approved by Commission (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Regulatory Equity at the beginning of the year	1,267.45	1,267.45	1,267.45	1,267.45	1,267.45

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Capitalisation during the year	0.00	0.00	0.00	0.00	73.13
Equity portion of capitalisation during the year	0.00	0.00	0.00	0.00	21.94
Regulatory Equity at the end of the year	**1,267.45**	**1,267.45**	**1,267.45**	**1,267.45**	**1,289.39**
Return on Regulatory Equity at the beginning of the year	177.44	177.44	177.44	177.44	177.44
Return on Regulatory Equity addition during the year	0.00	0.00	0.00	0.00	1.54
Total Return on Equity	**177.44**	**177.44**	**177.44**	**177.44**	**178.98**

Table 89: Performance Linked Incentive for FY 2025-26 to FY 2029-30, as approved by Commission (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
ARR considered for calculating Performance Linked Incentive	3,073.64	3,139.97	3,556.27	3,909.16	4,205.91
Incentive %	3%	3%	3%	3%	3%
Performance Linked Incentive	**92.21**	**94.20**	**106.69**	**117.27**	**126.18**

5.9.13 **The Commission approves the Return on Equity of Rs. 177.44 Lakh for FY 2025-26, Rs. 177.44 Lakh for FY 2026-27, Rs. 177.44 Lakh for FY 2027-28, Rs. 177.44 Lakh for FY 2028-29 and Rs. 178.98 Lakh for FY 2029-30.**

5.9.14 **The Commission approves the Performance Linked Incentive of Rs. 92.21 Lakh for FY 2025-26, Rs. 94.20 Lakh for FY 2026-27, Rs. 106.69 Lakh for FY 2027-28, Rs. 117.27 Lakh for FY 2028-29 and Rs. 126.18 Lakh for FY 2029-30.**

5.10 Income Tax

MSLDC's Submission

5.10.1 In line with MSLDC's submissions regarding Income Tax in the previous sections relating to truing up for past year, MSLDC has not claimed Income Tax for the period FY 2025-26 to FY 2029-30

Commission's Analysis and Ruling

5.10.2 The Commission notes that MSLDC does not have separate corporate status and is, therefore, not required to submit Income Tax returns. The MYT Regulations, 2019 have enabling provisions to take into account any allocations/ claims by MSETCL towards Income Tax. The Commission shall consider them, if any, after prudence check, at the time of True up.

5.10.3 The Commission has not made any projections towards Income Tax for the 5th Control Period. Accordingly, the RoE is not grossed up by the effective tax rate for the year.

5.11 Non-Tariff Income

MSLDC's Submission

5.11.1 Regulation 122 of the MERC MYT Regulations, 2024 outlines the components of Non-Tariff Income.

5.11.2 MSLDC has considered the average of non-tariff income from the sources other than LDCD fund accrued during FY 2022-23 and FY 2023-24 as per audited accounts for projecting non-tariff income for the 5th Control Period from FY 2025-26 to FY 2029-30.

5.11.3 Further, the interest income from LDCD fund for FY 2025-26 is considered as non-tariff income, as considered by the Commission in earlier Orders. The details of interest from LDCD fund are already provided under section dealing with 'Utilization of the LDCD Fund'.

5.11.4 The projected Non-Tariff Income for FY 2025-26 to FY 2029-30 is shown in the table below:

Table 90: Non-Tariff Income for FY 2025-26 to FY 2029-30, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Income from LDCD Fund	255.48	3.12	0.00	0.00	0.00
Other Non-Tariff Income	87.01	87.01	87.01	87.01	87.01
Total Non-Tariff Income	**342.49**	**90.13**	**87.01**	**87.01**	**87.01**

Commission's Analysis and Ruling

5.11.5 The Commission has reviewed the projections made by MSLDC for Non-Tariff Income.

5.11.6 As discussed in the earlier section dealing with 'Utilization of the LDCD Fund', the Commission has considered the interest on surplus available in LDCD Fund as Non-Tariff Income. Accordingly, the interest at the rate of 6.65% is considered on an average LDCD Fund balance during each year of the 5th Control Period.

5.11.7 Considering the above, the Commission has approved the Non-Tariff Income as shown in the Table below:

Table 91: Non-Tariff Income for FY 2025-26 to FY 2029-30, as **approved by Commission** (Rs. **Lakh)**

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Income earned from LDCD fund	527.46	354.66	164.56	49.67	10.54
Other Non-Tariff Income	87.01	87.01	87.01	87.01	87.01
Total Non-Tariff Income	**614.47**	**441.67**	**251.57**	**136.68**	**97.55**

5.11.8 **The Commission approves the projected Non-Tariff Income of Rs. 614.47 Lakh for FY 2025-26, Rs. 441.67 Lakh for FY 2026-27, Rs. 251.57 Lakh for FY 2027-28, Rs. 136.68 Lakh for FY 2028-29 and Rs. 97.55 Lakh for FY 2029-30.**

5.12 Income from Open Access Charges

MSLDC's Submission

5.12.1 MSLDC has considered income from Open Access Charges including scheduling / re-scheduling charges for FY 2025-26 to FY 2029-30 as projected by the Petitioner for FY 2024-25 without any change. The same is given below.

Table 92: Income from Open Access Charges for FY 2025-26 to FY 2029-30, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Income from Open access	581.98	581.98	581.98	581.98	581.98
Income from rescheduling charges	1,154.93	1,154.93	1,154.93	1,154.93	1,154.93
Income from Open Access and Rescheduling Charges	**1,736.91**	**1,736.91**	**1,736.91**	**1,736.91**	**1,736.91**

Commission's Analysis and Ruling

5.12.2 The Commission has examined the submission of MSLDC in respect of Income from Open Access Charges and considered the same as submitted by MSLDC for FY 2025-26 to FY 2029-30, subject to prudence check at the time of true-up.

Table 93: Income from Open Access and Rescheduling Charges for FY 2025-26 to FY 2029-30, as approved by Commission (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Income from Open access	581.98	581.98	581.98	581.98	581.98
Income from rescheduling charges	1,154.93	1,154.93	1,154.93	1,154.93	1,154.93
Income from Open Access and Rescheduling Charges	**1,736.91**	**1,736.91**	**1,736.91**	**1,736.91**	**1,736.91**

5.12.3 **The Commission approves the projected Income from Open Access Charges and rescheduling charges of Rs. 1,736.91 Lakh for each year of the 5th Control period.**

5.13 Summary of Annual Fixed Charges for FY 2025-26 to FY 2029-30

MSLDC's Submission

5.13.1 Based on the above discussion, the projected expenses from FY 2025-26 to FY 2029-30 are summarized in Table below:

Table 94: Summary of Annual Fixed Charges for FY 2025-26 to FY 2029-30, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Operation & Maintenance Expenses	4,248.42	4,120.47	4,310.52	4,509.33	4,717.31
Depreciation Expenses	114.13	656.80	1,621.36	2,342.41	2,924.18
Interest on Loan Capital	30.76	401.66	966.07	1,218.73	1,271.58
Interest on Working Capital	82.50	99.16	129.95	151.61	167.83
RLDC Fees and WRPC Charges	909.34	954.81	1,002.55	1,052.68	1,105.31
Reactive Energy Charges paid to Generators/TSUs	0.00	0.00	0.00	0.00	0.00
Total Revenue Expenditure	**5,385.14**	**6,232.90**	**8,030.45**	**9,274.75**	**10,186.21**
Return on Equity Capital	177.44	438.33	868.47	1,149.35	1,341.22
Performance Linked Incentive	0.00	0.00	0.00	0.00	0.00
Total Expenditure for MSLDC	**5,562.59**	**6,671.23**	**8,898.92**	**10,424.10**	**11,527.44**
Less: Non-Tariff Income	342.49	90.13	87.01	87.01	87.01
Less: Income from Open Access charges	581.98	581.98	581.98	581.98	581.98
Rescheduling charges	1,154.93	1,154.93	1,154.93	1,154.93	1,154.93
Annual Fixed Charges for MSLDC	**3,483.18**	**4,844.18**	**7,075.00**	**8,600.18**	**9,703.52**

Commission's Analysis and Ruling

5.13.2 Based on the Commission's analysis and rulings set out above, the summary of the revised estimates of Annual Fixed Charges for MSLDC for the 5th control period is as shown in the following Table:

Table 95: Summary of Annual Fixed Charges for FY 2025-26 to FY 2029-30, as approved by Commission (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Operation & Maintenance Expenses	4,128.71	3,995.27	4,179.57	4,372.37	4,574.07

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Depreciation Expenses	106.01	94.17	89.60	86.35	86.80
Interest on Loan Capital	30.11	21.05	12.73	4.77	0.43
Interest on Working Capital	73.41	75.81	82.85	89.14	94.77
RLDC Fees and WRPC Charges	909.34	954.81	1,002.55	1,052.68	1,105.31
Total Revenue Expenditure	**5247.58**	**5141.11**	**5367.31**	**5605.31**	**5861.38**
Return on Equity Capital	177.44	177.44	177.44	177.44	178.98
Performance Linked Incentive	92.21	94.20	106.69	117.27	126.18
Total Expenditure for MSLDC	**5,517.23**	**5,412.75**	**5,651.44**	**5,900.03**	**6,166.54**
Less: Non Tariff Income	614.47	441.67	251.57	136.68	97.55
Less: Income from Open Access charges	581.98	581.98	581.98	581.98	581.98
Rescheduling charges	1,154.93	1,154.93	1,154.93	1,154.93	1,154.93
Annual Fixed Charges for MSLDC	**3,165.85**	**3,234.17**	**3,662.95**	**4,026.44**	**4,332.08**

5.13.3 The detailed analysis underlying the Commission's approval for individual ARR elements is set out above however, the variation in the ARR sought by MSLDC and that approved by the Commission in this Order is mainly on account of reasons such as impact of wage revision arrears for FY 2025-26. Further, there is lower approval of depreciation, Interest on Loan and RoE vis-à-vis that sought by MSLDC in view of the lower capitalisation approved by the Commission during the 5th Control Period and the consequent funding of Capitalization from LDCD fund and non-LDCD sources.

5.13.4 The Commission has considered the PLI during 5th control period as part of the AFC in line with the provisions of the MYT Regulation, 2024 even though MSLDC had not included the same in its submission.

5.13.5 **Accordingly, the Commission approves the projected Annual Fixed Charges of Rs. 3,165.85 Lakh for FY 2025-26, Rs 3,234.17 Lakh for FY 2026-27, Rs. 3,662.95 Lakh for FY 2027-28, Rs. 4,026.44 Lakh for FY 2028-29 and Rs. 4,332.08 Lakh for FY 2029-30.**

5.13.6 **MSLDC has also included the following prayer as part of the present Petition:**

> *"14.Allow the Petitioner to file the mid-term review Petition with other licensees so that the last two years' fees and charges of present control period can be reviewed based on true-up of appropriate years. The same is requested under 'Regulation 149 Power to Relax' of MYT Regulations, 2024."*

5.13.7 In this regard, the Commission notes that during the public consultation process of Draft MYT Regulations, 2024, the Commission had received similar requests from various utilities regarding the continuation of Mid-Term Review proceedings. In this regard, the Commission in the "Statement of Reasons" issued along with the MYT Regulations, 2024 has stated the following:

"2.1.3 Analysis and Commission's Decision

The Commission has considered the submission of the Stakeholders. With regards to Mid-term Review of MYT projections and revised MYT projections after three years of the Control Period, the Commission in the Explanatory Memorandum had noted that, the MERC (Terms and Conditions of Tariff) Regulations, 2005 notified on August 23, 2005, had provision of yearly Truing-up. Subsequently, the Commission in MYT Regulations, 2011, moved from Yearly Truing-up to Mid-Term Review at the end of third year of the Control Period. The Commission continued with the provision of Mid-Term Review in the third and fourth control period. The Commission is of the view that the Generation Companies, Licensees and Utilities in Maharashtra have gained the sufficient experience over a period to project the Aggregate Revenue Requirement over a control period.

Further, the comparative analysis of the data of existing control period (from FY 2020-21 to FY 2024-25) shows that, the projections approved by the Commission at the time of MYT Orders and actual parameters of ARR till MTR are fairly comparable for Generation, Transmission and SLDC and consolidated gap of MTR for Generation, Transmission and SLDC with carrying cost at the end of the control period is only Rs. 295.67 Crore, which is approx. 1.39% of consolidated ARR for Generation companies, Transmission utilities and SLDC.

…….

Hence, the Commission has decided to continue with its approach of "no Mid-term review" for Generation, ESS, Transmission, SLDC and STU business"

5.13.8 Accordingly, it will not be appropriate to deviate from the notified framework during the MYT proceedings considering that such changes require extensive stakeholder consultation. Accordingly, the Commission is not inclined to grant the prayer of MSLDC, and the present MYT framework will be applicable to MSLDC for the 5th Control Period.

6 SHARING OF MSLDC CHARGES AND DETERMINATION OF MSLDC FEES

6.1 Sharing of MSLDC Charges

MSLDC's Submission

6.1.1 As per Regulation 123 of MERC Regulations, 2024, MSLDC Charges payable by the Transmission System Users shall be computed on the basis of adjusted base Transmission Capacity Right (**TCR**) of the beneficiaries. TCR can be calculated as average of Coincident Peak Demand (**CPD**) and Non-Coincident Peak Demand (**NCPD**). Adjusted base TCR is calculated by deducting Partial Open Access (**POA**) consumers' demand from TCR.

6.1.2 The data for base TCR (i.e. average of CPD & NCPD) for the period from FY 2020-21 to FY 2023-24 is submitted below:

Table 96: Base TCR of past four years (MW)

Particulars	FY 20-21	FY 21-22	FY 22-23	FY 23-24
Base TCR	20,457.17	23,418.32	25,297.64	27,174.17

6.1.3 Based on the past years' experience, MSLDC has conservatively considered the growth rate of 5% to project the future TCR. The 5% growth rate has been used to project the base TCR during the control period. The projected base TCR for next control period is given below.

