Before the
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Case No. 235 of 2020

Case of Maharashtra Airport Development Company Limited for Truing up of FY 2014-15 to FY 2019-20 and Aggregate Revenue Requirement (ARR) &Tariff for the 4th Control Period from FY 2020-21 to FY 2024-25

Coram

Sanjay Kumar, Chairperson
Mukesh Khullar, Member

ORDER

Dated: 21 July, 2022

Maharashtra Airport Development Company Limited (MADC) has filed the present Petition for approval of Truing-up of FY 2014-15 to FY 2019-20, and Aggregate Revenue Requirement (ARR) and Tariff for the 4th Control Period from FY 2020-21 to FY 2024-25, for its Electricity Distribution Business in notified SEZ area of MIHAN. MADC has filed its Petition on 29 November 2020.

The Petition has been submitted in accordance with the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2011 (hereinafter referred as "MYT Regulations, 2011") for Truing-up for FY 2014-15 and FY 2015-16, in accordance with MERC (Multi Year Tariff) Regulations 2015 (hereinafter referred as "MYT Regulations, 2015") for Truing-up of FY 2016-17, FY 2017-18, FY 2018-19 and FY 2019-20 and for the 4th Control Period from FY 2020-21 to FY 2024-25 in accordance with the MERC (Multi Year Tariff) Regulations, 2019 (hereinafter referred as "MYT Regulations, 2019").

In exercise of its powers under Sections 86 and Section 62 (read with Section 61) of the Electricity Act, 2003 (herein after referred as "EA, 2003") and all other powers enabling it in this behalf, and after taking into consideration the submissions made by MADC, the written and oral suggestions and objections received and other relevant material, the Commission issues the following Order.

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List of Abbreviation

AC System	Alternating Current System
A&G	Administrative and General
ABR	Average Billing Rate
ACoS	Average Cost of Supply
AMNEPL	Abhijeet MADC Nagpur Energy Private Limited
APPC	Average Power Purchase Cost
ARR	Aggregate Revenue Requirement
ATE	Appellate Tribunal for Electricity
BG	Bank Guarantee
BoM	Bank of Maharashtra
CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditure
CBA	Cost Benefit Analysis
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CFB	Central Facility Building
CPI	Consumer Price Index
CSD	Consumers' Security Deposit
CSS	Cross Subsidy Surcharge
CT	Current Transformer
CWIP	Capital Work In Progress
DA	Dearness Allowance
DC System	Direct Current System
DPR	Detailed Project Report
EA 2003	Electricity Act, 2003
EHV	Extra High Voltage
ETC	Erection-Testing-Commissioning
FAC	Fuel Adjustment Charges
FY	Financial Year
GFA	Gross Fixed Assets
GoM	Government of Maharashtra
HT	High Tension
HUDCO	Housing and Urban Development Corporation
InSTS	Intra-State Transmission System
IoWC	Interest on working capital
JUSCO	Jamshedpur Utility Services Company Limited
kV	Kilo Volt
kW	Kilo Watt
kWh	Kilo Watt hour
LILO	Loop In Loop Out
LOI	Letter of Intent
LT	Low Tension
MADC	Maharashtra Airport Development Company Limited

MAT	Minimum Alternate Tax
MBPPL	Mindspace Business Parks Private Limited
MCLR	Marginal Cost of Funds Based Landing Rate
MERC	Maharashtra Electricity Regulatory Commission
MIHAN	Multi-modal International Hub Airport at Nagpur
MoP	Ministry of Power
MSEB	Maharashtra State Electricity Board
MSEDCL	Maharashtra State Electricity Distribution Company Limited.
MSETCL	Maharashtra State Electricity Transmission Company Limited.
MSLDC	Maharashtra State Load Despatch Centre
MUs	Million Units
MW	Mega Watt
MYT	Multi Year Tariff
NCDs	Non Convertible Debentures
NTI	Non Tariff Income
O&M	Operation and Maintenance
PBT	Profit Before Tax
PGCIL	Power Grid Corporation of India
PoC	Point of Connection
POSOCO	Power System Operation Corporation Limited
PPA	Power Purchase Agreement
R&M	Repair and Maintenance
RE	Renewable Energy
REC	Renewable Energy Certificate
RoE	Return on Equity
RPO	Renewable Purchase Obligation
SBAR	State Bank of India Advance Rate
SBI	State Bank of India
SEZ	Special Economic Zone
SLDC	State Load Despatch Centre
STU	State Transmission Utility
T&D	Transmission and Distribution
TPC-D	TATA Power Company Limited's Distribution Business
TSU	Transmission System User
TTSC	Total Transmission System Cost
WPI	Wholesale Price Index
YoY	Year over Year

1 INTRODUCTION

1.1 Background

1.1.1 M/s. Maharashtra Airport Development Company Limited (MADC) is a Company incorporated under the Companies Act, 1956, having its registered office at 8th Floor, World Trade Centre, Cuffe Parade, Mumbai - 400005.

1.1.2 MADC was constituted in the year 2002 as a special purpose company by Government of Maharashtra (GoM) to develop a Multi-modal International Hub Airport at Nagpur ("MIHAN") in the State of Maharashtra to provide the regional air connectivity. Abhijeet MADC Nagpur Energy Private Limited (AMNEPL) was created as a joint venture between MADC and Abhijeet group to provide an efficient, uninterrupted supply of power in the MIHAN area. On 22 June, 2007, the Memorandum of Association and the Articles of Association of AMNEPL was executed. A Concession Agreement (hereinafter referred as "The Agreement") was executed between MADC and AMNEPL on 7 November, 2007 pursuant to the competitive bidding process. Further, AMNEPL, Abhijeet Infrastructure Limited and Abhijeet Infra Limited entered into a Shareholders Agreement on 2 April, 2009

1.1.3 MADC as a SEZ developer has been accorded the status of "Deemed Distribution Licensee" vide Government of India, Ministry of Commerce and Industry Notification bearing S.O. 528 (E) dated 3 March, 2010.

1.1.4 ***Order recognising deemed Distribution Licensee status, and Specific Conditions of Distribution Licence for MADC:*** The Commission in its Order dated 3 August, 2012 in Case No. 16 of 2011, provided Deemed Licensee status to MADC for the notified SEZ area of MIHAN, Nagpur under Section 14 of EA, 2003 and notified the Specific Conditions of Distribution Licence for MADC on 3 December, 2013.

1.1.5 ***Petition for approval of Provisional Tariff:*** MADC submitted its Petition dated 13 July, 2012 for adoption of Tariff under Section 63 of EA, 2003 and approval for modification in the Concession Agreement dated 7 November, 2007 between MADC and AMNEPL. Thereafter MADC submitted an amended Petition wherein it was admitted that the legal basis in the Original Petition was wrong and submitted that the Tariff determination for distribution and retail supply of electricity to the consumers in the MIHAN SEZ area would be covered under Section 62(1) (d) of the Act. The Commission observes that the provision of Concession Agreement ('CA') revealed that power supply was to be governed by the provision of bilateral agreements to be signed between the Generator and the Consumers directly. This provision of the CA revealed a scenario wherein Tariff was not regulated by the Commission. Therefore, vide its Order dated 5 December, 2012 in Case No. 65 of 2012, the Commission allowed MADC to withdraw the Petition

1.1.6 AMNEPL had submitted a petition for approval of Capital Expenditure and Determination of Tariff for Sale of Firm Power generated from one unit of 61.5 MW of the power plant. However, MADC had not submitted any application to the Commission for obtaining approval of Power Purchase Agreement for procuring power from AMNEPL. Accordingly, vide Order dated 23 August, 2013 in Case No. 23 of 2013, the Commission rejected the Petition of AMEPL as non-maintainable with the observation that the Case did not fall either under Section 62 or Section 63, which were the only enabling provisions of the EA, 2003 under which the Commission could approve or adopt the Tariff for supply of power by Generating Company to a Distribution Licensee

1.1.7 Thereafter, several disputes arose between MADC and AMNEPL and AMNEPL issued a 'Notice of Default on 23 October, 2013 and a 'Notice of intent to terminate' on 24 October, 2013 on MADC. AMNEPL shut down the power generation units on 5 November 2013; and power was supplied by AMNEPL using the DG sets. MADC replied to the notice sent by AMNEPL and the parties attempted to resolve the dispute. However, power supply through DG sets was stopped by AMNEPL in a few months due to failure to resolve the dispute.

1.1.8 On 11 March, 2014, MADC approached this Commission in Case No. 62 of 2014 seeking directions to ensure power supply to the Consumers and to prevent a blackout in MIHAN area in view of pending issues between MADC and AMNEPL.

1.1.9 Therefore, vide Order dated 6 May, 2014 in Case No. 62 of 2014, the Commission noted the emergency situation in the MIHAN area on account of power disruptions and passed an enabling Order to the effect that, in case a Consumer applies to MSEDCL, then MSEDCL would supply power to such Consumer as per law. It also directed that, for the purposes of supply, MSEDCL may use the transmission / distribution network of AMNEPL and MADC. On technical issues with regard to above mentioned arrangement, the Commission directed MADC, AMNEPL, MSETCL and MSEDCL to form a committee to sort out the issues. In its Order, the Commission also gave liberty to AMNEPL to file a separate Petition with its proposal for determination of transmission charges for usage of its transmission assets by MSEDCL within 90 days.

1.1.10 In the meantime, as the supply of power in the MIHAN area was not improving and since, as a Distribution Licensee, MADC was duty bound to ensure supply of power in its Licence area, MADC filed Petition in Case No. 149 of 2014 seeking approval of its short term power procurement plan. The Commission vide its Daily Order dated 18 November, 2014, allowed MADC to procure power through Power Exchange or through competitive bidding. The Commission allowed MADC to levy the Tariff for the respective consumer categories as the ceiling tariff and Schedule of Charges of Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL) vide Order dated 20

January, 2015 in above referred case.

1.1.11 Further, the Commission, vide its Daily Order dated 13 October 2016 in Case No 100 of 2016, allowed MADC to charge consumers in MIHAN SEZ area based on the category-wise tariff applicable to MSEDCL consumers, as modified from time to time, as the ceiling tariff, till its ARR and tariff were determined by the Commission.

1.1.12 ***Petition for approval of Power Procurement****:* Pursuant to the above Daily Order dated 18 November 2014 in Case No 149 of 2014 of the Commission, MADC has started supplying power to the MIHAN SEZ Consumers from 22 November, 2014 by procuring power through the Power Exchange / through short term power procurement as per the Guidelines of Ministry of Power dated 30 January, 2016. Thereafter, MADC has procured power by conducting competitive bidding process for short term power procurement on DEEP portal.

1.1.13 The Commission vide its Order dated 14 January 2021 in Case No. 236 of 2020, approved medium term power procurement for 4 years starting from 01 March, 2021 to 28 February, 2025 and permitted MADC to start the tendering process. However, post bidding process, the Commission vide its Order dated 03 May, 2021, rejected the adoption of tariff of Rs.5.25/kWh, being non-reflective of market price and directed to undertake the rebidding of its power procurement. However, the Commission allowed MADC to continue scheduling of power against LoA issued at rate of Rs. 5.25/kWh in order to maintain continuity of power supply to consumers in MIHAN SEZ but held that such power purchase cost may not be allowed to be fully passed on to consumers. Accordingly, the Commission ruled that appropriate view on this issue based on new rate as discovered in re-bidding process would be considered and accordingly may disallow certain power purchase expenses during Multi Year Tariff (MYT) Order.

1.1.14 MADC approached the Commission after rebidding in Case No 137 of 2021 wherein the Commission adopted the rate of 4.48 per kWh for the period from 01 November, 2021 to 31 October,2025 for supply of 16 MW.

1.1.15 Since MADC is using 220 kV Transmission system of AMNEPL for supplying power to consumers in MIHAN SEZ, it is paying provisionally charge of Rs. 0.1425 per kWh (75% of the billed rate of Rs.0.19 per kWh by AMNEPL) to AMNEPL, against which the Petition is pending before the Commission.

1.2 MYT Regulations

1.2.1 The Commission notified the MYT Regulations, 2011 on 4 February, 2011, which were applicable for the 2nd Control Period from 1 April, 2011 to 31 March, 2016.

1.2.2 Subsequently, the Commission notified MYT Regulations, 2015 on 8 December, 2015, which were amended vide notification dated 29 November, 2017. These Regulations were applicable for the 3rd Control Period from FY 2016-17 to FY 2019-20.

1.2.3 The Commission has thereafter notified the MYT Regulations, 2019 on 1 August, 2019. The said Regulations are applicable for the 4th Control Period from FY 2020-21 to FY 2024-25.

1.3 Previous Tariff Petition

1.3.1 The Commission in its Order dated 10 May, 2016 in Case 47 of 2015, directed MADC to file MYT Petition within three months, i.e., till August 2016 which was further extended on various occasions.

1.3.2 On 3 July, 2017, MADC filed a Petition for approval of Truing up of FY 2014-15 and FY 2015-16, Provisional Truing up of FY 2016-17 and FY 2017-18, Projected Aggregate Revenue Requirement (ARR) of FY 2018-19 and FY 2019-20 and Tariff for FY 2019-20. Said Petition was registered as Case No. 96 of 2017. On scrutiny of the Petition, the Commission noted that MADC had proposed to recover tariff of Rs. 4.38 per unit (ABR) against an ACoS of Rs. 13 per unit. It was further noted that MADC's bare power procurement rate, i.e., Rs. 4.89 per unit itself was more than its proposed retail tariff of Rs. 4.38 per unit. Also, MADC did not provide the methodology for recovery of the ARR gap. After following due process, the Commission vide Order dated 23 December, 2019 returned the Petition with further direction to file fresh Petition within three months.

1.3.3 On request of MADC, the Commission vide Order dated 29 August, 2020 in Case No 174 of 2020 extended the date of submission of the Petition to 30 November, 2020 due to prevailing COVID 19 situations.

1.4 Present Petition and Main Prayers of MADC

1.4.1 MADC has filed its Petition on 29 November, 2020 for Truing-up of FY 2014-15 to FY 2015-16 in accordance with the MYT Regulations, 2011, Truing-up of FY 2016-17 to FY 2019-20 in accordance with the MERC MYT Regulations, 2015, and for approval of ARR for FY 2020-21 to FY 2024-25, in accordance with the MYT Regulations, 2019.

1.4.2 The Commission sought replies to the preliminary data gaps raised on 12 March, 2021, 21 April, 2021, 3 June, 2021, 6 August, 2021 and 06 December, 2021. In due course, a meeting was held with MADC on 23 April, 2021 to discuss the data gaps / deficiencies. The data gap requirements were explained to MADC and it was asked to submit the replies and soft copy of the revised Petition. Accordingly, MADC corrected its ARR computations and submitted revised Petition on 19 June, 2021.

1.4.3 Further, vide its data gap reply dated 17 April, 2021, MADC submitted that segregated Audited Accounts for its power business were available up to FY 2015-16 only and the Audit of financial statement for power business from FY 2016-17 onwards was under process. Hence, it has claimed final True-up up to FY 2015-16 only. MADC also submitted that the Audited Accounts of MADC as a whole (power business plus other business of MADC) were available up to FY 2019-20.

1.4.4 On 4 August, 2021, MADC submitted its segregated Audited Accounts for its power business for FY 2016-17 to FY 2018-19 along with the Revised Petition for Truing-up of FY 2016-17 to FY 2019-20 in accordance with the MYT Regulations, 2015, and for approval of ARR for FY 2020-21 to FY 2024-25, in accordance with the MYT Regulations, 2019. Certain Data gaps were identified in the Revised Petition and communicated to MADC on 6 August, 2021. MADC submitted the reply to the Data gaps on 20 August, 2021.

1.4.5 A Technical Validation Session (TVS) was held on 6 September, 2021 wherein MADC presented its case capturing salient features of its MYT Petition. The issues regarding RPO, equity infusion in the power business, subsidy support from GoM to MADC and creation of regulatory asset at the end of control period were discussed and explained by MADC and it was asked to submit the replies on the same. The MoM of the TVS was shared with MADC on 16 September, 2021. MADC submitted on 30 September, 2021, the replies on the queries raised during the TVS.

1.4.6 Subsequent to the reply of MADC on 30 September 2021, the further data gaps were identified and informed to MADC on 06 December 2021. MADC submitted the reply to the data gaps on 24 January 2022 and also submitted the revised Petition on account of revision in power purchase cost.

1.4.7 The main prayers of MADC in its revised Petition are as below:

a) Approve the True Up for FY 2014-15 and 2015-16 and Gap/ (Surplus) as worked out in this Petition as per MYT Regulations 2011;

b) Approve the Final True Up for FY 2016-17, FY 2017-18, FY 2018-19 and FY 2019- 20 and Gap/ (Surplus) as worked out in this Petition as per MYT Regulations 2015;

c) Approve the Projections of ARR & Tariff Proposal for the control period from FY 2020-21 to FY 2024-25 as worked out in this Petition as per MYT Regulations 2019;

d) Approve Retail Supply Tariff for the Control Period and the Tariff schedule, as proposed by the Petitioner;

e) Approve the schedule of charges as proposed in the Petition for the Control Period from FY 2020-21 to FY 2024-25.

f) Approve capital expenditure and capitalisation as submitted and as may be approved by Hon'ble Commission in post facto approval.

g) Condone any inadvertent omissions/ errors / rounding off differences / shortcomings and permit Petitioner to add / change / modify / alter this filing and make further submissions as may be required at a future date.

h) Pass such further and other orders, as the Hon'ble Commission may deem fit and proper, keeping in view the facts and circumstances of the case."

1.5 Admission of the Petition and Public consultation process.

1.5.1 The Commission admitted the present Tariff Petition on 16 February, 2022 and in accordance with Section 64 of the EA, 2003, directed MADC to publish it in the specified abridged form and manner, and to reply expeditiously to any suggestions and comments received.

1.5.2 MADC published a Public Notice inviting comments/suggestions/objections on its Petition. The Public Notice was published in daily newspapers in "The Hitvada" (English) on 25 February, 2022 and "Indian Express" (English) (Nagpur Edition) on 4 March, 2022 and "Lokmat" and "Maharashtra Times" (Nagpur Edition) (both Marathi) on 25 February, 2022. The Public Notice and Executive Summary of the Petition was also made available on the website of the Commission (www.merc.gov.in) in downloadable format.

1.5.3 The Commission received written and oral suggestions/objections on the Petition. A Public E-Hearing was held on 29 March 2022, at 10.30 am hours. The List of Persons who attended the Public Hearing is at Appendix -I.

1.5.4 The suggestions and objections received in the Petition along with MADC's responses and the Commission's rulings, have been summarised in Section 2 of this Order.

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

1.6 Organization of the Order

1.6.1 This Order is organised in the following Sections:

a) **Section 1** provides a brief of the regulatory process undertaken by the Commission.

b) **Section 2** deals with suggestions/ objections received, MADC's Response and the Commission's Ruling.

c) **Section 3** deals with the Truing-up of ARR for FY 2014-15 and FY 2015-16 in accordance with MYT Regulations, 2011.

d) **Section 4** deals with the Truing-up of ARR for FY 2016-17 to FY 2019-20 in accordance with MYT Regulations, 2015.

e) **Section 5** deals with the approval of the ARR for the 4^{th} Control Period FY 2020-21 to FY 2024-25.

f) **Section 6** deals with the Tariff Philosophy adopted by the Commission and category-wise Tariff approved for FY 2020-21 to FY 2024-25.

g) **Section 7** deals with the Schedule of Charges.

h) **Section 8** summarises the Directives of the Commission, followed by the approved Tariff Schedule and the approved Schedule of Charges.

i) **Section 9** sets out the Applicability of this Order.

2 SUGGESTIONS / OBJECTIONS, MADC'S RESPONSES AND COMMISSION'S RULING

This section deals with the suggestions/objections raised by various stakeholders regarding the Tariff Petition submitted by MADC, details of which were provided in the public notice published in various newspapers mentioned earlier.

2.1 Proposed tariff hike

2.1.1 Shri. Kalyan Pitre of Tata Consultancy Services objected to the proposed hike in Power tariff. He stated that the proposed ABR hike for FY 2022-23 on the existing tariff and subsequent years seemed highly unreasonable. The proposed tariff rate was not conducive for increase in business in MIHAN SEZ Nagpur. Power Tariff Rate was a strong attraction for getting business in tier II cites.

2.1.2 Shri. Kishor Karemore of Dassault Reliance Aerospace Limited stated that during initial stage of MIHAN SEZ, MADC had assured to supply electricity at Rs. 2.97/kWh to the industries which would be working in MIHAN SEZ which was increased to Rs. 4.39/kWh during 2015-16. If the proposed hike in electricity tariff takes place, it will be very difficult for Company to operate as Dassault had long term agreements with their customers keeping in view the current electricity tariff. COVID-19 pandemic has already severely impacted the businesses of the Companies. The proposed Tariff hike would further deteriorate the financial conditions of the Companies in MIHAN SEZ forcing to rethink on future plans.

2.1.3 Infocept Technologies and Lupin Limited stated that due to severe outbreak of COVID-19 Pandemic business operations have substantially disrupted. Any increase in power tariff hike will further adversely impact the business operation since Infocept/ Lupin have signed long term contract with clients taking consideration of delivery cost. Further heavy investment on setting up HT infrastructure was already done considering the power tariff incentives in SEZ area. Therefore, any revision in tariff will collapse margin and sustenance of business.

2.1.4 Shri. T M Manjunath of Tata Advanced System Limited (TASL) stated that most of the agreements that are executed with customers are long term arrangements (5-6 years) and enumerate fixed price clauses, which is the general practice in aerospace industry. Covid pandemic has already impacted the business over the past two years, and increase in electricity tariffs at this juncture would have severe repercussions on our business making it challenging to compete with the existing international players. Thus, if the electricity tariffs are increased at this stage, TASL would be forced to absorb the additional costs which will have a significant detrimental effect on the financial health of its unit, with both direct and indirect effect on growth of unit/ company and also all the employees of the unit.

MADC's Reply

2.1.5 MADC has filed the Tariff Petition as per prevalent MYT Regulations. MADC has been levying ceiling tariff to its consumers over the period and due to inadequate tariff as against the power purchase cost and other costs resulted into increase in the average cost of supply over the period. Through the proposed Tariff, only standalone revenue gap for the control period from FY 2020-21 to FY 2024-25 is proposed to be recovered and burden of past revenue gap is not loaded on the consumers. Tariff of distribution licensee is being determined under Section 62 of Electricity Act 2003, which provides for cost plus approach and therefore, the proposed tariff hike is in line with provision of Electricity Act and in accordance with the MERC MYT Regulations. Further, the proposed tariff is still lower than the MSEDCL's prevailing tariff rate, which is parallel licensee in the licensed area of MIHAN.

Commission's Ruling

2.1.6 The Commission has analysed in detail in subsequent chapters MADC's submissions in respect of power purchase and other costs before approving the ARR for the 4th Control Period.

2.1.7 The Commission is of the view that the principles for determination of tariff are purely on the basis of the cost-plus mechanism and are undertaken in line with the provisions of Section 62 of the EA, 2003 and relevant provisions of prevalent MYT Regulations. Existing tariff being levied by MADC is much lower than its ACoS and is not enough to recover expenses on power procurement itself leaving aside other mandatory expenses which distribution licensee has to incur. While protecting interest of consumers, the EA, 2003 mandates the Commission to allow prudent expenses of Distribution Licensee. The Commission has given in detail its views on the overall design philosophy of the Retail Supply Tariffs and Distribution Wires Tariffs, in Section 6 of this Order.

2.2 Green power tariff for consumers of MADC

2.2.1 Shri. Kalyan Pitre of Tata Consultancy Services stated that request has been submitted regarding Green power tariff to MADC in context with MERC Order dated 22 March, 2021 (in Case No 134 of 2020) and subsequent errata/corrigendum order dated 1 January, 2021. The request has been parked aside on grounds that Licensee has already fulfilled its RPO whereas other Distribution licensee in Maharashtra are implementing Green Tariff.

MADC's Reply

2.2.2 In MYT Petition, MADC has submitted that it would take effort during the MYT control period to tie up Solar and Non-Solar Power through competitive bidding process and proposed for procurement of RECs for meeting the RPO target as an interim measure. MADC submits that procurement of REC from Exchanges is a certificate which is issued against generation of actual RE power by various generators/ developers.

2.2.3 Since MADC is complying with the RPO through procurement of RECs, the Commission is requested to provide clarity whether equivalent energy towards procurement of RECs can qualify or not for the green power which may be supplied to consumers who are willing to purchase 100% Green power by paying Green power tariff (to be approved by the Commission as deemed appropriate).

2.2.4 Based on the clarity regarding the above, MADC will arrange for supply of green power on payment of green tariff as determined by the Commission from time to time in addition to tariff approved for the respective category of consumers of MADC. MADC will follow the procedure and other mechanism for Green Power supply in accordance with MERC order (in Case No. 134 of 2020) dated 22 March,2021 and Errata / corrigendum order dated 1April, 2021.

Commission's Ruling

2.2.5 The Commission in its Order dated 22 March, 2021 in Case No 134 of 2020 has given an option to Consumer to opt for Green Tariff on payment of Rs 0.66/kWh additional tariff over and above the existing tariff being levied to consumers. Based on request received from Consumers, MADC is obligated to supply green power to its Consumers and MADC would have in turn purchased RE power or REC to meet the green power requirement of consumers in such a manner that the power purchase cost is optimised. The Commission directs MADC to immediately honour the pending requests from Consumers to provide green power on payment of green tariff as already determined by the Commission.

2.3 Consumer Grievance Redressal Forum

2.3.1 Mihan Industries Association stated that being a distribution licensee MADC was bound to abide by the provisions of Section 42 & 43 of EA 2003 including establishment of Consumer Grievance Redressal Forums which is not done till now.

MADC's Reply

2.3.2 MADC is supplying electricity to 80 nos. of consumers (HT-20 nos.& LT-52 nos.& Street light - 8 nos.) having total connected load of 36.30 MW and total contract demand of 32.30 MVA. MADC has developed very reliable and high-quality distribution network. MADC has been taking due care to maintain its network efficiently on regular basis and is ensuring proper billing to its consumers. There has been no such major instance of any consumer in SEZ area where they had to approach any higher forums and get the matter resolved. The MADC submits that it is duty bound to abide by the provisions of Electricity Act 2003 and the Regulations framed by the Commission.

2.3.3 As an interim measure MADC has requested to permit utilizing the services of CGRF, Nagpur (of MSEDCL Distribution licensee) as this would help in optimizing O&M expenses of MADC.

Commission's Ruling

2.3.4 The Commission notes that MADC has been operating as a Deemed Distribution Licensee since 2014. Even after 8 years of operation, MADC is yet to establish CGRF. This is very serious lapse by MADC and breach of licence condition. Establishment of CGRF is to be done to address the grievance of the Consumers being supplied power by MADC. Also, the contention of MADC to allow it to use services of CGRF, Nagpur of MSEDCL is not permissible as per provision of the Act, Rules and Regulations made there under which mandates every distribution licensee to setup its own CGRF. The Commission has recently framed MERC (Consumer Grievance Redressal Forum & Electricity Ombudsman) Regulations, 2020 wherein appointment of CGRF Chairperson is to be done by the Commission. Accordingly, the Commission is in the process of appointment of the Chairperson of the CGRF for MADC. Once said appointment is done, MADC shall immediately provide secretariat support for operationalising the office of CGRF in its licence area.

2.4 Two-part tariff and its applicability

2.4.1 Mihan Industries Association stated that consumers in the area are deprived of the commitment given by MADC to supply cheaper power from captive power plant of AMNEPL and power was supplied through short term power purchase from different sources which resulted in supply of power at higher rate than as was committed by MADC. There was no two-part tariff i.e. fixed and variable cost and all the expenses were included in the variable cost only. Demand / fixed charges now proposed by MADC are very high by any standard and shall amount to tariff shock to the consumers.

MADC's Reply

2.4.2 MADC has proposed two-part Tariff as per provisions under National Tariff policy and as per Tariff Regulations and in line with the Commission's Order and Regulations Commission.

Commission's Ruling

2.4.3 As per provisions of National Tariff Policy 2016 and MYT Regulations 2019, two-part tariff, i.e., fixed and variable charges is to be levied to consumers. Accordingly, MADC has proposed fixed/ demand charges and variable charges.

2.4.4 The Commission has given in detail the rationale for levy of Fixed/Demand Charges in subsequent chapters of this order.

2.5 Tariff Shock due to Revenue gap/Regulatory Asset

2.5.1 Mihan Industries Association submitted that in case the grant of Rs. 81.02 Crore is not received from the GoM, it will result in tariff shock to the consumers. MADC may be directed to get commitment from GOM regarding grant to be provided which can be kept as regulatory asset in this Petition.

MADC's Reply

2.5.2 MADC has proposed that the past period revenue gap from FY 2014- 15 to FY 2019-20 to the extent of Rs.81.02 Crore is to be funded through grant from Government of Maharashtra (GoM). It is hoped that necessary approval/ sanction would be available during proceedings of the tariff petition. In view of pending approval from GoM, MADC has proposed to create Regulatory Assets of this amount as interim measure and on receipt of grant from GoM, the same would be adjusted/ nullified. Hence, there is no burden on account of Rs.81.02 Crores being proposed to be passed onto the consumers of MADC in tariff.

Commission's Ruling

2.5.3 The Commission's analysis of the Revenue Gap/Surplus and Regulatory Asset proposed by MADC is set out in Chapter 6 of this Order.

2.6 Capital expenditure and capitalization

2.6.1 Mihan Industries Association has submitted that MADC has capitalized the entire assets in the year FY 2014-15. The detailed project report is not submitted with this petition. The Commission has not till date approved the capital expenditure plan. The infrastructure is developed by AMNEPL for which they are levying transmission charges, hence this capital cost cannot be considered by MADC neither the depreciation should be allowed

MADC's Reply

2.6.2 MADC submitted that as per the directions of the Commission in Case No 96 of 2017, MADC has separately submitted on 5 October, 2020 capital expenditure plan for approval of the Commission. The actual audited capital expenditure of Rs 62.69 Crores is reflecting in the books of accounts for FY 2014-15 and there is no additional capital expenditure incurred/ envisaged to be incurred till FY 2024-25 in SEZ area.

2.6.3 MADC has been using transmission line and switchyard constructed by AMNEPL for the evacuation of power from STU transmission network to MIHAN periphery wherein AMNEPL has developed 220 kV transmission system and the assets/ distribution network (such as power transformers, breakers, switchgears, cables etc) required for the supply of power to the end consumers is developed by MADC for which approval of Rs.62.69 Crore is sought.

2.6.4 MADC is paying transmission charges for the 220 kV transmission facility developed by AMNEPL as per the Commission Order dated 31 December, 2020 in Case No. 331 of 2019. Accordingly, the claim of MADC for ARR elements linked to capitalisation are correct and not part of transmission charges paid to AMNEPL

Commission's Ruling

2.7.1. The Commission has carried out scrutiny of the Capital Expenditure and actual capitalisation done in FY 2014-15 and has dealt with MADC's proposal in Section 3 of this Order.

2.7 Increase in tariff

2.8.1. Mihan Industries Association has stated that in Table 6.36 of tariff petition, the total ARR for wire and retail supply business is projected as Rs. 53.14 Crore to Rs. 63.35 Crore as against power purchase expenses of Rs.36.61 Crore to Rs. 47.21 Crore hence the ARR has increased by about 34%. This 34% component has resulted in high revenue gap compared to existing tariff. In FY 2020-21 the revenue from existing tariff is projected as Rs. 31.31 Crore and the revenue gap are projected as Rs. 21.82 Crore which amounts almost 69% increase in ARR compared to existing ARR and in case recovered fully it amounts to increase in tariff by 69% which is a tariff shock.

MADC's Reply

2.8.2. MADC submitted that existing tariff of MADC is inadequate to recover the cost of supply of electricity supplied in its licensed area and, therefore full recovery of revenue gap has resulted into tariff hike of 69%.

2.8.3. MADC being a distribution licensee, it is to be operated under the provisions of Electricity Act 2003 and tariff is to be determined as per prevailing tariff Regulations. ln view of this, the proposed tariff hike is in accordance with Regulatory provisions of Electricity Act and relevant Regulations of the Hon'ble Commission.

Commission's Ruling

2.8.4. The Commission has determined the tariff in accordance with provision of the Act and MYT Regulations, 2019. The Commission's analysis of tariff to be levied to Consumers is set out in Chapter 6 of this Order.

3 TRUING-UP OF ARR FOR FY 2014-15 to FY 2015-16

3.1 Background

3.1.1 In the present Petition, MADC has sought final Truing-up of FY 2014-15 and FY 2015-16 in accordance with MYT Regulations 2011, based on the actual expenditure and revenue as per the Audited Annual Accounts of its distribution business.

3.1.2 As per Regulation 71 of MYT Regulations 2011, every Distribution Licensee shall maintain separate records for the Distribution Wires Business and Retail Supply Business and shall prepare an Allocation Statement to enable the Commission to determine the tariff, pursuant to each such application made by the Distribution Licensee. MADC has submitted separate ARR for the Wires Business and Supply Business in the formats prescribed by the Commission based on the MSEDCL's approved allocation matrix. As such there is no impact on tariff on account of aforesaid segregation, the Commission has considered the allocation matrix as proposed by MADC and has determined separate ARR for the Wires Business and Supply Business.

3.1.3 The Commission had not approved any ARR forecast and performance trajectory for MADC in the past. This is first Tariff Petition of MADC being considered by the Commission for approval. Hence, the Commission has dealt with actual expenditure and revenue along with actual performance trajectory of MADC as submitted in the specific formats.

3.1.4 In this Section, the Commission has analysed all the elements of actual expenditure and revenue of MADC for FY 2014-15 and FY 2015-16 based on the segregated audited annual accounts and the relevant norms and, after prudence check, has undertaken the Truing-up of expenses and revenue under the MYT Regulations, 2011.

3.2 Energy Sales

MADC's Submission

3.2.1 MADC has submitted that the actual energy sales for the FY 2014-15 and FY 2015-16 were 6.90 MU and 25.43 MU, respectively. MADC further submitted that billing for the energy supplied to the consumer commenced from the month of November, 2014. MADC has provided monthly break-up of energy sales for FY 2014-15 and FY 2015-16 and has requested the Commission to approve the energy sales for FY 2014-15 and FY 2015-16 as submitted.

Commission's analysis

3.2.2 MADC has submitted the actual energy sales of 6.90 MU for FY 2014-15 and 25.43 MU for FY 2015-16. The details of category wise sales, are provided in the Table below:

Table 1:Actual Category wise Energy Sales of FY 2014-15 and FY 2015-16, as submitted by MADC

Consumer Categories	FY 2014-15	FY 2015-16
HT category Sales		
Industrial	5.75	21.82
Commercial	0.87	2.55
Sub-Total HT Sales	**6.62**	**24.37**
LT category Sales		
Industrial	0.06	0.57
Commercial	0.13	0.26
Residential	0.00	0.00
Street Light	0.09	0.23
Public Services	0.00	0.00
Sub-Total LT Sales	**0.28**	**1.07**
Total	**6.90**	**25.43**

3.2.3 MADC started commercial operation as a Distribution Licensee in November, 2014, i.e., in FY 2014-15. Therefore, no historical trend is available for analysis as this is the first year being trued-up by the Commission. Further, the audited annual account submitted by MADC has not specified quantum of sales in MU.

3.2.4 Hence, for approval of sales, the Commission is constrained to depend on the actual data submitted by MADC.

3.2.5 In case of SEZ operators, the Commission has precedence of Tariff Order of Mindspace Business Parks Private Limited (**MBPPL**) in Case No. 10 of 2016 dated 26 October, 2016. In this Order the Commission has ruled as follows:

> *"3.2.5 As no base-line data is available, the Commission has accepted the actual category-wise sales for FY 2015-16 as submitted by MBPPL."*

3.2.6 Considering the above, as no base line data is available, the Commission has approved energy sales of FY 2014-15 and FY 2015-16 as submitted by MADC. However, the Commission directs MADC that it shall get the category-wise sales and revenue audited by Third Party and exhibit the same in the subsequent Audited Annual Accounts from next tariff proceedings. The category-wise sales as submitted by MADC and as approved by the Commission are shown in the Table below:

Table 2: Sales for FY 2014-15 & FY 2015-16 approved by the Commission (MUs)

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Industrial	5.75	5.75	21.82	21.82

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Commercial	0.87	0.87	2.55	2.55
HT Category (MU) [A]	**6.62**	**6.62**	**24.37**	**24.37**
Industrial	0.06	0.06	0.57	0.57
Commercial	0.13	0.13	0.26	0.26
Street Light	0.09	0.09	0.23	0.23
Public Services	0.00	0.00	0.00	0.00
LT Category [B]	**0.28**	**0.28**	**1.07**	**1.07**
Total [A]+[B]	**6.90**	**6.90**	**25.43**	**25.43**

3.3 Transmission and Distribution loss

MADC's Submission

3.3.1 MADC has considered actual distribution loss for FY 2014-15 and FY 2015-16 as 3.43% and 3.25%, respectively, based on actual metered energy readings at the substations.

3.3.2 Further, the actual Transmission losses of AMNEPL dedicated Transmission line has been considered as 0.44% for both the financial years (i.e. FY 2014-15 and FY 2015-16). The Transmission losses has been calculated based on the values of actual metered energy readings at the Transmission substations. Actual Distribution and Transmission losses as submitted by MADC for FY 2014-15 and FY 2015-16 is shown in the Table below:

Table 3: Actual T& D loss of FY 2014-15 and FY 2015-16, as submitted by MADC

Particulars	FY 2014-15	FY 2015-16
Distribution losses (%)	3.43%	3.25%
AMNEPL Dedicated Line Transmission Loss (%)	0.44%	0.44%

Commission's Analysis

3.3.3 As already mentioned above that in case of MADC, no Tariff Order has been issued in the past, hence, there are no approved figures available for Transmission and Distribution losses for the respective years. Therefore, the Commission has dealt with only the actual Distribution losses.

3.3.4 The Commission notes that MIHAN SEZ Distribution network is not directly connected to STU but is connected via interface point of 220 kV AMNEPL (bus) to MSETCL Transmission network at Khari-khurd Hingna, Nagpur. In response to query raised by the Commission regarding calculation of losses, MADC stated that the total losses in the MADC network has been computed considering the energy readings at 220 kV switchyard and consumer energy sale readings. The Commission directed MADC to provide the details of meter readings at 33 kV and 220 kV switchyard considered for calculation of losses. MADC has submitted the details as shown in the Table below:

Table 4: Calculation of Actual T&D loss of FY 2014-15, as submitted by MADC

Sr No	Particular	33 kV Transformer Readings (MU)	Abhijeet Substation 220 kV Meter Readings (MU)
1	Nov-14	0.47	
2	Dec-14	1.65	3.68
3	Jan-15	1.51	
4	Feb-15	1.58	3.50
5	Mar-15	1.93	
6	**Total Reading at 33 kV Transformer (A)**	**7.15**	**7.18**
7	**Total Reading - Abhijeet Substation 220 kV (B)**	**7.18**	
8	**AMNEPL Line Loss (C=1-A/B)**	**0.44%**	
9	Total sales (D)	6.90	
10	**Distribution Loss(E=1-D/A)**	**3.43%**	

Table 5: Calculation of Actual T&D loss of FY 2015-16, as submitted by MADC

Sr. No	Months	Transformer Readings (MU)
1	Apr-15	2.05
2	May-15	2.44
3	Jun-15	2.36
4	Jul-15	2.34
5	Aug-15	2.24
6	Sep-15	2.30
7	Oct-15	2.28
8	Nov-15	1.96
9	Dec-15	1.99
10	Jan-16	1.89
11	Feb-16	2.08
12	Mar-16	2.48
13	**Abhijeet Substation 220kV Meter Readings (A)**	**26.41**
14	**AMNEPL Line Loss (B)**	**0.44%**
15	**Meter reading at 33 kV Transformer (C=A*(1-B))**	**26.29**
16	Total sales (D)	25.43
17	**Distribution Loss(E=1-D/C)**	**3.25%**

3.3.5 The Commission observes that for FY 2015-16, MADC has not provided details of meter readings at 33 kV level. MADC has back calculated the total metered readings at 33 kV level by factoring the AMNEPL line losses with the available meter readings at 220 kV. While doing so MADC has considered same AMNEPL's line loss as that arrived for FY 2014-15. Upon further clarification sought by the Commission, MADC stated that the CT ratio connected to Transformers on 33 kV Bus of MIHAN sub-station are 1800/5 Amp and on 33 kV outgoing cables are 1200/5 Amp. The Load of MIHAN is very less (80 to 100 Amp) compared to the connected CT ratio and hence, the panel meters on 33 kV do not give correct measurement to be relied upon. Therefore, MADC has calculated losses based on input energy at AMNEPL 220 kV sub-station at interface point and energy billed to consumers of MIHAN SEZ. This difference provides loss of energy from interface point to consumer end which includes Distribution losses as well as Transmission losses of AMNEPL line.

3.3.6 The Commission notes that for computation of distribution loss, input energy at T<>D periphery and output energy i.e. sales to consumers is required. As MADC has computed Distribution Loss based on input energy at transmission substation and sales to consumers, the Commission has considered the same for its analysis. As far as reading of 33 or 11 kV feeders is considered, it may require MADC to have feeder wise energy accounting. MADC may replace high capacity CTs on these feeders with lower capacity CTs to remove error in meter reading if the projected load is likely to remain lower. Hence, the **Commission directs MADC to hereon maintain the meter readings at all interface points/voltage levels and submit the same to the Commission in next tariff proceedings.** Also, in absence of any past trend as FY 2014-15 being the first year of operations and there being no approved trajectory of distribution losses, actual Distribution Loss will not be subject to any sharing of gains and losses.

3.3.7 Accordingly, for the purpose of True-up of FY 2014-15 and FY 2015-16, the Commission approves the AMNEPL's dedicated Transmission loss and Distribution loss as shown in the Table below:

Table 6: Actual T&D loss of FY 2014-15 and FY 2015-16, as approved by the Commission

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
AMNEPL Dedicated Transmission Loss (%)	0.44%	0.44%	0.44%	0.44%
Distribution Loss (%)	3.43%	3.43%	3.25%	3.25%

3.4 Energy Requirement and Energy Balance

MADC's Submission

3.4.1 MADC submitted that it has considered the Energy Balance for FY 2014-15 and FY 2015-16 based on actual energy sales and the various losses.

3.4.2 During FY 2014-15, MADC has procured power from IEX from 22 November, 2014 to 28 February, 2015 and for the month of March 2015, it has procured energy from LLOYDS. Maharashtra STU losses for power procured from IEX has been considered as 4.00% as per the charges claimed by IEX. STU losses for power procured from LLOYDS has not been considered, as the same was to be borne by the company itself and the energy was to be delivered at MADC periphery. Similarly, PoC drawal losses for IEX is considered as 2.30% which is charged by IEX. The Table below provides the details of energy balance of MADC for FY 2014-15:

Table 7: Energy Balance for FY 2014-15, as submitted by MADC

Particulars	Units	FY 2014-15		
		IEX	Lloyds	Total
Power Purchase	MU	**6.88**	**2.52**	**9.41**
Scheduling loss	%	16.87%	27.15%	19.63%
Scheduling loss	MU	1.16	0.69	1.85
Energy after accounting for Scheduling Loss	**MU**	**5.72**	**1.84**	**7.56**
PoC Drawal Loss	%	2.30%	0.00%	1.68%
PoC Drawal Loss	MU	0.16	-	0.16
Energy after POC drawal Loss	**MU**	**5.56**	**1.84**	**7.40**
Maharashtra STU Loss	%	4.00%	0.00%	3.01%
Maharashtra STU Loss	MU	0.22	-	0.22
Energy after Maharashtra STU Loss	**MU**	**5.34**	**1.84**	**7.18**
AMNEPL Dedicated Line Transmission Loss	%	0.44%	0.44%	0.44%
AMNEPL Dedicated Line Transmission Loss	MU	0.02	0.01	0.03
Energy after AMNEPL dedicated transmission line loss	**MU**	**5.32**	**1.83**	**7.15**
Distribution Loss	%	3.43%	3.43%	3.43%
Distribution Loss	MU	0.18	0.06	0.25
Total Energy Sales	**MU**	**5.13**	**1.77**	**6.90**
Energy Sales to HT Consumers	MU	4.92	1.70	6.62
Energy Sales to LT Consumers	MU	0.21	0.07	0.28

3.4.3 During FY 2015-16, MADC has procured power from IEX from 1 April, 2015 to 10 June, 2015 and for the remaining period (i.e. from 11 June, 2015 to 31 March, 2016) it has procured power from MSEDCL. The PoC drawal losses for IEX are considered as 2.30% and for MSETCL, the Intra-State Transmission losses as 4.00%. Further, AMNEPL's dedicated Transmission Line loss has been taken as 0.44%. The details of energy balance of MADC for FY 2015-16 is shown in the Table below:

Table 8: Energy Balance for FY 2015-16, as submitted by MADC

Particulars	Units	FY 2015-16		
		IEX	MSEDCL	Total
Power Purchase	MU	**5.83**	**21.09**	**26.92**
Scheduling loss	%	4.45%	(0.47)%	0.60%
Scheduling loss	MU	0.26	(0.10)	0.16
Energy after accounting for Scheduling Loss	**MU**	**5.57**	**21.19**	**27.08**
PoC Drawal Loss	%	2.30%	0.00%	0.50%
PoC Drawal Loss	MU	0.13	-	0.13
Energy after POC drawal Loss	**MU**	**5.44**	**21.19**	**26.62**
Maharashtra STU Loss	%	4.00%	0.00%	0.82%
Maharashtra STU Loss	MU	0.22	-	0.22
Energy after Maharashtra STU Loss	**MU**	**5.22**	**21.19**	**26.41**
AMNEPL Dedicated Line Transmission Loss	%	0.44%	0.44%	0.44%
AMNEPL Dedicated Line Transmission Loss	MU	0.02	0.09	0.12
Energy after AMNEPL dedicated transmission line loss	**MU**	**5.20**	**21.09**	**26.29**
Distribution Loss	%	3.25%	3.25%	3.25%
Distribution Loss	MU	0.17	0.69	0.86
Total Energy Sales	**MU**	**5.03**	**20.41**	**25.43**
Energy Sales to HT Consumers	MU	4.88	19.49	24.37
Energy Sales to LT Consumers	MU	0.15	0.92	1.07

Commission's Analysis

For FY 2014-15

3.4.4 The Commission notes that during FY 2014-15, MADC has procured power from IEX as well as from LLOYDS. The total power from IEX (i.e., 6.88 MUs) was procured at the drawal point of PGCIL for which MADC has considered the POC drawal losses of 2.30%, Intra-State Transmission losses of 4.00% and accordingly has arrived at the scheduled power available at 220 kV AMNEPL substation as 6.48MUs. However, the actual drawal by MADC at 220 kV AMNEPL substation was 5.34 MUs against which MADC has treated the same as scheduling loss of 1.16 MUs, i.e., the losses on account of deviation in scheduled and actual drawal of power. As regards LLOYDS, the power drawal was at the interface between the AMNEPL's dedicated Transmission line and MSETCL Transmission line, i.e., at the 220 kV substation. The total scheduled power available at 220kV substation was 2.52 MUs but the actual drawal was 1.84 MUs resulting in a deviation in scheduled and actual drawal of power of 0.69 MUs (27.15% Scheduling loss).

3.4.5 The Commission observes that MADC has considered Maharashtra STU loss as 4.00% during FY 2014-15, while scrutinising MADC's submissions. Upon documentary evidence sought for consideration of 4% InSTS loss, MADC in its reply stated that it has considered Maharashtra STU loss as claimed by IEX however, no supporting documents were provided. The Commission notes that MSLDC on its website publishes Intra-State Transmission losses on a monthly basis. The InSTS losses as per MSLDC website during FY 2014-15 from the month of November, 2014 to February, 2015, i.e., the period during which the power from IEX was procured is shown in the Table below:

Table 9: InSTS losses during FY 2014-15 as per MSLDC website

Month	Energy Input (MUs)	Energy Output (MUs)	Tr. Loss
Nov-14	11,525.70	11,085.13	3.82%
Dec-14	11,408.55	10,991.43	3.66%
Jan-15	10,898.69	10,474.39	3.89%
Feb-15	10,515.54	10,155.98	3.42%
Total	**44,348.48**	**42,706.93**	**3.70%**

3.4.6 Thus, based on above, the Commission has considered Intra-State Transmission loss as 3.70% for FY 2014-15, computed on an average basis for November, 2014 to February, 2015.

3.4.7 Further, MADC has considered PoC drawal losses of 2.30% during FY 2014-15. Upon seeking the documentary evidence, MADC replied that PoC drawal losses has been considered as charged by IEX for which no documentary evidence was provided. The Commission notes that PoC Drawal loss is notified by the Power System Operation Corporation Limited (POSOCO) on weekly basis. The Commission has scrutinised these PoC loss notifications for the period during which MADC procured power from IEX, i.e., from 22 November, 2014 to 28 February 2015. Based on aforesaid notifications, the Commission has arrived at PoC drawal loss of 2.21%, i.e., simple average of losses of all weeks over period of 24 November, 2014 to 1 March, 2015.

3.4.8 Further, the Commission observes that during FY 2014-15, MADC has accounted substantial energy units under scheduling losses (19.63% or 1.85 MUs). This reflects that MADC has procured additional power than what was required by its consumers in the supply area. Upon clarification sought by the Commission, MADC stated that it had started supplying power during FY 2014-15 and the forecasting of power requirement was done on day ahead basis. MADC didn't have any prior expertise regarding the estimation of the power requirements and as the supply period was only for 130 days, the losses were high. However, the losses were reduced significantly in

FY 2015-16 based on the experience it gained which is also evident from energy balance of respective year.

3.4.9 The Commission notes that normally Distribution Licensee is pool participant under Energy Balancing and Deviation Settlement Mechanism for the State. Under such circumstances, if Distribution Licensee's contracted generator injects more power than the demand of Distribution Licensee or demand does not match with the scheduled generation, then such excess power is treated as incremental energy contributed by such Distribution Licensee to the pool and it gets paid for the same at System Marginal Price. However, in case of MADC, even though it is a Distribution Licensee, it was not pool participant at the relevant time. Hence, it did not receive any payment towards excess energy scheduled.

3.4.10 The Commission also notes that such excess schedule of energy is on account of variation in day-ahead demand projections and with experience, such deviation got reduced considerably. Further, MYT Regulations treat variation in consumer sales as uncontrollable and as scheduling losses has been caused on account of variation in consumer demand/sales, the Commission allowed the same for FY 2014-15.

3.4.11 Based on the above analysis, the Commission has approved energy balance of MADC for FY 2014-15 as shown in the Table below, whereby the adjustment related to change in Inter and Intra-State transmission loss has been considered in Scheduling loss:

Table 10: Energy Balance approved by the Commission for FY 2014-15

Particulars	Units	IEX	Lloyds	Total	IEX	Lloyds	Total
		MADC Petition			Approved in this Order		
Power Purchase	MU	**6.882**	**2.523**	**9.405**	**6.882**	**2.523**	**9.405**
Scheduling loss	%	16.87%	27.15%	19.63%	17.21%	27.15%	19.88%
Scheduling loss	MU	1.161	0.685	1.846	1.185	0.685	1.870
Energy after accounting for Scheduling Loss	**MU**	**5.721**	**1.838**	**7.559**	**5.697**	**1.838**	**7.536**
PoC Drawal Loss	%	2.30%	0.00%	2.09%	2.21%	0.00%	2.02%
PoC Drawal Loss	MU	0.158	-	0.158	0.152	-	0.152
Energy after POC drawal Loss	**MU**	**5.563**	**1.838**	**7.401**	**5.545**	**1.838**	**7.383**
Maharashtra STU Loss	%	4.00%	0.00%	3.01%	3.70%	0.00%	2.78%
Maharashtra STU Loss	MU	0.223	-	0.223	0.205	-	0.205
Energy after InSTSLoss	**MU**	**5.340**	**1.838**	**7.178**	**5.340**	**1.838**	**7.178**
AMNEPL Dedicated Line Transmission Loss	%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%
AMNEPL Dedicated Line Transmission Loss	MU	0.024	0.008	0.032	0.024	0.008	0.032
Energy after AMNEPL dedicated line transmission loss	**MU**	**5.316**	**1.830**	**7.147**	**5.316**	**1.830**	**7.147**
Distribution Loss	%	3.43%	3.43%	3.43%	3.43%	3.43%	3.43%

Particulars	Units	IEX	Lloyds	Total	IEX	Lloyds	Total
		MADC Petition			Approved in this Order		
Distribution Loss	MU	0.182	0.063	0.245	0.182	0.063	0.245
Total Energy Sales	**MU**	**5.1344**	**1.767**	**6.901**	**5.134**	**1.767**	**6.901**
Energy Sales to HT Consumers	MU	4.920	1.698	6.618	4.920	1.698	6.618
Energy Sales to LT Consumers	MU	0.214	0.069	0.283	0.214	0.069	0.283

For FY 2015-16

3.4.12 Regarding power procurement during FY 2015-16, MADC submitted that from 1 April, 2015 to 10 June, 2015 it has procured 5.83 MU of power from IEX at the drawal point of PGCIL. POC drawal losses had been taken as 2.30% and Intra-State Transmission losses as 4.00%. Considering the above, MADC has worked out the scheduled power available at 220 kV AMNEPL substation as 5.44 MU (5.22 MU+0.22 MU). However, the actual drawal by the MADC at 220 kV AMNEPL substation was 5.22 MU. Thus, due to deviation in scheduled and actual drawal of power, MADC has incurred a scheduling loss of 0.26 MU, i.e., 4.45%. Further, for the remaining period (i.e. from 11 June, 2015 to 31 March, 2016), MADC had procured power from MSEDCL at the interface between ANMEPL's dedicated Transmission line and MSETCL Transmission line. MADC had procured 21.19 MU of power which was transmitted over AMNEPL's dedicated Transmission line after accounting for its losses of 0.44%.

3.4.13 The Commission notes that similar to FY 2014-15, MADC has not provided documentary evidence for Transmission as well as PoC losses incurred during FY 2015-16. Therefore, in line with the methodology adopted by the Commission for FY 2014-15, it has worked out InSTS losses based on data available with MSETCL website for FY 2015-16 related to April 2015 to June 2015 and arrived at 4.01% (Power procured from IEX for the respective months). The InSTS losses during FY 2015-16 from the month of April 2015 to June 2015, i.e., the period during which the power from IEX was procured, as per MSETCL website is shown in the Table below:

Table 11: InSTS losses during FY 2015-16 as per MSETCL website

Month	Energy Input (Mus)	Energy Output (Mus)	Tr. Loss
Apr-15	11,979.66	11,486.13	4.12%
May-15	12,678.62	12,186.92	3.88%
Jun-15	10,940.52	10,498.43	4.04%
Total	**35,598.80**	**34,171.48**	**4.01%**

3.4.14 The Commission has also worked out PoC losses as 2.15%, i.e., simple average of losses of all weeks over period of 1 April, 2015 to 10 June, 2015.

3.4.15 Based on the above analysis, the Commission has approved energy balance of MADC for FY 2015-16 as shown in the Table below:

Table 12: Energy Balance approved by the Commission for FY 2015-16

Particulars	Units	IEX	MSEDCL	Total	IEX	MSEDCL	Total
		MADC Petition			Approved in this Order		
Power Purchase	MU	**5.832**	**21.086**	**26.918**	**5.832**	**21.086**	**26.918**
Scheduling loss	%	4.45%	(0.47)%	0.60%	4.59%	-0.47%	0.63%
Scheduling loss	MU	0.260	(0.099)	0.160	0.268	(0.099)	0.168
Energy after accounting for Scheduling Loss	**MU**	**5.572**	**21.186**	**26.758**	**5.564**	**21.186**	**26.750**
PoC Drawal Loss	%	2.30%	0.00%	0.50%	2.15%	0.00%	0.47%
PoC Drawal Loss	MU	0.134	-	0.134	0.125	-	0.125
Energy after POC drawal Loss	**MU**	**5.438**	**21.186**	**26.624**	**5.439**	**21.186**	**26.625**
Maharashtra STU Loss	%	4.00%	0.00%	0.82%	4.01%	0.00%	0.82%
Maharashtra STU Loss	MU	0.218	-	0.218	0.218	-	0.218
Energy after InSTSLoss	**MU**	**5.221**	**21.186**	**26.406**	**5.221**	**21.186**	**26.406**
AMNEPL Dedicated Line Transmission Loss	%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%
AMNEPL Dedicated Line Transmission Loss	MU	0.023	0.093	0.116	0.023	0.093	0.116
Energy after AMNEPL dedicated line transmission loss	**MU**	**5.198**	**21.092**	**26.290**	**5.198**	**21.092**	**26.290**
Distribution Loss	%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%
Distribution Loss	MU	0.169	0.686	0.855	0.169	0.686	0.855
Total Energy Sales	**MU**	**5.029**	**20.406**	**25.435**	**5.029**	**20.406**	**25.435**
Energy Sales to HT Consumers	MU	4.879	19.490	24.369	4.879	19.490	24.369
Energy Sales to LT Consumers	MU	0.149	0.916	1.066	0.149	0.916	1.066

3.5 Power Purchase Expense and Transmission Charges

MADC's Submission

3.5.1 MADC submitted that as per Regulation 25 of MYT Regulations, 2011, it has taken due approval for power procurement plans and /tariff adoption. As per Regulation 86.1 of MYT Regulations, 2011, entire power purchase expense pertain to Retail Supply business. Accordingly, MADC has allocated entire expense pertaining to power purchase to Retail Supply business as shown in the Table below:

Table 13: Allocation Matrix MADC for Power Purchase as per MADC for FY 2014-15 and FY 2015-16

Particulars	Distribution Wire Business (%)	Retail Supply Business (%)
Power Purchase Expense	0%	100%

3.5.2 Power purchase costs as submitted by MADC for retail supply business for FY 2014-15 and FY 2015-16 is as shown in the Table below:

Table 14: Power Purchase Expense for FY 2014-15, as submitted by MADC

Particulars	FY 2014-15		
	Power Purchase (MU)	Power Purchase Cost (Rs. Crore)	Average Power Purchase cost (Rs/kWh)
Short Term Sources			
IEX	6.88	2.42	3.51
Lloyds	2.52	0.84	3.33
Total	**9.41**	**3.26**	**3.46**

Table 15: Power Purchase Expense for FY 2015-16, as submitted by MADC

Particulars	FY 2015-16		
	Power Purchase (MU)	Power Purchase Cost (Rs. Crore)	Average Power Purchase cost (Rs/kWh)
Short Term Sources			
IEX	5.83	1.74	2.98
Lloyds	-	0.09	-
MSEDCL	21.09	6.51	3.09
Total	**26.92**	**8.34**	**3.10**

3.5.3 MADC further submitted that the Transmission charges have been paid to AMNEPL based on the actual metered readings at 220 kV substation at the rate of 75% of 19 paise per unit as per the directions of Additional Chief Secretary (Aviation),GoM which works out to 14.25 paise per unit. The summary of power purchase expense including Transmission charges for FY 2014-15 and FY 2015-16 is shown in the Table below:

Table 16: Power Purchase Expenses (including transmission charges) for FY 2014-15 and FY 2015-16, as submitted by MADC

Particulars	FY 2014-15	FY 2015-16
Total Quantity (MU)	9.41	26.92
Power Purchase Cost (Rs. Crore)	3.26	8.34
Cost per unit (Rs./kWh)	**3.46**	**3.10**
Transmission charges paid to AMNEPL (Rs. Crore)	0.11	0.39
Total Power Purchase Expense (Rs. Crore)	**3.36**	**8.73**

Commission's Analysis

3.5.4 The Commission has approved power purchase quantum while scrutinizing energy balance in the above section and accordingly the said quantum is considered for approval of power purchase expenses.

3.5.5 MADC in its Petition in Case No. 149 of 2014 has proposed to initiate the process of short term procurement for the period from September, 2014 to February, 2015. The Commission in its Order dated 20 January, 2015 had allowed MADC to procure power through power exchanges or through short term competitive bidding as per MoP's

Guidelines. The relevant extract from the said Order is as reproduced below:

"In view of above and in the interest of consumers in MIHAN SEZ, the Commission directs as follows:

a. MADC is allowed to procure power through Power Exchange or through competitive bidding under short term for meeting its power requirement. The request for deviation in competitive bidding guidelines is allowed…"

3.5.6 After obtaining proprietary membership of the Indian Energy Exchange (IEX), MADC started purchasing power through IEX from 22 November, 2014 on a day-ahead basis upto February 2015. The price of power procured from IEX varies from time to time and attracted certain amount of market risk. Therefore, MADC purchased power from Lloyds Metals and Energy Ltd. through competitive bidding for March 2015. The Table below provides the summary of power purchased during FY 2014-15 by MADC:

Table 17: Summary of Power Purchase in FY 2014-15

Start Date	End Date	Source	Power Purchase Rate (Rs./kWh)	Remarks
22 November, 2014	28 February, 2015	IEX	3.26 – 3.56	Avg. rate of Rs. 3.51/kWh
1 March 2015	31 March 2015	Lloyds Metals and Energy Ltd.	3.50	Round-the-clock
			3.90	12:00 to 18:00 Hrs

3.5.7 Thereafter in FY 2015-16, MADC purchased power through IEX from 01 April, 2015 to 10 June, 2015. Subsequently, for period of 11 months starting from 11 June, 2015 to 30 April, 2016, MADC floated tender for procurement of short-term power by way of competitive bidding. MSEDCL as a successful bidder supplied power at Rs.3.15/unit for 11 Months (i.e. from 11 June, 2015 to 30 April, 2016) at the interface point of 220 kV AMNEPL Bus and MSETCL Transmission Network at Khairi-Khurd, Hingna, Nagpur.

