Adani Electricity Mumbai Limited – Transmission (AEML-T) Multi Year Tariff (MYT) Petition

FY 2025-26 to FY 2029-30

adani Electricity

The power of service

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1. INTRODUCTION

1.1 Multi-Year Tariff (MYT) Regulations

The Hon'ble Maharashtra Electricity Regulatory Commission (hereinafter referred to as "the Hon'ble Commission") has issued the following Regulations in exercise of powers conferred under relevant sections of the Electricity Act, 2003:

- MERC (Multi Year Tariff) Regulations, 2019 (hereinafter referred to as MYT Regulations, 2019) on August 01, 2019, MERC (Multi Year Tariff) (First Amendment) Regulations, 2023 on February 10, 2023, MERC (Multi Year Tariff) (Second Amendment) Regulations, 2023 on June 08, 2023;
- MERC (Multi Year Tariff) Regulations, 2024 (hereinafter referred to as MYT Regulations, 2024) on August 19, 2024.

MYT Regulations, 2019 are applicable for the fourth Control Period i.e. from FY 2020-21 to FY 2024-25, while MYT Regulations, 2024 are applicable for the fifth Control Period i.e. from FY 2025-26 to FY 2029-30.

1.2 Background for submission of Multi Year Tariff (MYT) Petition

Regulation 5.1(a) of MYT Regulations ,2024 provides for filing of Multi Year Tariff Petition comprising of:

1. Truing-up for FY 2022-23 and FY 2023-24 to be carried out under MERC(Multi Year Tariff) Regulations, 2019.
2. Provisional Truing up for FY 2024-25 to be carried out under MYT Regulations, 2019.
3. Projections of Aggregate Revenue Requirement (ARR) for each year of fifth Control Period as per MYT Regulations, 2024.

The present Multi Year Tariff (MYT) Petition is being filed in accordance with the said provision of MYT Regulations, 2024.

1.3 Objective of the present Petition

As stated above, in accordance Regulation 5.1(a) of the MYT Regulations, 2024, the present MYT Petition has been filed with the objective of seeking truing up of FY 2022-23 and FY 2023-24, provisional truing up of FY 2024-25 and determination of Aggregate Revenue Requirement (ARR) for each year of fifth Control Period (FY 2025-26 to FY 2029-30).

The actual figures for expenses, revenues and other details for FY 2022-23 and FY 2023-24 have been provided along with comparison of same with respect to the values approved in the MTR Order dated 31.03.2023 in Case no. 230 of 2022. For provisional truing up of FY 2024-25, estimated values for FY 2024-25 have been provided along with comparison of same with respect to the values approved in the MTR Order dated 31.03.2023. The ARR from FY 2025-26 to FY 2029-30 have been projected as per the provisions of MYT Regulations, 2024 and considering the previous year values and assumptions, more specifically submitted in respective chapters.

1.4 Matters pending before Hon'ble ATE

In this section, AEML-T submits the brief of the Appeals pending before the Hon'ble ATE, which were preferred by AEML-T against the MTR Order dated 26th June 2015 in Case No. 223 of 2015, MYT Order dated 22nd June 2016 in Case No. 237 of 2016, MTR Order dated 12th September 2018 in Case No. 201 of 2017, MYT Order dater 30th March 2020 in case No. 297 of 2019 and MTR Order dated 31st March 2023 in Case no. 230 of 2022 issued by the Hon'ble Commission.

Table 1: Matters pending before ATE

Appeal No.	Impugned Order	Issues in brief
223 of 2015	Case No. 221 of 2014 Dated 26 June 2015 (T-MTR Order)	1. Carrying Cost (CC) on Income Tax, disallowed by MERC but allowed by APTEL - For the period FY09-10, FY10-11 and FY11-12 2. Carrying Cost on compound interest basis in respect of (a) interest on loan and revenue gap on which carrying cost was allowed on simple interest basis and (b) income-tax on which carrying cost was disallowed 3. Delayed Payment charges (DPC) wrongly treated as Non-tariff Income (NTI) for FY15-16 4. Income Tax on incentive due to higher Availability
237 of 2016	Case No. 13 of 2016 Dated 22 June 2016 (T MYT Order)	1. Normative Operation & Maintenance (O&M) expenses not allowed on unutilized bays. 2. Income Tax not considered as a part of ARR for computing Availability Incentive 3. Delayed Payment Charge (DPC) wrongly treated as Non-Tariff Income. 4. Disallowance of Carrying Cost on compounded Interest basis in respect of revenue gap on which carrying cost was allowed on simple interest basis.
105 of 2019	Case No. 201 of 2017 Dated 12 September 2018 (T MTR Order)	1. Disallowance of Normative O&M expenses on unutilized bays 2. PWD charges considered as controllable by including as part of R&M expenses for computing efficiency gains/loss on O&M expenses for FY 2016-17 3. Consideration of actual Interest on Working Capital for FY 2016-17 as "Nil" and consideration of difference

Appeal No.	Impugned Order	Issues in brief
		between Normative Interest on Working Capital and "Nil" actual Interest on Working Capital as Efficiency Gains. 4. Contribution to Contingency Reserve considered as an expense in determination of regulatory PBT for FY 2015-16 and FY2016-17. Double deduction of Interest on Working Capital while computing Profit Before Tax for FY 2016-17
277 of 2022	Case No. 297 of 2019 Dated 30 March 2020	1. PWD charges considered as "Controllable" by including the same as part of R&M expenses for computing efficiency gains/ loss on O&M expenses. 2. Non-allowance of Normative Operation & Maintenance (O&M) Expenses on the Unutilized Bays. 3. Disallowance of actual O&M expense, being corporate expense for FY 2018-19. 4. Non-consideration of refinancing charges for FY 2018-19, and consideration of net refinancing charges only proportionate to Regulatory Debt by Respondent No.1 for FY 2018-19. 5. Computation of net savings on account of refinancing, consideration of regulatory depreciation equivalent to repayment of loan and consideration of discount rate as pre-tax cost of debt by Respondent Commission for FY 2018-19. 6. Consideration of only actual Interest on short-term loans as interest on working capital, without considering cost of capital deployed from internal resources to fund working capital. 7. Consideration of actual Interest on Working Capital for FY 2018-19 after deducting Delayed Payment Charges to the extent they were already considered as Non-Tariff Income in the earlier years by Respondent Commission. 8. Double deduction of Interest on Working Capital, while computing Profit Before Tax for FY 2017-18 and FY 2018-19. 9. Non-consideration of additional rate of return for computing Return on Equity (RoE) for FY 2020-21 to FY 2024-25. 10. Disallowance of capitalization of Rs. 1.40 crore in FY 2018-19 by Respondent Commission on account of cost overrun for 220 kV cable link from AEML Saki to TPC Saki scheme.
538 of 2023	Case No. 230 of 2022 Dated 31 March 2023	1. Disallowance of a portion of Return on Equity (RoE) for FY 2021-22 by considering Minimum Alternate Tax (MAT) rate as the Effective Tax Rate instead of Corporate Tax Rate claimed by the Appellant. 2. Non-allowance of normative O&M expenses on unutilized bays from FY 2019-20 to FY 2024-25.

Appeal No.	Impugned Order	Issues in brief
		3. Disallowance of a portion of Corporate Expense (part of actual O&M Expense) for FY 2019-20 and FY 2021-22. 4. PWD charges considered as “Controllable” by including the same as part of R&M expenses for computing efficiency gains/loss on O&M expenses. 5. Not allowing the expense shifted from Capitalization claimed for FY 2019-20, FY 2020-21 and FY 2021-22 to O&M expense for FY 2019-20, FY 2020-21 and FY 2021-22 separately. 6. Disallowance of Finance Charges for New Capex Loans (part of Financing Charges) for FY 2019-20. 7. Disallowance of a portion of Finance Charges for External Commercial Borrowing (ECB) for FY 2019-20 8. Disallowance of a portion of Bank Charges (part of Financing Charges) for FY 2019-20. 9. Disallowance of a portion of Financing Charges for Working Capital Loans for FY 2019-20. 10. Disallowance of a portion of Forex loss on Financing Charges for FY 2019-20 and FY 2020-21. 11. Disallowance of a portion of Forex loss on loans for FY 2019-20 and FY 2021-22. 12. Consideration of Refinancing charges incurred for availing overseas loans of Bond and Sub-debt proportionate to Regulatory Debt. 13. Computation of Net savings on account of refinancing of Indian Loans with overseas loans by considering regulatory depreciation equivalent to repayment and by considering discount rate as pre-tax cost of debt. 14. Double deduction of interest on working capital while computing Regulatory Profit Before Tax for FY 2019-20. 15. Not allowing the actual Interest on Working Capital for FY 2020-21, wherein the Appellant had to incur higher interest on Working Capital as FY 2020-21 was severely affected with COVID-19 pandemic.

As all these Appeals are still pending for hearing / decision, no impact on account of any the above issues is considered in the present petition.

1.5 Structure of the Petition

The instant Petition consists of the following chapters as outlined below:

- Chapter 1: Introduction (present chapter)
- Chapter 2: Truing up of FY 2022-23
- Chapter 3: Truing up of FY 2023-24
- Chapter 4: Provisional Truing up of FY 2024-25

- Chapter 5: ARR from FY 2025-26 to FY 2029-30
- Chapter 6: Prayers

2. TRUING UP FOR FY 2022-23

In this section, AEML-T is submitting the actuals for FY 2022-23 with respect to capital expenditure, revenue expenditure and revenue income for the purposes of final truing up. Also, a comparison of expenditure and revenues considered by the Hon'ble Commission in the Order dated 31.03.2023 in Case No. 230 of 2022 vis-à-vis the audited / normative actuals for AEML-T has been provided to reflect the variances and reasons for the same.

2.1 Opening GFA for FY 2022-23

The Hon'ble Commission, in the MTR Order, had disallowed works amounting to Rs. 17.43 Crore, Rs. 26.45 Crore and Rs. 8.62 Crore for FY 2019-20, FY 2020-21 and FY 2021-22 respectively, claimed under Non-DPR schemes and instead allowed the same under O&M expenses for the respective years. The Hon'ble Commission disallowed the said works claimed under Non-DPR schemes after recategorization of schemes submitted under Non-DPR works into works of capex nature and works of Repair & Maintenance (R&M) nature. However, while allowing the said expenses under O&M expense, the Hon'ble Commission did not allow the same separately and instead carried out the sharing of efficiency losses after including the said expenses in actual O&M expense of respective years. AEML-T has raised this issue in the Appeal (Appeal no. 538 of 2023) before Hon'ble ATE against the MTR Order and the same is pending. Without prejudice to the contentions raised in Appeal, AEML-T has considered the opening balance of GFA for FY 2022-23 as approved by the Hon'ble Commission in MTR Order dated 31.03.2023.

2.2 Capital Expenditure and Capitalization

The Hon'ble Commission, in the MTR Order, had approved capitalization of Rs. 6.23 Crore for FY 2022-23 on provisional basis. The actual capitalization as per the Books of Accounts in FY 2022-23 (including IDC) is Rs. 9.93 Crore. However, the Hon'ble Commission in the MTR Order dated 31.03.2023 had recategorized certain works carried out under Non-DPR schemes in FY 2022-23 into works of R&M nature. By the time the MTR Order was issued on 31.03.2023, FY 2022-23 was already over and the said works were capitalized under Non-DPR works in the books of accounts for FY 2022-23.

The Hon'ble Commission had notified the MERC (Approval of Capital Investment Schemes) Regulations on July 12, 2022 (hereinafter "Capex Regulations, 2022"). The said Regulations require the regulated entities to register Non-DPR schemes with the Commission. It is submitted that certain works out of the works capitalised under Non-DPR in the books of accounts but categorised by the Hon'ble Commission as works of R&M nature in the MTR Order dated 31.03.2023, most works were initiated prior to the issuance of Capex Regulations, 2022 and hence not registered as Non-DPR schemes under the said Regulations, but Non-DPR schemes related to procurement of laptops and stretchers were registered with the Hon'ble Commission in January 2023. However, despite registration as Non-DPR scheme, the scheme related to procurement of Stretchers was classified as work of R&M nature by the Hon'ble Commission in the MTR Order. AEML-T has, however, considered the said scheme as Capital expense in the instant petition because (1) it is procurement of a new asset, which is a complete working asset on its own and not a part or a component and hence clearly a capital cost and (2) it is registered with the Hon'ble Commission during FY 2022-23 itself, as per the required format.

Considering the works held by the Hon'ble Commission in the MTR Order as those of R&M nature, to the extent adjusted for the scheme for procurement of stretchers as explained above, the total expenditure of Rs. 3.83 Crore has been considered as O&M cost in this petition, without prejudice to the contentions of AEML-T raised in Appeal No. 538 of 2023. Thus, the balance capitalisation for FY 2022-23 considered in this petition is Rs. 6.10 Crore. IDC for FY 2022-23 has been worked out considering the duration for which works funded by loans have remained in progress. The interest rate considered for IDC is the approved interest rate for individual years for which the works remained in progress. The soft copy of IDC calculations for FY 2022-23 is attached herewith as **Annexure 1 (Soft Copy Only)**. The capitalization (inclusive of IDC) for FY 2022-23 is as follows:

Table 2: Capitalization for FY 2022-23

Particulars / (Rs. Crore)	MTR Order	Actuals
33 kV AIS to GIS conversion	0.15	0.00
2nd Feed at Chembur	-	0.00
3rd Transformer at Borivali S/s.	0.68	0.48
220kV 120MVAR Reactor at AEML Gorai S/stn	0.45	0.34
Non DPR Schemes	4.96	5.38
Total	**6.23**	**6.10**

With regard to capitalisation against Non-DPR schemes, the Regulation 24.7 of the MYT Regulations, 2019 provides as below:

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

Also the SoR accompanying MYT Regulations, 2019 states that the cumulative capitalization against Non-DPR schemes should be within the limit of 20% of cumulative capitalization against DPRs over the fourth Control Period. The same is reproduced below:

> *"The Commission is of the view that the suggestion of limiting the Non-DPR schemes to 20% of approved DPR schemes on a cumulative basis over the Control Period rather than annual*

basis, can be considered, as such a situation could arise in a particular year, and the intention is not to block Non-DPR schemes."

Hence, based on the above, it is clear that the Hon'ble Commission's intent is not to block non-DPR capex and therefore, the limit of 20% of capitalisation for non-DPR schemes is to be considered over the Control Period on a cumulative basis. On cumulative basis over the fourth Control Period (FY 2020-21 to FY 2024-25), Non-DPR capitalisation shall be within the limit of 20% of DPR capitalization. Further, upto FY 2022-23, the cumulative capitalisation against Non-DPR schemes is well within the cumulative capitalisation against DPR schemes, as shown in the table below.