Table 97: Projected Base TCR for next control period (MW)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Base TCR	29,959.52	31,457.50	33,030.37	34,681.89	36,415.98

6.1.4 The sharing of base TCR prevailing during the 5th Control Period is given below:

Table 98: Sharing of Base TCR as per MSLDC

Particulars	FY 2025-26		FY 2026-27		FY 2027-28		FY 2028-29		FY 2029-30	
	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)
MSEDCL	25,132.72	83.89%	26,389.35	83.89%	27,708.82	83.89%	29,094.26	83.89%	30,548.97	83.89%
TPCL-D	1,103.73	3.68%	1,158.92	3.68%	1,216.86	3.68%	1,277.70	3.68%	1,341.59	3.68%
AEML-D	2,021.98	6.75%	2,123.08	6.75%	2,229.24	6.75%	2,340.70	6.75%	2,457.73	6.75%
BEST	985.94	3.29%	1,035.23	3.29%	1,086.99	3.29%	1,141.34	3.29%	1,198.41	3.29%
Indian Railways	584.19	1.95%	613.40	1.95%	644.07	1.95%	676.27	1.95%	710.09	1.95%

Particulars	FY 2025-26		FY 2026-27		FY 2027-28		FY 2028-29		FY 2029-30	
	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)
Mindspace Properties	11.60	0.04%	12.18	0.04%	12.78	0.04%	13.42	0.04%	14.09	0.04%
Gigaplex Properties	5.67	0.02%	5.95	0.02%	6.25	0.02%	6.56	0.02%	6.89	0.02%
KRC Infrastructure	5.99	0.02%	6.29	0.02%	6.60	0.02%	6.93	0.02%	7.28	0.02%
Nidar Utilities	10.51	0.04%	11.03	0.04%	11.59	0.04%	12.17	0.04%	12.77	0.04%
MADC	17.41	0.06%	18.28	0.06%	19.19	0.06%	20.15	0.06%	21.16	0.06%
E ON Phase-1	10.62	0.04%	11.15	0.04%	11.71	0.04%	12.29	0.04%	12.91	0.04%
E ON Phase-2	6.71	0.02%	7.04	0.02%	7.39	0.02%	7.76	0.02%	8.15	0.02%
JNPT	1.18	0.00%	1.24	0.00%	1.30	0.00%	1.37	0.00%	1.44	0.00%
Laxmipati Balaji	0.72	0.00%	0.75	0.00%	0.79	0.00%	0.83	0.00%	0.87	0.00%
AEML SEEPZ Ltd	31.67	0.11%	33.25	0.11%	34.92	0.11%	36.66	0.11%	38.50	0.11%
HADAPSAR SEZ	14.31	0.05%	15.03	0.05%	15.78	0.05%	16.57	0.05%	17.40	0.05%
MANJARI SEZ	14.60	0.05%	15.32	0.05%	16.09	0.05%	16.90	0.05%	17.74	0.05%
Total Transmission Capacity Rights of all TSUs	**29,959.52**	**100%**	**31,457.50**	**100%**	**33,030.37**	**100%**	**34,681.89**	**100%**	**36,415.98**	**100%**

6.1.5 Considering the above sharing of base TCR and ARR proposed, the yearly charges to be paid by the TSUs are given below:

Table 99: Sharing of MSLDC Charges for FY 2025-26 to FY 2029-30, as submitted by MSLDC (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Annual Fixed Charges (Rs. Lakh)	3,483.18	4,844.18	7,075.00	8,600.18	9,703.52
SLDC charges (Rs. /MW/month)	9,68.86	1,283.26	1,784.97	2,066.44	2,220.53
Sharing of MSLDC Charges (Rs. Lakh/year)					
MSEDCL	2,922.00	4,063.73	5,935.14	7,214.59	8,140.17
TPCL-D	128.32	178.46	260.65	316.84	357.48
AEML-D	235.08	326.94	477.49	580.43	654.89
BEST	114.63	159.42	232.83	283.02	319.33
Indian Railways	67.92	94.46	137.96	167.70	189.21

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Mindspace Properties	1.35	1.87	2.74	3.33	3.76
Gigaplex Properties	0.66	0.92	1.34	1.63	1.84
KRC Infrastructure	0.70	0.97	1.41	1.72	1.94
Nidar Utilities	1.22	1.70	2.48	3.02	3.40
MADC	2.02	2.81	4.11	5.00	5.64
E ON Phase-1	1.23	1.72	2.51	3.05	3.44
E ON Phase-2	0.78	1.08	1.58	1.93	2.17
JNPA	0.14	0.19	0.28	0.34	0.38
Laxmipati Balaji	0.08	0.12	0.17	0.21	0.23
AEML SEEPZ Ltd	3.68	5.12	7.48	9.09	10.26
HADAPSAR SEZ	1.66	2.31	3.38	4.11	4.64
MANJARI SEZ	1.70	2.36	3.45	4.19	4.73
Total	**3,483.18**	**4,844.18**	**7,075.00**	**8,600.18**	**9,703.52**

6.1.6 Further, as per the MYT Regulations, 2024 MSLDC Charges per MW per month shall be computed in accordance with the following formula:

$$\text{Monthly MSLDC Charges (Rs. / MW / Month)} = [AFC(u)(t) \div \sum[\text{Base TCR}(u)]\ (t)] \div 12$$

6.1.7 Accordingly, the projected MSLDC Charges works out as under:

Table 100: Proposed MSLDC Charges for FY 2025-26 to FY 2029-30, as submitted by MSLDC (Rs. Lakh)

Particulars	Units	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Total MSLDC Annual Fixed Charges	Rs. Lakh	3,483.18	4,844.18	7,075.00	8,600.18	9,703.52
Base Transmission Capacity Rights	MW	29,959.52	31,457.50	33,030.37	34,681.89	36,415.98
MSLDC Charges	Rs. / MW / Month	968.86	1,283.26	1,784.97	2,066.44	2,220.53

<u>Commission's Analysis and Ruling</u>

6.1.8 Regulation 123.1 of MYT Regulations 2024 outlines the formula for computation of the MSLDC charges payable by the Transmission System Users. Regulation 124.1 also specifies that the MSLDC Charges are to be shared between the long term TSUs in proportion of Adjusted Base Transmission Capacity Rights of each Transmission System User to the total Adjusted Base Transmission Capacity Rights allotted in the intra-State transmission system. The Adjusted Base TCR represents the Base

Transmission Capacity Right of each Transmission System User adjusted for billed OA Demand of a Partial Open Access Users. Partial Open Access Consumer shall pay the MSLDC Charges to the Distribution Licensee instead of the Transmission Licensee for using a transmission network which shall be passed on to the MSLDC within the stipulated time period.

6.1.9 The methodology for determination of the Adjusted Base Transmission Capacity Rights (TCR) is also outlined in Regulation 124.2 of the MYT Regulations, 2024.

6.1.10 The adjusted base TCR, apart from sharing the MSLDC charges is also used for sharing of the Total Transmission System Cost (TTSC) amongst the Transmission System Users (TSU). Regulation 84.2 of the MYT Regulations 2024 outlines the methodology for computation of the Adjusted Base TCR. The formula prescribed in Regulation 84.2 is same as that prescribed in Regulation 124.2 of MYT Regulations, 2024. As the Commission has determined the Adjusted Base TCR in the Intra-State Transmission System Tariff Order in Case No. 208 of 2024 as per the provisions of Regulation 84.2, the same is also considered for sharing the SLDC charges in the present Order.

6.1.11 Further, in line with the InSTS Order in Case No. 208 of 2024, the Commission has included newly added TSU's, viz. MITL-Bidkin and MITL-Shendra, for the purpose of sharing of MSLDC Charges for the 5th Control Period. The details of demand projections of the TSUs are discussed by the Commission in Case No. 208 of 2024 and applied the same considerations for the sharing of the MSLDC Charges, for the 5th Control Period (i.e. FY 2025-26 to FY 2029-30) as shown in the following Table.

Table 101: Base Transmission Capacity Rights (MW) Excluding POA as considered by Commission for FY 2025-26 to FY 2029-30

Particulars	Ensuing Years									
	FY 2025-26		FY 2026-27		FY 2027-28		FY 2028-29		FY 2029-30	
	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)
MSEDCL	23,158.69	84.31%	24,450.69	84.27%	25,790.76	84.21%	27,174.98	84.14%	28,597.74	84.03%
TPCL-D	976.65	3.56%	1,032.58	3.56%	1,091.72	3.56%	1,154.25	3.57%	1,220.36	3.59%
AEML-D	1,798.72	6.55%	1,932.84	6.66%	2,076.96	6.78%	2,231.82	6.91%	2,398.23	7.05%
BEST	826.25	3.01%	832.30	2.87%	838.40	2.74%	844.55	2.62%	850.73	2.50%
Indian Railways *	545.56	1.99%	575.57	1.98%	607.24	1.98%	640.65	1.98%	675.90	1.99%
Mindspace Properties	9.49	0.03%	9.69	0.03%	9.89	0.03%	10.10	0.03%	10.31	0.03%
Gigaplex Properties	5.04	0.02%	5.19	0.02%	5.34	0.02%	5.49	0.02%	5.65	0.02%
KRC Infrastructure	5.30	0.02%	5.41	0.02%	5.53	0.02%	5.65	0.02%	5.77	0.02%
Nidar Utilities	10.73	0.04%	12.77	0.04%	15.18	0.05%	18.06	0.06%	21.47	0.06%
MADC	14.98	0.05%	16.18	0.06%	17.47	0.06%	18.87	0.06%	20.38	0.06%
E ON Phase-1	8.42	0.03%	8.42	0.03%	8.42	0.03%	8.42	0.03%	8.42	0.02%

Particulars	Ensuing Years									
	FY 2025-26		FY 2026-27		FY 2027-28		FY 2028-29		FY 2029-30	
	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)
E ON Phase-2	5.33	0.02%	5.33	0.02%	5.33	0.02%	5.33	0.02%	5.33	0.02%
JNPT	1.18	0.004%	1.32	0.005%	1.48	0.005%	1.66	0.005%	1.85	0.005%
Laxmipati Balaji	0.63	0.002%	0.67	0.002%	0.70	0.002%	0.73	0.002%	0.77	0.002%
AEML SEEPZ Ltd	30.29	0.11%	31.71	0.11%	33.19	0.11%	34.73	0.11%	36.35	0.11%
HADAPSAR SEZ	15.89	0.06%	16.33	0.06%	16.79	0.05%	17.27	0.05%	17.76	0.05%
MANJARI SEZ	11.31	0.04%	11.96	0.04%	12.64	0.04%	13.37	0.04%	14.14	0.04%
MITL - Bidkin	5.00	0.02%	8.00	0.03%	15.00	0.05%	25.00	0.08%	40.00	0.12%
MITL - Shendra	40.00	0.15%	57.00	0.20%	75.00	0.24%	85.00	0.26%	100.00	0.29%
Total Transmission Capacity Rights of all TSUs	**27,469.46**	**100.00%**	**29,013.96**	**100.00%**	**30,627.04**	**100.00%**	**32,295.92**	**100.00%**	**34,031.16**	**100.00%**

***Indian Railways**: As per the Judgement of Hon'ble the APTEL in the Appeal No. 276 of 2015, the Indian Railways has been considered as an open access consumer. The Hon'ble Supreme court vide its Record of Proceeding (ROP) on dated 06 May, 2024 & 08 November, 2024 has directed that the Railways shall not be required to pay either the cross-subsidy surcharge or, as the case may be the additional surcharges to the distribution licensees. However, Railways shall be liable to pay transmission and wheeling charges. The directions given in the order dated 06 May, 2024 and 08 November, 2024 are in the nature of interim orders and shall be subject to the outcome of the present appeals. As the Supreme Court Order does not specifies the status of Railways as Deemed Distribution Licensee; the Commission has considered Indian railways as a LTOA consumer for sharing of STU fees and charges.*

6.1.12 Based on the approved AFC, the sharing of MSLDC Charges as approved by the Commission for FY 2025-26 to FY 2029-30 are given in the Table below:

Table 102: Sharing of MSLDC Charges Excluding POA for FY 2025-26 to FY 2029-30, as approved by Commission (Rs. Lakh)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
MSEDCL	2,669.04	2,725.51	3,084.54	3,387.99	3,640.42
TPCL-D	112.56	115.10	130.57	143.90	155.35
AEML-D	207.30	215.45	248.40	278.25	305.29
BEST	95.22	92.78	100.27	105.29	108.30
Indian Railways	62.88	64.16	72.63	79.87	86.04
Mindspace Properties	1.09	1.08	1.18	1.26	1.31
Gigaplex Properties	0.58	0.58	0.64	0.69	0.72
KRC Infrastructure	0.61	0.60	0.66	0.70	0.73
Nidar Utilities	1.24	1.42	1.82	2.25	2.73
MADC	1.73	1.80	2.09	2.35	2.59
E ON Phase-1	0.97	0.94	1.01	1.05	1.07
E ON Phase-2	0.61	0.59	0.64	0.66	0.68

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
JNPT	0.14	0.15	0.18	0.21	0.24
Laxmipati Balaji	0.07	0.07	0.08	0.09	0.10
AEML SEEPZ Ltd	3.49	3.53	3.97	4.33	4.63
HADAPSAR SEZ	1.83	1.82	2.01	2.15	2.26
MANJARI SEZ	1.30	1.33	1.51	1.67	1.80
MITL - Bidkin	0.58	0.89	1.79	3.12	5.09
MITL - Shendra	4.61	6.35	8.97	10.60	12.73
Total	**3,165.85**	**3,234.17**	**3,662.95**	**4,026.44**	**4,332.08**

6.1.13 As per the MYT Regulations, 2024, MSLDC charges as approved above for FY 2025-26 to FY 2029-30 need to be billed to the TSUs on a monthly basis as given in the table below:

Table 103: MSLDC Charges for FY 2025-26 to FY 2029-30, as approved by Commission

Particulars	Units	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Total MSLDC Annual Fixed Charges	Rs. Lakh	3,165.85	3,234.17	3,662.95	4,026.44	4,332.08
Base Transmission Capacity Rights	MW	27,469.46	29,013.96	30,627.04	32,295.92	34,031.16
MSLDC Charges	Rs. / MW / Month	960.42	928.91	996.66	1,038.94	1,060.81

6.1.14 This Order is applicable from 1 April, 2025. MSLDC shall collect the MSLDC charges for each calendar month from the TSUs as per the timeline provided in the Regulations, with the first monthly period commencing from April 2025, as follows:

Table 104: Recovery of Annual Fixed Charges Excluding POA for FY 2025-26 to FY 2029-30, as approved by Commission (Rs. Lakh)