3.5.8 The Commission had asked MADC to submit all power purchase invoices for FY 2014-15 and FY 2015-16. MADC in its reply submitted the sample power purchase bills/invoices from IEX, MSEDCL and Lloyds along with excel computation of total of power purchase expenses during the respective period. As regards IEX, MADC stated that there is one invoice for each day, hence, it is impractical to take copies of each invoice of IEX.

3.5.9 Based on scrutiny of details submitted by MADC, the Commission observes that the power purchase quantum was not matching with respective figures as claimed in True-up Petition. The power purchase cost was also not matching with the segregated Audited Annual Accounts submitted for the respective years. Further, the Commission observes that MADC has claimed Rs. 0.09 Crore towards power purchase from Lloyds during FY 2015-16 whereas no quantum of power was purchased from Lloyds during FY 2015-16. No clarifications nor supporting documents were provided by MADC against aforesaid power purchase expenses. Accordingly, the Commission sought reconciliation of power purchase quantum as well as cost along with clarifications towards aforesaid cost of Rs. 0.09 Crore.

3.5.10 As regards power purchase expenses of Rs. 0.09 Crore, MADC submitted that the said expense has been booked towards power purchase expense (Lloyds) and is claimed as reflected in the Audited Accounts of FY 2015-16. However, due to COVID-19 pandemic and limited staff at Nagpur office, MADC is finding it difficult to locate the bills to substantiate the said expenses. MADC requested the Commission to consider the expense as per Audited Annual Accounts. The Commission notes that MADC has procured power from Lloyds mainly during the month of March, 2015 (i.e., during FY 2014-15) and as a part of data gap reply has provided detailed summary of power purchase expenses from Lloyds, wherein the power purchase quantum as well as cost has been reconciled with the invoices and the Audited Annual Accounts of FY 2014-15. However, due to absence of any invoice or clarification, it is difficult to ascertain the nature of aforesaid additional cost incurred in next year i.e., in FY 2015-16. Considering the time provided to MADC to provide the supporting of the said power purchase expenses and failure of providing the same even after the situation related to COVID-19 has attained normalcy, the Commission is constrained not to consider this additional cost in FY 2015-16 and hence has disallowed the same.

3.5.11 Accordingly, based on above, the Commission has approved power purchase expenses for FY 2014-15 and FY 2015-16 as shown in the Table below:

Table 18: Power purchase expenses for FY 2014-15 and FY 2015-16 approved by the Commission

Particulars	MADC Petition			Approved in this Order		
	Power Purchase	Power Purchase Cost	Average Power Purchase cost	Power Purchase	Power Purchase Cost	Average Power Purchase cost
	(MU)	(Rs. Crore)	(Rs/kWh)	(MU)	(Rs. Crore)	(Rs/kWh)
FY 2014-15						
Short Term Sources						
IEX	6.88	2.42	3.51	6.88	2.42	3.51
Lloyds	2.52	0.84	3.33	2.52	0.84	3.33
Total	**9.41**	**3.26**	**3.46**	**9.41**	**3.26**	**3.46**
FY 2015-16						
Short Term Sources						
IEX	5.83	1.74	2.98	5.83	1.74	2.98
Lloyds	-	0.09	-	-	-	-
MSEDCL	21.09	6.51	3.09	21.09	6.51	3.09
Total	**26.92**	**8.34**	**3.10**	**26.92**	**8.25**	**3.06**

3.5.12 As regards Transmission charges, the Commission notes that as MADC is not directly connected to STU ; no share of Transmission charges or SLDC charges are separately determined for MADC. However, since MADC is using AMNEPL's dedicated Transmission line for receiving power from STU network, it has to pay charges to AMNEPL for use of their asset.

3.5.13 As regards determination of charges for AMNEPL's line, the Commission vide its Daily Order dated 18 November, 2014 in Case No. 149 of 2014, had held as follows:

> *"d) AMNEPL is yet to file its petition for determination of charges for use of its transmission line. Once it is filed by the AMNEPL and charges are determined by the Commission, the same needs to be paid to AMNEPL. MADC is directed to submit its plan to deal with such charges."*

3.5.14 Further, in final Order dated 20 January, 2015 in the above referred case; the Commission directed as follows:

> *"d) AMNEPL has submitted detailed computations of transmission charge in its second Rejoinder on 2 December, 2014, after the matter was reserved for final Orders. A separate regulatory process needs to be followed for the determination of such charges. As already directed in these and earlier proceedings, AMNEPL must file a separate Petition accordingly. MADC shall submit its plan to deal with any accumulated amounts as and when these charges are determined by the Commission"*

3.5.15 Subsequently, AMNEPL filed a review Petition with Case No. 46 of 2015 in the above referred Order. The review was sought to exempt AMNEPL from filing a separate Case for fixation of the Transmission charges and also to seek payment from MADC of interim Transmission charges at Rs. 0.40/kWh. However, during the hearing on the matter, AMNEPL responded that it would withdraw its review Petition and file a separate Petition instead for fixation of user fee in respect of these Transmission lines. The Commission allowed the withdrawal of the review Petition with a liberty to file a fresh Petition.

3.5.16 Further, AMNEPL has filed a Petition in Case No. 292 of 2018 for determination of charges for its Transmission line. The Commission vide its Order dated 22 October, 2019 in above referred Case, partly allowed the Case No. 292 of 2018 and directed AMNEPL to file a separate Petition, supported with required documents/information for determination of Transmission User Fee to the extent of O&M expenses only.

3.5.17 Pursuant to the Commission's directive in above referred Order, AMNEPL filed the Petition in Case No. 331 of 2019 whereby the Commission in its Order dated 31 December, 2020 has expressed its difficulty in determination of Transmission user fee owing to insufficiency of submitted data and granted AMNEPL liberty to file a fresh Petition for the determination of Transmission user fee. The relevant extract from the said Order is reproduced below:

"2. The Commission is not in a position to evaluate the prudence of the claim of Operation and Maintenance expenses of Abhijeet Maharashtra Airport Development Co. Ltd. Nagpur Energy Pvt. Ltd. (AMNEPL) from FY 2014-15 to FY 2018-19 owing to insufficiency of submitted data and non-compliance to the directives of the Commission's Order dated 22 October, 2019 in Case No. 292 of 2018 by AMNEPL.

3. In spite of the continuous follow up by the office of the Commission, AMNEPL has failed to comply with the Commission's directives and respond to the queries in respect of submission of information and documents required for determination of User Fees.

4. The Commission rules that AMNEPL is at liberty to approach the Commission with a fresh Petition along with the following documents specific to its 220 kV dedicated Transmission network within three months from the date of issue of this Order for the determination of Transmission User Fees:

………"

3.5.18 However, till date, AMNEPL has not filed any separate Petition for determination of Transmission User Fees as specified in Case No. 331 of 2019, hence, in absence of an approved user fee for AMNEPL's Transmission line, the Commission is not inclined to give any dispensation in the present case that alters present Transmission User Fee terms being followed by MADC and AMNEPL. Therefore, the Commission has considered amount paid by MADC, i.e., 75% of 19 paise per unit (being the MADC proposed transmission user fee for AMNEPL). However, as ruled in its Order dated 18 November, 2014, as and when, the Commission determines user charges for AMNEPL's line, MADC is bound to pay the same and will be considered in the true-up for the respective year in which the charges will be determined and paid. Accordingly, the Commission approves the power purchase expenses inclusive of Transmission charges for FY 2014-15 and FY 2015-16 as shown in the Table below:

Table 19: Power Purchase Expenses (including transmission charges) for FY 2014-15 and FY 2015-16 approved by the Commission

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Total Quantity (MU)	9.41	9.41	26.92	26.92
Power Purchase Cost (Rs. Crore)	3.26	3.26	8.34	8.25
Cost per unit (Rs./kWh)	**3.46**	**3.46**	**3.10**	**3.06**
Transmission charges paid to AMNEPL (Rs. Core)	0.11	0.11	0.39	0.39
Total Power Purchase Expense (Rs. Crore)	**3.36**	**3.36**	**8.73**	**8.64**

3.6 Procurement from RE Sources

MADC's Submission

3.6.1 MADC has not included any power purchase towards complying RPO target for FY 2014-15 and FY 2015-16.

Commission's Analysis

3.6.2 The MERC (Renewable Purchase Obligation, its Compliance and Implementation of Renewable Energy Certificate Framework) Regulations, 2010 (RPO Regulations) specify the Renewable Purchase Obligation (RPO) targets for Obligated Entities, including a Deemed Distribution Licensee, for FY 2014-15 and FY 2015-16. The RPO targets specified in Regulation 7.1 are as given below:

Year	***Minimum quantum of purchase (in %) from Renewable Energy sources (in terms of energy equivalent in kWh)***		
	Solar	***Non-Solar (other RE)***	***Total***
2010-11	*0.25%*	*5.75%*	*6.0%*
2011-12	*0.25%*	*6.75%*	*7.0%*
2012-13	*0.25%*	*7.75%*	*8.0%*
2013-14	*0.50%*	*8.50%*	*9.0%*
2014-15	*0.50%*	*8.50%*	*9.0%*
2015-16	*0.50%*	*8.50%*	*9.0%*

Provided that the Distribution Licensee (s) shall meet 0.1% per year of its Non-Solar (other RE) RPO obligation for the period from FY 2010-11 to FY 2012-13 and up to 0.2% of its Non-Solar (other RE) RPO obligation for the period from FY 2013-14 to FY 2015-16 by way of purchase from Mini Hydro or Micro Hydro power project.

3.6.3 The Commission vide its Order dated 4 May, 2018 in Case No 62 of 2015 had rejected MADC's request of granting relaxation in RPO and directed MADC to submit the RPO plan in its MYT Petition. The relevant extract of the said Order is as given below:

12. There is no case for relaxing the provisions of the RPO Regulations for MADC for the period from FY 2014-15 to FY 2016-17. In any case, such matters are decided during the RPO compliance verification proceedings for Distribution Licensees. MADC shall submit its plan to meet its RPO of these years along with its final MYT Petition."

3.6.4 In response to data gaps raised by the Commission regarding non consideration of RPO requirement, MADC submitted that MADC has not considered RPO on power purchased from MSEDCL, as same has already been complied by MSEDCL on units sold by them to MADC. Further, it has relied upon Tariff Order dated 28 February, 2017 for Jamshedpur Utility Services Company Limited (JUSCO) issued by Jharkhand State Electricity Regulatory Commission (JSERC) for not considering the RPO requirement. MADC further stated that it has not purchased RE power during period of FY 2014-15 and FY 2015- 16. As a result, RPO obligation of 0.08 MU of Solar and 1.31 MU of Non-Solar is balance for compliance at the end of FY 2015-16 based on the power purchase from sources other than MSEDCL and the same is carried forward to next control period.

3.6.5 The Commission observes that MADC has referred to JSERC's Order wherein the Petitioner, i.e., JUSCO purchases power from DVC and TSL, both are distribution licensees and both the licensees fulfil their RPO as a percentage of their energy requirement which includes Petitioner's requirement as well. The relevant extract from the said Order is reproduced below:

> *"7.22 Further, the Petitioner is mandated to purchase power from renewable energy (RE) sources to meet its RPO. The Petitioner has submitted that both DVC and TSL are distribution licensees and show energy sale to petitioner as a part of its Energy Requirement and both the licensees fulfil RPO as a percentage of this energy requirement which includes petitioner's requirement. Hence, the Commission has not considered any Renewable Power Purchase for meeting the RPO and the commission approves the same."*

3.6.6 In this regard the Commission notes that Regulation 7.2 of the RPO Regulations, 2010 specifies that an Obligated Entity may fulfil its RPO requirement by any of the various option as under:

> *"7.2 Every "Obligated Entity" may meet its RPO target by way of own generation or procurement of power from RE developer or by way of purchase from other licensee or by way of purchase of renewable energy certificate or by way of combination of any of the above options."*

3.6.7 From the afore said mentioned Regulation, it can be seen that the Licensee may meet its RPO target by way of purchase from other Licensees. However, it is pertinent that the Licensee is required to substantiate its claim that the power purchase by them is RE power or the same has been accounted by the other Licensee in its RPO obligation. The Commission finds that MADC has not provided any documents that substantiate its claim.

3.6.8 The Commission is of the view that mere submission of statement or reference to any other State Electricity Regulatory Commission's Order without any lucid facts could not be considered for exemption or relaxation from their obligation as specified in the Act or Regulations. The Commission notes the submission of MADC for not considering RPO as the same has already been complied by MSEDCL on units sold by them to MADC. In this regard, the Commission has evaluated the RPO compliance of MSEDCL for the FY 2015-16 as approved in its Order dated 27 March 2018 in Case No. 169 of 2016. The extract of the Table from the said Order providing the status of achievement of RPO targets by MSEDCL, as determined by the Commission considering the details provided by MEDA and MSEDCL is reproduced below:

Table 20: RPO Settlement Details for MSEDCL

RPO settlement data for MSEDCL (Approved)													
Item	**FY 2010-11**		**FY 2011-12**		**FY 2012-13**		**FY 2013-14**		**FY 2014-15**		**FY 2015-16**		**Cumulative RPO (Surplus) / Shortfall**
	%	**MU (A)**	**%**	**MU (B)**	**%**	**MU (C)**	**%**	**MU (D)**	**%**	**MU (E)**	**%**	**MU (F)**	**MU (A+B+C+D+E+F)**
Gross Energy consumption	100%	85357.35	100%	94967.36	100%	93264.55	100%	98549.36	100%	109969.00	100%	111789.00	593896.62
Solar RPO													
Target	0.25%	213.39	0.25%	237.42	0.25%	233.16	0.50%	492.75	0.50%	549.85	0.50%	558.95	**2285.51**
Achievement	0.001%	1.13	0.01%	10.89	0.03%	27.74	0.21%	211.00	0.25%	274.00	0.36%	401.00	**925.76**
Shortfall /(Surplus)	0.25%	212.26	0.24%	226.53	0.22%	205.42	0.29%	281.75	0.25%	**275.85**	0.14%	**157.95**	**1359.75**
Non-Solar RPO													
Target	5.75%	4908.05	6.75%	6410.30	7.75%	7228.00	8.50%	8359.94	8.50%	9347.37	8.50%	9502.07	**45755.72**
Achievement	5.77%	4926.42	7.14%	6778.45	7.02%	6543.11	7.69%	7580.18	7.91%	8701.00	8.51%	9516.56	**44045.72**
Shortfall /(Surplus)	-0.02%	(18.37)	-0.39%	(368.15)	0.73%	684.89	0.81%	779.76	0.59%	**646.37**	-0.01%	**-14.49**	**1710.00**
Mini-Micro RPO (Within Non-Solar)													
Target	0.10%	4.91	0.10%	6.41	0.10%	7.23	0.20%	16.72	0.20%	18.69	0.20%	19.00	**72.97**
Achievement	0.01%	0.49	0.01%	0.61	0.01%	0.85	0.01%	0.67	0.01%	0.86	0.01%	0.92	**4.40**
Shortfall /(Surplus)	0.09%	4.42	0.09%	5.80	0.09%	6.38	0.19%	16.05	0.19%	**17.83**	0.19%	**18.08**	**68.57**

3.6.9 Considering that the RPO of MSEDCL is calculated on the basis of Gross Energy Consumption which is accounted at Transmission level. However, it has also been noted in the Tariff order of MSEDCL that the surplus sale is adjusted with the Gross Energy Consumption. Therefore, it is difficult to presume that RPO on the power supplied by MSEDCL to MADC has been complied by MSEDCL and hence RPO on power purchased from MSEDCL is not applicable for MADC. Accordingly, the Commission directs MADC to reconcile the same with MSEDCL and arrive at the conclusion that whether the RPO on the power supplied by MSEDCL to MADC has been complied along with the supporting documents in the next MYT Petition. The decision with regard to applicability of RPO on the said power procurement from MSEDCL will be decided by the Commission in the next tariff petition based on the supporting to be provided by MADC. However, it was noticed that MADC has also procured power from IEX and Lloyds in FY 2014-15 and FY 2015-16 for which, RPO is required to be complied by MADC.

3.6.10 The Commission has determined the RPO shortfall for MADC in line with RPO Regulations, 2010, as shown in the Table below:

Table 21: RPO compliance for FY 2014-15 and FY 2015-16

RPO Calculation	Unts	FY2014-15	FY2015-16	Cumulative
Total Power Purchase requirement (A)	MU	9.41	26.92	
Less : Power Purchase from MSEDCL (B)	MU	0.00	21.09	
Net Power Purchase requirement (C=A-B)	MU	9.41	5.83	
RPO %	-			
Solar (D)	%	0.50%	0.50%	
Non Solar (E)	%	8.50%	8.50%	
RPO to be complied	-	**0.85**	**0.52**	**1.37**
Solar (C*D)	MU	0.05	0.03	0.08
Non Solar (C*E)	MU	0.80	0.50	1.30

3.6.11 From the details and analysis set out earlier in this Order, the Commission concludes as follows:

a) MADC has fallen short of its standalone Solar RPO target by 0.05 MUs in FY 2014-15 and 0.03 MUs in FY 2015-16;

b) MADC also has a cumulative shortfall of 0.08 MUs at the end of FY 2015-16 against its Solar RPO target;

c) MADC has fallen short of its stand-alone Non-Solar RPO target by 0.80 MUs in FY 2014-15 and 0.50 MUs in FY 2015-16;

d) MADC also has a cumulative shortfall of 1.30 MUs at the end of FY 2015-16 against its Non-Solar RPO target;

3.6.12 As regards, the treatment for shortfall in compliance of RPO targets by Obligated Entities, the Regulation 12 of the RPO Regulations, 2010 empowers the Commission to deal with it as follows:

"12. RPO Regulatory Charges

12.1 If the Obligated Entity fails to comply with the RPO target as provided in these Regulations during any year and fails to purchase the required quantum of RECs, the State Commission may direct the Obligated Entity to deposit into a separate fund, to be created and maintained by such Obligated Entity, such amount as the Commission may determine on the basis of the shortfall in units of RPO, RPO Regulatory Charges and the Forbearance Price decided by the Central Commission; separately in respect of Solar and Non-Solar RPO:

Provided that RPO Regulatory Charges shall be equivalent to the highest applicable preferential tariff during the year for Solar or Non-Solar RE generating sources, as the case may be, or any other rate as may be stipulated by the State Commission:

Provided further that the fund so created shall be utilised, as may be directed by the State Commission."

3.6.13 Further, in its Judgment dated 20 April, 2015 in O.P. No. 1, 2 and 4 of 2013 and IA No. 291 and 420 of 2013, Hon'ble the APTEL has given the following among other directions regarding RPO compliance:

> *"28… ii) …If the distribution licensee is not able to tie up procurement of renewable energy to meet the RPO target, it may plan to purchase RECs to meet its RPO target as per the provisions of the Regulations. Advance planning of REC purchase will give opportunity to the distribution licensees/other obligated entities to purchase REC when the market conditions are more favourable to them...*
>
> *(iv) The State Commission shall give directions regarding, carry forward/review in RPO and consequential order for default of the distribution licensees/other obligated entities as per the RPO Regulations. If the Regulations recognise REC mechanism as a valid instrument to fulfil the RPO, the carry forward/review should be allowed strictly as per the provisions of the Regulations keeping in view of availability of REC. In this regard the findings of this Tribunal in Appeal no. 258 of 2013 and 21 of 2014 may be referred to which have been given with regard to RE Regulations of Gujarat Commission, but the principles would apply in rem. In case of default in fulfilling of RPO by obligated entity, the penal provision as provided for in the Regulations should be exercised…*
>
> *(vi)* ***The provisions in Regulations like power to relax and power to remove difficulty should be exercised judiciously under the exceptional circumstances, as per law and should not be used routinely to defeat the object and purpose of the Regulations****."*(Emphasis Supplied)

3.6.14 The Commission notes that FY 2014-15 and FY 2015-16 were the initial years of MADC's operation as a Deemed Distribution Licensee, and that its target for Solar and Non-Solar RPO based on energy consumption was marginal. Therefore, the Commission allows this shortfall to be carried forward to the 3rd Control Period. However, for the purpose of ARR for FY 2014-15 and FY 2015-16, no cost has been attributed for meeting RPO. Same will be allowed in the year in which MADC procured such power / REC for complying with RPO on cumulative basis. The final treatment for cumulative shortfall has been provided in the subsequent chapter of this Order.

3.7 Operation and Maintenance Expense:

MADC's Submission

3.7.1 MADC submitted that as per clause 78.4.1 and 92.7.1 of MYT Regulations, 2011, in case of new distribution licensee, the Commission shall determine the O&M expenses for Wires business and for Retail Supply business on case to case basis, respectively.

3.7.2 MADC further stated that as per Regulation 71.1 of MYT Regulations 2011, distribution licensee needs to prepare an allocation statement for wires and retail supply business. However, Audited Account of MADC is prepared for power business (SEZ area of MIHAN) based on main Audited Accounts of MADC and no separate accounting is done to segregate expenses into wires and retail supply business.

3.7.3 Also, in absence of any separate allocation statement of similar nature and size of business, MADC being subset in MSEDCL's License area deems it fit to apply the same allocation matrix as submitted by MSEDCL and as approved by the Commission in para 5.3.23 in Order dated 26 August, 2013 in Case No.134 of 2012 in matter of Business Plan for MSEDCL for Control Period FY 2013-14 to FY 2015-16. The allocation matrix as submitted by the MSEDCL in aforesaid Order is shown in Table below:

Table 22: Ratio of allocation of expense for FY 2014-15 and FY 2015-16 as per MSEDCL

Particulars	Wire Business	Supply Business
Power Purchase Expense – Fixed Charges	5%	95%
Power Purchase Expense- Variable Charges	0%	100%
Transmission charges paid to Transmission licensee	0%	100%
Employee Expense	75%	25%
A&G Expense	75%	25%
R&M Expense	95%	5%
Depreciation	90%	10%
Interest on Loan Capital	90%	10%
Interest on Working Capital	100%	0%
Other Finance Charges	90%	10%
Provision for Bad Debts	10%	90%
Other Expense	0%	100%
Income Tax	90%	10%
Contribution to Contingency Reserve	90%	10%
Incentive and Discount	0%	100%
Return on Equity	90%	10%
Non- Tariff Income	0%	100%
Income from wheeling charges	100%	0%

3.7.4 Accordingly, MADC has requested the Commission to permit allocation of expense as approved for MSEDCL for Control Period from FY 2014-15 to FY 2015-16.

3.7.5 Based on above, the O&M expense for the wire and retail business have been submitted by MADC for FY 2014-15 and FY 2015-16 as tabulated below:

Table 23: O&M Expenses - Wire business for FY 2014-15 and FY 2015-16, as per MADC (Rs. Cr)

Particulars	FY 2014-15	FY 2015-16
Employee Expense	0.47	0.48
A&G Expense	0.10	0.79
R&M Expense	0.02	0.39
Total O&M Expense	**0.58**	**1.65**

Table 24: O&M Expenses - Supply business for FY 2014-15 and FY 2015-16, as per MADC (Rs. Cr)

Particulars	FY 2014-15	FY 2015-16
Employee Expense	0.16	0.16
A&G Expense	0.03	0.26
R&M Expense	0.00	0.02
Total O&M Expense	**0.19**	**0.44**

Table 25: Total O&M Expenses for FY 2014-15 and FY 2015-16, as per MADC (Rs. Cr)

Particulars	FY 2014-15	FY 2015-16
Employee Expense	0.62	0.64
A&G Expense	0.13	1.05
R&M Expense	0.02	0.41
Total O&M Expense	**0.77**	**2.09**

Commission's Analysis

3.7.6 The Commission observes that MADC has claimed actual O&M expenses in ARR of FY 2014-15 and FY 2015-16. Also, in absence of any normative O&M expenses, MADC has not claimed any sharing of Gains/(Losses) stating that there is no Order for approved ARR expenses.

3.7.7 In this regard, the Commission notes that the MYT Regulations, 2011 has specified norms (Rs/per consumer, Rs/Sale, Rs/GFA) for computation of allowable O&M Expenses for major Distribution Licensees in State of Maharashtra. As regards to O&M norms for new Distribution Licensee, the proviso to Regulations 78.4.1 and 92.7.1 of the MYT Regulations, 2011 stipulates as under:

> *"Provided that in case of a new Distribution Licensee who is issued the Distribution Licence after the date of effectiveness of these Regulations, the Commission may determine the O&M Norms on case to case basis."*

3.7.8 MADC was issued its Specific Conditions of Distribution Licence on 3, December 2013, i.e., after the date of effect of the MYT Regulations, 2011. This is the first Petition being admitted for True up of ARR of FY 2014-15 and FY 2015-16, and hence neither norms nor methodology have been specified in the Regulations for its O&M expenses nor has been proposed by MADC. Further, MADC has requested to consider the actual O&M expenses in line with the audited segregated financial statements.

3.7.9 The Commission opines that the grant of Deemed Distribution Licensee status to SEZs under the EA, 2003 does not mean that their costs, operations and performance are un-regulated. The deemed Licensee have to demonstrate that the most efficient, competitive, optimal and transparent procedures have been adopted while incurring any expenditure, and to follow the statutory rules and regulations.

3.7.10 MADC started its commercial operation being a Deemed Distribution Licensee from 22 November 2014, i.e., in FY 2014-15 and during that period no other SEZs were operational to have basis for O&M norms. Further, during FY 2015-16, other Deemed Distribution Licensee named MBPPL commenced its operation from 9 April, 2015. However, MBPPL is an IT &ITeS SEZ model whereas MADC is Multi-product SEZ model. Its sales or network specifications are not comparable with MADC. Hence, in the absence of historical or current information, it is difficult to derive norms for O&M expenses in case of MADC based on its own performance or that of other SEZs in the State.

3.7.11 Also, FY 2014-15 and FY 2015-16 being the initial years of operation of MADC as a Deemed Distribution Licensee, most of the O&M activities have been outsourced. Also, considering the growing demand there can be a substantial variation in per unit O&M expenses of MADC during aforesaid period. Therefore, it is difficult to derive the O&M norms for MADC based on its own performance. Hence, the Commission has dealt with only actual O&M expenses of MADC.

3.7.12 As there are no norms approved for MADC based on its actual performance, the Commission has not undertaken sharing of Gains/(Losses) for MADC for FY 2014-15 and FY 2015-16.

3.7.13 The Commission has analysed actual O&M Expenses claimed by MADC. The Commission has also sought reconciliation of the expenses as reflected in the Audited Annual Accounting Statement of MADC with those submitted in the Petition. The paras below provide a head wise analysis of actual O&M expenses of MADC:

Employee Expenses

3.7.14 The Commission observes that the Employee Expenses of MADC as per Note 25 of the Audited Annual Accounts is nil for FY 2014-15 and FY 2015-16. However, MADC has incurred certain expenditure which have been accounted in different section of Audited Accounts viz *Note24 : Operating Expenses* and *Note 26 : Other Expenses*. Some of the expenditure under aforesaid section were employee related and hence, MADC has considered the same under Employee Expenses in its Petition. During FY 2014-15, MADC has claimed total actual Employee Expenses of Rs. 0.62 Crore. Out of the total expenses, Rs. 0.26 Crore were booked towards ‘Consultancy fee’ and the remaining, i.e., Rs. 0.28 Crore towards ‘Reimbursement of Expenses – MSEDCL’. Similarly, during FY 2015-16, MADC has claimed total actual Employee

Expenses of Rs. 0.64 Crore. Out of the total expenses, Rs. 0.33 Crore were booked towards 'Consultancy fee' and the remaining, i.e., Rs. 0.25 Crore towards 'Reimbursement of Expenses – MSEDCL'.

3.7.15 The Commission sought clarification against the aforesaid expenses along with supporting documents/invoices. MADC in its reply stated that due to limited staff amid COVID situation and lockdown, it is difficult to take out the relevant bills which were collected at its Nagpur office. As regards to expenses related to MSEDCL, MADC clarified that as per concession agreement between MADC and AMNEPL, O&M activities were to be undertaken by AMNEPL. However, due to dispute between the parties, MSEDCL was requested to undertake O&M of distribution network. Accordingly, during FY 2014-15 and FY 2015-16, staff of MSEDCL was deployed for MADC, related to power procurement and O&M related activities. In this regard, MSEDCL has claimed their personnel cost to MADC which was being reimbursed to MSEDCL. Those expenses were booked under head of 'Reimbursement of Expense – MSEDCL'. The Commission has verified the said expenses from the Audited Accounts of MADC. However, the Commission feels that such cost are outsourcing cost and cannot be a part of the employee cost. Being a consultancy type of assignment and outsourcing of O&M activities are part of A&G cost, the Commission accordingly approves the same as a part of A&G cost and had not considered under employee expenses for FY 2014-15 and FY 2015-16. The Commission has approved the actual employee cost as per the details provided by MADC and as shown in the Table below:

Table 26: Actual Employee expenses for FY 2014-15 and FY 2015-16 approved by the Commission

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Employee Expense	0.62	0.08	0.64	0.06

A&G Expenses

3.7.16 The Commission observes that most of the components of A&G Expenses as given in Form 3.3 of financial formats were nil in FY 2014-15 and FY 2015-16. During FY 2014-15, MADC has claimed A&G Expenses of Rs. 0.13 Crore mainly incurred towards Licence fee/IEX-subscription fee etc. However, during FY 2015-16 apart from expenses amounting to Rs. 0.11 Crore incurred towards Licence fee/IEX-subscription fee etc., MADC has claimed Rs. 0.93 Crore towards legal expenses. The Commission has sought for clarification against the aforesaid legal expenses along with supporting documents/invoices. MADC in its reply stated that it has incurred Rs. 0.93 Crore during FY 2015-16 mainly towards legal fees due to various issues related to AMNEPL. MADC has also submitted sample invoices for aforesaid expenses.

3.7.17 In addition to the above expenses, the Commission has also included "Consultancy fee" and "Reimbursement of Expenses – MSEDCL" in A&G expenses which are not considered under the Employee Expenses as submitted by MADC.

3.7.18 Accordingly, the Commission has verified the said expenses from the Audited Annual Accounts of MADC and accordingly, has considered the actual A&G Expenses for FY 2014-15 and FY 2015-16 as shown in the Table below:

Table 27: Actual A&G expenses for FY 2014-15 and FY 2015-16 approved by the Commission

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
A&G Expense	0.13	0.67	1.05	1.63

<u>R&M Expenses</u>

3.7.19 The Commission observes that for FY 2014-15, MADC has claimed total R&M Expenses of Rs. 0.02 Crore whereas for FY 2015-16 the claim of R&M expenses substantially increased to Rs. 0.41 Crore. In response to data gaps raised by the Commission, MADC submitted that during FY 2015-16, out of the total R&M expenses claimed, majority of R&M expenses amounting to Rs. 0.24 were incurred towards outsourcing of O&M of distribution network and the remaining towards laying of 33 kV power cable. MADC further stated that during FY 2015-16 it had appointed M/s K. Sons Electrical Contractor to provide O&M service based on quotes received from multiple contractors. The Commission observes that expenses incurred towards laying of 33 kV power cable is of capital expenditure in nature. Accordingly, the Commission sought justification for inclusion of same under R&M Expenses. MADC in its reply clarified that 33 kV power cable was laid by the Consumer itself and MADC had only undertaken erection-testing-commissioning (ETC) work of cable laying. It is not the part of MADC Asset and only ETC expense is included in R&M expense. The Commission has verified the said expenses from the Audited Accounts of MADC and accordingly, has considered the actual R&M Expenses for FY 2014-15 and FY 2015-16 as shown in the Table below:

Table 28: Actual R&M expenses for FY 2014-15 and FY 2015-16 approved by the Commission

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
R&M Expense	0.02	0.02	0.41	0.41

3.7.20 Based on the above analysis, the Commission has considered actual O&M expense as claimed by MADC as shown in the Table below:

Table 29: O&M Expenses approved for FY 2014-15 and FY 2015-16

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Employee Expense	0.62	0.08	0.64	0.06
A&G Expense	0.13	0.67	1.05	1.63
R&M Expense	0.02	0.02	0.41	0.41
Total	**0.77**	**0.77**	**2.09**	**2.09**

Segregation of O&M Expense into Wires and Retail Supply business:

3.7.21 The Commission notes that MADC has not maintained any allocation statement for Wires and Retail Supply business as per the Regulation 71.1 of MYT Regulations 2011. Therefore, in absence of any separate allocation statement for similar nature and size of business in MYT Regulations 2011, MADC being subset in MSEDCL's License area has proposed to consider MSEDCL's allocation statement as approved by the Commission in its Order dated 26 August, 2013 in Case No. 134 of 2012 in matter of Business Plan for MSEDCL for Control Period FY 2013-14 to FY 2015-16. However, the Commission does not accept the submission of MADC that being a subset in MSEDCL's license area, the same allocation Statement may be applicable to them as the type of consumers, size of the area, size of business, the load profile, demographic features, etc differs vastly for MADC and MSEDCL. Hence, in absence of any separate allocation statement proposed by MADC and no benchmark of the cost being the first tariff petition of MADC, the Commission is confined to consider the Allocation Matrix as specified in MYT Regulations 2015.

3.7.22 The allocation matrix considered for FY 2014-15 and FY 2015-16, as per MYT Regulations 2015, is reproduced below:

Table 30: Allocation Matrix as specified in MYT Regulations, 2015

Particulars	Wire Business	Supply Business
Power Purchase Expense	0%	100%
Inter-State Transmission Charges	0%	100%
Intra-State Transmission Charges	0%	100%
O&M Expenses	65%	35%
Depreciation	90%	10%
Interest on Loan	90%	10%
Interest on Working Capital	10%	90%
Interest on Consumer Security Deposits	10%	90%
Provision for Bad and Doubtful Debts	10%	90%
Income Tax	90%	10%
Contribution to Contingency Reserve	90%	10%
Return on Equity	90%	10%
Non- Tariff Income	0%	100%

3.7.23 Based on above allocation, the Commission has determined the O&M expenses for Distribution Wires Business and Retail Supply Business of MADC as shown in the Table below:

Table 31: O&M Expenses of distribution wire business for FY 2014-15 and FY 2015-16 approved by the Commission

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Employee Expense	0.47	0.05	0.48	0.04
A&G Expense	0.10	0.44	0.79	1.06
R&M Expense	0.02	0.02	0.39	0.39
Total O&M Expense	**0.58**	**0.51**	**1.65**	**1.48**

Table 32: O&M Expenses of retail supply business for FY 2014-15 and FY 2015-16 approved by the Commission

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Employee Expense	0.16	0.03	0.16	0.02
A&G Expense	0.03	0.24	0.26	0.57
R&M Expense	0.00	0.00	0.02	0.02
Total O&M Expense	**0.19**	**0.26**	**0.44**	**0.61**

3.8 Capital Expenditure and Capitalisation:

MADC's Submission

3.8.1 MADC submitted that the Detailed Project Report (DPR) of Capital Investment Plan for post facto approval has been submitted to the Commission vide its letter dated 5 October, 2020. It further submitted that vide its email dated 27 November,2020 MADC submitted the replies to the queries raised by the Commission on the DPR.

MADC submitted that it has capitalized the entire assets in the year FY 2014-15 and no new assets were added in FY 2015-16.

3.8.2 MADC further submitted that the assets were put to use on 31 March, 2010 as the assets were commissioned. However, owing to certain legal issues between MADC and AMNEPL in the subsequent years, MADC capitalized these assets in the year FY 2014-15 as the supply of power to the consumers in SEZ started from 22 November, 2014.

3.8.3 As per ratio of allocation stated in Table 22, 10% portion of the capitalization of assets is allocated to Retail Supply Business. MADC has also submitted that it seeks post facto approval of the capital expenditure plan from the Commission.

Table 33: Capitalization for Combined Distribution Business for FY 2014-15, as per MADC (Rs. Cr)

Particulars	FY 2014-15		
	Wire Business	Supply Business	Total
Land	0.27	-	0.27
Building & Other Civil work	4.37	-	4.37
Plant and Machinery	57.96	0.09	58.05
Total	**62.60**	**0.09**	**62.69**

Commission's Analysis

3.8.4 As per the "Guidelines for in-principle clearance of proposed Investment Schemes" notified by the Commission in 2005, the Licensee is required to submit the Feasibility Report for Capital Investment Schemes exceeding Rs. 10 Crore to the Commission for in Principle approval. With respect to the Detailed Project Report (DPR) for Capital Investment Plan as submitted by MADC, the Commission has reviewed and referred back on 12 January, 2022 as MADC was not able to answer the queries / data gaps satisfactorily and further directed MADC to resubmit the revised proposal of Capital Investment Plan, after justifying the proposal in terms of the ideal assets to be approved under capitalization along with the relevant work orders of the transformers (Power and Distribution), switch gears and accessories along with its specifications and the reason for not providing AMR Meters to the consumers. Accordingly, MADC has submitted the revised proposal for approval of Capital Investment Plan on 5 April, 2022.

3.8.5 Accordingly, based on the revised proposal, the Commission vide its letter dated 10 June 2022 has provided post facto approval of the CAPEX of Rs. 62.68 Crore for MADC license area. The CAPEX includes the following scope of work, which was undertaken by MADC through a competitive bidding process based on least cost method:

- Installation of New 2x16 MVA, 33/11 KV substations – 4 Nos;
- 630 KVA, 11/0.433 KV Distribution transformers – 4 Nos (Dry Type);

- 1000 KVA, 11/0.433 KV Distribution transformers – 4 Nos (Oil Type);
- 33 KV Switchgears – 8 No & 11 KV switchgears – 4 Nos;
- HT Capacitors, 11 KV, 50 Hz, 5000 KVar – 8 Nos;
- Laying of HT and LT network including last mile connectivity and installations of ancillaries like switch gears and protection;

3.8.6 Considering the CAPEX approval, the Commission has allowed the capitalisation as per the submission of MADC and as reconciled with the audited accounts for FY 2014-15.

3.8.7 Also, MADC has submitted that there is no additional capitalisation in FY 2015-16 and accordingly the Commission has not considered any additional capitalisation.

3.8.8 Further, the Commission has adopted MADC's methodology of bifurcation of assets into wires and retail business by allocating 10% value of assets to retail business. Based on the above, approved GFA for FY 2014-15 is as shown in table below.

Table 34: GFA Capitalisation for Combined Distribution Business for FY 2014-15 approved by the Commission (Rs. Crore)

Particulars	MADC Petition			Approved in this Order		
	Wire Business	Supply Business	Total	Wire Business	Supply Business	Total
Land	0.27	-	0.27	0.27	-	0.27
Building & Civil work	4.37	-	4.37	4.37	-	4.37
Plant and Machinery	57.96	0.09	58.05	57.96	0.09	58.05
Total	**62.60**	**0.09**	**62.69**	**62.60**	**0.09**	**62.69**

3.9 Funding of Capitalization

MADC's Submission

3.9.1 MADC has funded capitalisation as per the normative debt & equity ratio as shown in the Table below:

Table 35: Funding of Capitalisation, as submitted by MADC (Rs. Crore)

Particulars	Basis	Amount
Capitalisation	A	62.69
Normative debt	B=70%*A	43.88
Normative equity	C=30%*A	18.81

Commission's Analysis

3.9.2 The Commission observes that MADC in its initial Petition had considered consumer contribution and grants amounting to Rs. 15.09 Crore towards funding of capitalization. Accordingly, MADC had deducted the consumer's contribution and grants from total capitalization and then calculated the debt and equity portion by applying normative ratio of 70:30 over the capitalization excluding consumer contribution and grants. Since the Audited Annual Accounts of power business of MADC did not show consumer's contribution and grants separately, the Commission has sought for supporting documents against the consumer's contribution and grants received by MADC along with reconciliation of same with the Audited Annual Accounts. MADC in its reply stated that there was no consumer's contribution or grants received for power business. In initial Petition, it had inadvertently considered consumer's contribution and grant of Rs.15.09 Crore.

3.9.3 The Commission scrutinized the earlier Petition of MADC in Case No. 96 of 2017 and observes that MADC in its aforesaid Petition had also considered consumer's contribution and grant of Rs.15.09 Crore and had also provided the details against the same. Upon clarification sought regarding change in the stand of MADC towards consumer's contribution and grant, MADC submitted that it has verified the list of entries submitted as consumer's contribution and grant in Case No. 96 of 2017 and found that those entries were related to 'other than power business' of MADC. Hence, while replying to data gaps with respect to present Petition, the facts presented are corrected. Therefore, consumer's contribution and grant is revised to NIL and accordingly, Tariff/ARR model is recomputed and submitted along with the revised Petition.

3.9.4 Further, the Commission observes that as per Note 27 of the Audited Annual Account of MADC, interest on term loan for power distribution business is nil for FY 2014-15 and FY 2015-16. In its clarification, MADC stated that all loans are sanctioned at company level and no loan is sanctioned specific to power business of MADC.

3.9.5 As regards, equity contribution, the Commission observes that MADC has claimed normative equity of 30% of total capitalization in line with MYT Regulations 2011, however, the Balance Sheet of MADC does not reflect any equity infusion during FY 2014-15 and FY 2016-17 in its power business. The Commission notes that the MYT Regulations has specified ceiling for equity infusion up to 30% of the capital cost. However, the same needs to be assessed based on the documentary evidence. Accordingly, the Commission asked MADC to substantiate its claim of equity infusion with documentary evidence. The Commission also sought details of sources of funding for the equity along with certified reconciliation of debt and equity for MADC's distribution business and other business from FY 2014-15 to FY 2015-16 with the Audited Annual Accounts of respective years. MADC in its reply stated that equity is deployed for MADC as a whole. Hence, there is no separate document available for deployment of equity into power business. MADC further stated that the Accounts are bifurcated into power business and other business for Regulatory purpose only. Also, while segregating Accounts into power and other than power business, total equity is considered under balance sheet of other than power business. Therefore, capital/equity is shown in the books of Account entirely under other

Business. MADC requested the Commission to consider the normative debt : equity principle.

3.9.6 Based on the submission of MADC, the Commission further analysed the consolidated Balance Sheet of MADC as a whole only for FY 2014-15 (Financial year in which the capitalisation has been undertaken) to ascertain the equity infusion, the Commission observes that the Balance Sheet shows equity portion in two heads, i.e., *Equity Share Capital* and *Other Equity*. The *Equity Share Capital* provides details of Equity Share issued, subscribed and fully paid up along with details of shareholding pattern. The *Other Equity* section provides detail of capital reserves, security premium accounts and surplus/(deficit) in statement of Profit and Loss. Further the capital reserves consist of debenture redemption reserves and details of grant received from Government of Maharashtra for specific projects such as MIHAN Land Acquisition, MIHAN Rehabilitation, Shirdi Airport, Amravati Airports etc. As regards, *Other Equity*, the Commission did not find any changes in debenture redemption reserves and security premium accounts. Although, there was equity infusion but the same was in term of grants for specific projects. The Commission also did not find any changes in Equity Shares or shareholding pattern of MADC. Therefore, the Commission concludes that there is no equity infusion during FY 2014-15 or FY 2015-16 except for other business of MADC. Hence, the Commission does not find any merit in considering normative equity of 30% of the capital cost as proposed by MADC. Accordingly, in line with Proviso of Regulations 30.1 of MY Regulations, 2011, the Commission considers entire funding of capitalization through debt only as shown in the Table below:

Table 36: Funding of Capitalisation approved by the Commission (Rs. Crore)

Particulars	Amount
Capitalisation	**62.69**
Normative debt – 100%	62.69
Normative equity – 0%	-

3.10 Depreciation:

MADC's Submission

3.10.1 MADC submitted that it has computed depreciation on the fixed assets based on straight line method of computation as per the Regulation 31 of MYT Regulation, 2011. The Depreciation rates considered are the rates as per MYT Regulations, 2011.

3.10.2 Since the share of assets pertaining to retail business is meagre, the depreciation amount is very negligible for the Retail Business vis-à-vis that of Wire Business. For the calculation of depreciation, the depreciation schedules specific to the power business were obtained from the financial statements.

3.10.3 MADC further submitted that for FY 2014-15, it has considered depreciation for a period of 130 days starting from 22 November, 2014. Accordingly, the depreciation for FY 2014-15 has been computed on pro-rata basis for 130 days.

3.10.4 MADC has submitted computation of depreciation for FY 2014-15 & FY 2015-16 for distribution wire and supply business as shown in Table below:

Table 37: Depreciation of Wire Business for FY 2014-15 & FY 2015-16, as per MADC (Rs. Cr)

Particulars	FY 2014-15	FY 2015-16
Land	0.00	0.01
Building & Other Civil work	0.05	0.15
Plant and Machinery	1.09	3.06
Total	**1.15**	**3.22**

Table 38: Depreciation expense of Supply Business for FY 2014-15 & FY 2015-16, as per MADC (Rs. Cr)

Particulars	FY 2014-15	FY 2015-16
Land	-	-
Building & Other Civil work	-	-
Plant and Machinery	0.002	0.005
Total	**0.002**	**0.005**

Commission's Analysis

3.10.5 The Regulation 31 of MYT Regulations, 2011 provides stipulation for computation of depreciation. The relevant extract of the said Regulations is reproduced below:

"31 Depreciation

31.1 The value base for the purpose of depreciation shall be the Capital Cost of the asset admitted by the Commission.

31.2 The Generation Company and Transmission Licensee or Distribution Licensee shall be permitted to recover depreciation on the value of fixed assets used in their respective Business computed in the following manner:

(a) The approved original cost of the project/fixed assets shall be the value base for calculation of depreciation:

Provided that the depreciation shall be allowed on the entire capitalised amount of the new assets after reducing the approved original cost of the project/fixed assets of retired or replaced assets.

(b) Depreciation shall be computed annually based on the straight line method at the rates specified in the Annexure I to these Regulations

……………:"

3.10.6 Further, Regulation 31.3 also specifies that land other than the land held under lease shall not be a depreciable asset. However, it was observed that MADC has calculated depreciation on land also. The Commission has rectified the said error and accordingly, computed the depreciation based on straight line method at the rates specified in the MYT Regulations, 2011 for FY 2014-15 and FY 2015-16 as shown in the Tables below along with the pro-rata adjustment of 130 days for FY 2014-15 starting from 22 November, 2014 (date of commencement of operation) for the capitalisation approved by the Commission:

Table 39: Depreciation expense for FY 2014-15 and FY 2015-16 approved by the Commission

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Wire Business				
Land	0.003	-	0.009	-
Building & Other Civil work	0.052	0.052	0.146	0.146
Plant and Machinery	1.090	1.090	3.060	3.060
Total	**1.145**	**1.142**	**3.215**	**3.206**
Retail Supply Business				
Plant and Machinery	0.002	0.002	0.005	0.005
Total	**0.002**	**0.002**	**0.005**	**0.005**
Combined Distribution Business				
Land	0.003	-	0.009	-
Building & Other Civil work	0.052	0.052	0.146	0.146
Plant and Machinery	1.092	1.092	3.065	3.065
Total	**1.147**	**1.144**	**3.220**	**3.211**

3.11 Interest Expense on loan:

MADC's Submission

3.11.1 MADC submitted that the Regulation 33 of MYT Regulations, 2011 provides for the calculation of interest expenses by considering the amount of depreciation of assets as the amount of repayment.

3.11.2 Addition of normative loan in the year FY 2014-15 has been considered as balance amount computed by deducting equity portion of the capitalization from gross fixed assets in line with regulatory norms for debt: equity ratio.70% of the amount of the capitalisation has been considered as loan portion of the capitalisation and balance amount has been considered as normative equity addition during the year as per the Regulation 30.1 of MYT Regulations, 2011

3.11.3 The repayment of normative loan has been considered as value of depreciation claimed for the respective financial year, in line with regulatory norms. The opening loan balance for FY 2015-16 was taken equivalent to the closing loan balance of net normative loan for FY 2014-15.

3.11.4 Based on the long-term outstanding loans taken from the Loan Portfolio of financial statements and their respective interest rates, MADC has calculated the interest expense for each financial year by applying the weighted average rate of interest on the average balance of net outstanding loans for each year in line with Regulation 33 of MERC, MYT Regulation 2011.

3.11.5 Accordingly, MADC has computed the weighted average rate of interest for FY 2014-15 & FY 2015-16 based on the loan portfolio as shown in the Table below:

Table 40: Calculation of Weighted Average Rate of Interest for FY 2014-15 and FY 2015-16, as submitted by MADC (Rs. Crore)

Sources of Loan	FY 2014-15	FY 2015-16
Bank of Maharashtra		
Opening Balance as on 1 April (A)	117.44	86.67
Rate of Interest (B)	11.40%	11.25%
NCDs		
Opening Balance as on 1 April (C)	150.00	150.00
Rate of Interest (D)	10.78%	10.78%
HUDCO		
Opening Balance as on 1 April (E)	121.41	167.95
Rate of Interest (F)	11.25%	10.40%
Total loan (G= A+C+E)		
Weighted Interest Rate (H= A*B + C*D + E*F)/G	**11.11%**	**10.72%**

3.11.6 MADC further submitted that for FY 2014-15, the value of the interest expense on loan has been pro-rated for 130 days. Accordingly, the interest on loan value have been determined by MADC for FY 2014-15 and FY 2015-16 as shown in Table below:

Table 41: Interest on loan of Wire business for FY 2014-15 and FY 2015-16, as per MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
Opening balance of net normative loan	-	42.67
Additional of normative loan during the year	43.82	-
Repayment of normative loan during the year	1.15	3.22
Closing balance of net normative loan	42.67	39.46
Average balance of net normative loan	21.34	41.06
Weighted average rate of interest on actual loan (%)	11.11%	10.72%
Interest Expenses	2.37	4.40
Financing Charges	-	-
Total interest & Finance charges	**2.37**	**4.40**

Table 42: Interest on loan of supply business for FY 2014-15 and FY 2015-16, as per MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
Opening balance of net normative loan	-	0.06
Additional of normative loan during the year	0.06	-
Repayment of normative loan during the year	0.00	0.00
Closing balance of net normative loan	0.06	0.06
Average balance of net normative loan	0.03	0.06
Weighted average rate of interest on actual loan (%)	11.11%	10.72%
Interest Expenses	0.00	0.01
Financing Charges	-	-
Total interest & Finance charges	**0.001**	**0.006**

Table 43: Interest on loan of distribution business for FY 2014-15 and FY 2015-16, as per MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
Interest on loan		
Wire Business	2.37	4.40
Supply Business	0.00	0.01
Total Interest	**2.37**	**4.41**
Finance Charges	-	-
Total Interest & Finance Charges	**2.37**	**4.41**

Commission's Analysis

3.11.7 As discussed in the section above, the Commission has considered entire funding of capitalization through debt only. Accordingly, addition of normative loan during FY 2014-15 has been considered equal to capitalization approved in this Order.

3.11.8 As regards, rate of interest on Long Term Loan, the Regulation 33.5 of MYT Regulations 2011 specifies as below:

"33.5 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the Generating Company or the Transmission Licensee or the Distribution Licensee

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered.

Provided further that if the Generating Company or the Transmission Licensee or the Distribution Licensee, as the case may be, does not have actual loan, then the weighted average rate of interest of the Generating Company or the Transmission Licensee or the Distribution Licensee as a whole shall be considered."

3.11.9 The Commission notes that MADC has not availed any specific loan for its power business, hence, it does not have any actual loan portfolio applicable to its distribution business. Further, MADC is also not in business of power Generation or power Transmission. Therefore, adoption of weighted average rate of interest of power Generation or power Transmission business, as per Proviso in Regulation 33.5 of MYT Regulations 2011, is not applicable. In view of the same, the Commission has analysed the actual weighted average interest rate of MADC's total business as a whole.

3.11.10 During analysis, the Commission observes that in financial statements, closing balance of loan from HUDCO for FY 2014-15 was mentioned as Rs. 82.95 Crore which is inconsistent with amount mentioned in Note 4 of Audited Annual Account, i.e., Rs. 167.95 Crore. Accordingly, the Commission sought reconciliation of opening and closing balances of actual loan portfolio of MADC's unregulated business. The Commission also sought MADC to provide documentary evidence / interest certificates showing the rate of interest, principle loan opening and outstanding details, actual repayments, interest paid etc. MADC in its reply clarified that it inadvertently considered closing loan balance of HUDCO for FY 2014-15 and accordingly submitted the revised formats reconciling with the Audited Annual Accounts.

3.11.11 MADC also submitted the copies of loan sanction letters, loan agreements from financial institutions and term sheet of NCDs. The Commission observes that as per Schedule VI of loan agreement, rate of interest for HUDCO was 'HUDCO Reference Rate + 0.75% p.a.'. As per Schedule VII of loan agreement, rate of interest for Bank of Maharashtra (BoM) was 'BoM Base Rate + 1%'. Further, as regards documentary evidence/interest certificates for FY 2014-15 and FY 2015-16, MADC submitted that interest certificate from BoM and HUDCO is yet to be received from Bank. Since loan is already closed and considering the limited staff at Bank due to widespread of COVID-19, the request for interest certificate of closed account is taking time at Bank's end. MADC submitted that interest certificate will be submitted to the Commission once it is received from Bank. However, till date MADC has failed to submit documentary evidence confirming interest rate and loan balance at the beginning of year for FY 2014-15 and FY 2015-16 in spite of providing sufficient time. Also, MADC in its submission has not submitted historical reference rates at opening of FY 2014-15 and FY 2015-16.

3.11.12 In absence of any documentary evidence, the Commission has analysed the audited financial statements of MADC. As per the audited report of FY 2014-15, Note 4 of the accounts provides the interest rate of the outstanding loan as on 31March 2015 which can be considered as the Interest rate at the beginning of the year for FY 2015-16 and is outlined as follows:

Table 44: Interest rate as on 31st March 2015 (%)

Sources of Loan	FY 2015-16
Bank of Maharashtra	11.25%
NCDs	10.78%
HUDCO	10.40%

3.11.13 However, no such reference is available for FY 2014-15, as such interest rates were not disclosed in the audited report of FY 2013-14. Therefore, in order to evaluate the legitimacy of interest rate claimed by MADC, the Commission compared the interest rates on long term loan approved in the True-up Order for other Distribution Licensees in the State with the interest rates as claimed by MADC as shown in the Table below:

Table 45: Interest rate of long term Loan approved by the Commission for other Distribution Licensee for FY 2014-15 and FY 2015-16 (% p.a.)

Sr. No.	Utilities	Interest rate on long term loan (%)	
		FY 2014-15	FY 2015-16
1	BEST	10.33%	10.49%
2	MSEDCL	11.83%	11.82%
3	RInfra-D	10.69%	10.67%
4	TPC-D	10.83%	10.55%
5	MBPPL	NA	11.55%
Simple average of above interest rates		10.92%	10.94%
SBI – Base Rate as on 1st April of respective financial year*		**10.00%**	**10.00%**
Wt. average interest rate on long term loan claimed by MADC		**11.11%**	**10.72%**

* - https://sbi.co.in/web/interest-rates/interest-rates/base-rate-historical-data#show

3.11.14 From the above, the Commission observes that the weighted average interest rate as claimed by MADC is within the range of weighted average interest rate of Distribution Licensees approved during the respective period. Accordingly, the Commission has considered the weighted average interest rate as claimed by MADC for FY 2014-15 and FY 2015-16. The said rate of interest is applied on average normative loan during the year to arrive at Interest on Long Term Loan. Though the Commission has accepted the submissions of MADC, it warns that the Regulatory process needs to be followed in true letter and spirit and it is incorrect to not provide the mandated details by simply citing the reason of Covid-19 Pandemic. The Commission will be constrained to take punitive action if MADC does not change its approach in future. Normative loan at beginning of FY 2014-15 is considered as nil, because MADC had not commissioned operations at that time.

3.11.15 Also, addition to normative loan during FY 2014-15 is considered equal to Capitalisation approved in FY 2014-15. There is no addition of loan in FY 2015-16 as no capitalisation has been done in the respective year. Further, the Commission has considered repayment of normative loan equal to Depreciation approved for FY 2014-15 and FY 2015-16 in this Order. No assets have retired during FY 2015-16 as per Note 11 of Accounting Statement. Therefore, no adjustment in Long Term Loan is done on account of retirement of assets.

3.11.16It was also observes by the Commission that though MADC has submitted that the value of the interest expense on loan for FY 2014-15 has been pro-rated for 130 days, the same was not considered at the time of the calculation and therefore the impact of the same has been provided by Commission while computing interest on loan for FY 2014-15.

3.11.17Interest on Long Term Loan approved by the Commission for FY 2014-15 and FY 2015-16 is summarized in the Table below:

Table 46: Interest on loan of Distribution Wire business for FY 2014-15 and FY 2015-16 approved by the Commission (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Opening balance of net normative loan	-	-	42.67	61.45
Additional of normative loan during the year	43.82	62.60	-	-
Repayment of normative loan during the year	1.15	1.14	3.22	3.21
Closing balance of net normative loan	42.67	61.45	39.46	58.25
Average balance of net normative loan	21.34	62.02	41.06	59.85
Weighted average rate of interest on actual loan	11.11%	11.11%	10.72%	10.72%
Interest Expenses	2.37	2.46	4.40	6.42
Financing Charges	-	-	-	-
Total interest & Finance charges	**2.37**	**2.46**	**4.40**	**6.42**

Table 47: Interest on loan of Retail Supply business for FY 2014-15 and FY 2015-16 approved by the Commission (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Opening balance of net normative loan	-	-	0.060	0.089
Additional of normative loan during the year	0.060	0.090	-	-
Repayment of normative loan during the year	-	0.002	-	0.005
Closing balance of net normative loan	0.060	0.089	0.060	0.084
Average balance of net normative loan	0.030	0.090	0.060	0.086
Weighted average rate of interest on actual loan	11.11%	11.11%	10.72%	10.72%
Interest Expenses	0.001	0.004	0.010	0.009
Financing Charges	-	-	-	-
Total interest & Finance charges	**0.001**	**0.004**	**0.006**	**0.009**

Table 48: Interest on loan of distribution business for FY 2014-15 and FY 2015-16 approved by the

Commission (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Interest on loan				
Wire Business	2.371	2.455	4.403	6.418
Supply Business	0.001	0.004	0.006	0.009
Total Interest	**2.372**	**2.459**	**4.410**	**6.427**
Finance Charges	-	-	-	-
Total Interest & Finance Charges	**2.372**	**2.459**	**4.410**	**6.427**

3.12 Interest on Consumer Security Deposit:

MADC's Submission

3.12.1 MADC submitted that the contribution to security deposit depends upon the addition of new consumers & their load growth from time to time. Moreover, the bulk consumers opt to give Bank Guarantee (BG) instead of cash deposit in case of amount of security deposit more than Rs. 25 lakhs.

3.12.2 Also, as per the Regulation 35.3(c) and 35.4(c) of MYT Regulations, 2011, the rate of interest on the consumer security deposits has been calculated as 6.50% for FY 2014-15 and FY 2015-16. However, MADC has not claimed any interest on Consumer Security Deposit as security deposits from the consumers were submitted to MSEDCL and MADC had not received back the security deposit amount from MSEDCL in the FY 2014-15 and FY 2015-16. Accordingly, there is no security deposit held by MADC during FY 2014-15 and FY 2015-16. Hence Interest on security deposit is NIL.

Commission's Analysis

3.12.3 The Commission notes the submission of MADC that it has transferred the Security Deposit amount to MSEDCL when MSEDCL started supplying power to MIHAN area as an interim measure to prevent blackout on account of AMNEPL's failure to supply power. Further, MSEDCL returned back the consumer security deposit amount including interest to MADC on 8 March, 2017. Hence, during FY 2014-15 and FY 2015-16 there was no security deposit held by MADC. Therefore, the Commission has not considered any amount towards Consumer Security Deposit for FY 2014-15 and FY 2015-16 as summarized in the Table below:

Table 49: Interest on Consumer Security Deposit for FY 2014-15 and FY 2015-16 approved by the Commission (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order

Interest on Consumer Security Deposit	-	-	-	-

3.12.4 Further, the purpose of the Security Deposit is to protect the Distribution Licensee against non-payment of bills by Consumers. In the present case of MADC, the Commission notes that even though MADC did not hold Consumer Security Deposit, Consumers needs to be paid interest on their Security Deposit through adjustment in electricity bill since they have furnished Security Deposit. Accordingly, the Commission asked MADC to confirm that such amount has been paid to the respective Consumers as per Supply Code Regulations, 2005 during respective period. MADC in its reply stated that at present MADC is not paying interest on Security Deposit to the consumers. However, MADC will start crediting the interest on Security Deposit as per Supply Code Regulations, 2005 from the end of the FY 2021-22. The Commission is of the view that MADC has to pay such amount to the consumer for respective period. Accordingly, the Commission directs **MADC to make the interest payment and confirm that such amount has been paid to the respective consumers as per provisions of aforesaid Regulations and submit compliance of the same in next tariff Petition.**

3.13 Interest on Working Capital:

MADC's Submission

3.13.1 MADC submitted that Regulation 35.3 (a) and 35.4 (a) of MYT Regulations, 2011 provides for formula of working capital requirement for Distribution Wire and Retail Supply Business respectively. Further, Regulation 35.3 (b) and 35.4 (b) of MYT Regulations, 2011 provides stipulation for consideration of rate of interest on Working Capital.