Table 3: Cumulative Non-DPR Capitalization as % of cumulative DPR capitalization from FY 2020-21 to FY 2022-23

Particulars / (Rs. Crore)	FY 2020-21	FY 2021-22	FY 2022-23	Cumulative
DPR capitalization	208.44	27.27	0.83	236.54
Non-DPR capitalization	7.80	2.81	5.28	15.89
Non-DPR capitalization as % of DPR capitalization	3.74%	10.30%	636.30%	6.72%

Note: DPR and Non-DPR capitalization shown above for FY 2020-21 and FY 2021-22 are as per capitalization allowed in MTR Order dated 31.03.2023 in Case no. 230 of 2022

As seen from above, the cumulative Non-DPR capitalization as a % of cumulative DPR capitalization from FY 2020-21 to FY 2022-23 is 6.72%, well within 20% limit allowable as per MYT Regulations, 2019. It is further submitted that the Hon'ble Commission used the same approach in the MTR Order to provisionally approve the Non-DPR capitalisation for FY 2022-23. Accordingly, AEML-T requests the Hon'ble Commission to approve the actual Non-DPR capitalization for FY 2022-23, being claimed now.

Brief Description of DPR schemes:

A brief description of the works carried out under DPR schemes during FY 2022-23 is provided hereunder:

A. 33kV AIS to GIS Conversion

Scheme was closed in all aspects and Scheme closing report has been submitted to the Hon'ble Commission vide letter no. AEML–T/Scheme Closing of 33kV AIS to GIS Conversion/01 dated May 23, 2023. The actual capitalization against this scheme in FY 2022-23 was Rs. 28,320/-, which was against a control panel for a GIS board related to 33 kV AIS to GIS conversion scheme. The DPR approved cost of the project is Rs. 38.34 Crore (without IDC) and actual expenses till 31.03.2023 have been Rs. 41.22 Crore. The increase in cost is due to higher contract value as discovered through competitive bidding, as compared to DPR estimated cost. The materials/ equipment were procured through competitive bidding process and the relevant documentary evidences were submitted at the time of MTR proceedings. The Hon'ble Commission took note of the same and had allowed the actual cost of the project in the MTR Order dated 31.03.2023 in Case no. 230 of 2022.

B. Chembur 2nd Feed Connectivity

Scheme was closed in all aspects and Scheme closing report has been submitted to the Hon'ble Commission vide letter no. AEML-T/MERC/Scheme Closing of Chembur 2nd Feed /01 dated December 27, 2023. The actual capitalization against this scheme in FY 2022-23 was Rs. 4956/-, which was against the SDH panel related to Chembur 2nd feed scheme. The DPR approved cost of the project is Rs. 126.16 Crore (without IDC) and actual expenses till 31.03.2023 was Rs. 132.64 Crore. The cost overrun was mainly due to right of way charges paid to M/s BSNL. AEML-T had submitted a letter dated 02.06.2020 to the Hon'ble Commission regarding the likely cost escalation of the project due to right of way charges payable to M/s BSNL. AEML-T had submitted the relevant documentary evidences (agreement with M/s BSNL, invoice etc.) at the time of MTR proceedings. The Hon'ble Commission took note of the same and had allowed the actual cost of the project in the MTR Order dated 31.03.2023 in Case no. 230 of 2022.

C. 3rd Transformer at Borivali EHV Station

On 31.03.2021, Borivali 3rd Transformer DPR Scheme was successfully commissioned. Minor civil works, electrical works and degasification work including Online DGA activity were completed by FY 2022-23. The actual capitalization against this scheme in FY 2022-23 was Rs. 0.48 Crore. Scheme was closed in all aspects and scheme closing report was submitted to the Hon'ble Commission vide letter no. AEML-T/MERC/Scheme Closing of 3rd Xer at BVL /01 dated March 06,2024. There is no cost or time over run in the scheme.

D. 120 MVAR Reactor at Gorai EHV Station

220 kV, 120 MVAR variable Reactor at 220 kV Gorai EHV Substation was commissioned along with other required accessories and taken into service on 27.03.2022. Minor balance works were completed in FY 2022-23 and expenses towards the same of Rs. 0.34 Crore was capitalized. The works carried out in FY 2022-23 against the scheme include certain remaining civil works regarding shed, remaining minor electrical works and certain associated administrative expenses incurred in the process of commissioning of assets. The scheme is closed in all aspects and scheme closing report was submitted to the Hon'ble Commission vide letter no. AEML-T/MERC/Scheme Closing of 220 kV Gorai Reactor/02 dated 30.03.2024. The DPR approved cost of the project is Rs. 19.68 Crore (without IDC)

and actual expenses till 31.03.2023 was Rs. 24.62 Crore. AEML-T had submitted detailed reasons for increase in cost of the project at the time of MTR proceedings and the same are reiterated below:

- The turnkey contract for the project was placed on M/s GE dated 05 February 2021 with cost of Rs 13.02 Crore, after due competitive bidding process. The Contract has Price Variation clause (clause no. 20) under which Price variation was applicable w.r.t. base indices of Sept. 2020 for reactor. M/s GE claimed Price variation due to increase in price of equipment, resulting in a cost increase of Rs. 4.36 cr.

- There was one spare transformer bay existing at Gorai EHV Substation, which was planned to be utilized for Reactor. Only supervision cost of 220 kV cable termination by OEM was considered in DPR project cost for installation of reactor. However, during technical validation, ABB conveyed that, in the existing 220kV bay, the Circuit Breaker (CB) is not suitable for Reactor switching operations and recommended to replace existing CB with New CB which shall be suitable for Reactor switching operations, keeping other Bay equipment as it is. Accordingly, Contract was placed on M/s ABB Power Products and System for supply and services for replacement of 220kV SF6 circuit breaker and supervision for 220kV cable termination worth Rs 4.49 Crore.

AEML-T had submitted the supporting documentary evidence in this regard at the time of MTR proceedings. The Hon'ble Commission took note of the above submissions and had allowed the actual cost of the project in the MTR Order dated 31.03.2023 in Case no. 230 of 2022.

Brief Description of Non-DPR schemes:

As explained above, AEML-T has carried out Non-DPR schemes during FY 2022-23, two of which were registered with the Hon’ble Commission under Capex Regulations, 2022 as those were initiated post the issuance of the said Regulations. AEML-T has excluded those works from Non-DPR category which are held as works of R&M nature in the MTR Order, except to the extent of scheme related to procurement of Stretchers, which, it seems, has been inadvertently included as work of R&M nature in the MTR Order. Considering the scheme, the total Non-DPR capex considered in this petition is Rs. 5.28 Crore (with IDC), across schemes briefly described as under:

. **Table 4: Explanation of Non-DPR schemes carried out in FY 2022-23**

Sr.	Scheme Description	Value – Wo IDC (Rs. Cr)	Non- DPR Submitted/ Not Submitted	Scope and Need Analysis	Location of use	Benefits / Remarks
1	Procurement of Jaw type Earth Resistance Tester at Aarey	0.09	Not Submitted since it was initiated before Capex Regulations, 2022	1. Earth resistance measurement by using existing kit available with AEML-T is time consuming and less accurate compared to advanced jaw type digital earth tester. 2. Additional spikes and earth leads are not required for advanced jaw type digital earth tester kit which produce high accuracy, quick results and are easy to operate. · 3. These kits are safer and effective as there is no need to isolate the ground for measurement purpose. 4. Also existing kits were 13-year-old and were in need of frequent repair and maintenance. Hence advanced jaw type digital earth tester were procured under this scheme.	220 kV Aarey EHV Station	1. These kits are safer and easy to operate as there is no need to isolate the ground for measurement purpose. 2. These kits produce high accuracy and quick results 3. These kits would help in maintaining system availability at desired level as per MYT Regulations 2019. As this is a new asset procurement, it qualifies as capital investment
2	Replacement of in-service polymer insulators with High creepage Polymer Insulators	0.05	Not Submitted since it was initiated before	1. As a preventive measure, during thermovision Scanning of all the in-service Polymer insulators	AEML- T OH Lines	Replacement of faulty insulators with new ones would ensure healthy

Sr.	Scheme Description	Value – Wo IDC (Rs. Cr)	Non- DPR Submitted/ Not Submitted	Scope and Need Analysis	Location of use	Benefits / Remarks
			Capex Regulations, 2022	installed on 812 towers of AEML-T, healthiness of Insulators and its deterioration were assessed by OEM. 2. ~ 250 nos. of abnormal polymer insulators were identified for replacement. All efforts were taken to carry out the replacement work (mostly on ADTPS connected lines) by availing opportunity outages so that AEML-T line availability is not impacted. 3. The required outages for replacement of abnormal polymer insulators were taken on priority, so as to avoid any undue tripping of line and snapping of conductor due to failure of insulator. 4. The total cost for replacement of 250 nos. of abnormal polymer insulators was capitalized under this scheme.		operation of lines and maintaining line availability at desired level. Insulators are identified as separate assets, as they are usable across different transmission lines. Further, replacement of faulty insulators by new also adds value to the principal asset – being the transmission lines in this case
3	Procurement and replacement of high creepage polymer insulators with grading ring for additional replacement at critical tower locations	1.01	Not Submitted since it was initiated before Capex Regulations, 2022	1. Under this scheme, high creepage polymer insulators were procured for replacing the in-service old Polymer Insulators at critical tower locations.	AEML-T Transmission lines (viz. Dahanu-Versova,	Replacement of faulty insulators with new ones would ensure maintaining line

Sr.	Scheme Description	Value – Wo IDC (Rs. Cr)	Non- DPR Submitted/ Not Submitted	Scope and Need Analysis	Location of use	Benefits / Remarks
				2. During tripping / breakdown of lines at critical/ remotely located towers due to failure of insulators, it takes considerable time to reach at fault location / tower, affecting AEML-T network availability significantly. 3. This impact is even more during rainy season / monsoon. In view of the above, insulators condition on critical towers (117 nos. in Mumbai Section and 28 nos. in Dahanu section) was assessed. Out of these, insulator strings on some of the towers (53 nos.), totaling around 820 nos. of insulators were replaced under this scheme.	Boisar–Versova, Dahanu-Ghodbunder-1, Dahanu-Ghodbunder- 2 etc..)	availability at desired level. Insulators are identified as separate assets, as they are usable across different transmission lines. Further, replacement of faulty insulators by new also adds value to the principal asset – being the transmission lines in this case
4	Procurement of High Creepage Polymer Insulators along with Grading ring for replacement at balance locations in mumbai section.	1.94	Not Submitted since it was initiated before Capex Regulations, 2022	1. Under this scheme, replacement of in-service old Polymer Insulators with high creepage Polymer Insulators at balance locations in Mumbai section were carried out – partly in FY 2022-23 and partly in FY 2023-24. 2. As per the investigation report of two tripping in Feb-2022 of AEML-T transmission lines, it was observed that tripping happened because of surface flashover of	AEML-T Transmission lines	Replacement of faulty insulators with new ones would ensure maintaining line availability at desired level. Insulators are identified as separate assets, as they are usable across different transmission lines. Further,

Sr.	Scheme Description	Value – Wo IDC (Rs. Cr)	Non- DPR Submitted/ Not Submitted	Scope and Need Analysis	Location of use	Benefits / Remarks
				old polymer insulators in smog environment condition. 3. These old polymer insulators were of low creepage and were installed more than 10 years back. 4. Due to tripping or failure of lines because of insulator failure, AEML received many complaints from HV customers. In case of failure at remotely located towers, it takes ~ 9 to 10 hrs. to attend breakdown and restore 220 kV transmission lines. This impact is even more during rainy season / monsoon. 5. In view of the above, procurement of ~ 3694 nos. of polymer insulators was carried out under the scheme. Scheme was partly capitalized in FY 2022-23 and balance amount was capitalized in FY 2023-24.		replacement of faulty insulators by new also adds value to the principal asset – being the transmission lines in this case
5	Procurement of Three phase relay test kit	0.34	Not Submitted since it was initiated before Capex Regulations, 2022	1. AEML-T has eight AIS / GIS EHV sub-stations in Mumbai. 2. In 2013, Megger make Three phase relay test kit (MPRT-8430) was procured. However, to cope up with technological advancement like testing of	AEML-T EHV Stations	This 3-phase relay test kit would help in better testing of relays, which will help in maintaining AEML-T line availability at desired level.

Sr.	Scheme Description	Value – Wo IDC (Rs. Cr)	Non- DPR Submitted/ Not Submitted	Scope and Need Analysis	Location of use	Benefits / Remarks
				OC/EF protection characteristics, line distance protection time test and characteristics test, transformer differential protection characteristics test and IEC 61850 protection testing, there was a need to procure new advanced 3 phase relay test kit. 3. Hence, 3 phase relay test kit was procured and expenses towards same was capitalized under this scheme.		Procurement of new asset qualifies as capital investment
6	Procurement of 33kV 1C*630sqmm cables along with associated accessories (Cable Terminations, Cable cleats etc.) for 125MVA TR-5 at Versova EHV Sub Station (3 km)	1.06	Not Submitted since it was initiated before Capex Regulations, 2022	1. At 220kV Versova EHV station, 125MVA TR-5 was commissioned in 2009. The 33kV side of the transformer is connected to switchgear via 1C, 630Sq. mm 33kV XLPE cables. These 33kV cables are partly buried and partly laid through trench. Total 36 number of cables were laid between Transformer and switchgear. 2. In year 2014 and 2015, 33kV cable failure took place. In 2021, under 33kV AIS to GIS conversion project, 12 number of cables were replaced with new ones.	220 kV AEML Versova EHV S/s	This replacement activity would help maintain 33kV availability at desired level and quality power supply to consumers as well.

Sr.	Scheme Description	Value – Wo IDC (Rs. Cr)	Non- DPR Submitted/ Not Submitted	Scope and Need Analysis	Location of use	Benefits / Remarks
				3. Even after that there was fault on these cables on 21st Dec 2021, 23rd Dec 2021 and 15th Feb 2022. The OEM has stopped production of these cables. 4. After each fault rectification, the balance cables were tested with high voltage test and post satisfactory results only they were taken in service. 5. The sequential failure of the cables would cause loss of reliability and revenue, which is not desired. 6. In view of this, the old cables were replaced for improving the availability and reliability of the system. Accordingly, the activity was taken up and expenses towards the same is capitalized under the scheme.		
7	Replacement of 220V DC battery set at AEML Borivali	0.64	Not Submitted since it was initiated before Capex Regulations, 2022	1. Battery is an important constituent of substation for trouble-free protection, control and interlocking circuit of switchgear equipment. 2. Battery system is the back up for DC supply in case of AC supply failure. AEML-T had commissioned 220V, battery sets	220 kV AEML Borivali EHV S/s	1. This replacement activity would increase the battery performance to 100 % and batteries would be discharged in 10 hours instead of 6.5 hours instead of rated. This in turn will help in

Sr.	Scheme Description	Value – Wo IDC (Rs. Cr)	Non- DPR Submitted/ Not Submitted	Scope and Need Analysis	Location of use	Benefits / Remarks
				at 220kV AEML Borivali EHV Stations, in March 2012 and these batteries had served for more than 10 years. 3. Routine maintenance is being carried out as per set maintenance frequency and it was observed that most of the battery cells are weak due to ageing and no spare units were available. 4. As per battery set discharge test being carried out once in a year, heavy rate of discharge in the battery cells was observed. Test results revealed that battery efficiency has come down to 65 % i.e. battery is getting discharged in 6.5 hours instead of rated 10 hours. 5. Battery sweating, leakage, sulphation, and corrosion on battery strips was also observed on battery sets. 6. In order to have reliable and uninterrupted DC auxiliary supply for protection and control of EHV equipment, the old battery sets were		healthy operation of protection system at S/stn. 2. Station batteries are classified as separate assets with their own depreciation rates. Hence, replacement of batteries by new one qualifies as capital investment.