Transmission System Users	FY 2025-26		FY 2026-27		FY 2027-28		FY 2028-29		FY 2029-30	
	Annual	Monthly	Annual	Monthly	Annual	Monthly	Annual	Monthly	Annual	Monthly
MSEDCL	2669.04	222.42	2725.51	227.13	3084.54	257.04	3387.99	282.33	3640.42	303.37
TPCL-D	112.56	9.38	115.10	9.59	130.57	10.88	143.90	11.99	155.35	12.95
AEML-D	207.30	17.28	215.45	17.95	248.40	20.70	278.25	23.19	305.29	25.44
BEST	95.22	7.94	92.78	7.73	100.27	8.36	105.29	8.77	108.30	9.02
Indian Railways	62.88	5.24	64.16	5.35	72.63	6.05	79.87	6.66	86.04	7.17
Mindspace Properties	1.09	0.09	1.08	0.09	1.18	0.10	1.26	0.10	1.31	0.11

Transmission System Users	FY 2025-26		FY 2026-27		FY 2027-28		FY 2028-29		FY 2029-30	
	Annual	Monthly	Annual	Monthly	Annual	Monthly	Annual	Monthly	Annual	Monthly
Gigaplex Properties	0.58	0.05	0.58	0.05	0.64	0.05	0.69	0.06	0.72	0.06
KRC Infrastructure	0.61	0.05	0.60	0.05	0.66	0.06	0.70	0.06	0.73	0.06
Nidar Utilities	1.24	0.10	1.42	0.12	1.82	0.15	2.25	0.19	2.73	0.23
MADC	1.73	0.14	1.80	0.15	2.09	0.17	2.35	0.20	2.59	0.22
E ON Phase-1	0.97	0.08	0.94	0.08	1.01	0.08	1.05	0.09	1.07	0.09
E ON Phase-2	0.61	0.05	0.59	0.05	0.64	0.05	0.66	0.06	0.68	0.06
JNPT	0.14	0.01	0.15	0.01	0.18	0.01	0.21	0.02	0.24	0.02
Laxmipati Balaji	0.07	0.01	0.07	0.01	0.08	0.01	0.09	0.01	0.10	0.01
AEML SEEPZ Ltd	3.49	0.29	3.53	0.29	3.97	0.33	4.33	0.36	4.63	0.39
HADAPSAR SEZ	1.83	0.15	1.82	0.15	2.01	0.17	2.15	0.18	2.26	0.19
MANJARI SEZ	1.30	0.11	1.33	0.11	1.51	0.13	1.67	0.14	1.80	0.15
MITL - Bidkin	0.58	0.05	0.89	0.07	1.79	0.15	3.12	0.26	5.09	0.42
MITL - Shendra	4.61	0.38	6.35	0.53	8.97	0.75	10.60	0.88	12.73	1.06
Total	**3165.85**	**263.82**	**3234.17**	**269.51**	**3662.95**	**305.25**	**4026.44**	**335.54**	**4332.08**	**361.01**

6.2 MSLDC Fees and Charges

<u>MSLDC's Submission</u>

6.2.1 As per the MYT Regulations, 2024, MSLDC Fees and Charges comprise the following:

- Registration or Connection Fees per connection from all Users connecting to the InSTS.
- Scheduling Fees per day for intra-State Short Term Open Access (**STOA**) transactions.
- Re-scheduling Fees for each revision in schedule after the finalization of schedules by MSLDC on a day-ahead basis, or for non-submission of schedule as per State Grid Code requirements.
- STOA Application Processing Fees.
- Any other Fees approved by the Commission from time to time.

6.2.2 **Registration or Connection Fees:** The Commission in its MYT Order in Case No. 233 of 2022 has approved Registration or Connection Fees at the rate of Rs. 20,000 per connection for connecting to the intra-state transmission system (**InSTS**). MSLDC humbly requests the Commission to retain the same fee and allow MSLDC to recover the said fees/charges. The registration charges shall be a one-time fee payable at the time of registration or seeking connection to InSTS. This will be applicable for all generating companies, distribution licensees and transmission open access users.

6.2.3 **Scheduling and Re-Scheduling Fees:** MSLDC requested to retain the Scheduling Fee of Rs. 2,250 per day and Re-Scheduling Fees of Rs. 1,000 per revision as approved under Case No. 233 of 2022.

6.2.4 **Short Term Open Access Application Processing Fees:** MSLDC requested to retain the Short-Term Open Access (**STOA**) Application Processing Fee of Rs.7,500 per application as approved under Case No. 233 of 2022.

6.2.5 **Renewable Energy Certificate Processing Fees:** MSLDC requested to retain the Renewable Energy Certificate Processing Fee of Rs.1,000 per application as approved under Case No. 233 of 2022.

6.2.6 Summary of the proposed MSLDC Fees and Charges is as given below:

Table 105: Fees for FY 2025-26 to FY 2029-30, as proposed by MSLDC

Particulars	Existing Fees	Fees proposed in this Petition
Registration/Connection Fees	Rs. 20,000 Per Connection	Rs. 20,000 Per Connection
Scheduling Fees	Rs. 2,250 Per Day	Rs. 2,250 Per Day
Re-Scheduling Fees	Rs. 1,000 Per Revision	Rs. 1,000 Per Revision
STOA Application processing Fees	Rs.7,500 per Application	Rs.7,500 per Application
REC Application Processing Fees	Rs 1,000 Per Application	Rs 1,000 Per Application

Commission's Analysis and Ruling

6.2.7 The Commission has noted the submissions of MSLDC, set out above, with regard to the Fees. MSLDC has not proposed any new Fee and sought continuation of levy of all the existing Fees at the rates approved by the Commission.

6.2.8 **Accordingly, the Commission approves the Fees as proposed by MSLDC as given in the table below:**

Table 106: Fees for FY 2025-26 to FY 2029-30, as approved by the Commission

Particulars	Existing Fees	Fees approved in this Order
Registration/Connection Fees	Rs. 20,000 Per Connection	Rs. 20,000 Per Connection
Scheduling Fees	Rs. 2,250 Per Day	Rs. 2,250 Per Day
Re-Scheduling Fees	Rs. 2,250 Per Revision	Rs. 1,000 Per Revision

Particulars	Existing Fees	Fees approved in this Order
STOA Application processing Fees	Rs.7,500 per Application	Rs.7,500 per Application
REC Application Processing Fees	Rs 1,000 Per Application	Rs 1,000 Per Application

6.2.9 The Late Payment Surcharge / Delayed Payment Charge leviable by MSLDC shall be as per the charges specified for delayed payments by TSUs under the MYT Regulations, 2024.

7 COMPLIANCE OF EARLIER DIRECTIVES, AND FURTHER DIRECTIVES

7.1 Background

7.1.1 The Commission gave certain directives to MSLDC in the MTR Order in Case No 233 of 2022. The directives, the status of compliance, and further directions of the Commission are set out below.

7.2 Ring-fencing and Autonomy

<u>Directives</u>

7.2.2 The Commission in its MTR Order in Case No 171 of 2017 had noted the following:

> *"The Commission appreciates the initiatives undertaken by MSETCL to accord more autonomy to MSLDC especially in terms of making a separate bank account for SLDC operational; delegation of power of Executive Director to CE, SLDC for higher financial autonomy and autonomy for deputing SLDC staff for training and obtaining prior consent of CE, SLDC for posting or transfer of any SLDC employee. However, it is not clear whether the Commission's comments in this matter have been brought to the notice of the State Government and MSEB Holding Co. Ltd. The Commission expects MSETCL to bring the comments of the Commission in respect of ring-fencing and autonomy of MSLDC to the notice of the State Government and MSEB Holding Co. Ltd. and MSLDC is directed to submit a report on the progress in this matter, every six months, to the Commission."*

7.2.3 In the MYT Order, in Case No. 291 of 2019, the Commission directed MSETCL to complete the entire process of Ring-fencing and providing complete Autonomy at the earliest. MSLDC was directed to submit a report on the progress in this matter, every six months, to the Commission.

<u>MSLDC's Response and Additional Submission</u>

7.2.4 As on date, notification, by the State Government w.r.t formation of separate company for SLDC as per section 32 of the EA 2003 is yet to be issued. However, pending such notification, MSETCL has taken several initiatives in order to achieve financial and operational autonomy to MSLDC.

7.2.5 MSEB – HCL vide Resolution No. 790/2018 dated 28.12.2018 has formulated a committee.

7.2.6 Further MSEB- HCL vide Resolution No. 816/2019 dated 18.06.2019 has accepted the recommendations of the committee and approval of to Board was accorded for the following, viz.

i. Separation of the State Load Despatch Centre (SLDC) from MSETCL on the same lines as formation of Power System Operation Corporation (POSOCO) and its separation from Power Grid Corporation of India Ltd (PGCIL)

ii. Creation of a separate representative Board structure for governance of SLDC on lines of a wholly-owned subsidiary for its independent system operation in accordance with the Electricity Act, 2003 and National Electricity Policy;

iii. Creation the post of 'Executive Director' under MSEB Holding Company Limited to head the SLDC after its formation as a separate entity;

iv. Approaching the Government of Maharashtra for obtaining necessary approvals, sanctions, permission, etc. as may be required for this purpose; and

v. Engagement of any legal, financial, accounting, management or other advisors/consultants/Project managers by whatever name called in connection with the subject;

7.2.7 Subsequent to above activities MSEB-HCL has formulated a committee (vide office order no MSEBHCL / CS/0508/ dated 07.08.209) under Chairmanship the Director (Operations) MSETCL for undertaking further activities related to MSLDC separation from MSETCL.

7.2.8 The core group constituted held its meeting on 31 August 2019. The core group had decided the following:

i. The Chief Engineer (SLDC) to prepare and submit detailed information pertaining to the Establishment of SLDC within three weeks.

ii. The Chief Engineer (SLDC) in consultation with Director (Operations) MSETCL to seek approval of the Board of Directors of the MSETCL at the ensuing meeting.

iii. The Chief Engineer (SLDC) to prepare the terms of reference (ToR) of Consultant / Advisor to be engaged in connection with the Subject; For this purpose, reference may be sought from POSOCO and HPLDC etc.

iv. The Chief Engineer (SLDC) in consultation with the core group to prepare the draft of proposal to be submitted to the Government of Maharashtra in accordance with the GR dated 08.01.2014

7.2.9 MSETCL board of directors vide resolution no. 137/32 dated 05.09.2019 has taken note of MSEB- HCL board resolution No. 816/2019 dated 18.06.2019.

7.2.10 Accordingly, after approval of the Board of MSETCL, a proposal was submitted by MSEB HCL to the Additional Chief Secretary (Energy) on 17.10.2019 for approval of the State Government (Annexure 6). The summary of the letter is given below.

i. Transferring the function of State Load Despatch Centre from the Maharashtra State Electricity Transmission Company to the new company so that the provisions of the Electricity Act, 2003 can be implemented properly and in accordance with the Electricity Act, 2003. Also, the "Girish Pradhan Committee" constituted by the Ministry of Power, Government of India has also recommended setting up of a new company for load dispatch centres in its recommendations.

ii. Under Articles 5, 17, 22, 34 etc. of the Memorandum of Association of the Company, various powers have been conferred on the Company regarding creation, implementation, management, supervision, control of new subsidiaries.

iii. Based on the Board of Directors Resolution No. 816/2019, it has been decided to form an independent company and the new company will be a wholly-owned subsidiary of the company. The Board of Directors of MSETCL has also given the consent in this regard.

iv. The newly formed company (Maharashtra State Load Despatch Centre) will be financially independent and will not have any financial investment from the government. Also, the said company will not incur any kind of financial liability to the government.

v. In reality, the new company will be created by dividing the manpower, infrastructure and related equipment included in the MSETCL. There will be no direct or indirect new investment by the government.

vi. In order to make load dispatch centres financially and technically independent and autonomous and considering the commercial interest of electricity in the state, it is necessary to separate them from MSETCL (STU).

7.2.11 MSLDC has submitted the present status of activities pertaining to Ring Fencing as given above. MSLDC shall update the Commission with regard to further progress in this area from time to time, after receiving information from state government.

7.2.12 Further observation of the Commission in MTR Order:

> *"It is observed that the process of Ring fencing has not moved ahead at the pace it was expected. Further, the Commission had directed MSLDC to submit a report on the progress in this matter, every six months, to the Commission. However, MSLDC has not complied with this directive on a periodic basis and only submitted the update at the time of filing of the MTR Petition. MSLDC*

needs to ensure that the directives of the Commission are complied with in a timely manner.

The Commission has noted the response of MSLDC and observes that MSLDC enjoys a certain level of autonomy in the day-to-day operations and the dependency on the parent organisation (MSETCL) is limited to a few elements. However, it is intended that MSLDC achieves complete autonomy as envisaged under the EA 2003. Accordingly, MSLDC is directed to pursue this matter with the competent authorities and submit a report on the progress in this matter, every six months, to the Commission. In the absence of such compliance and complete autonomy as envisaged under EA 2003, the Commission is constrained to restrict the additional RoE as per MYT Regulations 2019 as discussed in preceding part of the Order."

Commission's Observations, and further Directions in the present MYT Order

7.2.13 The Commission has noted the response of MSLDC and observes that MSLDC enjoys a certain level of autonomy in the day-to-day operations and the dependency on the parent organization (MSETCL) is limited to a few elements. However, it is intended that MSLDC achieves complete autonomy as envisaged under the EA 2003. However, it is noted that all the information submitted by MSLDC in compliance section of its Petition was already shared during the previous MYT and MTR proceedings. No new information has been submitted by MSLDC demonstrating progress on this issue. **Accordingly, MSLDC is once again directed to pursue this matter with the competent authorities and submit a report on the progress in this matter, during next Tariff proceeding, failing which the provisions related to non-compliance will be initiated.**

7.3 Technology and Operational Systems Upgradation

Directive

7.3.1 The Commission has noted the submissions of MSLDC in respect to technology and Operational System Upgradation. MSLDC was directed to update the Commission and submit the status report every year. MSLDC was directed to strictly follow the timelines specified by the Commission for providing status update.