3.13.2 MADC has worked out interest on working capital in accordance with Regulation 35.3 (b) and 35.4 (b) of MYT Regulations, 2011. The relevant extract of the said Regulation is reproduced as under:

"Distribution wires business

35.3 (b) Rate of interest on working capital shall be on normative basis and shall be equal to the State Bank Advance Rate (SBAR) of State Bank of India as on the date on which the application for determination of tariff is made.

Retail supply business

35.4 (b) Rate of interest on working capital shall be on normative basis and shall be equal to the State Bank Advance Rate (SBAR) of State Bank of India as on the date on which the application for determination of tariff is made."

3.13.3 Based on the above, MADC has worked out interest on working capital for Distribution Wire and Retail Supply business for FY 2014-15 and FY 2015-16 as shown in the Table below:

Table 50: Interest on working capital of distribution wire business for FY 2014-15 and FY 2015-16, as submitted by MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
O&M expense for a month	0.05	0.14
1/12th of book value of store material and supplies including fuel on hand at the end of each month of the year.	0.00	0.00
Equivalent to expected revenue from distribution system users	0.45	1.84
Less: Amount held as security deposit from distribution system users	-	-
Total Working Capital Requirement	**0.50**	**1.98**
Computation of Working Capital Interest		
Interest rate (%)- SBI MCLR + 150 basis point	13.45%	13.45%
Interest on Working Capital	**0.07**	**0.27**

Table 51: Interest on working capital of distribution retail supply business for FY 2014-15 and FY 2015-16, as submitted by MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
O&M expense for a month	0.02	0.04
maintenance spare at 1% of the opening GFA	0.00	0.00
1/2-month equivalent of the expected revenue from wheeling charges	0.47	1.85
Less: Amount held as security deposit from distribution system users	-	-
Less: One month equivalent of cost of power purchase, transmission charges and MSLDC charges	0.28	0.73
Total Working Capital Requirement	**0.21**	**1.16**
Computation of Working Capital Interest		
Interest rate (%)- SBI MCLR + 150 basis point	13.45%	13.45%
Interest on Working Capital	**0.03**	**0.16**

3.13.4 MADC requested the Commission to approve Interest on Working Capital as shown in the Table above for FY 2014-15 and FY 2015-16.

Commission's Analysis

3.13.5 Regulation 35.3 (a) and 35.4 (a) of the MYT Regulations, 2011 provides stipulation for computation of working capital requirement for Distribution Wire and Retail Supply Business respectively. The relevant extract is reproduced below:

*"**35.3 Distribution Wires Business***

(a) The Distribution Licensee shall be allowed interest on the estimated level of working capital for the Distribution Wires Business for the financial year, computed as follows:

(i) One-twelfth (1/12) of the amount of Operation and Maintenance expenses for

such financial year; plus

(ii) One-twelfth (1/12) of the sum of the book value of stores, materials and supplies including fuel on hand at the end of each month of such financial year; plus

(iii) Two (2) months equivalent of the expected revenue from charges for use of Distribution Wires at the prevailing tariff; minus

(iv) Amount held as security deposits from Distribution System Users."

*"**35.4 Retail Supply of Electricity***

(a) The Distribution Licensee shall be allowed interest on the estimated level of working capital for the financial year, computed as follows:

(i) One-twelfth (1/12) of the amount of Operation and Maintenance expenses for such financial year; plus

(ii) One-twelfth (1/12) of the sum of the book value of stores, materials and supplies including fuel on hand at the end of each month of such financial year; plus

(iii) Two (2) months equivalent of the expected revenue from sale of electricity at the prevailing tariff;

minus

(iv) Amount held as security deposits under clause (a) and clause (b) of subsection (1) of Section 47 of the Act from retail supply consumers;

minus

(v) One (1) month equivalent of cost of power purchased, based on the annual power procurement plan: Provided that in case of power procurement from own Generating

Stations, no amount shall be allowed towards payables, to the extent of supply of power by the Generation Business to the Retail Supply Business, in the computation of working capital in accordance with these Regulations."

3.13.6 From the above, it can be seen that for Distribution Wire Business, one of the components of Working Capital includes 2 Months' equivalent expected revenue from charges for use of Distribution Wires at the prevailing tariff. Similarly, for Distribution Retail Supply Business, it includes 2 Months' equivalent expected revenue from sale of electricity at the prevailing tariff. However, during the scrutiny of the Petition, it was observed that MADC had inadvertently computed the total revenue for its Wire Business as well as for its Retail Supply Business, thus, leading to double accounting of revenue. Also, the tariff charged to the consumers during the FY 2014-15 and FY 2015-16 was a single part tariff whereby the wheeling charges was clubbed with the energy charges and hence no separate recovery with respect to wheeling charges was made. Accordingly, the Commission has rectified the said error and accordingly recomputed the aforesaid component in line with Regulation 35.3 (a) and 35.4 (a) of the MYT Regulations, 2011, considering revenue for Distribution Wire business as NIL.

3.13.7 Further, as per Regulation 35.3 and 35.4 of the MYT Regulations 2011, working capital shall include 1/12th of the sum of the book value of stores, materials and supplies including fuel on hand at the end of each month of such financial year. In financial formats, MADC has considered total book value of stores, materials and supplies including fuel on hand as about Rs. 14,430 and Rs. 13,854 for FY 2014-15 and FY 2015-16 respectively. However, Audited Account does not reflect book value assumed in financial formats for power business. Therefore, the Commission has considered this value as NIL for computation of Working Capital.

3.13.8 As per Regulation 35.3 (b) and 35.4 (b) of the MYT Regulations, 2011, Interest rate to be considered for computation on Interest on Working Capital , shall be equal to State Bank Advance Rate (SBAR) as on the date on which the application of determination of tariff is made. Since the Petition for Truing-up of Interest on Working Capital of FY 2014-15 and FY 2015-16 is filed by MADC on 4 August 2021, rate of interest on working capital is considered as 12.25% prevailing as on the said date. (https://sbi.co.in/web/interest-rates/interest-rates/benchmark-prime-lending-rate-historical-data)

3.13.9 Also, the component of the working capital and the value of the interest expense on working capital for FY 2014-15 has been pro-rated for 130 days based on the commencement of operation of the distribution business.

3.13.10 Based on above, the Interest on Working Capital approved by the Commission for FY 2014-15 and FY 2015-16 is summarized in the Tables below:

Table 52: Interest on working capital of distribution wire business for FY 2014-15 and FY 2015-16 approved by the Commission (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
O&M expense for a month	0.05	0.12	0.14	0.12
1/12th of book value of store material	0.00	-	0.00	-
Equivalent to expected revenue from distribution system users	0.45	-	1.84	-
Less: Amount held as security deposit from distribution system users	-	-	-	-
Total Working Capital Requirement	**0.50**	**0.12**	**1.98**	**0.12**
Computation of Working Capital Interest				
Interest rate (%)- SBAR	13.45%	12.25%	13.45%	12.25%
Interest on Working Capital	**0.07**	**0.01**	**0.27**	**0.02**

Table 53: Interest on working capital of distribution retail supply business for FY 2014-15 and FY 2015-

16 approved by the Commission (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
O&M expense for a month	0.02	0.06	0.04	0.05
1/12th of book value of store material	0.00	-	0.00	-
Equivalent to expected revenue from distribution system users	0.47	1.33	1.85	1.85
Less: Amount held as security deposit from distribution system users	-	-	-	-
Less: One month equivalent of cost of power purchase, transmission charges and MSLDC charges	0.28	0.79	0.73	0.72
Total Working Capital Requirement	**0.21**	**0.60**	**1.16**	**1.18**
Computation of Working Capital Interest				
Interest rate (%)- SBAR	13.45%	12.25%	13.45%	12.25%
Interest on Working Capital	**0.03**	**0.03**	**0.16**	**0.14**

Table 54: Interest on working capital of distribution business for FY 2014-15 and FY 2015-16 approved by the Commission (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Interest on Working Capital				
Wire Business	0.067	0.005	0.270	0.015
Supply Business	0.028	0.026	0.156	0.145
Total Interest on Working Capital	**0.095**	**0.032**	**0.426**	**0.160**

3.14 Return on Equity:

MADC's Submission

3.14.1 MADC has considered equity addition for FY 2014-15 and 2015-16 as 30% of the amount of capitalization during the year. For FY 2014-15, the fixed assets of Rs. 62.69 Crore were added by MADC. Hence, 30% of Rs. 62.69 Crore has been considered as equity portion of the capitalization and balance amount has been considered as normative loan addition during the year as per the Regulation 30.1 of MYT Regulations, 2011.

3.14.2 MADC has further computed return on equity by applying regulatory returns on the average of the opening and closing balances of each of the financial year as per the Regulation32.2 of MYT Regulations, 2011. The relevant extract of the Regulation is reproduced as under:

"32.2.1 Return on equity capital for the Transmission Licensee and Wires Business of Distribution Licensee shall be computed on the equity capital

determined in accordance with Regulation 30 at the rate of 15.5 % per cent per annum, and for the Retail Supply of Electricity of Distribution Licensee, Return on equity capital shall be allowed a return at the rate of 17.5 % per cent per annum, in Indian Rupee terms, on the amount of equity capital determined in accordance with Regulation 30.

32.2.2 The return on equity capital shall be computed in the following manner:

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

(b) Return at the allowable rate as per this Regulation above, applied on 50 per cent of the equity capital portion of the allowable capital cost, for the investments put to use in transmission business or distribution business, calculated in accordance with Regulation 27, Regulation 28 and Regulation 29 above, for such financial year".

3.14.3 Accordingly, MADC has submitted Return on Equity of distribution wire and retail supply business for FY 2014-15 and FY 2015-16 as shown in Table below:

Table 55: Return on Equity of distribution wire business for FY 2014-15 and FY 2015-16, as submitted by MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
Regulatory Equity at the beginning of the year	-	18.78
Capitalisation during the year	62.60	-
Consumer contribution / Grant during the year for Capitalisation	-	-
Equity portion of Capitalisation during year	18.78	-
Reduction in equity capital on account of retirement/ replacement of assets	-	-
Regulatory Equity at the end of the year	18.78	18.78
Return on Equity Computation		
Rate of Return on Equity	15.50%	15.50%
Return on Regulatory Equity at the beginning of the year	-	2.91
Return on Regulatory Equity addition during the year	1.46	-
Total Return on Equity	**0.52**	**2.91**

Table 56: Return on Equity of distribution retail supply business for FY 2014-15 and FY 2015-16, as submitted by MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
Regulatory Equity at the beginning of the year	-	0.03
Capitalisation during the year	0.09	-
Consumer contribution / Grant during the year for Capitalisation	-	-
Equity portion of Capitalisation during year	0.03	-
Reduction in equity capital on account of retirement/ replacement of assets	-	-
Regulatory Equity at the end of the year	0.03	0.03
Return on Equity Computation		

Particulars	FY 2014-15	FY 2015-16
Rate of Return on Equity	17.50%	17.50%
Return on Regulatory Equity at the beginning of the year	-	0.005
Return on Regulatory Equity addition during the year	0.005	-
Total Return on Equity	**0.005**	**0.005**

Commission's Analysis

3.14.4 As discussed in earlier section of this Order, the Commission has not approved any equity infusion for MADC, and the entire capitalization has been assumed to be funded through debt only. As there is no equity approved, the Commission has not approved any return on equity for MADC as summarized in the Table below:

Table 57: Return on Equity of distribution wire business for FY 2014-15 and FY 2015-16 approved by the Commission (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Regulatory Equity at beginning of the year	-	-	18.78	-
Capitalisation during the year	62.60	62.60	-	-
Consumer contribution / Grant	-	-	-	-
Equity portion of Capitalisation during year	18.78	-	-	-
Regulatory Equity at the end of the year	18.78	-	18.78	-
Return on Equity Computation				
Rate of Return on Equity	15.50%	-	15.50%	-
RoE at the beginning of the year	-	-	2.91	-
RoE on addition during the year	1.46	-	-	-
Total Return on Equity	**0.52**	**-**	**2.91**	**-**

Table 58: Return on Equity of retail supply business for FY 2014-15 and FY 2015-16 approved by the Commission (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Regulatory Equity at beginning of the year	-	-	0.03	-
Capitalisation during the year	0.09	0.09	-	-
Consumer contribution / Grant	-	-	-	-
Equity portion of Capitalisation during year	0.03	-	-	-
Regulatory Equity at the end of the year	0.03	-	0.03	-
Return on Equity Computation				
Rate of Return on Equity	17.50%	-	17.50%	-
RoE at the beginning of the year	-	-	0.005	-
RoE on addition during the year	0.005	-	-	-
Total Return on Equity	**0.005**	**-**	**0.005**	**-**

Table 59: Return on Equity of Distribution business for FY 2014-15 and FY 2015-16 approved by the

Commission (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Return on Equity				
Wire Business	0.518	-	2.911	-
Supply Business	0.005	-	0.005	-
Total Return on Equity	**0.523**	**-**	**2.915**	**-**

3.15 Income Tax:

MADC's Submission

3.15.1 MADC submitted that there was no income tax payable by MADC for its power business for both the financial years 2014-15 and 2015-16. Hence, MADC has not claimed any amount under this head.

Commission's Analysis

3.15.2 As there was no actual income tax paid by MADC for FY 2014-15 and FY 2015-16, in line with the Regulation 34 of the MYT Regulations, 2011, the Commission has considered income tax as NIL for these years.

3.16 Contingency Reserve:

MADC's Submission

3.16.1 MADC submitted that, the Regulation 36 of MYT Regulations 2011 provides for the calculation of contingency reserves for FY 2014-15 and FY 2015-16.

3.16.2 In the year FY 2014-15, the opening gross fixed assets were Nil and in FY 2015-16, the value of same was Rs. 62.69 Crore. Accordingly, MADC has considered 0.25% of the opening gross fixed assets as contribution to contingency reserve for FY 2014-15 and FY 2015-16 as shown in Table below:

Table 60: Contingency Reserves for Wire and Retail Supply business for FY 2014-15 and FY 2015-16, as submitted by MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
Opening GFA of Wire business	-	62.60
Contribution to Contingency Reserve for Wire business	**-**	**0.156**
Opening GFA of Retail supply business	-	0.09
Contribution to Contingency Reserve for Retail supply business	**-**	**0.000**

Commission's Analysis

3.16.3 The Regulation 36 of MYT Regulations 2011 stipulating principles for allowing

Contribution to Contingency Reserve is as extracted below:

"36 Contribution to contingency reserves

36.1 Where the Transmission Licensee or Distribution Licensee has made an appropriation to the Contingency Reserve, a sum not less than 0.25 per cent and not more than 0.5 per cent of the original cost of fixed assets shall be allowed annually towards such appropriation in the calculation of aggregate revenue requirement:

Provided that where the amount of such Contingencies Reserves exceeds five (5) per cent of the original cost of fixed assets, no such appropriation shall be allowed which would have the effect of increasing the reserve beyond the said maximum:

Provided further that the amount so appropriated shall be invested in securities authorised under the Indian Trusts Act, 1882 within a period of six months of the close of the financial year."

3.16.4 MADC has claimed Contribution to Contingency Reserve at 0.25% on normative basis. However, MADC had not submitted any documentary evidence confirming that the aforesaid investment has been made in securities authorised under the Indian Trusts Act, 1882 in accordance with the MYT Regulations. MADC, in reply to data gaps, submitted that it has not invested in any securities against the amount of contingency reserves and the same will be invested once it is approved by the Commission.

3.16.5 The Commission is of the view that as per aforesaid Regulations, the Contribution to Contingency Reserve is to be allowed where the Licensee has made an appropriation to the Contingency Reserve and has invested the same in securities authorised under the Indian Trusts Act, 1882 within a period of six months of the close of the financial year. The basic objective of creation Contingency Reserves and investing the same in safe securities is to ensure that such amount is readily available to meet certain emergency requirements, without any tariff impact on the consumer. Further, the income arising from such investment is passed on as Non-Tariff Income (NTI) and reduces the ARR. However, MADC has not made any appropriation nor invested in securities within the stipulated time as per the MYT Regulations. Hence, the Commission does not find any merit in allowing such expenses on normative basis. Therefore, the Commission has not approved Contribution to Contingency Reserves for FY 2014-15 and FY 2015-16.

Table 61: Contingency Reserves for Wire and Retail Supply business for FY 2014-15 and FY 2015-16

approved by the Commission (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Opening GFA of Wire business	-	-	62.60	62.60
Contribution to Contingency Reserve for Wire business	**-**	**-**	**0.156**	**-**
Opening GFA of Retail supply business	-	-	0.09	0.09
Contribution to Contingency Reserve for Retail supply business	**-**	**-**	**0.0002**	**-**
Opening GFA of Distribution business	-	-	**62.69**	**62.69**
Contribution to Contingency Reserve for Distribution Business	**-**	**-**	**0.1568**	**-**

3.17 Non- Tariff Income:

MADC's Submission

3.17.1 As discussed in foregoing para on allocation of Wires and Retail Supply business, MADC has considered 100% Non-Tariff Income as a part of Retail Supply business. Based on above, the various incomes for the distribution and retail business under non-tariff income for FY 2014-15 and FY 2015-16 have been tabulated below:

Table 62: Non-Tariff income of Wire business for FY 2014-15 and FY 2015-16, as submitted by MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
1.3% of Supervision charges	0.000	0.000
Agreement charges	0.000	0.000
Application Processing Charges	0.000	0.000
Connection Charges	0.001	-
Cost of Meter box- LTCT	-	0.000
NLDC & SLDC	-	0.000
Rent of CFB	-	-
Total	**0.001**	**0.000**

Table 63: Non-Tariff income of retail supply business for FY 2014-15 and FY 2015-16, as submitted by MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
1.3% of Supervision charges	0.003	0.001
Agreement charges	0.000	0.000
Application Processing Charges	0.001	0.000
Connection Charges	0.005	-
Cost of Meter box- LTCT	-	0.003
NLDC & SLDC	-	0.000
Rent of CFB	0.169	0.504
Total	**0.178**	**0.508**

3.17.2 MADC has requested the Commission to approve the Non-Tariff Income as per Table above.

Commission's Analysis

3.17.3 Upon scrutiny of the bifurcated Audited Accounts of MADC and data gap reply, the Commission observes that Non-Tariff Income is captured in two accounting heads of the Profit & Loss Statements, i.e., in "Revenue from Operations" and "Other Income". The accounting head "Revenue from Operations", as per Note 22 of Audited Accounts, includes Revenue from Sale of Electricity and revenue from Rent from Central Facility Building (CFB) lease holder. The accounting head "Other Income" as per Note 23 of Audited Accounts includes other miscellaneous charges such as agreement charges, application processing charges, meter charges, connection charges etc.

3.17.4 In order to ascertain that total revenue inclusive of NTI is included in ARR, the Commission has compared the total revenue inclusive of NTI as per Audited Accounts with the total revenue inclusive of NTI as considered in the financial formats as shown in the Table below:

Table 64: Comparison of total revenue as computed by the Commission and as claimed by MADC for FY 2014-15 & FY 2015-16 (Rs Crore)

Source	Note 22	Note 23	Total (A)	As per Tariff Formats		Total (B)	Difference (A-B)
Year	Revenue from distribution of Power-Mihan	Other Income		F13	F9		
FY 2014-15	3.01	0.012	**3.022**	2.841	0.179	**3.020**	**0.002**
FY 2015-16	11.606	0.134	**11.740**	11.103	0.509	**11.611**	**0.129**

3.17.5 From the above analysis, it can be seen that there is minor variation in total revenues as per Audited Accounts and Tariff Petitions which reflects that MADC has claimed lesser Non-Tariff Income as compared to amount considered in its Accounting Statement. On scrutiny of the documents, the Commission observes DPC and Interest on arrears of Rs. 21,351 and Rs. 12,86,749 respectively have not been considered as a part of NTI by MADC. However, as per MYT Regulations 2011, NTI relating to Distribution and Retail Supply Business shall be deducted from ARR and it nowhere specifies that DPC and interest on arrears are excluded. Therefore, the Commission considered Non-Tariff Income as per Audited Accounts and same is bifurcated into wires and retail business in ratio of 10:90. The Non-Tariff Income as approved by the Commission for FY 2014-15 and FY 2015-16 is as follows:

Table 65: Non-Tariff Income for Distribution Wire and Retail Supply business for FY 2014-15 and FY 2015-16 as approved by the Commission (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16

	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Distribution Wire Business	0.001	0.018	0.0005	0.0637
Retail Supply Business	0.178	0.163	0.508	0.574
Total Distribution Business	**0.179**	**0.181**	**0.509**	**0.637**

3.18 Provision for bad and doubtful debts:

MADC's Submission

3.18.1 MADC submitted that as per the Regulation78.6 and 92.9 of the MYT Regulations, 2011, 0.5% of the trade receivables from the consumers of distribution wires and retail supply businesses have been considered as provisions for bad and doubtful debts for both the financial years FY 2014-15 and FY 2015-16. The allocation matrix for provision for bad and doubtful debts is shown below:

Table 66: Allocation Matrix for provision for bad and doubtful debts, as submitted by MADC

Particulars	Distribution Wire Business	Distribution Supply Business
Provision for bad and doubtful debts	10%	90%

3.18.2 Based on above, MADC has allocated the receivables for the concerned years for distribution wires and retail supply businesses and accordingly, considered the provisions for bad and doubtful debts for FY 2014-15 and FY 2015-16 as shown in Table below:

Table 67: Provision for bad and doubtful debts for Wire business, for FY 2014-15 and FY 2015-16 as submitted by MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
Opening balance of provision for bad and doubtful debts	-	0.00
Receivable for the year	0.10	0.12
Provision for bad and doubtful debts as % of receivables	0.50%	0.50%
Provision for bad & doubtful debts during the year	**0.000**	**0.001**
Actual bad and doubtful debt write-off	-	-
Closing balance of provision for bad and doubtful debts	0.000	0.001

Table 68: Provision for bad and doubtful debts for Retail Supply business, for FY 2014-15 and FY 2015-16 as submitted by MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
Opening balance of provision for bad and doubtful debts	-	0.004
Receivable for the year	0.894	1.041
Provision for bad and doubtful debts as % of receivables	0.50%	0.50%
Provision for bad & doubtful debts during the year	**0.004**	**0.005**
Actual bad and doubtful debt write-off	-	-
Closing balance of provision for bad and doubtful debts	0.004	0.010

Commission's Analysis

3.18.3 Regulation 78.6 and 92.9 of MYT Regulations 2011 provides as under:

*"**78.6 Provision for Bad and doubtful debts***

78.6.1 The Commission may allow a provision for bad and doubtful debts upto 1.5 % of the amount shown as receivables in the audited accounts of the Distribution Licensee, duly allocated for the Wires Business:

Provided that where the amount of such provisioning for bad and doubtful debts exceeds five (5) per cent of the amount shown as receivables in the audited accounts of the Distribution Licensee duly allocated for the Wires Business, no such appropriation shall be allowed which would have the effect of increasing the provisioning beyond the said maximum."

92.9 Provision for Bad and doubtful debts

92.9.1 The Commission may allow a provision for bad and doubtful debts upto 1.5 % of the amount shown as receivables in the audited accounts of the Distribution Licensee, duly allocated for the Supply Business:

Provided that where the amount of such provisioning for bad and doubtful debts exceeds five (5) per cent of the amount shown as receivables in the audited accounts of the Distribution Licensee duly allocated for the Supply Business, no such appropriation shall be allowed which would have the effect of increasing the provisioning beyond the said maximum."

3.18.4 As per Regulation 78.6 and 92.9 of MYT Regulations 2011, the Commission may allow a provision for bad and doubtful debts up to 1.5 % of the amount shown as receivables in the Audited Accounts. MADC has claimed a provision for Bad and Doubtful Debts equal to 0.5% of Trade Receivables for FY 2014-15 and FY 2015-16.

3.18.5 The Commission has analysed the Segregated Audited Accounts of MADC and observes that Note 18 of the Audited Annual Accounts of MADC provides details of the trade receivables for FY 2014-15 and FY 2015-16. As per Note 18 of audited account, there were no bad and doubtful debt accounted for MADC's power business and all the receivables were accounted as good. Further, there was no actual provision made for bad and doubtful debt for FY 2014-15 and FY 2015-16 in the Audited Annual Accounts of MADC for its power business.

3.18.6 As there was no actual provision made in the Audited Accounts of MADC, the Commission does not find merit in allowing the same on normative basis. Hence, the Commission has disallowed the claim of MADC towards provision of bad and doubtful debt.

3.18.7 Accordingly, the Commission approves Provision for Bad and Doubtful Debts as NIL as shown in the Tables below:

Table 69: Provision for bad and doubtful debts for Distribution business approved by the Commission (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Provision for bad & doubtful debts during the year (0.5% of the receivables)				
Distribution Wire Business	0.0005	-	0.0006	-
Retail Supply Business	0.004	-	0.005	-
Combined Distribution Business	**0.005**	**-**	**0.006**	**-**

3.19 Sharing of Gains/(Losses)

MADC's Submission

3.19.1 MADC has not claimed any sharing of Gains and (Losses) in its Petition.

Commission's Analysis and Ruling

3.19.2 The sharing of gains and losses are to be computed as per the Regulations 14.1 and 14.2 of the MYT Regulations, 2011. The relevant Regulations are extracted below:

14.1 The approved aggregate gain to the Generating Company or Transmission Licensee or Distribution Licensee on account of controllable factors shall be dealt with in the following manner:

(a) One-third of the amount of such gain shall be passed on as a rebate in tariff over such period as may be stipulated in the Order of the Commission under Regulation 11.6;

(b) The balance amount, which will amount to two-third of such gain, may be utilised at the discretion of the Generating Company or Transmission Licensee or Distribution Licensee.

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

(a) One-third of the amount of such loss may be passed on as an additional charge in tariff over such period as may be stipulated in the Order of the Commission under Regulation 11.6; and

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

3.19.3 MADC stated that sharing of Gains/(Losses) is computed as per variation of actual and approved expense. Since this is the first Petition filed by MADC, there is no past Order available for approved figures for the said True Up Period. Hence, MADC has not claimed any sharing of Gains/(Losses).

3.19.4 In this regard, the Commission opines that availability/issuance of Tariff Order is dependent on the Petition filed by Licensee supported with adequate data. It is responsibility of the Licensee to file Tariff Petition in a timebound manner as specified in the Regulations. However, it is evident that MADC has failed to file a Petition within stipulated time period. Further, the Commission's attempt to determine the tariff via suo moto scrutiny also went in vain due to unavailability or non-submission of required data. Therefore, argument of MADC for not claiming sharing of Gains/(Losses) due to absence of approved figures is not tenable.

3.19.5 The Commission notes that there has been a similar precedence in its earlier Tariff Order dated 26 October, 2016 in Case No. 194 of 2017 dealing with ARR Petition of the then new Distribution Licensee, i.e., MBPPL, wherein the Commission has not considered sharing of Gains/(Losses) with respect to O&M expenses for MBPPL. The relevant extract is shown below:

> *"3.7.58 The sharing of gains and losses would not be applicable for MBPPL with respect to O&M Expenses in FY 2015-16 as it is MBPPL's first year of operation and the normative O&M Expenses approved in the MYT Order were not based on the actual O&M expenses of MBPPL from its previous years."*

3.19.6 In line with the aforesaid, the Commission has not dealt with sharing of Gains/(Losses) with respect to O&M expenses of MADC, as current tariff petition being the first petition filed by MADC and the operation has been commenced from FY 2014-15 with no precedence of past expenses.

3.19.7 Further, in case of interest on working capital, the Commission observes that MADC has claimed normative interest on working capital and has not specified about any actual interest on working capital paid by it. The Commission scrutinised the Accounting Statement to ascertain if any actual working capital loan was taken by MADC and any interest expense incurred on such loan. The bifurcated Accounting Statement did not have any mention of interest on working capital loan. Further, the borrowings of MADC in these Accounting Statements were scrutinised and found that all the borrowings were long term in nature. In view of the above, the Commission concludes that there was no actual working capital borrowing or short term borrowing against which an interest expense is incurred by MADC. Hence, the sharing of Gains/(Losses) on IoWC has been done between normative expenses as per the Regulations and actual expenses (considered as Nil) as shown in the Table below:

Table 70: Sharing of Gains in Interest on Working Capital for Wire and Supply Business for FY 2014-15

and FY 2015-16 approved by the Commission(Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
Distribution Wires Business		
Normative Interest on Working Capital	0.005	0.015
Actual Working Capital Interest	-	-
Net Gains /(Losses)	0.005	0.015
1/3rd - Efficiency Gains/(losses) to be passed on to the consumers	0.002	0.005
Net Entitlement of IoWC	**0.003**	**0.010**
Retail Supply Business		
Normative Interest on Working Capital	0.026	0.145
Actual Working Capital Interest	0.000	0.000
Net Gains /(Losses)	0.026	0.145
1/3rd - Efficiency Gains/(losses) to be passed on to the consumers	0.009	0.048
Net Entitlement of IoWC	**0.018**	**0.096**
Combined Distribution Business		
Normative Interest on Working Capital	0.032	0.160
Actual Working Capital Interest	0.000	0.000
Net Gains /(Losses)	0.032	0.160
1/3rd - Efficiency Gains/(losses) to be passed on to the consumers	0.011	0.053
Net Entitlement of IoWC	**0.021**	**0.107**

3.20 Revenue from Sale of Power for FY 2014-15 and FY 2015-16

MADC's Submission

3.20.1 MADC submitted that actual revenue as per the Audited Accounts from the sale of power during FY 2014-15 and FY 2015-16 is Rs. 2.84 Crore and Rs. 11.10 Crore, respectively. Summary of revenue from the sale of power during FY 2014-15 and FY 2015-16 is shown in the Table below:

Table 71: Revenue from sale of power for FY 2014-15 and FY 2015-16, as per MADC (Rs. Crore)

Category	Sales (MU)	Total Revenue (Rs. Crore)	Actual ABR (Rs./kWh)
FY 2014-15			
HT Category	6.62	2.76	4.18
LT Category	0.28	0.08	2.68
Total	**6.90**	**2.84**	**4.12**
FY 2015-16			
HT Category	24.37	10.58	4.34
LT Category	1.07	0.53	4.93
Total	**25.43**	**11.10**	**4.37**

Commission's Analysis

3.20.2 The Commission has approved Revenue from sale of electricity as per Note 22 of the Audited Accounts as shown in the Table below and specified in Table 64 of this Order:

Table 72: Revenue from sale of electricity for FY 2014-15 and FY 2015-16 approved by the Commission (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
Revenue from sale of electricity	2.84	11.10

3.21 Summary of ARR for FY 2014-15 and FY 2015-16

MADC's Submission

3.21.1 The summary of various component of ARR claimed by MADC for Truing-up of the Distribution wire and retail supply business, for FY 2017-18 and FY 2018-19 is shown in Table below:

Table 73: ARR for Distribution Wire business, for FY 2014-15 and FY 2015-16, as submitted by MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
O&M Expenses	0.58	1.65
Depreciation	1.15	3.22
Interest on loan Capital	2.37	4.40
Interest on Working capital	0.07	0.27
Provision for bad and doubtful debts	0.00	0.00
Contribution to contingency reserves	-	0.16
Income Tax	-	-
Total Revenue Expenditure	**4.17**	**9.69**
Add: Return on Equity Capital	0.52	2.91
Aggregate Revenue Requirement	**4.69**	**12.60**
Less: Non- Tariff Income	0.00	0.00
Aggregate Revenue Requirement of Distribution wire business	**4.69**	**12.60**

Table 74: ARR for Retail Supply business, for FY 2014-15 and FY 2015-16, as submitted by MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
Power Purchase Expenses	3.26	8.34
Inter-state Transmission charges	0.11	0.39
MSLDC fees and Charges	-	-
Operating and Maintenance Expenses	0.19	0.44
Depreciation	0.00	0.00
Interest on loan Capital	0.00	0.01
Interest on Working capital	0.03	0.16

Particulars	FY 2014-15	FY 2015-16
Provision for bad and doubtful debts	0.00	0.01
Contribution to contingency reserves	-	0.00
Income Tax	-	-
Total Revenue Expenditure	**3.59**	**9.34**
Add: Return on Equity Capital	0.00	0.00
Aggregate Revenue Requirement	**3.59**	**9.35**
Less: Non- Tariff Income	0.18	0.51
Aggregate Revenue Requirement of retail supply business	**3.42**	**8.84**

Table 75: Combined ARR, for FY 2014-15 and FY 2015-16, as submitted by MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
Power Purchase Expenses	3.26	8.34
Inter-state Transmission charges	0.11	0.39
MSLDC fees and Charges	-	-
O&M Expenses	0.77	2.09
Depreciation	1.15	3.22
Interest on loan Capital	2.37	4.41
Interest on Working capital	0.10	0.42
Provision for bad and doubtful debts	0.00	0.01
Contribution to contingency reserves	-	0.16
Income Tax	-	-
Total Revenue Expenditure	**7.76**	**19.03**
Add: Return on Equity Capital	0.52	2.92
Aggregate Revenue Requirement	**8.28**	**21.95**
Less: Non- Tariff Income	0.18	0.51
Consolidated Aggregate Revenue Requirement of Distribution business	**8.10**	**21.44**

Commission's Analysis

3.21.2 Based on the analysis of various parameters set out in this Order, the ARR from FY 2014-15 & FY 2015-16 approved by the Commission, has summarised ARR in the following Tables:

Table 76: ARR for distribution wire business, for FY 2014-15 and FY 2015-16, as approved by the Commission (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
O&M Expenses	0.584	0.509	1.651	1.482

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Depreciation	1.145	1.142	3.215	3.206
Interest on loan Capital	2.371	2.455	4.403	6.418
Interest on Working capital	0.067	0.005	0.267	0.015
Interest on Consumer Security Deposit	-	-	-	-
Provision for bad and doubtful debts	0.000	-	0.001	-
Contribution to contingency reserves	-	-	0.156	-
Income Tax	-	-	-	-
Sharing of Gain on IoWC		(0.002)		(0.006)
Total Revenue Expenditure	**4.168**	**4.109**	**9.693**	**11.116**
Add: Return on Equity Capital	0.518	-	2.911	-
Aggregate Revenue Requirement	**4.686**	**4.109**	**12.604**	**11.116**
Less: Non- Tariff Income	0.001	0.018	0.000	0.064
ARR of Distribution wire business	**4.685**	**4.091**	**12.603**	**11.052**

Table 77: ARR for retail supply business, for FY 2014-15 and FY 2015-16, approved by the Commission (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Power Purchase Expenses	3.256	3.256	8.339	8.249
Inter-state Transmission charges	0.108	0.108	0.387	0.387
MSLDC fees and Charges	-	-	-	-
Operating and Maintenance Expenses	0.189	0.265	0.442	0.610
Depreciation	0.002	0.002	0.005	0.005
Interest on loan Capital	0.001	0.004	0.006	0.009
Interest on Working capital	0.028	0.026	0.156	0.145
Interest on Consumer Security Deposit	-	-	-	-
Provision for bad and doubtful debts	0.004	-	0.005	-
Contribution to contingency reserves	-	-	0.000	-
Income Tax	-	-	-	-
Sharing of Gain on IoWC		(0.009)		(0.048)
Total Revenue Expenditure	**3.589**	**3.652**	**9.340**	**9.356**
Add: Return on Equity Capital	0.002	-	0.005	-
Aggregate Revenue Requirement	**3.592**	**3.652**	**9.345**	**9.356**
Less: Non- Tariff Income	0.178	0.163	0.508	0.574
ARR of Retail Supply business	**3.414**	**3.489**	**8.836**	**8.783**

Table 78: Combined ARR, for FY 2014-15 and FY 2015-16 approved by the Commission (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Power Purchase Expenses	3.256	3.256	8.339	8.249

Particulars	FY 2014-15		FY 2015-16	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Inter-state Transmission charges	0.108	0.108	0.387	0.387
MSLDC fees and Charges	-	-	-	-
O&M Expenses	0.774	0.774	2.092	2.092
Depreciation	1.147	1.144	3.220	3.211
Interest on loan Capital	2.372	2.459	4.410	6.427
Interest on Working capital	0.095	0.032	0.423	0.160
Interest on Consumer Security Deposit	-	-	-	-
Provision for bad and doubtful debts	0.005	-	0.006	-
Contribution to contingency reserves	-	-	0.157	-
Income Tax	-	-	-	-
Sharing of Gain on IoWC	-	(0.011)	-	(0.053)
Total Revenue Expenditure	**7.758**	**7.762**	**19.033**	**20.473**
Add: Return on Equity Capital	0.521	-	2.915	-
Aggregate Revenue Requirement	**8.278**	**7.762**	**21.948**	**20.473**
Less: Non- Tariff Income	0.179	0.181	0.509	0.637
Consolidated Aggregate Revenue Requirement of Distribution business	**8.099**	**7.580**	**21.439**	**19.835**

3.22 Gap of FY 2014-15 and FY 2015-16:

MADC's Submission

3.22.1 Based on the ARR and revenue from sale of power, MADC has determined the revenue gap for the year FY 2014-15 and FY 2015-16 as shown in the Table below:

Table 79: Revenue Gap, for FY 2014-15 and FY 2015-16, as submitted by MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
Standalone ARR	8.10	21.44
Revenue from sale of electricity	2.84	11.10
Revenue Gap	**5.26**	**10.34**

Commission's Analysis

3.22.2 On detailed analysis of all the ARR components, and ARR approved in this Order for Distribution Wires Business and Retail Supply Business, the Commission has arrived at the standalone revenue Gap/(Surplus) values by adjusting the combined ARR with the Revenue from Sale of Power approved by the Commission.

3.22.3 The resulting standalone Revenue Gap/ (Surplus) approved by the Commission for FY 2014-15 and FY 2015-16 is as follows:

Table 80: Revenue Gap, for FY 2014-15 and FY 2015-16, as approved by the Commission (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16

	MADC Petition	**Approved in this Order**	**MADC Petition**	**Approved in this Order**
Aggregate Revenue Requirement- Wire	4.685	4.091	12.603	11.052
Aggregate Revenue Requirement- Retail Supply	3.414	3.489	8.836	8.783
Total ARR for Combined Wires & Supply Business	**8.099**	**7.580**	**21.439**	**19.835**
Revenue from Existing Tariff	2.841	2.841	11.103	11.103
Standalone Revenue Gap/(Surplus)	**5.258**	**4.739**	**10.337**	**8.733**

3.22.4 Accordingly, the Commission approves the Revenue Gap of Rs. 4.739 Crore and Rs. 8.733 Crore for FY 2014-15 and FY 2015-16 respectively. The said amount is adjusted in the cumulative ARR of the control period of FY 2021-22 to FY 2024-25 for the purpose of tariff determination.

4 TRUING-UP OF ARR FOR FY 2016-17 to 2019-20.

4.1 Background

4.1.1 In the present Petition, MADC has sought Truing-up from FY 2016-17 to FY 2019-20 in accordance with provision specified in Regulation 5.1 (b) (ii) and 5.1 (C) (i, ii and iii) of the MYT Regulations, 2015. MADC has considered the values for Truing-up from FY 2016-17 to FY 2019-20 as per segregated Audited Accounts.

4.1.2 MADC has submitted separate ARR for the Wires Business and Supply Business in the formats as prescribed by the Commission considering the approved allocation matrix as per MYT Regulations 2015. Similar approach has been adopted by the Commission while allocation the ARR to the Wires Business and Supply Business.

4.1.3 Since the present Petition is the first Petition filed by MADC, the Commission had not approved any ARR forecast and performance trajectory for MADC in the past. Hence, the question of comparing the actual with the approved performance parameters does not arise. In these circumstances, the Commission has dealt with actual expenditure and revenue along with actual performance trajectory of MADC as submitted in the specific formats.

4.1.4 The Commission has analysed the expense and revenue under each head and approved the total expenditure and revenue of MADC from FY 2016-17 to FY 2019-20 in accordance with provision of MYT Regulations, 2015, as discussed in subsequent paragraph.

4.2 Energy Sales

MADC's Submission

4.2.1 MADC submitted the actual sales for the FY 2016-17 to FY 2019-20. The category-wise details of actual energy sales are shown in Table below.

Table 81:Actual Category wise Energy Sales of FY 2016-17, FY 2017-18, FY 2018-19 and FY 2019-20, as estimated by MADC (in MU)

Consumer Categories	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
HT category Sales				
Industrial	29.33	41.19	52.18	64.98
Commercial	2.36	2.37	2.56	2.82
Sub-Total HT Sales	**31.69**	**43.56**	**54.74**	**67.80**
LT category Sales				
Industrial	1.11	1.17	1.14	1.44
Commercial	0.35	0.31	0.40	0.91
Street Light	0.52	0.53	0.77	0.88
Public Services	0.00	0.01	0.01	0.02
Sub-Total LT Sales	**1.98**	**2.02**	**2.32**	**3.24**
Total	**33.67**	**45.57**	**57.06**	**71.04**

Commission's Analysis

4.2.2 MADC has submitted the month wise energy sales data for both HT and LT categories as a part of data gap reply. The Commission has also sought documentary evidence against the actual sales planned/claimed; however, MADC stated that there is no such documentary evidence available for sales. Further, the Audited Annual Accounts submitted by MADC does not specify the quantum of sales during the respective years. Hence, considering initial period of operation with limited load growth, for approval of sales, the Commission has relied on the actual data submitted by MADC and accepted the actual category-wise sales as submitted by MADC.

4.2.3 Considering the above, the Commission approves the sales for FY 2016-17 to FY 2019-20 as shown in the Table below:

Table 82:Actual Category wise Energy Sales of FY 2016-17, FY 2017-18, FY 2018-19 and FY 2019-20, approved by the Commission (in MU)

Consumer Categories	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
HT category Sales				
Industrial	29.33	41.19	52.18	64.98
Commercial	2.36	2.37	2.56	2.82
Sub-Total HT Sales	**31.69**	**43.56**	**54.74**	**67.80**
LT category Sales				
Industrial	1.11	1.17	1.14	1.44
Commercial	0.35	0.31	0.40	0.91
Street Light	0.52	0.53	0.77	0.88
Public Services	0.00	0.01	0.01	0.02
Sub-Total LT Sales	**1.98**	**2.02**	**2.32**	**3.24**
Total	**33.67**	**45.57**	**57.06**	**71.04**

4.2.4 Further, with the view to add prudence layer in assessing the sales of Licensee, the Commission reiterates its directions that the MADC shall get the category-wise sales, connected load and number of consumers audited by 3rd Party and submit the same in the Audited Annual Accounts from next tariff proceedings.

4.3 Transmission and Distribution Losses

MADC's Submission

4.3.1 MADC submitted that during FY 2016-17 to FY 2019-20, actual distribution losses were in the range from 0.94% to 1.86%. These distribution losses have been calculated considering the actual metered energy reading at the substation.

4.3.2 Further, the actual AMNEPL dedicated line transmission loss was in the range from 0.63% to 1.26% during FY 2016-17 to FY 2019-20. These figures have been calculated based on the values of actual metered energy readings at the substations

4.3.3 Transmission and Distribution losses considered by MADC is shown in Table below:

Table 83: Actual Distribution loss during FY 2016-17 to FY 2019-20, as submitted by MADC

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Distribution losses (%)	1.86%	1.83%	1.59%	0.94%
AMNEPL dedicated line Transmission losses (%)	1.26%	1.24%	1.08%	0.63%

Commission's Analysis

4.3.4 As discussed in earlier chapter at para 3.3, the Distribution losses of a Distribution Licensee needs to be assessed based on the approved figures in the MYT Order. However, in case of MADC, no Tariff Order has been issued in past, hence, there are no approved figures available for Transmission and Distribution losses for the respective years. Therefore, the Commission has dealt with only actual Transmission and Distribution losses of Licensee.

4.3.5 The Commission has sought detailed computation of actual Transmission and Distribution losses for FY 2016-17 to FY 2019-20. MADC has submitted the detailed computation showing the month-wise meter reading at 220 kV at Switch Yard Ukhali Khairy, month-wise energy consumptions of HT and LT categories as well as month-wise Transmission and Distribution losses for the aforesaid period.

4.3.6 As discussed in Section 3.3, MADC had computed distribution loss by considering the correct energy readings at 220 kV switchyard and consumer energy sale readings. The Commission notes that for computation of distribution loss, input energy at T<> D periphery and output energy i.e. sales to consumers is required. As MADC has computed Distribution Loss based on input energy at transmission substation and sales to consumers, the Commission has considered the same for its analysis. However, the Commission reiterates its direction that MADC shall maintain the meter readings at all interface points/voltage levels and submits the same to the Commission in next tariff proceedings. MADC may replace high capacity CTs with lower capacity CTs to remove error in meter reading.

4.3.7 Also, being the first Tariff Petition filed by MADC and since there has been no approved trajectory of distribution losses, the Distribution Loss as determined by the Commission will not be subject to any sharing of gains and losses.

4.3.8 Accordingly, for the purpose of True-up of FY 2016-17 to FY 2019-20, the Commission approves the AMNEPL's dedicated Transmission losses and Distribution losses as shown in the Table below:

Table 84: AMNEPL dedicated Transmission losses and Distribution losses for FY 2016-17 to FY 2019-20 approved by the Commission

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Distribution losses (%)	1.86%	1.83%	1.59%	0.94%
AMNEPL dedicated Transmission losses (%)	1.26%	1.24%	1.08%	0.63%

4.4 Energy Balance

MADC's Submission

4.4.1 MADC submits that in FY 2016-17, the power available at 220 kV substation was based on actual metered quantum and hence scheduling losses were not applicable up to February 2017. However, from the month of March 2017, the scheduling losses were applicable as PPA was signed with MSEDCL for purchase of power at scheduled quantum.

4.4.2 MADC submitted that from FY 2017-18 to FY 2019-20, the power was purchased based on scheduled quantum considering the initial PPA which existed from 1 March 2017 to 31 August 2017 and extended subsequently. Hence, the scheduling losses were applicable for the period. MADC further submits that considering the fact that demand varies in SEZ area, scheduling loss are likely to occur.

4.4.3 Based on the above, MADC has computed the energy balance for the period FY 2016-17 to FY 2019-20 as shown in the Table below:

Table 85: Energy Balance during FY 2016-17 to FY 2019-20, as submitted by MADC

Particulars	Units	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Power Purchase	**MU**	**34.85**	**45.94**	**57.59**	**72.98**
Scheduling loss	%	0.29%	(2.34)%	(1.79)%	1.11%
Scheduling loss	MU	0.10	(1.08)	(1.03)	0.81
Energy after Scheduling Loss	**MU**	**34.74**	**47.01**	**58.62**	**72.17**
AMNEPL Dedicated Transmission Line Loss	%	1.26%	1.24%	1.08%	0.63%
	MU	0.44	0.59	0.63	0.46
Energy after AMNEPL dedicated line transmission loss	**MU**	**34.30**	**46.43**	**57.99**	**71.72**
Distribution Loss	%	1.86%	1.83%	1.59%	0.94%
Distribution Loss	MU	0.64	0.85	0.92	0.67
Total Energy Sales	**MU**	**33.67**	**45.57**	**57.06**	**71.04**
Energy Sales to HT Consumers	MU	31.69	43.56	54.74	67.80
Energy Sales to LT Consumers	MU	1.98	2.02	2.32	3.24

Commission's Analysis

4.4.4 MADC has purchased power from MSEDCL during the period from FY 2016-17 to

FY 2019-20 through different PPAs. The Commission notes that as per provisions of PPA, the delivery of power is at interface point between the AMNEPL dedicated Transmission line and MSETCL Transmission network at Khairi-Khurd, Hingna Nagpur. Further, the quoted Tariff is at delivery points which includes open access charges, RLDC/SLDC charges, all taxes, duties and cess etc., applicable concerned transmission losses and charges, CTU injection charges and losses, CTU drawal charges and losses, Maharashtra State Transmission charges and losses. Therefore, Maharashtra State Transmission Losses are not considered in energy balancing.

4.4.5 MADC, even though is a Distribution Licensee, it was not pool participant at that time. Hence, it does not get any payment towards excess energy scheduled.

4.4.6 The Commission also notes that such excess schedule of energy is on account of variation in day-ahead demand projections by MADC and with experience, such deviation has been reduced considerably. For FY 2017-18 and FY 2018-19, such scheduling loss is negative i.e. MADC draws power more than its schedule. Further, MYT Regulations treat variation in consumer sales as uncontrollable. As scheduling losses are caused on account of variation in consumer demand/sales, the Commission has allowed the same.

4.4.7 The Energy Balance as submitted by MADC is approved by the Commission for FY 2016-17 to FY 2019-20, shown in the Table below:

Table 86: Energy Balance approved by the Commission for FY 2016-17 to FY 2019-20

Particulars	Units	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Power Purchase	**MU**	**34.85**	**45.94**	**57.59**	**72.98**
Scheduling loss	%	0.29%	(2.34)%	(1.79)%	1.11%
Scheduling loss	MU	0.10	(1.08)	(1.03)	0.81
Energy after Scheduling Loss	**MU**	**34.74**	**47.01**	**58.62**	**72.17**
AMNEPL Dedicated Line Transmission Loss	%	1.26%	1.24%	1.08%	0.63%
	MU	0.44	0.59	0.63	0.46
Energy after AMNEPL dedicated line transmission loss	**MU**	**34.30**	**46.43**	**57.99**	**71.72**
Distribution Loss	%	1.86%	1.83%	1.59%	0.94%
Distribution Loss	MU	0.64	0.85	0.92	0.67
Total Energy Sales	**MU**	**33.67**	**45.57**	**57.06**	**71.04**
Energy Sales to HT Consumers	MU	31.69	43.56	54.74	67.80
Energy Sales to LT Consumers	MU	1.98	2.02	2.32	3.24

4.5 Power Purchase Cost

MADC's Submission

4.5.1 As per Regulation 2.1(4) of the MYT Regulations, 2015, MADC is required to separately show retail supply and distribution wire business. However, in absence of any separate audited account for retail supply and distribution wire business, MADC has adhered to allocation of expenses into two separate business as per Regulation 68 of Part G of MYT Regulations, 2015. Accordingly, MADC has allotted 100% of the power purchase cost to Retail Supply Business. MADC further submitted that power purchase requirement during the period from FY 2016-17 to FY 2019-20 was supplied by MSEDCL. It has tied-up power with MSEDCL through initial PPA which existed from 1 March, 2017 to 31 August, 2017 and extended subsequently. The summary of the period and effective rate of power purchase for various PPAs signed with MSEDCL for the period from FY 2016-17 to FY 2019-20 as submitted by MADC are tabulated below:

Table 87: Summary of power purchase rate applicable during FY 2016-17 to FY 2019-20, as submitted by MADC

Period of PPAs	Rate of Power Purchase (Rs/kWh)
1 April, 2016 to 28 February, 2017	3.15
1 March, 2017 to 31 August, 2017	3.33
1 September, 2017 to 31 August, 2018	4.01
1 September, 2018 to 31 August, 2019	4.89
1 September, 2019 to 31 August, 2020	4.89

4.5.2 Accordingly, the power purchase cost incurred by MADC during period from FY 2016-17 to FY 2019-20 has been submitted in Form 2.1. Summary of power purchase cost incurred by MADC is Tabulated below:

Table 88: Power Purchase cost incurred during FY 2016-17 to FY 2019-20, as submitted by MADC

Particulars	Source	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Power Purchase Quantum (MU)	MSEDCL	34.85	45.95	57.59	72.98
Power Purchase Cost (Rs. Crore)		10.97	17.00	25.60	34.96
Average Power Purchase Cost (Rs. /kWh)		3.15	3.70	4.44	4.79

Commission's Analysis

4.5.3 The Commission notes that during FY 2016-17 to FY 2019-20, MADC has purchased power from MSEDCL through short term tender, under the relevant Guidelines for Short-term Procurement of Power issued by MoP from time to time, as under:

a) For the period from 11 June, 2015 to 30 April 2016 against Short Term Power Purchase tender and a Letter of Intent (LOI) issued to MSEDCL on 9 June, 2015. Further, upon request of MADC, MSEDCL subsequently extended the aforesaid agreement upto 31 October 2016, 31 December, 2016 and then up to 28 February, 2017 as per Commission's Order in Case No. 175 of 2016 dated 27, December, 2016. – Rs. 3.15/kWh

b) For the period from 1 March, 2017 to 31 August, 2017 against Short Term Power

Purchase agreement approved by the Commission vide its Order in Case No. 31 of 2017 dated 28February, 2017. – Rs. 3.33/kWh

c) For the period from 1 September, 2017 to 31 August, 2018 against Short Term Power Purchase agreement approved by the Commission vide its Order in Case. No. 116 of 2017 dated 4 August, 2017 read with Order in Case No. 125 of 2017 dated 30 August, 2017. – Rs. 4.01/kWh

d) For the period from 1 September, 2018 to 31 September, 2019 against short term power purchase agreement approved by the Commission vide Order dated 19 July, 2018 in Case. No. 191 of 2018 read with Order dated 20 August, 2018 passed in Case No. 238 of 2018. – Rs. 4.89/kWh

e) For the period from 1 September, 2019 to 31 August, 2020 against short term power purchase agreement approved by the Commission vide Order dated 13 August, 2019 in Case. No. 244 of 2019. – Rs. 4.89/kWh

4.5.4 The summary of approved tariff applicable for the aforesaid period based on the various PPAs signed with MSEDCL during FY 2016-17 to FY 2019-20 is as under:

Table 89: Summary of power purchase rate applicable during FY 2016-17 to FY 2019-20, as submitted by MADC

Period of PPAs	Quantum in MW	Date of LoA	Rate of Power Purchase (Rs/kWh)
1 April, 2016 to 28 February, 2017	3.00 to 7.00	09 June, 2015	3.15
1 March, 2017 to 31 August, 2017	3.00 to 7.00	10 February, 2017	3.33
1 September, 2017 to 31 August, 2018	4.00 to 9.00	21 August, 2017	4.01
1 September, 2018 to 31 August, 2019	4.00 to 12.00	21 August, 2018	4.89
1 September, 2019 to 31 August, 2020	4.00 to 16.00	31 August, 2019	4.89

4.5.5 The Commission directed MADC to submit the invoices of power purchase. MADC in its reply provided a sample power purchase bills along with excel summary of power purchase details showing invoice number, invoice date, quantum of power purchased and the cost of purchase for FY 2016-17 to FY 2019-20. The Commission has analysed the details submitted and observes that the total quantum of power purchase for FY 2016-17 to FY 2018-29 as provided in excel summary of data gap reply were not matching with total power purchase quantum as considered in ARR formats. Further, the cost of power purchase were also not matching with the Audited Annual Accounts. Accordingly, the Commission sought reconciliation of power purchase quantum and cost. MADC in its reply corrected the power purchase quantum and submitted the revised formats along with revised Petition. MADC also provided the reconciliation of power purchase cost with the Audited Annual Accounts of MADC. The Commission has verified the same and found to be in order. Accordingly, the Commission approves the power purchase cost as shown in the Table below:

Table 90: Power Purchase cost for FY 2016-17 to FY 2019-20 approved by the Commission

Particulars	Source	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Power Purchase Quantum (MU)	MSEDCL	34.85	45.94	57.59	72.98
Power Purchase Cost (Rs. Crore)		10.97	17.00	25.60	34.96
Average Power Purchase Cost (Rs. /kWh)		3.15	3.70	4.44	4.79

4.6 Transmission Charges

MADC's Submission

4.6.1 MADC submitted that transmission charges have been paid to AMNEPL based on the actual metered readings at 220 kV substation at the rate of 75% of 19 paise per unit as per the directions of Additional Chief Secretary (Aviation) which turns out as 14.25 paise per unit. Transmission charges paid for the usage of AMNEPL dedicated transmission line as submitted by MADC is shown in Table below:

Table 91: Transmission charges for FY 2016-17 to FY 2019-20, as submitted by MADC (in Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Transmission Charges- AMNEPL	0.50	0.67	0.84	1.03

Commission's Analysis

4.6.2 As discussed in section 4.4.5 above, MADC is not directly connected to STU, no share of transmission charges or SLDC charges are separately determined for MADC. However, as MADC is using AMNEPL's dedicated transmission line for receiving power from STU network, it has to pay charges to AMNEPL for use of asset.

4.6.3 Further as discussed in para 3.5.12 to para 3.5.18, transmission charges for AMNEPL's Transmission line is yet to be determined. Hence, in absence of an approved charges, the Commission has considered amount paid by MADC, i.e., 75% of 19 paise per unit (being the MADC proposed transmission user fee for AMNEPL).

4.6.4 However, as ruled in its Order dated 18 November, 2014 in Case No. 149 of 2014, as and when, the Commission determines user charges for AMNEPL's line, MADC is bound to pay the same.

4.6.5 Accordingly, the Commission approves the transmission charges for FY 2016-17 to FY 2019-20 as shown in the Table below:

Table 92: Transmission charges for FY 2016-17 to FY 2019-20 approved by the Commission (Rs Crs)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Transmission Charges-AMNEPL	0.50	0.67	0.84	1.03

4.7 Procurement from RE Sources

MADC's Submission

4.7.1 MADC has not included any power purchase towards complying with RPO for FY 2016-17 to FY 2019-20.

Commission's Analysis

4.7.2 The MERC (Renewable Purchase Obligation, its Compliance and Implementation of Renewable Energy Certificate Framework) Regulations, 2016 (RPO Regulations) specify the Renewable Purchase Obligation (RPO) targets for Obligated Entities, including a Deemed Distribution Licensee, for FY 2016-17 to FY 2019-20. The RPO targets specified in Regulation 7.1 are as below:

Year	***Minimum quantum of purchase (in %) from Renewable Energy sources (in terms of energy equivalent in kWh)***		
	Solar	***Non-Solar (other RE)***	***Total***
2016-17	*0.25%*	*5.75%*	*6.0%*
2017-18	*0.25%*	*6.75%*	*7.0%*
2018-19	*0.25%*	*7.75%*	*8.0%*
2019-20	*0.50%*	*8.50%*	*9.0%*

Provided that the Distribution Licensee (s) shall meet 0.2% per year of its Non-Solar (other RE) RPO obligation for the period from FY 2016-17 to FY 2019-20 by way of purchase from Mini Hydro or Micro Hydro power project.

4.7.3 As per RPO Regulation 2016 and as held in para 3.6.6 herein above, Licensee may meet its RPO target by way of purchase from other Licensees. However, the Licensee is required to substantiate its claim that the power purchase by them is RE power or the same has been accounted by the other Licensee in its RPO.

4.7.4 Considering that the RPO of MSEDCL is calculated on the basis of Gross Energy Consumption, which is accounted at Transmission level, the power of MADC is also wheeled to MADC distribution network through InSTS Network at Khairi-Khurd, Hingna, Nagpur. However, as specified in para 3.6.8 and 3.6.9, it is difficult to presume that RPO on the power supplied by MSEDCL to MADC has been complied by MSEDCL and hence RPO on power purchased from MSEDCL is not applicable for MADC. Accordingly, the Commission directs MADC to reconcile the same with MSEDCL and for status check whether the RPO on the power supplied by MSEDCL to MADC has been complied with along with the supporting in the next MYT Petition. The decision with regard to applicability of RPO on the said power procurement from

MSEDCL will be taken by the Commission in the next tariff petition based on the supporting documents to be provided by MADC.

4.7.5 The Commission has determined the RPO shortfall for MADC in line with MERC RPO Regulation 2016, as shown in the Table below:

Table 93: RPO compliance for FY 2016-17 to FY 2019-20

RPO Calculation	Unts	FY2016-17	FY 2017-18	FY 2018-19	FY 2019-20	Cumulative
Total Power Purchase requirement (A)	MU	34.85	45.94	57.59	72.98	
Less : Power Purchase from MSEDCL (B)	MU	34.85	45.94	57.59	72.98	
Net Power Purchase requirement (C=A-B)	MU	0.00	0.00	0.00	0.00	
RPO %	-					
Solar (D)	%	1.00%	2.00%	2.75%	3.50%	
Non Solar (E)	%	10.00%	10.50%	11.00%	11.50%	
RPO to be complied	-	-	-	-	-	-
Solar (C*D)	MU	-	-	-	-	-
Non Solar (C*E)	MU	-	-	-	-	-

4.7.6 From the details and analysis set out earlier in this Order, the Commission concludes that MADC has cumulative RPO shortfall till FY 2015-16 as follows:

- Shortfall of Solar RPO - 0.08 MU
- Shortfall of Non-Solar RPO – 1.30 MU

4.7.7 The Commission notes that since this is the first tariff Petition and there is no shortfall for FY 2016-17 to FY 2019-20, the Commission has allowed the shortfall for the past period to be carried forward to the next Control Period. The final treatment for cumulative shortfall at the end of 3rd Control Period has been provided in the subsequent chapter of this Order.

4.8 Operation & Maintenance Expense

MADC's Submission

4.8.1 MADC submitted that Regulation 72 and Regulation 81 of the MYT (1st Amendment) Regulations, 2017 provides for the O&M Expenses Norm for Distribution Wires Business and Retail Supply of electricity respectively. The relevant extract is as given below:

> *"72.3 The Operation and Maintenance expenses for each subsequent year shall be determined by escalating these Base Year expenses for FY 2015-16 by an inflation factor with 30% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the past five financial years as per the Office of Economic Advisor of Government of India and 70% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the past five financial years as per the Labour Bureau, Government of*

India, as reduced by an efficiency factor of 1% or as may be stipulated by the Commission from time to time, to arrive at the permissible Operation and Maintenance expenses for each year of the Control Period :

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

81.3 The Operation and Maintenance expenses for each subsequent year and in the Truing-up of the respective years of the Control Period shall be determined in the same manner as specified in Regulation 72.3.