Sr.	Scheme Description	Value – Wo IDC (Rs. Cr)	Non- DPR Submitted/ Not Submitted	Scope and Need Analysis	Location of use	Benefits / Remarks
				replaced with new ones, under the scheme.		
8	Construction of new Retaining wall Cantilever support	0.06	Not Submitted since it was initiated before Capex Regulations, 2022	1. There was an infringement of Gorai – Borivali cable feeders with BMC's flyover construction work. 2. Civil work carried out for protection and safeguarding of 220 kV cables by constructing Retaining Wall thereby enhancing life of 220 kV Cable System 3. The consultancy charges for Railways permission and BMC/ Statutory authorities' permission for retaining wall construction for Cantilever support to safeguard 220 kV Cables on MSETCL Borivali - Gorai Route, were included in the scope of the vendor. The consutancy charges and the cost of wall construction was capitalized under the scheme.	Borivali	Protection and safeguarding of 220 kV Cables by constructing Retaining Wall would enhance the life of cable and prevent any damage that might have happened due to infringement by BMC's flyover construction work. New civil works qualify as capital investment.
9	Procurement of foldable Stretchers at AEML-T EHV Sub Stations	0.01	Submitted	1. As per transmission safety practice, it is advised to keep one stretcher in each vehicle for any emergency response. · 2. In case of any emergency, the availability of a stretcher at an	AEML-T EHV Stations	This will help in saving lives in case of any accident in S/stns.

Sr.	Scheme Description	Value – Wo IDC (Rs. Cr)	Non- DPR Submitted/ Not Submitted	Scope and Need Analysis	Location of use	Benefits / Remarks
				accessible place is essential for easy movement of patient. 3. Accordingly, 11 nos. of stretchers for 11 Nos. of Vehicles of O&M team, were procured and capitalized.		Procurement of new assets. Hence, qualified as capital investment.
10	Deployment of AEML and SLDC call recording facility in existing VoIP System	0.03	Not Submitted since it was initiated before Capex Regulations, 2022	1. AEML-T has centralized SCADA Control center for monitoring and control of transmission system. 2. At AEML SCADA Control Center, VoIP based communication system has been deployed to establish the communication with state load dispatch center (SLDC). Based on the incidents in recent past and considering the communication requirements with SLDC during emergency situations, necessity of having call recording facility was envisaged. 3. Accordingly, the job was carried out and expenses towards the same was capitalized under the scheme.	220kV Aarey EHV Station	1. VoIP based communication system with recording facility would help in building effective communication system with state load dispatch center (SLDC), because recording facility would always give information on past communication with SLDC. Further, it would help in smooth operation in future at times of any contingency. 2. New IT based system implementation. Hence qualifies as capital investment.
11	Procurement of laptops	0.01	Submitted	Under the scheme, 11 no. of laptops were procured for use by AEML-T personnel.	AEML-T office locations	This was required for office work.

Sr.	Scheme Description	Value – Wo IDC (Rs. Cr)	Non- DPR Submitted/ Not Submitted	Scope and Need Analysis	Location of use	Benefits / Remarks
						Procurement of new IT assets qualifies as capital investment

The DPR approval copies are submitted herewith as **Annexure 2 (Soft Copy Only).** Further, the six monthly progress reports indicating the progress of the schemes and the scheme commissioning / closing reports are submitted in **Annexure 3 (Soft Copy Only).** The Non-DPR schemes, which were initiated later and were registered with the Hon'ble Commission in accordance with Capex Regulations, 2022 are provided herewith as **Annexure 4 (Soft Copy Only).**

For all schemes described above where asset replacement is involved, the old assets as recovered are either scrapped or sold and realised value, if any, has been considered as Profit / Loss on sale of asset in the Non-Tariff Income / A&G expenses.

2.2.1 Financing Plan for Capital Expenditure

AEML makes arrangement of financing for capital expenditure for the company as a whole. The capital expenditure for FY 2022-23 for all three divisions of the company is shown in the table below:

Table 5: Capital Expenditure in FY 2022-23

Particulars / (Rs. Crore)	Generation	Transmission	Distribution	Total
Capitalization in FY 2022-23 excluding IDC(A)	22.26	5.97	1060.06	1088.29
Opening WIP for FY 2022-23 (B)	6.74	540.30	224.57	771.62
Closing WIP for FY 2022-23 (C)	15.45	792.43	287.56	1095.44
Capital Expenditure for FY 2022-23 (D = A+C-B)	30.98	258.09	1123.05	1412.12
Less: Consumer Contribution			33.81	33.81
Net Capital Expenditure for FY 2022-23	**30.98**	**258.09**	**1089.24**	**1378.31**

AEML has not availed any additional loans for funding the said capex in FY 2022-23. In the MTR Petition (Case no. 230 of 2022), AEML-T had submitted that out of the FD amount of Rs. 80 Crore made out of External Commercial Borrowing (ECB) in FY 2021-22, Rs. 20 Crore was utilized in FY 2021-22. The balance FD amount of Rs. 60 Crore was utilized for capex funding purpose for FY 2022-23. Thus only 4.35% of the capex has been funded through debt and the balance through internal accruals. Since the debt used in capex is 4.35%, the debt used in capitalization in FY 2022-23 also needs to be considered as 4.35%. As the actual debt percentage is less than 70%, AEML has considered 70% of capitalization deemed to be funded through debt and 30% through equity, in accordance with MYT Regulations, 2019. The reconciliation of capital work in progress (CWIP) and capitalization as per books and CWIP and capitalization as submitted in the Petition is provided as **Annexure 5 (Soft copy only).**

In this regard, the first proviso to Regulation 27.1 of the MYT Regulation, 2019 is reproduced below:

> *"Provided that the equity investment to be considered in any year shall not exceed the difference between the sum of cumulative return on equity allowed by the Commission in previous years, efficiency gains and losses, incentives and disincentives, and income earned from investment of return on equity, and the cumulative equity investment approved by the Commission in previous*

years, unless the Generating Company or Licensee or MSLDC submits documentary evidence for the actual deployment of equity and explain the source of funds for the equity:"

The difference between the sum of year wise RoE allowed by the Hon'ble Commission to AEML-T through past Tariff Orders till FY 2021-22 and the opening regulatory equity for FY 2022-23 is provided in **Annexure 6 (Soft copy only).** As per the said Annexure, the equity investment claimed for FY 2022-23 is less than difference between the sum of year wise RoE of past years and the opening regulatory equity for FY 2022-23. Hence, clearly, AEML-T had the requisite equity capital to carry out capital expenditure works in FY 2022-23.

2.2.2 Depreciation

Regulation 28.5 of the MYT Regulations, 2019 states that the rates notified under the said Regulations shall apply to assets for depreciation upto 70% of original cost of the asset and thereafter the remaining depreciable value of the assets as on 31st March of the year shall be spread over the balance useful life of the asset. In accordance with the Regulations, Depreciation has been claimed on the Opening GFA (Gross Fixed Asset) and also on the assets added during the year (proportionately based on actual date of addition). The soft copy of the detailed working of the depreciation asset-wise is attached herewith as **Annexure 7 (Soft Copy Only)**. The summary of depreciation claimed, is tabulated below:

Table 6: Depreciation for FY 2022-23

Particulars / (Rs. Crore)	MTR Order	Actual
Depreciation	96.43	95.22
Opening GFA	2,137.28	2,137.27
Closing GFA	2,143.23	2,138.74

It is submitted that the Hon'ble Commission had allowed depreciation for FY 2022-23 in the MYT Order considering the asset class wise average depreciation rate for FY 2021-22, on the average GFA approved in the MTR Order. However, the actual depreciation has been calculated on the assets added during the year proportionately based on actual date of addition. Therefore, there is variation in depreciation being claimed for FY 2022-23 now with respect to depreciation allowed in MTR Order.

2.2.3 Interest on Loan Capital

As per first proviso of Regulation 30.5 of MYT Regulations, 2019, at the time of Truing-Up, the weighted average rate of interest based on actual loan portfolio during the concerned year needs to be considered as the rate of interest. The weighted average interest cost for FY 2022-23, considering all the loans in AEML's portfolio (Bond, Sub-debt and GMTN) works out to 8.98%. The calculation of weighted average rate of interest and the supporting document showing base interest rate (in $ terms) for all sources of funds are provided in **Annexure 8 (Soft copy only).** It is submitted that the effects of withholding tax and hedge premium are also included in the interest rate calculations. AEML-T had submitted the interest rates for FY 2019-20 to FY 2021-22 in the MTR Petition (Case no. 230 of 2022) by including the effect of withholding tax and hedge premium and the Hon'ble Commission had accepted the same. Accordingly, the interest rate for FY 2022-23 has been calculated in the same manner. The table below shows the interest on loans as approved for FY 2022-23 in the MTR Order and considering the actual capitalization for FY 2022-23.

Table 7: Interest on loans for FY 2022-23

Particulars / (Rs. Crore)	MTR Order	Actual
Opening Balance	588.04	588.04
Reduction due retirement of assets	0	0.11
Addition	4.36	4.27
Repayment	96.43	95.22
Closing Balance	495.97	496.97
Average loan balance	542.01	542.51
Interest Rate in %	8.34%	8.98%
Interest on long term loan	**45.18**	**48.70**

The calculation of reduction of normative loan due to retirement in assets is provided in **Annexure 9 (Soft copy only).**

2.2.4 Financing Charges

AEML's loan portfolio consists of bond, sub-debt and GMTN. For the above three loans, AEML has incurred various charges such as trustee fees, legal fees, domestic and international rating fees etc. The same is segregated amongst generation, transmission and distribution divisions of AEML in the ratio of average regulatory loans for the three divisions for FY 2022-23, as shown in the table below:

Table 8: Financing charges for loans for FY 2022-23

Particulars (Rs. Cr)	AEML-G	AEML-T	AEML-D (W)	AEML-D (S)	Total
Financing charges	0.14	0.51	2.36	0.08	3.09

Further, AEML has raised working capital loans from banks / financial institutions for meeting the day to day cash requirements. AEML has also incurred LC and BG commission for payment to vendors through LC/BG for materials related to capex / opex. All these financing charges correspond to financing of working capital requirements. The same is segregated amongst generation, transmission and distribution divisions of AEML in the ratio of normative working capital requirement for the three divisions for FY 2022-23 as shown in the table below:

Table 9: Financing Charges for FY 2022-23

Particulars (Rs. Cr)	AEML-G	AEML-T	AEML-D (W)	AEML-D (S)	Total
LC/ BG Commission	0	0	1.26	0	1.26
Financing charges for working capital loans	0.04	0.01	0.06	0.01	0.12
Total	**0.04**	**0.01**	**1.31**	**0.01**	**1.38**

The same has been claimed for truing up of FY 2022-23. The documentary evidence of financing charges are provided in **Annexure 10 (Soft copy only).** Since the no. of documents for every LC/BG commission made would be very large, AEML has provided sample LC commission documents in the Annexure.

2.2.5 Return on Equity

The MYT Regulations, 2019 provides for allowing RoE in two parts i.e. Base RoE and additional RoE linked to actual performance. As per the MYT Regulations, 2019, the additional RoE is to be allowed at the time of truing up for respective years based on actual performance. For transmission business, the Base RoE is 14% per annum and eligibility for additional RoE is linked to transmission availability. The transmission licensee is eligible for additional 1.5% RoE, if the annual transmission availability of the licensee is 99.75% or more. The actual annual availability of AEML-T in FY 2022-23 was 99.79%. The MSLDC certificate in this regard is attached herewith as **Annexure 11 (Soft copy only).** Accordingly AEML-T has claimed RoE of 15.5% for FY 2022-23.

Further Regulation 34.3 of the MYT Regulations, 2019 provides for grossing up of RoE with Effective Tax rate for allowing pre-tax RoE. In the MTR Petition, for determination of effective tax rate for FY 2020-21 and FY 2021-22, AEML-T had submitted that the first proviso to Regulation 34.4 of the MYT Regulations, 2019 requires that the taxable income for a Generating Company or Licensee or SLDC is required to be determined in isolation of its any other un-regulated or regulated activity or other business and the effective tax rate be determined from such taxable income accordingly. Therefore, for Companies like AEML, this would mean that the taxable income and hence effective tax rate of transmission segment of AEML, which is AEML-T, is required to be worked out in isolation of its other regulated and non-regulated segments of Generation, Distribution (both regulated) and Corporate-treasury (un-regulated).

Accordingly, AEML-T had considered the effective tax rate as per the income tax applicable to transmission business for FY 2020-21 and FY 2021-22, derived on the basis of regulatory profit before tax method. However, the Hon'ble Commission did not consider the submission of AEML-T and opined that the effective tax rate is to be considered on the basis of actual income tax paid by the Utility. Since AEML as a whole had paid income tax at MAT rate for FY 2020-21 and FY 2021-22, the Hon'ble Commission had considered the effective tax rate at MAT rate. AEML-T has raised this issue in the Appeal (Appeal no. 538 of 2023) before Hon'ble ATE against the MTR Order and the same is pending. Without prejudice to the contentions raised on the Appeal, AEML-T has considered the Effective tax rate at MAT rate for FY 2022-23, since AEML a whole has paid income tax at MAT rate in FY 2022-23. The documentary evidence of income tax paid for FY 2022-23 is submitted herewith as **Annexure 12 (Soft copy only).** The RoE claimed for FY 2022-23 is as under:

Table 10: RoE for FY 2022-23

Particulars / (Rs. Crore)	MTR Order	Actuals
Regulatory Equity at the beginning of year	682.45	682.45
Capitalization during the year	6.23	6.10
Equity portion of capitalization during the year	1.87	1.83
Reduction in Equity Capital on account of retirement / replacement of assets	0	1.39
Regulatory Equity at the end of year	684.32	682.89
RoE rate (%)	14.00%	15.50%
Effective Tax Rate (%)	17.47%	17.47%
Pre-tax RoE rate (%)	16.96%	18.78%
Return on Regulatory Equity at beginning of year	115.77	128.17
Return on Regulatory Equity addition during the year	0.16	0.17
Total Return on Regulatory Equity	115.93	128.34

AEML-T requests the Hon'ble Commission to approve the return on equity for FY 2022-23 presented above.