MSLDC's Reply

7.3.2 MSLDC is continuously implementing different initiatives towards continuous technology upgradation and operational system upgradation. MSLDC is a member of various Committees formed under WRPC (where POSOCO is also a member), which includes the SCADA Committee of the Western Region. The SCADA Committee regularly discusses various issues, including the issue of technology upgradation and operation systems required for addressing present and future challenges emerging from market and other developments. Further, MSLDC is also a member of URTDSM (Unified Real-time Dynamic State Measurement) scheme of PGCIL and closely associated in its implementation at MSLDC. The interaction with POSOCO at all levels is a continuous process and is going on seamlessly for addressing the day-to-day operational and long-term challenges. MSLDC would like to submit specific technological initiatives for meeting the various challenges.

A. <u>SCADA System:</u>

7.3.3 SLDC control center is responsible for grid management in real time operations; this activity is just like ATC (Air Traffic Control) in the aviation. The SCADA system provides the system operator with a real time view of the power system with exception/alarms and status of various network elements. Any mishap or failure of the SCADA system in real time operation may lead to improper grid handling & wrong decisions which may impact on technical as well as commercial aspects. The present SCADA System is in operation at SLDC Airoli and ALDC Ambazari since 07th Jan 2013 & its Annual Maintenance Contract (**AMC**) has been extended up to 07th July 2025. The present SCADA system has been in service for more than 7 years. As per CERC regulation the service life defined for a SCADA system is 7 years & hence the present SCADA system has lived its service life.

7.3.4 Due to technological advances, the following limitations are also observed in the present SCADA system:

a. Hardware support for existing Servers has become critical as software availability of old hardware has become rare. Easy availability of spares of hardware's has become scares. The OEM stopped manufacturing server spares as it is old technology.

b. Data storage limitations

c. Multiple user access to SCADA is limited.

d. Remote Access to servers through VPN is not possible in Present System.

e. As the user interface is Linux based in present system, it's not user friendly for operators. Graphical User-interface is not handy, comfortable like windows-based system. New Systems with Window based User interface which is more operation friendly are available these days.

f. Reports generation as per Operators requirements is not possible

g. Processing speed is low

h. Availability of hardware Spares has become difficult, due to technological upgradations with time

7.3.5 In the view of above, the present SCADA System at SLDC Airoli and ALDC Ambazari is essential to be upgraded & replaced by new SCADA and latest IT security measures with state of art features and functionalities & compatibility to large number of MSETCL /CPP/IPPs Remote Terminal Unit (**RTUs**) which may be integrated in SCADA in near future.

7.3.6 Grid Controller of India (Grid-India) has requested MSLDC to be a part of Unified Load Despatch Center Scheme (**ULDC scheme**). Under this arrangement Grid-India shall act as consultant for new SCADA for Western region LDC (WRLDC) at no consultancy cost and MSETCL/ STUs has to pay the project cost for replacement of MSLDC/RLDCs SCADA system discovered through open tendering process by WRLDC. Accordingly, WRLDC has completed tenderization activities and LoI is expected to be issued by Grid-India soon.

7.3.7 Various advance features as mentioned below are in-built in the proposed SCADA system:

- EMS Functions
  - State Estimator,
  - Contingency Analysis,
  - Transmission Line/Corridor Capability Monitor (TCM) for ATC/ TTC,
  - Automatic Generation Control (AGC),
  - Despatcher Training Simulator (DTS), etc.
- Automatic Demand Management System (ADMS)
- OPC client licenses (SCADA & Historian) - To exchange data with external Systems.
- Web Historian and Reporting System (for sharing SCADA reports on Web)
- Advanced Report Development & Generation Software
- Cyber Security features:
  - Vulnerability Assessment and Penetration Testing (**VAPT**) Tool
  - Host based intrusion prevention system (**HIPS**) with centralised management
  - Centralised Management and Log Analyser of all Firewalls
  - Security Information and Event management (**SIEM**) helps organizations detect, analyse, and respond to security threats before they harm the System

B. <u>Expansion of PMUs in URTDSM:</u>

7.3.8 PMU typically stands for "Phasor Measurement Unit." It's a device used in power systems to measure the electrical waves on an electricity grid. PMUs provide real-time data about voltage, current, and phase angle, which is crucial for monitoring and controlling the stability and efficiency of electrical networks.

7.3.9 Key features of PMUs include:

- **Synchronized Measurements**: PMUs use GPS satellites for precise time synchronization, allowing for accurate phase angle measurements across wide areas.
- **Real-Time Data**: They provide real-time data to grid operators, helping them manage power flow and detect issues quickly.
- **Wide Area Measurement**: PMUs can cover large geographic areas, providing insights into the overall health of the electrical grid.
- **Fault Detection and Location**: PMUs help identify and locate faults in the power system quickly, facilitating faster response and minimizing outage durations.
- **Dynamic Security Assessment**: PMUs enable the assessment of dynamic conditions in the grid, assisting operators in making informed decisions to maintain system security during disturbances.
- **Integration of Renewable Energy**: PMUs support the integration of renewable energy sources by providing the data needed to manage variable generation and maintain grid stability.
- **Control and Optimization**: The data from PMUs can be used in advanced control algorithms to optimize power flow and enhance the efficiency of the grid.
- **Research and Development**: PMUs are used in academic and industry research to develop new technologies and strategies for power system management.

7.3.10 These applications make PMUs a crucial component in modern smart grid systems, enhancing reliability and efficiency in electricity transmission and distribution.

7.3.11 The data transfer rate for Phasor Measurement Units (PMUs) can vary based on the specific model and its configuration, but typically, PMUs can output data at rates ranging from 10 to 60 samples per second. Some advanced PMUs might offer even higher rates, depending on the application and the needs of the grid.

7.3.12 Presently, there are 21 Nos. of PMUs connected to 5 Nos. of 400 kV Sub-stations under the Unified Real-time Dynamic State Measurements (**URTDSM**) system. This URTDSM system has been installed by PGCIL and has been handed over to various SLDCs who participated in the URTDSM scheme.

7.3.13 Now, for expanding the usage of existing URTDSM, MSLDC has identified critical locations in Mumbai, MMR & rest of the State and requested MSETCL, TPCL & AEML to install PMUs to the tune of around 70 Nos. (MSETCL: 40, TPC: 12 &

AEML: 18). Integration of these PMUs into the existing URTDSM system for better utilization of the analytical software will be carried out by MSLDC.

C. <u>Ensuring Cyber prudence:</u>

7.3.14 The following systems of MSLDC have been identified as CII (Critical Information Infrastructure), during Joint evaluation by MSLDC, MSETCL & National Critical Information Infrastructure Protection Centre (**NCIIPC**).

- Supervisory Control and Data Acquisition (**SCADA**) System.
- Supervisory Control and Data Acquisition (SCADA) System of Renewable Energy Management Centre. (**REMC**)
- Unified Real Time Dynamic State Measurement (**URTDSM**) System.
- Web Based Energy Scheduling System (**WBES**)

7.3.15 The above CIIs and the computer resources of its associated dependencies has been notified as a Protected System vide GoM, Gazette notification dated 13 Jan 2023. Post notification of MSLDC OT Systems as Protected System in the GoM gazette, to comply with the Information Technology (Information Security Practices and Procedures for Protected Systems) Rules 2018 an Information Security Steering Committee (ISSC) having representative of NCIIPC has been formulated.

a) Establishment of Open-Source Cyber Security Operation Centre (CSOC) at MSLDC Airoli

Open-Source C-SOC has been established at MSLDC Airoli by configuring the Open Source SIEM using the ELK for 24x7 SOC operations.

CSOC is having information security team responsible for monitoring and analyzing the security posture of SLDC Maharashtra. The Manpower deployed for Open-Source C-SOC is operating 24x7 and collecting, monitoring, analyzing, investigating and remediating the security incidents related to Cyber Security.

b) Deployment of the ACDS platform at MSLDC Airoli

NCIIPC is steering a major Research, Development & Engineering Project, 'AI Powered Adaptive Cyber Defence Framework and Solution for National Critical Information Infrastructure', also termed as Adaptive Cyber Defence System (**ACDS**) Project, under the aegis of National Security Council Secretariat (**NSCS**).

ACDS Solution, comprising of Entity ACDS Platform for deployment in Critical Sector Entities (**CSEs**) and Central ACDS Platform for deployment at NCIIPC. All the systems are designed to work together to protect and defend the national cyber ecosystem of CIIs.

ACDS platform has been deployed at MSLDC for strengthening the Security Posture of identified CII of MSLDC.

c) Cyber Security Audit of MSLDC Airoli

The Cyber Security Audit of the IT & OT system is being done on a regular basis. For the Cyber Security Audit of IT & OT Systems of MSLDC, Scope of Work has been prepared by this office & has been vetted by the NCIIPC.

d) Risk Assessment of the CII at MSLDC Airoli

A team from NCIIPC visited the MSLDC in June 2023 in order to carry out the Risk Assessment of the declared Critical Information Infrastructure i.e. SCADA, URTDSM, REMC, WBES System and its associated dependencies.

The Risk Assessment activity helps in assessing the cyber security posture of the MSLDC and guide the MSLDC regarding the way forward in enhancing its resilience against future cyber-attacks.

e) Participation of MSLDC in NCIIPC scheme for crowd sourcing ethical hackers

In crowd sourcing scheme, NCIIPC had talented and trusted ethical hackers / security researchers/ VAPT professionals participating in the 10 to 20 days exercise and conduct VAPT/ ethical hacking on the CII systems in a controlled environment at a time and place of their choice. (They will further help the CIIs in patching the discovered vulnerabilities and cyber security gaps.). MSLDC participated in NCIIPC scheme for crowd sourcing of ethical hackers for Web Based Energy Scheduling Application. Considering the criticality of the application test-bed environment was used for this activity.

f) **Alert Messaging System:** The important role of SLDC is to ensure reliable & secure grid operations and maintain healthy grid integrity. As the State power system is large, at any instance of time, there are number of incidences such as tripping, planned/forced outages, sudden changes in demand & RE injection, etc. are taking place in the power system. Hence, System Operator needs to be in alert mode to take remedial measures to maintain grid stable & secure. Further, it is the responsibility of the System Operator to sensitize the stakeholders about any adverse system conditions & pass on necessary instructions on which actions are to be taken by the stakeholders. Such instructions are to be passed on immediately, hence, an automated system is required which can communicate with multiple stakeholders as single instance without any time delay. Due to restricted transmission network in MMR & Mumbai, the Mumbai System had become vulnerable. For smooth & reliable operation of the Mumbai System, MSLDC has developed an Alert Messaging System. Through this system, regular alerts along with a set of instructions are sent to all the stakeholders in MMR & Mumbai in case of any adverse situation of the system so that all the stakeholders will be sensitized and be ready to avoid any disturbance in the Mumbai System. This system has been developed in-house by MSLDC engineers.

D. <u>Renewable Energy Scheduling Software Upgradations</u>:

i. Upgradation for RTM transactions:

7.3.16 CERC, vide its Order dated 17 August 2020 in Petition No. 25/MP/2019, in respect of introduction of Green Term Ahead Market (**G-TAM**), has accorded approval for RE transactions through IEX/PX.

7.3.17 In accordance with the said Order, RE Generators can sale power outside the State through IEX/PX. Such transactions shall be permitted in Day Ahead & Real Time basis. As the REMC Software was designed & commissioned in the year 2019 i.e. before the introduction of the said G-TAM Order, no provision was available in this respect.

7.3.18 Hence, it was not possible to incorporate transactions being carried out by Intra-State RE generators in Real-Time Market (**RTM**). There were not any transactions made by Intra-State RE generators under RTM, as most of the generators were contracted under long term within State. However, newly commissioned generators were exploring possibility for such transactions, hence, to cope up with the requirement well in advance, REMC scheduling software has been upgraded with RTM feature in the month of Sept-2023 and now around 6 no. of transactions are now scheduled in REMC system.

ii. Web-based Contract Management:

7.3.19 The number of RE Generators in the State is very high and is around 1000 Nos. Further, these generators have multiple-generating units having multiple contracts which are having different contract period. On monthly basis, contract information was collected from Distribution Licensees in the State in excel file and the same was updated manually in Master Common Registry. This data was used for scheduling activities. Hence, it was challenging to maintain such large data off-line and carry out scheduling.

7.3.20 Hence, the REMC Scheduling system was upgraded with a Web-based contract management tool, wherein all the Distribution licensees are updating their contracts against generators and contract information easily maintained & scheduling is carried out smoothly. With such upgradation, contract information updating activities are completed with ease within a few minutes and the scheduling activities have become smoother.

E. Ensuring reliable & secure Grid Operations:

i. Use of Simulation Software:

7.3.21 MSLDC is responsible for secure & reliable grid operations in real time. Maharashtra is the only State in the country with the highest state-owned installed capacity, transmission system & to fulfil this function, simulation studies are to be carried out as the State grid is very complex.

7.3.22 Power System Simulator for Engineering (**PSSE**), is a widely used software tool developed by Siemens for modelling, analysing, and simulating power systems. It is particularly popular among utility companies, consultants, and researchers for various applications. Here are some key features and uses of PSSE:

- **Load Flow Analysis:** PSSE allows users to perform load flow studies to analyse power flow in the network under various operating conditions.
- **Dynamic Simulation:** The software can simulate dynamic behaviour of power systems, including transient stability analysis, to assess how systems respond to disturbances over time.
- **Contingency Analysis:** Users can evaluate the impact of potential outages or failures in the system to ensure reliability and identify vulnerabilities.
- **Short Circuit Analysis:** PSSE can perform short circuit studies to determine fault currents and the potential impacts on equipment.
- **Renewable Integration:** The software supports the modelling of renewable energy sources, helping to analyse their impact on grid stability and performance.
- **Optimal Power Flow (OPF):** PSSE can be used to optimize generation dispatch and minimize costs while meeting system constraints.
- **Data Visualization:** It provides various tools for visualizing power system data, making it easier to interpret results and communicate findings.
- **Interfacing with Other Tools:** PSSE can integrate with other software and tools, allowing for more comprehensive analyses and workflows.

7.3.23 Overall, PSSE is a powerful tool for engineers and analysts working in the field of power systems, providing essential capabilities for ensuring the reliability and efficiency of electrical networks.

7.3.24 PSSE Software is used globally & India to undertake various studies such as Load Flow, Short Circuit, Dynamic simulation, Optimal Power Flow, etc. MSLDC was having 3 Nos. of such licenses. However, considering complex network, requirement of computation of year ahead TTC-ATC in accordance with the IEGC-2023, requirement of continual review of LTS & islanding schemes, monitoring compliances for RE plants in accordance with the CEA regulations, etc, MSLDC has purchased additional 4 Nos. of Licenses. Now, MSLDC has identified a group of engineers who will be assigned responsibilities to undertake such studies. A detailed training program is being arranged with the help of M/s. Siemens.