81.4 In the case of a Deemed Distribution Licensee whose tariff is yet to be determined by the Commission till the coming into force of these Regulations, the Commission may determine the Operation and Maintenance expenses on a case to case basis."

4.8.2 MADC further stated that, based on the afore said Regulations, the Commission has approved an escalation of 3.07% for MSEDCL in Order dated 30 March, 2020 in Case No. 322 of 2019. Accordingly, MADC has considered the escalation factor as considered by the Commission for FY 2018-19 and MYT Control Period. Computation of escalation factor considered by MADC is shown in Table below:

Table 94: Computation of escalation factor considered by MADC for FY 2016-17 to FY 2019-20

Years	WPI	WPI inflation	CPI	CPI inflation
FY 2012-13	167.62	7.35%	215.17	10.44%
FY 2013-14	177.64	5.98%	236.00	9.68%
FY 2014-15	181.19	2.00%	250.83	6.29%
FY 2015-16	176.68	(2.49)%	265.00	5.65%
FY 2016-17	183.20	3.69%	275.92	4.12%
FY 2017-18	188.55	2.92%	284.42%	3.08%
FY 2018-19	196.62	4.28%	299.92	5.45%
Average from FY 14 to FY 18		2.42%		5.76%
Weight		30%		70%
Escalation factor				4.76%
Efficiency Factor				1%
Escalation Factor for FY 18 net of Efficiency Factor				**3.76%**
Average from FY 15 to FY 19		2.08%		4.92%
Weight		30%		70%
Escalation factor				4.07%
Efficiency Factor				1%
Escalation Factor for FY 19 and Control period net of Efficiency Factor				**3.07%**

4.8.3 Accordingly, MADC has claimed O&M expenses from FY 2016-17 to FY 2019-20 by escalating base year expense for FY 2015-16 by an escalation factor computed as shown in Table above. O&M expense claimed by MADC for the period from FY 2016-17 to FY 2019-20 is shown in Table below:

Table 95: O&M expense for Wire business - FY 2016-17 to FY 2019-20, submitted by MADC (Rs. Crore)

Particulars	FY 2015-16 – Base Year	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Employee Expense	0.48	0.50	0.52	0.53	0.55
A&G Expense	0.79	0.83	0.85	0.88	0.91
R&M Expense	0.39	0.41	0.42	0.43	0.45
O&M Expense	**1.65**	**1.73**	**1.79**	**1.85**	**1.90**

Table 96:O&M expense Supply business - FY 2016-17 to FY 2019-20, submitted by MADC(Rs. Crore)

Particulars	FY 2015-16 – Base Year	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Employee Expense	0.16	0.17	0.18	0.18	0.19
A&G Expense	0.26	0.28	0.29	0.30	0.31
R&M Expense	0.02	0.02	0.02	0.02	0.02
O&M Expense	**0.44**	**0.46**	**0.49**	**0.51**	**0.53**

Table 97: O&M expense for Distribution business - FY 2016-17 to FY 2019-20, submitted by MADC (Rs. Crore)

Particulars	FY 2015-16 – Base Year	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Employee Expense	0.36	0.67	0.70	0.72	0.74
A&G Expense	1.05	1.10	1.14	1.18	1.22
R&M Expense	0.41	0.43	0.44	0.46	0.47
O&M Expense	**2.09**	**2.20**	**2.28**	**2.36**	**2.43**

Commission's Analysis

4.8.4 The Commission observes that MADC has claimed only normative O&M expenses from FY 2016-17 to FY 2019-20 in its ARR. It has not considered actual O&M expenses nor any sharing of Gains/(Losses). However, the Commission in this Order has approved actual expenses as there are no past trajectory of O&M expenses on the basis of which O&M norm can be decided as first year of operation i.e. FY 2014-15 is for 131 days only and the past year precedence for whole year operation is only for 1 year i.e. FY 2015-16 and hence, the Commission is constrained to approve the actual expenses and has accordingly, not worked out any sharing of Gains/(Losses) of O&M expenses.

Actual O&M Expenses:

i. Employee Expenses:

4.8.5 The Commission asked MADC to provide breakup of actual Employee Expenses along with reconciliation of the same with the Audited Annual Accounts of MADC for respective True-up years. MADC has submitted the breakup of actual Employee Expenses as shown in the Table below:

Table 98: Actual Employee Expense of MADC during FY 2016-17 to FY 2019-20 (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Salaries and wages	0.18	0.20	0.33	0.36
Consultancy Fees	0.42	0.45	0.36	0.37
Contributions to provident and other funds	0.01	0.01	0.02	0.03
Gratuity	0.00	0.00	0.00	0.01
Staff welfare expenses	0.01	0.01	0.02	0.02
Reimbursement of Expenses - MSEDCL	0.02	-	-	-
Total	**0.64**	**0.68**	**0.73**	**0.78**

4.8.6 The Commission has verified the aforesaid expenses from the Segregated Audited Annual Accounts of MADC for respective True-up years and found to be in order. However, as specified in para 3.7.15, the Commission feels that consultancy fees and Reimbursement of expenses – MSEDCL cannot be a part of the employee cost and is part of A&G cost, the Commission accordingly, approves the same as a part of A&G cost and had not considered under employee expenses for FY 2016-17 to FY 2019-20.

ii. Actual A&G Expenses:

4.8.7 In response to data gaps raised by the Commission, MADC submitted the detailed breakup of actual A&G Expenses incurred during the respective True-up years as reproduced in the Table below:

Table 99: Actual A&G Expense of MADC during FY 2016-17 to FY 2019-20 (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Electricity Charges	0.01	0.11	0.06	0.06
Office Expenses	0.02	0.03	0.03	0.04
Payments to auditors	0.00	0.00	0.00	0.00
Printing & Stationery	0.01	0.01	0.01	0.01
Professional & Legal Charges	2.05	0.17	0.10	0.06
Rates & Taxes	0.01	0.01	0.00	0.01
Security Charges	0.00	0.11	0.10	0.00
Telephone & Mobile Expenses	0.00	0.00	0.00	0.01
Miscellaneous Expenses	-	-	0.00	0.00
License Fee	0.02	0.02	0.02	0.02
Application Fee	0.00	0.08	0.05	0.03
Bank Charges	-	-	0.00	-
Travelling	-	0.00	0.00	0.00
Gross A &G Expenses	**2.14**	**0.55**	**0.39**	**0.22**
Less: Expenses Capitalised	-	-	-	-
Net A &G Expenses	**2.14**	**0.55**	**0.39**	**0.22**

4.8.8 The Commission observes that during FY 2016-17, the Professional & Legal expenses were substantially higher as compared to other years. In response to clarification sought by the Commission, MADC stated that during FY 2015-16 and FY 2016-17, it has incurred higher legal charges mainly due to various issues related to AMNEPL. MADC has also submitted sample invoices for legal expenses amounting to approximately Rs. 1 Crore.

4.8.9 The Commission has verified the total A&G expenses from the Audited Annual Accounts of MADC and accordingly, has considered the actual A&G Expenses from FY 2016-17 to FY 2019-20 as submitted by MADC.

4.8.10 As specified in para 4.8.6, consultancy fees and reimbursement of expenses – MSEDCL, being a part of A&G expenses has been excluded from employee expenses and has been allowed under the head of A&G Expenses.

iii. Actual R&M Expenses:

4.8.11 The Table below provides a breakup of R&M Expenses as submitted by MADC:

Table 100: Actual R&M Expense of MADC during FY 2016-17 to FY 2019-20 (Rs. Crore)

Particular	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
AMC-1250 KV DG SET	0.01	0.03	-	0.00
O & M - 33/11KV S/n & Network	0.41	0.32	0.29	0.16
AMC - Elevators	0.06	0.06	0.07	0.07
AMC-HVAC	-	0.03	0.13	0.11
Housekeeping Manpower – S/Sn.	0.03	0.02	0.03	0.02
Street Light Maintenance SEZ	0.04	-	-	0.04
Other R&M Expenses	0.06	0.06	0.08	0.14
Total R&M Expenses	**0.61**	**0.52**	**0.61**	**0.53**

4.8.12 From the above, it is seen that out of the total R&M Expenses, the majority of share pertains to O&M of 33/11 KV Substation and Distribution network. MADC further submitted that the aforesaid expenses pertain to outsourcing of O&M expenses of 33/11 KV Substation and Distribution network in MIHAN SEZ area. In reply to Commission's query, MADC submitted that the LoA was awarded to successful bidders through competitive bidding and also submitted sample invoices against the aforesaid expenses. The Commission has verified the same and found to be in order.

4.8.13 As regards, Annual Maintenance Contract (AMC) mainly related to Elevators, MADC submitted that there are four elevators of "Schindler Diamond" being installed by Schindler India Pvt. Ltd. in Central Facility Building (CFB) building in MIHAN, Nagpur, on 19 December, 2011. The free maintenance period for elevators was for one year expired on 19 December, 2012. Since then the Annual Maintenance Contract is being allotted to M/s. Schindler India Pvt. Ltd. who is original equipment manufacturer (OEM). MADC further submitted that the elevators are highly sensitive, and all the mechanisms related to these elevators are well known to Schindler Engineers and maintenance staff. Hence it is always preferred to allot the AMC to the original Employer and manufacturer. If the AMC is allotted to another agency, there would be extra expenses towards purchasing original spare parts from the manufacturing company. Accordingly, the cost relate to Power business was allocated in proportion to other business in R&M expenses.

4.8.14 Based on above, the Commission approves actual O&M expenses for MADC as shown in the Table below:

Table 101: O&M Expenses of Wire business approved for FY 2016-17 to FY 2019-20 (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Employee Expense	0.50	0.13	0.52	0.15	0.53	0.24	0.55	0.27
A&G Expense	0.83	1.67	0.85	0.65	0.88	0.48	0.91	0.38
R&M Expense	0.41	0.40	0.42	0.34	0.43	0.40	0.45	0.35
O&M Expense	**1.73**	**2.20**	**1.79**	**1.13**	**1.85**	**1.12**	**1.90**	**0.99**

Table 102: O&M Expenses of Retail Supply business approved for FY 2016-17 to FY 2019-20 (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Employee Expense	0.17	0.07	0.18	0.08	0.18	0.13	0.19	0.14
A&G Expense	0.28	0.90	0.29	0.35	0.3	0.26	0.31	0.21
R&M Expense	0.02	0.21	0.02	0.18	0.02	0.21	0.02	0.19
O&M Expense	**0.46**	**1.19**	**0.49**	**0.61**	**0.51**	**0.60**	**0.53**	**0.54**

Table 103: O&M Expenses of Distribution business approved for FY 2016-17 to FY 2019-20 (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Employee Expense	0.67	0.21	0.70	0.23	0.71	0.37	0.74	0.41
A&G Expense	1.11	2.57	1.14	1.00	1.18	0.75	1.22	0.59
R&M Expense	0.43	0.61	0.44	0.52	0.45	0.61	0.47	0.53
O&M Expense	**2.21**	**3.39**	**2.28**	**1.74**	**2.34**	**1.72**	**2.43**	**1.53**

4.9 Capital Expenditure and Capitalisation

MADC's Submission

4.9.1 MADC submits that no new assets are capitalized during FY 2016-17 to FY 2019-20. Hence, the component of ARR, namely interest on Loan, return on equity, depreciation is calculated based on the opening and closing balance of loan, equity and GFA without considering any addition during the year for the respective financial years.

Commission's Analysis

4.9.2 As no assets are capitalized during FY 2016-17 to FY 2019-20, the Commission has not considered any GFA addition during FY 2016-17 to FY 2019-20.

4.10 Depreciation

MADC's Submission

4.10.1 MADC submitted that, it has computed depreciation on the fixed assets based on Straight Line Method as prescribed in MYT Regulations, 2015. Further, MADC has also considered deprecation rate as specified in MYT Regulations, 2015.

4.10.2 As per Regulation2.1 of the MYT Regulations, 2015, MADC is required to show depreciation separately for retail and wires business. However, in the absence of any separate Audited Accounts for retail and wires business, the depreciation expenses have been computed separately for Distribution wires and Retail supply businesses for the period from FY 2016-17 to FY 2019-20 as per assets allocated between Wires and Retail Supply Business. The Summary of the depreciation of Wire and Retail Supply business for FY 2016-17 to FY 2019-20 is shown in Table below:

Table 104: Depreciation expense for distribution wire and retail supply business during FY 2016-17 to FY 2019-20, as submitted by MADC (in Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Distribution wire business				
Opening GFA	62.60	62.60	62.60	62.60
Additional GFA during year	-	-	-	-
Closing GFA	62.60	62.60	62.60	62.60
Depreciation for distribution wire business (A)	3.22	3.22	3.22	3.22
Retail supply business				
Opening GFA	0.09	0.09	0.09	0.09
Additional GFA during year	-	-	-	-
Closing GFA	0.09	0.09	0.09	0.09
Depreciation for retail supply business (B)	0.005	0.005	0.005	0.005
Total Depreciation (A+B)	**3.22**	**3.22**	**3.22**	**3.22**

Commission's Analysis

4.10.3 As there is no capitalization or asset addition or asset retirement done during the period from FY 2016-17 to FY 2019-20, the opening and closing GFA for the aforesaid period remains the same, i.e., Rs. 62.69Crore.

4.10.4 The Commission observes that MADC has calculated depreciation on land cost from FY 2016-17 to FY 2019-20. However, as per MYT Regulations, 2015 land other than the land held under lease shall not be considered as a depreciable asset and its cost shall be excluded from the capital cost while computing the depreciation. The Commission finds that as per DPR the land is not held under lease agreement, hence, the Commission has excluded the same from the computation of depreciation.

4.10.5 The Commission has computed depreciation in accordance with Regulation 31 of MYT Regulations, 2015 by applying rates of depreciation as given in "Annexure-I: Depreciation Schedule" of MYT Regulations 2015, on average total GFA of MADC during the year.

4.10.6 Following Table summarizes Depreciation for FY 2016-17 to FY 2019-20 for distribution wire and retail supply business of MADC:

Table 105: Depreciation for FY 2016-17 to FY 2019-20 for distribution business approved by the Commission (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Distribution wire business								
Opening GFA	62.60	62.60	62.60	62.60	62.60	62.60	62.60	62.60
Additional GFA during year	-	-	-	-	-	-	-	-
Closing GFA	62.60	62.60	62.60	62.60	62.60	62.60	62.60	62.60
Depreciation for distribution wire business (A)	3.22	3.21	3.22	3.21	3.22	3.21	3.22	3.21
Retail supply business								
Opening GFA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Additional GFA during year	-	-	-	-	-	-	-	-
Closing GFA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Depreciation for Retail Supply business (B)	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00
Total Depreciation (A+B)	**3.22**	**3.21**	**3.22**	**3.21**	**3.22**	**3.21**	**3.22**	**3.21**

4.11 Interest on Loan

MADC's Submission

4.11.1 MADC submitted that, it has considered the opening amount of loans for FY 2016-17 as per the closing balance for FY 2015-16. The interest rate for FY 2016-17 has been calculated by considering the weighted average of the existing interest rates on the outstanding loan amounts for the period, which is 10.39%. The calculation of the weighted average rate of interest for FY 2016-17 based on the loan portfolio has been shown in the table below:

Table 106: Weighted Average Rate of Interest for FY 2016-17 based on loan portfolio

Particulars	Amount
HUDCO	
Opening Balance as on 1st April 2016 (A) (Rs. Cr)	46.49
Rate of Interest (B)	10.00%
Bank of Maharashtra	
Opening Balance as on 1st April 2016 (C) (Rs. Cr)	58.90
Rate of Interest (D)	9.70%
NCD	
Opening Balance as on 1st April 2016 (E) (Rs. Cr)	150.00
Rate of Interest (F)	10.78%
Total Loan (G=A+C+E)	255.38
Weighted Average Rate of Interest H=(A*B+C*D+E*F)/G	**10.39%**

4.11.2 Based on the aforesaid methodology, weighted average interest rate for FY 2016-17 to FY 2019-20 is computed by MADC. Further, MADC has computed Interest on loan for Wire and Retail Supply business for the period from FY 2016-17 to FY 2019-20, as shown in Table below:

Table 107: Interest expense for distribution wire business during FY 2016-17 to FY 2019-20, as submitted by MADC (in Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Opening balance of net normative loan	39.46	36.24	33.03	29.81
Addition of normative loan during year	-	-	-	-
Repayment of Normative lone during the year	3.22	3.22	3.22	3.22
Closing balance of net Normative Loan	36.24	33.03	29.81	26.60
Average balance of Net Normative	37.85	34.63	31.42	28.20
Weighted average rate of interest on actual loan (%)	10.39%	10.58%	10.78%	10.78%
Finance Charges	-	-	-	-
Total Interest and Finance charges	**3.93**	**3.66**	**3.39**	**3.04**

Table 108: Interest expense for retail supply business during FY 2016-17 to FY 2019-20, as submitted by MADC (in Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Opening balance of net normative loan	0.06	0.05	0.05	0.04
Addition of normative loan during year	-	-	-	-
Repayment of Normative lone during the year	0.00	0.00	0.00	0.00
Closing balance of net Normative Loan	0.05	0.05	0.04	0.04
Average balance of Net Normative Loan	0.05	0.05	0.04	0.04
Weighted average rate of interest on actual loan (%)	10.39%	10.58%	10.78%	10.78%
Finance Charges	-	-	-	-
Total Interest and Finance charges	**0.006**	**0.005**	**0.005**	**0.004**

4.11.3 MADC requested the Commission to approve the Interest on Loan for the Period from

FY 2016-17 to FY 2019-20 as outlined in the following table:

Table 109: Interest expense on loan for Wire and Retail Supply Business (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Interest on Loan				
Wire Business	3.93	3.66	3.39	3.04
Supply Business	0.006	0.005	0.005	0.004
Total Interest	**3.94**	**3.67**	**3.39**	**3.04**
Financing Charges	-	-	-	-
Total Interest & Financing Charges	**3.94**	**3.67**	**3.39**	**3.04**

Commission's Analysis

4.11.4 For computation of interest on loan capital, the Commission has considered the approved closing normative loan for FY 2015-16 as opening normative loan for FY 2016-17. There is no loan addition as Capitalisation during FY 2016-17 to FY 2019-20 is Nil. Loan repayment is taken equal to Depreciation as per Regulation 29.3 of MYT Regulations, 2015. The closing balance for FY 2016-17 has been arrived at by deducting the loan repayment from the opening balance. Similarly, opening and closing balances for FY 2017-18 to FY 2019-20 have been determined.

4.11.5 As regards, rate of interest, the Regulation 29.5 of MYT Regulations, 2015 stipulates as under:

"29.5 The rate of interest shall be the weighted average rate of interest computed on the basis of the actual loan portfolio at the beginning of each year :

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

Provided further that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest for actual loan shall be considered :

Provided also that if the Generating Company or the Licensee or the MSLDC, as the case may be, does not have actual loan even in the past, the weighted average rate of interest of its other Businesses regulated by the Commission shall be considered :

Provided also that if the Generating Company or the Licensee or the MSLDC, as the case may be, does not have actual loan, and its other Businesses regulated by the Commission also do not have actual loan even in the past, then the weighted average rate of interest of the entity as a whole shall be considered :

Provided also that if the entity as a whole does not have actual loan, then the Base Rate at the beginning of the respective year shall be considered as the rate of interest for the purpose of allowing the interest on the normative loan."

4.11.6 As already discussed in previous chapter, MADC has not availed any specific loan for its power business, hence, it does not have any actual loan portfolio applicable to its distribution business. Further, the other businesses of MADC mainly related to Airport projects are not regulated by this Commission. Hence, due to absence of any actual loan related to business regulated under EA, 2003, the Commission has considered actual weighted average interest rate of MADC's business as a whole.

4.11.7 As per Audited Accounts of MADC, it was observes that MADC has secured long term loans from Housing and Urban Development Corporation Limited (HUDCO) and Bank of Maharashtra (BoM). MADC has also secured Non-Convertible Debentures. From the loan agreement submitted via data gap reply, the Commission observes that the rate of interest for HUDCO as per Schedule VI of loan agreement was 'HUDCO Reference Rate + 0.75% p.a.'. Also, as per Schedule VII of loan agreement, rate of interest for Bank of Maharashtra (BoM) was 'BoM Base Rate + 1%'. Accordingly, the Commission has sought MADC to provide interest certificates for the applicable period along with historical base rate/reference rate trend. However, MADC has failed to submit the requested document and submitted as follows:

> *"It is submitted that MADC has approached concern Bank for Interest certificate. However, Banks are unable to provide the Interest certificate since it is pertaining to old period. The relevant correspondence with Banks are attached to these data gap replies for reference of the Hon'ble Commission. In case interest certificate receives from Bank, the same will be shared with Hon'ble Commission in due course."*

4.11.8 Further, the Commission observes that "Note 14: Borrowings" provides details of Interest on loan and loan wherein the interest rate as on March 31 of the financial year were specified. MADC has considered the same interest rate as per "Note 14:Borrowings" of the Audited Accounts for computation of weighted average interest rate of MADC as a whole. The Commission has verified the computation and observes that as per the MYT Regulations, 2015, at the time of Truing-up, the weighted average rate of interest computed on the basis of the actual loan portfolio during the concerned year is required to be considered. Accordingly, the Commission has computed the Rate of interest based on details of Interest and Opening and closing balance of loan as provided in the Petition.

Table 110: Reconciliation of Interest with Audited Accounts (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
As per Form 6				
Interest on HUDCO Loan	2.97	0.13	-	-
Interest on Bank of Maharashtra	4.29	1.77	-	-
Interest on NCD	16.17	16.17	13.09	9.87
Total Interest as per Form 6	**23.43**	**18.07**	**13.09**	**9.87**
Interest as per Audited Accounts	31.44	25.20	18.80	14.26
Difference	8.01	7.13	5.71	4.40

4.11.9 As can be observed from the above table, there is a difference in the reconciliation of the source-wise interest submitted by MADC and the total interest booked in the Audited Accounts. Also, as per MADC, Banks are unable to provide the Interest certificate since it is pertaining to old period, which at this stage cannot be accepted by the Commission. Therefore, Commission has calculated the weighted average of interest as provided in Form 6 of the Tariff Model as outlined below, which will be considered for calculation of normative interest on loan.

Table 111: Calculation of Weighted average rate of interest for FY 2016-17 to FY 2019-20

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
HUDCO					
Opening balance as on 1st April	Rs. Crore	46.49	9.03	(0.00)	(0.00)
Closing balance as on 31st March	Rs. Crore	9.03	(0.00)	(0.00)	(0.00)
Average Balance of the Financial Year (A)	Rs. Crore	27.76	4.51	(0.00)	(0.00)
Bank of Maharashtra					
Opening balance as on 1st April	Rs. Crore	58.90	28.13	-	-
Closing balance as on 31st March	Rs. Crore	28.13	-	-	-
Average Balance of the Financial Year (B)	Rs. Crore	43.51	14.06	-	-
NCD					
Opening balance as on 1st April	Rs. Crore	150.00	150.00	150.00	120.00
Closing balance as on 31st March	Rs. Crore	150.00	150.00	120.00	90.00
Average Balance of the Financial Year (C)	Rs. Crore	150.00	150.00	135.00	105.00
Total Average Loan (D = A+B+C)	**Rs. Crore**	**221.27**	**168.58**	**135.00**	**105.00**
Total Interest (E)	Rs. Crore	23.43	18.07	13.09	9.87
Weighted Average rate of Interest – Approved (E/D)	%	10.59%	10.72%	9.70%	9.40%
Weighted Average rate of Interest – MADC	%	10.39%	10.58%	10.78%	10.78%

4.11.10The Interest on Long Term Loan approved by the Commission for FY 2016-17 to FY 2019-20 is summarized in the Tables below:

Table 112: Interest expense for distribution wire business during FY 2016-17 to FY 2019-20 approved by

the Commission (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Opening balance	39.46	58.25	36.24	55.04	33.03	51.84	29.81	48.63
Addition of loan	-	-	-	-	-	-	-	-
Repayment of loan	3.22	3.21	3.22	3.21	3.22	3.21	3.22	3.21
Closing balance	36.24	55.04	33.03	51.84	29.81	48.63	26.6	45.42
Average balance	37.85	56.64	34.63	53.44	31.42	50.23	28.2	47.03
Weighted average rate of interest (%)	10.39%	10.59%	10.58%	10.72%	10.78%	9.70%	10.78%	9.40%
Finance Charges	-	-	-	-	-	-	-	-
Total Interest and Finance charges	**3.93**	**6.00**	**3.66**	**5.73**	**3.39**	**4.87**	**3.04**	**4.42**

Table 113: Interest expense for distribution wire business during FY 2016-17 to FY 2019-20 approved by the Commission (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Opening balance	0.057	0.084	0.052	0.079	0.047	0.074	0.042	0.070
Addition of loan	-	-	-	-	-	-	-	-
Repayment of loan	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Closing balance	0.052	0.079	0.047	0.074	0.042	0.070	0.038	0.065
Average balance	0.050	0.082	0.050	0.077	0.040	0.072	0.040	0.067
Weighted average rate of interest (%)	10.39%	10.59%	10.58%	10.72%	10.78%	9.70%	10.78%	9.40%
Finance Charges	-	-	-	-	-	-	-	-
Total Interest and Finance charges	**0.006**	**0.009**	**0.005**	**0.008**	**0.005**	**0.007**	**0.004**	**0.006**

Table 114: Interest expenses for FY 2016-17 to FY 2019-20 approved by the Commission (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Interest on Loan								
Wire Business	3.93	6.00	3.66	5.73	3.39	4.87	3.04	4.42
Supply Business	0.006	0.009	0.005	0.008	0.005	0.007	0.004	0.006
Total Interest	**3.94**	**6.01**	**3.67**	**5.74**	**3.40**	**4.88**	**3.04**	**4.43**
Financing charges	-	-	-	-	-	-	-	-
Total Interest & Financing Charges	**3.94**	**6.01**	**3.67**	**5.74**	**3.39**	**4.88**	**3.04**	**4.43**

4.12 Interest on Working capital

MADC's Submission

4.12.1 MADC submits that the Regulation 31.3 of the MYT Regulations, 2015 provides for Interest on Working Capital for Wire business of electricity. Further, the aforesaid Regulation also provides the normative rate of interest on working capital shall be base rate as on date of filing of Petition plus 150 basis points. MYT Regulations, 2015 also provides that for the purpose of Truing-up for any year, interest on working capital shall be allowed at a rate equal to the weighted average Base Rate prevailing during the respective year plus 150 basis points. However, as per First Amendment to MYT Regulations 2015 i.e. MYT (First Amendment) Regulations, 2017, effective from 29 November, 2017, the rate of interest on working capital for FY 2017-18 is considered at a weighted average of SBI Base Rate plus 150 basis points for the first eight months and at one-year MCLR of SBI plus 150 basis points for the remaining four months. Accordingly, rate of interest for the respective year have been computed and considered for the calculation of Interest on working capital.

4.12.2 Accordingly, MADC has computed interest on working capital from FY 2016-17 to FY 2019-20, as shown in Table below:

Table 115: Interest on working capital and consumer security deposit for distribution wire business during FY 2016-17 to FY 2019-20, as submitted by MADC (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
O&M expense for a month	0.14	0.15	0.15	0.16
Maintenance spare at 1% of opening GFA	0.63	0.63	0.63	0.63
1 ½ months equivalent of the expected revenue from wheeling charges	-	-	-	-
Less: Amount held on security deposit from distribution system users.	0.47	0.53	0.48	0.56
Total working capital requirement	**0.30**	**0.24**	**0.30**	**0.23**
Computation of working capital interest				
Interest rate (%)- SBI MCLR + 150 basis point	10.31%	10.18%	9.89%	9.50%
Interest on working capital	**0.03**	**0.02**	**0.03**	**0.02**
Interest on Consumers Security Deposit				
Interest rate (%) – Bank rate	10.80%	10.60%	10.20%	10.55%
Interest on Consumers Security Deposit	**0.05**	**0.06**	**0.05**	**0.06**

Table 116: Interest on working capital and consumer security deposit for retail supply business during FY 2016-17 to FY 2019-20, as submitted by MADC (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
O&M expense for a month	0.04	0.04	0.04	0.04
Maintenance spare at 1% of opening GFA	0.00	0.00	0.00	0.00
1 ½ months equivalent of the expected revenue from wheeling charges	1.77	2.46	2.54	3.84

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Less: Amount held on security deposit from distribution system users.	4.24	4.79	4.32	5.00
Total working capital requirement	**(3.39)**	**(3.76)**	**(3.94)**	**(4.18)**
Computation of working capital interest				
Interest rate (%)- SBI MCLR + 150 basis point	10.31%	10.18%	9.89%	9.50%
Interest on working capital	**-**	**-**	**-**	**-**
Interest on Consumers Security Deposit				
Interest rate (%) – Bank rate	10.80%	10.60%	10.20%	10.55%
Interest on Consumers Security Deposit	**0.46**	**0.51**	**0.44**	**0.53**

4.12.3 MADC submitted that Regulation 31.4 of the MYT Regulations, 2015 provides for Interest on Working Capital for Retail Supply business of electricity. MADC has calculated the interest on working capital at the rate which is computed as per prevailing MCLR plus 150 basis points for the respective financial years.

Commission's Analysis

4.12.4 The Commission has approved IoWC for MADC's Wires Business and Supply Business in accordance with Regulations 31.3 and 31.4 of the MYT Regulations, 2015. The following have been considered for determining normative working capital requirement in a year:

- Operation and maintenance expenses for one month, plus
- Maintenance spares @ 1% of GFA, plus
- Receivables equivalent to one and half months of the expected revenue, minus;
- Amount, if any, held as security deposits against bill payment and
- One month equivalent of the cost of power purchased

4.12.5 As per the Regulation31.3 (b) of the MYT Regulations, 2015, the rate of interest on the working capital is calculated as 10.79% for FY 2016-17, which is the weighted average SBBR during FY 2016-17 plus 150 basis points. For FY 2017-18, the rate of interest on the working capital has been considered as 10.18%, being the weighted average rate worked out using SBI Base Rate plus 150 basis points from 1 April 2017 to 29 November 2017 and One-year SBI MCLR for the remaining period (30 November 2017 to 31 March 2018) in line with MYT (First Amendment) Regulations, 2017. Similarly, the Commission has considered the one-year SBI MCLR plus 150 basis points, i.e., 9.89% and 9.66% as the interest rate for IoWC for FY 2018-19 and FY 2019-20, respectively.

4.12.6 Based on the above, the Commission has approved IoWC from FY 2016-17 to FY 2019-20 as shown in the Tables below:

Table 117: IoWC approved for Wire business for FY 2016-17 to FY 2019-20 (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
O&M expense	0.14	0.18	0.15	0.09	0.15	0.09	0.16	0.08
Maintenance spare	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
Revenue from wheeling charges	-	-	-	-	-	-	-	-
Less: Security deposit.	0.47	0.47	0.53	0.53	0.48	0.48	0.56	0.56
Total working capital requirement	**0.30**	**0.34**	**0.24**	**0.19**	**0.30**	**0.24**	**0.23**	**0.15**
Computation of working capital interest								
Interest rate (%)	10.31%	10.79%	10.18%	10.18%	9.89%	9.89%	9.50%	9.66%
Interest on working capital	**0.031**	**0.037**	**0.025**	**0.019**	**0.030**	**0.024**	**0.022**	**0.015**

Table 118: IoWC approved for Supply business for FY 2016-17 to FY 2019-20 (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
O&M expense	0.04	0.10	0.04	0.05	0.04	0.05	0.04	0.04
Maintenance spare	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Revenue from wheeling charges	1.77	1.77	2.46	2.46	2.54	3.00	3.84	3.84
Less: Security deposit.	4.24	4.24	4.79	4.79	4.32	4.32	5.00	5.00
Less: Power Purchase Expenses	0.96	0.96	1.47	1.47	2.20	2.20	3.06	2.87
Total working capital requirement	**(3.39)**	**(3.32)**	**(3.76)**	**(3.75)**	**(3.94)**	**(3.47)**	**(4.18)**	**(3.98)**
Computation of working capital interest								
Interest rate (%)	10.31%	10.79%	10.18%	10.18%	9.89%	9.89%	9.50%	9.66%
Interest on working capital	-	-	-	-	-	-	-	-

Table 119: IoWC approved for distribution business for FY 2016-17 to FY 2019-20 (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Interest on Working Capital								
Wire Business	0.031	0.037	0.025	0.019	0.030	0.024	0.022	0.015
Supply Business	-	-	-	-	-	-	-	-
Total Interest on Working Capital	**0.031**	**0.037**	**0.025**	**0.019**	**0.030**	**0.024**	**0.022**	**0.015**

4.12.7 Further, the MYT Regulations, 2015 specify as under regarding consideration of actual IoWC incurred by the Licensee:

"31.6 For the purpose of Truing-up for each year, ***the variation between*** *the normative interest on working capital computed at the time of Truing-up and the*

actual interest on working capital incurred by the Generating Company or Licensee or MSLDC, substantiated by documentary evidence, shall be considered *as an efficiency gain or efficiency loss, as the case may be, on account of controllable factors, and shared between it and the respective Beneficiary or consumer as the case may be, in accordance with Regulation 11*:"**(emphasis added)**

4.12.8 In accordance with the above Regulation, the Commission asked MADC to submit the details of actual Working Capital Interest incurred during the aforesaid period, along with the documentary evidence of the actual Working Capital Interest incurred. MADC in its reply stated that it has not borrowed any Working Capital loan during the respective True-up years and has claimed Interest on Working Capital on normative principles as per the relevant provisions of MYT Regulations, 2015. Accordingly, the Commission has considered actual Working Capital interest as zero based on MADC's submission. Further, the entire difference between Normative IoWC and actual working capital interest (Nil) has been shared in accordance with MYT Regulations 2015, as discussed subsequently in this Chapter.

4.13 Interest on Consumer's Security Deposit

MADC's Submission

4.13.1 MADC submitted that the amendment to the Regulation 29.11 of MYT Regulations 2015 provides for Interest on Security Deposit at MCLR plus 150 basis points. The relevant extract of the Regulation is reproduced as under:

"29.11 Interest shall be allowed only on the amount held in cash as security deposit from Transmission System Users, Distribution System Users and Retail consumers at the Base Rate as on 1st April of the Year for which the interest is payable, plus 150 basis points:

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

"2. Amendment to Regulation 2.1 (10)—

Regulation 2.1 (10) of the principal Regulations shall be substituted by the following: —

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

4.13.2 Accordingly, MADC has computed interest on security deposit from FY 2016-17 to FY 2019-20, as shown in Tables below.

Table 120: Consumer security deposit for distribution wire business during FY 2016-17 to FY 2019-20, as

submitted by MADC (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Amount held on security deposit from distribution system users.	0.47	0.53	0.48	0.56
Interest rate (%) – Bank rate	10.80%	10.60%	10.20%	10.55%
Interest on Consumers Security Deposit	**0.05**	**0.06**	**0.05**	**0.06**

Table 121: Consumer security deposit for retail supply business during FY 2016-17 to FY 2019-20, as submitted by MADC (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Amount held on security deposit from distribution system users.	4.24	4.79	4.32	5.00
Interest rate (%) – Bank rate	10.80%	10.60%	10.20%	10.55%
Interest on Consumers Security Deposit	**0.46**	**0.51**	**0.44**	**0.53**

4.13.3 MADC requested the Commission to approve the interest on security deposit for supply business as shown in the above Table as per actuals based on Audited Accounts.

Commission's Analysis

4.13.4 As discussed in the previous chapter, MADC has initially transferred the Security Deposit amount to MSEDCL when MSEDCL started supplying power to MIHAN area as an interim measure to prevent blackout on account of AMNEPL's failure to supply power. Further, MSEDCL returned back the consumer Security Deposit amount including interest to MADC on 8 March, 2017. Hence, from FY 2016-17 onwards MADC holds the security deposit. Further, from FY 2016-17 onwards the Security Deposit has also been reflected in the Segregated Audited Accounts of MADC under "Note 16 : Other Financial Liabilities".

4.13.5 The Commission notes that as per provisions of Supply Code Regulations, 2005, consumers need to be paid interest on their Security Deposit through adjustment in electricity bill. However, as per reply submitted by MADC in response to data gaps, the Commission found that till date MADC has not paid interest on security deposit to the consumers. MADC submitted that it will start crediting the interest on security deposit as per Supply Code Regulations, 2005 from the end of the FY 2021-22.

4.13.6 Since the interest on Consumer Security Deposit is not paid to the Consumers, the Commission has not considered the claim in the Truing up for FY 2016-17 to FY 2019-20 and allows MADC to claim the same at the time of actual payment to the consumers, which should be calculated as per relevant provisions of the Supply Code Regulations, 2005 and submit compliance of the same in next tariff Petition.

Table 122: Interest on Consumer Security Deposit for FY 2016-17 to FY 2019-20 approved by the

Commission (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in Order	MADC Petition	Approved in Order	MADC Petition	Approved in Order	MADC Petition	Approved in Order
Wire Business	0.051	-	0.056	-	0.049	-	0.059	-
Supply Business	0.458	-	0.508	-	0.441	-	0.528	-
Distribution Business	**0.509**	**-**	**0.564**	**-**	**0.490**	**-**	**0.586**	**-**

4.14 Provision for bad and doubtful debt

MADC's Submission

4.14.1 MADC submitted that Regulation 73 and 82 of the MYT Regulations, 2015 specify that a provision of bad and doubtful debt may be allowed up to 1.5% of the amount shown as trade receivables or receivables in the Audited Accounts of the distribution licensee duly allocated for wires and supply business respectively.

4.14.2 In view of the above, MADC has considered provision for bad and doubtful debt at 0.50% of receivable for the year for FY 2016-17 to FY 2019-20. Considering the allocation matrix specified by the Commission in the MYT Regulations, 2015, MADC has worked out provision for bad debt for distribution wire and retail supply business, as shown in Table below:

Table 123: Provision of bad debts of Wire business for FY 2016-17 to FY 2019-20, submitted by MADC (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Opening balance of provision for bad and doubtful debts	0.00	0.00	0.00	0.00
Receivable for year	0.18	0.27	0.31	0.26
Opening balance of Provision of bad debt as % of receivable	0.59%	0.73%	1.07%	1.86%
Provision for bad and doubtful debts during the year	0.001	0.001	0.002	0.001
Actual bad and Doubtful debts written-off	0.00	0.00	0.00	0.00
Closing balance of provision for bad debts	0.00	0.00	0.00	0.01

Table 124: Provision of bad debts for Supply business for FY 2016-17 to FY 2019-20, submitted by MADC (in Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Opening balance of provision for bad and doubtful debts	0.01	0.02	0.03	0.04
Receivable for year	1.64	2.44	2.82	2.38
Opening balance of Provision of bad debt as % of receivable	0.59%	0.73%	1.07%	1.97%

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Provision for bad and doubtful debts during the year	0.008	0.012	0.014	0.011
Actual bad and Doubtful debts written-off	0.00	0.00	0.00	0.00
Closing balance of provision for bad debts	0.018	0.030	0.044	0.055

Commission's Analysis

4.14.3 Regulation 73 and 82 of the MYT Regulations, 2015 provides stipulation for provision for Bad and Doubtful Debts as under:

*"**<u>73. Provision for Bad and Doubtful Debts—</u>***

For any Year, the Commission may allow a provision for bad and doubtful debts up to 1.5 % of the amount shown as Trade Receivables or Receivables from Wheeling Charges in the audited accounts of the Distribution Licensee for that Year :

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

Provided further that such provision allowed by the Commission for any Year shall not exceed the actual provision for bad and doubtful debts made by the Distribution Licensee in the audited accounts of that Year, duly allocated for the Distribution Wires Business, excluding the provision made by the Distribution Licensee for unbilled revenue at the end of the Year:

……"

*"**<u>82. Provision for Bad and Doubtful Debts—</u>***

The Commission may allow a provision for bad and doubtful debts upto 1.5 % of the amount shown as Trade Receivables or Receivables from Sale of Electricity in the audited accounts of the Distribution Licensee for that Year:

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

Provided further that such provision allowed by the Commission for any Year shall not exceed the actual provision for bad and doubtful debts made by the Distribution Licensee in the audited accounts of that Year, duly allocated to the Retail Supply Business, excluding the provision made by the Distribution Licensee for unbilled revenue at the end of the Year:

……"

4.14.4 From the above, it can be seen that the Commission may allow a provision for bad and doubtful debts upto 1.5% of the amount shown as Trade Receivables or Receivables from Wheeling Charges/Sale of Electricity in the Audited Accounts. Further, the first proviso to aforesaid Regulations stipulates that the Commission shall provisionally approve provision for bad and doubtful debts for each Year of the Control Period, based on the actual provision for bad and doubtful debts made by the Distribution Licensee. However, in case of MADC, there is no MYT Order issued earlier hence, there is no provisionally approved figure available for bad and doubtful debts. Therefore, the Commission has given a thoughtful consideration and has allowed the provisions for bad and doubtful debts based on the actual provisions done by the Licensee during the respective True-up years as per its Audited Accounts.

4.14.5 The Commission has analysed the Segregated Audited Accounts of MADC and observes that during FY 2016-17, there was no actual provisions made for bad and doubtful debts. However, from FY 2017-18 to FY 2019-20, MADC has made provisions for bad and doubtful debts ranging from 10.63% to 14.45% as shown in the Table below:

Table 125: Provision of bad debts for FY 2016-17 to FY 2019-20

Particular	Units	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Trade Receivables	Rs. Crore	1.82	2.72	3.14	3.09
Actual Provision for bad and doubtful	Rs. Crore	-	0.29	0.45	0.00
Actual provision (%) of bad and doubtful	%	-	10.63%	14.25%	0.00%
Provision (%) for bad and doubtful sought in ARR	%	0.50%	0.50%	0.50%	0.50%

4.14.6 As there was no actual provision made in the Audited Accounts of FY 2016-17, the Commission did not allow the same on normative basis for FY 2016-17. With respect to the provision for doubtful debts, it was observed that the impact of the same in the profit and loss account is provided only for FY 2018-19 whereas for other years, the impact of the provision of doubtful debts (termed as Allowances for expected Credit Losses) has not been provided in profit and loss account.

4.14.7 Further, for FY 2017-18 to FY 2019-20, MADC has claimed a provision for Bad and Doubtful Debts equal to 0.5% of Trade Receivables. As the same is well within the cumulative limit of 5% as per aforesaid MYT Regulations, 2015, the Commission has considered it as approved, but only for FY 2018-19, which is in line with provisions reflected in Profit & Loss account. Accordingly, the Commission approves Provision for Bad and Doubtful Debts as shown in the Table below:

Table 126: Provision of bad debts for distribution business during FY 2016-17 to FY 2019-20, approved by Commission (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20

	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Wire Business								
Receivable for year	0.18	0.18	0.27	0.27	0.31	0.31	0.26	0.31
Provision for Doubtful debts	0.001	-	0.001	-	0.002	0.002	0.001	-
Supply business								
Receivable for year	1.64	1.64	2.44	2.44	2.82	2.82	2.25	2.78
Provision for Doubtful debts	0.008	-	0.012	-	0.014	0.014	0.011	-
Distribution Business								
Receivable for year	1.82	1.82	2.72	2.72	3.14	3.14	2.51	3.09
Provision for Doubtful debts	0.009	-	0.014	-	0.016	0.016	0.013	-

4.15 Contribution to Contingency Reserves

MADC's Submission

4.15.1 MADC submitted that, Regulation 34 of MYT Regulations, 2015 provides for contribution to contingency reserves. As per the said Regulation, contribution to contingency reserve is allowed at 0.25% to 0.50% of the original cost of fixed assets.

4.15.2 As per the above-mentioned Regulation, MADC has considered contingency reserve at 0.25% of the opening GFA amount for the respective financial year. The Table below shows the contingency reserves for the period from FY 2016-17 to FY 2019-20 for Wire and Retail Supply businesses:

Table 127: Contingency for reserve distribution wire and retail supply business during FY 2016-17 to FY 2019-20, as submitted by MADC (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Opening GFA of wire business	62.60	62.60	62.60	62.60
Contribution to Contingency reserves for wire business	0.16	0.16	0.16	0.16
Opening GFA of retail supply business	0.09	0.09	0.09	0.09
Contribution to Contingency reserves for retail supply business	0.000	0.000	0.000	0.000

Commission's Analysis

4.15.3 Regulation 34 of the MYT Regulation 2015 stipulates as under:

"34. Contribution to Contingency Reserves—

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

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

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

4.15.4 MADC has claimed Contribution to Contingency Reserve of 0.25% on normative basis. However, it has not invested in any securities against the amount of contingency reserves. In this regard, the Commission has already held in previous chapter that the Contribution to Contingency Reserve is to be allowed where the Licensee has made an appropriation to the Contingency Reserve and has invested the same in securities authorised under the Indian Trusts Act, 1882 within a period of six months of the close of the financial year. However, MADC has not made any appropriation nor invested in securities within the stipulated time as per the MYT Regulations. Hence, the Commission does not find any merit in allowing such expenses on normative basis. Therefore, the Commission has not approved Contribution to Contingency Reserves for FY 2016-17 to FY 2019-20.

4.16 Return on Equity

MADC's Submission

4.16.1 MADC submitted that Regulation 28.2 of MYT Regulations, 2015 provides for Return on Equity (RoE) for Distribution Licensee for both Wire and Supply Business. The relevant extract of the Regulation is reproduced as shown below:

"28. Return on Equity—

……………

28.2 Return on equity for the Transmission Licensee, Distribution Wires Business and MSLDC shall be allowed on the equity capital determined in accordance with Regulation 26 for the assets put to use, at the rate of 15.5 per cent per annum in Indian Rupee terms, and for the Retail Supply Business, Return on equity capital shall be allowed on the amount of equity capital determined in accordance with Regulation 26 at the rate of 17.5 per cent per annum in Indian Rupee terms."

4.16.2 Considering the above provision of MYT Regulations, 2015, MADC has computed the return on equity for Wire and Supply Business during FY 2016-17 to FY 2019-20 as shown in Table below:

Table 128: Return on equity for distribution wire business during FY 2016-17 to FY 2019-20, as submitted by MADC (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Regulatory Equity at the beginning of the year	18.78	18.78	18.78	18.78

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Capitalisation during the year	0.00	0.00	0.00	0.00
Equity portion of capitalisation during the year	0.00	0.00	0.00	0.00
Reduction in equity Capital on account of retirement/ replacement of assets	0.00	0.00	0.00	0.00
Regulatory Equity at the end of the year	18.78	18.78	18.78	18.78
Return on Equity Computation				
Rate of Return on Equity	15.5%	15.5%	15.5%	15.5%
Return on Regulatory Equity at the beginning of the year	2.91	2.91	2.91	2.91
Return on Regulatory Equity Addition during the year	-	-	-	-
Total Return on Equity	**2.91**	**2.91**	**2.91**	**2.91**

Table 129: Return on equity for retail supply business during FY 2016-17 to FY 2019-20, as submitted by MADC (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Regulatory Equity at the beginning of the year	0.03	0.03	0.03	0.03
Capitalisation during the year	0.00	0.00	0.00	0.00
Equity portion of capitalisation during the year	0.00	0.00	0.00	0.00
Reduction in equity Capital on account of retirement/ replacement of assets	0.00	0.00	0.00	0.00
Regulatory Equity at the end of the year	0.03	0.03	0.03	0.03
Return on Equity Computation				
Rate of Return on Equity	17.50%	17.50%	17.50%	17.50%
Return on Regulatory Equity at the beginning of the year	0.00	0.00	0.00	0.00
Return on Regulatory Equity Addition during the year	-	-	-	-
Total Return on Equity	**0.005**	**0.005**	**0.005**	**0.005**

Commission's Analysis

4.16.3 MADC has claimed equity contribution on normative basis, however, it has failed to provide the documentary evidence to substantiate its claim of equity infusion/deployment into its distribution business. Further, as detailed out at paras 3.9.5 and 3.9.6 of previous True-up chapter, the Commission has analysed the Audited Accounts of MADC and concluded that there was no equity infusion into MADC distribution business. Hence, the Commission has not allowed equity contribution on normative basis and considered entire funding of capitalization through debt only.

4.16.4 Accordingly, return on equity as approved by the Commission for FY 2016-17 to FY 2019-20 is as shown in the Table below:

Table 130: Return on equity for distribution business during FY 2016-17 to FY 2019-20 approved by the

Commission (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in Order	MADC Petition	Approved in Order	MADC Petition	Approved in Order	MADC Petition	Approved in Order
Wire Business	2.910	-	2.910	-	2.910	-	2.910	-
Supply Business	0.005	-	0.005	-	0.005	-	0.005	-
Distribution Business	**2.915**	**-**	**2.915**	**-**	**2.915**	**-**	**2.915**	**-**

4.17 Income Tax

MADC's Submission

4.17.1 MADC submits that Regulation 33 of MYT Regulations, 2015 provides that Income tax shall be allowed based on the actual income tax paid.

4.17.2 MADC further submitted that it has not paid actual Income tax for the respective financial year. Therefore, in view of the aforesaid Regulation, it has not claimed Income tax for the period from FY 2016-17 to FY 2019-20.

Commission's Analysis

4.17.3 Regulation 33 of the MYT Regulations, 2015 provides for computation of Income tax. The Relevant extract of the Regulation is reproduced as under:

"33. Income Tax—

33.1 The Commission, in its MYT Order, shall provisionally approve Income Tax payable for each year of the Control Period based on the actual Income Tax paid by the Generating Company or Licensee or MSLDC, in case the Generating Company or Licensee or MSLDC has not engaged in any other regulated or unregulated Business or Other Business, as allowed by the Commission relating to the electricity Business regulated by the Commission, as per latest available Audited Accounts, subject to prudence check :

Provided that in case the Generating Company or Licensee or MSLDC has engaged in any other regulated or unregulated Business or Other Business, and the actual Income Tax paid by the Generating Company or Licensee or MSLDC has to be allocated to the different Businesses, then the Income Tax shall be provisionally allowed based on the Income Tax on the regulatory Profit Before Tax, as allowed by the Commission relating to the electricity Business regulated by the Commission, subject to prudence check :

……"

4.17.4 As there was no actual income tax paid by MADC for FY 2016-17 to FY 2019-20, in line with the Regulation 33 of MYT Regulations, 2015, the Commission has considered income tax as nil for these years.

4.18 Non-Tariff Income

MADC's Submission

4.18.1 MADC has submitted that, as per Regulation 2.1 of the MYT Regulations, 2015, MADC is required to show non-tariff income separately for retail and distribution business. However, in the absence of any separate Audited Accounts for retail supply and distribution wire business, MADC has adhered to allocation of expenses into two separate businesses as per Regulation 68 of MYT Regulations, 2015.

4.18.2 MADC also stated that as per the allocation matrix Non-Tariff Income is allocated at 10% and 90% between Wire and Retail Supply Business respectively. Accordingly, MADC has considered rent of Central Facility Building (CFB) and supervision charges under Non-Tariff Income and allocated to Wire and Retail Supply Business as shown in the Table below.

Table 131: Non-Tariff income for wire and retail supply business during FY 2016-17 to FY 2019-20, as submitted by MADC (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Non- tariff income for wire business	0.01	0.01	0.02	0.02
Non- tariff income for retail supply business	0.06	0.12	0.14	0.18
Total Non-Tariff income	**0.07**	**0.14**	**0.16**	**0.19**

Commission's Analysis

4.18.3 The Commission observes that Non-Tariff Income was substantially lower from FY 2016-17 to FY 2019-20 as compared to previous year, i.e., FY 2015-16. Based on the scrutiny, the Commission found that MADC has not considered any income under head "Rent of CFB" from FY 2016-17 onwards. Upon clarification sought for such an exclusion, MADC submitted that for FY 2014-15 and FY 2015-16, it has inadvertently considered amount received from CFB lease holders towards electricity charges as rent from CFB under head of non-tariff income. However, the said amount is towards energy charges received from CFB lease holder. Therefore, the said amount is included now in Revenue from operations and thus, removed from Non-Tariff income.

4.18.4 In order to ascertain that total revenue inclusive of NTI is considered in ARR, the Commission has compared the total revenue inclusive of NTI as per Audited Accounts with the total revenue inclusive of NTI as considered in the financial statements submitted along with the Petition as shown in the Table below:

Table 132:Comparison of Total revenue as per Audited Accounts with the revenue considered by MADC in the financial formats (Rs. Crore)

Source	Note 20	Note 21	Total (A)	As per Tariff Formats (B)		Total (B)	Difference (A-B)
Year	Revenue from distribution of Power-Mihan SEZ	Other Income		F13	F9		
FY 2016-17	14.16	0.07	14.23	14.16	0.07	14.23	0.00003
FY 2017-18	19.83	-	19.83	19.69	0.14	19.83	0.00000
FY 2018-19	24.16	-	24.16	24.00	0.16	24.16	0.00000
FY 2019-20	30.92	0.00	30.93	30.73	0.19	30.92	0.00308

4.18.5 From the above, it can be seen that there is minor variation in total revenues as per Audited Accounts and Tariff Petitions. Accordingly, the Commission has considered Non-Tariff Income as per Audited Accounts.

4.18.6 Also, it was observed that DPC and interest on arrears collected from consumers are included in Non-Tariff income which is contrary to Regulations 36.3 of MYT Regulations 2015. Accordingly, the Commission while allowing the Non-Tariff Income has not considered DPC and interest on arrears.

Table 133: Reconciliation of Non-Tariff Income (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Total Non-Tariff Income	0.072	0.072	0.139	0.139	0.159	0.159	0.195	0.198
Less: DPC and Interest on Arrears		0.002		0.014		0.005		0.019
Net Non-Tariff Income	0.072	0.070	0.139	0.125	0.159	0.154	0.195	0.179

4.18.7 Further, the same is bifurcated into wires and retail business in 10:90 ratio. The Non-Tariff Income as approved by the Commission for FY 2016-17 to FY 2019-20 is as follows:

Table 134: Non-Tariff income of FY 2016-17 to FY 2019-20 approved by the Commission (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Wire business	0.007	0.000	0.014	0.001	0.016	0.001	0.019	0.002
Retail Supply business	0.065	0.002	0.125	0.012	0.143	0.005	0.175	0.017
Distribution Business	**0.072**	**0.002**	**0.139**	**0.014**	**0.159**	**0.005**	**0.195**	**0.019**

4.19 Sharing of Gains/(Losses)

MADC's Submission

4.19.1 MADC has not claimed any sharing of Gains and (Losses) in its Petition

Commission's Analysis

4.19.2 The sharing of gains and losses are computed as per the Regulations 11.1 and 11.2 of MYT Regulations, 2015. The relevant Regulations are extracted below:

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

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

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

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

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

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

4.19.3 MADC stated that sharing of Gains/(Losses) is computed as per variation of actual and approved expense. Since this is the first petition filed by MADC, there is no past Order available for approved figures for the said True Up Period. Hence, MADC has not claimed any sharing of Gains/(Losses).

4.19.4 As explained earlier, it is evident that MADC has failed to file a Petition within stipulated time period. Further, the Commission's attempt to determine the tariff via suo moto scrutiny also went in vain due to unavailability or non-submission of required data. Therefore, argument of MADC for not claiming sharing of Gains/(Losses) due to absence of approved figures is not tenable.

4.19.5 Also, due to absence of any past O&M expenses, so as to determine the norms, the Commission has not considered sharing of Gains/(Losses) with respect to O&M

expenses.

4.19.6 Further, in case of interest on working capital, the Commission observes that MADC has claimed normative interest on working capital and has not specified any actual interest on working capital. The Commission scrutinised the Accounting Statement to ascertain if any actual working capital loan was taken by MADC and any interest expense incurred on such loan. The bifurcated Accounting Statement did not show interest on working capital loan. Further, the borrowings of MADC in these Accounting Statements were scrutinised and found that all the borrowings were long term in nature. Based on the above, the Commission arrived at a conclusion that there was no actual working capital borrowing or short-term borrowing against which an interest expense would have been incurred by MADC. Hence, the sharing of Gains/(Losses) on IoWC has been done between normative expenses as per the Regulations and actual expenses (NIL) as shown in the Table below:

Table 135: Sharing of gains in Interest on Working Capital for Wire and Supply Business for FY 2016-17 to FY 2019-20 approved by the Commission (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Distribution Wires Business				
Normative Interest on Working Capital	0.037	0.019	0.024	0.015
Actual Working Capital Interest	-	-	-	-
Net Gains /(Losses)	0.037	0.019	0.024	0.015
2/3rd - Efficiency Gains passed on to the consumers	0.024	0.013	0.016	0.010
Net Entitlement of IoWC	**0.012**	**0.006**	**0.008**	**0.005**

4.19.7 Since the Normative and actual Interest on Working Capital for Retail Supply business is NIL, the Commission has not considered same for computation of sharing of gains.

4.20 Revenue from Sale of Electricity

MADC's Submission

4.20.1 The category wise detail of actual revenue for the period from FY 2016-17 to FY 2019-20 as submitted by the MADC is summarized in the following Table:

Table 136:Actual Category wise Energy Sales of FY 2016-17 to FY 2019-20, as submitted by MADC

Consumer Categories	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)
HT category								
Industrial	29.33	12.19	41.19	17.74	52.18	21.69	64.98	27.85

Consumer Categories	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)
Commercial	2.36	1.00	2.37	1.11	2.56	1.23	2.82	1.38
Total HT Sales	**31.69**	**13.19**	**43.56**	**18.85**	**54.74**	**22.92**	**67.80**	**29.23**
LT category								
Industrial	1.11	0.71	1.17	0.57	1.14	0.73	1.44	0.63
Commercial	0.35	0.15	0.31	0.15	0.40	0.17	0.91	0.51
Street Light	0.52	0.19	0.53	0.21	0.77	0.30	0.88	0.35
Public Services	0.00	0.00	0.01	0.00	0.01	0.00	0.02	0.01
Total LT Sales	**1.98**	**1.04**	**2.02**	**0.93**	**2.32**	**1.21**	**3.24**	**1.50**
Incentives / Discounts		(0.07)		(0.10)		(0.13)		0.00
Total	**33.67**	**14.16**	**45.57**	**19.69**	**57.06**	**24.00**	**71.04**	**30.73**

Commission's Analysis.