2.3 Operation & Maintenance (O&M) expenses

2.3.1 Normative O&M expenses

AEML-T had 573.03 Ckt km 220 kV lines as at the beginning and at the end of FY 2022-23. The MSLDC certificate regarding line length at the end of FY 2022-23 is attached herewith as **Annexure 13 (Soft copy only).** Hence the average line length of 573.03 Ckt. Km. has been considered for calculation of normative O&M expense.

The Hon'ble Commission had considered the actual no. of 220 kV Bays (31 no. AIS and 86 no. GIS) as the opening no. of Bays for FY 2022-23 in the MTR Order in Case no. 230 of 2022. AEML-T has considered the same as the opening no. of 220 kV Bays for truing up of FY 2022-23. No 220 kV Bays have been added by AEML-T in FY 2022-23. Hence the closing no. of 220 kV Bays are the same as the opening no. of 220 kV Bays.

In the MTR Petition (Case no. 230 of 2022), AEML-T had submitted that utilization of 33 kV Bays was significantly impacted due to Covid 19 pandemic. It is a well-known fact that businesses and projects were significantly impacted by the outbreak of Coronavirus towards the end of FY 2019-20, which lasted in FY 2020-21 and FY 2021-22. As the projects were revived in FY 2022-23 (post Covid pandemic), the Bays are now gradually getting utilized. Further there are 6 no. of 33 kV bays allocated to TPC-D. AEML-T has no control on bay utilisation by TPC-D. Therefore AEML-T should not be penalized for non-utilization of Bays by TPC-D. In any event, AEML-T should not be denied the O&M expense on Bays for non-utilization or delayed utilisation of bays by Distribution Licensees, more particularly when such bays were created to meet their requirement.

Accordingly, AEML-T had claimed normative O&M expense from FY 2019-20 to FY 2021-22 in the MTR Petition (Case no. 230 of 2022), considering all the 33 kV Bays. However, the Commission, based on the loading data of the Bays, considered only the load bearing Bays as utilised and allowed normative O&M expense from FY 2019-20 onwards in the MTR Order, accordingly. AEML-T has raised this issue before the Hon'ble ATE in the Appeal (Appeal no. 538 of 2023) against the MTR Order, which is pending. Without prejudice to the contentions raised in the Appeal, AEML-T has considered only the Bays considered utilised for calculation of normative O&M expense.

The Hon'ble Commission had considered 38 no. of AIS 33 kV Bays and 319 no. of GIS 33 kV Bays as the opening no. of Bays for FY 2022-23 in the MTR Order. Further, the Hon'ble Commission had considered 32 no. of 33 kV Bays (3 AIS and 29 GIS) as unutilized as on January 2023 in the MTR Order. Out of the list of 32 no. of Bays, Sw. no. 1 (AIS Bay) in Ghodbunder EHV station has already been decommissioned as part of AIS to GIS conversion DPR, executed in FY 2020-21. This was intimated to the Hon'ble Commission through response to various datagaps during MTR proceedings. However, inadvertently Sw. no. 1 (AIS) in Ghodbunder EHV station has been considered as unutilized Bay in the MTR Order, which did not exist in FY 2022-23. Hence for the purpose of truing up of FY 2022-23, AEML-T has considered 39 no. of AIS 33 kV Bays and 319 no. of GIS 33 kV Bays as the opening no. of Bays. In FY 2022-23. The Hon'ble Commission had considered 3 no. of 33 kV GIS Bays as utilized in FY 2022-23 in the MTR Order. Further, 2 no. of AIS Bay and 17 no. of GIS Bays (out of the 31 no. of 33 kV Bays considered unutilized in the MTR Order dated 31.03.2023) have been considered as utilized in FY 2022-23. It is submitted here that out of the 31 no. of 33 kV Bays considered unutilized in the MTR Order, 6 no. of GIS Bays (4 in Chembur EHV S/stn and 2 in Saki EHV S/stn) are allotted to TPC-D by STU. Despite repeated follow ups with TPC-D, these Bays were not utilized by TPC-D and the same is beyond the control of AEML-T. Copy of one of the letters of TPC-D in this regard is attached herewith as **Annexure 14 (Soft copy only)**. From the letter it can be observed that TPC-D had committed to utilize the Bays allotted in Saki EHV S/stn by March 2022 and 2 no. of Bays allotted in Chembur EHV S/stn by March 2023. However, the same are still not utilized till date. Regarding the other 2 Bays allotted to TPC-D in Chembur EHV S/stn, TPC-D had stated that STU may consider utilization of these Bays by allocating for other purpose. In the meantime, AEML-D had asked for allocation of 2 no. of 33 kV Bays from Chembur EHV station for releasing load in FY 2024-25. STU had sought AEML-T's consent to allocate the 2 no. of Bays to AEML-D. AEML-T has also provided its consent to STU for allocation of 2 no. 33 kV Bays to AEML-D. The letter from STU and AEML-T's consent to STU are provided in **Annexure 15 (Soft copy only)**. AEML-T had submitted the same in its MTR Petition (Case no. 230 of 2022) that the Transmission Licensee should not be held responsible for non-utilization of Bays by the Distribution Licensees, particularly by TPC-D. However, the Hon'ble Commission did not accept the contention of AEML-T and had disallowed the normative O&M expense on account of unutilized Bays in the MTR Order in Case no. 230 of 2022. For the purpose of normative O&M expense calculation in FY 2022-23, AEML-T has considered these Bays as utilized. The Hon'ble Commission is requested to consider the same and allow normative O&M expense on these Bays. No. fresh addition of 33 kV Bays was made in FY 2022-23. Hence AEML-T has considered 41 no. of AIS 33 kV Bays and 339 no. of GIS 33 kV Bays as the closing no. of Bays in FY 2022-23. The average no. of 33 kV AIS Bays and 33 kV GIS Bays in FY 2022-23 works out to 40 and 329 respectively. The status of bays considered utilised in this petition during FY 2022-23, are as follows:

Table 11: Total no. of Bays Utilized in FY 2022-23

Particulars	Total number of unutilized bays as per MTR Order (A)	No of AIS Bays already decommissioned prior to FY 2022-23 out of (A) : (B)	Net unutilized bays as per MTR Order (C)	Bays utilized during FY 2022-23 out of (C) : (D)	Opening balance of utilized bays as on 01.04.2022 (E)	Bays considered utilized in MTR Order in FY 2022-23 (F)	Closing balance of utilized bays as on 01.04.2022 (G = D+ E + F)
220 kV - AIS Bays					31		31
220 kV - GIS Bays					86		86

Particulars	Total number of unutilized bays as per MTR Order (A)	No of AIS Bays already decommissioned prior to FY 2022-23 out of (A) : (B)	Net unutilized bays as per MTR Order (C)	Bays utilized during FY 2022-23 out of (C) : (D)	Opening balance of utilized bays as on 01.04.2022 (E)	Bays considered utilized in MTR Order in FY 2022-23 (F)	Closing balance of utilized bays as on 01.04.2022 (G = D+ E + F)
33 kV - AIS Bays	3	1	2	2	39		41
33 kV - GIS Bays	29		29	17	319	3	339

Based on the above, the calculation of normative O&M expense for FY 2022-23 is shown in the table below:

Table 12: Normative O&M expenses FY 2022-23

Particulars	MTR Order	Actual
Line length ckt. km.	573.63	573.03
O&M cost norms (Rs. lakh/ ckt. km)	0.76	0.76
Normative O&M expenses for lines (Rs. crore)	**4.36**	**4.36**
Number of 220 kV AIS bays	31	31
Number of 220 kV GIS bays	86	86
Number of 33 kV AIS bays	38	40
Number of 33 kV GIS bays	321	329
O&M cost norms (Rs. lakh/ bay) - 220 kV AIS bays	35.89	35.89
O&M cost norms (Rs. lakh/ bay) - 220 kV GIS bays	25.12	25.12
O&M cost norms (Rs. lakh/ bay) - 33 kV AIS bays	7.50	7.50
O&M cost norms (Rs. lakh/ bay) - 33 kV GIS bays	5.25	5.25
Normative O&M expenses for bays (Rs. crore)	**52.41**	**53.00**
Total normative O&M Expense (Rs. Crore)	**56.76**	**57.36**

2.3.2 Actual O&M expenses

The actual O&M expenses for FY 2022-23 after netting off expenditure capitalized are as shown in the table below:

Table 13: Actual O&M expenses FY 2022-23 (net of capitalisation)

Particulars (Rs. Crore)	FY 2022-23
Employee Expense	35.75
A&G Expense	18.91
R&M Expense	10.08*
O&M Expense	**64.74**

**Not including Rs. 3.83 Crore considered as O&M in regulatory accounts, due to ruling of the Hon'ble Commission in MTR Order*

The above actual O&M Expense is inclusive of corporate expenses of Rs. 3.75 Crore, which have been included in the A&G expense. In the MTR Petition (Case no. 230 of 2022), AEML-T had requested the Hon'ble Commission to consider and approve the total O&M expenses of AEML as a whole, instead of separately assessing Corporate allocation. AEML-T had submitted that the Corporate expenses allocated to AEML are against the services procured by AEML to run its businesses and they are, in no manner, different from the other O&M expenses. Therefore, there is no reason to separately assess Corporate expenses from the actual O&M expenses of AEML. However, the Hon'ble Commission did not consider the request of AEML-T and had approved the Corporate Expenses separately by escalating the approved Corporate Expense of previous year with the Escalation factor applicable for current year for AEML's Distribution business. AEML-T has raised this issue in the Appeal (Appeal no. 538 of 2023) before Hon'ble ATE against the MTR Order and the same is pending.

It is submitted that the Corporate expenses represent the expenses pertaining to common services of Central Procurement, Group Finance, HR, Centralized IT services, Administration, Security and other common departments of group companies, who render the services to AEML. Apart from usual services, AEML had taken certain new initiatives in association with the group resources, which have resulted in better employee productivity in AEML, improved data security, reduced the possibility of cyber attacks / malicious software ingress, etc. AEML-T had submitted the details about the Corporate services being used by AEML in the MTR Petition (Case no. 230 of 2022), because of which the Corporate Expense has been on the higher side. Accordingly, AEML-T has claimed the actual Corporate Expense for FY 2022-23.

It is submitted that a Company should have the liberty to perform all its functions by itself using external vendors as necessary or, if it is part of a larger group and group resources are available to execute the same functions, then all such functions could be centrally located and used as necessary, with appropriate cost allocation. AEML is part of the larger Adani Group and various functions of HT, IT, Accounts, Procurement and such other common functions are centrally located to handle the needs of all constituent companies. Appropriate cost allocations are done accordingly. AEML procures many such services and functions from the centralized pool and accordingly incurs corporate expense allocation, which is nothing but a regular business expenditure, because if such services were not procured internally, they would have had to be externally obtained, again resulting in expenditure.

Also, AEML-T, in its MYT Petition (Case No. 297 of 2019), had submitted that the Hon'ble Supreme Court had issued its Judgment dated 28th February 2019 with regard to calculation of contribution to the provident fund accounts of the employees. In the MTR Petition (Case no. 230 of 2022), AEML-T claimed the impact of the Hon'ble SC Judgment from FY 2019-20 onwards over and above the normative O&M expenses. In the MTR Order, the Hon'ble Commission recognized that the impact of the Hon'ble SC Judgment as being due to a Change in Law event and allowed the same over and above normative O&M expenses from FY 2019-20 to FY 2021-22. For FY 2022-23, the Hon'ble Commission had considered the impact of SC Judgment at Rs. 0.15 Crore on provisional basis in the MTR Order. However, the actual impact for FY 2022-23 was Rs. 0.11 Crore, which is claimed for true-up of FY 2022-23. The calculation of the same is provided herewith as **Annexure 16 (Soft copy only)**.

AEML-T, in the MTR Petition for the period FY 2016-17 to FY 2019-20 (Case no. 201 of 2017), had claimed annual ground rent paid to PWD for its 220 kV line – MSETCL EHV Borivali Stn to AEML-T Gorai EHV Stan in FY 2016-17 as uncontrollable expense. However, the Hon'ble Commission did not allow the same in the MTR Order in Case no. 201 of 2017 dated 12.09.2018. AEML-T has raised this issue in the Appeal against the MTR Order (Appeal no. 105 of 2019), which is pending. Also, AEML-T in its MYT Petition (Case no. 297 of 2019) had submitted that Aarey-Borivali cable connectivity would be commissioned in FY 2019-20 and there are chances that for the cable being present on the Highway falling under jurisdiction of PWD, ground rental charges may be levied by PWD. The ground rental charges for the cable laid as part of Aarey-Borivali cable connectivity scheme was claimed by AEML-T on provisional basis for FY 2020-21 in the MYT Petition. The Hon'ble Commission had not allowed the impact in the MYT Order and had directed AEML-T to submit the impact of the same with justification at the time of truing up of respective years. In this regard, it is submitted that so far no demand has been received from PWD or any other Government institution for ground rental charges in FY 2022-23. Accordingly, AEML-T has not claimed any amount towards ground rent separately for FY 2022-23.

As submitted in the section on capitalization, AEML-T has excluded the expenses related to certain works, amounting to Rs. 3.83 Crore from capitalization and has claimed the same as part of actual

O&M expense for FY 2022-23. AEML-T submits that its actual O&M expense had not included the expenses of this nature in the past. Hence comparing the normative expense with the actual expense after including the said expense shifted from Non-DPR to O&M will be unfair. Therefore AEML-T has claimed such expenses separately. Further as per MERC (Multi Year Tariff) (Second amendment) Regulations, 2022, the Hon'ble Commission may consider any request for revision of the normative O&M expenses on account of consideration of some Schemes under O&M rather than Capital Investment on case-to-case basis, depending on the justification to be submitted by the Applicant. The same is reproduced below:

> *"61.9 The Commission may consider any request for revision of the normative O&M expenses of the Transmission Licensee on account of consideration of some Schemes under O&M rather than Capital Investment on case-to-case basis, depending on the justification to be submitted by the Applicant and the life-cycle cost analysis:*
>
> *Provided that if actual O&M expenses including the cost of some schemes considered under O&M rather than Capital Investment are lower than normative O&M expenses, then sharing of efficiency gains shall be done:*
>
> *Provided further that if actual O&M expenses including the cost of some schemes considered under O&M rather than Capital Investment are higher than normative O&M expenses on this account, then no sharing of efficiency losses shall be done".*

The justification for the works which have been shifted from capex to O&M are provided below:

a. Procurement and installation of Helical Gripper Rod Sets on AEML-T EHV (220kV) Transmission Lines at line crossings (State Highways, Power line Crossing, Railway line, Densely populated areas, Slum / habitation areas) – Rs. 1.34 Cr

Need / justification – Helical grippers are used to self-tighten due to weight of the conductor in contrast to any design wherein there is possibility of slippage if tightening is not properly done during erection. Because of their superior mechanical properties, preformed helical fittings are widely used in EHV transmission lines. Around 1,230 Sets of helical grippers were procured and installed on Transmission lines of AEML-T at line crossings under this scheme, partly in FY 2022-23 and balance in FY 2023-24.