F. Operational Feedback Reports:

7.3.25 MSLDC is an eye of the State Power System being responsible for real-time grid operations. At every instance of the time, MSLDC is observing the behaviour of the Power System.

i. Annual Operational Feedback Report for RE:

7.3.26 Day by day RE installations are increasing the State. With the commissioning of REMC System, integration & monitoring of RE capacity has become easier. Hence, MSLDC has prepared the Annual Operational Report for the year 2022 & 2023 for RE capacity.

ii. Annual Operational Feedback Report for the State:

MSLDC has prepared Annual Operation Feedback Report for the whole State for CY: 2023.

iii. Special Study Report on the Grid due to MSKVY 2.0:

7.3.27 The Govt. of Maharashtra launched the 'Mukhya Mantri Saur Krushi Vahini Yojana' in June 2017. So far, 550 MW of solar generation capacity has been commissioned under this scheme. An extensive study undertaken by the Energy Department, Govt. of Maharashtra with support from various stakeholders identified the key barriers to achieving speed and deployment of distributed solar generation projects and designed a seven-pronged approach under MSKVY2.0. The 'Mission 2025' launched for this purpose aims to increase the speed and scale of project development under MSKVY 2.0. The overarching objective of Mission 2025 is to deploy necessary solar capacity at speed and scale to enable provision of daytime supply to farmers in Maharashtra. Mission 2025 provides the necessary framework and directions to all stakeholders to provide 7000 MW of solar capacity for daytime supply to farmers.

7.3.28 In accordance with the GR of Govt. of Maharashtra "सौरप्र-२०२३/प्र.क्र.९५/ऊर्जा-७ दिनांक ०८ मार्च २०२३" studies for identifying system strengthening needs in distribution and transmission network for MSKVY 2.0 are to be undertaken.

7.3.29 MSLDC along with STU and others carried out the following studies in this regard.

i. Defining formats for identifying strengthening works in distribution network of MSEDCL and system strengthening need identification survey.

ii. Defining formats for monitoring system strengthening works to be carried out in distribution network.

iii. Analysis of 2 Nos. of Solar Projects of capacity 10 MW each commissioned under MSKVY 1.0 Scheme for the period of May-2022 to April-2023:

iv. Analysis of Generation & Voltage behaviour of 10 Nos. of Solar Projects of capacity 10 MW each commissioned under MSKVY 1.0 Scheme for the period of April-2022 to March-2023.

v. Analysis of 41 Nos. of EHV connected Solar Projects in the State for the period of CY: 2022.

vi. MSEDCL Demand Resource multiple scenario Analysis for CY: 2022:

- Maximum & Minimum Demand scenario for each month.
- Requirement of Thermal, Hydro & Central Sector generation ramps with Existing Solar Generation and scaled for 5000 MW, 7000 MW & 10000 MW Solar capacity for each demand scenario.
- Low AG Demand scenarios during monsoon months.

vii. Analysis of behaviour of conductors used in 33 kV & 11 kV MSEDCL networks.

viii. System Studies for Transmission Network requirements for Clusters 1-14. (These studies will be continued as per the upcoming cluster definitions)

The report having detailed analysis and recommendations has been submitted to the Govt. of Maharashtra.

G. SCED Pre-pilot study:

7.3.30 SCED stands for Security-Constrained Economic Dispatch. It is an optimization process used in power system operations to determine the most cost-effective generation dispatch while considering various operational constraints. Here are some key aspects of SCED:

7.3.31 Key Features

- **Economic Efficiency**: SCED aims to minimize the overall cost of electricity generation by determining which power plants should be online and how much they should generate.
- **Security Constraints**: It incorporates reliability and security constraints, ensuring that the dispatch meets system requirements under normal and contingency conditions. This includes factors like transmission limits and generation capacity.
- **Real-Time Operation**: SCED is often used in real-time operations to adjust generation levels based on current demand and system conditions, responding to

fluctuations in electricity consumption.

- **Integration of Renewable Energy**: SCED can account for variable generation from renewable energy sources, helping to optimize their integration into the grid.
- **Market Applications**: In deregulated electricity markets, SCED plays a crucial role in determining market-clearing prices and ensuring fair competition among generators.

7.3.32 **Uses in Power Systems: Load Balancing:** SCED helps maintain the balance between electricity supply and demand, ensuring that generation meets consumption in real-time. **Reliability Management:** By considering security constraints, SCED helps prevent overloading of transmission lines and ensures that the grid remains stable during peak demand or disturbances. **Cost Reduction:** By optimizing the dispatch of generation resources, SCED contributes to reducing overall operating costs for utilities and consumers. **Resource Allocation**: SCED assists grid operators in efficiently allocating resources across multiple generating units, enhancing overall system performance. **Enhanced Decision-Making:** The insights gained from SCED analyses inform operational decisions, improving the effectiveness of grid management. The HLC Committee constituted by Hon'ble MERC in the matter of partial grid disturbance in MMR & Mumbai on 12.10.2020, has recommended to explore possibility of implementation of SCED while dispatching Mumbai embedded generation.

7.3.33 Accordingly, MSLDC has carried out studies and submitted report to the Commission considering dispatch of Mumbai embedded generation.

7.3.34 Further, MSLDC has collaborated with IIT-Bombay to undertake pre-pilot studies based on past data for the entire State. MSLDC & IIT-B have jointly carried out studies using General Algebraic Modelling System (**GAMS**) software and carried out comparative analysis between results of SCED & conventional Merit Order Despatch (**MoD**) principles. This study has been carried out on the data for the month of August-2024. A study report has been prepared and submitted to the Commission. Further, MSLDC is proposing to undertake pilot study of SCED after due approval from the Hon'ble, MERC.

H. Pilot for Integrated Data Platform:

7.3.35 MSLDC is using number of software such as DSM, RE-DSM, Data Warehousing, SCADA, URTDSM, etc. All these software are operating in parallel and the data is maintained in silos. To carry out any analytics using data from multiple software, it is to be extracted and handled manually. Hence, MSLDC is conducting a pilot on AVEVA PI system.

7.3.36 The key features of AVEVA PI system are as below:

- **Real-Time Data Collection:** The system collects and stores real-time data from various sources, including sensors, PLCs, and SCADA systems.

- **Data Visualization:** It offers advanced visualization tools, allowing users to create dashboards and reports that present data in an accessible format.
- **Historical Data Analysis**: Users can analyse historical data to identify trends, conduct performance benchmarking, and improve decision-making.
- **Data Integration:** The PI System can integrate with other software and systems, enabling seamless data flow across different platforms.
- **Event and Alarm Management:** The system can track events and alarms, providing operators with timely alerts to facilitate quick responses to issues.
- **Advanced Analytics:** AVEVA PI supports advanced analytics capabilities, enabling users to perform predictive maintenance and optimize operations.

7.3.37 Cloud and On-Premises Deployment: The system can be deployed in the cloud or on-premises, providing flexibility based on organizational needs. Use of this system is for:

- **Operational Efficiency:** By providing real-time insights, the PI System helps organizations optimize processes and improve operational efficiency.
- **Monitoring and Control:** It allows for continuous monitoring of critical parameters, enabling proactive control and management of industrial processes.
- **Performance Management:** Organizations use the PI System to analyse performance metrics, helping them identify areas for improvement and reduce downtime.
- **Regulatory Compliance:** The system assists in compliance with industry regulations by providing detailed records and documentation of operations.
- **Energy Management:** In the energy sector, the PI System is used for monitoring grid performance, managing energy consumption, and integrating renewable sources.
- **Asset Management:** The PI System helps organizations track asset performance and health, facilitating effective maintenance strategies.

7.3.38 During pilot operation, REMC SCADA system, RE Scheduling software, DSM Scheduling software & Meter data management system will be integrated, and some analytical reports will be developed. With this, MSLDC plans to enhance its data handling, storing and analytics capabilities.

I. Mock Trial of Back-up Control Centre:

7.3.39 As a Disaster Management Plan, MSLDC has ALDC, Ambazari as a Back-Up Control Center (BCC). In case of any contingencies, Grid operations can be managed by ALDC, Ambazari. Even though the plan is already prepared, the mock trials were never carried out, hence, any practical difficulties/problems which may arise during actual operation of were not known. Hence, the mock trial was conducted on 13 September 2023 for the first time. During mock trial, all the real time grid operations were carried out from ALDC, Ambazari and main control room at MSLDC, Airoli was only witnessing the operations. The BCC operation was successfully completed. Prior to implementation of the mock trial, detailed review of the requirement of the infrastructure was taken and some of the technical requirements were implemented. During review, some technological needs were identified for which remedial measures were planned.

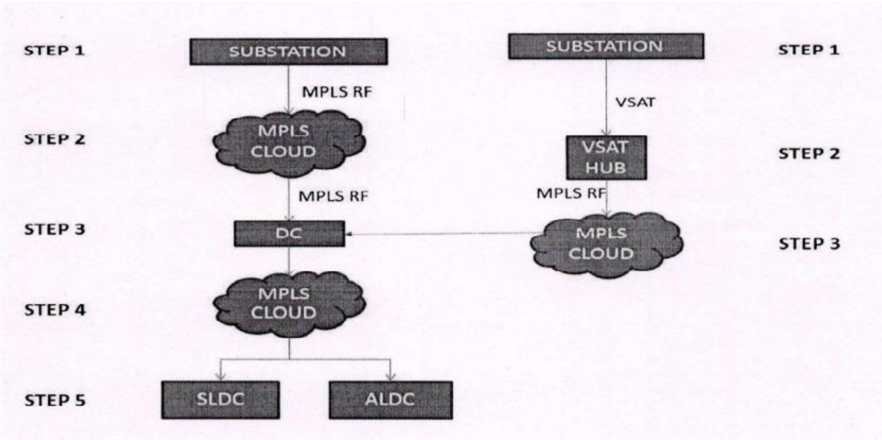
J. Upgradation of DSM & Scheduling Software:

7.3.40 The MERC DSM Regulations, 2019, have been commercially implemented in the State w.e.f. 11.10.2021. during implementation of these regulations, various operational difficulties were identified. A DSM Working Group constituted by the Commission discussed these difficulties and submitted analysis report. Further, the Commission, in its Suo motto order dated 2 August 2022 issued various directive to MSLDC for smooth implementation of the DSM regulations. Accordingly, MSLDC has upgraded existing Scheduling & DSM Software based on these directives. The details are as below:

- Replacement of actual generation of RE generators in schedule of corresponding buyers:
- The energy settlement of RE generation is based on actual injection. In this upgradation, the PSS-wise schedule of respective buyers is replaced by actual injection of RE.
- Treatment for actual Hydro generation in schedule of corresponding buyers:
- In this case, the schedule of hydro generation of corresponding buyer is replaced by actual injection.
- Rate for compensation under VSE operation excluding Hydro.
- Replacement of Schedule generation connected at DISCOM substations by Actual RE injection in Schedule of buyers wheeling inter DISCOM RE power:
- There are many 33 kV PSS having RE generation which are contracted by other distribution licensees. Hence, in the DSM software, schedules of RE generation connected to such 33 kV PSS contracted by different discoms is replaced by actual generation.
- Revision and Reconciliation of DSM and VSE bills.

K. Establishing Redundancy & Stabilizing Communication Infrastructure:

7.3.41 The earlier data communication architecture was as shown below:



7.3.42 The complete communication link from RTU to Control Centre has multiple hops i.e. from

- RTU to Cloud
- Cloud to Data Concentrator (DC)
- DC to Cloud
- Cloud to SLDC/ALDC

7.3.43 There were following multiple technical problems experienced in the communication system:

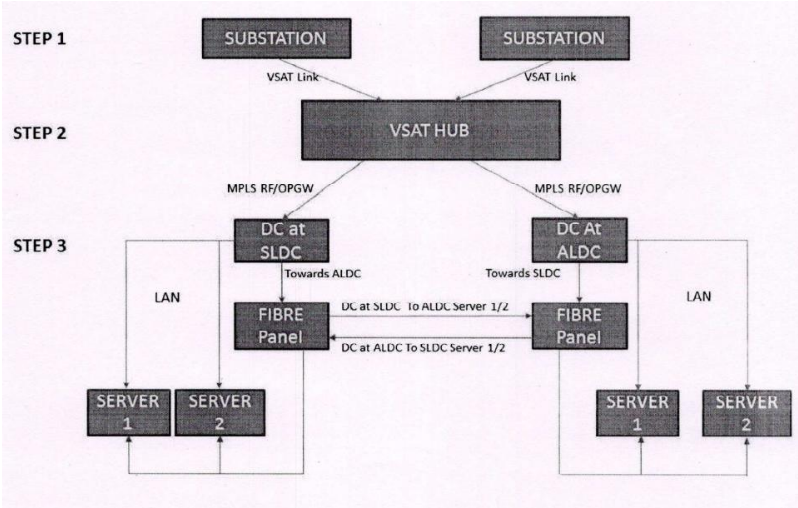
a) Multiple hops in data communication link from RTU to Control Centre:

b) No DC Redundancy:

c) No DC Communication link redundancy:

7.3.44 Apart from the above technical problems, there are various other problems experienced in maintaining a reliable communication system.

7.3.45 Hence, a new architecture has been implemented as below:



a) Zonal DCs are located at SLDC and ALDC acting in redundant mode.

b) The DC1 of ALDC shall be redundant to DC1 of SLDC & vice versa. The DC2 of ALDC shall be redundant to DC2 of SLDC and vice versa.

c) 3 Nos. of DCs, each at SLDC & ALDC are kept for integration of IPP data.

d) 1 No. of DC, each at SLDC & ALDC is kept as spare.

e) RTU/SAS shall send data to their respective DC located both at SLDC and ALDC. This will create redundancy for DC. The communication method used will be VSAT technology. The RTU will send data through VSAT to VSAT HUB. From the HUB data will be sent to DC at the control centre by MPLS RF or fiber, whichever is feasible and possible.

f) The DC at SLDC report to its local server through LAN as they would be in the same premises which means no communication link such as MPLS RF or VSAT. At the same time DC at SLDC sends data to the server of ALDC through MSETCL established OPGW link

7.3.46 The same architecture is established at ALDC. Accordingly, MSLDC has integrated all the DCs into SCADA system at SLDC & ALDC.