4.20.2 The Commission has verified the Revenue from sale of electricity and approves the same as per Audited Accounts as shown in the Table below and Table 132 of this order:

Table 137: Revenue from sale of electricity for FY 2016-17 to FY 2019-20 approved by the Commission (Rs. Crore)

Consumer Categories	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)
HT category								
Industrial	29.33	12.19	41.19	17.74	52.18	21.69	64.98	27.85
Commercial	2.36	1.00	2.37	1.11	2.56	1.23	2.82	1.38
Total HT Sales	**31.69**	**13.19**	**43.56**	**18.85**	**54.74**	**22.92**	**67.80**	**29.23**
LT category								
Industrial	1.11	0.71	1.17	0.57	1.14	0.73	1.44	0.63
Commercial	0.35	0.15	0.31	0.15	0.40	0.17	0.91	0.51
Street Light	0.52	0.19	0.53	0.21	0.77	0.30	0.88	0.35
Public Services	0.00	0.00	0.01	0.00	0.01	0.00	0.02	0.01
Total LT Sales	**1.98**	**1.04**	**2.02**	**0.93**	**2.32**	**1.21**	**3.24**	**1.50**
Incentives / Discounts		(0.07)		(0.10)		(0.13)		0.00
Total	**33.67**	**14.16**	**45.57**	**19.69**	**57.06**	**24.00**	**71.04**	**30.73**

4.21 Summary of ARR for FY 2016-17 to FY 2019-20

MADC's Submission

4.21.1 Considering the parameters discussed above, the Aggregate Revenue Requirement (ARR) claimed by MADC for the period FY 2016-17 to FY 2019-20 is as follows:

Table 138: ARR for Wire business, from FY 2016-17 to FY 2019-20 as submitted by MADC (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Operating and Maintenance Expenses	1.73	1.79	1.85	1.90
Depreciation	3.22	3.22	3.22	3.22
Interest on loan Capital	3.93	3.66	3.39	3.04
Interest on Working capital	0.03	0.02	0.03	0.02
Interest on deposit from consumer	0.05	0.06	0.05	0.06
Provision for bad and doubtful debts	0.00	0.00	0.00	0.00
Contribution to contingency reserves	0.16	0.16	0.16	0.16
Income Tax	-	-	-	-
Total Revenue Expenditure	**9.12**	**8.91**	**8.68**	**8.40**
Add: Return on Equity Capital	2.91	2.91	2.91	2.91
Aggregate Revenue Requirement	**12.03**	**11.82**	**11.59**	**11.31**
Less: Non- Tariff Income	0.01	0.01	0.02	0.02
ARR of Distribution Wire Business	**12.02**	**11.81**	**11.58**	**11.29**

Table 139: ARR for Supply business, from FY 2016-17 to FY 2019-20 as submitted by MADC (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Power Purchase Expenses	10.97	17.00	25.60	34.96
Intra-state Transmission charges	0.50	0.67	0.84	1.03
MSLDC fees and Charges	-	-	-	-
Operating and Maintenance Expenses	0.46	0.49	0.51	0.53
Depreciation	0.00	0.00	0.00	0.00
Interest on loan Capital	0.01	0.01	0.00	0.00
Interest on Working capital	-	-	-	-
Interest on consumer security deposit	0.46	0.51	0.44	0.53
Provision for bad and doubtful debts	0.01	0.01	0.01	0.01
Contribution to contingency reserves	0.00	0.00	0.00	0.00
Income Tax	-	-	-	-
Total Revenue Expenditure	**12.41**	**18.68**	**27.41**	**37.06**
Add: Return on Equity Capital	0.00	0.00	0.00	0.00
Aggregate Revenue Requirement	**12.41**	**18.69**	**27.41**	**37.07**
Less: Non- Tariff Income	0.06	0.12	0.14	0.18
ARR of Retail Supply Business	**12.35**	**18.56**	**27.27**	**36.89**

Table 140: Combined ARR, from FY 2016-17 to FY 2019-20 as submitted by MADC (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Power Purchase Expenses	10.97	17.00	25.60	34.96
Inter-state Transmission charges	0.50	0.67	0.84	1.03
MSLDC fees and Charges	-	-	-	-
Operating and Maintenance Expenses	2.20	2.28	2.36	2.43
Depreciation	3.22	3.22	3.22	3.22
Interest on loan Capital	3.94	3.67	3.39	3.04
Interest on Working capital	0.03	0.02	0.03	0.02
Interest on consumer security deposit	0.51	0.56	0.49	0.59
Provision for bad and doubtful debts	0.01	0.01	0.02	0.01
Contribution to contingency reserves	0.16	0.16	0.16	0.16
Income Tax	-	-	-	-
Total Revenue Expenditure	**21.53**	**27.60**	**36.09**	**45.46**
Add: Return on Equity Capital	2.92	2.92	2.92	2.92
Aggregate Revenue Requirement	**24.44**	**30.51**	**39.01**	**48.37**
Less: Non- Tariff Income	0.07	0.14	0.16	0.19
ARR of distribution business	**24.37**	**30.37**	**38.85**	**48.18**

Commission's Analysis

4.21.2 Based on the analysis of various parameters as set out in this Order, the ARR from FY 2016- 17 to FY 2019-20 approved by the Commission, is summarised in the following Tables:

Table 141: ARR for Wire business - FY 2016-17 to FY 2019-20 approved by the Commission (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
O&M Expenses	1.734	2.204	1.795	1.133	1.845	1.121	1.902	0.995
Depreciation	3.215	3.206	3.215	3.206	3.215	3.206	3.215	3.206
Interest on loan Capital	3.932	5.998	3.664	5.728	3.387	4.872	3.040	4.419
Interest on Working capital	0.031	0.037	0.025	0.019	0.030	0.024	0.022	0.015
Interest on consumer deposit	0.051	-	0.056	-	0.049	-	0.059	-
Provision for bad and doubtful debts	0.001	-	0.001	-	0.002	0.002	0.001	-
Contribution to contingency reserves	0.156	-	0.156	-	0.156	-	0.156	-

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Income Tax	-	-	-	-	-	-	-	-
Sharing of IoWC		(0.024)		(0.013)		(0.016)		(0.010)
Total Revenue Expenditure	**9.120**	**11.421**	**8.913**	**10.073**	**8.684**	**9.209**	**8.396**	**8.625**
Return on Equity	2.911	-	2.911	-	2.911	-	2.911	-
Aggregate Revenue Requirement	**12.031**	**11.421**	**11.824**	**10.073**	**11.595**	**9.209**	**11.306**	**8.625**
Less: Non- Tariff Income	0.007	0.000	0.014	0.001	0.016	0.001	0.019	0.002
Aggregate Revenue Requirement	**12.024**	**11.420**	**11.810**	**10.071**	**11.579**	**9.208**	**11.287**	**8.623**

Table 142: ARR for Supply business -FY 2016-17 to FY 2019-20 approved by Commission (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Power Purchase Cost	10.972	10.972	16.997	16.997	25.596	25.596	34.956	34.956
InSTS Charges	0.495	0.495	0.670	0.670	0.837	0.837	1.030	1.030
MSLDC Charges	-	-	-	-	-	-	-	-
O&M Expenses	0.464	1.187	0.487	0.610	0.512	0.604	0.528	0.536
Depreciation	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Interest on loan Capital	0.006	0.009	0.005	0.008	0.005	0.007	0.004	0.006
Interest on Working capital	-	-	-	-	-	-	-	-
Interest on consumer deposit	0.458	-	0.508	-	0.441	-	0.528	-
Provision for bad and doubtful debts	0.008	-	0.012	-	0.014	0.014	0.011	-
Contribution to contingency reserves	0.000	-	0.000	-	0.000	-	0.000	-
Income Tax	-	-	-	-	-	-	-	-
Sharing of IoWC								
Total Revenue Expenditure	**12.408**	**12.668**	**18.684**	**18.290**	**27.409**	**27.062**	**37.062**	**36.532**
Return on Equity	0.005	-	0.005	-	0.005	-	0.005	-
Aggregate Revenue Requirement	**12.413**	**12.668**	**18.689**	**18.290**	**27.414**	**27.062**	**37.066**	**36.532**
Less: Non- Tariff Income	0.065	0.002	0.125	0.012	0.143	0.005	0.175	0.017
Aggregate Revenue Requirement	**12.348**	**12.666**	**18.564**	**18.277**	**27.271**	**27.058**	**36.891**	**36.515**

Table 143: Combined ARR, from FY 2016-17 to FY 2019-20 approved by Commission (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Power Purchase Cost	10.972	10.972	16.997	16.997	25.596	25.596	34.956	34.956
InSTS Charges	0.495	0.495	0.670	0.670	0.837	0.837	1.030	1.030
MSLDC Charges	-	-	-	-	-	-	-	-
O&M Expenses	2.198	3.391	2.282	1.742	2.357	1.725	2.430	1.530
Depreciation	3.220	3.211	3.220	3.211	3.220	3.211	3.220	3.211
Interest on loan Capital	3.938	6.007	3.670	5.736	3.392	4.879	3.045	4.426
Interest on Working capital	0.031	0.037	0.025	0.019	0.030	0.024	0.022	0.015
Interest on consumer deposit	0.509	-	0.564	-	0.490	-	0.586	-
Provision for bad and doubtful debts	0.009	-	0.014	-	0.016	0.016	0.013	-
Contribution to contingency reserves	0.157	-	0.157	-	0.157	-	0.157	-
Income Tax	-	-	-	-	-	-	-	-
Sharing of IoWC	-	(0.024)	-	(0.013)	-	(0.016)	-	(0.010)
Total Revenue Expenditure	**21.529**	**24.089**	**27.597**	**28.363**	**36.093**	**36.271**	**45.457**	**45.157**
Return on Equity	2.915	-	2.915	-	2.915	-	2.915	-
Aggregate Revenue Requirement	**24.444**	**24.089**	**30.513**	**28.363**	**39.009**	**36.271**	**48.373**	**45.157**
Less: Non- Tariff Income	0.072	0.002	0.139	0.014	0.159	0.005	0.195	0.019
Aggregate Revenue Requirement	**24.372**	**24.087**	**30.374**	**28.349**	**38.850**	**36.266**	**48.178**	**45.138**

4.22 Revenue Gap for FY 2014-15 to FY 2019-20

MADC's Submission

4.22.1 MADC submitted that the Board of Directors of MADC in its 71st meeting held on 25 February, 2020, accorded its approval for meeting Revenue Gap of Rs. 81.02 Crore for the period from FY 2014-15 to FY 2019-20 through Grant from GoM. Accordingly, the Board has directed MADC to approach GoM for grant of Rs. 81.02 Crore. MADC submitted that, it is in process of initiating correspondence with the GoM for the same and approval/sanction will be submitted to the Commission.

4.22.2 In view of the above, MADC has computed cumulative revenue gap as Rs.4.88Crore after considering grant of Rs. 81.02 Crore. MADC submitted that the balance revenue gap is carried forward to next Control Period, i.e., from FY 2020-21 to FY 2024-25. MADC submitted that the certified copy of Resolution of the meeting of Board of

Directors of MADC held on 25 February, 2020 for reference.

4.22.3 Following is the cumulative revenue gap for the period FY 2014-15 to FY 2019- 20 submitted by MADC:

Table 144: Cumulative revenue gap from FY 2014-15 to FY 2019-20 as submitted by MADC (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
ARR of distribution business (A)	8.10	21.44	24.37	30.37	38.85	48.18
Revenue (B)	2.84	11.10	14.16	19.69	24.00	30.73
Revenue Gap (A-B)	5.26	10.34	10.21	10.69	14.85	17.45
Consolidated Gap Analysis						
Opening Revenue gap (D)	-	5.97	17.71	30.05	43.91	63.10
Add: Additional Gap (E)	5.26	10.34	10.21	10.69	14.85	17.45
Add: Carrying cost (F)	0.35	1.40	2.13	3.17	4.34	5.71
Less: Support from state Gov. grant (G)	-	-	-	-	-	81.02
Closing of Revenue (D+E+F-G)	**5.61**	**17.35**	**29.70**	**43.56**	**62.75**	**4.88**

Commission's Analysis

4.22.4 On detailed analysis of all the ARR components, and after arriving at the ARR approved in this Order for Distribution Wires Business and Retail Supply Business, the Commission has arrived at the standalone revenue Gap/(Surplus) values by adjusting the combined ARR with the Revenue from Sale of Power approved by the Commission and accordingly has allowed the revenue gap after Truing up of ARR from FY 2014-15 to FY 2019-20 as shown in the Table below:

Table 145: Cumulative Revenue Gap of FY 2014-15 to FY 2019-20, approved by the Commission (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Aggregate Revenue Requirement- Wire	4.167	11.222	11.420	10.071	9.208	8.623
Aggregate Revenue Requirement- Retail Supply	3.413	8.613	12.666	18.277	27.058	36.515
Total ARR for Combined Wires & Supply Business	**7.580**	**19.835**	**24.087**	**28.349**	**36.266**	**45.138**
Revenue from Existing Tariff	2.841	11.103	14.160	19.687	24.003	30.727
Standalone Revenue Gap/(Surplus)	4.74	8.73	9.93	8.66	12.26	14.41
Cumulative Revenue Gap / (Surplus)	**58.73**					

4.22.5 Accordingly, the Commission approves the Cumulative Revenue Gap of Rs. 58.73 Crore for FY 2014-15 to FY 2019-20. The impact of the carrying cost and adjustment in relation to State Government Grant has been considered for adjustments against the cumulative ARR of the control period for FY 2021-22 to FY 2024-25 respectively for the purpose of tariff determination in the subsequent chapter.

5 DETERMINATION OF ARR FOR FY 2020-21 TO FY 2024-25.

5.1 Background

5.1.1 The Commission has notified the MERC (Multi Year Tariff) Regulations 2019 (hereinafter to be referred as MYT Regulations, 2019) on 1 August 2019 which are applicable for the period FY 2020-21 to FY 2024-25 (the Control Period). Regulation 5.1 (iii) of MYT Regulations, 2019 provides for projection of ARR for each year of the Control Period under these Regulations.

5.1.2 Accordingly, MADC has stated that ARR and tariff for wheeling of electricity and retail supply of electricity for the fourth Control Period from FY 2020-21 to FY 2024-25 has been projected in accordance with the Regulation 5.1 (iii) of the MYT Regulations, 2019.

5.1.3 MADC has submitted the projected ARR for FY 2020-21 to FY 2024-25, revenue from sale of power at existing Tariffs and charges, and the projected Revenue Gap/(Surplus) for FY 2020-21 and FY 2024-25. The Commission has discussed the various elements of the projected ARR for the control period from FY 2020-21 and FY 2024-25 in the subsequent paragraphs.

5.2 Energy Sales

MADC's Submission

5.2.1 Regulation 82.1 of MYT Regulations, 2019 provides that distribution licensee is required to submit a month-wise forecast of the expected sales of electricity to each tariff category/ sub-category and to each Tariff slab within such Tariff category/sub-category. The relevant extracts of the regulation are reproduced below:

"82 Sales Forecast

82.1 The Distribution Licensee shall submit a month-wise forecast of the expected sales of electricity to each Tariff category/sub-category and to each Tariff slab within such Tariff category/sub-category to the Commission for approval along with the Multi-Year Tariff Petition, as specified in these Regulations:

Provided that the Distribution Licensee shall submit relevant details regarding category-wise sales separately for each Distribution Franchisee area within its Licence area, as well as the aggregated category-wise sales in its Licence area."

5.2.2 MADC has submitted the 5-year, 3-year and 1-year CAGR growth rates of past sales as shown in the Table below:

Table 146: Past energy sales and CAGR growth, as submitted by MADC (MU)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	CAGR growth (%)		
							5-yr	3-yr	1-yr
HT - Category									
Industrial	5.75	21.82	29.33	41.19	52.18	64.98	62%	30%	25%
Commercial	0.87	2.55	2.36	2.37	2.56	2.82	27%	6%	10%
Sub-Total	**6.62**	**24.37**	**31.69**	**43.56**	**54.74**	**67.80**	**59%**	**29%**	**24%**
LT-Category									
Industrial	0.06	0.57	1.11	1.17	1.14	1.14	92%	9%	26%
Commercial	0.13	0.26	0.35	0.31	0.40	0.91	47%	38%	125%
Street Light	0.09	0.23	0.52	0.53	0.77	0.88	56%	19%	14%
Public Services	0.00	0.00	0.00	0.01	0.01	0.02	138%	53%	50%
Sub- Total	**0.28**	**1.07**	**1.98**	**2.02**	**2.32**	**3.24**	**63%**	**18%**	**40%**
Grand Total	**6.90**	**25.43**	**33.67**	**45.57**	**57.06**	**71.04**	**59%**	**28%**	**24%**

5.2.3 MADC submitted that the average CAGR for 1 year to 5 years is in the range of 24% to 59%. It has further submitted that distribution business of MADC is at growing stage. Therefore, its CAGR of past sales is exponential in accordance with its year on year (YoY) growth in load. Historical load growth of MADC is tabulated as below:

Table 147: Past load and CAGR growth, as submitted by MADC (MW)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	CAGR growth (%)		
							5-yr	3-yr	1-yr
Load	3	6	7	9	12	12	32%	20%	0%

5.2.4 MADC has submitted that present load of MADC for FY 2019-20 is 12 MW, and during the pandemic, the current load was in the range of 5 to 10 MW. Further, MADC envisaged further increase in load approximately by 1 MW year on year from FY 2021-22 onwards. Accordingly, MADC has projected its load for MYT Control period, as shown in the Table below:

Table 148: Load projection for the Control Period, as submitted by MADC (MW)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Load	12	13	14	15	16

5.2.5 MADC has submitted that considering the exponential CAGR of sales submitted above, it would be difficult to project additional growth at a particular rate from the sales of existing load while projecting sales for the Control Period. Therefore, MADC has considered NIL growth in sales over existing sales for FY 2019-20 and has stated that any increase in sales from existing load shall be considered at the time of True up based on Audited Accounts. Further, MADC submitted that sales from incremental load of 1 MW YoY is projected separately using current load factor of 0.68 (i.e. actual of FY 2019-20). Accordingly, MADC has projected sales form existing load for MYT Control Period, as shown in the Table below:

Table 149: Projected energy sales from existing load for the Control Period, submitted by MADC (MUs)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
HT -Category						
Industrial	64.98	64.98	64.98	64.98	64.98	64.98
Commercial	2.82	2.82	2.82	2.82	2.82	2.82
Sub-Total	**67.80**	**67.80**	**67.80**	**67.80**	**67.80**	**67.80**
LT- Category						
Industrial	1.14	1.14	1.14	1.14	1.14	1.14
Commercial	0.91	0.91	0.91	0.91	0.91	0.91
Street Light	0.88	0.88	0.88	0.88	0.88	0.88
Public Services	0.02	0.02	0.02	0.02	0.02	0.02
Sub- Total	**3.24**	**3.24**	**3.24**	**3.24**	**3.24**	**3.24**
Grand Total	**71.04**	**71.04**	**71.04**	**71.04**	**71.04**	**71.04**
Existing load	12	12	12	12	12	12
Load factor	0.68	0.68	0.68	0.68	0.68	0.68

5.2.6 MADC submitted that it has worked out energy sales from incremental load using load factor of 0.68 (i.e., actual for FY 2019-20). The total sales for incremental load is computed as load multiplying by load factor and factor of 8.76 (i.e., 24 hours*365 days/1000). Accordingly, MADC has submitted the incremental sales from incremental load for MYT Control Period as shown in Table below:

Table 150: Projection of energy sales from existing load for the Control Period as submitted by MADC

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Incremental Load (MW)	0	1	2	3	4
Load factor for existing load	0.68	0.68	0.68	0.68	0.68
Total Sales projection (MU)	0.00	5.92	11.84	17.76	23.68

5.2.7 Further, according to monthly sales pattern of actual sales for FY 2019-20, monthly sales is projected based on total sales projected for the respective years of the Control Period. MADC further submitted that total sales from incremental load are bifurcated into category of consumers in the ratio of category wise sales for existing load. Accordingly, MADC has bifurcated total sales projected from incremental load into category wise sales in proportion of ratio tabulated below:

Table 151: Category wise energy sales from incremental load for the Control Period as submitted by MADC (MU)

Particulars	Share of sales	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
HT -Category						
Industrial	91.47%	-	5.41	10.83	16.24	21.66
Commercial	3.97%	-	0.24	0.47	0.71	0.94
Sub-Total	**95.44%**	**-**	**5.65**	**11.30**	**16.95**	**22.60**
LT- Category						
Industrial	2.02%	-	0.12	0.24	0.36	0.48
Commercial	1.28%	-	0.08	0.15	0.23	0.30
Residential	-	-	-	-	-	-
Street Light	1.23%	-	0.07	0.15	0.22	0.29
Public Services	0.02%	-	0.00	0.00	0.00	0.01
Sub- Total	**4.57%**	**-**	**0.27**	**0.54**	**0.81**	**1.08**
Grand Total	**100%**	**-**	**5.92**	**11.84**	**17.76**	**23.68**

5.2.8 Based on the sales projected above from existing load and incremental load, MADC has submitted consolidated sales projected for Control Period from FY 2020-21 to FY 2024-25 as shown in the Table below:

Table 152: Consolidated sales projected for Control Period from FY 2020-21 to FY 2024-25 as submitted by MADC (MU)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
HT -Category						
Industrial	64.98	64.98	70.39	75.81	81.22	86.64
Commercial	2.82	2.82	3.06	3.29	3.53	3.77
Sub-Total	**67.80**	**67.80**	**73.45**	**79.10**	**84.75**	**90.40**
LT- Category						
Industrial	1.14	1.14	1.56	1.68	1.80	1.92
Commercial	0.91	0.91	0.99	1.06	1.14	1.21
Street Light	0.88	0.88	0.95	1.02	1.09	1.17
Public Services	0.02	0.02	0.02	0.02	0.02	0.02
Sub- Total	**3.24**	**3.24**	**3.51**	**3.78**	**4.05**	**4.32**
Grand Total	**71.04**	**71.04**	**76.96**	**82.88**	**88.80**	**94.72**

5.2.9 MADC requested the Commission to approve the projected sales for the Control Period, as shown in the Table above and any deviation from the projected sales shall be claimed at the time of Truing-up of respective year.

Commission's Analysis

5.2.10 The methodology followed by MADC for projecting the energy sales for the 4th Control Period has been set out in the submission of MADC. The Commission notes that 5-year, 3-year and 1-year Combined Annual Growth Rate (CAGR) of MADC's past sales is abnormally higher mainly due to growing business of MADC, as shown in the Table 146 of this order.

5.2.11 In this regard, the Commission agrees with the MADC's submission that such exponential CAGR is unrealistic to be considered for projection purpose and therefore, the conventional methodology of projecting future energy sales on the basis of past data would not be appropriate for MADC. The Commission notes that MADC has considered NIL growth in sales over existing sales for FY 2019-20 and has worked out additional energy sales from incremental load using load factor of 0.68 (i.e., actual for FY 2019-20).

5.2.12 The Commission presumes that the projections considered by MADC in the present Petition are based on ground realities and more realistic after carrying out due diligence for past and future load demand. Accordingly, the Commission is inclined to accept as it is the category-wise sales as projected by MADC in the best position to judge the sales growth based on existing and future load growth in the SEZ area. For the purpose of projections of sales, the Commission has accepted the methodology proposed by MADC, however, the actual sales shall be scrutinised at the time of final True-up of respective years.

5.2.13 Further, the present load for FY 2019-20 is taken as 12 MW by MADC and load growth from prospective consumers after pandemic recovery is considered to increase approximately by 1 MW year on year from FY 2021-22 onwards. In this regard, the Commission notes that vide its Order dated 14 January, 2021 in Case No. 236 of 2020, the Commission has approved the power procurement plan for MADC for 4th Control Period wherein the projected load demand has also been approved. The relevant extract from the said Order is reproduced below:

"10.3 The Commission notes that base load might have increased due to increase in the number of consumers. Whereas Covid-19 pandemic may have affected peak Demand. The Commission also notes that MADC has projected the load for medium term power procurement in line with its MYT Petition filed before the Commission on 29 November 2020 as follows:

Particulars	***FY 2020-21***	***FY 2021-22***	***FY 2022-23***	***FY 2023-24***	***FY 2024-25***
Load (MW)	*12*	*13*	*14*	*15*	*16*

10.4 In absence of detailed basis of load projection in the present Petition and considering the fact that projected load is similar to that of existing demand being served by MADC, the Commission assumes that MADC as a distribution licensee has carried out the sensitivity analysis of the past, current and future trends/ situations for projecting its demand.

…."

5.2.14 Further, vide its Order dated 03 May, 2021 in Case No. 20 of 2021, the Commission has approved the revised power procurement plan including revised projections of load profile for 4th Control Period. The relevant extract from the aforesaid Order is reproduced below:

"12.3 In order to avoid above situation, MADC revised power requirement as "up to 16 MW" and load profile for every year. The details of revised power requirement and the load profile are as below:

Hours	***Capacity Required (In MW)***	***Commencement of Supply***	***Delivery Point***
00:00 to 24:00	*Upto 16 MW*	*1.03.2021 to 28.02.2025*	*AT the interface point of 220 KV AMNEPL Bus and MSETCL Transmission Network at KhairiKhurd, Hingana Nagpur*

Load profile

Period	***00:00 to 06:00***	***06:00 to 09:00***	***09:00 to 14:00***	***14:00 to 17:00***	***17:00 to 20:00***	***20:00 to 24:00***
1.03.2021 to 28.02.2022	*6*	*9*	*13*	*12*	*11*	*6*
1.03.2022 to 28.02.2023	*6*	*9*	*14*	*12*	*11*	*6*
1.03.2023 to 28.02.2024	*6*	*9*	*15*	*13*	*12*	*6*
1.03.2024 to 28.02.2025	*6*	*9*	*16*	*14*	*12*	*6*

12.4 In this regard, the Commission observes that MADC's revised power procurement plan is just rephrasing/alternate representation of the power procurement plan approved by the Commission vide Order dated 14 January, 2021 and the said revised power procurement plan is almost matching earlier approved plan. Although MADC has stated the power 'up to 16 MW' is to be procured such procurement is subjected to yearly load profile. Such alternate representation of its power requirement was undertaken by MADC based on comments received during pre-bid meeting for simplifying bidding process.

12.5 As there is no major change in revised power procurement plan than that was approved by this Commission in Order dated 14 January, 2021, the Commission is approving the same."

5.2.15 As the projected demand for the 4th Control Period is in line with the approved power procurement plan, the Commission has considered the same as submitted by MADC.

5.2.16 Also, it was observed that MADC has not proposed any sales to various categories viz., HT Residential, HT Streetlight and LT Residential, as there is no existing load of the same. The Commission accepts the same and has not considered any load and sales for the said categories.

5.2.17 The Commission in the previous tariff orders issued for other distribution licensee within the State had indicated implementation of kVAh billing from 1 April 2020 for certain categories of customer and accordingly has implemented for various distribution licensee w.e.f. 1st April 2020. However, MADC has not proposed kVAh sales and tariff for all categories in accordance with the Commission's directions. Therefore, the Commission has sought readiness of MADC for implementation of kVAh billing along with the confirmation of all consumers having the requisite metering and billing infrastructure. Also, the Commission asked MADC to submit sales projection in MkVAh for the 4th Control period (i.e. from FY 2021 -22 to FY 2024 -25) along with actual Power factor of each category for FY 2017-18, FY 2018-19. In reply to the said data gaps, MADC submitted that all HT Consumer Meters are capable of Recording kVAh reading and most of the LT consumers meters are capable of Recording kVAh reading. However, only 14 (Fourteen) consumers of LT category are having old meters and not capable of recording kVAh reading. In view of this MADC has not proposed KVAh billing in the present Petition. However, MADC shall adopt the billing methodology as per directives of the Commission. Accordingly, MADC has submitted following yearly category wise Average Power Factor for consideration of kVAh Tariff:

Table 153: Yearly Category wise Average Power factor

Sr	Year	HT-Ind	HT-Comm.	LT-Ind	LT-Comm.	LT-St. Light	LT-Public service
1	2019-20	0.98	0.97	0.96	0.95	0.85	0.85
2	2020-21	0.99	0.98	0.93	0.95	0.84	0.85
3	2021-22	0.99	0.95	0.95	0.96	0.89	0.82
4	Average	0.99	0.97	0.95	0.95	0.86	0.84

5.2.18 Accordingly, the Commission has considered the Actual Power Factor for FY 2020-21 to FY 2021-22 and Average Power Factor for FY 2022-23 to FY 2024-25 for calculation of Sales in MkVAh.

5.2.19 The summary of the sales projection approved by the Commission for the 4th Control Period is summarized in the Table below:

Table 154: Sales projected for Control Period from FY 2020-21 to FY 2024-25, as approved by the Commission (MU and MkVAh)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
	MUs					MkVAh				
HT -Category										
Industrial	64.98	70.39	75.81	81.22	86.64	65.63	71.10	76.83	82.32	87.81
Commercial	2.82	3.06	3.29	3.53	3.77	2.88	3.22	3.41	3.65	3.89
Sub-Total	**67.80**	**73.45**	**79.10**	**84.75**	**90.40**	**68.52**	**74.32**	**80.24**	**85.97**	**91.70**
LT- Category										
Industrial	1.44	1.56	1.68	1.80	1.92	1.54	1.64	1.77	1.90	2.02

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
	MUs					MkVAh				
Commercial	0.91	0.99	1.06	1.14	1.21	0.96	1.03	1.11	1.19	1.27
Street Light	0.88	0.95	1.02	1.09	1.17	1.04	1.07	1.19	1.27	1.36
Public Services	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03
Sub- Total	**3.24**	**3.51**	**3.78**	**4.05**	**4.32**	**3.56**	**3.75**	**4.10**	**4.39**	**4.68**
Grand Total	**71.04**	**76.96**	**82.88**	**88.80**	**94.72**	**72.08**	**78.08**	**84.34**	**90.36**	**96.38**

5.3 Distribution loss

MADC's Submission

5.3.1 MADC submitted that as per Regulation 90 of MYT Regulations, 2019, Distribution Licensee shall compute its power purchase requirement at T<>D interface point by grossing up the sales with the Distribution loss approved by the Commission. The relevant extract of Regulation is reproduced as under:

"90 Distribution Losses

The power purchase requirement of the Distribution Licensee at the Transmission-Distribution interface point, shall be computed by grossing up the sales with the distribution losses approved by the Commission:"

5.3.2 In view of the above, MADC submitted that Distribution loss for Control Period is projected at 1.25%. MADC further submitted that Distribution losses are only on account of technical loss in the system. Distribution Losses in the area of supply of MADC is very low and there is very negligible scope for improvement and it expects the loss levels to remain same for the entire Control Period as the sales are also increasing. In view of this, MADC has considered same level of losses for the Control Period. Distribution Losses projected by MADC is as shown in the Table below:

Table 155: Projection of Distribution loss as submitted by MADC

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Distribution loss (%)	1.25%	1.25%	1.25%	1.25%	1.25%

Commission's Analysis

5.3.3 The Commission has noted the submission of MADC with regards to distribution loss projection for the 4th MYT Control Period. MADC has proposed the Distribution losses level as 1.25% for the 4th MYT Control Period. Upon analysis of the actual distribution losses of the past period, the Commission observes that the MADC has reduced its distribution losses from 1.83% in FY 2017-18 to 0.94% in FY 2019-20 and hence it is imperative that it should strive to achieve further efficiency in

Distribution losses or at least retain this achievement rather than proposing loss levels higher than the levels that have been achieved. Therefore, the Commission is not inclined to accept this proposal of MADC.

5.3.4 The Commission directs MADC to continue its efforts in bringing down the Distribution losses to the lowest possible levels and ensure that performance does not deteriorate beyond the levels already achieved in the past. In view of the above, the Commission for the purpose of the present approval has retained the Distribution loss target at 0.94% for the entire 4th MYT Control Period as given in the Table below:

Table 156: Projection of Distribution loss approved by the Commission

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Distribution loss (%)	0.94%	0.94%	0.94%	0.94%	0.94%

5.4 Transmission Loss:

MADC's Submission

5.4.1 MADC submitted that the T&D network in its distribution area is connected to the 220/33 kV Abhijeet MADC Nagpur Energy Pvt. Ltd.(AMNEPL) substation through a dedicated 220 kV transmission line maintained by AMNEPL and power is received at 220/33 kV sub-station and distributed at 33 kV, 11 kV and LV voltage levels to consumers. In view of this, MADC is required to factor in AMNEPL dedicated line transmission loss while projecting its power purchase requirement based on projection of sales for the Control Period. Accordingly, for the projection of AMNEPL dedicated transmission line loss for the Control Period, MADC has considered line losses at 0.75%.

5.4.2 MADC has submitted that it has considered the Intra-State Transmission loss for the Control Period in line with the InSTS Tariff Order dated 30 March, 2020.

5.4.3 Projection of Transmission losses for the Control Period is shown in the Table below:

Table 157: Projection of Transmission loss as submitted by MADC

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
AMNEPL dedicated line Transmission loss (%)	0.75%	0.75%	0.75%	0.75%	0.75%
Maharashtra STU loss (%)	3.18%	3.18%	3.18%	3.18%	3.18%

Commission's Analysis

5.4.4 The Commission has noted the submission of MADC whereby it has proposed transmission loss for AMNEPL's dedicated line as 0.75% for the entire Control Period. The Commission observes that the actual transmission loss as submitted and approved for FY 2019-20 for the AMNEPL's dedicated line losses is 0.63%. The

Commission finds no merit in approving higher loss and hence the Commission retains the loss level at 0.63% for the entire Control Period.

5.4.5 The Commission observes that the approved Intra State transmission losses is 3.18% for the entire Control Period and the same has been considered by MADC. However, since MADC has delayed filing the petition and the order has been issued post completion of FY 2020-21 and FY 2021-22, the Commission is considering the actual InSTS loss as provided by MSLDC for the said period. Accordingly, the Commission has considered the actual Intra-State Transmission loss for FY 2020-21 to FY 2021-22 and 3.18% as normative loss for the FY 2022-23 to FY 2024-25.

5.4.6 However, as detailed out in the subsequent section of this order, it is observed that MADC has entered into power purchase agreement for the entire 4th Control Period, whereby power will be delivered and Commercial arrangement for power would be at interface point as 220 kV AMNEPL Bus and MSETCL transmission Network at Khairi-Khurd, Hingana, Nagpur. Accordingly, InSTS loss will not be applicable as power is scheduled at the AMNEPL bus bar which will be accounted for post InSTS loss. Hence, the Commission has not considered any InSTS loss for the projection purpose as the same will not be applicable.

5.4.7 Transmission losses considered by the Commission for the Control Period is shown in the Table below:

Table 158: Projection of Transmission loss, as approved by the Commission

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
AMNEPL dedicated line Transmission loss (%)	0.63%	0.63%	0.63%	0.63%	0.63%

5.5 Energy Balance

MADC's Submission

5.5.1 MADC has submitted that the Energy balance for the entire Control Period based on projected sales and distribution loss discussed in the above sections. Accordingly, MADC has projected the energy requirement for the Control Period, as under:

Table 159: Projection of energy balance for 4th Control Period as submitted by MADC

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Energy Sales (MU)	71.04	76.96	82.88	88.80	94.72
Distribution loss (%)	1.25%	1.25%	1.25%	1.25%	1.25%
Energy Requirement after distribution losses (MU)	71.94	77.94	83.93	89.93	95.92
AMNEPL dedicated line Transmission loss (%)	0.75%	0.75%	0.75%	0.75%	0.75%

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Energy Requirement after AMNEPL dedicated line Transmission loss (MU)	72.48	78.52	84.56	90.60	96.65
Maharashtra STU loss (%)	3.18%	3.18%	3.18%	3.18%	3.18%
Energy Requirement after STU loss (MU)	74.86	81.10	87.34	93.58	99.82
Power Purchase (MU)	74.86	81.10	87.34	93.58	99.82

Commission's Analysis

5.5.2 The Commission has noted the submission of MADC. For the computation of Energy Balance, the Commission has considered the distribution losses as 0.94% and AMNEPL's dedicated line losses as 0.63% as considered for provisional truing up for FY 2019-20. Accordingly, it has computed the Energy Balance for the 4th MYT Control Period as shown in the Table below:

Table 160: Energy balance for 4th Control Period, as approved by the Commission

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Energy Sales (MU)	71.04	76.96	82.88	88.80	94.72
Distribution loss (%)	0.94%	0.94%	0.94%	0.94%	0.94%
Energy Requirement after distribution losses (MU)	71.72	77.69	83.67	89.64	95.62
AMNEPL dedicated line Transmission loss (%)	0.63%	0.63%	0.63%	0.63%	0.63%
Energy Requirement after AMNEPL dedicated Transmission loss (MU)	72.17	78.19	84.20	90.22	96.23
Maharashtra InSTS loss (%)	0.00%	0.00%	0.00%	0.00%	0.00%
Energy Requirement after InSTS loss (MU)	72.17	78.19	84.20	90.22	96.23
Power Purchase (MU)	72.17	78.19	84.20	90.22	96.23

5.6 Power Purchase Expense

MADC's Submission

5.6.1 As per Regulation 20.1 of the MYT Regulations, 2019, MADC is required to submit the plan for procurement of power for meeting demand of electricity in its area of supply.

Power Purchase for FY 2020-21:

5.6.2 MADC submitted that the Commission has approved power procurement for the period from 1 September, 2019 to 31 August, 2020 at the rate of Rs. 4.89/kWh from

MSEDCL vide Order dated 30 August, 2019 in Case No. 244 of 2019.

5.6.3 Subsequently, the Commission has approved power procurement for the period from 1 September, 2020 to 28 February, 2021 at the rate of Rs. 4.89/kWh from MSEDCL vide Order dated 29 August, 2020.

5.6.4 Accordingly, MADC has considered power purchase for the period from April 2020 to February 2021 from MSEDCL at Rs.4.89/kWh and considered the same rate for projection of power purchase for the month of March 2021 as shown in Table below:

Table 161: Power purchase cost for FY 2020-21, as submitted by MADC

Particulars	FY 2020-21		
	Quantum (MU)	Cost (Rs. Crore)	Per Unit Cost (Rs. /kWh)
Power Purchase from MSEDCL			
1 April, 2020 to 31 March, 2021	**74.86**	**36.61**	**4.89**

Power Purchase for FY 2021-22 to FY 2024-25:

5.6.5 In compliance with the directives issued by Commission vide its Order dated 14 January 2021 and in view of power procurement arrangement ending on 28 February 2021, MADC had floated a tender for the procurement of power from 01March, 2021 to 28 February, 2025 and discovered rate of Rs 5.25/ kWh after E Reverse Auction from MSEDCL as a single bidder MADC had decided to continue with single bidder MSEDCL. The Commission in its Order dated 03 May 2021 in Case No. 20 of 2021, rejected adoption of tariff of Rs.5.25/kWh, being non-reflective of market price and directed to undertake rebidding, continuing the supply from MSEDCL at Rs 5.25/ kWh an interim arrangement.

5.6.6 Hence, MADC has presently considered power procurement for the period from April 2021 to October 2021 at the rate of Rs. 4.75/kWh. After re-bidding the Commission vide its Order in Case No 137 of 2021 has adopted rate of Rs 4.48/kWh for the period from 01 November, 2021 to 31 October, 2025 and approved medium term PPA between Mainikaran Power Ltd and MADC. Accordingly, considering the above facts and assumption of the rate for power purchase, following was the summary of the power purchase units and cost for the period from FY 2021-22 to FY 2024-25.

Table 162: Power purchase cost for FY 2021-22 to FY 2024-25, as submitted by MADC

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Power Purchase Quantum (MU)	81.10	87.34	93.58	99.82
Power Purchase Cost (Rs. Crore)	37.70	39.13	41.92	44.72
Average Power Purchase Cost (Rs. /kWh)	4.65	4.48	4.48	4.48

Renewable Purchase Obligation:

5.6.7 MADC submitted that as per definition provided in Maharashtra Electricity Regulatory Commission (Renewable Purchase Obligation, its Compliance and Implementation of Renewable Energy Certificate Framework) Regulations, 2019 (hereinafter referred as RPO Regulations 2019), Distribution Licensee is obligated entity who is required to comply with RPO under these Regulations. The extract of relevant Regulation is reproduced as under:

"5.1 The percentage specified in Regulation 7.1 shall be applicable to all Obligated Entities covering Distribution Licensees, Open Access Consumers and captive users within Maharashtra, subject to the following conditions"
.(a)…….
(b) Any person having a Contract Demand of not less than 1 MW and who consumes electricity procured from conventional fossil fuel-based generation through Open Access shall be subject to RPO to the extent of a percentage of his consumption met through such fossil fuel-based Open Access source:
…………..."

5.6.8 Also, RPO target for the Control Period is specified in RPO Regulations 2019. Relevant extract of Regulation 7.1 of RPO Regulations 2019 is reproduced as under:

7.1 Every Obligated Entity shall procure electricity generated from eligible RE sources to the extent of the percentages, out of its total procurement of electricity from all sources excluding energy from Hydro power in a year, set out in the following Table:

Year	***Quantum of Power purchase (in %) from Renewable Energy Resources (in term of energy equivalent in kWh)***		
	Solar	***Non-Solar***	***Total***
2020-21	*4.50%*	*11.50%*	*16.00%*
2021-22	*6.00%*	*11.50%*	*17.50%*
2022-23	*8.00%*	*11.50%*	*19.50%*
2023-24	*10.50%*	*11.50%*	*22.00%*
2024-25	*13.50%*	*11.50%*	*25.00%*

……………….."

5.6.9 MADC further stated that, it would take efforts during MYT Control Period to tie up Solar and non-Solar power through competitive bidding process. MADC proposed to fulfil the RPO compliance through purchase of RECs for the MYT Control Period from FY 2020-21 to FY 2024-25. Therefore, MADC for the purpose of projections in MYT has considered to procure RECs instead of RE power.

5.6.10 MADC has considered the REC price of Rs. 1.00 per unit for purchase of Solar REC's and Non Solar REC's for the entire Control Period. The difference in cost of purchase of RECs and/or RE power shall be claimed through the FAC mechanism and at the time of True-up. Details of RPO quantum and corresponding cost for the Control Period is tabulated as under.

Table 163: Projection of energy balance for 4th Control Period, as submitted by MADC

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
RPO Quantum (MU)					
Solar	2.63	-	6.99	9.83	13.48
Non-Solar	9.69	-	10.04	10.76	11.48
REC Rate (Rs. /kWh)					
Solar	1.00	1.00	1.00	1.00	1.00
Non-Solar	1.00	1.00	1.00	1.00	1.00
RPO Cost (Rs. Crore)					
Solar	0.26	-	0.70	0.98	1.35
Non- Solar	0.97	-	1.00	1.08	1.15
Total Cost	**1.23**	**-**	**1.70**	**2.06**	**2.50**

5.6.11 MADC has projected the source-wise power purchase quantum and cost from FY 2020-21 to FY 2024-25 as shown in the Table below:

Table 164: Power purchase cost for 4th Control Period, as submitted by MADC

Particulars	Source	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Power Quantum (MU)	Medium- Term	74.86	81.10	87.34	93.58	99.82
	Total	**74.86**	**81.10**	**87.34**	**93.58**	**99.82**
Power Purchase Cost(Rs. Crore)	Medium- Term	36.61	37.70	39.13	41.92	44.72
	Solar REC	-	-	0.70	0.98	1.35
	Non-Solar REC	-	-	1.00	1.08	1.15
	Total	**36.61**	**37.70**	**40.83**	**43.98**	**47.21**
Average Power Purchase Cost (Rs./kWh)	Medium- Term	4.89	4.65	4.48	4.48	4.48
	Total	**4.89**	**4.65**	**4.68**	**4.70**	**4.73**

Commission's Analysis

5.6.12 The Commission has considered quantum of power purchase requirement for sale as approved above for the 4th Control Period.

5.6.13 Vide its Order dated 30 August, 2019 in Case No. 244 of 2019, the Commission has approved power procurement from MSEDCL at the rate of Rs. 4.89/kWh for the period from 1 September, 2019 to 31 August, 2020.

> *"……………………..Accordingly, the Commission adopts the power procurement rate of Rs. 4.89 / kWh for the period of 1 September, 2019 to 31 August, 2020. ………………….."*

5.6.14 Thereafter, MADC filed Petition dated 21 August 2020 to undertake competitive bidding for Short Term Power Procurement for six months starting from 1 September, 2020 to 28 February, 2021.

5.6.15 Accordingly, vide its Order dated 29 August, 2020 in Case No. 174 of 2020, the Commission approved extension of power procurement agreement with MSEDCL for the period from 1 September, 2020 to 28 February, 2021 at the rate of Rs. 4.89/kWh, subject to disallowance in power purchase cost. Further, the Commission had expressed its displeasure on the lackadaisical approach of filing late Petition. The relevant extract of the Order is as given below:

"8……………………….

But MADC in the present Petition has again shown same lethargy towards their obligation as Distribution Licensee. It has filed present Petition on 21 August 2020 seeking approval for initiating short-term bidding process as against its existing PPA which is expiring on 31 August 2020. Petition does not mention anything about how such process could be completed before 31 August 2020 and what are arrangements made to mitigate contingencies in case bidding process is not completed by that date. During the hearing, MADC has stated that conducting bidding process is not possible and requested to extend existing power purchase agreement by another six months or a year. MADC tried to justify this delay on account of Covid-19 pandemic which in the opinion of the Commission is not a fully justified reason since after adoption of existing PPA in August 2019, MADC had a complete year to work on its Medium Term Bidding process, out of which 7 months were prior to the impact of Covid-19 pandemic. As existing PPA is expiring on 31 August 2020, the Commission is left with no other option but to extend the existing PPA so as to avoid consumers of MADC going into dark, but at the same time, as explained in subsequent part of this Order, the Commission deems it appropriate to invoke its power under Regulation 23 of the MERC (Multi Year Tariff) Regulations, 2019 ***to disallow part of expenditure on account of MADC's deficiencies in prudent power procurement****.*

……………………..

*"**ORDER***

1. The Case No. 174 of 2020 is allowed subjected to the following:

a. Existing Short Term PPA with MSEDCL is extended for a further period of six months from 1 September, 2020 to 28 February, 2021 at Rs 4.89/ kWh which can be terminated by advance notice of 30 days or any lower period agreed mutually by parties.

b. ***Due to MADC's inefficiencies in power procurement, it will not be allowed to include entire power purchase expenses in the ARR. There may be disallowance to the extent of difference between Rs. 4.89/kWh and the rates***

at which power is available during the period of operation of this extended PPA.

c. MADC is directed to separately show the difference in amount of the power purchase cost as has been directed in Para 10.5 and para 10.6 above.

d. MADC is directed to work on establishing separate connectivity link with State Transmission System before the end of this extended period of PPA.

e. MADC may reduce such disallowance in power procurement by procuring part of its power requirement through power exchanges or speed up process of fresh competitive bidding and enter into fresh contract.

2. MADC to file its MYT Petition on or before 30 November 2020."(Emphasis Supplied)

5.6.16 As directed in the above said order, MADC has not highlighted the difference in the amount of the power purchase cost and has claimed the same rate of Rs. 4.89/kWh for the extended period till 28 February 2021.

5.6.17 Further, as term of aforesaid PPA was expiring on 28 February 2021, MADC initiated competitive bidding process as per the guidelines dated 30 January, 2019 issued by the MoP and accordingly, the bid was floated on DEEP Portal. However, MADC received only one bid of MSEDCL and E- Reverse Auction was carried on 4 February, 2021 whereby MSEDCL quoted tariff of Rs. 5.25/ kWh. MSEDCL being single bidder, MADC requested MSEDCL to offer discount vide letter dated 18 February, 2020 which was refused by MSEDCL. As existing Short-Term contract with MSEDCL was to expire on 28 February, 2021, MADC placed LOA with MSEDCL for supply of power from 1 March, 2021 to 28 February, 2025 at price Rs. 5.25 / kWh discovered through competitive bidding.

5.6.18 Pursuant to aforesaid bidding process, MADC approached the Commission for adoption of tariff discovered through competitive bidding. The Commission in its Order dated 3 May, 2021 in Case No. 20 of 2021, rejected the adoption of Tariff Rs. 5.25/kWh, being non-reflective of market price. However, the Commission allowed MADC to continue scheduling of power against LoA issued at rate of Rs. 5.25/kWh in order to maintain continuity of power supply to consumers in MIHAN SEZ. The relevant extract from the said Order is provided below:

"13.6 The Commission notes that discovered rate of Rs 5.25/ kWh through competitive bidding is exclusive of interstate transmission charges and transmission losses (since the source is intrastate). Whereas tariff for the contract which expired on 28 February, 2021 was Rs 4.89/ kWh (inclusive of interstate transmission charges and transmission losses). MSEDCL is power supplier in both the cases. Thus, new discovered rate is on higher side.

.....

13.12 Hence, the Commission is of considered opinion that such high rate cannot be adopted under Section 63 of the EA, 2003 as it is not reflective of market price."

5.6.19 The Commission also directed MADC to undertake re-bidding of its power requirement, complete the procedure and file the Petition for adoption of tariff within six months from the date of the said Order and such high power purchase cost may not be allowed to be passed on fully to consumers. Accordingly, appropriate view on this issue based on new rate as discovered in re-bidding process will be considered and accordingly the Commission may disallow certain power purchase expenses during Multi Year Tariff (MYT) Order. The relevant extract is as reproduced below:

*"**ORDER***

4. Maharashtra Airport Development Company Ltd to undertake re-bidding of its power requirement, complete the procedure and file the petition for adoption of tariff within six months from the date of the Order.

5. The Commission allows Maharashtra Airport Development Company Ltd to continue scheduling of power against LoA issued by it at rate of Rs. 5.25/kWh in order to maintain continuity of power supply to consumers in MIHAN SEZ.

*6. **Such power purchase cost may not be allowed to be passed on fully to consumers as it is. The Commission will take appropriate view on this issue based on new rate as discovered in re-bidding process and accordingly may disallow certain power purchase expenses during Multi Year Tariff (MYT) Order**."*

5.6.20 Accordingly, as specified in the order, MADC within 6 months i.e. on 30 September 2021, filed Petition for seeking approval of power procurement plan, Power Purchase agreement (PPA) and adoption of Tariff for medium term power procurement starting from 1 November, 2021 to 31 October, 2025. As specified in the said Petition, MADC floated a tender on DEEP Portal on 16 July, 2021 for procurement of power up to 16 MW for the period from 1 November, 2021 to 31 October, 2025.The maximum requirement for first year was stated to be13 MW with increase of 1 MW every year so that maximum requirement for fourth year would become16 MW. The requirement was worked out based on Availability based Tariff (ABT) meter data of MADC for March to June 2021. Also, the payment of Energy Charge is based on 'final implemented schedule' at interface point i.e. Interface of MSETCL and AMNEPL at 220 kV Khiri Khurd Hingana substation.

5.6.21 Based on the said tender, MSEDCL and MPL responded to the bid and their bids were found technically qualified, whereby Manikaran Power Limited (MPL) emerged as the lowest bidder with quoted lump sum rate of Rs. 4.48 per kWh which included fixed charges as Rs. 2.24 per kWh to be paid on the basis of 'Declared Capacity' as per load profile and energy charges as Rs. 2.24 per kWh to be paid on the basis of 'final implemented schedule' at interface point. The Commission vide its Order dated 28 October 2021 in Case No. 137 of 2021, adopted tariff for power procurement for the period 01.11.2021 to 31.10.2025 at Rs.4.48/kWh from MPL. The relevant extract of the order is outlined as below:

*"**ORDER***

1. The Case No. 137 of 2021 is allowed.

2. The Commission approves the revised power procurement plan of Maharashtra Airport Development Company Ltd. as stated in para 10.5 above.

3. Under Section 63 of the Electricity Act, 2003, the Commission adopts Short Term Power Procurement for the period of 1 November, 2021 to 31 October, 2025 by Maharashtra Airport Development Company Ltd as stated in para 11.10 above.

4. Accordingly, PPA signed with M/s Manikaran Power Limited is approved. Maharashtra Airport Development Company Ltd., to submit copy of Final PPA to the Commission for records."

5.6.22 Based on the above analysis, the Commission has considered the recently adopted Tariff as shown in the Table below and restricted the cost of power purchase for the period 1 September 2020 to 31 October, 2021 as held by the Commission in its Order in Case No 174 of 2020 and Case No 20 of 2021:

Table 165: Power Purchase Rate for FY 2020-21 to FY 2024-25 as approved by the Commission

Particulars	Source	Power Purchase (MU)	Actual Per unit Cost (Rs./kWh)	Approved Per Unit Cost (Rs./kWh)	Cost disallowed (Rs. Crores)	MERC Case No.
1 April, 2020 to 31 August 2020	MSEDCL	32.41	4.89	4.89	-	244 of 2019
1 September, 2020 to 28 February, 2021	MSEDCL	35.08	5.25	4.48	2.70	174 of 2020 and 137 of 2021
1 March, 2021 to 31 March, 2021	MSEDCL	4.68	5.25	4.48	0.36	20 of 2021 and 137 of 2021
1 April 2021 to 31 October 2021	MSEDCL	48.71	5.25	4.48	3.75	20 of 2021 and 137 of 2021
1 November 2021 to 31 March 2022	Manikaran	29.48	4.48	4.48	-	137 of 2021
1 April 2022 to 31 March 2023	Manikaran	84.20	4.48	4.48	-	137 of 2021
1 April 2023 to 31 March 2024	Manikaran	90.22	4.48	4.48	-	137 of 2021
1 April 2024 to 31 March 2025	Manikaran	72.17	4.48	4.48	-	137 of 2021

Renewable Purchase Obligation:

5.6.23 The Commission observes that MADC in its Petition has proposed to procure power from Medium-term sources from FY 2021-22 onwards. However, while computing the RPO requirement, MADC has considered power procurement from MSEDCL for whole of FY 2021-22 and power procurement from Medium-term from FY 2022-23 to FY 2024-25. This apparent computation error of MADC has been rectified by the Commission and has determined the RPO requirement by considering power procurement from Medium-term sources for the period FY 2021-22 to FY 2024-25 after excluding the MSEDCL power procured till October 2021. Based on the above, the Commission has determined the RPO requirement of MADC for the 4th Control Period in accordance with the RPO Regulations, 2019 as shown in the Table below:

Table 166: RPO requirement of MADC approved by the Commission for FY 2020-21 to FY 2024-25

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Power Purchase requirement (A)	72.17	78.19	84.20	90.22	96.23
Less: Power Purchase from MSEDCL till Oct. 2021 (B)	72.17	48.71	0.00	0.00	0.00
Net Power Purchase requirement (C=A-B)	**0.00**	**29.48**	**84.20**	**90.22**	**96.23**
RPO %					
Solar (D)	4.50%	6.00%	8.00%	10.50%	13.50%
Non-Solar (E)	11.50%	11.50%	11.50%	11.50%	11.50%
RPO					
Solar (C*D)	-	1.77	6.74	9.47	12.99
Non-Solar (C*E)	-	3.39	9.68	10.37	11.07
Total RPO	**-**	**5.16**	**16.42**	**19.85**	**24.06**

5.6.24 Further, the Commission observes that MADC has not considered any power procurement from Renewable Energy sources during the 4th Control Period and has proposed to meet the RPO compliance through purchase of RECs from FY 2022-23 to FY 2024-25. MADC submitted that it would take efforts during 4th Control Period to tie up Solar and non-Solar power through competitive bidding process however, MADC has not given any reason for not initiating the RE procurement process when it is amply clear that conventional power purchase plus REC to meet the RPO is a costlier option. The Commission is of the view that it will be beneficial to purchase the renewable power to meet the RPO which will not only offset power purchase cost but also avoid REC purchase thereby reducing the overall power purchase cost. However, the Commission is aware of the fact that even if MADC initiates the purchase of renewable power, it will take at least 18 to 24 months for the availability of power due to time required to complete the entire process, involving Bidding Process and commissioning timelines required as per Standard Bidding Guidelines for procurement of Wind and Solar power. Taking into consideration the aforesaid facts, the Commission has considered the availability of renewable energy from Wind and Solar sources from FY 2024-25 onwards and has accordingly approved the overall power purchase for MADC. The Commission advises MADC to immediately initiate the Competitive Bidding process for meeting its Renewable Obligations and expects that the benefit is passed on to the consumers. The Commission also feels that MADC needs to be more diligent and ensure that RE power is procured to meet its RPO requirement atleast from FY 2024-25 onwards. The Commission also directs MADC to endure that Power planning is required to be undertaken by considering the procurement of RE power and purchase of REC is to be considered only in case of shortfall of generation of RE power. Accordingly, the Commission approves purchase of REC at floor price of Rs. 1.00/kWh for Solar and Non-Solar Power to be procured in FY 2022-23 and FY 2023-24 to meet RPO. Further, the Commission has considered tariff of Solar and Wind energy as per the last adopted tariff of Rs. 2.56/kWh considered for RE Wind-Solar hybrid power from the grid connected power projects, in Case No. 59 of 2022 dated 7 July, 2022 and has accordingly approved the overall power purchase of MADC for FY 2024-25. Accordingly, the Commission approves the RE energy and REC purchase in order to meet the RPO compliance during the 4th Control Period as shown in the Table below:

Table 167: REC / RE power purchase quantum approved by Commission for FY 2020-21 to FY 2024-25

Particulars	Legend	Past	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
RPO requirement							
Total Solar RPO requirement (MU)	A	0.08	-	1.77	6.74	9.47	12.99
Total Non-Solar RPO requirement (MU)	B	1.30	-	3.39	9.68	10.37	11.07
RE power procurement							
Solar energy purchase (MU)	C		-	-	8.58	9.47	12.99
Non-Solar energy purchase (MU)	D		-	-	14.37	10.37	11.07
Balance RPO							
Solar energy purchase (MU)	E = C-A		0.08	1.84	-	-	-
Non-Solar energy purchase (MU)	F = D-B		1.30	4.68	-	-	-
RE Tariff							
Solar tariff (Rs./kWh)	G		-	-	-	-	2.56
Non-Solar tariff (Rs./kWh)	H		-	-	-	-	2.56
RE Power purchase cost							
Solar energy (Rs. Cr.)	I=CxG/10		-	-	-	-	3.33
Non-Solar energy (Rs. Cr.)	J=DxH/10		-	-	-	-	2.83
REC Tariff							
Solar tariff (Rs./kWh)	K		-	-	1.00	1.00	
Non-Solar tariff (Rs./kWh)	L		-	-	1.00	1.00	
REC purchase cost							
Solar energy (Rs. Cr.)	M=CxK/10		-	-	0.86	0.95	-
Non-Solar energy (Rs. Cr.)	N=DxL/10		-	-	1.44	1.04	-

5.6.25 Accordingly, the total power purchase cost approved by the Commission for the 4th Control Period is as shown in the Table below:

Table 168: Power purchase cost for 4th Control Period, approved by Commission

Particulars	Source	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Power Quantum (MU)	Medium- Term	72.17	78.19	61.25	70.37	72.17
	Solar			8.58	9.47	12.99
	Non-Solar			14.37	10.37	11.07
	Total	**72.17**	**78.19**	**84.20**	**90.22**	**96.23**
Power Purchase Cost (Rs. Crore)	Medium- Term	33.66	35.03	37.72	40.42	32.33
	Solar Power					3.33
	Non-Solar Power					2.83
	Solar REC Purchase			0.86	0.95	
	Non-Solar REC Purchase			1.44	1.04	
	Total	33.66	35.03	37.72	40.42	32.33
Average Power Purchase Cost (Rs./kWh)	Medium- Term	4.66	4.48	4.48	4.48	4.48
	Solar Power					2.56
	Non-Solar Power					2.56
	Solar REC Purchase			1.00	1.00	
	Non-Solar REC Purchase			1.00	1.00	
	Total	**4.66**	**4.48**	**4.75**	**4.70**	**4.00**

* - REC for Renewable Power has not been considered by the Commission

5.7 Intra-State Transmission and MSLDC Charges

MADC's Submission

5.7.1 MADC submitted that as per Regulation 2 (87) of the MYT Regulations, 2019, a Deemed Distribution Licensee, is a Transmission System User (TSU) for the purpose of transmission tariff determination. Further, Regulations 64 and 65 of the MYT Regulations, 2019 specify the mechanism for sharing of Total Transmission System Cost (TTSC) amongst the Transmission System Users. In a similar manner, Regulation 99 of the MYT Regulations, 2019 also specifies the mechanism for sharing of MSLDC charges amongst Transmission System Users.

5.7.2 MADC has considered Intra-State Transmission Charges for the entire Control Period in line with the Intra-State transmission charges approved by the Commission vide Order dated 30 March 2020in Case No. 327 of 2019.

5.7.3 MADC submitted that it was also required to pay for transmission charges to AMNEPL for usage of its dedicated transmission line. MADC further submitted that AMNEPL has filed Petition for determination of user fee for the period from FY 2014-15 to FY 2017-18 as per Petition dated 30 November, 2019 (Case No. 331 of 2019) and same is pending before the Commission. Therefore, MADC has considered transmission charges for usage of AMNEPL dedicated transmission line at the rate of Rs.0.19/kWh while projecting transmission charges for the MYT Control Period.

However, it is be noted that MADC is making payment @75% of the rate of Rs.0.19/kWh i.e. Rs.0.1425/ kWh.

5.7.4 Accordingly, MADC has submitted the projection of Transmission Charges, as tabulated below:

Table 169: Projection of Transmission charges for 4th Control Period as per MADC (in Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Switchyard and Transmission line user charges -AMNEPL	1.35	1.46	1.57	1.69	1.80
Intra-State Transmission charges-TTSC	3.72	3.79	3.86	3.92	3.94
MSLDC Charges	0.02	0.02	0.02	0.02	0.02
Total Transmission and MSLDC Charges	**5.09**	**5.27**	**5.45**	**5.63**	**5.76**

Commission's Analysis

5.7.5 The Commission has noted the submission of MADC with regards to Transmission charges and has considered the Transmission charges for MADC as approved by the Commission in the InSTS Order dated 30 March, 2020 in Case No. 327 of 2019.

5.7.6 As regards, Transmission charges for usage of AMNEPL dedicated transmission line for the 4th MYT Control Period, the Commission has provisionally considered the same as submitted by MADC as the final dispensation in the aforesaid matter is yet to be given.

5.7.7 The Commission has considered the MSLDC Charges for FY 2020-21 to FY 2024-25 as approved in its Order dated 30 March, 2020 in Case No. 291 of 2019.

5.7.8 The Transmission charges considered by the Commission is shown in Table below:

Table 170: Projection of Transmission charges for 4th Control Period as approved by the Commission (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Switchyard and Transmission line user charges -AMNEPL	1.35	1.46	1.57	1.69	1.80
Intra-State Transmission charges-TTSC	3.72	3.79	3.86	3.92	3.94
MSLDC Charges	0.02	0.02	0.02	0.02	0.02
Total Transmission and MSLDC Charges	**5.09**	**5.27**	**5.45**	**5.63**	**5.76**

5.8 Operation and Maintenance Expense

MADC's Submission

5.8.1 MADC submitted that Regulations 75 and 85 of the MYT Regulation, 2019 specify the methodology for determination of O&M expenses for the Control Period from FY 2020-21 to FY 2024-25 for the Wires Business and Supply Business, respectively.

5.8.2 Accordingly, O&M expense for MYT Control Period is projected escalating O&M expense for FY 2019-20 as a base year. Normative O&M expenses for FY 2019-20 is considered by taking the average of O&M expenses for past three years, i.e., FY 2016-17 to FY 2018-19 as an average expense for FY 2017-18 (as a median year) and escalating twice with the weighted average inflation rate of CPI:WPI in the ratio 70:30 to arrive at normative O&M expenses for FY 2019-20.