Benefits of the scheme – This would help in preventing any damage to conductor of Transmission line by preventing slippage of the conductor from towers.

b. Replacement of display units of overcurrent/ earth fault relays – Rs. 0.86 Cr

Need / justification – SEPAM S80 series relays are used for overcurrent and earth fault protection of 33 kV feeders. These relays were commissioned in year 2011 and are beyond warrantee / repairs. The display (HMI Unit) of relays were completely blurred and events and fault values were not visible, in event of fault. Further relay reset was also through S80 relay which is not possible as its display was not visible. Hence replacement of display units of old relays were carried out under the scheme.

Benefits of the scheme – Operational issues of 33kV Feeder while in service or during fault are mitigated.

c. Supply of spares for 33kV ABB make GIS Switchgear commissioned at 220kV Saki and Goregaon EHV Substation – Rs. 0.42 Cr

Need / justification – ABB make, 33 kV Gas Insulated Switchgear (GIS, Type – ZX 1.2) were commissioned at Saki and Goregaon EHV Substations in the year 2011. There are 5 no. 33 kV Boards (3 no. at Saki and 2 no. at Goregaon) consisting of 70 no. Switches in service. There were no emergency/mandatory spares for the above mentioned 33 kV GIS for smooth running of the system to maintain 100% availability/reliability and uninterrupted supply. Under the scheme, spares for the GIS switches were purchased.

Benefits of the scheme – Procurement of these emergency/mandatory spares for the 33 kV GIS shall help smooth running of the system to maintain 100% availability/reliability and uninterrupted supply for the consumers.

d. Procurement and installation of 8.25MVAr capacitor bank at Versova EHV sub-station – Rs. 0.24 Cr

Need / justification – The existing 8.25MVAr capacitor bank was completely damaged during a fire incident on 07.02.2020. All capacitor units, reactors and insulators were checked and found beyond repair. Considering heavy damage to capacitor, complete replacement of each and every element was required.

Benefits of the scheme – Capacitor bank is required for power factor improvement and voltage regulation on 33kV Side. Since the capacitor bank was damaged beyond repair, procurement of new capacitor bank was made.

e. Procurement of tools for detection of live line voltage of bare conductor i.e. Non-contact type High Voltage Detector for system along with sectional hot sticks (4 sets) for AEML EHV Transmission overhead Line Maintenance work - Rs. 0.02 Cr

Need / justification – There is a need of live line testing to check whether the respective line is dead or alive and accordingly the local earthing can be made as per maintenance practice. AEML-T has been carrying out replacement of polymer insulators in a phased manner so as to reduce the number of line outage and improve line availability. In this connection, AEML-T needs enough live line testers during execution of above-mentioned work. Accordingly additional live line testers were procured under the scheme.

Benefits of the scheme – This will ensure linemen safety and security. Additionally, this scheme will prevent unplanned line tripping and improve system availability.

- Procurement of CT / VT modules and power supply cards for GE make B90 busbar protection Scheme at Versova EHV Sub Station– Rs. 0.02 Cr

Need / justification – In FY 2021-22, there was an error in functioning of redundant busbar protection R, Y, B phase unit. Matter was referred to M/S GE and after diagnosis it was found that Power supply cards of phase unit were faulty and needed replacement. The faulty power supply cards were replaced with new cards. While powering on, Module failure Alarm appeared on BB R phase and Y phase unit. The issue was referred to M/s GE and M/s GE further advised to replace CT/VT cards from R and Y phase unit. CT/VT cards including the Power supply cards were replaced with new cards and redundant BB panel taken into service.

Benefits of the scheme – Healthiness of protection system will ensure maintaining System Availability and reliability.

- Structural strengthening of Columns and Beams of Existing 220/33kV Switchgear Building at Versova S/stn – 0.92 Crore

Need / justification –

a. At Versova existing 33kV AIS boards were to be replaced with 33kV GIS board. Since the structure is about 25 years old where these boards were to be installed, the assessment of strength of existing RCC members was necessary.
b. In view of this, AEML-T conducted Ultrasonic pulse velocity test and core test for few columns. Some of the core test values are found lesser than desired values. Before arriving at final conclusion, AEML extracted additional cores from the same columns and tested them as a double check. Results similar to OEM vendor M/s. Siemens were obtained.

c. These results were discussed with IIT-B and it had suggested to execute the structural strengthening work.

d. In view of the above, the activity was carried out wherein the Scope of work was covered to prepare detailed report consisting of STAAD results, NDT Values and proposed structural strengthening methods etc.

e. The detailed report submitted by vendor has been reviewed and validated by M/s IIT-B. As per STAAD results, all columns & most of the beams were failing under Seismic condition. Considering another 10 years life span of the building, structural strengthening of all the columns and beams were carried out as per recommendation from IIT Bombay.

Benefits of the scheme – The scheme would increase life span of the building including structural strengthening of all the columns and beams of Switchgear Building at Versova S/stn.

AEML-T requests the Hon'ble Commission to approve the expenses shifted from capex to O&M over and above the net entitlement by exercising its power to relax under Regulation 105 of MYT Regulations, 2019 and also considering the Hon'ble Commission's own intent of not considering these expenses under efficiency gains / losses sharing mechanism. It is further submitted that while AEML-T has on its own excluded works which have been held as O&M nature from capex and is claiming the same as additional O&M, AEML-T requests the Hon'ble Commission that, as part of true-up exercise, if any other works are additionally held as being O&M nature, the Hon'ble Commission may kindly allow the expenses towards the same under O&M cost allowance.

2.3.3 Efficiency gains/ loss in O&M

AEML-T calculated the net entitlement in O&M expense as per Regulation 11.1 of the MYT Regulations, 2019 as under:

Table 14: Net entitlement - O&M expense FY 2022-23

Particulars	Notation	Rs. Crore
Normative O&M Expense	a	57.36
Actual O&M Expense	b	64.74
Impact of SC Judgment on PF	c	0.11
Net Actual O&M Expense	d = b - c	64.63
Net Entitlement	e = a + (d-a)/3	59.78
Expense shifted from Capitalization to O&M	f	3.83
Total O&M Expense claimed	**g = c + e + f**	**63.72**

AEML-T requests the Hon'ble Commission to approve the O&M expenses for FY 2022-23 as submitted above.

2.4 Interest on Working Capital

AEML-T has calculated the normative interest on working capital as per first proviso to Regulation 32.2 of the MYT Regulations, 2019. As per the said Regulation, the Base Rate has been defined as One-year MCLR of SBI plus 150 basis points. The weighted average SBI one-year MCLR plus 150 Basis Points in FY 2022-23 works out to 9.30%. Based on the above, the normative interest on working capital for FY 2022-23 is shown in the table below:

Table 15: Normative Interest on Working Capital FY 2022-23

Particulars (Rs. Crore)	MTR Order	Revised
O&M Expense for one month	4.73	4.78
Maintenance Spares @1% of the Opening GFA	21.37	21.37
1.5 months of the expected revenue from transmission charges	42.47	42.49
Less: Amount of Security Deposit from Transmission System Users	0	0
Total Working Capital Requirement	**68.57**	**68.64**
Rate of Interest (% p.a.) - SBI Base Rate plus 150 basis points	9.45%	9.30%
Interest on Working Capital	**6.48**	**6.38**

AEML has incurred actual interest on working capital in FY 2022-23 for the company as a whole. The same has been segregated among the three regulated divisions of AEML in the ratio of average working capital utilization of each of the three divisions. Also, as submitted in MTR Petition (Case no. 230 of 2022), the bond surplus of Rs. 360.52 Cr after refinancing in FY 2019-20 has been used as working capital in the business. Therefore, a part of the interest paid for bonds has been allocated to interest on working capital (on proportion basis) for FY 2022-23, as the bonds have, inter alia. been availed by the Company for general corporate purposes. The interest on bond surplus has been allocated among three regulated divisions in the ratio of average working capital utilization in FY 2022-23. The actual interest on working capital for FY 2022-23 incurred for the three regulated divisions is shown in table below:

Table 16: Actual Interest on working capital for FY 2022-23

Particulars / (Rs. Crore)	Generation	Transmission	Distribution - Wires	Distribution - Supply	Total
Interest on surplus from Bonds used for working capital financing	9.92	3.92	15.16	3.17	32.18
Interest on other working capital loans	22.03	8.71	33.65	7.05	71.43
Total	**31.95**	**12.63**	**48.81**	**10.22**	**103.61**

A summary of month wise interest on working capital charged by banks in FY 2022-23 along with the interest allocation from the bond surplus of Rs. 360.52 Crore is provided in **Annexure 17 (Soft copy only).** Sample documentary evidence for interest on working capital charged by banks is also provided in the Annexure.

As per Regulation 32.6 of the MYT Regulations, 2019, the difference between the normative interest on working capital and the actual interest on working capital shall be considered as efficiency gain / loss and shall be shared between generating company and the beneficiaries in the ratio as per MYT Regulations, 2019. It is submitted that the interest on the working capital loans availed by the Utilities does not represent the actual interest on working capital employed by the Utilities. This is because Utilities also employ their internal accruals for meeting the working capital requirement of the company and the same is not considered as part of actuals, while determining the share of efficiency gains or loss as per MYT Regulations, 2019. AEML-T has raised this issue of non consideration of cost of internal accruals in the actual interest on working capital, while sharing the efficiency gains or losses in interest on working capital at the time of truing up in the Appeal against MYT Order in Case no. 297 of 2029 (Appeal No. 277 of 2022), which is pending for decision. Without prejudice to the contentions raised by AEML-T in the Appeal, AEML-T has considered the actual interest on working capital as appearing the in the books of accounts for FY 2022-23 and claimed the net entitlement as per MYT Regulations, 2019.

Table 17: Net Entitlement in Interest on working capital for FY 2022-23

Particulars	(Rs. Crore)
Normative IoWC	6.38
Actual IoWC	12.63
Gain / (Loss)	-6.25
Net Entitlement	8.46

The Hon'ble Commission is requested to approve the net entitlement in interest on working capital for FY 2022-23.

2.5 Contribution to Contingency Reserves

Regulation 35.1 of the MYT Regulations, 2019 provides for Contribution to Contingency Reserves (CR) of a sum not less than 0.25% and not more than 0.5% of the original cost of fixed assets. In view of the above, AEML-T has considered the contribution to contingency reserve at 0.25% of the original cost of fixed assets as on 01-04-2022.

Table 18: Contribution to Contingency Reserves FY 2022-23

Particulars (Rs. Crore)	MTR Order	Actual
Opening balance of Contingency Reserves	45.83	45.83
Opening Gross Fixed Assets (GFA)	2,137.28	2,137.27
Opening balance of Contingency Reserves as % of Opening GFA	2.14%	2.14%
Contribution to Contingency Reserves	**5.34**	**5.34**

The contribution to contingency reserve to be made both by AEML-T and AEML-D in accordance with MYT Regulations, 2019 in FY 2022-23 is as under:

Table 19: Contribution to Contingency Reserves FY 2022-23 by AEML-T and AEML-D

Particulars (Rs. Crore)	AEML-T	AEML-D	Total
Opening balance of Contingency Reserves	45.83	192.61	238.44
Contribution to Contingency Reserves	5.34	1.36	6.70
Closing balance of Contingency Reserves	51.17	193.97	245.15

As per MYT Regulations, 2019, the contribution to contingency reserve for the year is to be invested in Government securities within six months of completion of the year. Hence the contribution to contingency reserve for FY 2022-23 was to be invested by September 2023. Against the requirement of Rs. 6.70 Crore in FY 2022-23, AEML has invested Rs. 9.36 Crore in specified securities (Government Treasury Bills) by September 2023. The documentary evidence of the investment made is provided as **Annexure 18 (Soft copy only)**. The Hon'ble Commission is requested to approve the contribution to contingency reserve for FY 2022-23 as submitted above.

2.6 Revenue for FY 2022-23

2.6.1 Revenue from InSTS

As per the InSTS tariff order dated 30.03.2020 in Case No. 327 of 2019, the revenue recoverable from TSUs in FY 2022-23 was Rs. 339.77 Crore. The actual revenue billed to TSUs for FY 2022-23 was Rs. 339.90 Crore. Also, as per Regulation 36.4 of the MYT Regulations, 2019, all rebates or incentives given by the Generating Company or Licensee shall be allowed as an expense in ARR. AEML-T has provided Rs. 0.32 Crore incentive for early payment of transmission charges by TSUs. The same has been claimed as expense in FY 2022-23.

2.6.2 Non-Tariff Income (NTI)

The Hon'ble Commission had approved Rs. 3.98 Crore of Non Tariff Income for FY 2022-23 in the MTR Order dated 31.03.2023 in Case No. 230 of 2022. The head wise actual non tariff income for FY 2022-23 is shown in table below:

Table 20: NTI for FY 2022-23

Particulars (Rs. Crore)	MTR Order	Actual
Income from rent of land or buildings (land usage charges)	1.32	1.32
Income from sale of scrap	2.00	0.48
Income from investments (contingency reserve)	0.26	3.12
Profit on sale of asset		0.53
Other/Miscellaneous receipts	0.40	0.20
Total	**3.98**	**5.66**

- Interest on contingency reserve investments:

The interest on contingency reserve investment for AEML-T in FY 2022-23 was Rs. 3.34 Crore. As submitted above, the cumulative contribution to contingency reserve at the end of FY 2022-23 as per regulatory books is Rs. 51.17 Crore. However, the cumulative contribution to contingency reserve at the end of FY 2022-23 as per actual books of accounts is Rs. 55.14 Crore (including accrued interest of Rs. 0.37 Crore). Hence the interest on contingency reserve received has been apportioned, since the actual investment is more than the required amount as per Regulatory books. AEML-T, in the MTR Petition (Case no. 230 of 2022) had presented the interest on contingency reserve from FY 2019-20 to FY 2021-22 after apportioning the same considering contingency reserve as per regulatory books and the Hon'ble Commission had approved the same in the MTR Order dated 31.03.2023. Accordingly AEML-T has proposed the interest on contingency reserve for FY 2022-23 in the same manner. The interest considered for FY 2022-23 is shown in the table below:

Table 21: Interest from Contingency Reserve for FY 2022-23

Particulars	Rs. Cr
Interest on Contingency Reserve as per Books	3.34
Contingency reserve (as on 31.03.2023) as per regulatory	51.17
Contingency reserve (as on 31.03.2023) as per company books – without accrued interest	54.77
Interest on Contingency Reserve-proportionate	3.12

In addition to the above, rental income, income from sale of scrap, profit on sale of assets and other miscellaneous receipts in FY 2022-23 have been included in the non- tariff income. AEML-T has received Delayed Payment Charges of Rs. 12.92 Crore in FY 2022-23, which has not been included as part of Non-Tariff income in accordance with MYT Regulations, 2019. Also, in line with the principles followed by AEML-T and approved by the Commission in earlier years, AEML-T has not included interest on staff loans and interest received on deposits in FY 2022-23 in the Non-Tariff Income for FY 2022-23, as the loans were extended/made out of the RoE. AEML-T requests the Hon'ble Commission to approve non-Tariff income for FY 2022-23 presented above.