7.3.47 This upgradation activity has helped in stabilizing communication backbone and also created a data concentrator layer for further data handling by different systems.

L. Redundant Power Supply:

7.3.48 MSLDC monitors Grid Operations in real time. To undertake this activity, un-interrupted availability of real time data & power supply is required to the SCADA system installed at SLDC premises.

7.3.49 To ensure un-interrupted power supply to the decision support systems such as SCADA, URTDSM, etc., UPS system with battery back-up facility is provided. In addition to this UPS system, DG system has been commissioned at MSLDC on 22.08.2022. Thus, in case of complete failure of external power supply, decision support systems will be operated on UPS, which will be backed up through DG system.

7.3.50 Also, the existing batteries were having manufacturing defects which were creating issues in providing back-up. Hence, these batteries were replaced through VRLA batteries in March-2024. As these batteries were in the warranty period, the same were replaced without any cost.

M. Operational Displays for PMU & Weather data:

7.3.51 MSLDC Control Room has 4 main screens where a real time display of Generation overview, 765 kV & 400 kV Network, Scheduling overview, Mumbai Islanding scheme. There was no provision to display RE Scheduling & variations, Analytical displays of PMU data available in URTDSM project, Weather Data monitoring, etc. As this information is useful in real time grid operations, additional screens were procured and installed in MSLDC Control Room. On these screens, RE Schedules & deviations data, Weather data for the State, various analytical displays available in URTDSM have been displayed for the decision of system operator.

Commission's Observations, and further Directions in the present MYT Order

7.3.52 The Commission has noted the response of MSLDC as above under item A to M and observes that MSLDC is complying with implementation of the directives. However, it is observed that the MSLDC is falling behind the targets for implementation of various schemes related to the above-mentioned initiatives. **Accordingly, MSLDC needs to take appropriate actions in time to comply the directives and update shall be submitted to the Commission during the next Tariff Petition filing**.

7.4 Preparedness of SLDC in handling future challenges

Directives

7.4.1 The Commission in its order on Case no. 291 of 2019 had directed as follows:

> *"The Commission has noted the submissions of MSLDC. **MSLDC should update the Commission on the aforementioned initiatives on a quarterly***

__basis__. Further, MSLDC has filed a Petition recently which is registered as Case No. 59 of 2020 on 25 February, 2020, seeking extension of time to re-compute the Weighted Average System Marginal Price (WASMP) for the period from FY 2011-12 to FY 2017-18 after including the rate of power purchased from the Power Exchange and CPPs and subsequent issuance of bills with revised WASMP as per Order dated 26 September 2019 in Case No 297 of 2018. The Commission will take appropriate view in the said matter. However, MSLDC shall adhere to the timeline of One Year prescribed by the Commission for computation of the Fixed Cost Reconciliation (FCR) Pool Volume and FCR Pool Value for the period from FY 2011-12 to FY 2017-18 and issue the final bills for settlement of fixed charge reconciliation pool amongst State Pool Participants."

MSLDC's Reply

7.4.2 MSLDC has prepared 10 Point agenda for making MSLDC future ready. The details are as below:

1) Upgradation of operation support infrastructure - SCADA, EMS, Decision support system, WAMS, Visibility and communication:

SLDC has already elaborated regarding this element in its compliance to the earlier directive related to "Technology and operational systems upgradation" and hence the details are not repeated here by the Commission. The details submissions are anyways available in the Petition filed by MSLDC. .

2) Expanding utilization of the URTDSM system:

SLDC has already elaborated regarding this element in its compliance to the earlier directive related to "Technology and operational systems upgradation" and hence the details are not repeated here by the Commission. The details submissions are anyways available in the Petition filed by MSLDC. .

3) Fully capable backup control center:

As a Disaster Management Plan, MSLDC has ALDC Ambazari as a Back-Up Control center. In case of any contingencies, Grid operations can be managed by ALDC, Ambazari. Even though the plan is already prepared, the mock trials were never carried out hence, any practical difficulties/problems which may arise during actual operation of the were not known. Hence, the mock trial was conducted on 13.09.2023 for the first time. During mock trial, all the real time grid operations were carried out from ALDC, Ambazari and main control room at MSLDC, Airoli was only witnessing the operations. The BCC operation was successfully completed. Prior to implementation of the mock trial, detailed review of the requirement of the infrastructure was taken and some of the technical requirements were implemented. During review, some technological needs were identified for which remedial measures were planned. Hence, MSLDC has proposed to establish fully capable back-up control center for which following plans have been proposed:

a. Back-up REMC System at ALDC, Ambazari.

b. Impart training to all the ALDC engineers to undertake real time grid operations for the whole state along with scheduling activities.

c. Conduct mock trials every year.

d. Improving availability of real time data communication at ALDC.

4) Integrated data handling platform:

MSLDC is using number of software such as DSM, RE-DSM, Data Warehousing, SCADA, URTDSM, etc. All these software are operating in parallel and the data is maintained in silos. To carry out any analytics using data from multiple software, it is to be made manually.

The key features of Integrated Data handling platform/Software are as below:

- **Real-Time Data Collection:** The system collects and stores real-time data from various sources, including sensors, PLCs, and SCADA systems.
- **Data Visualization:** It offers advanced visualization tools, allowing users to create dashboards and reports that present data in an accessible format.
- **Historical Data Analysis:** Users can analyse historical data to identify trends, conduct performance benchmarking, and improve decision-making.
- **Data Integration:** The PI System can integrate with other software and systems, enabling seamless data flow across different platforms.
- **Event and Alarm Management:** The system can track events and alarms, providing operators with timely alerts to facilitate quick responses to issues.
- **Advanced Analytics:** PI system supports advanced analytics capabilities, enabling users to perform predictive maintenance and optimize operations.
- **Cloud and On-Premises Deployment:** The system can be deployed in the cloud or on-premises, providing flexibility based on organizational needs.

Uses of this system is for:

- **Operational Efficiency:** By providing real-time insights, the PI System helps organizations optimize processes and improve operational efficiency.

- **Monitoring and Control:** It allows for continuous monitoring of critical parameters, enabling proactive control and management of industrial processes.
- **Performance Management:** Organizations use the PI System to analyse performance metrics, helping them identify areas for improvement and reduce downtime.
- **Regulatory Compliance:** The system assists in compliance with industry regulations by providing detailed records and documentation of operations.
- **Energy Management:** In the energy sector, the PI System is used for monitoring grid performance, managing energy consumption, and integrating renewable sources.
- **Asset Management:** The PI System helps organizations track asset performance and health, facilitating effective maintenance strategies.

Hence, it is proposed to deploy an integrated data handling software which will be having above capabilities at MSLDC. This will enable MSLDC to improve Operational Excellence, provide in depth analysis of the Grid to Hon'ble MERC, STU & other authorities, more engagement of engineers in analytics by avoiding time consuming data handling activities, etc.

5) Automatic demand management scheme:

The Govt. of Maharashtra has set an ambitious target of installation of around 16 GW of Solar generation under MSKVY 2.0 scheme. This solar capacity will be commissioned from 11 kV level to EHV level. With the implementation of this scheme, AG loads will be fed during daytime. Apart from this capacity, the RE installations are increasing day by day.

Maharashtra State has a large geographical spread over where weather parameters, Crop patterns, electricity user patterns changes are observed. Considering such diversified scenarios, it is important to maintain load-generation balance at every instance to avoid any grid disturbance.

An Automated Demand Management Scheme (**ADMS**) typically refers to structured programs or systems designed to automatically manage and optimize energy consumption across various sectors. These schemes aim to improve energy efficiency, reduce peak demand, and enhance grid reliability through automation and real-time data analysis.

Key Features of Automated Demand Management Schemes:

- **Real-Time Monitoring**: Utilizes smart meters and sensors to track energy usage in real-time, allowing for immediate adjustments based on demand and supply conditions.
- **Dynamic Pricing**: Implements pricing strategies that encourage consumers to reduce or shift their energy usage during peak periods, often through time-based rates or incentives.
- **Load Shedding**: Automatically reduces or shifts energy consumption from non-essential systems during peak demand times, helping to stabilize the grid.
- **Integration with Renewable Energy**: Supports the incorporation of renewable energy sources by adjusting demand to match the variability of supply from these sources.
- **User Control and Engagement**: Offers consumers insights and tools to manage their energy use effectively, promoting participation in demand response initiatives.
- **Automated Systems**: Includes technologies such as smart thermostats, lighting controls, and HVAC systems that automatically adjust settings based on predefined criteria or utility signals.

Benefits:

- **Cost Savings:** Consumers can save on energy bills by **participating** in demand response programs and taking advantage of lower rates during off-peak hours.
- **Grid Reliability:** Reduces the risk of blackouts and enhances the **stability** of the energy grid by balancing demand and supply.

Hence, it is proposed to develop Automated Demand Management Scheme (ADMS) at MSLDC, which will be capable of sensing the need for any demand management and issue signals accordingly to main load-generation balance. The ADMS will be developed as a part of the SCADA system and is part of its specifications under the ULDC scheme.

6) Inhouse training / capacity building center:

MSLDC, during the last 2 years, has initiated many in-house training activities for enhancing the capacity. MSLDC is now proposing a full capacity building centre at MSLDC. This centre will continuously carry activities and training in different areas of power system for the SLDC teams and other stakeholders. This centre will aim to build expertise in all the areas of power sector operation, regulations, markets, economics data handling, analysis etc.

7) Cyber SOC:

MSLDC has currently established a SOC with open sources tool to handle the cyber security of CII. Further, MSLDC aims to build a full-fledged SOC with state-of-the-art tools and technologies for all future cyber security issues.

8) Increase number of certified experts in different areas:

Operation of an interconnected power system in India is coordinated through the State, Regional and National Load Despatch Centres in collaboration with the generation and transmission control centres. Prompt action by the System Operator during minute-to-minute operation as well as a system emergency is vital for the reliability of power systems. In this regard, the regulation 5.1 (h) of the Indian Electricity Grid Code mandates that the control room of the National, Regional and State Load Despatch Centre, power plants, substations of 132 kV and above, and other control centres of all regional entities shall be manned round the clock by qualified and adequately trained personnel. Further, CERC, in its Order dated 7 May 2008 in Suo motu Petition 58/2008, endorsed the need for appropriately skilled operators for secure operation of power system in India in the scenario of continuous load growth, system expansion and multiplying number of organizations.

The above subject has also been dealt with in great detail by the committee set up by the Govt. of India under the Chairmanship of Shri. G.B. Pradhan, then Addl. Secretary, Ministry of Power (**MoP**). The committee recommended setting up a system of Certification of System Operators by an independent Central body. The National Power Training Institute has been entrusted with the responsibility of conducting the certification exams. Thereafter, the combined committee for training and certification under the Chairmanship of Shri S. M. Dhiman, the then Member, Central Electricity Authority, suggested three levels of certification viz. 'BASIC LEVEL', 'SPECIALIST LEVEL' and 'MANAGEMENT LEVEL'. It is recommended that the certification authority may conduct the online examination for all the three levels of certification on a periodic basis. The System Operator Certificate will have to be renewed after three years and during this period the person will have to attend a refresher course of a minimum of three (3) days every year as part of Continuing Professional Development (CPD).

Further, the Ministry of Power, Govt. of India, has mandated such certification for the officers working in NLDC, RLDCs & SLDCs. Accordingly, 100 % of engineers working in MSLDC have been certified with 'Basic Level' Certification. Further, MSLDC is going for 'Specialist

Level' certification. As on date, there is no provision available at NPTI for 'Management Level' certification. Hence, it has been proposed to increase the certified experts in MSLDC in various fields such as Reliability, Market Operation, SCADA & Logistics, Cyber Security, RE Integration, etc.

To promote certification at MSLDC, special allowance is being provided to the engineers depending upon type of certification. The allowance for 'Basic Level' ranges from Rs.5000/- to 7000/-. If 'Specialist Level' certification is obtained than additional allowance of Rs.2000/- is provided. This allowance is given to the certified engineers on a monthly basis till the validity of certification.

9) Creation of sub SLDCs:

Considering the number of substations and lines of different voltage levels in Maharashtra, and increasing RE penetration, the earlier design of only two main control rooms seems inadequate. Hence, MSLDC is working on a proposal for creating additional sub SLDCs in Maharashtra.

10) Strengthening IT infrastructure and processes:

Considering the future challenges of a largely data driven management of the power system, MSLDC is planning for different systems for strengthening IT infrastructure. A pilot in this regard is already initiated.

Commission's Observations, and further Directions in the present MYT Order

7.4.3 The Commission has noted the submission of MSLDC. Further, MSLDC should update the Commission on the aforementioned and other initiatives taken up by MSLDC during the next Tariff filing.

7.5 Reactive Energy Charges

Directives in the MTR Order

7.5.1 MSLDC shall update the Commission regarding the progress made towards the operationalization of the Reactive Energy Account Framework including timelines envisaged for the implementation during next Tariff filing.

MSLDC Response:

7.5.2 The Reactive Energy Account Framework has been operationalized by MSLDC from 31.03.2022 in accordance with the Commission's notification of "Implementation of Reactive Energy Accounting Framework for Intra-State Hydro Electric Generating Stations in terms of the applicable provisions of the MERC (State Grid Code) Regulations, 2020" dated 09.03.2022. The first Reactive bill was issued for the week 14.03.2022 to 20.03.2022 on 31.03.2022. Thereinafter, the weekly Reactive Bills are being regularly issued along with the weekly DSM bills. As on 17.10.2024, the Reactive bill for the week 30.09.2024 to 06.10.2024 has been issued on 15.10.2024.

Commission's Observations, and further Directions in the present MYT Order

7.5.3 The Commission notes the submissions of MSLDC. MSLDC shall update the Commission regarding the progress made towards operationalization of the Reactive Energy Account Framework as per the directives issued in respect of implementation of Reactive Power billing including timelines envisaged for the implementation in next Tariff Petition filing.

7.6 Submission of DPRs for new schemes and in-principle approved to lapsed schemes

Directives

7.6.1 The Commission has noted the submission of MSLDC. Further, MSLDC is directed to follow the guidelines notified by the Commission vide Maharashtra Electricity Regulatory Commission (Approval of Capital Investment Schemes) Regulations, 2022 for capex approvals.