Table 171: O&M expense for FY 2019-20 for Wire business, as submitted by MADC (in Rs. Crore)

Particulars	Provisional O&M Expenses*			3 yr Avg.	Normative
	FY 2016-17	FY 2017-18	FY 2018-19	(a + b + c)/3	FY 2019-20
	(a)	(b)	(c)		(e)
Employee Expenses	0.42	0.44	0.47	0.44	0.47
A&G Expenses	1.39	0.36	0.25	0.66	0.70
R&M Expenses	0.40	0.34	0.40	0.38	0.40
Total O&M Expenses	**2.20**	**1.13**	**1.12**	**1.49**	**1.57**

Table 172: O&M expense for FY 2019-20 for Supply business, as submitted by MADC (in Rs. Crore)

Particulars	Provisional O&M Expenses*			3 yr Avg.	Normative
	FY 2016-17	FY 2017-18	FY 2018-19	(a + b + c)/3	FY 2019-20
	(a)	(b)	(c)		(e)
Employee Expenses	0.22	0.24	0.25	0.24	0.25
A&G Expenses	0.75	0.19	0.14	0.36	0.38
R&M Expenses	0.21	0.18	0.21	0.20	0.21
Total O&M Expenses	**1.91**	**0.61**	**0.60**	**0.80**	**0.85**

5.8.3 Further, as specified in the MYT Regulations, 2019, normative O&M expenses for FY 2019-20 is escalated by MADC with escalation rate having the weighted average inflation rate of CPI: WPI of past five years in the ratio 70:30 for each year of the Control Period as approved by the Commission in Tariff Order of MSEDCL dated 30 March, 2020 which was equivalent to 3.07% and highlighted as under.

Table 173: Escalation rate for MSEDCL, as submitted by MADC

Year	WPI	WPI inflation	CPI	CPI inflation
FY 2012-13	167.62	7.35%	215.17	10.44%
FY 2013-14	177.64	5.98%	236.00	9.68%
FY 2014-15	181.19	2.00%	250.83	6.29%
FY 2015-16	176.68	(2.49%)	265.00	5.65%
FY 2016-17	183.20	3.69%	275.92	4.12%
FY 2017-18	188.55	2.92%	284.42	3.08%
FY 2018-19	196.62	4.28%	299.92	5.45%
Average from FY 14 to FY18		2.42%		5.76%
Weight		30%		70%

Year	WPI	WPI inflation	CPI	CPI inflation
Escalation Factor				4.76%
Efficiency Factor				1.00%
Escalation factor for FY 18 net of Efficiency Factor				**3.76%**
Average from FY 15 to FY19		2.08%		4.92%
Weight		30%		70%
Escalation Factor				4.07%
Efficiency Factor				1.00%
Escalation factor for FY 19 and MYT Control Period net of Efficiency Factor				**3.07%**

5.8.4 As per the methodology specified in the MYT Regulations, 2019, MADC has submitted the normative O&M expense for the Control Period form FY 2020-21 to FY 2024-25 as shown in Table below:

Table 174: Normative O&M expense for 4th Control Period for Wire business as per MADC (Rs. Crore)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Employee Expense	0.47	0.48	0.50	0.51	0.53	0.55
A&G Expense	0.70	0.72	0.75	0.77	0.79	0.82
R&M Expense	0.40	0.41	0.42	0.44	0.45	0.46
Total O&M Expense	**1.57**	**1.62**	**1.67**	**1.72**	**1.77**	**1.82**
Escalation Rate (CPI:WPI) (70:30)		3.07%	3.07%	3.07%	3.07%	3.07%

Table 175: Normative O&M expense for 4th Control Period for Supply business as per MADC (Rs. Crore)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Employee Expense	0.25	0.25	0.26	0.27	0.28	0.29
A&G Expense	0.38	0.38	0.39	0.40	0.42	0.43
R&M Expense	0.21	0.21	0.22	0.23	0.24	0.24
Total O&M Expense	**0.85**	**0.85**	**0.87**	**0.90**	**0.93**	**0.96**
Escalation Rate (CPI:WPI) (70:30)		3.07%	3.07%	3.07%	3.07%	3.07%

5.8.5 MADC has submitted the detail working of the employee expense, R&M expense and A&G expense. Accordingly, total O&M expense for Wire and Supply business for Control Period is summarised below:

Table 176: Normative O&M expense for 4th Control Period as per MADC (Rs. Crore)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Employee Expense	0.72	0.74	0.76	0.78	0.81	0.83
A&G Expense	1.08	1.10	1.14	1.17	1.21	1.24
R&M Expense	0.61	0.62	0.64	0.66	0.68	0.70
Total O&M Expense	**2.42**	**2.46**	**2.54**	**2.62**	**2.70**	**2.78**

Commission's Analysis

5.8.6 Regulations 75 and 84 of the MYT Regulations, 2019 specifies the stipulation for computation of O&M Expenses as follows:

*"**75 Operation and Maintenance Expenses***

75.1 The Distribution Licensees shall be permitted to recover Operation and Maintenance expenses relating to the Distribution Wires Business in accordance with this Regulation.

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

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

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

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

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

Maintenance expenses for each year of the Control Period:

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

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

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

*"**84 Operation and Maintenance Expenses***

84.1 The Distribution Licensees shall be permitted to recover Operation and Maintenance expenses relating to the Retail Supply Business in accordance with this Regulation.

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

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

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

5.8.7 Based on the above referred Regulations, the Commission has determined the normative O&M expenses for wire and Supply Business separately for the 4th Control Period as explained in the following paras:

Base O&M

5.8.8 For Computation of normative O&M expenses, the Commission has considered the O&M expenses as approved for FY 2016-17 to FY 2018-19 as approved in this Order. As held in this order, considering the first tariff order of MADC, sharing of efficiency of gains/losses of O&M expenses has not been considered while truing up the expenses for FY 2016-17 to FY 2018-19.

Escalation Factor

5.8.9 Accordingly, the Commission has estimated normative O&M expenses for FY 2019-20 by taking the average approved O&M expenses for past three years, i.e., FY 2016-17 to FY 2018-19 and escalating twice with the weighted average inflation rate of WPI:CPI in the ratio 70:30.

5.8.10 Regulations 75.3 and 84.3 of the MYT Regulations, 2019 specify as follows:

> *"The O&M expenses for each subsequent year shall be determined by escalating the base expenses determined of FY 2019-20, by an inflation factor with 30% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the respective past five financial years as per Office of Economic Advisor of Government of India and 70% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all India) of the past five financial years as per Labour Bureau, Government of India in the previous year, as reduced by an efficiency factor of 1%, to arrive at permissible O&M expenses for each year of the Control Period."*

5.8.11 Further, as specified in the MYT Regulations, 2019, normative O&M expenses for FY 2019-20 are escalated with the weighted average inflation rate of WPI: CPI of past five years in the ratio 30:70 for each year of the Control Period. As per the MYT Regulations, 2019, the escalation factor for O&M Expenses from FY 2019-20 and FY 2020-21 is based on the inflation factor considering 30% and 70% weightage for actual point to point WPI and CPI, respectively, in the previous year, reduced by an efficiency factor of 1%.

5.8.12 While calculating the escalation factor, the Commission has considered 2011-12 data series of WPI for 4th Control Period to work out escalation rate for O&M expenses. However, it was noticed that the base of CPI series for Industrial workers (CPI_{IW}) has been changed by the Labour Bureau, from 2001 to 2016 resulting in change in number from September 2020 onwards. Therefore, from FY 2020-21, Labour of Bureau has discontinued publication of CPI based on 2001 series and instead of the same, CPI based on 2016 series has been published. Since, the old base has been discontinued from September 2020, the Commission has considered the new base from September 2020 onwards and modified the same on pro-rata basis to appropriately reflect CPI based on 2001 series so as to maintain consistency and accordingly has calculated the escalation number for FY 2020-21. Accordingly, the detailed calculation of the CPI is as outlined as below:

Table 177: Calculation of CPI on pro-rata basis for 2001 base

Month	FY 2020-21	FY 2020-21
Apr	329.00	
May	330.00	
Jun	332.00	
Jul	336.00	
Aug	338.00	
Sep	338.00	118.10
Oct	342.01	119.50
Nov	343.15	119.90
Dec	340.00	118.80
Jan	338.29	118.20
Feb	340.58	119.00
Mar	342.29	119.60
Average	**337.44**	**119.01**

5.8.13 Also, Efficiency factor as specified in Regulation 75.3 of the MYT Regulations, 2019 (for Wires Business; similar provisions are there for Supply Business also) which specifies as under:

> *"Provided further that the efficiency factor shall be considered as zero, in case there is an increase in the number of consumers including Open Access consumers connected to the Distribution Wires of at least 2 percent annually over the last 3 years: Provided also that in case such increase in the number of consumers is lower than 2 percent annually over the last 3 years, then the reduction in efficiency factor shall be considered in proportion to the percentage growth in the number of consumers"*

5.8.14 The Commission notes that MADC in its submission has not provided any working for calculation of increase in number of consumers. Accordingly, the escalation factor for projecting O&M expenses from FY 2020-21 onwards after considering the efficiency factor of 1% is as given below:

Table 178: Escalation rate for MADC, as approved by the Commission

Year	WPI	WPI inflation	CPI	CPI inflation
FY 2013-14	112.46		236.00	
FY 2014-15	113.88	1.26%	250.83	6.29%

Year	WPI	WPI inflation	CPI	CPI inflation
FY 2015-16	109.72	-3.65%	265.00	5.65%
FY 2016-17	111.62	1.73%	275.92	4.12%
FY 2017-18	114.88	2.92%	284.42	3.08%
FY 2018-19	119.79	4.28%	299.92	5.45%
FY 2019-20	121.80	1.68%	322.50	7.53%
FY 2020-21	123.38	1.29%	337.44	4.63%
Average Inflation of Last 5 years				
For FY 2018-19		1.31%		4.92%
For FY 2019-20		1.39%		5.17%
For FY 2020-21		2.38%		4.96%
Weight		30%		70%
Impact of 30% of WPI + 70% of CPI for inflation factor				
For FY 2018-19				3.83%
For FY 2019-20				4.03%
For FY 2020-21				4.19%
Efficiency Factor				1.00%
Escalation factor as per MYT Regulations, 2019				
For FY 2018-19				**2.83%**
For FY 2019-20				**3.03%**
For FY 2020-21				**3.19%**

5.8.15 Also, it was observed that the legal expenses in FY 2016-17 was on a higher side against which, as specified in para 4.8.8 of the Order, it has incurred higher legal charges mainly due to various issues related to AMNEPL. MADC has also submitted sample invoices for legal expenses amounting to approx. Rs. 1 Crore. The Commission observes that the Legal expenses are in the range of Rs. 0.20 Lacs whereas in FY 2016-17, the legal fees claimed is of Rs. 2.05 Crore which is abnormal in nature. Accordingly, as specified in Regulation 75.2 and 84.2 of MYT Regulations, 2019, the average O&M expenses on the basis of true-up of 3 years ending 31 March 2019 needs to be considered after excluding abnormal expenses and therefore, the Legal expenses of Rs. 1.70 Crore (considered to be abnormal in FY 2016-17) has been deducted while considering the average O&M Expenses of past 3 years. The Commission would like to clarify that such cost has been allowed in truing up for FY 2016-17 but has been excluded only for calculation of average O&M expenses as on FY 2019-20 on the basis of which the projection is carried out for 4th Control period.

5.8.16 Accordingly, the average O&M Expenses as on 31 March, 2019 is computed as outlined in the following table:

Table 179: Average O&M Expenses as on 31 March 2019 (Rs. Crore)

Particulars	Actual O&M Expenses*			3-Year Average
	FY 2016-17	FY 2017-18	FY 2018-19	
Employee Expenses	0.21	0.23	0.37	0.27
A&G Expenses	0.87	1.00	0.75	0.87
R & M Expenses	0.61	0.52	0.61	0.58
Total O&M Expenses	**1.69**	**1.74**	**1.72**	**1.72**

** - Legal expenses adjusted for FY 2016-17*

5.8.17 Accordingly, the Commission has approved the normative O&M Expenses for the 4th Control Period, considering the escalation as specified in Table 178 as given below:

Table 180: Normative O&M expense for 4th Control Period as approved by Commission (in Rs. Crore)

Particulars	FY 2020-21		FY 2021-22		FY 2022-23		FY 2023-24		FY 2024-25	
	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order	MADC Petition	Approved in this Order
Wire Business										
Employee	0.48	1.22	0.50	1.26	0.51	1.30	0.53	1.34	0.55	1.39
A&G	0.72		0.75		0.77		0.79		0.82	
R & M	0.41		0.42		0.44		0.45		0.46	
O&M Expenses	**1.61**	**1.22**	**1.67**	**1.26**	**1.72**	**1.30**	**1.77**	**1.34**	**1.83**	**1.39**
Supply Business										
Employee	0.25	0.66	0.26	0.68	0.27	0.70	0.28	0.72	0.29	0.74
A&G	0.38		0.39		0.40		0.42		0.43	
R & M	0.21		0.22		0.23		0.24		0.24	
O&M Expenses	**0.84**	**0.66**	**0.87**	**0.68**	**0.90**	**0.70**	**0.94**	**0.72**	**0.96**	**0.74**
Combined										
Employee	0.73	1.88	0.76	1.94	0.78	2.00	0.81	2.06	0.84	2.13
A&G	1.10		1.14		1.17		1.21		1.25	
R & M	0.62		0.64		0.67		0.69		0.70	
O&M Expenses	**2.46**	**1.88**	**2.54**	**1.94**	**2.62**	**2.00**	**2.70**	**2.06**	**2.78**	**2.13**

5.9 Capital Expenditure and Capitalisation

MADC's Submission

5.9.1 MADC has submitted that there is no additional capitalisation envisaged for the MYT Control Period.

Commission's Analysis

5.9.2 The Commission has noted the submission of MADC, whereby no CAPEX has been planned for DPR / Non-DPR Schemes and accordingly, the Commission has considered Nil additional capitalization for the 4th MYT Control Period for Wire and Supply Business.

5.10 Depreciation

MADC's Submission

5.10.1 MADC submitted that it has computed the depreciation in accordance with Regulation 28 of the MYT Regulations, 2019 for the Distribution Wires and Retail Supply Business, separately.

5.10.2 MADC has computed asset-wise depreciation on each of the asset class based on the depreciation rates as specified in Annexure I of the MERC MYT Regulations, 2019. The closing GFA of FY 2019-20 considered as opening GFA for FY 2020-21 and onwards. The following Table shows the depreciation computed for the Control Period from FY 2020-21 to FY 2024-25, based on opening GFA and addition to GFA during the respective years:

Table 181: Projection of Depreciation for 4th Control Period, as submitted by MADC (in Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Distribution Wire Business					
Opening GFA	62.60	62.60	62.60	62.60	62.60
Additional Capitalisation during year	-	-	-	-	-
Closing GFA	62.60	62.60	62.60	62.60	62.60
Depreciation	**3.22**	**3.22**	**3.22**	**3.22**	**3.22**
Retail Supply Business					
Opening GFA	0.09	0.09	0.09	0.09	0.09
Additional Capitalisation during year	-	-	-	-	-
Closing GFA	0.09	0.09	0.09	0.09	0.09
Depreciation	**0.005**	**0.005**	**0.005**	**0.005**	**0.005**

Commission's Analysis

5.10.3 The Commission has computed the depreciation for the 4th Control Period as per Regulation 28 of the MYT Regulations, 2019 by considering the rates of depreciation as given in "Annexure-I Depreciation Schedule". The Commission has considered the closing GFA for FY 2019-20 as approved in this Order as the opening GFA for FY 2020-21. The Commission has also taken the addition of GFA as Nil as MADC has not proposed any capitalization during the 4th Control Period. While calculating the depreciation for the 4th Control Period, the Commission has excluded the depreciation on land cost as detailed in para 4.10.4 in the above section of this Order.

5.10.4 Following Table summarizes Depreciation for FY 2021-22 to FY 2024-25 for the Distribution Wire and Supply Business for MADC as approved by the Commission:

Table 182: Depreciation for 4th Control Period, as approved by the Commission (in Rs. Cr.)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Distribution Wire Business					
Opening GFA	62.60	62.60	62.60	62.60	62.60
Additional during year	-	-	-	-	-
Closing GFA	62.60	62.60	62.60	62.60	62.60
Depreciation	**3.21**	**3.21**	**3.21**	**3.21**	**3.21**
Weighted Average Rate	**5.12%**	**5.12%**	**5.12%**	**5.12%**	**5.12%**
Retail Supply Business					
Opening GFA	0.09	0.09	0.09	0.09	0.09
Additions during year	0	0	0	0	0
Closing GFA	0.09	0.09	0.09	0.09	0.09
Depreciation	**0.005**	**0.005**	**0.005**	**0.005**	**0.005**
Weighted Average Rate	**5.28%**	**5.28%**	**5.28%**	**5.28%**	**5.28%**
Total Depreciation	**3.211**	**3.211**	**3.211**	**3.211**	**3.211**

5.11 Interest on Long-Term Loan Capital

MADC's Submission

5.11.1 MADC has submitted that it has computed the Interest on Long-term Loan as per Regulation 30 of the MYT Regulations, 2019. The Closing net normative loan of FY 2019-20 is taken as Opening net normative loan for FY 2020-21 and onwards. The computation of interest on Long-term loan capital has been done on the basis of opening normative loan in a year. The normative repayment of loan has been considered equal to the projected depreciation for the respective year, in accordance with the Regulations. For arriving at the debt component, the debt: equity ratio of 70:30 has been considered on the proposed capitalisation for respective year. As per Regulation 30.5 of MYT Regulations 2019, the rate of interest shall be the weighted average rate of interest computed on the basis of the actual long-term loan portfolio at the beginning of each year. The extract of relevant Regulation is reproduced as under: -

> *"30.5 The rate of interest shall be the weighted average rate of interest computed on the basis of the actual long-term loan portfolio at the beginning of each year:*
>
> *Provided that at the time of Truing-up, the weighted average rate of interest computed on the basis of the actual long-term loan portfolio during the concerned year shall be considered as the rate of interest:*
>
> *Provided further that if there is no actual long-term loan for a particular year but normative long-term loan is still outstanding, the last available weighted average rate of interest for actual long-term loan shall be considered:"*

5.11.2 In line with above said Regulation, MADC has considered weighted average rate of

Interest as per actual loan portfolio of MADC for the calculation of Interest on Loan. Following is the computation of weighted average rate of interest.

Table 183: Calculation of weighted average interest rate for 4th Control Period as submitted by MADC

Particulars	Amount
Bank of Maharashtra	
Opening balance as on 1st April 2020 (A)	-
Rate of interest (B)	0.00%
NCDs	
Opening balance as on 1st April 2020 (C)	90.00
Rate of interest (D)	10.78%
HUDCO	
Opening balance as on 1st April 2020 (E)	-
Rate of interest (F)	0.00%
Total Loan (G=A+C+E)	
Weighted Average Rate of Interest H=(A*B+C*D+E*F)/G	**10.78%**

5.11.3 Interest on long-term capital projected by MADC for the Control Period is shown in the following Table:

Table 184: Interest on Loan for Wire business for 4th Control Period, as per MADC (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Opening Normative Loan	26.60	23.38	20.17	16.95	13.74
Additions during the year	-	-	-	-	-
Repayment of Normative loan	3.22	3.22	3.22	3.22	3.22
Closing of Normative Loan	23.38	20.17	16.95	13.74	10.52
Average Normative Loan	24.99	21.77	18.56	15.34	12.13
Weighted average Rate of Interest(%)	10.78%	10.78%	10.78%	10.78%	10.78%
Interest Expense	**2.69**	**2.35**	**2.00**	**1.65**	**1.31**
Financial charges	-	-	-	-	-
Total Interest & Finance Charges	**2.69**	**2.35**	**2.00**	**1.65**	**1.31**

Table 185: Interest on Loan for Supply business for 4th Control Period as per MADC (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Opening Normative Loan	0.04	0.03	0.03	0.02	0.02
Additions during the year	-	-	-	-	-
Repayment of Normative loan	0.00	0.00	0.00	0.00	0.00
Closing of Normative Loan	0.03	0.03	0.02	0.02	0.01
Average Normative Loan	0.04	0.03	0.03	0.02	0.02
Weighted average Rate of Interest (%)	10.78%	10.78%	10.78%	10.78%	10.78%
Interest Expense	0.00	0.00	0.00	0.00	0.00
Financial charges	-	-	-	-	-
Total Interest & Finance Charges	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Table 186: Interest on Loan of distribution business for 4th Control Period as per MADC (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Interest on loan					
Distribution Wire Business (A)	2.69	2.35	2.00	1.65	1.31
Retail Supply Business (B)	0.00	0.00	0.00	0.00	0.00
Total Interest Expense (C=A+B)	2.70	2.35	2.00	1.66	1.31
Financial charges (D)	-	-	-	-	-
Total Interest & Finance Charges(C+D)	**2.70**	**2.35**	**2.00**	**1.66**	**1.31**

Commission's Analysis

5.11.4 The Commission has computed the interest on long-term loan for the 4th Control Period in accordance with Regulation 30 of the MYT Regulations, 2019. It has considered the closing net normative loan balance for FY 2019-20 as approved in this Order, as the opening net normative loan balance for FY 2020-21. The loan addition during the year is considered as Nil as MADC has not proposed any capitalization during the 4th Control period.

5.11.5 The Commission has considered the repayment equivalent to the depreciation approved for respective year.

5.11.6 As regards the interest rate to be considered, the Regulation 30 of the MYT Regulations, 2019 states that the rate of interest shall be the weighted average rate of interest computed on the basis of the actual loan portfolio at the beginning of each year. The Commission has computed the weighted average interest rate as 10.78% by considering the actual loan portfolio of MADC's business as a whole.

5.11.7 The Commission has calculated the weighted average of interest as provided in Form 6 (source wise) as shown below considering the existing loan as per audited balance sheet of FY 2019-20, which as per MYT Regulations 2019 will be the loan portfolio at the beginning of the year. The same will be considered the same for calculation of normative interest on loan.

Table 187: Calculation of Weighted average rate of interest for 4th Control Period.

Particulars	Amount
Bank of Maharashtra	
Opening balance as on 1st April 2020 (A)	0
Rate of interest (B)	0.00%
NCDs	
Opening balance as on 1st April 2020 (C)	90.00
Rate of interest (D)	10.78%
HUDCO	
Opening balance as on 1st April 2020 (E)	0
Rate of interest (F)	0.00%
Total Loan (G=A+C+E)	**90.00**
Weighted Average Rate of Interest H=(A*B+C*D+E*F)/G	**10.78%**

5.11.8 Accordingly, the weighted average Rate of interest of FY 2019-20 as on 31 March 2020, i.e.,10.78%, has been considered for calculation of interest on the normative loan for each year of the 4th MYT Control Period.

5.11.9 Based on the above, the interest on long-term loan capital as approved by the Commission is shown in the Tables below:

Table 188: Interest on Loan Capital for 4th Control Period, approved by Commission (in Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Distribution Wires Business					
Opening Normative Loan	45.42	42.22	39.01	35.80	32.60
Addition of Normative Loan during the year	-	-	-	-	-
Repayment of Normative Loan during the year	3.21	3.21	3.21	3.21	3.21
Closing Normative Loan	42.22	39.01	35.80	32.60	29.39
Average of Normative Loan	43.82	40.61	37.41	34.20	31.00
Rate of Interest (%)	10.78%	10.78%	10.78%	10.78%	10.78%
Interest Expense	4.72	4.38	4.03	3.69	3.34
Financial charges	-	-	-	-	-
Total Interest & Finance Charges	**4.72**	**4.38**	**4.03**	**3.69**	**3.34**
Retail Supply Business					
Opening balance of net Normative Loan	0.065	0.060	0.055	0.051	0.046
Additional of Normative loan during the year	-	-	-	-	-
Repayment of Normative loan during the year	0.005	0.005	0.005	0.005	0.005
Closing balance of net Normative Loan	0.060	0.055	0.051	0.046	0.041
Average balance of net Normative Loan	0.062	0.058	0.053	0.048	0.043
Weighted average Rate of Interest on Actual loan (%)	10.78%	10.78%	10.78%	10.78%	10.78%
Interest Expense	0.007	0.006	0.006	0.005	0.005
Financial charges	-	-	-	-	-
Total Interest & Finance Charges	**0.007**	**0.006**	**0.006**	**0.005**	**0.005**
Combined Business					
Distribution Wire Business (A)	4.724	4.378	4.033	3.687	3.341
Retail Supply Business (B)	0.007	0.006	0.006	0.005	0.005
Total Interest Expense (C=A+B)	**4.731**	**4.384**	**4.038**	**3.692**	**3.346**

5.12 Interest on Working Capital

MADC's Submission

5.12.1 MADC has submitted that it has computed the Interest on Working Capital for the

Control Period in accordance with Regulation 32 of the MYT Regulations, 2019 for Distribution.

5.12.2 MADC further submitted that the Interest rate has been taken in accordance with Regulation 32.2(b) and 43.3 (b) of MYT Regulations, 2019 for computing the Interest on Working Capital. The one-year SBI MCLR rate as on 10th July 2020 is 7.00%. Accordingly, the rate of interest for computation of IoWC has been considered as 8.50% considering the applicable MCLR of SBI plus 150 basis points, in accordance with the MYT Regulations, 2019. The rate of interest for computation of interest on Consumer Security Deposit (CSD) has been considered equal to the prevailing Bank Rate of Reserve Bank of India (RBI), in accordance with the MYT Regulations, 2019. The IoWC projected by MADC for the Control Period is shown in the Table below:

Table 189: Projected IoWC for Wire Business for the Control Period, as per MADC (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
O&M expenses for a month	0.13	0.14	0.14	0.15	0.15
Maintenance Spares at 1% of Opening GFA	0.63	0.63	0.63	0.63	0.63
One and half months' equivalent of the expected revenue from Wheeling Charges	-	-	-	-	-
Less: Amount held as Security Deposit from Distribution System Users (A)	0.56	0.56	0.56	0.56	0.56
Total Working Capital Requirement (B)	**0.20**	**0.21**	**0.21**	**0.22**	**0.22**
Computation of Interest on Working Capital					
Interest Rate (%) - SBI MCLR +150 basis points (C)	8.50%	8.50%	8.50%	8.50%	8.50%
Interest on Working Capital (D=B*C)	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**

Table 190: Projected IoWC for Supply Business for the Control Period, as per MADC (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
O&M expenses for a month	0.07	0.07	0.08	0.08	0.08
Maintenance Spares at 1% of Opening GFA	0	0	0	0	0
One and half months' equivalent of the expected revenue from Wheeling Charges	5.28	5.71	6.14	6.58	7.02
Less: Amount held as Security Deposit from Distribution System Users (A)	5	5	5	5	5
Less: One month equivalent of cost of power purchase, transmission charges and MSLDC Charges	3.47	3.65	4.05	4.34	4.64
Total Working Capital Requirement (B)	**(3.12)**	**(2.87)**	**(2.84)**	**(2.69)**	**(2.54)**
Computation of Working Capital Interest					
Interest Rate (%) - SBI MCLR +150 basis points (C)	8.50%	8.50%	8.50%	8.50%	8.50%
Interest on Working Capital (D=B*C)	**-**	**-**	**-**	**-**	**-**

5.12.3 The IoWC requirement projected by MADC for the Wire and Supply business is shown in the Table below:

Table 191: IoWC for Distribution Business for the Control Period, as per MADC (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Wire Business	0.02	0.02	0.02	0.02	0.02
Retail Supply Business	-	-	-	-	-
Total Interest on Working Capital	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**

5.12.4 MADC requested the Commission to approve the projected Interest on Working Capital for the Control Period, as shown in the Tables above.

Commission's Analysis

5.12.5 The Commission has reworked the IoWC in accordance with the norms specified in the MYT Regulations, 2019 and based on the parameters such as O&M Expenses, Wires ARR and Supply ARR approved in this Order.

5.12.6 The Commission has computed the normative IoWC in accordance with the MYT Regulations, 2019 whereby the rate of IoWC considered is the SBI MCLR Rate as on the date of filing the Petition (i.e.7.00%) plus 150 basis points.

5.12.7 The computation of the IoWC for FY 2020-21 to FY 2024-25 as approved by the Commission is shown in the Table below:

Table 192: IoWC for Wire Business for the Control Period, as approved by the Commission (Rs. Cr.)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Wire Business					
O&M expenses for a month	0.10	0.11	0.11	0.11	0.12
Maintenance Spares at 1% of Opening GFA	0.63	0.63	0.63	0.63	0.63
One and half months' equivalent of the expected revenue from Wheeling Charges	-	-	1.10	1.06	1.02
Less: Security Deposit from Distribution System Users	0.56	0.56	0.56	0.56	0.56
Total Working Capital Requirement (A)	**1.28**	**1.29**	**2.39**	**2.36**	**2.32**
Computation of Working Capital Interest					
Interest Rate (%) - (B)	8.50%	8.50%	8.50%	8.50%	8.50%
Interest on Working Capital (C=A*B)	**0.01**	**0.01**	**0.11**	**0.11**	**0.10**
Retail Supply Business					
O&M expenses for a month	0.05	0.06	0.06	0.06	0.06
Maintenance Spares at 1% of Opening GFA	0.00	0.00	0.00	0.00	0.00
One and half months' equivalent of the expected revenue from Wheeling Charges	3.87	4.24	4.57	6.36	8.56
Less: Security Deposit from Retail Supply Consumers	5.00	5.00	5.00	5.00	5.00
Less: One month equivalent of	3.23	3.36	3.79	4.00	3.69

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
power purchase, transmission charges and MSLDC Charges					
Total Working Capital Requirement (D)	**(4.31)**	**(4.06)**	**(4.16)**	**(2.59)**	**(0.06)**
Computation of Working Capital Interest					
Interest Rate (%) (E)	8.50%	8.50%	8.50%	8.50%	8.50%
Interest on Working Capital (F=D*E)	-	-	-	-	-
Combined Distribution Business					
Wire Business - C	0.015	0.015	0.109	0.106	0.103
Retail Supply Business - F	-	-	-	-	-
Total Interest on Working Capital (G = C+F)	**0.015**	**0.015**	**0.109**	**0.106**	**0.103**

5.13 Interest on Consumer Security Deposit

MADC's Submission

5.13.1 For computation of Interest on Consumer Security Deposit, the rate of interest for computation of interest on Consumer Security Deposit (CSD) has been considered equal to the prevailing Bank Rate of Reserve Bank of India (RBI), in accordance with the MYT Regulations, 2019.

5.13.2 MADC has computed in Interest on Consumer Security Deposit for the Control Period as shown in the Tables below:

Table 193: Interest on Consumers' Security Deposit for Wire Business and Retail Supply Business for the Control Period, as submitted by the MADC (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Wire Business					
Amount held as Security Deposit from Distribution System Users	0.56	0.56	0.56	0.56	0.56
Interest Rate (%)	4.40%	4.40%	4.40%	4.40%	4.40%
Interest on Security Deposit	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**
Supply Business					
Amount held as Security Deposit from Distribution System Users	5.00	5.00	5.00	5.00	5.00
Interest Rate (%)	4.40%	4.40%	4.40%	4.40%	4.40%
Interest on Security Deposit	**0.22**	**0.22**	**0.22**	**0.22**	**0.22**
Total Interest on CSD	**0.24**	**0.24**	**0.24**	**0.24**	**0.24**

Commission's Analysis

5.13.3 The Commission has projected the Interest on Consumer Security Deposit in accordance with Regulation 30.11 of the MYT Regulations, 2019 which provides that interest shall be allowed only on amount held in cash as security deposit at the Bank Rate declared by RBI as on 1st April of the Year. The relevant extract of the Regulations is reproduced below:

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

5.13.4 Accordingly, prevailing Bank Rate of RBI of 4.25% (*Bank Rate as on 1st April 2022*) is considered by the Commission. The Commission has computed the interest on CSD on the average of opening and closing balance of the year.

5.13.5 Also, as specified in Para 3.12.4, MADC in its reply has stated that at present MADC is not paying interest on Security Deposit to the consumers and will start crediting the interest on Security Deposit as per MERC (Electricity Supply Code And Standards Of Performance Of Distribution Licensees Including Power Quality) Regulations, 2021, from the end of the FY 2021-22. Since the FY 2020-21 and FY 2021-22 has been completed and till date no details has been submitted by MADC on actual payment of Interest on Security deposit to consumers, the Commission at present has not considered any interest on consumer security deposit for the same for the said years. ***Also, the Commission directs MADC to pay interest to all the consumers on their security deposit from the date of the deposit and comply with the relevant Supply Code Regulations in future on a timely basis. Also, the Commission directs to pay the arrears related to interest on security deposit from the date of deposit of the same within 6 months of issue of this order, which can be claimed by MADC in truing up in next tariff petition.***

5.13.6 Accordingly, interest on CSD approved for the 4th Control Period is shown in the Table below:

Table 194: Interest on Consumers' Security Deposit for Wire Business and Retail Supply Business for the Control Period, approved by Commission (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Wire Business					
Amount held as Security Deposit from Distribution System Users	0.56	0.56	0.56	0.56	0.56
Interest Rate (%)	0.00%	0.00%	4.25%	4.25%	4.25%
Interest on Security Deposit	**-**	**-**	**0.02**	**0.02**	**0.02**
Supply Business					
Amount held as Security Deposit from Distribution System Users	5.00	5.00	5.00	5.00	5.00
Interest Rate (%)	0.00%	0.00%	4.25%	4.25%	4.25%
Interest on Security Deposit	**-**	**-**	**0.21**	**0.21**	**0.21**
Total Interest on CSD	**-**	**-**	**0.24**	**0.24**	**0.24**

5.14 Return on Equity

MADC's Submission

5.14.1 MADC has submitted that it has computed the Return on Equity Capital for the Control Period in accordance with Regulation 29 of the MYT Regulations, 2019 for Distribution Wires and Retail Supply Business, separately. The extract of relevant Regulations is reproduced as under:

> *"29.2 Base Return on Equity for the Generating Company, Transmission Licensee, Distribution Wires Business and MSLDC shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put to use, at the rate of 14 per cent per annum in Indian Rupee terms, and for the Retail Supply Business, Return on Equity shall be allowed on the amount of equity capital determined in accordance with Regulation 27 at the rate of 15.5 per cent per annum in Indian Rupee terms:"*

5.14.2 MADC has considered the closing equity balance of FY 2019-20 as opening equity balance of FY 2020-21 and onwards. Addition to equity is considered equal to 30% of the capitalization proposed for respective year of the Control Period as specified in the MYT Regulations, 2019. Further, MYT Regulations, 2019 provides for pre-tax RoE to be computed for the Control Period. The extract of relevant Regulation is provided as under:

> *"34.2 The rate of Return on Equity, including additional rate of Return on Equity as allowed by the Commission under Regulation 29 of these Regulations shall be grossed up with the effective tax rate of respective financial year.*
>
> *34.3 The base rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:*
>
> *Rate of pre-tax return on equity = Base rate of Return on Equity / (1-t),*
>
> *Where "t" is the effective tax rate"*

5.14.3 In line with above Regulation of MYT Regulations, 2019, MADC has calculated effective tax rate based on the Revenue and Expenses for FY 2018-19. However, there is no tax liability for FY 2018-19. Therefore, MADC submitted that, it has considered Return on Equity at base rate (after grossing up zero effective income tax rate) for the projection of RoE for Control Period. MADC has further submitted the RoE computation for distribution wire and retail supply business as shown in Tables below:

Table 195: Projection of Return on Equity for distribution wire business for 4th Control Period, as submitted by MADC (in Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Regulatory Equity at the beginning of the year	18.78	18.78	18.78	18.78	18.78
Equity portion of capitalisation during the year	-	-	-	-	-
Regulatory Equity at the end of the year	18.78	18.78	18.78	18.78	18.78
Return on Equity Computation					
Pre-tax Return on Equity after considering effective Tax rate (%)	14%	14%	14%	14%	14%
Return on Regulatory Equity at the beginning of the year	2.63	2.63	2.63	2.63	2.63
Return on Regulatory Equity addition during the year	-	-	-	-	-
Total return on equity	**2.63**	**2.63**	**2.63**	**2.63**	**2.63**

Table 196: Projection of Return on Equity for retail supply business for 4th Control Period, as submitted by MADC (in Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Regulatory Equity at the beginning of the year	0.03	0.03	0.03	0.03	0.03
Equity portion of capitalisation during the year	-	-	-	-	-
Regulatory Equity at the end of the year	0.03	0.03	0.03	0.03	0.03
Return on Equity Computation					
Pre-tax Return on Equity after considering effective Tax rate (%)	15.5%	15.5%	15.5%	15.5%	15.5%
Return on Regulatory Equity at the beginning of the year	0.004	0.004	0.004	0.004	0.004
Return on Regulatory Equity addition during the year	-	-	-	-	-
Total return on equity	**0.004**	**0.004**	**0.004**	**0.004**	**0.004**

Table 197: Projection of Return on Equity for total distribution business for 4th Control Period, as submitted by MADC (in Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Return on Equity					
Distribution Wire Business (A)	2.63	2.63	2.63	2.63	2.63
Retail Supply Business (B)	0.00	0.00	0.00	0.00	0.00
Total Return on Equity (A+B)	**2.63**	**2.63**	**2.63**	**2.63**	**2.63**

5.14.4 MADC requested the Commission to approve the projected Return on Equity for the Control Period, as shown in the Table above.

Commission's Analysis

5.14.5 The Commission has computed the Return on Equity in accordance with Regulation 29 of the MYT Regulations, 2019. It has considered the closing regulatory equity as approved for FY 2019-20 in this Order as the opening equity for FY 2020-21. The Commission has considered the addition of regulatory equity during the year as Nil as MADC has not proposed any capitalization during the 4th Control Period and the same was approved in this Order.

5.14.6 Also, as specified in para 3.9.6 of this order, the Commission has considered the entire funding of capitalization through debt only and hence the opening balance of the equity as approved by the Commission is NIL.

5.14.7 Based on the above, the Return on equity for the 4th Control Period works out to be zero and the same is approved as outlined in the Table below:

Table 198: Projection of Return on Equity for total distribution business for 4th Control Period, approved by Commission (in Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Distribution Wire Business (A)	-	-	-	-	-
Retail Supply Business (B)	-	-	-	-	-
Total Return on Equity (A+B)	-	-	-	-	-

5.15 Income Tax

MADC's Submission

5.15.1 MADC submitted that as per Regulation 34 of MERC MYT Regulations, 2019, income tax shall be allowed on Return on Equity basis. However, effective tax rate based on revenue and expense for FY 2018-19 worked out to 0%. In view of this, MADC has not claimed Income tax for the Control Period. However, MADC respectfully submits that Income Tax shall be claimed in True Up Petition based on Audited Accounts.

5.15.2 In view of the above, MADC requested the Commission to allow to claim the Income tax for the Control Period in True Up of respective years.

Commission's Analysis

5.15.3 The Regulation 34 of the MYT Regulations, 2019 specifies as follows:

"34.1 The Income Tax for the Generating Company or Licensee or MSLDC for the regulated business shall be allowed on Return on Equity basis, including Additional Return on Equity through the Tariff charged to the Beneficiary/ies, subjected to the conditions stipulated in Regulation 34.2 to 34.6;

Provided that no Income Tax shall be considered on the amount of efficiency *gains and incentives approved by the commission, irrespective of whether or not the amount of such efficiency gains and incentives are billed separately.*

....

34.2 The rate of Return on Equity, including additional rate of Return on Equity as allowed by the Commission under Regulation 29 of these Regulations shall be grossed up with the effective tax rate of respective financial year."

5.15.4 There was no actual tax paid by MADC till FY 2019-20 and MADC has not projected any income tax for the 4th Control Period. Accordingly, the Commission has not considered any effective tax rate for grossing up with Return on Equity for the 4thMYT Control Period. The same will be allowed on actual basis at the time of truing up of the respective year.

5.16 Provisioning for Bad Debts

MADC's Submission

5.16.1 MADC submitted that Regulation 76 of the MYT Regulations, 2019 provides for provision of writing off bad and doubtful debts up to 1.5% of the amount of Trade Receivables.

5.16.2 MADC submitted that it has not considered provision for Bad debt for the Control Period. However, MADC also submitted that the claim for provision of bad debt shall be submitted at the time of True Up of respective years based on Audited Accounts. In view of this, MADC requested the Commission to allow MADC to submit the claim for provision for bad debt in the True up Petition.

Commission's Analysis

5.16.3 The Regulations 76 and 85 of the MYT Regulations, 2019 specifies as follows:

"Provision for Bad and Doubtful Debts - In the MYT Order, for each year of the Control Period, the Commission may allow a provision for Bad and Doubtful Debts up to 1.5 % of the amount shown as Trade Receivables or Receivables from Wheeling Charges in the latest Audited Accounts of the Distribution Licensee in accordance with the procedure laid down by the Licensee, subject to prudence check: ..."

5.16.4 MADC in the Petition has stated that it has not projected any provisioning for Bad and Doubtful Debts for the Control Period and requested to allow the same at the time of true-up. However, it was observed by the Commission, that in the tariff formats – F10, MADC has claimed the provision for doubtful debt equivalent to 0.25% of the receivable. However, considering the submission in the Petition and the past record of MADC, wherein it has claimed provision for Bad and doubtful debts only in FY 2018-19, the Commission is not inclined to allow any provision for bad and doubtful debts at present and will be considered at the time of truing up of the respective years.

Therefore, based on the MADC's submission, the Commission has not considered provisioning for Bad and Doubtful Debts for the 4th Control Period.

5.17 Contribution to Contingency Reserves

MADC's Submission

5.17.1 MADC submitted that Regulation 35 of the MYT Regulations, 2019 provides for Contribution to Contingency Reserves from 0.25% to 1.5% of the original cost of fixed assets. In accordance with the above Regulation MADC has considered 0.5% of original cost of fixed assets as the Contribution to Contingency Reserves. The Contribution to Contingency Reserves projected by MADC is shown the Table below:

Table 199: Contribution to Contingency Reserves for Control Period, as submitted by MADC (Rs. Cr)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Opening GFA of Wire Business	62.6	62.6	62.6	62.6	62.6
Contribution to Contingency Reserves for Wires Business	**0.16**	**0.16**	**0.16**	**0.16**	**0.16**
Opening GFA of Retail Supply Business	0.09	0.09	0.09	0.09	0.09
Contribution to Contingency Reserves for Retail Supply Business	**0.0002**	**0.0002**	**0.0002**	**0.0002**	**0.0002**

5.17.2 MADC requested the Commission to approve the projected Contribution to Contingency Reserves for the Control Period, as shown in the Table above.

Commission's Analysis

5.17.3 The Regulation 35 of the MYT Regulations, 2019 specifies as follows:

*"**35 Contribution to Contingency Reserves –***

35.1 Where the Licensee has made a contribution to the Contingency Reserve, a sum not less than 0.25 per cent and not more than 0.5 per cent of the original cost of fixed assets shall be allowed annually towards such contribution in the calculation of Aggregate Revenue Requirement: Provided that where the amount of such Contingency Reserves exceeds five (5) per cent of the original cost of fixed assets, no further contribution shall be allowed;

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

5.17.4 Accordingly, the Commission has approved the contribution to contingency reserves at 0.25% of opening GFA for FY 2021-22 to FY 2024-25 in line with the provision of the MYT Regulations, 2019. The Commission has also verified that the total amount of contingency reserve does not exceed 5% of the opening GFA.

5.17.5 Since FY 2020-21 has been completed and the timeline for the investment in the securities authorised under the Indian Trusts Act, 1882 has also been expired, it has been observes that MADC has not made any relevant investment for the same also. It has been noticed that even after the completion of 7 years of the commencement of distribution business by MADC, still the compliance of such regulatory provisions has not been adhered by MADC which clearly reflects the lackadaisical approach. MADC has neither made any provisions for contingency reserves in their profit and loss account nor has made any investment on the identified securities and still has been claiming the expenditure in ARR. The Commission would like to put on record its displeasure about such action of MADC. Accordingly, the Commission directs MADC that such investments are to be made in a time bound manner and any delay in making the said payments in the coming years may result in disallowance of the said corpus and also the deemed income of such investment will be treated as Non-Tariff income.

5.17.6 However, the Commission allows the contribution to contingency reserves for FY 2020-21 onwards and direct MADC to invest the equivalent amount related to FY 2020-21 to FY 2021-22, within 6 months of the issues of this tariff order.

5.17.7 Accordingly, the Commission approves the Contribution to Contingency Reserves for FY 2021-22 to FY 2024-25 as shown in the Tables below:

Table 200: Contribution to Contingency Reserves for Distribution Business for the Control Period, as approved by the Commission (Rs. Cr)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Wire Business					
Opening Balance of Contingency Reserves	-	0.16	0.31	0.47	0.63
Opening Gross Fixed Assets	62.60	62.60	62.60	62.60	62.60
Opening Balance of Contingency Reserves as % of Opening GFA	0.00%	0.25%	0.50%	0.75%	1.00%
Contribution to Contingency Reserves during the year	**0.16**	**0.16**	**0.16**	**0.16**	**0.16**
Supply Business					
Opening Balance of Contingency Reserves	-	0.0002	0.0005	0.0007	0.0009
Opening Gross Fixed Assets	0.09	0.09	0.09	0.09	0.09
Opening Balance of Contingency Reserves as % of Opening GFA	0.00%	0.25%	0.50%	0.75%	1.00%
Contribution to Contingency Reserves during the year	**0.0002**	**0.0002**	**0.0002**	**0.0002**	**0.0002**
Combined Distribution Business					
Wire Business	0.156	0.156	0.156	0.156	0.156
Retail Supply Business	0.000	0.000	0.000	0.000	0.000
Total Contribution to Contingency Reserves	**0.157**	**0.157**	**0.157**	**0.157**	**0.157**

5.18 Non-Tariff Income

MADC's Submission

5.18.1 The Non-Tariff Income projected for the Control Period is shown in the following Table:

Table 201: Non-Tariff Income for the Control Period, as submitted by MADC (Rs. Cr.)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Non-Tariff Income for Wires Business	0.00	0.00	0.00	0.00	0.00
Non-Tariff Income for Retail Supply Business	0.01	0.01	0.01	0.01	0.01
Total Non-Tariff Income	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**

5.18.2 MADC requested the Commission to approve Non-Tariff Income for the Control Period as shown in the above Table.

Commission's Analysis

5.18.3 The Commission has noted the submission of MADC. The Commission observes that the actual Non-Tariff income of MADC during the past three years i.e. FY 2017-18 to FY 2019-20 was in the range of Rs.0.14 Crore to Rs. 0.19 Crore which includes DPC and interest on arrears also. However, the Non-Tariff income in line with the provisions as specified in MYT Regulations was only in the range of Rs. 0.02 Crore. MADC has projected the Non-Tariff Income equivalent to Rs.0.02 Crore for 4th Control period. Considering the past trend, the Commission has considered the Non-Tariff Income equivalent to the actual Non-Tariff Income approved for FY 2019-20.

5.18.4 The Commission has also considered the interest income from the investments to be made towards Contribution to Contingency Reserves from FY 2021-22 onwards. However, the income of the same is considered based on the investment approved as per Table 200 of this tariff order and has considered interest rate equivalent to 6.83% which is 10-Year G-Sec Par Yield as per RBI as on 31st March 2022.

5.18.5 The Non-Tariff Income approved by the Commission is summarized in the Table below:

Table 202: Non-Tariff Income for the Control Period, as approved by Commission (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Non-Tariff Income for Wires Business	0.002	0.007	0.018	0.028	0.039
Non-Tariff Income for Retail Supply Business	0.015	0.015	0.015	0.015	0.015
Total Non-Tariff Income	**0.016**	**0.022**	**0.032**	**0.043**	**0.054**

5.19 Summary of Aggregate Revenue Requirement (ARR) for 4th Control Period

MADC's Submission

5.19.1 MADC submitted that based on the parameters of ARR discussed above, projected ARR for the Distribution Wire Business for the Control Period is summarised in the Table below:

Table 203: ARR projected for Wire Business for the Control Period, by MADC (Rs. Cr.)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Operation & Maintenance Expenses	1.62	1.67	1.72	1.77	1.82
2	Depreciation	3.22	3.22	3.22	3.22	3.22
3	Interest on Loan Capital	2.69	2.35	2	1.65	1.31
4	Interest on Working Capital	0.02	0.02	0.02	0.02	0.02
5	Interest on Deposit from Consumers and Distribution System Users	0.02	0.02	0.02	0.02	0.02
6	Provision for bad and doubtful debts	0	0	0	0	0
7	Contribution to contingency reserves	0.16	0.16	0.16	0.16	0.16
8	**Total Revenue Expenditure**	**7.73**	**7.43**	**7.13**	**6.84**	**6.55**
9	Add: Return on Equity Capital	2.63	2.63	2.63	2.63	2.63
10	**Aggregate Revenue Requirement**	**10.36**	**10.06**	**9.76**	**9.47**	**9.18**
11	Less: Non-Tariff Income	0	0	0	0	0
12	**ARR from Distribution Wires**	**10.35**	**10.06**	**9.76**	**9.47**	**9.18**

5.19.2 MADC further submitted that the projected ARR for the Retail Supply Business for the Control Period is summarised in the Table below:

Table 204: ARR projected for Retail Supply Business for the Control Period, by MADC (Rs. Cr.)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Power Purchase Expenses	36.61	37.70	40.83	43.98	47.21
2	Operation & Maintenance Expenses	0.85	0.87	0.90	0.93	0.96
3	Depreciation	0.00	0.00	0.00	0.00	0.00
4	Interest on Loan Capital	0.00	0.00	0.00	0.00	0.00
5	Interest on Working Capital	-	-	-	-	-
6	Interest on Consumer Security Deposit	0.22	0.22	0.22	0.22	0.22
7	Write-off of bad and doubtful debts	0.02	0.02	0.02	0.02	0.02
8	Contribution to contingency reserves	0.00	0.00	0.00	0.00	0.00
9	Intra-State Transmission Charges	5.07	5.25	5.43	5.61	5.74
10	MSLDC Fees & Charges	0.02	0.02	0.02	0.02	0.02

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
11	**Total Revenue Expenditure**	**42.79**	**44.09**	**47.43**	**50.79**	**54.18**
12	Add: Return on Equity Capital	0.00	0.00	0.00	0.00	0.00
13	**Aggregate Revenue Requirement**	**42.80**	**44.09**	**47.44**	**50.79**	**54.19**
14	Less: Non-Tariff Income	0.01	0.01	0.01	0.01	0.01
15	Less: Income from other business	-	-	-	-	
16	**ARR from Retail Supply**	**42.78**	**44.08**	**47.42**	**50.78**	**54.17**

5.19.3 MADC submitted that the total ARR projected (i.e. Wire Business and Retail Supply Business) for the Control Period is as shown in the Table below:

Table 205: ARR for Wire & Retail Supply Business for the Control Period, by MADC (Rs. Cr)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Power Purchase Expenses	36.61	37.70	40.83	43.98	47.21
2	Operation & Maintenance Expenses	2.46	2.54	2.62	2.70	2.78
3	Depreciation	3.22	3.22	3.22	3.22	3.22
4	Interest on Loan Capital	2.70	2.35	2.00	1.66	1.31
5	Interest on Working Capital	0.02	0.02	0.02	0.02	0.02
6	Interest on Consumer SecurityDeposit	0.24	0.24	0.24	0.24	0.24
7	Write-off of bad and doubtful debts	0.02	0.02	0.02	0.02	0.03
8	Contribution to contingency reserves	0.16	0.16	0.16	0.16	0.16
9	Intra-State Transmission Charges	5.07	5.25	5.43	5.61	5.74
10	MSLDC Fees & Charges	0.02	0.02	0.02	0.02	0.02
11	**Total Revenue Expenditure**	**50.52**	**51.52**	**54.57**	**57.63**	**60.73**
12	Add: Return on Equity Capital	2.63	2.63	2.63	2.63	2.63
13	**Aggregate Revenue Requirement**	**53.15**	**54.15**	**57.20**	**60.26**	**63.36**
14	Less: Non-Tariff Income	0.02	0.01	0.01	0.01	0.01
15	Less: Income from other business	-	-	-	-	-
16	**Aggregate Revenue Requirement of Combined Distribution Business**	**53.14**	**54.14**	**59.19**	**60.25**	**63.35**

5.19.4 MADC requested the Commission to approve combined ARR of Wire and Retail Supply Business for the period from FY 2020-21 to FY 2024-25 as shown in the Table above.

5.19.5 Based on the above combined ARR for Wire and Retail Supply Business, following is the Average cost of Supply (ACoS) computed for MYT Control Period FY 2020-21 to FY 2024-25:

Table 206: ACoS for the Control Period, as submitted by MADC (Rs./kWh)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Power Purchase Expenses	5.15	4.90	4.93	4.95	4.98
Operation & Maintenance Expenses	0.35	0.33	0.32	0.30	0.29
Depreciation	0.45	0.42	0.39	0.36	0.34
Interest on Loan Capital	0.38	0.31	0.24	0.19	0.14
Interest on Working Capital	0.00	0.00	0.00	0.00	0.00
Interest on Consumer Security Deposit	0.03	0.03	0.03	0.03	0.03
Provision for bad and doubtful debts	0.00	0.00	0.00	0.00	0.00
Contribution to contingency reserves	0.02	0.02	0.02	0.02	0.02
Transmission Charges	0.71	0.68	0.66	0.63	0.61
MSLDC Fees & Charges	0.00	0.00	0.00	0.00	0.00
Total Revenue Expenditure	**7.11**	**6.69**	**6.58**	**6.49**	**6.41**
Add: Return on Equity Capital	0.37	0.34	0.32	0.30	0.28
Aggregate Revenue Requirement	**7.48**	**7.04**	**6.90**	**6.79**	**6.69**
Less: Non-Tariff Income	0.00	0.00	0.00	0.00	0.00
Aggregate Revenue Requirement from Retail Supply business	**7.48**	**7.03**	**6.90**	**6.78**	**6.69**

Commission's Analysis

5.19.6 Based on the analysis in the previous paragraphs, the Commission has approved the ARR for the Distribution Wires Business and Supply Business for 4th Control Period as summarised in the Tables below:

Table 207: ARR for Wires Business for 4th Control Period approved by Commission (Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Operation & Maintenance Expenses	1.222	1.261	1.301	1.342	1.385
2	Depreciation	3.206	3.206	3.206	3.206	3.206
3	Interest on Loan Capital	4.724	4.378	4.033	3.687	3.341
4	Interest on Working Capital	0.015	0.015	0.109	0.106	0.103
5	Interest on Deposit from Consumers and Distribution System Users	-	-	0.024	0.024	0.024
6	Provision for bad and doubtful debts	-	-	-	-	-
7	Contribution to contingency reserves	0.156	0.156	0.156	0.156	0.156
8	**Total Revenue Expenditure**	**9.323**	**9.017**	**8.829**	**8.521**	**8.215**
9	Add: Return on Equity Capital	-	-	-	-	-
10	**Aggregate Revenue Requirement**	**9.323**	**9.017**	**8.829**	**8.521**	**8.215**
11	Less: Non-Tariff Income	0.002	0.007	0.018	0.028	0.039
12	**Aggregate Revenue Requirement from Distribution Wires**	**9.32**	**9.01**	**8.81**	**8.49**	**8.18**

Table 208: ARR for Retail Supply Business for 4th Control Period approved by Commission (Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Power Purchase Expenses	33.663	35.028	40.017	42.402	38.492
2	Operation & Maintenance Expenses	0.656	0.677	0.698	0.720	0.743
3	Depreciation	0.005	0.005	0.005	0.005	0.005
4	Interest on Loan Capital	0.007	0.006	0.006	0.005	0.005
5	Interest on Working Capital	-	-	-	-	-
6	Interest on Consumer Security Deposit	-	-	0.213	0.213	0.213
7	Write-off of bad and doubtful debts	-	-	-	-	-
8	Contribution to contingency reserves	0.000	0.000	0.000	0.000	0.000
9	Intra-State Transmission Charges	5.070	5.252	5.435	5.607	5.740
10	MSLDC Fees & Charges	0.019	0.018	0.019	0.021	0.021
11	**Total Revenue Expenditure**	**39.418**	**40.986**	**46.393**	**48.973**	**45.219**
12	Add: Return on Equity Capital	-	-	-	-	-
13	**Aggregate Revenue Requirement**	**39.418**	**40.986**	**46.393**	**48.973**	**45.219**
14	Less: Non-Tariff Income	0.015	0.015	0.015	0.015	0.015
15	**Aggregate Revenue Requirement from Retail Supply**	**39.404**	**40.971**	**46.378**	**48.958**	**45.204**

Table 209: Combined ARR for Distribution Business for 4th Control Period approved by Commission (Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
		MADC Petition					Approved in this Order				
1	Power Purchase Expenses	36.609	37.699	40.832	43.983	47.215	33.663	35.028	40.017	42.402	38.492
2	Operation & Maintenance Expenses	2.464	2.540	2.617	2.698	2.781	1.877	1.937	1.999	2.063	2.129
3	Depreciation	3.220	3.220	3.220	3.220	3.220	3.211	3.211	3.211	3.211	3.211
4	Interest on Loan Capital	2.698	2.351	2.003	1.656	1.309	4.731	4.384	4.038	3.692	3.346
5	Interest on Working Capital	0.017	0.018	0.018	0.018	0.019	0.015	0.015	0.109	0.106	0.103
6	Interest on Consumer Security Deposit	0.245	0.245	0.245	0.245	0.245	-	-	0.236	0.236	0.236
7	Write-off of bad and doubtful debts	0.022	0.023	0.024	0.026	0.027	-	-	-	-	-
8	Contribution to contingency reserves	0.157	0.157	0.157	0.157	0.157	0.157	0.157	0.157	0.157	0.157
9	Intra-State Transmission Charges	5.070	5.252	5.435	5.607	5.740	5.070	5.252	5.435	5.607	5.740
10	MSLDC Fees & Charges	0.019	0.018	0.019	0.021	0.021	0.019	0.018	0.019	0.021	0.021
11	**Total Revenue Expenditure**	**50.519**	**51.520**	**54.571**	**57.630**	**60.733**	**48.741**	**50.002**	**55.221**	**57.494**	**53.434**
12	Add: Return on Equity Capital	2.633	2.633	2.633	2.633	2.633	-	-	-	-	-
13	**Aggregate Revenue Requirement**	**53.152**	**54.153**	**57.204**	**60.263**	**63.366**	**48.741**	**50.002**	**55.221**	**57.494**	**53.434**
14	Less: Non-Tariff Income	0.016	0.016	0.016	0.016	0.016	0.016	0.022	0.032	0.043	0.054
15	**Aggregate Revenue Requirement**	**53.136**	**54.137**	**57.188**	**60.247**	**63.350**	**48.725**	**49.981**	**55.189**	**57.451**	**53.381**

6 TARIFF PHILOSOPHY, TARIFF DESIGN AND CATEGORY-WISE TARIFFS FOR 4th CONTROL PERIOD

6.1 Approach to Tariff Design

6.1.1 The Commission has kept in view the main objects of the Electricity Act, 2003 ("EA, 2003"), as set out in its Preamble, including the protection of the interest of consumers, the supply of electricity to all areas and rationalisation of tariffs. The EA, 2003 also mandates the Commission to maintain a healthy balance between the interest of the Utilities and the reasonableness of the cost of power being supplied to consumers. The Commission has also kept in view the principles of tariff determination set out in Sections 61 and Section 62 of the EA, 2003, the Tariff Policy, 2016 and the MYT Regulations, 2019, and also taken into considerations MADC's submissions as well as the public comments in these MYT proceedings.

6.1.2 Considering the above, the Commission has determined the ARR as well as the category wise tariff, Wheeling Charges and Cross-Subsidy Surcharge (CSS) for the 4th Control Period.

6.1.3 MADC has submitted that as per consumer mix of the Petitioner, HT Industrial and HT Commercial sales contributes more than 95% share. After lockdown is lifted, all the operations of commercial establishments and Industries are not fully resumed. It would be inappropriate to increase the Tariff in order to recover the revenue gap in FY 2020-21. Therefore, MADC proposed to continue existing Tariff for FY 2020-21 and proposed to increase tariff in rest of the Control Period.

6.1.4 The Commission at this stage is issuing the order whereby the FY 2020-21 and FY 2021-22 has been completed and therefore, the Commission in this chapter, will be deciding the tariff for balance period of the 4th Control period i.e. FY 2022-23 to FY 2024-25.

6.1.5 As proposed by MADC, the Commission has also determined the two-part Tariff (including further breakup of Energy into in Energy & Wheeling charges), whereby the tariff has been determined based on the principles and provisions of the Electricity Act 2003, the Tariff Policy, 2016 and the MYT Regulations, 2019 and allowed the cost recovery for the licensee.

6.2 Revenue Gap and Carrying / (Holding) Cost on account of Truing-up of FY 2014-15 to FY 2019-20

MADC's Submission

6.2.1 MADC submitted that the Board of Directors of MADC in its 71st meeting held on 25 February 2020, accorded its approval for meeting Revenue Gap of Rs. 81.02 Crore for the period from FY 2014-15 to FY 2019-20 through Grant from GoM. Accordingly, the Board has directed MADC to approach GoM for grant of Rs.81.02 Crore. MADC submitted that, it has initiated correspondence with the GoM for the same and approval/sanction will be submitted to the Commission.