2.6.3 Income from Other Business

No income from other business has been received by AEML-T in FY 2022-23 as there was no arrangement with any third party agency or organization for optimum utilization of assets in accordance with MYT Regulations, 2019.

2.7 Revenue Gap/ Surplus for FY 2022-23

The summary of Truing up for FY 2022-23 is provided below:

Table 22: Truing up Summary for FY 2022-23

Particulars (Rs. Crore)	MTR Order	Normative	Actual	Net Entitlement
Operation & Maintenance Expenses	56.76	57.36	64.63	59.78
Impact of SC Judgment on PF	0.15	0.11	0.11	0.11
Expense shifted from Capitalization to O&M	0	3.83	3.83	3.83
Depreciation Expenses	96.43	95.22	95.22	95.22
Interest on Long-term Loan Capital	45.18	48.70	48.70	48.70
Financing charges	0	0.53	0.53	0.53
Interest on Working Capital and on security deposits	6.48	6.38	12.63	8.47
Contribution to Contingency reserves	5.34	5.34	5.34	5.34
Total Revenue Expenditure	**210.35**	**217.48**	**230.99**	**221.98**
Return on Equity Capital	115.93	128.34	128.34	128.34
Aggregate Revenue Requirement	**326.28**	**345.82**	**359.33**	**350.32**
Less: Non Tariff Income	3.98	5.66	5.66	5.66
Less: Income from Other Business	0	0	0	0
Add; Early payment incentive to TSUs	0	0.32	0.32	0.32
Net ARR	**322.30**	**340.49**	**354.00**	**344.99**
Revenue from transmission tariff	**339.77**	**339.90**	**339.90**	**339.90**
Revenue Gap/(Surplus)	**-17.47**	**0.59**	**14.10**	**5.09**

AEML-T requests the Hon'ble Commission to kindly approve the above-mentioned revenue gap for FY 2022-23.

3. TRUING UP FOR FY 2023-24

In this section, AEML-T is submitting the actuals for FY 2023-24 with respect to capital expenditure, revenue expenditure and revenue income for the purposes of final truing up. Also, a comparison of expenditure and revenues considered by the Hon'ble Commission in the Order dated 31.03.2023 in Case No. 230 of 2022 vis-à-vis the audited / normative actuals for AEML-T has been provided to reflect the variances and reasons for the same.

3.1 Capital Expenditure and Capitalization

The Hon'ble Commission, in the MTR Order, had approved capitalization of Rs. 106.32 Crore (Rs. 96.00 Crore towards 220 kV AIS to GIS conversion at Aarey EHV station and Rs. 10.32 Crore towards Non-DPR schemes) for FY 2023-24 on provisional basis. The actual capitalization in FY 2023-24 (including IDC) is Rs. 99.78 Crore (Rs. 86.88 Crore towards 220 kV AIS to GIS conversion at Aarey EHV station, Rs. 0.03 Crore towards 3rd Transformer at Borivali S/stn and Rs. 12.86 Crore towards Non-DPR schemes).

The Hon'ble Commission had notified the MERC (Approval of Capital Investment Schemes) Regulations on July 12, 2022 (hereinafter "Capex Regulations, 2022"). The said Regulations require the regulated entities to register Non-DPR schemes with the Commission. Accordingly, AEML-T has registered Non-DPR schemes with the Hon'ble Commission during FY 2023-24 and capitalisation of Rs. 12.86 Crore against these schemes is accordingly being considered in the present petition. However, a particular scheme – that of procurement of Helical Grippers – was initiated as Non-DPR work during FY 2022-23 prior to the issuance of the Capex Regulations, 2022 (and hence Non-DPR was not registered), which had been categorised as work of R&M nature by the Hon'ble Commission in the MTR Order dated 31.03.2023. The amount expended under this scheme in FY 2023-24 has therefore been considered under O&M cost in this petition, even though, in the Books of Accounts, the said expenditure has been considered as capital cost. This is without prejudice to the contentions of AEML-T raised in its Appeal No. 538 of 2023 filed against the MTR Order.

Thus, the total capitalization claimed in FY 2023-24, covering DPR and Non-DPR schemes and including IDC, is Rs. 99.30 Crore. IDC for FY 2023-24 has been worked out considering the duration for which works funded by loans have remained in progress. The interest rate considered for IDC is the approved interest rate for individual years for which the works remained in progress. The soft copy of IDC calculations for FY 2023-24 is attached herewith as **Annexure 1 (Soft Copy Only)**. The capitalization (inclusive of IDC) for FY 2023-24 is as follows:

Table 23: Capitalization for FY 2023-24

Particulars / (Rs. Crore)	MTR Order	Actuals
3rd Transformer at Borivali S/s.		0.03
220KV AIS to GIS Conversion at Aarey EHV	96.00	86.88
Non DPR Schemes	10.32	12.38
Total	**106.32**	**99.30**

The Non-DPR capitalization in FY 2023-24 is 14.33% of the DPR capitalization, well within 20% limit allowable as per MYT Regulations, 2019. Also the Non-DPR capitalization as % of DPR capitalization cumulatively from FY 2020-21 to FY 2023-24 is shown in table below:

Table 24: Non-DPR capitalization as % of DPR capitalization cumulatively from FY 2020-21 to FY 2023-24

Particulars / (Rs. Crore)	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Cumulative
DPR capitalization	208.44	27.27	0.83	86.92	323.45
Non-DPR capitalization	7.80	2.81	5.28	12.38	28.27
Non-DPR capitalization as % of DPR capitalization	**3.74%**	**10.30%**	**636.30%**	**14.25%**	**8.74%**

As seen from above, Non-DPR capitulation is within 20% of DPR capitalization cumulatively from FY 2020-21 to FY 2023-24, in accordance with first proviso to Regulation 24.7 of the MYT Regulations, 219. Accordingly, AEML-T requests the Hon'ble Commission to approve the actual Non-DPR capitalization for FY 2023-24, being claimed now.

A brief description of the works carried out under DPR schemes during FY 2023-24 is provided hereunder:

A. 3rd Transformer at Borivali EHV Station

On 31.03.2021, Borivali 3rd Transformer DPR Scheme was successfully commissioned. The actual capitalization against this scheme in FY 2023-24 was Rs. 0.03 Crore. The said expense was towards payment for cabling work required for transformer and associated transportation activities. Scheme was closed in all aspects and scheme closing report was submitted to the Hon'ble Commission vide letter no. AEML-T/MERC/Scheme Closing of 3rd Xer at BVL /01 dated March 06, 2024. There is no cost or time over run in the scheme.

B. 220 kV AIS to GIS at Aarey DPR Scheme

The scheme was commissioned in FY 2023-24 and bay wise commissioning details are mentioned in the following table. AEML-T has submitted the scheme commissioning letter vide ref no. AEML-T/CoD/220 kV AIS to GIS/ RR/29/FY 2023-24 dated 07.12.2023. The actual capitalization against this scheme was Rs. 82.22 Crore (excluding IDC). Certain minor balance works were still to be completed till the closure of FY 2023-24a and which have been taken up during FY 2024-25. There is no cost or time overrun in this project.

Table 25: Bay wise commissioning details in AIS to GIS conversion at Aarey EHV Station in FY 2023-24

Commissioning Details	Date	Time
Bay-26 Bus PT-1	24/04/2023	04:54 Hrs
Bay-27 Bus PT-2	07/05/2023	17:30 Hrs
Bay-25 Bus Coupler	07/05/2023	19:53 Hrs
Bay-20 100 MVA TR-1	22/05/2023	07:52 Hrs
Bay-17 Goregaon -1	01/06/2023	08:07 Hrs
Bay-21 125 MVA TR-2	05/06/2023	21:07 Hrs
Bay-22 100 MVA TR-3	03/07/2023	10:52 Hrs
Bay-19 Goregaon -2	10/07/2023	06:41 Hrs
Bay-23 100MVA TR-4	13/08/2023	07:24 Hrs
Bay-18 AEML Borivali Line	27/08/2023	20:45 Hrs
Bay-16 TPC Borivali Line	05/12/2023	19:18 Hrs

C. Non-DPR schemes:

Apart from DPRs, certain works were carried out under Non-DPR schemes. Out of these schemes, some were initiated before the issuance of Maharashtra Electricity Regulatory Commission (Approval of Capital Expenditure) Regulations, 2022 (Capex Regulations, 2022), while rest were initiated later. The details of Non-DPR schemes are provided below:

Table 26: Explanation of Non-DPR schemes implemented in FY 2023-24

Sr.	Project Description	Value (Rs. Cr)	Non-DPR Submitted/ Not submitted	Scope/Need Analysis	Location of use	Benefits/ Remarks
1	Replacement of Incomer Panel of 33kV Switch no. 23 at 220kV Gorai EHV Sub-Station	1.00	Registered on 31.07.23	1. At 220 kV AEML Gorai EHV sub-station there are 2 no. of 125 MVA Transformers feeding 2 nos. of 33 kV GIS Boards. 2. The 33 kV Boards have 2 no. of incomers from LV side of 125 MVA Power transformers. 3. These 33kV GIS switchgears were commissioned in 2011 for catering to the load requirement. Presently all the feeders are charged and loaded. 4. On 05.03.2022, fault occurred in 33kV Incomer panel of SW-23 of 33 kV GIS Board-2 connected to LV side of 125MVA TR-1 resulting in heavy flashover in incomer panel. As a result of flashover, the entire control wiring was burnt along with panel body deformation. 5. For identifying root cause, primary investigation was arranged with OEM. OEM has submitted its preliminary inspection report (PIR)	220kV Gorai EHV S/s	1. This would reduce the issue of potential failure / more down time of adjacent feeders on account of flashover. 2. Also it would Improve 33 kV feeder / system Availability. 3. Since the cost of new incomer panel was more than 25% of the cost of principal asset (14 panel GIS panel), it qualifies for capex as per Capex Regulations, 2022.

Sr.	Project Description	Value (Rs. Cr)	Non-DPR Submitted/ Not submitted	Scope/Need Analysis	Location of use	Benefits/ Remarks
				and recommended for complete replacement of incomer panel along with cable termination, as the panel body was completely deformed and was beyond repair. Accordingly, incomer panel was procured and expenses towards the same was capitalized.		
2	Replacement of defective polymer insulators at balance locations	2.86	Registered on 31.01.23	1. Replacement of in-service old Polymer Insulators with high creepage Polymer Insulators was carried out at balance locations (towers) in Mumbai section, in view of investigation report of tripping of lines on 1st and 2nd Feb-2022. 2. Upon investigation, it was observed that all the tripping happened because of surface flashover of old polymer insulators in smog environment condition. These old polymer insulators were of low creepage and it was installed more than 10 years back. 3. Due to such tripping / failure of lines, there used to complaints from HT consumers.	Entire balance 220kV Line towers from Dahanu to Mumbai and towers within Mumbai area.	Improvement of reliability of lines and availability of system for continuous supply of power. Insulators are identified as separate assets, as they are usable across different transmission lines. Further, replacement of faulty insulators by new also adds value to the principal asset – being the transmission lines in this case

Sr.	Project Description	Value (Rs. Cr)	Non-DPR Submitted/ Not submitted	Scope/Need Analysis	Location of use	Benefits/ Remarks
				4. Hence the old polymer insulators were replaced phase wise in FY 2022-23 and FY 2023-24 under the scheme.		
3	Procurement of CT/VT Analyzer kit.	0.29	Registered on 31.07.23	1. The current transformer (CT) is critical element of power system used for Protection and Metering. 2. The healthiness of CT/VT at Goregaon was confirmed by testing through CT Analyzer test kit during pre-commissioning event. 3. The current CT/PT analyzer was 15 years old and was obsolete (as confirmed form OEM). in view of above new CT/VTs were procured and expenses towards same were capitalized under the scheme.	Goregaon	The procurement of this kit was necessary in order to check healthiness of CT, which in turn is necessary for ensuing the protection of the system. Procurement of new asset qualifies as capital investment
4	Procurement of Relay Test kit.	0.43	Registered on 31.07.23	4. AEML-T has eight AIS / GIS EHV sub-station in Mumbai suburbs. 5. In 2013, Megger make Three phase relay test kit (MPRT-8430) was procured. To cope up with technological advancement like testing of OC/EF protection characteristics, line distance protection time test and characteristics test, transformer differential protection	AEML-T EHV Sub Stations	This 3-phase relay test kit would help in better testing of relays, which will help in maintaining AEML-T line availability at desired level.

Sr.	Project Description	Value (Rs. Cr)	Non-DPR Submitted/ Not submitted	Scope/Need Analysis	Location of use	Benefits/ Remarks
				characteristics test and IEC 61850 protection testing's new advanced 3 phase relay test kit was required. 6. Hence, 3 phase relay test kits were procured and expenses towards same was capitalized under this scheme.		Procurement of new asset qualifies as capital investment
5	Supply and installation of Insulation enhancement system near NGTSs of 220kV/33kV, 100 MVA transformers at Aarey, Versova and Ghodbunder (3 TRs each)	0.19	Not registered as Non-DPR was initiated before issuance of Capex Regulations, 2022	1. 220kV Aarey, Versova and Ghodbunder Sub-Station are Hybrid type EHV Substations. 2. There are AIS type transformers installed in these locations. 3. For star delta transformers with NGT, EHV transformer's 33kV side outgoing feeders (4"IPS Tube with support Insulators remains vulnerable for bird faults. The connection of 33kV becomes near to insulator and there is space for birds to sit on these connectors and create faults. 4. Hence as a safety precaution, there was need to protect the exposed portion near NGT post insulator with suitable technique for preventing transformer failures. 5. Hence, it was proposed to increase the height of the post insulator near NGT to	220kV Aarey, Versova and Ghodbunder Sub-Station	This would help maintaining AEML-T system availability at desired level. Since the scheme would increase the life of insulators, the same qualifies for capex.