MSLDC's Reply

7.6.2 After the Order in Case No. 291 of 2019, MSLDC submitted following new DPRs for fresh approval, the details of which are already covered in previous sections.

- Development of software for scheduling & despatch, deviation settlement and state energy accounting activities
- Automatic fire suppression system with monitoring system for SCADA and various equipment at ALDC

7.6.3 Further, the Petitioner has submitted the DPR for Alert Messaging System. The Petition will submit the remaining DPRs, as projected under future capitalization scheme, in time before implementation of those schemes after preparation of DPRs before the Commission.

7.6.4 For the lapsed scheme of Sub-LDCs, the Petitioner has not projected any expenditure up to FY 2024-25. The Petitioner will discuss the matter internally and if any new development happens in between, the Petitioner will surely inform the Commission in this regard. Also, regarding the 'Class I type staff quarter & Guest House, Recreation Hall & Gymnasium' scheme, which was not approved earlier, the Petitioner has projected only capital expenditure in FY 2024-25 (last year in the present control period). The Petitioner is planning to implement a scheme step by step depending on the requirement and financial expenses. The DPRs will be prepared and submitted before the Commission before implementation.

Commission's Observations, and further Directions

7.6.5 The Commission has noted the submission of MSLDC. Further, MSLDC is directed to follow the guidelines notified by the Commission vide Maharashtra Electricity Regulatory Commission (Approval of Capital Investment Schemes) Regulations, 2022 for capex approvals. It is also observed that MSLDC has proposed various schemes under Capex plan for 5th Control Period. MSLDC is directed to submit the DPRs for proposed scheme in time to avoid any delay in obtaining DPR approvals.

7.7 New (in addition to the pending) Directives to MSLDC

7.7.1 Key Performance Indices for MSLDC

7.7.1.1 As per Regulation 126 of the MERC MYT Regulation 2024, the Key Performance Indices (KPI) are applicable to MSLDC for 5th Control Period to enable it to avail the PLI. Accordingly, MSLDC shall be allowed to recover an PLI of maximum up to 3% of its Net AFC for a performance level of 90% against the KPIs. The performance of the previous year ending on 31st March shall be considered for calculation and recovery of PLI in the year.

7.7.1.2 As per the provisions of the MYT Regulation 2024, MSLDC shall submit its actual performance against each of the key performance indicators to the Commission on an annual basis along with supporting documents. MSLDC shall also publish the actual performance data on its website immediately after submission of the same to the Commission**.** The impact of the actual performance will be allowed at the time of the truing up for relevant years.

7.7.2 Capital Expenditure Plan for MSLDC for 5th Control Period.

7.7.2.1 The Commission observed that the capital expenditure carried out by MSLDC in true up years is very less as against approved capitalization. The capitalisation for FY 2022-23 is Rs. 545.21 Lakh as against approval Rs. 837.10 Lakh. Similarly, for FY 2023-24 the capitalisation is only Rs. 318.29 Lakh as against approval of Rs. 2952.80 Lakh.

7.7.2.2 Paucity of funds is not the reason for the delayed capitalisation as the same is envisaged to be funded through the LDCD fund available with MSLDC.

7.7.2.3 The scheme like the renovation of SCADA was approved in the last MTR Order, however, the scheme has not yet commenced as the same is to be carried out in coordination with WRLDC/NLDC. MSLDC needs to implement the scheme as soon as possible.

7.7.2.4 The role of MSLDC is crucial in the operation and control of the state grid. The Commission has approved most of the capital expenditure schemes as proposed by MSLDC during the 5th Control Period. However, DPRs for the schemes are not submitted.

7.7.2.5 The Commission directs MSLDC to submit the DPRs for the schemes in time in order to carry out capital expenditure as proposed by MSLDC. Further, MSLDC should also ensure registration of Non-DPR schemes as required under the provisions of the Capex Regulations, 2022.

7.7.2.6 Further, the Commission directs MSLDC to submit a 6 monthly progress report outlining the progress on various capital expenditure schemes being implemented by MSLDC as well as the status/progress of implementation of all the schemes approved by the Commission as a part of this Order along with details of Non-DPR schemes. This is required to be submitted during the entire 5th Control Period.

7.7.3 Manpower Requirement as per "Work Adequacy Guidelines for Load Despatch Centers"

7.7.3.1 Ministry of Power Government of India has issued "Work Adequacy Guidelines for Load Despatch Centers" for Manpower requirement for Load Despatch Centers in India. MSLDC submitted to the Commission requesting to allow for approaching Commission for Manpower and training cost budget.

7.7.3.2 In this regard, as discussed in para 5.2.19, MSLDC shall take appropriate steps for ensuring the implementation of these guidelines including reporting of its implementation status in next Multi Year Tariff Petition.

8 APPLICABILITY OF THE ORDER

8.1.1 This Order shall come into effect from 1 April, 2025.

8.1.2 The Petition of the Maharashtra State Load Despatch Centre in Case No. 186 of 2024 stands disposed of accordingly. The Fees and Charges approved in this Order shall remain in effect till any subsequent revision.

Sd/-	Sd/-	Sd/-
(Surendra J. Biyani)	**(Anand M. Limaye)**	**(Sanjay Kumar)**
Member	**Member**	**Chairperson**

(Dr. Rajendra G. Ambekar)
Secretary

Appendix – I

List of persons at the Technical Validation Session (TVS) on 27 November, 2024

Sr. No.	Name	Organisation
1.	Shri Satish Chavan	MSLDC
2.	Shri Shashank Jewalikar	MSLDC
3.	T.N. Nadhoskar	MSLDC
4.	Peeyush S. Sharma	STU
5.	Avinash Nimbalkar	MSETCL
6.	Girish Pantoji	MSLDC
7.	Milind Deole	MSLDC
8.	Anand Dalvi	MSLDC
9.	Surendra Pimplakhedkar	Consultant for MSLDC
10.	S. Chakraborthy	Consultant for MSLDC
11	Jithu Kumar Patel	Consultant for MSLDC
12	Anand Dhavale	Idam Infrastructure Advisory Pvt. Ltd.

Appendix – II

List of persons at the Public Hearing on 8 January 2025

Sr. No.	Name	Organisation
1.	Shri Shashank Jewalikar	MSLDC
2.	Shri Girish Pantoji	MSLDC
3.	Shri Anand Dhavale	Idam Infrastructure Advisory Pvt. Ltd.

Appendix – III

Details of non-DPR schemes of MSLDC

Sr. No.	Scheme	Purpose	Objective	Benefits Derived	Remark for Approval/ Disapproval
1	SITC 2 No. of elevator at MSLDC Airoli	Smooth running of elevators for MSLDC Staff and visitors	Replacement of old and faulty elevators	Smooth movement of MSLDC Officials & Visitors across 5 floors of MSLDC Building.	Approved
2	SITC of New 240 lines Digital EPABX m/c	Smooth running of intercom system for MSLDC Staff and visitors	Replacement of old and faulty EPABX	Smooth intercom communication between officers and staff within MSLDC premises.	Approved
3	SITC of video wall display unit 2X2	For establishment of Cyber Security Operations Center (C-SOC) at MSLDC.	To monitor the cyber threats to IT and OT infrastructure installed at MSLDC around the clock	Display used for monitoring of cyber security incidences in MSLDC.	Approved
4	SITC of Backup appliance	For automated backup of the Data of applications hosted at MSLDC, Critical Systems & Servers	Information / Data availability in case of any incident or disaster	To prevent data loss of critical applications of SLDC and to ensure that the data is available in case of disaster.	Approved
5	SITC of Anti-virus software along with server	For preventing viruses and other kinds of malicious software attacks on Desktops, Laptops, Servers and other software applications hosted at MSLDC.	To ensure the smooth functioning of IT infrastructure installed at MSLDC for Information availability & integrity	Protection of computers from virus / malware / trojan, etc.	Approved
6	SCADA incidental expenses	To meet emergency expenses as and when required.	To meet emergency expenses as and when required.	Provision is made for upkeeping of SCADA system for next 5 years.	Approved
7	LED screen at Control Room to display operational data	To display operational data of SCADA, REMC and PMUs and scheduling software at MSLDC Control Room	For effective Grid Management	Smooth control room activities in SLDC.	Approved

Sr. No.	Scheme	Purpose	Objective	Benefits Derived	Remark for Approval/ Disapproval
8	SITC Video Conferencing at control room	Real-time video conferencing with WRLDC Control Room and other Engineers whenever required.	For effective Communication with WRLDC and efficient Grid Management.	Dedicated VC system with WRLDC in case of contingencies.	Approved
9	PSSE system study software (2nd keys)	Presently SLDC is having one PSSE Software license for carrying out Load Flow studies required for outage management and contingency analysis. The network complexity has increased tremendously, hence, all the outages are to be granted only after simulation studies and contingency analysis so as to avoid any grid failure. Due to availability of only one license, it is becoming difficult to carry out studies by multiple engineers at a same time. Hence, it has been proposed to procure 2 Nos. of PSSE Software licenses.	To carry out load flow studies and contingency analysis prior to approval of outages. To carry out simulation studies for validation of various LTS/SPS and islanding schemes.	System outages are being approved after carrying out detailed system study.	Approved

Sr. No.	Scheme	Purpose	Objective	Benefits Derived	Remark for Approval/ Disapproval
10	State specific customization in REMC software and allied additional requirement of hardware through change order	As the System was newly commissioned, it was not possible to identify the modifications required immediately, as such requirements can be identified only after gaining experience after usage. Further, as per CERC Order dated 17-01-2021 in the matter of the petition No. 146/MP/2021, the power exchanges developed the procedure and mechanism for Green Day Ahead Market (G-DAM) & Green Term Ahead Market(G-TAM) and launched by IEX on 22-10-2021. As this was not covered in the existing scope of work of REMC System, this was a new requirement. Hence, to incorporate the new regulatory changes and making software future ready, the scheme has been proposed.	To incorporate the regulatory change of G-DAM notified by Hon'ble CERC. To make flexibility in modelling Inter-State & Intra-State transactions expected in future. To ease out day to day functions.	Provision is made for upkeeping of REMC software for next 5 years.	Approved
11	Staff recreation and rejuvenation facilities	Benefits the health of Staff and increases their productivity and efficiency.	Construction of full-fledged gymnasium	Staff welfare.	Identified as R&M nature expenses to be undertaken under operational expenses.

Sr. No.	Scheme	Purpose	Objective	Benefits Derived	Remark for Approval/ Disapproval
12	Life extension of Krishna and Kaveri building	Krishna & Kaveri building life gets increased as water seepage reduces the life of RCC structure.	External Waterproofing and replastering of both the buildings	Upkeeping of MSLDC's existing assets and secured living premises for MSLDC officials and their families.	Identified as R&M nature expenses to be undertaken under operational expenses.
13	Hardware for Reserve and Ancillary services software (GAMS software)	As per SANTULAN report of NLDC dated 27th December 2019, for implementation of Reserve Regulatory Ancillary Services at Intra-State Level, It was recommended to establish robust framework as per SAMAST report, Equip the SLDCs with IT infrastructure, Notification of Regulation by state commissions for availability of Reserves and facilitation for deployment of reserves through suitable mechanism for compensation. Further recommended to adopt suitable algorithm for optimization of reserves despatch.	SANTULAN committee recommended GAMS software (algorithm) for implementation this mechanism, which may be implemented after notification of state regulatory commission guidelines or regulations in this subject. In this SANTULAN report it was proposed to give suitable regulation for implementation of this mechanism in the state. However, such regulation or guidelines about implementation of this mechanism are not yet notified. Now, the same scheme of hardware and software for implementation of ancillary Reserve (GAMS) is proposed for FY 2023-2024 with CAPEX of Rs. 50 Lakh, subject to any regulatory guidelines or regulations notification for implementation of this mechanism.	Further, optimisation of generation resources in Maharashtra.	Disapproved. Can be taken up by MSLDC when the relevant guidelines / Regulations are notified. Implementation under DPR / NDPR scheme will depend on the cost of the project in line with the provisions of Capex Regulations, 2022.

Appendix – IV

List of DPR Schemes – As proposed by MSLDC and Commission's approvals (FY 2022-23 to FY 2029-30)

Sr. No.	Project Title	MERC In-principle Approval	MYT Petition (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Approved in this Order (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Cumulative Capitalisation upto FY 2023-24 (Rs. Lakh)	% of cost claimed by MSLDC considered for approval	Remarks
1) Must Have schemes							
1	SLDC - SITC of 80 RTUs	(i) In-principle approval dtd.: 3 March, 2016 (ii) Cost: Rs. 283 Lakhs	24.78	24.78	272.58	100%	**DPR approved.** **Scheme is completed.** There is no cost overrun. Considered for approval. **Scheme is considered as closed.**
2	70 SAS/ RTUs integration	(i) In-principle approval dtd.: 3 March, 2016 (ii) Cost: Rs. 248 Lakhs	116.82	116.82	116.82	100%	**DPR approved.** **Scheme is completed.** There is no cost overrun in the scheme. Considered for approval. **Scheme is considered as closed.**
3	S/I/T/C of auto FSS and MS at ALDC Ambazari	(i) In-principle approval dtd.: 31 April, 2021 (ii) Cost: Rs. 155 Lakhs	226.67	226.67	226.67	100%	**DPR approved.** **Scheme is completed. There is a cost overrun observed in the scheme** (approved cost was Rs. 155 Crore while the actual cost incurred is Rs. 226.67 Lakhs). The Commission in the MTR Order in Case no. 233 of 2022 had already considered the submission of MSLDC attributing the increase in cost to requirement of additional material/works

Sr. No.	Project Title	MERC In-principle Approval	MYT Petition (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Approved in this Order (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Cumulative Capitalisation upto FY 2023-24 (Rs. Lakh)	% of cost claimed by MSLDC considered for approval	Remarks
							based on the advice of Fire Adviser and Chief Fire Officer, MSETCL. As per the advice, there was an increase in the quantity of gas cylinders and gas quantity had to be increased during execution of the work. Considering the same, the cost is considered for approval. **Scheme is considered as closed.**
4	DSM	(i) In-principle approval dtd.: 9 August, 2019 (ii) Cost: Rs. 838.30 Lakhs	185.00	185.00	545.00 (Further capitalisation is expected in FY 2024-25 and 5th Control Period)	100%	**DPR approved.** These expenses are required to incorporate Regulatory Changes as per the amendments in the Regulation. Considered for approval. **Work in progress scheme.**
	DSM (Change request)		140.00	140.00		100%	**DPR approved.** Change request 1 is completed. Work of Change Request 2 is also nearing completion. Considered for approval. **Work in progress scheme.**
	DSM (Development of S/W for S&D, DS, SEA, DSM & Cloud)		49.00	49.00		100%	**DPR approved.** Retention amount to be paid as per original contract. It is due in FY 2024-25 as per discussion with SLDC and hence shifted to FY 2024-25. **Work in progress scheme.**