6.2.2 Further, MADC submitted that Clause 8.2.2 of the National Tariff Policy 2016 provides for the creation of Regulatory assets for the un-recovered gap. Also, the Commission vide its Order dated 23December, 2019 in Case No. 96 of 2017, has not approved the ARR and has not determined the Tariff as no methodology for recovery of the ARR gap was provided by MADC and also only three months of MYT Control period was remaining. However, during FY 2014-15 to FY 2019-20, considering no tariff was increased, prevailing tariff/ABR was not adequate in order to recover its ACoS, as a result, revenue gap at the end of FY 2019-20 accumulated to Rs.85.90 Crore. Hence, proposed tariff in order to recover standalone revenue gap of current control period results in average tariff hike of 49%, 12%, 10% and 2% from FY 2021-22 to FY 2024-25 respectively. In view of such proposed tariff hike for current control period, adding up recovery of past period gap (up to FY 2019-20) to the extent of Rs.81.02 Crore in same control period will result into huge tariff shock to the consumers of Mihan SEZ.

6.2.3 Also, there are precedents of Joint Electricity Regulatory Commission (JERC) allowing Electricity Department, Goa to settle revenue gap through budgetary support (Grant) from Government of Goa and as per precedence, total revenue gap can be reduced by way of budgetary support/ subsidy/ grant and balance revenue gap if any can be proposed for recovery. Accordingly, MADC has proposed for creation of Regulatory Assets to the extent of Rs.81.02 Crore on account of past period gap up to FY 2019-20.

6.2.4 MADC requested Commission that if the total revenue gap approved under True-Up and MYT is within the hike proposed by MADC, the same may be approved for tariff recovery and if the approved revenue gap is exorbitantly high for recovery in balance period of MYT of this control period, the same may be carried forward to next control period. Since less than 3 years are left under this control period, the recovery of the revenue gap needs to be managed to ensure there is no tariff shock to consumers. Also, in case the amount of Rs.81.02 Crore is received from the Government as grant or financial support, MADC will pass on the benefit of the same to consumers in the next tariff petition or Mid-Term Review or adjustment of amount against such recovery of regulatory asset as may be defined by Commission in the order.

6.2.5 In view of the above, MADC has computed cumulative revenue gap as Rs.4.88 Crore after considering Rs. 81.02 Crore as Regulatory Asset and is proposed to be carried forward in next MYT Control Period, i.e. FY 2020-21 to FY 2024-25.

6.2.6 Also, MADC has computed carrying cost on the revenue gap for each year from FY

2014-15 to FY 2019-20 based on simple interest principle at the rate applicable for the respective years based on State Bank Advance rate (SBAR) for FY 2014-15 & FY 2015-16 and based on base rate plus 150 basis points for FY 2016-17 to FY 2019-20.

6.2.7 MADC submits that carrying cost for FY 2014-15 to FY 2019-20 is computed as shown in the below table:

Table 210: Working of carrying cost for FY 2014-15 to FY 2019-20 (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Opening Revenue gap	-	5.26	15.60	25.81	36.50	51.34
Revenue Gap	5.26	10.34	10.21	10.69	14.85	17.45
Closing Gap	**5.26**	**15.60**	**25.81**	**36.50**	**51.34**	**68.79**
Avg. Gap	2.63	10.43	20.70	31.15	43.92	60.07
Interest rate	13.45%	13.45%	10.31%	10.81%	9.89%	9.50%
Carrying cost	**0.35**	**1.40**	**2.13**	**3.17**	**4.34**	**5.71**

6.2.8 Based on the carrying cost as computed above, following is the cumulative revenue gap for the period FY 2014-15 to FY 2019- 20:

Table 211: Cumulative Revenue Gap from FY 2014-15 to FY 2019-20 (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
ARR of distribution business (A)	8.10	21.44	24.37	30.37	38.85	48.18
Revenue (B)	2.84	11.10	14.16	19.69	24.00	30.73
Revenue Gap (A-B)	**5.26**	**10.34**	**10.21**	**10.69**	**14.85**	**17.45**
Consolidated Gap Analysis						
Opening Revenue gap (D)	-	5.97	17.71	30.05	43.91	63.10
Add: Additional Gap (E)	5.26	10.34	10.21	10.69	14.85	17.45
Add: Carrying cost (F)	0.35	1.40	2.13	3.17	4.34	5.71
Less: Creation of Regulatory Assets (G)	-	-	-	-	-	81.02
Closing of Revenue (D+E+F-G)	**5.61**	**17.35**	**29.70**	**43.56**	**62.75**	**4.88**

Commission's Analysis

6.2.9 The Commission vide Order dated 3 August, 2012 in Case No. 16 of 2011, has declared MADC to be a Deemed Distribution Licensee under the proviso to Section 14 (b) of the EA, 2003 for the notified MIHAN SEZ area. Subsequently, MADC has started supplying power to the MIHAN SEZ Consumers from 22 November, 2014 by procuring power through the Power Exchange.

6.2.10 The Commission vide its Order dated 20 January, 2015 reiterated its direction for MADC to submit its plan for meeting its obligation as a Deemed Distribution Licensee.

6.2.11 Thereafter, MADC by way of its Petition in Case No. 47 of 2015 requested for relaxation in application of MYT Regulations and other extant regulations on MADC till such time its plan for meeting its obligations as a deemed distribution licensee is submitted before the Commission as directed. The Commission in its Order dated 10 May, 2016 in aforesaid Case has not provided any relaxation and directed MADC to file its MYT Petition under the MYT Regulations, 2015 within 90 days, i.e., by 9 August, 2016. The relevant extract from the said Order is reproduced below:

> *"12. As regards MADC's prayer for relaxing the applicability of the MYT and other relevant Regulations till its plan for meeting its obligations as a Distribution Licensee is finalized, the purpose behind asking MADC to submit such a plan was to ensure compliance with the various regulatory provisions relating to the Supply Code, Standards of Performance Regulations, the Grid Code, the grievance redressal mechanism, etc. in a time-bound manner. It does not relate to Tariff determination as such. MADC has separately made certain submissions with regard to the action plan in Case No. 62 of 2015, which the Commission will deal with in its Order in that Case. Therefore, the Commission finds no reason to relax the applicability of the MYT or other Regulations in these proceedings. In fact, MADC has started procurement and supply of power to its Consumers from 22 November, 2014. It now has some experience of power procurement, which normally constitutes the bulk of a Distribution Licensee's ARR, and of retail supply. **Hence, the Commission now directs MADC to file its MYT Petition under the MYT Regulations, 2015 within 90 days**."*

6.2.12 Thereafter, time allotted for filing Tariff Petition was further extended, on request of MADC, by 90 days, i.e., till 9 November 2016. Two more extensions were granted by the Commission vide letter dated 9 November, 2016 for 90 days and vide letter dated 27 February, 2017 for additional 30 days. After these extensions, date of filing Petition was extended up to 12 March, 2017. However, MADC failed to file Petition even by 12 March, 2017. Consequently, the Commission initiated suo-moto proceeding on 16 June, 2017 for determination of Tariff for MADC and a notice was sent to MADC with this effect. The Commission also specified in the notice that a Technical Validation Session (TVS) will be held on 4 July, 2017.

6.2.13 MADC responding to the above referred notice filed its Tariff Petition on 3 July, 2017. The Petition filed was for approval of Truing up of FY 2014-15 and FY 2015-16 as per the provisions of the MYT Regulations, 2011, Provisional Truing up of FY 2016-17 and FY 2017-18, projected ARR and Tariff for FY 2018-19 and FY 2019-20. Even though aforementioned Petition got registered in 2017 under Case No. 96 of 2017, due to deficiencies in the Petition and delayed submissions by MADC, same was finally taken up for hearing in the month of August, 2019.

6.2.14 Further, the Commission vide its Order dated 23 December, 2019 in Case No. 96 of 2017, expressed its displeasure at the casual approach of MADC in discharging its obligations as a Distribution Licensee. The Commission found it fit to return MADC's Petition and further directed MADC to file fresh MYT Petition within three months from date of the Order, i.e., by 22 March, 2020. The relevant extract from the said Order is reproduced below:

15. MADC in its Petition has not mentioned the methodology for bridging the ARR gap and has merely mentioned that the gap will be recovered in the next control period. For bridging this ARR Gap with marginal increase in tariff, the Commission will have to create substantial amount of Regulatory Asset. National Tariff Policy, 2016 has clearly stated that Regulatory Asset should not be created under business as usual condition. Also, such Regulatory Asset shall have to be recovered in timebound manner. Hon'ble Appellate Tribunal for Electricity in its judgment dated 11 November, 2011 in OP No. 1 of 2011 has directed all Electricity Regulatory Commission to ensure that recovery of Regulatory Asset should be completed within three years and preferably within Control Period.

16. In view of the above factual aspects, the Commission is of the opinion that since MADC has not given the methodology for recovery of the ARR gap and further since only three months of the present MYT Control Period are remaining, no useful purpose will be served by determining tariff for the current control period (3 months). The Commission has already allowed MADC to levy tariff to its consumers at rate lower than that applicable to MSEDCL which is a parallel licensee in that area.

……

18. The MYT Regulations,2019 stipulate the date for filing of the ARR for the control period FY 2020-21 to 2014-25 as 30 November 2019. This date too has lapsed. MADC vide letter dated 2 December 2019 has informed the Commission that the MYT Petition for next Control Period will be filed with the Commission after receipt of MYT Order under the instant case.

……

*20. **In view of the above findings, the Commission thinks it fit to return the present MYT Petition to MADC with direction to file fresh Petition covering the ARR of the present control period as per the MYT Regulations 2015 along with ARR and other stipulated details for new Control Period of FY 2020-21 to FY 2024-25 under MYT Regulations, 2019, within three months from date of this Order**.*

6.2.15 Subsequently, MADC vide its letter No. MADC / MIHA / 044-13A / MYT Petition / Extension / 1926 dated 19 March, 2020 had requested the Commission to allow MADC an extension of 3 months.

6.2.16 Thereafter, on account of COVID-19 pandemic, the Commission vide its Order dated 29 August, 2020 in Case No 174 of 2020 has extended the date of submission of the Petition to 30 November, 2020. The relevant extract is as follows:

*"Considering, Covid-19 circumstances, the Commission deems it fit to grant additional 3 months to MADC for filing of MYT Petition. **In case MADC fails to do so by 30 November 2020, the Commission would consider it as non-compliance of its Order and may imposed penalty as specified under Section 142 of the Electricity Act, 2003**. To avoid such adverse action, MADC should file MYT Petition on or before 30 November 2020.*

6.2.17 Hence, from above it is a fact that the ARR filing and Tariff determination exercise for MADC has been enormously delayed mainly due to casual and lacklustre approach of MADC in discharging its obligations as a Distribution Licensee. Due to this, no tariff revision took place for MADC which has resulted in substantial revenue gap. Had the ARR and tariff petition been filed in timely manner, such situation would not have been arisen.

6.2.18 As regards, such delay in filing tariff Petition, the Commission notes that clause of para 8.1.7 of the Tariff Policy provides stipulation as under:

> *"7) Appropriate Commissions should initiate tariff determination and regulatory scrutiny on a suo moto basis in case the licensee does not initiate filings in time. It is desirable that requisite tariff changes come into effect from the date of commencement of each financial year and* ***any gap on account of delay in filing should be on account of licensee****."* ***{Emphasis added}***

6.2.19 As regards, stipulation of "any gap" in the aforesaid clause, the Commission notes the findings of Hon'ble the APTEL in its Judgement dated 19 September 2007, in Appeal No 70 of 2007 wherein Hon'ble the APTEL held that on account of delay in filing of the tariff petition all that can be disallowed to the licensee is the carrying cost and not the legitimate claim towards revenue.

> 5. *We now proceed to examine the tariff policy, paragraph 8.1.7 as extracted above. In our opinion the entire paragraph has to be read to interpret the expression given therein. The intention of the government in this part of the tariff policy is to maintain discipline in the matter of date of commencement of every new tariff……………………………………………………………In order to make this possible an advice is given to Appropriate Commissions to initiate tariff determination and regulatory scrutiny on a suo moto basis in case the licensee does not initiate filings in time.* ***However, suo moto initiation of tariff determination may not be an easy process. A large amount of data is required for determination of tariff. Without a tariff petition being filed by a licensee the Appropriate Commission may find it quite difficult to collect and collate the necessary data and to fix a tariff. If the appropriate Commission is able to so determine the tariff on suo moto scrutiny, the same may be different from the tariff which could have been framed on an ARR and tariff petition with relevant data filed by a licensee.*** *It is in this context that the tariff policy says that if there is a gap of this nature the licensee should be made to bear the same. This provision has been made to discourage the licensee from delaying its tariff petition and for compelling the Appropriate Commission to go into suo moto determination of tariff in the next financial year.****{Emphasis added}***
>
> *………*
>
> 7. *Further "any gap" on account of delay in filing has to be properly understood. The tariff policy is silent about the meaning and calculation of "gap". The sole aim of tariff fixation by an independent body like the Appropriate Commission is to ensure*

viability of the licensees while maintaining a reasonable price for the consumer. Therefore, the cost of supply has to be met out of revenue earned by sale of electricity. In case the MYT tariff comes into effect a month later than the day on which it was expected, the required annual revenue minus the revenue realized in that month will have to be recovered in the remaining months of that period. In such a situation the increased cost of the new period will have to be distributed over the remaining period of the MYT. The other way of fixing the tariff, in case of a delay, would be to distribute the ARR over the entire tariff period so that some amount of revenue for the delayed period remains under-recovered. Here again the under recovered amount has to be recovered in order to maintain the viability of the licensee. However, if the under-recovery caused by increase in tariff is recovered in the rest of the MYT period a carrying cost will be involved. ***This carrying cost will be an additional burden which, in all fairness, should not be imposed on the consumer and has to be on account of the licensee. {Emphasis added}***

………

9. ………………………………… ***Only the determination of tariff is delayed because of late filing. The financial implication of the delay is nothing but the carrying cost. The consumer cannot be burdened with this resulting carrying cost because the delay has not been caused on account of their default.{Emphasis added}***

6.2.20 Also, Hon'ble the APTEL in its judgment, dated 8 December 2008, in the case of Himachal Pradesh State Electricity Board vs. Himachal Pradesh Electricity Regulatory Commission in Appeal No 209 of 2006 and also the Full Bench decision, dated 11 November 2011, in OP No. 1 of 2011, held that all that can be disallowed to the licensee on account of delay in filing of the tariff petition is the carrying cost.

6.2.21 In case of MADC even though the Commission initiated the suo moto proceeding earlier, the tariff till date couldn't be determined due to various issues already stated above. Although, the present tariff proceeding is not a suo moto scrutiny, the Commission finds it fit case not to allow carrying cost on the revenue gap due to delay in filing. Accordingly, due to not complying the timeline as provided by the Commission, it is decided not to allow the carrying cost to MADC on the revenue gap after Truing up of ARR from FY 2014-15 to FY 2019-20 as approved in the previous para of this Order.

6.2.22 With respect to the proposal of considering Rs. 81.02 Crore as Regulatory Asset, it has been observed that MADC has been changing the status for the treatment of the same in various submission as well as in the current petition. In the current petition, MADC has proposed to consider the same as Regulatory Asset and is also providing the precedence of Joint Electricity Regulatory Commission (JERC) allowing Electricity Department, Goa to settle revenue gap through budgetary support (Grant) from Government of Goa. Also, MADC has requested the Commission to allow the recovery of approved gap for FY 2014-15 to FY 2019-20 only if the resultant tariff hike is within the hike proposed by MADC for tariff recovery or if the resultant tariff hike is higher, the same may be carried forward to next control period so as to avoid any tariff shock. In addition to the above submission, MADC is also submitting that in case such amount is recovered from Government as grant or financial support, it will pass on the benefit of the same to consumers.

6.2.23 The Commission would like to address the option as provided by MADC for the resultant gap and the treatment of Rs. 81.02 Crore as outlined below:

A. Precedence on the budgetary support from State Government

- With regards to the precedence provided by MADC with regards to JERC Order on allowing Electricity Department, Goa to settle revenue gap through budgetary support (Grant) from Government of Goa, the Commission would like to state that as per the various tariff order issued by JERC, the budgetary support against the Revenue Gap is approved based on the confirmation from the Finance Department of Goa which is as provided in Petition No. 63/2021 dated 31 March 2022 and as outlined below:

  *"**The Govt. of Goa vide its letter No. 1/14/2021-FIN (BUD)/300 dated 29th December 2021 has conveyed its consent for providing the required budgetary support to meet the revenue gap** for the year as may be approved by the Commission. Moreover, no gap is carried forward from previous years to FY 2022-23 as the Govt. of Goa had provided an upfront budgetary support for the entire gap in FY 2021-22".*

- In the present case, MADC has not provided any assurance letter from State Government of Maharashtra and has only provided its Board Resolution. It has also stated that MADC has initiated the correspondence with the Government of Maharashtra for the same and approval/sanction will be submitted to the Commission during the course of proceedings of this petition. However, till date, no such confirmation / approval / sanction has been provided by MADC of State Government and hence the same cannot be considered as the Budgetary support from GoM.

B. Regulatory Assets

- It is the duty of the Commission to protect the interest of the consumer and at the same time ensuring recovery of cost by the utilities. With regards to creation and allowance of Regulatory assets, though the National Tariff Policy clearly states that the regulatory assets should only be allowed in exceptional circumstances and should always be accompanied by a small recovery period preferably within the control period, the Commission is of the view that creation of Regulatory Asset could not be avoided in view of the accumulation of Revenue gap for past 7 years.

- Also, Hon'ble APTEL in its order in O.P. No. 1 of 1011 dated 11.11.2011 has issued direction for ensuring timely revision of tariff including regular truing up and Non-creation of the Regulatory assets. The Order clearly states that in determination of ARR/tariff, the revenue gaps ought not to be left and Regulatory Asset should not be created as a matter of course except where it is justifiable, in accordance with the Tariff Policy and the Regulations. Also, Ministry of Power (MoP) vide its notification dated 03.05.2011 has directed SERC to timely issue the tariff orders under Electricity Act 2003 so as to avoid any creation of Regulatory Assets. Even under the guidelines issued by MoP for "Revamped Distribution Sector Scheme", have provided indicative list of reforms whereby activities related to Regulatory assets are outlined as below:

    - *Tariff reforms, including annual tariff fixation, rationalization of consumer categories, and no Regulatory Assets to be created.*
    - *Preparation of and adherence to a roadmap for funding accumulated and current financial losses and clearance of part or whole of regulatory assets through tariff or state funding.*

- However, in the present petition, due to substantial delay in filing the tariff Petition , applicability of tariff much lower than the ceiling tariff of MSEDCL, low load growth, etc, the huge revenue gap has been created which will result in a tariff shock to consumers. Also, due to such non-filing of the Petition on the timely basis, the past gap has been accumulated and such huge accumulation cannot be passed to the consumers resulting in tariff shock. If the tariff was to be increased for the entire revenue gap it would result in a tariff shock to all categories of consumers.

- Therefore, the Commission is of the view that non-filing of tariff petition and resultant approved gap will result in tariff shock to consumers and can be treated as an exceptional case for which it is necessary to create a Regulatory asset. Also, as per Regulations 91.5 of the MYT Regulations 2019, it is specified that while determining the tariff, the Commission shall minimise the tariff shock to consumers.

    "91.5 While determining the tariff, the Commission shall also keep in view the cost of supply at different voltage levels and the need to minimise tariff shock to consumers."

- Accordingly, though the Commission feels that the instance as provided by MADC to create Regulatory Assets is not the basic objective of the National Tariff Policy and such huge Revenue gap is resultant of delay in filing the tariff petition by MADC, however, to avoid tariff shock, the Commission feels that the cumulative Revenue gap from FY 2014-15 to FY 2019-20 can be considered as a Regulatory Assets and to be allowed to be recovered in the 4th MYT control period or to be adjusted and the benefit to be passed on to consumers in case the same is received from State Government as budgetary support or grant in future. However, the Commission directs that no carrying cost on the Regulatory Assets would be allowed as the same is resultant due to casual approach of MADC and delay in filing of the tariff petition for 7 years even after providing multiple reminders by the Commission.

- The treatment of creation of the Regulatory assets and the recovery of the same is provided in the subsequent para based on the resultant gap and impact of the same on the tariff to be recovered from the consumers for FY 2022-23 to FY 2024-25.

6.2.24 Also, since the tariff recovered from the consumers by MADC was a single part tariff whereby there was no bifurcation of revenue between the Wire business and the Retail Supply Business, the Commission has allowed the total revenue gap (which includes the gap of Wire and Retail Supply Business) of past period i.e. FY 2014-15 to FY 2019-20 to be recovered or adjusted with the Retail Supply Tariff of the 4th Control period.

6.2.25 Since the FY 2020-21 and FY 2021-22 is over, the tariff recovery for the same will be initiated from FY 2022-23 and accordingly, the Commission has calculated the revenue gap related to truing up of FY 2014-15 to FY 2019-20, till FY 2022-23.

6.2.26 Based on the analysis of various parameters set out in this Order, the revenue gap from FY 2014-15to FY 2019-20, excluding carrying cost as specified in para 6.2.21, approved by the Commission, is summarised in the following Table:

Table 212: Computation of Carrying/(Holding) Cost approved by Commission for Retail Supply Business (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
ARR of Wire Distribution business (A1)	4.09	11.05	11.42	10.07	9.21	8.62			
ARR of Retail Supply business (A2)	3.49	8.78	12.67	18.28	27.06	36.51			
ARR of distribution business (A = A1 + A2)	**7.58**	**19.84**	**24.09**	**28.35**	**36.27**	**45.14**			
Revenue (B)	2.84	11.10	14.16	19.69	24.00	30.73			
Revenue Gap (A-B)	**4.74**	**8.73**	**9.93**	**8.66**	**12.26**	**14.41**			
Consolidated Gap Analysis									
Opening Revenue gap (D)	-	4.74	13.47	23.40	32.06	44.32	58.73	58.73	58.73
Add: Additional Gap (E)	4.74	8.73	9.93	8.66	12.26	14.41	-	-	-
Less: Creation of Regulatory Assets / adjusted against Govt. Grant (F)									58.73
Closing of Revenue Gap (G = D+E-F)	**4.74**	**13.47**	**23.40**	**32.06**	**44.32**	**58.73**	**58.73**	**58.73**	-

6.2.27 Based on the above computation, the Commission allows to consider the closing balance of Revenue Gap of Rs. 58.73 Crore to be recovered in the next control period or to be adjusted and the benefit to be passed on to consumers, in case the same is received from State Government as budgetary support or grant in future.

6.3 Revenue Gap/ (Surplus) at existing Tariff over the 4th Control Period

MADC's Submission

6.3.1 MADC submitted that as discussed above, post considering the support through grant from Government of Maharashtra of Rs. 81.02 Crore towards the revenue gap for the period from FY 2014-15 to FY 2019-20 as per certified copy of Resolution of 71st meeting of the Board of Director of MADC, balance amount of revenue gap will be carried forward to the revenue gap/surplus computed for FY 2020-21.

6.3.2 MADC has computed the Revenue Gap/(Surplus) at the existing tariff based on the projected ARR of the Distribution Wires and Retail Supply Business, and the revenue based on the projected category-wise sales and tariff presently being charged to the consumers, i.e. Tariff for FY 2019-20. Tariff considered for computing at revenue at existing tariff is tabulated as under:

Table 213: Category wise existing Tariff, as submitted by MADC (Rs./kWh)

Category	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
HT Category					
Industrial	4.39	4.39	4.39	4.39	4.39
Commercial	4.83	4.83	4.83	4.83	4.83
LT Category					
Industrial	4.39	4.39	4.39	4.39	4.39
Commercial	4.83	4.83	4.83	4.83	4.83
Residential	3.95	3.95	3.95	3.95	3.95
Street Light	3.95	3.95	3.95	3.95	3.95
Public Services	3.95	3.95	3.95	3.95	3.95

6.3.3 MADC submitted the computation of Revenue at existing Tariff for MYT Control Period as shown in the Table below:

Table 214: Computation of Revenue at existing Tariff for the Control Period, as submitted by MADC

Category	FY 20-21		FY 21-22		FY 22-23		FY 23-24		FY 24-25	
	Sales (MU)	Revenue (Rs. Cr)	Sales (MU)	Revenue (Rs. Cr)	Sales (MU)	Revenue (Rs. Cr)	Sales (MU)	Revenue (Rs. Cr)	Sales (MU)	Revenue (Rs. Cr)
HT Category										
Industrial	64.98	28.53	70.39	30.90	75.81	33.28	81.22	35.66	86.64	38.03
Commercial	2.82	1.36	3.06	1.48	3.29	1.59	3.53	1.70	3.77	1.82
Sub-total HT	**67.80**	**29.89**	**73.45**	**32.38**	**79.10**	**34.87**	**84.75**	**37.36**	**90.40**	**39.85**
LT Category										
Industrial	1.44	0.63	1.56	0.68	1.68	0.74	1.80	0.79	1.92	0.84

Category	FY 20-21		FY 21-22		FY 22-23		FY 23-24		FY 24-25	
	Sales (MU)	Revenue (Rs. Cr)	Sales (MU)	Revenue (Rs. Cr)	Sales (MU)	Revenue (Rs. Cr)	Sales (MU)	Revenue (Rs. Cr)	Sales (MU)	Revenue (Rs. Cr)
Commercial	0.91	0.44	0.99	0.48	1.06	0.51	1.14	0.55	1.21	0.59
Street Light	0.88	0.35	0.95	0.37	1.02	0.40	1.09	0.43	1.17	0.46
Public Services	0.02	0.01	0.02	0.01	0.02	0.01	0.02	0.01	0.02	0.01
Sub-total LT	**3.24**	**1.42**	**3.51**	**1.54**	**3.78**	**1.66**	**4.05**	**1.78**	**4.32**	**1.90**
Grand Total	**71.04**	**31.31**	**76.96**	**33.92**	**82.88**	**36.53**	**88.80**	**39.14**	**94.72**	**41.75**

6.3.4 As per elements of ARR discussed in foregoing para, following is the standalone Revenue gap computed by MADC at revenue from existing tariff for MYT Control Period:

Table 215: Projected Revenue Gap at existing Tariff for Control Period, as submitted by MADC (Rs. Cr)

Sr.	Particulars	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25
1	ARR for Distribution Wires Business	10.35	10.06	9.76	9.47	9.18
2	ARR for Retail Supply Business	42.78	44.08	47.42	50.78	54.17
3	**ARR for Combined Wires Business & Retail Supply Business**	**53.14**	**54.14**	**57.19**	**60.25**	**63.35**
4	Revenue from existing tariff	31.31	33.92	36.53	39.14	41.75
5	**Revenue Gap/(Surplus) of Licensed Business**	**21.82**	**20.22**	**20.66**	**21.11**	**21.60**

6.3.5 MADC submitted that, from the above Table it can be observed that each year of the Control Period is having revenue gap. Accordingly, MADC submitted the following working of the tariff hike required in order to meet the revenue gap:

Table 216: Projected Revenue Gap/(Surplus) at existing Tariff and Tariff hike required for the Control Period

Sr. No.	Particulars	Base Year	Control Period				
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	**Net ARR of Licensed Business (Rs. Cr) (A)**	**48.18**	**53.14**	**54.14**	**57.19**	**60.25**	**63.35**
2	Revenue at existing tariff (Rs. Cr) (B)	30.73	31.31	33.92	36.53	39.14	41.75
3	Revenue Gap (Rs. Cr) (C = A-B)	17.45	**21.82**	**20.22**	**20.66**	**21.11**	**21.60**
4	**Tariff Hike required (D=C/B*100)**	**57%**	**70%**	**60%**	**57%**	**54%**	**52%**
5	Energy Sales (MU)	71.04	71.04	76.96	82.88	88.80	94.72
6	**Average Cost of Supply (ACoS) (Rs. /kWh)**	**6.78**	**7.48**	**7.03**	**6.90**	**6.78**	**6.69**
7	ABR at existing tariff (Rs/kWh)	4.33	4.41	4.41	4.41	4.41	4.41

6.3.6 As proposed by MADC for creation of Regulatory Assets of Rs.81.02 Crore, the balance Rs. 4.88 Crore will be carried forward to the revenue gap/surplus computed for FY 2020-21out of total revenue gap of Rs.85.90 Crore upto FY 2019-20.

Accordingly, following is the cumulative revenue gap for the period from FY 2020-21 to FY 2024-25 considering the revenue at existing Tariff:

Table 217: Cumulative Revenue Gap at existing tariff for FY 2020-21 to FY 2024-25 (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Total ARR (A)	53.14	54.14	57.19	60.25	63.35
Revenue at existing Tariff (B)	31.31	33.92	36.53	39.14	41.75
Revenue Gap at existing Tariff (C=A-B)	21.82	20.22	20.66	21.11	21.60
Cumulative Revenue Gap at Existing Tariff					
Opening Revenue Gap (D)	4.88	26.71	46.92	67.58	88.69
Add: Revenue Gap during the year (E=C)	21.82	20.22	20.66	21.11	21.60
Closing Revenue Gap (G=D+E)	**26.71**	**46.92**	**67.58**	**88.69**	**110.29**

Commission's Analysis

6.3.7 The Commission has computed the Revenue Gap/(Surplus) at the existing Tariff based on the approved ARR of the Distribution Wires and Retail Supply Business, and the revenue estimated by it from sale of electricity at the existing Tariff. Also, in line with para 6.2.27, the past accumulated revenue gap of FY 2014-15 to FY 2019-20 is allowed to be considered as Regulatory assets and is to be adjusted in the next control period or against the budgetary support from the Government. Therefore, the opening Revenue Gap for FY 2020-21 is considered to be NIL. The Revenue Gap/(Surplus) approved for the Control Period is as shown below:

Table 218: Revenue Gap/ (Surplus) at existing Tariff for Supply Business approved by Commission (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Total ARR of Retail Supply Business (A)	48.72	49.98	55.19	57.45	53.38
Revenue at existing Tariff (B)	31.31	33.92	36.53	39.14	41.75
Revenue Gap at existing Tariff (C=A-B)	**17.41**	**16.06**	**18.66**	**18.31**	**11.63**
Cumulative Revenue Gap at Existing Tariff					
Opening Revenue Gap (D)	-	17.41	33.47	52.13	70.44
Add: Revenue Gap during the year (E=C)	17.41	16.06	18.66	18.31	11.63
Closing Revenue Gap (G=D+E)	**17.41**	**33.47**	**52.13**	**70.44**	**82.07**
Energy Sales (MUs) (H)	71.04	76.96	82.88	88.80	94.72
Standalone Average Cost of Supply (Rs. /kWh) (I = A/H*10)	6.86	6.49	6.66	6.47	5.64
ABR at existing tariff (Rs/kWh) (J = B/H *10)	4.41	4.41	4.41	4.41	4.41
Revenue Gap per unit (Rs. /kWh) (K = I - J)	2.45	2.09	2.25	2.06	1.23
Tariff Hike Required (L = K / J)			51.08%	46.78%	27.86%

6.3.8 As outlined in the above table, the standalone Average Cost of Supply (AvCoS) for FY 2022-23 to FY 2024-25 is in the range of Rs. 5.64/kWh to Rs. 6.66/kWh.

However, the Revenue gap of FY 2020-21 and FY 2021-22 is still required to be adjusted and recovered in future years. The cumulative Revenue Gap of FY 2020-21 and FY 2021-22 is Rs. 33.47 Crore which is required to be recovered in FY 2022-23 to FY 2024-25 along with the standalone gap of the respective years. In case the same is allowed to be recovered on equal instalment on deferment basis, the impact of the same on the tariff hike required to meet such huge gap is outlined as below:

Table 219: Scenario – Revenue Gap of FY 2020-21 to FY 2021-22 deferred and recovered in FY 2022-23 to FY 2024-25 (Rs. Crore)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
ARR of distribution business – (A)	55.19	57.45	53.38
Revenue Gap Deferment of FY 2020-21 and FY 2021-22 – (B)	11.16	11.16	11.16
Total ARR of distribution business of the year – (C = A+B)	**66.35**	**68.61**	**64.54**
Revenue (D)	36.53	39.14	41.75
Revenue Gap (E = C – D)	**29.82**	**29.47**	**22.79**
Energy Sales (MUs) (F)	**82.88**	**88.80**	**94.72**
Average Cost of Supply (Rs. /kWh) (G = C / F * 10)	8.01	7.73	6.81
ABR at existing tariff (Rs/kWh) (H = D / F *10)	4.41	4.41	4.41
Revenue Gap per unit (Rs. /kWh) (I = G – H)	3.60	3.32	2.41
Tariff Hike Required (J = I / H * 100)	81.62%	75.29%	54.59%

6.3.9 As can be observed from the above table, the tariff hike will be minimum of 55% and maximum of 82% to meet the revenue gap which will result into the tariff shock to the consumers. This impact is due to casual approach of MADC for which the consumers cannot be burdened with such tariff hike. However, the Commission also needs to look at the financial viability of the Distribution Licensee and hence it is required to consider the balanced approach to achieve the objective of tariff recovery with minimum tariff shock to the consumers.

6.3.10 Also, the proposal of MADC was to create a regulatory asset of Rs. 81.02 Crore which was proposed to be adjusted against tariff hike in next control period or by way of government support. However, against the Regulatory assets of Rs. 81.02 Crore, the Commission vide para 6.2.27, has allowed the Regulatory assets of Rs. 58.73 Crore (Revenue Gap from FY 2014-15 to FY 2019-20) and balance of Rs. 22.29 Crore (Rs. 81.02 Crore – Rs. 58.73 Crore) is still required to be adjusted. Considering the tariff hike on the consumers, the Commission decides to adjust the balance Rs. 22.29 Crore against the cumulative revenue gap of Rs. 33.47 Crore of FY 2020-21 and FY 2021-22. Accordingly, the Commission creates the Regulatory Assets of Rs. 81.02 Crores to be adjusted against tariff hike in next control period or by way of government support and on which no carrying cost will be allowed. The balance Rs. 11.19 Crores (Rs. 33.47 Crores – Rs. 22.29 Crores) is to be recovered in tariff in FY 2022-23 to FY 2024-25 with deferment and allowing the carrying cost for such deferment.

Table 220: Calculation of Revenue gap till FY 2021-22 adjusted against Regulatory Assets (Rs. Crore)

Sr. No	Particulars	Reference	Revenue Gap
1.	Add: Revenue Gap/(Surplus) for FY 2014-15	Table 212	4.74
2.	Add: Revenue Gap/(Surplus) for FY 2015-16	Table 212	8.73
3.	Add: Revenue Gap/(Surplus) for FY 2016-17	Table 212	9.93
4.	Add: Revenue Gap/(Surplus) for FY 2017-18	Table 212	8.66
5.	Add: Revenue Gap/(Surplus) for FY 2018-19	Table 212	12.26
6.	Add: Revenue Gap/(Surplus) for FY 2019-20	Table 212	14.41
7.	**Total Revenue Gap from FY 2014-15 to FY 2019-20 (8 = 1+7)**		**58.73**
8.	Add: Revenue Gap/(Surplus) for FY 2020-21	Table 218	17.41
9.	Add: Revenue Gap/(Surplus) for FY 2021-22	Table 218	16.06
10.	**Total Revenue Gap from FY 2020-21 to FY 2021-22 (10 = 8 + 9)**		**33.47**
11.	Add : Carrying Cost on Past Gaps up to FY 2019-20	Para 6.2.21	0.00
12.	Less :Regulatory Assets / Government Grant	Para 6.3.10	81.02
13.	**Balance Revenue Gap to be recovered in Tariff (13 = 7+10+11-12)**		**11.19**

6.3.11 Based on the above computation, the Commission has decided to consider only Rs. 11.19 Crore of the past gap till FY 2021-22, to be recovered during FY 2022-23 to FY 2024-25. Also, while allowing the same along with the carrying cost due to deferment of the recovery, the basic objective was to have equal tariff hike in all the 3 years so as to avoid any tariff shock or major variation in any of the year. Therefore, the approved Revenue Gap of Rs. 11.19 crore along with the part of Gap of FY 2022-23 is proposed to be recovered in FY 2024-25 to arrive at the Revenue Gap/(Surplus) for each year in a way, to try to have uniform tariff hike throughout the year, so as to avoid any significant variations in tariffs and revenue in any year.

6.3.12 The Carrying cost calculated against the deferment of Rs. 11.19 Crore along with the partial gap of FY 2022-23, is outlined in the following table:

Table 221: Carrying cost on the deferment of the Revenue Gap

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Opening Balance of Revenue Gap – (A)	11.19	22.38	22.38
Less: Revenue deferred and Recovered during the year – (B)	(11.20)	0.00	22.38
Closing Balance of Revenue Gap – (C = A – B)	22.38	22.38	-
Average Deferred Amount – (D = (C+A)/2)	16.78	22.38	11.19
Interest Rate for Carrying/(Holding) Cost – (E)	8.50%	8.50%	8.50%
Carrying/(Holding) Cost for the Year – (F = E *D)	1.43	1.90	0.95
Total revenue gap to be recovered with carrying cost (G = F + B)	**(9.77)**	**1.90**	**23.33**

6.3.13 Based on the above analysis, the Commission has recomputed the Revenue Gap/(Surplus) at the existing Tariff based on the approved ARR of the Distribution Wires and Retail Supply Business separately, and the revenue estimated by it from sale of electricity at the existing tariff.

Table 222: Revenue Gap/ (Surplus) at existing Tariff for Distribution Wire Business approved by Commission (Rs. Crore)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
ARR of Wire distribution business	8.811	8.493	8.176
Revenue from Existing Tariff - Wheeling Charges*	-	-	-
Revenue Gap of Wire Distribution Business	**8.811**	**8.493**	**8.176**

**-Since MADC was charging a single part tariff, No separate wheeling charges were recovered from consumers*

Table 223: Adjusted Revenue Gap/ (Surplus) at existing Tariff for Retail Supply Business approved by Commission (Rs. Crore)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
ARR of Retail Supply Business	46.378	48.958	45.204
Add: Past revenue gap to be recovered with carrying cost	(9.771)	1.903	23.334
Total ARR to be recovered during the Financial Year	**36.607**	**50.861**	**68.539**
Revenue from Existing Tariff - Retail Supply	36.531	39.140	41.749
Revenue Gap from Retail Supply Business	0.08	11.72	26.79

6.3.14 Thus, there is a Revenue gap for Wire and Retail Supply Business for the period FY2022-23 to FY 2024-25 and therefore, the tariff has to be increase in order to adjust this Gap. The revenue requirement to be recovered from the revised tariffs for the 4th Control Period is determined as shown in the table below:

Table 224: Projected Revenue Requirement, ACoS and Tariff hike approved by Commission for 4th Control Period (Rs. Crore)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
ARR of Wire distribution business	8.811	8.493	8.176
ARR of Retail Supply Business	46.378	48.958	45.204
Add: Past revenue gap to be recovered with carrying cost	(9.771)	1.903	23.334
Total ARR to be recovered during the Financial Year	**45.418**	**59.354**	**76.715**
Revenue at existing tariff	36.531	39.140	41.749
Revenue Gap	**8.888**	**20.214**	**34.966**
Energy Sales (MUs)	82.881	88.801	94.721
Average Cost of Supply (Rs. /kWh)	**5.48**	**6.68**	**8.10**
ABR at existing tariff (Rs/kWh)	4.41	4.41	4.41
Revenue Gap per unit (Rs. /kWh)	1.07	2.28	3.69
Expected Incremental Tariff Hike Required to Meet Revenue gap	**24.33%**	**21.97%**	**21.17%**

6.4 Wheeling Charges

MADC's Submission

6.4.1 As explained above, MADC has computed the ARR separately for Distribution Wires Business for FY 2020-21 to FY 2024-25 as shown in the Table below and the same has been considered by MADC to determine the wheeling charges:

Table 225: ARR of Wire Business for FY 2020-21 to FY 2024-25 (Rs. Cr)

Particulars	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25
ARR for Distribution Wires Business	10.35	10.06	9.76	9.47	9.18

6.4.2 MADC submitted that the Distribution wires are identified as carrier of electricity from generating station or transmission network to consumer point. Ideally consumption at a particular voltage level requires network at that voltage level and also at all higher voltage levels. Thus, consumption at the lower voltages should contribute to the cost of the higher voltage levels also. Whereas consumers connected to the higher voltages would not be utilizing the services of the lower voltage and hence would not be required to contribute to the lower voltages cost recovery

6.4.3 Based on the approach discussed above, the ARR for the wheeling business is apportioned to the HT and LT voltage in two steps as described below:

a. Apportioning the ARR of wheeling business to HT and LT voltage level.

b. Apportioning the ARR of the HT voltage level again between HT & LT voltage level.

6.4.4 The segregation of the HT Voltage Level ARR and LT Voltage level ARR has been done based on the shares of the HT and LT voltage level assets existing in the license area. HT Voltage Level's asset share is 93% whereas LT Voltage Level's share is 7%

Table 226: Share of Fixed Assets, as submitted by MADC

GFA	Amount (Rs. Cr)	Share (%)
HT Assets	58.30	93%
LT Assets	4.39	7%
Total	**62.69**	**100%**

6.4.5 To determine the wheeling charges of HT voltage level, the HT voltage level ARR is divided by the total sales.

6.4.6 To determine the wheeling charges of LT voltage level, LT voltage level ARR is initially divided by LT voltage level sales and the result is further added to the HT voltage level wheeling charges determined earlier.

6.4.7 MADC has calculated the wheeling charges as Rs/kWh as per working shown below:

Table 227:Working of Wheeling Charges for FY 2020-21 to FY 2024-25, as submitted by MADC

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
First Level Segregation of wheeling ARR					
HT Voltage Level (Rs. Cr.) (A)	9.63	9.35	9.08	8.81	8.53
LT Voltage Level (Rs. Cr.) (B)	0.72	0.70	0.68	0.66	0.64
Total wheeling ARR (Rs. Cr.) (C)	**10.35**	**10.06**	**9.76**	**9.47**	**9.18**

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Sales as per Voltage levels					
HT Voltage level sales (MU) (D)	67.80	73.45	79.10	84.75	90.40
LT Voltage level sales (MU) (E)	3.24	3.51	3.78	4.05	4.32
Total Sales (MU) (F)	**71.04**	**76.96**	**82.88**	**88.80**	**94.72**
Wheeling charges determination (Rs./kWh)					
HT Voltage level G = (A/F*10)	1.36	1.22	1.10	0.99	0.90
LT Voltage level H = (B/E*10)	2.24	2.01	1.81	1.64	1.49
LT Voltage level overall I = (G+H)	3.59	3.22	2.90	2.63	2.39
Wheeling Charges in Rs/kWh					
HT Voltage Level (G)	1.36	1.22	1.10	0.99	0.90
LT Voltage Level (I)	3.59	3.22	2.90	2.63	2.39

6.4.8 Wheeling charges for the period from FY 2020-21 to FY 2024-25 are computed as shown above. However, MADC has proposed to charge wheeling charges at 45%-57% and 40%-52% for HT consumers and LT consumers respectively from the wheeling charges computed above during FY 2021-22 to FY 2024-25. The year wise loading of wheeling charges from the wheeling charges computed above is shown below:

Table 228:Loading of wheeling charges for FY 2021-22 to FY 2024-25, as submitted by MADC

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
HT - Industry	45%	50%	52%	57%
HT - Commercial	45%	50%	52%	57%
LT - Industry	40%	45%	48%	52%
LT - Commercial	40%	45%	48%	52%
LT- Residential	40%	45%	48%	52%
LT - Street Light	40%	45%	48%	52%
LT - Public Service	40%	45%	48%	52%

6.4.9 Accordingly, following are the proposed category wise wheeling charges for FY 2021-22 to FY 2024-25.

Table 229: Proposed Wheeling Charges for FY 2021-22 to FY 2024-25 (Rs./kWh)

Category	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
HT – Industry	0.55	0.55	0.52	0.51
HT – Commercial	0.55	0.55	0.52	0.51
LT – Industry	1.29	1.31	1.26	1.24
LT – Commercial	1.29	1.31	1.26	1.24

Category	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
LT- Residential	1.29	1.31	1.26	1.24
LT - Street Light	1.29	1.31	1.26	1.24
LT - Public Service	1.29	1.31	1.26	1.24

Commission's Analysis

6.4.10 The Commission has approved the Distribution Loss levels for the 4th Control Period as elaborated in para 5.3 of this Order. MADC has not submitted the break-up in the petition with regards to HT and LT Loss level. However, MADC has submitted that 95% of the sales are likely to be on HT only. Given the low loss level, for the time being the Commission has not considered apportionment of the Distribution Loss between HT and LT levels. **However, MADC is directed to segregate the Distribution Loss between the HT and LT levels and submit the break-up at the time of the next tariff petition.**

6.4.11 Since the wheeling charges are determined for the first time, no past gap related to wire business has been identified and hence only standalone ARR of Distribution wire business is considered for recovery of Wheeling charges.

6.4.12 Also, MADC has not proposed any kVAh billing for all categories of consumers. In reply to the said datagaps, MADC submitted that all HT Consumer Meters are capable of Recording kVAh reading and most of the LT consumers meters are capable of Recording kVAh reading. However, only 14 (Fourteen) consumers of LT category are having old meters and not capable of recording kVAh reading. Since, there is no approved Tariff Order for MADC, MADC has not proposed KVAh billing in the present Petition. However, MADC shall adopt the billing methodology as per directives of Hon'ble Commission.

6.4.13 Accordingly, based on the arrived average category wise power factor, the Commission has therefore determined the Wheeling Charges in Rs/kVAh by considering the approved energy sales in kVAh and ARR of Distribution Wires Business.

6.4.14 As per submission of MADC, the Commission has considered the segregation of the HT Voltage Level ARR and LT Voltage level ARR in the ratio of 93.42% and 6.58% respectively.

6.4.15 The Commission has computed wheeling charges as well as bifurcated the same at HT & LT Level based on the GFA ratio, in line with the Regulation 73.2 of the MYT Regulations, 2019. However, considering the substantial sales in HT Category, the computed wheeling charges for LT category seems to be very high due to very low LT sales. Further, the Commission is also in the process of issuing Guidelines for Voltage-wise classification of distribution Assets to determine HT and LT wheeling charges based on such classification and the same is proposed to be applicable from 1 April, 2025 i.e., next Control Period. Therefore, the Commission deems it fit to approve the common Wheeling Charges for HT and LT categories based on the ARR approved for Wire business and approved energy sales as outlined in the table below. The similar approach has also been adopted by the Commission for other SEZ Area also. However, the Commission feels that the wheeling charges for HT ant LT categories will be determined in future when LT Sales have achieved the substantial proportion in the total sales.

Table 230: Determination of Wheeling Charges for FY 2022-23 to FY 2024-25 as approved by Commission (Rs./kVAh)

Sr.	Particulars	Units	Formula	FY 2022-23	FY 2023-24	FY 2024-25
A	ARR for Wires Business	Rs. Crs		8.81	8.49	8.18
B	**GFA attributable to HT Network**	**%**	**GFA Ratio**	93.42%	93.42%	93.42%
C	**GFA attributable to LT Network**	**%**		6.58%	6.58%	6.58%
D	Charge recoverable from HT & LT consumers	Rs. Crs	D = A x B	8.23	7.93	7.64
E	Charge recoverable from LT consumers	Rs. Crs	E = A x C	0.58	0.56	0.54
F	HT Sales	MKVAh		80.24	85.97	91.70
G	LT Sales	MKVAh		4.10	4.39	4.68
H	Total Sales	MKVAh	H = F + G	84.34	90.36	96.38
I	Charge recoverable from HT consumers	Rs. Crs	I = D x F / H	7.83	7.55	7.27
J	Charge recoverable from LT consumers	Rs. Crs	J = A – I	0.98	0.94	0.91
K	**HT Wheeling Charge**	Rs./kVAh	K = I / F x 10	**0.98**	**0.88**	**0.79**
L	**LT Wheeling Charge**	Rs./kVAh	L = J / G x 10	**2.39**	**2.15**	**1.94**
M	**Total Wheeling Charge**	Rs./kVAh	M = A / H x 10	**1.04**	**0.94**	**0.85**

6.5 Tariff Philosophy for Retail Supply

MADC Submission

6.5.1 MADC has submitted that if the total revenue gap approved under True-Up and MYT Commission is within the hike proposed by MADC, the same may be approved for tariff recovery. However, if the approved revenue gap is exorbitantly high for recovery in balance period of MYT of this control period, the same may be carried forward to next control period. It is further submitted that the less than 3 years are left under this control period and accordingly the recovery of the revenue gap needs to be managed to ensure there is no tariff shock to consumers.

6.5.2 The subsequent paragraphs deal with the submissions of MADC regarding the Tariff Philosophy and the changes approved by the Commission in the existing tariff structure:

Fixed/Demand Charges

6.5.3 MADC submits that, the fixed/ demand charges has been considered lower than the demand/fixed charges levied by other Distribution Licensee. Accordingly, Petitioner has proposed following demand/fixed charges for FY 2021-22 to FY 2024-25

Table 231: Proposed Demand/Fixed Charges for FY 2020-21 to FY 2024-25, as submitted by MADC

Category	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
HT - Industry	370	380	390	400
HT - Commercial	370	380	390	400
LT - Industry	270	285	300	320
LT - Commercial	300	285	300	320
LT- Residential	100	105	110	120
LT - Street Light	110	120	130	140
LT - Public Service	250	265	280	300

Energy Charges

6.5.4 MADC submitted that the energy charges for the different categories of consumers has been considered in such a way that average Billing rate (ABR) of all the category of consumer reflects recovery of power purchase, transmission cost and 10% of power purchase and transmission cost on account of other cost during FY 2021-22 to FY 2024-25. Accordingly, MADC has proposed following category wise energy charges for FY 2021-22 to FY 2024-25 as shown in the Table below:

Table 232: Proposed Energy Charges for FY 2021-22 to FY 2024-25 (Rs. kWh)

Category	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
HT - Industry	4.00	4.70	5.41	5.47
HT - Commercial	5.60	7.05	8.10	8.75
LT - Industry	3.90	4.29	4.72	5.43
LT - Commercial	5.05	5.60	6.15	7.05
LT- Residential	2.85	3.15	3.45	3.80
LT - Street Light	4.35	4.79	5.26	5.42
LT - Public Service	3.70	4.26	5.11	5.87

Revenue Recovery

6.5.5 Based on the above tariff proposal, following is the calculation of revenue for the Control Period FY 2020-21 to FY 2024-25.

Table 233: Revenue at proposed Tariff for FY 2020-21 to FY 2024-25

Category	FY 20-21		FY 21-22		FY 22-23		FY 23-24		FY 24-25	
	Sales (MU)	Revenue (Rs. Cr)	Sales (MU)	Revenue (Rs. Cr)	Sales (MU)	Revenue (Rs. Cr)	Sales (MU)	Revenue (Rs. Cr)	Sales (MU)	Revenue (Rs. Cr)
HT Category										
Industrial	64.98	28.53	70.39	45.63	75.81	54.85	81.22	64.70	86.64	69.97
Commercial	2.82	1.36	3.06	2.53	3.29	3.23	3.53	3.84	3.77	4.36
Sub-total HT	**67.80**	**29.89**	**73.45**	**48.17**	**79.10**	**58.08**	**84.75**	**68.54**	**90.40**	**74.33**
LT Category										
Industrial	1.44	0.63	1.56	0.98	1.68	1.13	1.80	1.29	1.92	1.53
Commercial	0.91	0.44	0.99	0.81	1.06	0.93	1.14	1.06	1.21	1.25
Street Light	0.88	0.35	0.95	0.54	1.02	0.62	1.09	0.72	1.17	0.78
Public Services	0.02	0.01	0.02	0.01	0.02	0.01	0.02	0.01	0.02	0.02
Sub-total LT	**3.24**	**1.42**	**3.51**	**2.34**	**3.78**	**2.69**	**4.05**	**3.08**	**4.32**	**3.58**
Grand Total	**71.04**	**31.31**	**76.96**	**50.51**	**82.88**	**60.77**	**88.80**	**71.62**	**94.72**	**77.91**

ABR at proposed Tariff

6.5.6 MADC submitted that following is the ABR at Proposed Tariff for the period from FY 2020-21 to FY 2024-25.

Table 234: Proposed ABR for FY 2020-21 to FY 2024-25, as submitted by MADC (Rs./kWh)

Particulars	Proposed ABR (Rs./kWh)				
	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
HT - Industry	4.39	6.48	6.38	6.38	6.37
HT - Commercial	4.83	8.29	7.01	7.01	7.01
LT - Industry	4.39	6.29	6.76	7.21	7.98
LT - Commercial	4.83	8.25	8.72	9.32	10.33
LT - Street Light	3.95	5.65	6.10	6.53	6.67
LT - Public Service	3.95	5.52	6.13	6.97	7.76

Cross Subsidy

6.5.7 MADC computed the Cross subsidy at proposed tariff for the period from FY 2020-21 to FY 2024-25 as shown in the Table below:

Table 235: Cross Subsidy at proposed Tariff for FY 2020-21 to FY 2024-25

Category	ABR at Proposed Tariff (Rs./kWh)					Cross Subsidy (%)				
	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
HT - Industry	4.39	6.48	6.38	6.38	6.37	59%	92%	105%	117%	121%
HT - Commercial	4.83	8.29	7.01	7.01	7.01	65%	118%	142%	160%	173%
LT - Industry	4.39	6.29	6.76	7.21	7.98	59%	89%	98%	106%	119%
LT - Commercial	4.83	8.25	8.72	9.32	10.33	65%	117%	126%	137%	154%
LT - Street Light	3.95	5.65	6.10	6.53	6.67	53%	80%	88%	96%	100%
LT - Public Service	3.95	5.52	6.13	6.97	7.76	53%	79%	89%	103%	116%
Average Cost of Supply (Rs. kWh)	**7.48**	**7.03**	**6.90**	**6.78**	**6.69**					

<u>Revenue Gap at proposed Tariff</u>

6.5.8 Considering the Revenue at proposed tariff calculated for FY 2020-21 to FY 2024-25 as shown above, following is the cumulative revenue gap computed by MADC for the Control Period FY 2020-21 to FY 2024-25:

Table 236: Cumulative Revenue gap at proposed tariff for FY 2020-21 to FY 2024-25 (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Total ARR (A)	53.14	54.14	57.19	60.25	63.35
Revenue at Proposed Tariff (B)	31.31	50.51	60.77	71.62	77.91
Revenue Gap at Proposed Tariff (C=A-B)	21.82	3.63	-3.59	-11.38	14.56
<u>Cumulative Revenue Gap at Proposed Tariff</u>					
Opening Revenue Gap (D)	4.89	26.71	30.34	26.75	15.38
Add : Revenue Gap during the year (E=C)	21.82	3.63	-3.59	-11.38	-14.56
Closing Revenue Gap (G=D+E-F)	**26.71**	**30.34**	**26.75**	**15.38**	**0.82**

6.5.9 MADC submitted that the proposed tariff hike for the period from FY 2021-22 to FY 2024-25 results into cumulative revenue gap of Rs.0.82 Crore worked out at the end of FY 2024-25 as shown in above table. Further, it submitted that almost total standalone revenue gap for the current MYT Control Period is proposed to be recovered through tariff hike and this balance negligible revenue gap of Rs.0.82 Crore will be recovered through efficiency measures. Further, in case of any variation in Sales and ARR component, MADC requested the Commission to allow to claim based on actual in True-up Petition of the respective years.

6.5.10 MADC requested the Commission to approve the proposed tariff for the MYT Control Period FY 2020-21 to FY 2024-25 and approve cumulative revenue gap of Rs. 0.82 crore at the end of FY 2024-25 after considering proposed tariff hike.

Load Factor incentive / penalty

6.5.11 MADC has propose that in case the Billing Demand exceeds the Contract Demand in any particular month, the Load Factor Incentive will not be payable in that month. (The Billing Demand definition excludes the demand recorded during the nonpeak hours, i.e., 22:00 hrs to 06:00 hrs and, therefore, even if the Maximum Demand exceeds the Contract Demand in that period, Load Factor Incentive would be applicable. However, the consumer would be subject to and shall have to pay the penal charges applicable for exceeding such Contract Demand.)

Commission's Analysis

A. Principles of Tariff Determination and Cross Subsidy

6.5.12 During the initial period, the Commission allowed MADC to charge the MSEDCL tariff as its ceiling tariff as an interim arrangement. The Commission has determined tariff as per Regulations 91.3 of the MYT Regulations, 2019 as specified below:

> *91.3 The retail supply tariff for different consumer categories shall be determined on the basis of the Average Cost of Supply, computed as the ratio of the Aggregate Revenue Requirement of the Distribution Licensee for the Year determined in accordance with Regulation 81, and including unrecovered revenue gaps of previous years to the extent proposed to be recovered, to the total sales of the Distribution Licensee for the respective Year.*
>
> *91.4 The Commission shall endeavour to gradually reduce the cross-subsidy between consumer categories with respect to the Average Cost of Supply in accordance with the provisions of the Act.*
>
> *91.5 While determining the tariff, the Commission shall also keep in view the cost of supply at different voltage levels and the need to minimise tariff shock to consumers.*

6.5.13 The tariff design entails careful consideration of determination of Fixed Charge/Demand Charge, Energy Charge and Wheeling Charge and assessment of the likely impact of such tariff components across consumer categories. The ABR for a consumer category and its cross-subsidy level would also depend upon the number of consumers, consumer mix, and consumption mix. Thus, while the tariff design exercise may strive to bring the ABR for each consumer category close to ACoS, some degree of cross-subsidy across consumer categories may not be avoidable.

6.5.14 Hence, while determining the tariff, the level of cross-subsidy has been minimised considering the consumer profile and consumption mix. The Commission has determined the category-wise tariffs such that the entire Revenue Gap is recovered from the revised tariffs. It has also determined the tariffs for all categories within +20% of the ACoS, as stipulated in the Tariff Policy.

6.5.15 With respect to determination of cost of supply at different voltage, MADC was not in a position to provide the bifurcated loss and cost at different voltage level. Given the very low loss level in MADC's area and the capitalisation considered in this Order, the Commission has undertaken the determination of tariff on the basis of ACoS as per the provisions of the MYT Regulations, 2019. **MADC is directed to also submit, at the time of MTR filing, relevant details and computation of VCoS in line with the framework stipulated by the ATE.**

B. kVAh Billing for Control Period

6.5.16 The Commission in the previous tariff orders issued for other distribution licensee within the State had indicated implementation of kVAh billing from 1 April 2020 for certain categories of customer. However, MADC has not proposed kVAh sales and tariff for all categories in accordance with the Commission's directions. Therefore, the Commission has sought readiness of MADC for implementation of kVAh billing along with the confirmation of all consumers having the requisite metering and billing infrastructure. Also, the Commission requested MADC to submit sales projection in MkVAh for the 4th Control period (i.e. from FY 2021 -22 to FY 2024 -25) along with actual Power factor of each category for FY 2017-18, FY 2018-19. In reply to the said datagaps, MADC submits that all HT Consumer Meters are capable of Recording kVAh reading and most of the LT consumers meters are capable of Recording kVAh reading. However, only 14 (Fourteen) consumers of LT category are having old meters and not capable of recording kVAh reading. Also, there is no approved Tariff Order for MADC. In view of this MADC has not proposed KVAh billing in the present Petition. However, as per MADC, it shall adopt the billing methodology as per directives of Hon'ble Commission.

6.5.17 The Commission, in the Mid-term Review (MTR) Orders issued in September 2018 for other Distribution Licensees in the State, had expressed its intentions to implement kVAh billing to all HT consumer and LT consumers having load above 20 kW from 1 April, 2020 so as to have enough lead time to take necessary steps such as meter replacement, if required, preparedness of billing software etc. to ensure their operational preparedness for implementing the kVAh billing.

6.5.18 The Commission had indicated to implement kVAh billing for all HT consumers and LT consumers having load above 20 kW, however, MADC has not proposed to implement kVAh billing for all categories of Consumers.

6.5.19 The Commission observes that sales projected by MADC for the 4th Control Period are mainly in HT and LT II category and as such there would be no difficulty even if all the categories are implemented with kVAh billing. The Commission intends to implement the same for all the Consumers and accordingly directs MADC for implementation of kVAh billing for all categories of Consumers of MADC.

6.5.20 The Commission has approved the detailed Tariff as set out in Tariff Schedule.

6.5.21 While determining per unit charges in kVAh, the Commission has used category wise PF which could be lower than unity. This makes per unit tariff lower than the tariff which would have been determined in kWh term.

C. Fixed/Demand Charges

6.5.22 As set out in earlier submission of MADC, it has stated that it has proposed the Demand Charges and Fixed Charges lower than other Distribution licensee.

6.5.23 The Commission would like to highlight that the consumers in the MADC SEZ area were paying only single part tariff and therefore, the consumers may not be aware of the implication of the fixed/demand charges and its relation to their contract demand. Therefore, considering that the fixed/demand charges is made applicable to the consumers for the first time, the Commission believes that the same may be implemented at a lower rate and then to be gradually increased for later years so that in case any consumer can take any corrective action, if required.