Sr.	Project Description	Value (Rs. Cr)	Non-DPR Submitted/ Not submitted	Scope/Need Analysis	Location of use	Benefits/ Remarks
				1.2m and decrease the structure height to match the overall height up to the IPS tube. 6. The job was completed and expenses towards same is capitalized under this scheme.		
6	Installation of transformer marshalling box at Versova EHV sub-station	0.17	Not registered since Non-DPR was initiated before issuance of Capex Regulations, 2022	1. At 220kV Versova EHV sub-station, AEML-T is having 5 Nos. 220/33kV 100/125MVA power transformers. 100MVA TR-1,2,3 power transformers were commissioned in year 1995, TR-4 in year 2005. 2. These transformers have marshalling boxes for housing oil temperature indicator (OTI), winding temperature indicator (WTI-HV, WTI-LV), auxiliary supply arrangement of transformers fans/pump/on load tap changers (OLTC). 3. 220kV Versova EHV sub-station is situated in creek area near Versova lagoon and the atmosphere there is highly corrosive. 4. Due to this, transformer marshalling boxes of TR-1,2,3,4, were in corroded after service life of 20 years and holes	220kV Versova EHV sub-station	This would help maintaining AEML-T system availability at desired level. Replacement of asset post completion of useful life qualifies as capex as per Capex Regulations, 2022.

Sr.	Project Description	Value (Rs. Cr)	Non-DPR Submitted/ Not submitted	Scope/Need Analysis	Location of use	Benefits/ Remarks
				are observed on top cover and gland plates of marshalling boxes. 5. The boxes were replaced with new marshalling boxes under the scheme.		
7	Supply of Cable Fault Identification (CFIP) Panels in AEML-T, Project	1.10	Not registered since Non-DPR was initiated before issuance of Capex Regulations, 2022	1. In AEML-T system, power transformers are rated 220/33kV, 100/125MVA. The secondary side (33kV) feeds two bus sections (in a few cases 3 bus sections). 2. For each bus section, typically 2/3/4/5 runs of cable per phase are used. Each cable run is of 1C x 630Sqmm/1Cx1000Sqmm, Al XLPE armoured cable. 3. In case of fault on one cable run, transformer trips on protection. However, to identify which cable run fault has occurred takes a few hours. After identification of faulted cable run, it is isolated from both ends (transformer & switchgear) and transformer is brought into service. This process involves more time for fault isolation. 4. To reduce fault isolation time, it was proposed to install Current	AEML-T EHV Stations	This would help maintaining AEML-T system availability at desired level. Procurement of new asset qualifies for Capex.

Sr.	Project Description	Value (Rs. Cr)	Non-DPR Submitted/ Not submitted	Scope/Need Analysis	Location of use	Benefits/ Remarks
				Transformer (CT) on armour of 33kV cable to identify faulty cable run. 5. CT secondary shall be wired to relays to sense earth fault current Faulty cable run shall be identified by operation of over current (R,Y,B) / earth fault function. Identification of faulted phase can be read from LED on the relay front facia. Output contacts of all relays for incomer will be paralleled. 6. These signals (two signals, one from each incomer) will be hard wired to SCADA for identification of cable fault. For the above purpose, Cable Fault Identification Panels (CFIP) were required. The cost towards procurement of CFIPs and their installation, were capitalized under the scheme.		
8	Procurement of FRP Ladders for EHV Substation	0.18	Registered on 31.01.23	1. AEML-T has a total of eight 220/33kV EHV substations across Mumbai. In substation various electrical maintenance activities and replacement activities are carried out.	All AEML 220kV EHV S/s	Safety Improvement of the employees/ site workers working at AEML-T Sub-stations. Procurement of new asset qualifies for Capex.

Sr.	Project Description	Value (Rs. Cr)	Non-DPR Submitted/ Not submitted	Scope/Need Analysis	Location of use	Benefits/ Remarks
				2. Based on requirement, various types of ladders of different sizes are used. 3. Accordingly, AEML-T has procured high quality FRP ladder and scaffoldings, based on different requirements, under the scheme.		
9	Procurement of laptop, Desktop and printer	0.11	Registered on 30.04.23	1. AEML-T is involved into various project activities. Laptops and printers are requied during these day to day operations. 2. The printers have been installed across Transmission EHV substations. 3 AIS stations, namely Versova, Aarey and Ghodbunder have A3 MFD B/W printers and 5 GIS substations have A4 printers with scan facility installed. 3. While the 5 printers at GIS locations are over 7 years old and non-functional, the 3 AIS printers are 5 ½ years old and at end of life as confirmed via email by OEM, who has refused to extend the AMC citing non-availability of printer	220kV Aarey, Versova and Ghodbunder EHV Stations	Smooth operations at AEML-T Sub-stations / project locations. Procurement of new asset qualifies for Capex.

Sr.	Project Description	Value (Rs. Cr)	Non-DPR Submitted/ Not submitted	Scope/Need Analysis	Location of use	Benefits/ Remarks
				spares post end of life /end of support. 4. Hence, there was urgency to procure new printers. AIS substations are zonal stations where executives, staff and workers report on a daily basis and many activities are carried out that requires printing e.g for Invoices processing, copy of PF ESIC documents, Measurement sheet, certificates, drawings etc. needs to be printed as enclosure with copy of Service entry and other statutory compliances. 5. Considering these needs, A3 size printers were procured for AIS stations. 6. But, GIS substations are remotely operated, however Mobile Operations Squad (MOS) are stationed at 2 GIS stations at Borivali and Chembur. 7. As per the IMS, O&M procedures, MOS needs printout of documents i.e. checklists, measurement sheets,		

Sr.	Project Description	Value (Rs. Cr)	Non-DPR Submitted/ Not submitted	Scope/Need Analysis	Location of use	Benefits/ Remarks
				drawings etc. for capturing the equipment parameters to ensure equipment healthiness and report any abnormalities. 8. In view of above, expenses towards procurement of Laptops and printers were capitalized under the scheme.		
10	Grid Metering communication system for transfer of IEM data from AEML to SLDC	4.96	Registered on 31.01.23	1. The old data transfer System via wireless network was not reliable. 2. Therefore, STU had approved a scheme for Integration of IEM (Integrated Energy Meters) data in communication System for further transmission to AMR server at MSLDC on 28.04.2022. The approval copy is attached herewith as **Annexure 19 (Soft copy only).** 3. The said scheme was implemented for secure transfer of AEML IEM data to AMR server at MSLDC in FY 2023-24.	AEML-T EHV Stations at 8 locations and MSETCL Borivali EHV Station	This grid metering communication system will enable secure transfer of AEML IEM data to AMR server at MSLDC. Procurement of new asset qualifies as capital investment
11	Installation of PoE Switches at Transmission Sites	0.68	Registered on 31.01.23	1. Existing PoE (Power on Ethernet) Switches were installed in FY 2015-16 at AEML-T EHV stations. They were not compatible with Genetec	AEML-T EHV Stations at 8 locations.	This would help in maintaining system availability at desired level.

Sr.	Project Description	Value (Rs. Cr)	Non-DPR Submitted/ Not submitted	Scope/Need Analysis	Location of use	Benefits/ Remarks
				– a Centralized Security Application / Platform, which is installed at AEML-T stations. 2. Hence, there was a need to upgrade these switches with Cisco L2 - 24 Port POE Switches. 3. Accordingly, PoE switches were installed and expense booked against these jobs were capitalized under this scheme.		Procurement of new asset qualifies for Capex.

The Non-DPR scheme formats, for schemes which have been registered with the Hon'ble Commission in accordance with Capex Regulations, 2022 are again provided herewith for ready reference and enclosed as **Annexure 20 (Soft Copy Only).**

3.1.1 Financing Plan for Capital Expenditure

AEML makes arrangement of financing for capital expenditure for the company as a whole. The capital expenditure for FY 2023-24 for all three divisions of the company is shown in the table below:

Table 27: Capital Expenditure in FY 2023-24

Particulars/ (Rs. Crore)	Generation	Transmission	Distribution	Total
Capitalization in FY 2023-24 – excluding IDC(A)	21.29	94.16	1037.12	1152.57
Opening WIP for FY 2023-24 (B)	15.45	792.43	287.56	1095.44
Closing WIP for FY 2023-24 (C)	12.87	1013.92	295.18	1321.97
Capital Expenditure for FY 2023-24 (D = A+C-B)	18.70	315.65	1044.74	1379.09
Less: Consumer Contribution			43.36	43.36
Net Capital Expenditure for FY 2023-24	**18.70**	**315.65**	**1001.37**	**1335.73**

AEML-T has not availed any additional loans for funding the said capex in FY 2023-24. Hence 100% of capex during FY 2023-24 has been funded through internal accruals of AEML-T. Further, in all the past capital investment schemes, AEML-T has always ensured that 70% debt limit is not breached. Therefore, for the capitalisation during FY 2023-24, AEML-T has considered 70% deemed to be funded through debt and 30% through equity, in accordance with MYT Regulations, 2019. The reconciliation of capital work in progress (CWIP) and capitalization as per books and CWIP and capitalization as submitted in the Petition is provided as **Annexure 5 (Soft copy only).**

With regard to equity infusion, the first proviso to Regulation 27.1 of the MYT Regulations, 2019 is reproduced below:

> *"Provided that the equity investment to be considered in any year shall not exceed the difference between the sum of cumulative return on equity allowed by the Commission in previous years, efficiency gains and losses, incentives and disincentives, and income earned from investment of return on equity, and the cumulative equity investment approved by the Commission in previous years, unless the Generating Company or Licensee or MSLDC submits documentary evidence for the actual deployment of equity and explain the source of funds for the equity:"*

With regard to the above, the difference between the sum of year wise RoE allowed by the Hon'ble Commission to AEML-T through past Tariff Orders till FY 2021-22 along with RoE claimed for FY 2022-23 in this Petition and the opening regulatory equity for FY 2023-24 is provided in **Annexure 6 (Soft copy only).** As per the said Annexure, the equity investment claimed for FY 2023-24 is less than difference between the sum of year wise RoE of past years and the opening regulatory equity for FY

2023-24. Hence, clearly, AEML-T had the requisite equity capital to carry out capital expenditure during FY 2023-24.

3.1.2 Depreciation

Regulation 28.5 of the MYT Regulations, 2019 states that the rates notified under the said Regulations shall apply to assets for depreciation upto 70% of original cost of the asset and thereafter the remaining depreciable value of the assets as on 31st March of the year shall be spread over the balance useful life of the asset. In accordance with the Regulations, Depreciation has been claimed on the Opening GFA (Gross Fixed Asset) and also on the assets added during the year (proportionately based on actual date of addition). The soft copy of the detailed working of the depreciation asset-wise is attached herewith as **Annexure 7 (Soft Copy Only)**. The summary of depreciation claimed is tabulated below:

Table 28: Depreciation for FY 2023-24

Particulars / (Rs. Crore)	MTR Order	Actual
Depreciation	99.03	102.36
Opening GFA	2,143.23	2,138.74
Closing GFA	2,249.56	2,236.11

It is submitted that the Hon'ble Commission had allowed depreciation for FY 2023-24 in the MYT Order considering the asset class wise average depreciation rate for FY 2021-22, on the average GFA approved in the MTR Order. However, the actual depreciation has been calculated on the assets added during the year proportionately based on the actual date of addition. Therefore, there is some variation in depreciation being claimed for FY 2023-24 now vs. depreciation allowed in the MTR Order.

3.1.3 Interest on Loan Capital

As per first proviso of Regulation 30.5 of MYT Regulations, 2019, at the time of Truing-Up, the weighted average rate of interest based on actual loan portfolio during the concerned year needs to be considered as the rate of interest. As submitted above, AEML has not raised any new loan during FY 2023-24. AEML's loan portfolio in FY 2023-24 consisted of Bond, Sub-debt and GMTN. Out of $ 1000 Million (Rs. 7124.58 Crore) Bond raised in FY 2019-20, AEML has repaid $ 120 Million (Rs. 854.94 Crore) in FY 2023-24. The weighted average interest cost for FY 2023-24, considering all three sources of finance works out to 9.15%. The calculation of weighted average rate of interest and the supporting document showing base interest rate (in $ terms) for all sources of funds are provided in **Annexure 8 (Soft copy only).** It is submitted that the effects of withholding tax and hedge premium are also included in the interest rate calculations. AEML-T had submitted the interest rates for FY 2019-20 to FY 2021-22 in the MTR Petition (Case no. 230 of 2022) by including the effect of withholding tax and hedge premium and the Hon'ble Commission had accepted the same.

Accordingly, the interest rate for FY 2023-24 has been calculated in the same manner. The table below shows the interest on loans as approved for FY 2023-24 in the MTR Order and considering the actual capitalization for FY 2023-24.

Table 29: Interest on loans for FY 2023-24

Particulars / (Rs. Crore)	MTR Order	Actual
Opening Balance	495.97	496.97
Reduction due retirement of assets	0	0.45
Addition	74.43	69.51
Repayment	99.03	102.36
Closing Balance	471.37	463.67
Average loan balance	483.67	480.32
Interest Rate in %	8.34%	9.15%
Interest on long term loan	**40.32**	**43.95**

The calculation of reduction of normative loan due to retirement in assets is provided in **Annexure 9 (Soft copy only).**

3.1.4 Foreign Exchange Rate Variation

Regulation 31 of MYT Regulations, 2019 specifies the provisions related to foreign exchange rate variation, as reproduced below:

"31.1 The Generating Company or Licensee may hedge foreign exchange exposure in respect of the interest on foreign currency loan and repayment of foreign loan acquired for the generating Station or the transmission system or distribution system, in part or in full at its discretion.
31.2 The Generating Company or Licensee shall be permitted to recover the cost of hedging of foreign exchange rate variation corresponding to the foreign debt, in the relevant year as expense, subject to prudence check by the Commission, and extra rupee liability corresponding to such variation shall not be allowed against the hedged foreign debt.
31.3 To the extent that the foreign exchange exposure is not hedged, any extra rupee liability towards interest payment and loan repayment corresponding to the foreign currency loan in the relevant year shall be allowed subject to prudence check by the Commission, provided it is not attributable to such Generating Company or the Licensee or its suppliers or contractors."