Sr. No.	Project Title	MERC In-principle Approval	MYT Petition (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Approved in this Order (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Cumulative Capitalisation upto FY 2023-24 (Rs. Lakh)	% of cost claimed by MSLDC considered for approval	Remarks
5	Renovation and modernization of existing SCADA at SLDC and ALDC	(i) In-principle approval dtd.: 14 June, 2024 (ii) Cost: Rs. 69.05 Crore	2,600.00	2,600.00	0.00	100%	**DPR approved.** MSLDC has participated in Unified SCADA project. The tendering is done by WRLDC under Grid India. However, only one party is qualified i.e. M/s GE. Being single party, the approval of Board of Grid India is required and the same is in process. Once the approval is obtained, MSLDC will have to place order on M/S GE. DPR is approved for @ 69.05 Crore, however, MSLDC has inadvertently sought approval for Rs. 26 Crore only. Hence, the approval is considered to be given for Rs.2600 lakhs only, however, the phasing is changed – 50% in FY 2026-27 and remaining is FY 2027-28. Remaining portion will be considered at the time of truing up for the relevant year. **Work in progress scheme.**
6	Upgradation of the Oracle Database Software from Standard Edition to the Enterprise Edition used for the DSM Software.	DPR Submitted. Under approval with the Commission	985.00	985.00	0.00	100%	**Proposed scheme.** **DPR is under approval with the Commission.** DSM Software was 'Go Live' in October 2021. Proposed capex is in view of upgradation requirements. Work order to be issued subject to getting

Sr. No.	Project Title	MERC In-principle Approval	MYT Petition (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Approved in this Order (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Cumulative Capitalisation upto FY 2023-24 (Rs. Lakh)	% of cost claimed by MSLDC considered for approval	Remarks
	(For DC-DR Active-Active Solution)						the Commission's approval as per information shared by MSLDC. Considered for approval.
7	33 kV Express feeder with OPGW cable for redundant power supply and data connectivity from 220kV Ambazari s/s	DPR not yet submitted.	100.00	100.00	0.00	100%	**Proposed Scheme.** Considered for approval as Auxiliary supply to ALDC is from Ambazari S/s and existing 11 kV line is not reliable.
2) Should Have schemes							
8	Customizations in Short term Open access Software to accommodate regulatory changes, Orders of MoP, etc.	DPR not yet submitted.	1,000.00 (Development cost: 600; Change Request: 400)	300.00 (Development cost allowed: 50%; Change request: 0)	0.00	50%	**Proposed Scheme.** Existing Open Access Software was developed in the year 2017 by M/s RE Connect. However, in view of developments and integration with NOAR, integration with scheduling software, Open Access billing etc. new OA software is envisaged. However, 1.0 Crore proposed by MSLDC for change request every year is not considered. Accordingly, the development cost is considered for approval and change request is not considered presently.
9	Development of New	DPR not yet submitted.	850.00	300.00	0.00	50%	**Proposed Scheme.**

Sr. No.	Project Title	MERC In-principle Approval	MYT Petition (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Approved in this Order (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Cumulative Capitalisation upto FY 2023-24 (Rs. Lakh)	% of cost claimed by MSLDC considered for approval	Remarks
	QCA REDSM software based on MERC(F&S) First amendment notification		(Development cost: 600 Change Request: 250)	(Development cost allowed: 50% Change request: 0)			Both schemes are connected schemes with the objective of implementation of RE F&S First amendment Regulations. DPR is to be prepared and submitted to the Commission. Amount proposed against change request is not considered presently. Development cost is approved. Change request not considered presently.
10	Customizations in REMC Scheduling & Accounting Software to accommodate regulatory changes, Orders of MoP, etc	DPR not yet submitted.	650.00	125.00	0.00	50%	
11	Development of comprehensive cloud-based platform for Daily System Report (DSR), outage management, first time charging (FTC) – Rs. 5 crore (4+0.25 for 4 yrs)	DPR not yet submitted.	500.00 (Development cost: 400 Change Request: 100)	200.00 (Development cost allowed: 50% Change request: 0)	0.00	50%	**Proposed Scheme.** DSR system was developed in 2009. Server is old. DSR is main document which MSLDC publishes every day. This scheme is considered for approval. Development cost is approved. Change request is not approved presently.
12	Development of integrated data handling platform analytical software,	DPR not yet submitted.	1,300.00 (Development cost:	500.00 (Development cost	0.00	50%	**Proposed Scheme** Development cost is approved. Change request not considered presently. Capitalisation is shifted to FY 2027-28

Sr. No.	Project Title	MERC In-principle Approval	MYT Petition (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Approved in this Order (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Cumulative Capitalisation upto FY 2023-24 (Rs. Lakh)	% of cost claimed by MSLDC considered for approval	Remarks
	analytics based on SCADA, Schedule, Meter and PMU data etc having capability of integration with SCADA DSM MDM system ETC		1000 Change Request: 300)	allowed: 50% Change request: 0)			(50%) and FY 2028-29 (50%).
13	Development of Demand estimation software	DPR not yet submitted.	1,000.00	500.00	0.00	50%	**Proposed Scheme** This is considered for approval as this activity is required for daily scheduling and Resource Adequacy verification submitted by Discom utilities to MSLDC.
14	Establishment of CSOC (Cyber Security Operation Centre) at SLDC	DPR not yet submitted.	1,500.00	750.00	0.00	50%	**Proposed Scheme** Considering the importance of the scheme, the capitalisation is considered for approval. Phasing of capitalisation is changed.
15	Implementation of advanced Cyber Security Solution for IT and OT Infrastructure of SLDC	DPR not yet submitted.	1,500.00	750.00	0.00	50%	**Proposed Scheme** Considering the importance of the scheme, the capitalisation is considered for approval. Phasing of capitalisation is changed.
16	Procurement of optimization tool software licence for	DPR not yet submitted.	500.00 (Develop	150.00 (Developm	0.00	50%	**Proposed Scheme** Considering the importance of the scheme, the capitalisation is considered

Sr. No.	Project Title	MERC In-principle Approval	MYT Petition (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Approved in this Order (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Cumulative Capitalisation upto FY 2023-24 (Rs. Lakh)	% of cost claimed by MSLDC considered for approval	Remarks
	SCED and SCUC in the State along with resource adequacy tool		ment cost: 300 Change Request: 200)	ent cost allowed: 50% Change request: 0)			for approval. Development cost is permitted, however, change request is not considered presently.
17	Procurement of optimization tool software licence for SCED and SCUC in the State (GAMS)	DPR not yet submitted.	200.00 (Development cost: 120 Change Request: 80)	60.00 (Development cost allowed: 50% Change request: 0)	0.00	50%	**Proposed Scheme** Considering the importance of the scheme, the capitalisation is considered for approval. Development cost is permitted, however, change request is not considered presently.
18	Rate Contract for Services towards Integration of 260 SAS/DCs/RTUs of any make over IEC 104 protocol into SCADA System at MSLDC Kalwa and ALDC Ambazari	DPR not yet submitted.	613.00	306.50	0.00	50%	**Proposed Scheme** Considering the importance of the scheme, the capitalisation is considered for approval.
19	Replacement of UPS along with 300 Ah battery ALDC	DPR not yet submitted.	100.00	50.00	0.00	50%	**Proposed Scheme** Considering the importance of the scheme, the capitalisation is considered

Sr. No.	Project Title	MERC In-principle Approval	MYT Petition (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Approved in this Order (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Cumulative Capitalisation upto FY 2023-24 (Rs. Lakh)	% of cost claimed by MSLDC considered for approval	Remarks
							for approval.
20	Unified Communication Infrastructure (Communication Hub) interface at SCADA for Data acquisition of SCADA/REMC/URT DSM	DPR not yet submitted.	1,000.00	500.00	0.00	50%	**Proposed Scheme** Considering the importance of the scheme, the capitalisation is considered for approval. Phasing of capitalisation is changed.
21	Upgradation of REMC SCADA entire system	DPR not yet submitted.	1,700.00	850.00	0.00	50%	**Proposed Scheme** Considering the importance of the scheme, the capitalisation is considered for approval. Phasing changes and shifted to FY 2027-28 onwards. MSLDC to explore cost optimisation by using cloud-based services and the outcome of the same is to be incorporated in the DPR to be prepared for the scheme.
22	Development of PSS-wise RE Forecasting Software for MSLDC.	DPR not yet submitted.	750.00 (Development cost: 600 Change Request:	300.00 (Development cost allowed: 50% Change	0.00	50%	**Proposed Scheme** Considering the importance of the scheme, the capitalisation is considered for approval. Phasing of capitalisation is changed. Development cost is approved, however, change request not considered.

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			150)	request: 0)			
3) May Have schemes / Disallowed Schemes							
23	RE-DSM	DPR not yet submitted.	250.00	-	0.00	0%	**Proposed scheme.** Already two other schemes related to RE F&S implementation *[(i) Development of New QCA REDSM software based on MERC(F&S); (ii) Customizations in REMC Scheduling & Accounting Software to accommodate regulatory changes, Orders of MoP, etc.] have been allowed*. Not considered for approval.
24	Construction of new Data Centre with DC-DR Configuration	DPR not yet submitted.	6,000.00	-	0.00	0%	**Proposed scheme.** MSLDC may explore option for utilising cloud-based services as per the guidelines issued by the State and Central Govt. and assess the requirements of development of Data centre. This scheme may be executed partly on opex basis as well. Possible option should be analysed submitted as part of the DPR. Substantial expenditure proposed against this scheme without any strong basis for the costing, hence, not considered for approval presently.

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25	Additional: Construction of compound wall from main entrance gate (NH-6) to colony gate L=326RMT X 2= 652RMT (Note submitted vide no SE/ALDC/NGP/Tech/ 416 Dt 05.10.2023)	DPR not yet submitted.	100.00	-	0.00	0%	**Proposed scheme.** Compound Wall at Ambazari. Permission from competent Authority / Defence authorities is pending, Hence not considered presently for approval. It may be considered after receipt of permission and subject to submission of DPR by MSLDC and its approval by the Commission.
26	New Residential tower at MSLDC, Airoli	DPR not yet submitted.	2,470.00	-	0.00	0%	**Proposed scheme.** Not considered for approval presently in absence of approved DPR and any basis for estimation of the cost.
27	Consultancy for verification of existing setup for compliance of data centre norms	DPR not yet submitted.	100.00	-	0.00	0%	**Proposed scheme.** Not considered for approval presently in absence of any information regarding the scheme. May be taken up later during the Control Period after approval of the DPR by the Commission.
28	Development of data handling platform analytical software	DPR not yet submitted.	1,300.00	-	0.00	0%	**Proposed scheme.** This appears to be a duplicate scheme [Development of integrated data handling platform analytical software, analytics based on SCADA, Schedule, Meter and

Sr. No.	Project Title	MERC In-principle Approval	MYT Petition (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Approved in this Order (FY 2022-23 to FY 2029-30) (Rs. Lakh)	Cumulative Capitalisation upto FY 2023-24 (Rs. Lakh)	% of cost claimed by MSLDC considered for approval	Remarks
							PMU data etc having capability of integration with SCADA DSM MDM system ETC). Not considered for approval presently.
29	Maharashtra State Unified Synchro phasor Project (MSETCL WAMS Project)	DPR not yet submitted.	7,000.00	-	0.00	0%	**Proposed Scheme.** PGCIL's URTDSM system is already in service at MSLDC. It is not clear why MSLDC has proposed this separate system. This may be considered based on approval of the DPR by the Commission considering the significant quantum of cost estimated against this scheme.
30	Additional: Construction of compound wall from main entrance gate (NH-6) to colony gate L= 326RMT X 2= 652RMT (Note submitted vide no SE/ALDC/NGP/Tech/ 416 Dt 05.10.2023) at ALDC	DPR not yet submitted.	100.00	-	0.00	0%	**Proposed scheme.** Compound Wall at Ambazari. Permission from competent Authority / Defence authorities is pending, Hence not considered presently for approval. It may be considered after receipt of permission and subject to submission of DPR by MSLDC and its approval by the Commission. Appears to be duplicate of scheme at sr. no. 25 of this table.
31	Change Request for	DPR not yet submitted.	300.00	-	0.00	0%	**Proposed scheme.**

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	modification in DSM software						DSM scheme already factors in change request for DSM project in FY 2025-26 and FY 2026-27. The amount claimed under this scheme is only in anticipation of change requests in the future, hence, not considered for approval. Any requirement in the future may be allowed by the Commission based on scrutiny of the DPR submitted by MSLDC.
32	Development of Analytical Tools for WAMS system.	DPR not yet submitted.	900.00	-	0.00	0%	**Proposed scheme.** URTDSM (Unified Real Time Dynamic State Measurement) system is installed at MSLDC by PGCIL under all India URTDSM project. This system was having data of WR major S/s and 5 nos. MSETCL substation. MSLDC has requested to remove data pertaining to other states. Now Data of PGCIL S/s in Maharashtra and 5 Nos. MSETCL S/s are available. There are 5 stages in availability of data 1. Tendering for PMU, 2) Installation of PMU in EHV S/s. 3) Making data available on OPGW link to MSLDC. All these activities are pertaining to Transmission Co. After that

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							MSLDC must integrate data in URTDSM and thereafter deployment of Analytical Soft Ware. Hence, there is external dependency for completing this scheme. Hence, the scheme can be proposed when MSLDC has integrated data in URTDSM. The dependency is on PMU installation at 400 kV substations and the availability of fibre optic communication link. Not considered for approval presently.
33	Customizations in the State DSM Software to accommodate regulatory changes, Orders of MoP, etc	DPR not yet submitted.	1,000.00	-	0.00	0%	**Proposed scheme.** Appears to be duplication of the scheme already proposed. Not considered presently for approval.
	TOTAL CAPITALISATION		**37,110.27**	**10,068.77**			