6.5.24 Based on the above philosophy and with proposed revision in Demand/Fixed Charges, it is envisaged that revenue through Demand/Fixed Charge component of tariff will meet the fixed cost of the licensee. This will necessitate the recovery of the fixed charges to enable proper maintenance of the infrastructure so as to provide the quality supply of power. For determining the fixed cost component, total ARR of Retail Supply business of the respective Financial Year is considered excluding the Power Purchase expenses, as the same is tied-up with the Generator at single part tariff and hence considered as a variable cost. The comparison of cost and revenue has been highlighted in the following table:

Table 237: Proposed recovery of Fixed and variable Revenue against the cost in Retail Supply Business

Cost	FY 2022-23		FY 2023-24		FY 2024-25	
	Rs. Crores	%	Rs. Crores	%	Rs. Crores	%
Fixed Cost	6.36	14%	6.56	13%	6.71	15%
Variable Cost	40.02	86%	42.40	87%	38.49	85%
Total *	**46.38**	**100%**	**48.96**	**100%**	**45.20**	**100%**

*- ARR as per Retail Supply Business as per Table 208 of this Order

Revenue	FY 2022-23		FY 2023-24		FY 2024-25	
	Rs. Crores	%	Rs. Crores	%	Rs. Crores	%
Fixed / Demand	3.29	9%	6.96	14%	9.84	14%
Energy	33.30	91%	43.89	86%	58.69	86%
Total Revenue *	**36.59**	**100%**	**50.84**	**100%**	**68.53**	**100%**

* - Revenue includes the recovery of Past Gap also

6.5.25 Moreover, considering the principle involved, the endeavour should be that a Licensee increasingly recovers its fixed cost from Fixed Charges to the extent possible considering that there is no tariff shock to consumers.

6.5.26 The category wise approved Fixed/Demand Charges for the 4th Control Period have been mentioned in the Tariff Schedule in the subsequent sections of this Order and is also outlined below:

Table 238: Demand/Fixed Charges for FY 2022-23 to FY 2024-25, approved by Commission

Category	Units	FY 2022-23	FY 2023-24	FY 2024-25	FY 2022-23	FY 2023-24	FY 2024-25
		MADC Petition			Approved in this order		
HT - Industry	Rs./kVA	380	390	400	75	150	200
HT - Commercial	Rs./kVA	380	390	400	100	180	220
LT - Industry	Rs./kVA	285	300	320	75	120	150
LT - Commercial	Rs./kVA	285	300	320	100	150	180
LT - Street Light	Rs./kVA	120	130	140	30	55	100
LT - Public Service	Rs./kVA	265	280	300	30	55	100

D. Energy Charges

6.5.27 The Commission has determined the Energy Charges for each consumer category in accordance with Regulation 81.2. As per the Regulations, the Energy Charge is a component of the Retail Supply tariff.

6.5.28 The Energy Charge for each consumer category is determined as the balance component of tariff such that the tariffs for all categories are within +20% of the ACoS and in accordance with the other principles adopted in this Order. While determining the Energy Charges for each year, the need to avoid a tariff shock in any year has also been taken into consideration. Also, so as to achieve the Cross subsidy within the range of 20% of the ACoS, the energy charges approved of Street light / Public Service is equal.

Table 239: Energy Charges for FY 2022-23 to FY 2024-25, approved by Commission

Particulars	Existing Energy Charges	FY 2022-23	FY 2023-24	FY 2024-25	FY 2022-23	FY 2023-24	FY 2024-25	FY 2022-23	FY 2023-24	FY 2024-25
	FY 2021-22	MADC Petition - Rs./kWh			Approved in this order - Rs./kWh			Approved in this order - Rs./kVAh		
HT - Industry	4.39	4.70	5.41	5.47	4.02	4.93	6.17	3.97	4.86	6.09
HT - Commercial	4.83	7.05	8.10	8.75	4.07	5.00	6.50	3.93	4.83	6.28
LT - Industry	4.39	4.29	4.72	5.43	4.05	5.20	6.60	3.83	4.92	6.25
LT - Commercial	4.83	5.60	6.15	7.05	4.05	5.25	6.70	3.86	5.01	6.39
LT - Street Light	3.95	4.79	5.26	5.42	3.60	4.90	6.00	3.10	4.21	5.16
LT - Public Service	3.95	4.26	5.11	5.87	3.60	4.90	6.00	3.02	4.12	5.04

E. Revenue Recovery

6.5.29 Based on the above approved tariff, the expected revenue for the Control Period FY 2020-21 to FY 2024-25 is outlined in the following table.

Table 240: Revenue at approved Tariff for FY 2020-21 to FY 2024-25

Category	FY 22-23		FY 23-24		FY 24-25	
	Sales (MU)	Revenue (Rs. Cr)	Sales (MU)	Revenue (Rs. Cr)	Sales (MU)	Revenue (Rs. Cr)
HT Category						
Industrial	75.81	41.48	81.22	54.15	86.64	69.97
Commercial	3.29	1.89	3.53	2.48	3.77	3.26
Sub-total HT	**79.10**	**43.36**	**84.75**	**56.63**	**90.40**	**73.23**
LT Category						
Industrial	1.68	0.92	1.80	1.20	1.92	1.55
Commercial	1.06	0.61	1.14	0.82	1.21	1.06
Street Light	1.02	0.50	1.09	0.67	1.17	0.85
Public Services	0.02	0.01	0.02	0.01	0.02	0.02
Sub-total LT	**3.78**	**2.04**	**4.05**	**2.71**	**4.32**	**3.48**
Grand Total	**82.88**	**45.40**	**88.80**	**59.33**	**94.72**	**76.71**

F. ABR at proposed Tariff

6.5.30 Based on the Fixed Charges and Energy Charges as approved in the above section, the ABR at approved Tariff for the period from FY 2022-23 to FY 2024-25 is outlined as below:

Table 241: Approved ABR and Tariff hike for FY 2020-21 to FY 2024-25, approved by Commission (Rs./kWh)

Particulars	Existing ABR	Approved ABR (Rs./kWh)			% Tariff hike		
	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2022-23	FY 2023-24	FY 2024-25
HT - Industry	4.39	5.47	6.67	8.08	25%	22%	21%
HT - Commercial	4.83	5.73	7.01	8.65	19%	22%	23%
LT - Industry	4.39	5.46	6.68	8.11	24%	22%	21%
LT - Commercial	4.83	5.78	7.19	8.74	20%	24%	21%
LT - Street Light	3.95	4.90	6.15	7.27	24%	25%	18%
LT - Public Service	3.95	5.18	6.64	8.14	31%	28%	23%

6.5.31 Further, it is stated that in the FY 2022-23, the fixed and wheeling charges are introduced for the first time. However, in case of any lower increase in tariff, the resultant energy charges for the categories of consumers will be unrealistic. Hence, in FY 2022-23, i.e. first year of tariff determination, the Commission has tried to initiate with lower fixed charges and energy charges which will also result in ABR within the range of +20% of the ACoS. Also, while determining the Energy Charges for each year, the need to avoid a tariff shock in any year has also been kept in view.

G. Cross Subsidy

6.5.32 The Commission has approved revised tariffs so as to maintain the zero cross-subsidy to the extent possible. Further, the Commission has undertaken the determination of tariff on the basis of ACoS as per the provisions of the MYT Regulations, 2019 for the 4th Control Period

6.5.33 Based on the approved ARR for the 4th Control Period and the approach for tariff design stated earlier, the revised ABR and the cross subsidy trajectory approved by the Commission for the 4th Control Period are given in the Table below:

Table 242: Cross Subsidy Trajectory approved by Commission for FY 2022-23 to FY 2024-25

Category	ABR at approved Tariff (Rs./kWh)			Cross Subsidy (%)		
	FY 2022-23	FY 2023-24	FY 2024-25	FY 2022-23	FY 2023-24	FY 2024-25
HT - Industry	5.47	6.67	8.08	100%	100%	100%
HT - Commercial	5.73	7.01	8.65	105%	105%	107%
LT - Industry	5.46	6.68	8.11	100%	100%	100%
LT - Commercial	5.78	7.19	8.74	106%	108%	108%
LT - Street Light	4.90	6.15	7.27	89%	92%	90%
LT - Public Service	5.18	6.64	8.14	95%	99%	100%
Average Cost of Supply (Rs./kWh)	**5.48**	**6.68**	**8.10**			

H. Revenue Gap at proposed Tariff

6.5.34 Considering the Revenue at approved tariff calculated for FY 2022-23 to FY 2024-25 as shown above, following is the cumulative revenue gap approved and computed by the Commission for the Control Period FY 2022-23 to FY 2024-25:

Table 243: Cumulative Revenue gap at proposed tariff for FY 2022-23 to FY 2024-25 (Rs. Crore)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
ARR of Distribution Business (A)	55.19	57.45	53.38
Past Gap deferment (B)	(9.77)	1.90	23.33
Net ARR of Distribution Business (C = A+B)	45.42	59.35	76.72
Revenue at Approved Tariff (D)	45.40	59.33	76.71
Revenue Gap at approved Tariff (E=C-D)	0.02	0.02	0.01

I. New Category

6.5.35 MADC has proposed additional tariff categories for the 4th Control Period such as LT Residential without providing any rationale for the same.

6.5.36 As per Regulation 91.1 of the MYT Regulations, 2019, the Commission may categorize consumers on the basis of their Load Factor, Power Factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and its purpose.

6.5.37 However, the Commission feels that being a Multi-product SEZ model, a SEZ is being developed purely for industries and services whereby the basic categories of consumers will be industrial, commercial, street lighting and public services. Therefore, the presence of Residential category consumer in the said SEZ area is not envisaged. Hence, the Commission has not approved any residential category for the tariff purpose in the Tariff Order.

6.5.38 Also, the Commission is aware about initiatives taken by the Government at the State and Central level to encourage use of electric vehicles. One of the key challenges identified in this regard is lack of EV charging infrastructure. To address this challenge, number of steps is being taken up by the Central Government including plan for setting up charging stations for electric vehicles. The Government of Maharashtra (GoM) has also notified the Maharashtra Electric Vehicle (EV) Policy, 2018 with an objective to promote sustainable transport system along with other policy objectives. One of the strategic drivers for the Policy is promotion of creation of dedicated infrastructure for charging of EVs through subsidization of investment. Again in July 2021, the GoM has introduced EV Policy 2021, that has been envisioned to support the adoption of sustainable and clean mobility solutions in Maharashtra. The policy aims to transform Maharashtra into a leading state in terms of the adoption of electric vehicles in the country, top producer of Battery Electric Vehicles (BEVs), establishment of at least one giga factory for manufacturing of ACC batteries, promoting R&D, innovation, and skill development across the EV ecosystem in the state and emerge as a leading investment hub for the EV ecosystem globally. The policy also envisages achieving 25% electrification of public transport and last-mile delivery in five targeted urban areas of the state by 2025.

6.5.39 Accordingly, in order to promote Electric Vehicles, the Commission has already created separate tariff category for EV Charging Stations for other Distribution Licensees and proposed to do the same for MADC. As a promotional measure, the Commission has fixed slightly lower Fixed Cost for this category and ensured that resultant tariff is close to ACoS. Detail of applicability of tariff for this Category is given in Tariff Schedule. It is further clarified that consumers are allowed to charge their own Electric Vehicle at their premises with tariff applicable to such premises.

6.5.40 The Commission at present approves the following rate for HT and LT Electric Vehicle Charging Station. The details of applicability and other conditions relating to these tariff categories have been set out in the Tariff Schedule.

Table 244: Tariff approved for HT & LT Electric Vehicle Charging Station

Particulars	Units	FY 2022-23	FY 2023-24	FY 2024-25	FY 2022-23	FY 2023-24	FY 2024-25
		HT			LT		
Fixed / Demand Charges	Rs./kVA/month	70	70	70	70	70	70
Energy Charges	Rs./kVAh	3.60	4.00	4.30	3.50	4.50	5.00
Wheeling Charges	Rs./kVAh	0.98	0.88	0.79	1.04	0.94	0.85

* -P.F. assumed to be unity.

J. Time-of-the-Day Tariff

6.5.41 MADC, in the said tariff petition, has not proposed Time of day (ToD) Tariff. The Commission has sought reply from MADC to provide rationale for not considering a ToD Tariff and its effect in the revenue computations. Also, in case, MADC has not installed ToD meters in their supply area, justification for not installing ToD meters has to be provided. In reply to the said data gaps, MADC replied that all the HT Consumers are connected on HT ToD meters, 41 number of LT consumers are connected with TOD meters and 14 LT consumers are connected with non-ToD meters. Also, since this is the first year of tariff for which Petition is filed for determination of ARR and tariff for MYT Control Period, MADC has not proposed ToD tariff in present Petition. MADC will implement the TOD Tariff in case it is approved/directed by Commission in Tariff Order.

6.5.42 ToD tariffs were introduced as a DSM measure to mitigate diurnal variation in the load curve which would help the Distribution Licensee to reduce its peak period power procurement at relatively higher rate. Also, ToD slabs and rates would depend upon factors such as load curve, penetration of renewable energy, demand side measures, overall system demand management measures, etc. However, MADC has not provided any details to analyse the load curve and any diurnal variation so as to mitigate such impact. Also, being a Multi-product SEZ model, a SEZ is being developed purely for various types of industries and services sector and hence considering the manufacturing activities as well as the service sector within the SEZ, the demand curve of the area may have its own peak and off-peak period. Further, it has been noticed that MADC has contracted for the power in accordance with its load curve, and hence, the Power procurement plan is sufficed enough to cater the peak and off-peak load. The details of the power procurement as approved in Case No. 137 of 2021 dated 28 October 2021 is outlined as below:

Table 245: Approved Power Procurement Plant from FY 2022-23 to FY 2024-25

Period	00:00 to 06:00	06:00 to 09:00	09:00 to 17:00	17:00 to 22:00	22:00 to 24:00
1.11.2021 to 31.10.2022	8	10	13	10	8
1.11.2022 to 31.10.2023	8	10	14	10	8
1.11.2023 to 31.10.2024	9	11	15	11	9
1.11.2024 to 31.10.2025	9	11	16	11	9

6.5.43 Considering the Power procurement plan as per the load profile of the licensee area, there may not be any benefit for applying the ToD tariff, at present. However, the same is also to be reviewed based on the actual data of licensee area. In view of the same, the Commission at present is inclined not to apply ToD tariff for the 4th Control Period. However, the Commission directs MADC to provide the load curve and the impact of the power purchase against such load curve, to review the ToD Slots and applicability of ToD Tariff, in next tariff petition.

K. PF Incentives / Penalties

6.5.44 The Commission has directed MADC to implement kVAh billing for the 4th Control Period and accordingly, there is no relevance of Power Factor Incentive/Penalty mechanism.

6.5.45 The Commission is cognisant of the fact that in the present billing system, Consumer, based on the incentive/penalty levied in the monthly bill was kept informed of Power Factor (PF) maintained by it during the month. The Consumer was therefore, in the position to take corrective action in case of penalty was levied due to poor PF based on the information from the monthly Bill. However, with implementation of kVAh billing, any adverse impact of due to poor PF will be recorded in increase consumption in kVAh and Consumer will not be aware of actual PF for the month unless it is being recorded and monitored separately. For smooth transition to new billing system and to keep Consumer aware at all times**, the Commission directs MADC to display PF (computed by considering leading and lagging RkVAh) recorded during the month in the bill of all the Consumer categories till further directions**.

6.5.46 Further, such PF can be used for converting kVAh into kWh for arriving at payment to be made towards taxes / duties imposed by the GoM, if applicable.

L. Load Factor Incentive

6.5.47 In order to ensure secure operation of electricity grid, it is critical that every constituent of the system acts within its assigned boundaries. Intentional violation of Contract Demand limit by individual consumer for its own financial gain may lead to a system failure, which may affect other consumers. Hence, the Commission has restricted the Load Factor Incentive to only those consumers who do not exceed their Contract Demand during the month irrespective of peak/off-peak hours. Further, the Load Factor shall be computed considering the actual interruptions hours recorded in the meter. In case of faulty meter, if interruption hours in the meter are not available, then interruption hours recorded on feeder meter shall be considered for calculation of Load Factor Incentive for the individual consumer.

6.6 Revised Tariff

6.6.1 In the light of the above discussions, the approved revised Tariffs for 4th Control Period are as set out in the tables below:

Table 246: Revised Tariffs for FY 2022-23 (effective from 1 August, 2022)

Sr. No	Consumer Category	Fixed/ Demand Charge per month	Wheeling Charges (Rs/kVAh)	Energy Charges (Rs/kVAh)
HIGH TENSION CATEGORIES				
1	**HT I: HT- Industry**	Rs. 75 per kVA	1.04	3.97
2	**HT II: HT Commercial**	Rs. 100 per kVA	1.04	3.93
3	**HT III: HT Electric Vehicle Charging Station**	Rs. 70 per kVA	1.04	3.60
LOW TENSION CATEGORIES				
4	**LT I: LT- Industry**	Rs. 75 per kVA	1.04	3.83
5	**LT II: LT Commercial**	Rs. 75 per kVA	1.04	3.86
6	**LT III: Street Light**	Rs. 30 per kVA	1.04	3.10
7	**LT IV: Public Service**	Rs. 30 per kVA	1.04	3.02
8	**LT V: LT Electric Vehicle Charging Station**	Rs. 70 per kVA	1.04	3.50

Note:

Fuel Adjustment Charge (FAC) computed as per the provisions of the MYT Regulations from time to time shall be applicable to all categories of consumers and will be charged over and above the base tariff.

The detailed computation of category-wise revenue with revised tariffs for FY 2022-23 is set out at Annexure 1 of this Order.

Table 247: Revised Tariffs for FY 2023-24 (effective from 1 April,2023)

Sr. No	Consumer Category	Fixed/ Demand Charge per month	Wheeling Charges (Rs/kVAh)	Energy Charges (Rs/kVAh)
HIGH TENSION CATEGORIES				
1	**HT I: HT- Industry**	Rs. 150 per kVA	0.94	4.86
2	**HT II: HT Commercial**	Rs. 180 per kVA	0.94	4.83
3	**HT III: HT Electric Vehicle Charging Station**	Rs. 70 per kVA	0.94	4.00
LOW TENSION CATEGORIES				
4	**LT I: LT- Industry**	Rs. 120 per kVA	0.94	4.92
5	**LT II: LT Commercial**	Rs. 150 per kVA	0.94	5.01
6	**LT III: Street Light**	Rs. 55 per kVA	0.94	4.21
7	**LT IV: Public Service**	Rs. 55 per kVA	0.94	4.12
8	**LT V: LT Electric Vehicle Charging Station**	Rs. 70 per kVA	0.94	4.50

Note:

Fuel Adjustment Charge (FAC) computed as per the provisions of the MYT Regulations from time to time shall be applicable to all categories of consumers and will be charged over and above the base tariff.

The detailed computation of category-wise revenue with revised tariffs for FY 2023-24 is set out at Annexure 2 of this Order.

Table 248: Revised Tariffs for FY 2023-24 (effective from 1 April, 2024)

Sr. No	Consumer Category	Fixed/ Demand Charge per month	Wheeling Charges (Rs/kVAh)	Energy Charges (Rs/kVAh)
HIGH TENSION CATEGORIES				
1	**HT I: HT- Industry**	Rs. 200 per kVA	0.85	6.09
2	**HT II: HT Commercial**	Rs. 220 per kVA	0.85	6.28
3	**HT III: HT Electric Vehicle Charging Station**	Rs. 70 per kVA	0.85	4.30
LOW TENSION CATEGORIES				
4	**LT I: LT- Industry**	Rs. 150 per kVA	0.85	6.25
5	**LT II: LT Commercial**	Rs. 180 per kVA	0.85	6.39
6	**LT III: Street Light**	Rs. 100 per kVA	0.85	5.16
7	**LT IV: Public Service**	Rs. 100 per kVA	0.85	5.04
8	**LT V: LT Electric Vehicle Charging Station**	Rs. 70 per kVA	0.85	5.00

Note:

Fuel Adjustment Charge (FAC) computed as per the provisions of the MYT Regulations from time to time shall be applicable to all categories of consumers and will be charged over and above the base tariff.

The detailed computation of category-wise revenue with revised tariffs for FY 2024-25 is set out at

Annexure 3 *of this Order.*

6.6.2 On this basis, the approved Tariff Schedule is appended as Annexure 4 to this Order.

6.7 Cross Subsidy Surcharge

MADC Submission

6.7.1 MADC has not proposed any Cross Subsidy Surcharge as it does not have any existing or proposed Cross Subsidy as the government has not allowed them for the same.

Commission's Analysis

6.7.2 In accordance with Tariff Policy 2016 Formula, the Commission has computed the category-wise CSS for MADC, based on the approved values of various components, as explained below.

- Computation of 'C': Computation of "C" for MADC is based on the approved power purchase quantum and cost, including cost of meeting the RPO for each year.
- Average Billing Rate "T": ABR for each of the consumer categories for each year, based on the tariff approved.
- "L": L denotes the Wheeling and transmission Losses whereby the Commission has considered approved Distribution loss as Wheeling Loss and Intra State Transmission (InSTS) Loss is considered NIL as the power is procured at distribution periphery and impact of InSTS Loss is already computed in "C". However, the Transmission loss of AMNEPL is also considered.
- "D": D is the addition of Transmission and Wheeling Charges applicable to the relevant voltage level. The Commission has determined uniform Wheeling Charges for HT and LT category and same has been considered. With respect to Transmission Charges, impact of per unit of InSTS has been considered.

6.7.3 The Commission has approved the category-wise CSS computed broadly in line with the formula in the Tariff Policy, 2016 for the 4th Control Period. The Commission has ensured that the category-wise CSS does not exceed 20% of the tariff applicable to the respective categories, as stipulated in the Tariff Policy, 2016. The category-wise CSS for the 4th Control Period for the period FY 2022-23 to FY 2024-25, computed accordingly is as shown in the table below:

Table 249: Cross-subsidy Surcharge computation considering Tariff Policy Formula for 4th Control Period

Consumer Category	T (ABR)	C	WL	TL	L	C*(1+L%)	D	CSS	CSS
	Rs./kWh	Rs./kWh	%	%	%	Rs./kWh	Rs./kWh	Rs./kWh	Rs./kVAh
FY 2022-23									
HT Industrial	5.47	4.75	0.94%	0.63%	1.57%	4.83	1.72	-	-
HT Commercial	5.73	4.75	0.94%	0.63%	1.57%	4.83	1.72	-	-
LT Industrial	5.46	4.75	0.94%	0.63%	1.57%	4.83	1.72	-	-
LT Commercial	5.78	4.75	0.94%	0.63%	1.57%	4.83	1.72	-	-
LT Street Light	4.90	4.75	0.94%	0.63%	1.57%	4.83	1.72	-	-
LT Public Services	5.18	4.75	0.94%	0.63%	1.57%	4.83	1.72	-	-
FY 2023-24									
HT Industrial	6.67	4.70	0.94%	0.63%	1.57%	4.77	1.59	0.30	0.30
HT Commercial	7.01	4.70	0.94%	0.63%	1.57%	4.77	1.59	0.65	0.63
LT Industrial	6.68	4.70	0.94%	0.63%	1.57%	4.77	1.59	0.32	0.30
LT Commercial	7.19	4.70	0.94%	0.63%	1.57%	4.77	1.59	0.83	0.79
LT Street Light	6.15	4.70	0.94%	0.63%	1.57%	4.77	1.59	-	-
LT Public Services	6.64	4.70	0.94%	0.63%	1.57%	4.77	1.59	0.28	0.24
FY 2024-25									
HT Industrial	8.08	4.00	0.94%	0.63%	1.57%	4.06	1.47	1.62	1.60
HT Commercial	8.65	4.00	0.94%	0.63%	1.57%	4.06	1.47	1.73	1.67
LT Industrial	8.11	4.00	0.94%	0.63%	1.57%	4.06	1.47	1.62	1.53
LT Commercial	8.74	4.00	0.94%	0.63%	1.57%	4.06	1.47	1.75	1.67
LT Street Light	7.27	4.00	0.94%	0.63%	1.57%	4.06	1.47	1.45	1.25
LT Public Services	8.14	4.00	0.94%	0.63%	1.57%	4.06	1.47	1.63	1.37

6.8 Stabilising variation in consumer bill on account of FAC

6.8.1 As per MYT Regulations, 2019, the aggregate gain or loss to a Distribution Licensee on account of variation in cost of fuel, power purchase, and inter-State Transmission Charges shall be passed through under the Fuel Adjustment Charge (FAC) component of the Z-factor Charge (ZFAC), as an adjustment in its tariff on a monthly basis. Relevant part of the MYT Regulation is reproduced below:

"10.2 The aggregate gain or loss to a Distribution Licensee on account of variation in cost of fuel, power purchase, and inter-State Transmission Charges, covered under Regulation 9.1, shall be passed through under the Fuel Adjustment Charge (FAC) component of the Z-factor Charge (ZFAC), as an adjustment in its Tariff on a monthly basis, as specified in these Regulations and as may be determined in orders of the

Commission passed under these Regulations, and shall be subject to ex-post facto approval by the Commission on a quarterly basis:

……..”

6.8.2 Similar arrangement for passing on the variation in fuel and power purchase cost existed in all previous Tariff Regulations of the Commission. Such mechanism is in line with the provision of the EA, 2003 which mandates recovery of the fuel cost in timely manner so that the Distribution Licensees are able to recover their legitimate power purchase cost variation. This has helped regular recovery of power purchase variations without accumulating it till next tariff revision. This provision also addresses the financial/cash flow issue of Distribution Licensee wherein the payment for power purchase is required to be made in timely manner at prevailing cost. At the same time it also helps in reducing carrying cost burden on consumer which otherwise would have to be borne if such monthly levy accumulates and the gap is recovered through tariff revision in MYT or MTR as the case may be. Although, consumers are well aware of this mechanism, there is general and reasonable expectation that once the tariff is approved by the Commission, to the extent possible, it should remain constant during the year and there should not be large variations due to FAC. The unknown variation in the tariff on account of FAC has adverse financial implications on all the categories especially Industrial and Commercial categories where the impact of FAC is generally higher. Variation in tariff is magnified when there is negative FAC leading to reduction in tariff during a particular month and positive FAC in the immediate next month thereby increasing the tariff.

6.8.3 Variation in FAC is either on account of change in fuel related costs or mix of power procurement. To ensure stabilisation of tariffs to the extent possible, and to minimise the variation in FAC, the Commission thinks it fit to approve constitution of a FAC Fund with Distribution Licensee which can be built up over a period of time to be used for payment of FAC bills of Generating companies without immediately loading it on consumers.

6.8.4 Therefore, using its powers for Removing Difficulty under Regulations 106 of the MYT Regulations, 2019, the Commission is making following changes in FAC mechanism stipulated under Regulation 10 of MYT Regulations, 2019:

a Distribution Licensee shall undertake computation of monthly FAC as per Regulation 10 of the MYT Regulations, 2019 except for treatment to be given to negative FAC as follows:

i Negative FAC amount shall be carried forward to the next FAC billing cycle with holding cost.

ii Such carried forward negative FAC shall be adjusted against FAC amount for the next month and balance negative amount shall be carried forward to subsequent month with holding cost.

iii Such carry forward of negative FAC shall be continued till the accumulated negative FAC becomes 20% of monthly tariff revenue approved by the Commission in Tariff Order. In case of MADC, such limit shall be Rs. 76 Lakhs. Any accumulated amount above such limit shall be refunded to consumers through FAC mechanism.

iv In case such FAC Fund is yet to be generated or such generated fund is not sufficient to adjust against FAC computed for given month, then Distribution Licensee can levy such amount to the consumers through FAC mechanism.

6.8.5 In order to maintain transparency in management and use of such FAC Fund, Distribution Licensee shall maintain monthly account of such FAC fund and upload it on its website for information of stakeholders. Such details shall also be submitted to the Commission on quarterly basis along with proposal for post facto vetting of FAC.

7 Schedule of Charges

7.1.1 In accordance with the provisions of EA 2003, the Commission notified MERC (Electricity Supply Code and Standards Of Performance for Distribution Licensees, including Power Quality) Regulations, 2021. The Petitioner submits that as per Regulation 19 of MERC (Electricity Supply Code and Standards Of Performance for Distribution Licensees, including Power Quality) Regulations, 2021, Distribution Licensees are required to submit the proposal before the Commission for approval of Schedule of Charges (SoC) for such matters required by the Distribution Licensee to fulfil its obligation to supply electricity to consumers under the Electricity Act, 2003 and other relevant Regulations.

7.1.2 MADC has submitted that Schedule of Charges (SoC) represent the charges levied to consumers/applicants for new connection and on existing consumers for various activities carried out by the Licensee such as load enhancement, change of name, category, etc., meter testing and various other miscellaneous activities required to be performed as a Distribution Licensee.

7.1.3 In view of above, MADC has proposed same schedule of charges for the consumers of MADC which is approved by the Commission for MSEDCL in its Order dated 30 March, 2020 in Case No. 322 of 2019. As MSEDCL is a parallel licensee for the licensed area of MADC, the same SoC has been proposed by MADC.

7.1.4 The Commission is of the view that schedule of charges are normative charges to be levied to the Consumers within its area of supply based on the likely cost to be incurred for a particular activity by the said licensee. The cost for a particular activity would vary with each licensee. Further, MADC being a licensee within the area which is much smaller than MSEDCL, is likely to incur cost which may be lower than MSEDCL. Accordingly, the Commission is not inclined to accept the submission of MADC that it should be allowed to levy same SoC as approved for MSEDCL.

7.1.5 The Commission directs MADC to file separate Petition for Schedule of Charges to be levied to its Consumers along with the rationale within six months from this Order. However, in the interim, till the revised SoC are approved by the Commission, MADC is allowed to levy the same SoC as approved by the Commission for MSEDCL in its Order dated 30 March, 2020 in Case No 322 of 2019.

8 SUMMARY OF NEW DIRECTIVES

8.1 New Directives

8.1.1 The Commission directs MADC to immediately honour the pending requests from Consumers to provide green power on payment of green tariff as determined by the Commission

8.1.2 The Commission directs MADC that the Licensee shall get the category-wise sales audited by Third Party and exhibit the same in the subsequent Audited Annual Accounts from next tariff proceedings.

8.1.3 The Commission directs MADC to hereon maintain the meter readings at all interface points/voltage levels and submits the same to the Commission in next tariff proceedings for analysis purpose.

8.1.4 The Commission directs MADC to reconcile with MSEDCL and to arrive at the conclusion that whether the RPO on the power supplied by MSEDCL to MADC has been complied with along with the supporting in the next MYT Petition.

8.1.5 The Commission directs MADC to continue its efforts in bringing down the Distribution losses to the lowest possible levels and ensure that performance does not deteriorate beyond the levels already achieved in the past.

8.1.6 The Commission directs MADC to be diligent and ensure that RE power is procured to meet its RPO requirement atleast from FY 2022-23 onwards.

8.1.7 The Commission also directs MADC to endure that Power planning is required to be undertaken by considering the procurement of RE power and purchase of REC is to be restored to only in case of shortfall of generation of RE power.

8.1.8 The Commission directs MADC to pay interest to all the consumers on their security deposit from the date of the deposit and comply with the relevant Supply Code Regulations in future on a timely basis.

8.1.9 The Commission directs to pay the arrears related to interest on security deposit from the date of deposit of the same within 6 months of issue of this order, which can be claimed by MADC in truing up in next tariff Petition.

8.1.10 The Commission directs MADC that investments related to Contribution to Contingency Reserves are to be made in a time bound manner.

8.1.11 The Commission direct MADC to invest the equivalent amount related to FY 2020-21 to FY 2021-22, within 6 months of the issues of this tariff order

8.1.12 MADC is directed to segregate the Distribution Loss between the HT and LT levels and submit the break-up at the time of the next tariff Petition.

8.1.13 MADC is directed to also submit, at the time of MTR filing, relevant details and computation of VCoS in line with the framework stipulated by the ATE.

8.1.14 The Commission directs MADC for implementation of kVAh billing for all categories of Consumers of MADC

8.1.15 The Commission directs MADC to provide the load curve and the impact of the power purchase against such load curve for implementation of ToD tariff , if required, in next tariff Petition.

8.1.16 The Commission directs MADC to display PF (computed by considering leading and lagging RkVAh) recorded during the month in the bill of all the Consumer categories till further directions.

8.1.17 The Commission directs MADC to file a separate Petition for Schedule of Charges to be levied to its Consumers along with the rationale within six months from this Order.

8.1.18 The Commission directs MADC to establish the CGRF to address the grievance of the Consumers being supplied by MADC. The Commission is in process of appointing the chairperson for the CGRF, MADC. Once said appointment is done, MADC shall immediately provide secretariat support for functionalising office of CGRF in its licence area.

8.1.19 As per Regulation 5.1(b) of the MYT Regulations, 2019, a Distribution Licensee is required to file a Petition for Mid-Term Review (MTR) in the 4th Control Period by 30 November, 2022. The Commission notes that the scope of MTR proceedings is essentially limited to Truing-up for FY 2019-20 to FY 2021-22, provisional Truing-up for FY 2022-23 and revised estimates of ARR and Tariff for FY 2023-24 and FY 2024-25. In this Order, the Commission has already used the actual audited data for FY 2019-20 and accordingly estimated the ARR for 4th Control Period i.e. FY 2020-21 to FY 2024-25. However, the audited accounts of FY 2020-21 and FY 2021-22, is still under process till date. Further, the rate of recent power procurement by MADC has been factored in this MYT Order. In these circumstances, conducting MTR proceedings within six month time of this MYT Order will not serve any meaningful purpose. That being the case, MADC is directed to submit its Petition for Truing-up of FY 2020-21 to FY 2022-23 in accordance with Regulation 5.1 (C) of the MYT Regulations, 2019, by 30 November, 2024. However, MADC is at liberty to approach the Commission earlier in case of variations in uncontrollable factors that may result in sudden, steep, and sustained increase in tariff, in accordance with the 4th proviso to Regulation 5.1 (C) of the MYT Regulations, 2019.

9 APPLICABILITY OF ORDER

This Multi Year Tariff Order for the 4th Control Period from FY 2022-23 to FY 2024-25 shall come into force from 1 August, 2022.

Where the billing cycle of a consumer is different with respect to the date of applicability of the revised tariffs, they should be made applicable for the consumption on a pro rata basis. The bills for the respective periods as per the existing and revised tariffs shall be calculated based on the pro-rata consumption (units consumed during the respective periods, computed on the basis of average unit consumption per day multiplied by the number of days in the respective periods covered in the billing cycle).

The Commission has determined the revenue from the revised tariffs as if they were applicable for the entire year. Any shortfall or surplus in the actual revenue against the approved ARR will be revised during Truing-Up at the end of the Control Period, as specified in the MYT Regulations, 2019.

The Petition of Maharashtra Airport Development Company Limited in Case No. 235 of 2020 stands disposed of accordingly.

Sd/-	**Sd/-**
(Mukesh Khullar)	**(Sanjay Kumar)**
Member	**Chairperson**

(Abhijit Deshpande)
Secretary

Annexure 1: Category-wise Revenue with revised Tariffs for FY 2022-23

Consumer Category	No. of consumers	Component of Tariff					Sales in MU	Connected Demand in KVA	Billed Demand in KVA	Full year revenue excluding Government subsidy (Rs. Crore)				Full year revenue (including subsidy) (Rs. Crore)	Average Billing Rate (Rs/kWh)
		Demand / Fixed Charges (Rs/kVA/ month)	Wheeling Charges (Rs/kWh)	Wheeling Charges (Rs/kVA)	Energy Charges (Rs/kWh)	Energy Charges (Rs/kVA)				Revenue from Fixed / Demand Charges	Revenue from Wheeling Charges	Revenue from Energy Charges	Total		
HT Category															
Industrial	20	75	0.99	1.04	4.02	3.97	75.81	38,881.50	33,049.28	2.97	8.03	30.47	41.48	41.48	5.47
Commercial	2	100	0.99	1.04	4.07	3.93	3.29	1,866.67	1,586.67	0.19	0.36	1.34	1.89	1.89	5.73
Sub-total HT	**22**						**79.10**	**40,748.17**	**34,635.94**	**3.16**	**8.38**	**31.82**	**43.36**	**43.36**	**5.48**
LT Category															
Industrial	18	75	2.53	1.04	4.05	3.83	1.68	950.94	570.56	0.05	0.18	0.68	0.92	0.92	5.46
Commercial	28	100	2.53	1.04	4.05	3.86	1.06	938.29	562.98	0.07	0.12	0.43	0.61	0.61	5.78
Street Light	6	30	2.53	1.04	3.60	3.10	1.02	403.67	242.20	0.01	0.12	0.37	0.50	0.50	4.90
Public Services	4	30	2.53	1.04	3.60	3.02	0.02	46.07	18.43	0.00	0.00	0.01	0.01	0.01	5.18
Sub-total LT	**55**						**3.78**	**2,338.97**	**1,394.17**	**0.13**	**0.43**	**1.48**	**2.04**	**2.04**	**5.40**
Total	**77**						**82.88**	**43,087.14**	**36,030.11**	**3.29**	**8.81**	**33.30**	**45.40**	**45.40**	**5.48**

Annexure 2: Category-wise Revenue with revised Tariffs for FY 2023-24

Consumer Category	No. of consumers	Component of Tariff					Sales in MU	Connected Demand in KVA	Billed Demand in KVA	Full year revenue excluding Government subsidy (Rs. Crore)				Full year revenue (including subsidy) (Rs. Crore)	Average Billing Rate (Rs/kWh)
		Demand / Fixed Charges (Rs/kVA/ month)	Wheeling Charges (Rs/kWh)	Wheeling Charges (Rs/kVA)	Energy Charges (Rs/kWh)	Energy Charges (Rs/kVA)				Revenue from Fixed / Demand Charges	Revenue from Wheeling Charges	Revenue from Energy Charges	Total		
HT Category															
Industrial	21	150	0.89	0.94	4.93	4.86	81.22	41,658.75	35,409.94	6.37	7.74	40.04	54.15	54.15	6.67
Commercial	3	180	0.89	0.94	5.00	4.83	3.53	2,000.00	1,700.00	0.37	0.34	1.76	2.48	2.48	7.01
Sub-total HT	**24**						**84.75**	**43,658.75**	**37,109.94**	**6.74**	**8.08**	**41.81**	**56.63**	**56.63**	**6.68**
LT Category															
Industrial	19	120	2.27	0.94	5.20	4.92	1.80	1,018.86	611.32	0.09	0.18	0.93	1.20	1.20	6.68
Commercial	30	150	2.27	0.94	5.25	5.01	1.14	1,005.31	603.19	0.11	0.11	0.60	0.82	0.82	7.19
Street Light	6	55	2.27	0.94	4.90	4.21	1.09	432.50	259.50	0.02	0.12	0.54	0.67	0.67	6.15
Public Services	4	55	2.27	0.94	4.90	4.12	0.02	49.36	19.75	0.00	0.00	0.01	0.01	0.01	6.64
Sub-total LT	**59**						**4.05**	**2,506.04**	**1,493.75**	**0.22**	**0.41**	**2.08**	**2.71**	**2.71**	**6.68**
Total	**83**						**88.80**	**46,164.79**	**38,603.69**	**6.96**	**8.49**	**43.89**	**59.33**	**59.33**	**6.68**

Annexure 3: Category-wise Revenue with revised Tariffs for FY 2024-25

Consumer Category	No. of consumers	Component of Tariff					Sales in MU	Connected Demand in KVA	Billed Demand in KVA	Full year revenue excluding Government subsidy (Rs. Crore)				Full year revenue (including subsidy) (Rs. Crore)	Average Billing Rate (Rs/kWh)
		Demand / Fixed Charges (Rs/kVA/ month)	Wheeling Charges (Rs/kWh)	Wheeling Charges (Rs/kVA)	Energy Charges (Rs/kWh)	Energy Charges (Rs/kVA)				Revenue from Fixed / Demand Charges	Revenue from Wheeling Charges	Revenue from Energy Charges	Total		
HT Category															
Industrial	23	200	0.81	0.85	6.17	6.09	86.64	44,436.00	37,770.60	9.06	7.45	53.46	69.97	69.97	8.08
Commercial	3	220	0.81	0.85	6.50	6.28	3.77	2,133.33	1,813.33	0.48	0.33	2.45	3.26	3.26	8.65
Sub-total HT	**25**						**90.40**	**46,569.33**	**39,583.93**	**9.54**	**7.78**	**55.90**	**73.23**	**73.23**	**8.10**
LT Category															
Industrial	20	150	2.05	0.85	6.60	6.25	1.92	1,086.79	652.07	0.12	0.17	1.26	1.55	1.55	8.11
Commercial	32	180	2.05	0.85	6.70	6.39	1.21	1,072.33	643.40	0.14	0.11	0.81	1.06	1.06	8.74
Street Light	7	100	2.05	0.85	6.00	5.16	1.17	461.33	276.80	0.03	0.12	0.70	0.85	0.85	7.27
Public Services	4	100	2.05	0.85	6.00	5.04	0.02	52.65	21.06	0.00	0.00	0.01	0.02	0.02	8.14
Sub-total LT	**63**						**4.32**	**2,673.11**	**1,593.33**	**0.29**	**0.40**	**2.79**	**3.48**	**3.48**	**8.06**
Total	**88**						**94.72**	**49,242.44**	**41,177.27**	**9.84**	**8.18**	**58.69**	**76.71**	**76.71**	**8.10**

Annexure 4: Tariff Schedule

MAHARASHTRA AIRPORT DEVELOPMENT COMPANY LIMITED

SCHEDULE OF ELECTRICITY TARIFFS

(Effective from 1 August, 2022)

The Maharashtra Electricity Regulatory Commission, in exercise of the powers vested in it under Sections 61 and 62 of the Electricity Act, 2003 and all other powers enabling it in this behalf, has determined, by its Multi-Year Tariff Order dated 21 July, 2022 in Case No. **235 of 2020**, the revised tariffs for supply of electricity by the Distribution Licensee, Maharashtra Airport Development Company Limited (MADC), to various categories of consumers as applicable from **1 August, 2022** to **31 March, 2025**.

GENERAL:

1. These tariffs supersede all tariffs so far in force.
2. The tariffs are subject to revision and/or surcharge that may be levied by the Distribution Licensee from time to time as per the directives of the Commission.
3. The tariffs are exclusive of the separate Electricity Duty, Tax on Sale of Electricity and other levies by the Government or other competent authorities, which will be payable by consumers over and above the tariffs.
4. The tariffs are applicable for supply at one point only.
5. The Distribution Licensee may measure the Maximum Demand for any period shorter than 30 minutes of maximum use, subject to conformity with the Commission's Electricity Supply Code Regulations, where it considers that there are considerable load fluctuations in operation.
6. The tariffs are subject to the provisions of the applicable Regulations and any directions that may be issued by the Commission from time to time.
7. Unless specifically stated to the contrary, the figures of Energy Charge and Wheeling Charge are denominated in Rupees per unit (kVAh) for the energy consumed during the month.
8. Fuel Adjustment Charge (FAC) computed in accordance with provisions of MYT Regulations, 2019 and Commission's directions in this regard from time to time shall be applicable to all categories of consumers, and will be charged over and above the base tariff.

HIGH TENSION (HT) TARIFF

HT I : HT Industry

Applicability:

This tariff category is applicable for electricity for Industrial use at High Voltage for purposes of manufacturing and processing, including electricity used within such premises for general lighting, heating/cooling, etc.

It is also applicable for use of electricity/power supply for Administrative Offices/Canteen, Recreation Hall/Sports Club or facilities/Health Club or facilities/Gymnasium/Swimming Pool exclusively meant for employees of the industry; water pumps, fire-fighting pumps and equipment, street and common area lighting; Research and Development units, Telecom Tower etc.

Provided that all such facilities are situated within the same industrial premises and supplied power from the same point of supply.

This tariff category shall be applicable for use of electricity/power supply by an Information Technology (IT) or IT-enabled Services (ITeS) Unit as defined in the applicable IT/ITes Policy of Government of Maharashtra.

It is also applicable for use of electricity / power supply for common facilities in the IT Park/SEZ (such as lobbies, central air conditioning, lifts, escalators, Effluent Treatment Plant/Sewage Treatment Plant, wash rooms etc.) which are used by the Units, excluding support services areas, after the registration is granted to the IT Park by the Directorate of Industries and Development Commissioner of the SEZ for an IT SEZ, as per the IT and ITeS Policy of the Government of Maharashtra as applicable from time to time.

Tariff Schedule for HT Industrial Category

Period	Demand Charges	Wheeling Charges	Energy Charges
	Rs.kVA/Month	(Rs./kVAh)	(Rs./kVAh)
01.04.2022 to 31.03.2023	75	1.04	3.97
01.04.2023 to 31.03.2024	150	0.94	4.86
01.04.2024 to 31.03.2025	200	0.85	6.09

HT II : HT- Commercial

Applicability:

This tariff category is applicable for electricity used at High Voltage in non-residential, non-industrial and/or commercial premises for commercial consumption meant for operating various appliances used for purposes such as lighting, heating, cooling, cooking washing/cleaning, entertainment/ leisure and water pumping in, but not limited to the following premises:

a) Non-Residential, Commercial and Business premises, including Shopping Malls and

Showrooms

b) Combined lighting and power services for facilities relating to Entertainment, including film studios, cinemas and theatres (including multiplexes), Hospitality, Leisure, Meeting/Town Halls, and places of Recreation and Public Entertainment;

c) Offices, including Commercial Establishments;

d) Marriage Halls, Hotels/Restaurants, Ice-cream parlors, Coffee Shops, Guest Houses, Internet/Cyber Cafes, Telephone Booths and Fax / Photocopy shops;

e) Automobile and all other types of repairs, servicing and maintenance centres (unless specifically covered under another tariff category); Retail Gas Filling Stations, Petrol Pumps & Service Stations, including Garages; -

f) Banks and ATM centres, Telephone Exchanges, TV Stations, MicroWave Stations, Radio Stations, Telecommunications Tower;

g) Sewage Treatment Plant/ Effluent Treatment Plant and common facilities like Water Pumping / Lifts / Fire-Fighting Pumps and other equipment / Street and other common area Lighting for Commercial Complexes, and not covered under the HT I – Industry category;

h) Sports Clubs/facilities, Health Clubs/facilities, Gymnasiums, Swimming Pools not covered under any other category;

i) Construction of all types of structures/ infrastructure for any purposes;

j) Advertisements, hoardings (including hoardings fixed on lamp posts/installed along roadsides), and other commercial illumination such as external flood-lights, displays, neon signs at departmental stores, malls, multiplexes, theatres, clubs, hotels and other such establishments

k) Stand-alone Research and Development units not covered under any other category;

Tariff Schedule for HT Commercial Category

Period	Demand Charges Rs.kVA/Month	Wheeling Charges (Rs./kVAh)	Energy Charges (Rs./kVAh)
01.04.2022 to 31.03.2023	100	1.04	3.93
01.04.2023 to 31.03.2024	180	0.94	4.83
01.04.2024 to 31.03.2025	220	0.85	6.28

Note:

A consumer in the HT II tariff category requiring single-point supply for the purpose of downstream consumption by separately identifiable entities shall have to operate as a Franchisee authorised as such by the Distribution Licensee; or such downstream entities shall be required to take separate individual connections and be charged under the tariff category applicable to them

HT III: HT- Electric Vehicle (EV) Charging Stations

Applicability:

This Tariff category is applicable for Electric Vehicle Charging Station including battery swapping stations for Electric Vehicle.

In case the consumer uses the electricity supply for charging his own electric vehicle at his premises, the tariff applicable shall be as per the category of such premises.

Electricity consumption for other facilities at Charging Station such as restaurant, rest rooms, convenience stores, etc., shall be charged at tariff applicable to Commercial Category.

Tariff Schedule for HT Electric Vehicle (EV) Charging Stations

Period	Demand Charges Rs. kVA/Month	Wheeling Charges (Rs./kVAh)	Energy Charges (Rs./kVAh)
01.04.2022 to 31.03.2023	70	1.04	3.60
01.04.2023 to 31.03.2024	70	0.94	4.00
01.04.2024 to 31.03.2025	70	0.85	4.30

LOW TENSION (LT) TARIFF

LT I: LT - Industry

Applicability:

This tariff category is applicable for electricity for Industrial use, at Low/Medium Voltage, for purposes of manufacturing and processing, including electricity used within such premises for general lighting, heating/cooling, etc.

It is also applicable for use of electricity / power supply for Administrative Offices / Canteens, Recreation Hall / Sports Club or facilities / Health Club or facilities/ Gymnasium / Swimming Pool exclusively meant for employees of the industry; lifts, water pumps, fire-fighting pumps and equipment, street and common area lighting; Research and Development units, dhobi/laundry, Telecommunications Towers etc.

Provided that all such facilities are situated within the same industrial premises and supplied power from the same point of supply;

This tariff category shall also be applicable for use of electricity / power supply by an Information Technology (IT) or IT-enabled Services (ITeS) Unit as defined in the applicable IT/ITeS Policy of Government of Maharashtra.

It is also applicable for use of electricity / power supply for common facilities in the IT Park/SEZ (such as lobbies, central air conditioning, lifts, escalators, Effluent Treatment Plant/Sewage Treatment Plant, wash rooms etc.) which are used by the Units, excluding support services areas, after the registration is granted to the IT Park by the Directorate of Industries and Development Commissioner of the SEZ for an IT SEZ, as per the IT and ITeS Policy of the Government of Maharashtra as applicable from time to time.

Tariff Schedule for LT Industry Category

Period	Demand Charges	Wheeling Charges	Energy Charges
	Rs. kVA/Month	(Rs./kVAh)	(Rs./kVAh)
01.04.2022 to 31.03.2023	75	1.04	3.83
01.04.2023 to 31.03.2024	120	0.94	4.92
01.04.2024 to 31.03.2025	150	0.85	6.25

LT II :LT - Commercial

Applicability

This tariff category is applicable for electricity used at Low/Medium voltage in non-residential, non-industrial and/or commercial premises for commercial consumption meant for operating various appliances used for purposes such as lighting, heating, cooling, cooking, washing/cleaning, entertainment/ leisure and water pumping in, but not limited to, the following premises:

a) Non-Residential, Commercial and Business premises, including Shopping Malls and Showrooms.

b) Combined lighting and power supply for facilities relating to Entertainment, including film studios, cinemas and theatres (including multiplexes), Hospitality, Leisure, Meeting/Town Halls, and places of Recreation and Public Entertainment;

c) Offices, including Commercial Establishments;

d) Marriage Halls, Hotels / Restaurants, Ice-cream parlours, Coffee Shops, Guest Houses, Internet / Cyber Cafes, Telephone Booths, and Fax / Photocopy shops;

e) Automobile and all other types of repairs, servicing and maintenance centres (unless specifically covered under another tariff category).Retail Gas Filling Stations, Petrol Pumps and Service Stations, including Garages;

f) Banks and ATM centres, Telephone Exchanges, TV Stations, Microwave Stations, Radio Stations;

g) Common facilities, like Water Pumping / Lifts / Fire-Fighting Pumps and other equipment, etc., in Commercial Complexes;

h) Sports Clubs/facilities, Health Clubs/facilities, Gymnasiums, Swimming Pools not covered under any other category;

i) Construction of all types of structures/ infrastructures for any purposes

j) Sewage Treatment Plant/ Effluent Treatment Plant and common facilities like Water Pumping / Lifts / Fire-Fighting Pumps and other equipment / Street and other common area Lighting for Commercial Complexes and not covered under the LT I – Industry category

k) Stand-alone Research and Development Units not covered under any other category;

l) Temporary supply for any of the activity not covered under any other head.

Tariff Schedule for LT Commercial Category

Period	Demand Charges Rs. kVA/Month	Wheeling Charges (Rs./kVAh)	Energy Charges (Rs./kVAh)
01.04.2022 to 31.03.2023	100	1.04	3.86
01.04.2023 to 31.03.2024	150	0.94	5.01
01.04.2024 to 31.03.2025	180	0.85	6.39

LT III :LT - Street Light

Applicability:

This tariff category is applicable for the electricity used for lighting of public streets/thorough fares which are open for use by the general public, at Low / Medium Voltage, and at High Voltage.

Street-lights in commercial complexes, industrial premises, etc. will be billed at the tariff of the respective applicable categories.

This category is also applicable for use of electricity / power supply at Low / Medium Voltage or at High Voltage for (but not limited to) the following purposes, irrespective of who owns, operates or maintains these facilities:

a) Lighting in Public Gardens (i.e. which are open to the general public free of charge);

b) Traffic Signals and Traffic Islands;

c) Public Water Fountains; and

d) Such other public places open to the general public free of charge

Tariff Schedule for LT Street Light Category

Period	Demand Charges	Wheeling Charges	Energy Charges
	Rs.KVA/Month	(Rs./kVAh)	(Rs./kVAh)
01.04.2022 to 31.03.2023	30	1.04	3.10
01.04.2023 to 31.03.2024	55	0.94	4.21
01.04.2024 to 31.03.2025	100	0.85	5.16

LT IV: LT - Public Services / General Purpose

<u>Applicability:</u>

Electricity used at Low/Medium Voltage for any other activity not covered under the LT I, LT II, LT III and LT V tariff categories.

Tariff Schedule for LT Public Services Category

Period	Demand Charges	Wheeling Charges	Energy Charges
	Rs.KVA/Month	(Rs./kVAh)	(Rs./kVAh)
01.04.2022 to 31.03.2023	30	1.04	3.02
01.04.2023 to 31.03.2024	55	0.94	4.12
01.04.2024 to 31.03.2025	100	0.85	5.04

LT V: LT - Electric Vehicle (EV) Charging Stations

<u>Applicability:</u>

This Tariff category is applicable for Electric Vehicle Charging Station including battery swapping stations for electric vehicle.

In case the consumer uses the electricity supply for charging his own electric vehicle at his premises, the tariff applicable shall be as per the category of such premises.

Electricity consumption for other facilities at Charging Station such as restaurant, rest rooms, convenience stores, etc., shall be charged at tariff applicable to Commercial Category

Tariff Schedule for LT Electrical Vehicle Charging Station

Period	Demand Charges Rs.KVA/Month	Wheeling Charges (Rs./kVAh)	Energy Charges (Rs./kVAh)
01.04.2022 to 31.03.2023	70	1.04	3.50
01.04.2023 to 31.03.2024	70	0.94	4.50
01.04.2024 to 31.03.2025	70	0.85	5.00

MISCELLANEOUS AND GENERAL CHARGES

Fuel Adjustment Charge (FAC) Component of Z-factor Charge:

The Fuel Adjustment Charge (FAC) component of the Z-factor Charge will be determined in accordance with the formula specified in the relevant Multi Year Tariff Regulations and any directions that may be given by the Commission from time to time, and will be applicable to all consumer categories for their entire consumption.

In case of any variation in the fuel prices and power purchase prices, the Distribution Licensee shall pass on the adjustments through the FAC component of the Z-factor Charge accordingly.

The details of applicable Z_{FAC} for each month shall be available on the Distribution Licensee's website.

Electricity Duty and Tax on Sale of Electricity:

Electricity Duty and Tax on Sale of Electricity shall be levied in addition to the tariffs approved by the Commission, and in accordance with the Government of Maharashtra stipulations from time to time. The rate and the reference number of the Government Resolution/ Order under which the Electricity Duty and Tax on Sale of Electricity are applied shall be stated in the consumers' energy bills. A copy of such Resolution / Order shall be provided on the Distribution Licensee's website.

Prompt Payment Discount

A prompt payment discount of one percent of the monthly bill (excluding Taxes and Duties) shall be provided to consumers for payment of electricity bills within 7 days from the date of their issue.

Delayed Payment Charges

In case the electricity bill is not paid within the due date mentioned on the bill, delayed payment charges of 1.25 percent shall be levied on the total amount of the electricity bill (including Taxes and Duties)

Discount for digital payment

A discount of 0.25% of the monthly bill (excluding taxes and duties), subject to a cap of Rs. 500/-, shall be provided to LT category consumers for payment of electricity bills through various modes of digital payment such as credit cards, debit cards, UPI, BHIM, internet banking, mobile banking, mobile wallets etc.

Rate of Interest on Arrears

The rate of interest chargeable on the arrears of payment of billed dues shall be as given below:

Sr. No.	Delay in Payment (months)	Interest Rate Annum (%)
1	Payment made after 60 days and before 90 days from the date of billing	12%
2	Payment made after 90 days from the date of billing	15%

Load Factor Incentive

Consumers having Load Factor above 75% and upto 85% will be entitled to an incentive in the form of a rebate of 0.75% on the Energy Charges for every percentage point increase in Load Factor from 75% to 85%. Consumers having a Load Factor above 85% will be entitled to a rebate of 1% on the Energy Charges for every percentage point increase in Load Factor from 85%. The total rebate will be subject to a ceiling of 15% of the Energy Charges applicable to the consumer.

This incentive is applicable only to consumers in the tariff categories of HT Industry, HT Commercial.

Additionally, the Load Factor Incentive shall not be applicable for the month if the consumer exceeds its Contract Demand in that month. Consumers exceeding Contract demand during the off-peak hours (2200 hrs to 0600 hrs) would also not be eligible for Load factor Incentive for that month.

The Load Factor incentive will be available only if the consumer has no arrears with the Distribution Licensee, and payment is made within seven days from the date of the electricity bill. However, it will be available to consumers in whose case payment of arrears in instalments has been allowed by the Distribution Licensee, and such payment is being made as scheduled. The Distribution Licensee shall take a commercial decision on the schedule for such payments.

The Load Factor is to be computed as follows:

$$\text{Load Factor} = \frac{\text{Consumption during the month in MU}}{\text{Maximum Consumption possible during the month in MU}}$$

Maximum consumption possible = Contract Demand (kVA) x Actual Power Factor x (total no. of hours during the month, less actual interruption hours recorded in the meter for billing period)

Penalty for exceeding Contract Demand

In case a consumer (availing Demand-based Tariff) exceeds his Contract Demand, he will be billed at the applicable Demand Charge rate for the Demand actually recorded, and also be charged an additional amount at the rate of 150% of the applicable Demand Charge (only for the Demand in excess of the Contract Demand).

Under these circumstances, the consumer shall not be liable for any other action under Section 126 of the EA, 2003, since the penal additional Demand Charge provides for the penalty that the consumer is liable to pay for exceeding his Contract Demand. In case a consumer exceeds his Contract Demand on more than three occasions in a calendar year, the action to be taken would be governed by the provisions of the Supply Code Regulations.

<u>Consumer's Security Deposit</u>

1. Subject to the provisions of Section 47(5) of the Electricity Act, 2003, the Distribution Licensee shall require any person to whom supply of electricity has been sanctioned to deposit an amount as security in accordance with the provisions of Section 47(1) (a).
2. The amount of the Security Deposit shall be as stipulated in Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2021 as amended from time to time.

<u>Definitions</u>

<u>Maximum Demand:</u>

Maximum Demand in kilo-Watts or kilo-Volt Amperes, in relation to any period shall, unless otherwise provided in any general or specific Order of the Commission, mean twice the highest number of kilo-watt-hours or kilo-Volt Ampere hours supplied and taken during any consecutive thirty-minute blocks in that period.

<u>Contract Demand:</u>

Contract Demand means the demand in kilo-Watt (kW) or kilo–Volt Amperes (kVA), mutually agreed between the Distribution Licensee and the consumer as entered into in the agreement or agreed through other written communication. (For conversion of kW into kVA, the Power Factor of 0.80 shall be applied.)

<u>Sanctioned Load:</u>

Sanctioned Load means the load in kW mutually agreed between the Distribution Licensee and the consumer.

In case the meter is installed on the LV (Low voltage)/MV (Medium Voltage) side, the methodology to be followed for billing purpose is as follows:

2% to be added to MV demand reading, to determine the kW or kVA billing demand, and

'X' units to the MVA reading to determine the total energy compensation to compensate the transformation losses, which is calculated as follows

'X' = (730 * kVA rating of transformer)/500 Units/month, to compensate for the iron losses, plus one percent of units registered on the LT side for copper losses.

Billing Demand - LT tariff categories

Monthly Billing Demand will be the higher of the following:

a) 65% of the actual Maximum Demand recorded in the month during 0600 hours to 2200 hours;

b) 40% of the Contract Demand.

Note:

- *Only the Demand registered during the period 0600 to 2200 Hrs. will be considered for determination of the Billing Demand.*
- *In case of a change in Contract Demand, the above period will be reckoned from the month following the month in which the change in Contract Demand is effected.*

Billing Demand - HT tariff categories

Monthly Billing Demand will be the higher of the following:

a) Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours;

b) 75% of the highest Billing Demand recorded during the preceding eleven months, subject to the limit of Contract Demand;

c) 65% of the Contract Demand*.

   * - FY 2022-23: 65%, FY 2023-24: 70%, FY 2024-25: 75%

Note:

- *Only the Demand registered during the period 0600 to 2200 Hrs. will be considered for determination of the Billing Demand.*
- *In case of a change in Contract Demand, the above period will be reckoned from the month following the month in which the change in Contract Demand is effected.*

APPENDIX - 1: LIST OF PERSONS WHO ATTENDED THE PRE-ADMISSION DISCUSSION (TVS) HELD ON 6 SEPTEMBER 2021

Sr. No.	Name	Company / Institution
1.	Shri Vasant Pandey	MADC
2.	Shri Gnyaneshwar Deshmukh	MADC
3.	Shri Jayesh Chauhan	MADC's representative (MEMI)
4.	Shri Anil Patkare	MADC's representative (MEMI)

APPENDIX - 2: LIST OF PERSONS WHO ATTENDED THE PUBLIC HEARING ON 29 MARCH, 2022

Sr. No.	Name	Company / Institution
1.	Shri T.M.Manjunath	Tata Advanced System Limited
2.	Shri. R.B. Goenka	Mihan Industries Limited
3.	Shri Prabhakar Nirmale	MADC
4.	Shri Ashish Nagarkar	MADC
5.	Shri Jayesh Chauhan	MADC
6.	Shri Anil Patkare	MADC