AEML's loan portfolio consists of bond, sub-debt and GMTN. In its MTR Petition (Case no. 229 of 2022), AEML-T had submitted that principal repayment for $ 300 million Bond (out of $ 1000 million) and $ 282 million Sub-debt is hedged beyond Rs./$ conversion rate of Rs. 91.75/$ through At The Money Forward (ATMF) Option contract. The said contracts were made in FY 2019-20. AEML-T had submitted that the FERV loss or gain that will be incurred at the time of repayment of these loans shall be claimed by AEML-T in future. Later on, during FY 2022-23, AEML hedged the for $ 300 million bond and $ 282 million Sub-debt through Principal only Swap (POS) and Cross currency swap (CCS) contracts respectively. The details of contracts entered into are as under:

Table 30: Type of Hedging contracts made for $ 300 Million Bond and $ 282 Millon Sub-debt (for Principal Repayment)

Type of contract	Bank	Principal amount for which hedging done ($ Million)	Hedge rate (Rs./$)
For Bond			
POS contract	SCB	200	81.45
POS contract	Barclays	30	81.45
POS contract	SCB	70	80.90
For Sub-Debt			
CCS Contract	Axis	100	82.59
CCS Contract	Axis	100	82.27
CCS Contract	Axis	82	82.41

In November 2023, AEML has repaid $ 120 million out of the POS contract for $ 200 million. The average Rs./$ conversion rate at the time of availing the Bond amount was Rs. 71.2458 on 13th February 2020 and Rs./$ conversion rate at the time of repayment of $ 119.99 million was Rs. 83.3345 on 28th November 2023. As the hedge rate as per the POS contract was at Rs. 81.45, the FERV accrued to AEML due to repayment of $ 120 million of Bond is capped at the above rate and is summarized as under:

Table 31: Realized FERV loss accrued to AEML in FY 2023-24

Particulars	Notation	Amount
Repayment amount ($ million)	a	120.00
Conversion rate at time of availing Bond ($/Rupee)	b	71.2458
Repayment amount (Rs. Cr)	c = a X b	854.94
Hedge Rate ($/Rupee)	d	81.45
Loan at Hedge Rate (Rs. Cr)	e = a X d	977.39
FERV - Loss (Rs. Cr)	f = e - c	122.45

The above amount has been segregated amongst the three divisions of AEML in the ratio of average regulatory loans for the three divisions for FY 2023-24 and the same is summarized below:

Table 32: Division wise FERV loss for AEML in FY 2023-24

Particulars (Rs. Cr)	AEML-G	AEML-T	AEML-D (W)	AEML-D (S)	Total
Foreign exchange rate variation	4.54	17.09	94.71	6.11	122.45

The Hon’ble Commission is requested to approve the FERV loss claimed above. AEML-T submits that any FERV loss / gain that will further accrue in future due to repayment of Rs. 180 million of Bond and Rs. 282 million of sub-debt shall be claimed in subsequent Tariff Petitions.

3.1.5 Financing Charges

AEML’s loan portfolio consists of bond, sub-debt and GMTN. For the above three loans, AEML has incurred various charges such as trustee fees, legal fees, domestic and international rating fees etc.

The same is segregated amongst generation, transmission and distribution divisions of AEML in the ratio of average regulatory loans for the three divisions for FY 2023-24, as shown in the table below:

Table 33: Financing charges for loans for FY 2023-24

Particulars (Rs. Cr)	AEML-G	AEML-T	AEML-D (W)	AEML-D (S)	Total
Financing charges	0.19	0.70	3.85	0.25	4.98

Further, AEML has availed working capital loans from banks / financial institutions for meeting the day to day cash requirements. AEML has also incurred LC and BG commission for payment to vendors through LC/BG for materials related to capex / opex. All these financing charges correspond to financing of working capital requirements The same is segregated amongst generation, transmission and distribution divisions of AEML in the ratio of normative working capital requirement for the three divisions for FY 2023-24 as shown in table below:

Table 34: Financing Charges for FY 2022-23

Particulars (Rs. Cr)	AEML-G	AEML-T	AEML-D (W)	AEML-D (S)	Total
LC/ BG Commission	0	0	1.26	0	1.26
Financing charges for working capital loans	0.04	0.01	0.06	0.01	0.12
Total	**0.04**	**0.01**	**1.31**	**0.01**	**1.38**

The same has been claimed for truing up of FY 2023-24. The documentary evidence of financing charges are provided in **Annexure 10 (Soft copy only).** Since the no. of documents for every LC/BG commission made would be very large, AEML has provided few sample LC commission documents in the Annexure.

3.1.6 Return on Equity

The MYT Regulations, 2019 provides for allowing RoE in two parts i.e. Base RoE and additional RoE linked to actual performance. As per the MYT Regulations, 2019, the additional RoE is to be allowed at the time of truing up for respective years based on actual performance. For transmission business, the Base RoE is 14% per annum and eligibility for additional RoE is linked to transmission availability. The transmission licensee is eligible for additional 1.5% RoE, if the annual transmission availability of the licensee is 99.75% or more. The actual annual availability of AEML-T in FY 2023-24 was 99.78%. The MSLDC certificate in this regard is attached herewith as **Annexure 11 (Soft copy only).** Accordingly AEML-T has claimed RoE of 15.5% for FY 2023-24.

For FY 2023-24, AEML-T has claimed the Effective Tax rate at MAT rate (17.47%) since AEML as a whole has paid income tax at MAT rate for FY 2023-24. AEML-T has claimed the Effective Tax rate at MAT rate for FY 2023-24 without prejudice to the contention made on this issue in Appeal no. 538 of 2023, pending before Hon'ble ATE that Effective tax rate should be assessed on standalone basis considering Regulatory PBT method. The copy of IT return acknowledgement for FY 2023-24 for AEML as a whole is attached herewith as **Annexure 12 (Soft Copy only)**. . The RoE claimed for FY 2023-24 is as under:

Table 35: RoE for FY 2023-24

Particulars / (Rs. Crore)	MTR Order	Actuals
Regulatory Equity at the beginning of year	684.32	682.89
Capitalization during the year	106.33	99.30
Equity portion of capitalization during the year	31.90	29.79
Reduction in Equity Capital on account of retirement / replacement of assets	0	0.58
Regulatory Equity at the end of year	716.22	712.10
RoE rate (%)	14.00%	15.50%
Effective Tax Rate (%)	17.47%	17.47%
Pre-tax RoE rate (%)	16.96%	18.78%
Return on Regulatory Equity at beginning of year	116.09	128.25
Return on Regulatory Equity addition during the year	2.71	2.80
Total Return on Regulatory Equity	118.79	131.05

AEML-T requests the Hon’ble Commission to approve the return on equity for FY 2023-24 presented above.

3.2 Operation & Maintenance (O&M) expenses

3.2.1 Normative O&M expenses

AEML-T had 573.03 Ckt km 220 kV lines both at the beginning and at the end of FY 2023-24. The MSLDC certificate regarding line length at the end of FY 2023-24 is attached herewith as **Annexure 13 (Soft copy only).** Hence the average line length of 573.03 Ckt. Km. has been considered for calculation of normative O&M expense.

As submitted in the section on truing up of FY 2022-23, AEML-T has considered 31 no. of 220 kV AIS Bays and 86 no. of 220 kV GIS Bays as the closing no. of Bays in FY 2022-23. As part of Aarey AIS to GIS conversion project (DPR approved on 02.02.2022), 10 no. of 220 kV AIS Bays were dismantled and 11 no. of 220 kV GIS Bays were installed in FY 2023-24. Therefore 21 no. of 220 kV AIS Bays and 97 no. of

220 kV GIS Bays have been considered as the closing no. of Bays in FY 2023-24. The average no. of 220 kV AIS Bays and 220 kV GIS Bays in FY 2023-24 works out to 26 and 92 respectively.

AEML-T has considered 41 no. of 33 kV AIS Bays and 339 no. of 33 kV GIS Bays as the closing no. of Bays in FY 2022-23. Further, there were no Bays (out of the 31 no. of 33 kV Bays considered unutilized in the MTR Order dated 31.03.2023), which have been utilized in FY 2023-24. No. fresh addition of 33 kV Bays was made in FY 2023-24. Hence AEML-T has considered 41 no. of 33 kV AIS Bays and 339 no. of 33 kV GIS Bays as the closing no. of Bays in FY 2023-24. The average no. of 33 kV AIS Bays and 33 kV GIS Bays in FY 2023-24 works out to 41 and 339 respectively. The status of bays considered utilised in this petition during FY 2023-24, are as follows:

Table 36: Total no. of Bays Utilized in FY 2023-24

Particulars	Total number of unutilized bays as per MTR Order (A)	No of AIS Bays already decommissioned prior to FY 2022-23 out of (A) : (B)	Net unutilized bays as per MTR Order (C)	Opening balance of utilized bays as on 01.04.2023 (D)	Bays utilized during FY 2023-24 out of (C) : (E)	No of Bays added / dismantled due to Aarey AIS to GIS DPR (F)	Total Bays utilized during FY 2022-23 (D+E+F)
220 kV - AIS Bays				31		-10	21
220 kV - GIS Bays				86		11	97
33 kV - AIS Bays	3	1	2	41	0		41
33 kV - GIS Bays	29		29	339	0		339

Based on the above, the calculation of normative O&M expense for FY 2023-24 is shown in table below. As submitted in the section on truing up of FY 2022-23, AEML-T has claimed the normative O&M expense considering the Bays utilized without prejudice to the contentions on this issue pending before Hon'ble ATE in Appeal no. 538 of 2022.

Table 37: Normative O&M expenses FY 2023-24

Particulars	MTR Order	Revised Normative
Line length ckt. km.	573.63	573.03
O&M cost norms (Rs. lakh/ ckt. km)	0.79	0.79
Normative O&M expenses for lines (Rs. crore)	**4.53**	**4.53**

Particulars	MTR Order	Revised Normative
Number of 220 kV AIS bays	26	26
Number of 220 kV GIS bays	91	92
Number of 33 kV AIS bays	38	41
Number of 33 kV GIS bays	322	339
O&M cost norms (Rs. lakh/ bay) - 220 kV AIS bays	37.27	37.27
O&M cost norms (Rs. lakh/ bay) - 220 kV GIS bays	26.09	26.09
O&M cost norms (Rs. lakh/ bay) - 33 kV AIS bays	7.79	7.79
O&M cost norms (Rs. lakh/ bay) - 33 kV GIS bays	5.45	5.45
Normative O&M expenses for bays (Rs. crore)	**53.95**	**55.24**
Total normative O&M Expense (Rs. Crore)	**58.48**	**59.77**

3.2.2 Actual O&M expenses

The actual O&M expenses for FY 2023-24 after netting off expenditure capitalized is as shown in the table below:

Table 38: Actual O&M expenses FY 2023-24 (net of capitalization)

Particulars (Rs. Crore)	FY 2023-24
Employee Expense	27.14
A&G Expense	21.22
R&M Expense	15.08*
O&M Expense	**63.44**

**Not including Rs. 0.48 cr. considered as O&M in regulatory accounts, due to ruling of the Hon'ble Commission in MTR Order*

The above actual O&M Expense is inclusive of corporate expense of Rs. 4.29 Crore, which has been included in the A&G expense. As submitted in the section on truing up of FY 2022-23, AEML-T has raised the issue of separate assessment of Corporate expense in O&M expense before the Hon'ble ATE in Appeal no. 538 of 2023, which is pending. AEML-T again requests the Hon'ble Commission to treat Corporate expense allocation as a regular business expense only and not treat it any differently from rest of the O&M expenses as these expenses are only incurred towards performance of business functions. Also for FY 2023-24, the Hon'ble Commission had considered the impact of SC Judgment dated 28th February 2019 at Rs. 0.15 Crore for FY 2023-24 on provisional basis in the MTR Order. However, the actual impact for FY 2023-24 was Rs. 0.07 Crore, which is claimed for true-up of FY 2023-24. The calculation of the same is provided herewith as **Annexure 16 (Soft copy only)**.

As submitted in the section on truing up of FY 2022-23, AEML-T in the MTR Petition for the period FY 2016-17 to FY 2019-20 (Case no. 201 of 2017) had claimed annual ground rent paid to PWD department for its 220 kV line – MSETCL EHV Borivali Stn to AEML-T Gorai EHV Station in FY 2016-17 as uncontrollable expense. However, the Hon'ble Commission did not allow the same in the MTR Order in Case no. 201 of 2017 dated 12.09.2018. AEML-T has raised this issue in the Appeal against the MTR Order (Appeal no. 105 of 2019), which is pending. Also AEML-T in its MYT Petition (Case no. 297 of 2019) had submitted that Aarey-Borivali cable connectivity would be commissioned in FY 2019-20 and there are chances that, for the cable being present on the Highway falling under jurisdiction of PWD, ground rental charges may be levied by PWD. The ground rental charges for the cable laid as part of Aarey-Borivali cable connectivity scheme was claimed by AEML-T on provisional basis for FY 2020-21 in the MYT Petition. The Hon'ble Commission had directed AEML-T to submit the actual impact of the same with justification at the time of truing up of respective years. In this regard, it is submitted that so far no demand has been received from PWD or any other Government institution for ground rental charges in FY 2023-24. Accordingly, AEML-T has not claimed any amount towards ground rent separately for FY 2023-24.

As submitted in the section on capitalization, AEML-T has excluded the expenses related to certain works, amounting to Rs. 0.48 Crore from capitalization and has claimed the same as part of actual O&M expense for FY 2023-24. AEML-T submits that its actual O&M expense had not included the expenses of this nature in the past. Hence comparing the normative expense with the actual expense after including the said expense shifted from Non-DPR to O&M will be unfair. Therefore AEML-T has claimed such expenses separately.

Further the MERC (Multi Year Tariff) (Second amendment) Regulations, 2022 provides that the Hon'ble Commission may consider any request for revision of the normative O&M expenses on account of consideration of some Schemes under O&M rather than Capital Investment on case-to-case basis, depending on the justification to be submitted by the Applicant. The same is reproduced below:

> *"61.9 The Commission may consider any request for revision of the normative O&M expenses of the Transmission Licensee on account of consideration of some Schemes under O&M rather than Capital Investment on case-to-case basis, depending on the justification to be submitted by the Applicant and the life-cycle cost analysis:*
>
> *Provided that if actual O&M expenses including the cost of some schemes considered under O&M rather than Capital Investment are lower than normative O&M expenses, then sharing of efficiency gains shall be done:*
>
> *Provided further that if actual O&M expenses including the cost of some schemes considered under O&M rather than Capital Investment are higher than normative O&M expenses on this account, then no sharing of efficiency losses shall be done".*

The justification for the works which have been shifted from capex to O&M is provided below:

a. Procurement and installation of Helical Gripper Rod Sets on AEML-T EHV (220kV) Transmission Lines at line crossings – Rs. 0.48 Cr

Need / justification – Helical grippers are used to self tighten due to weight of the conductor in contrast to any design wherein there is possibility of slippage if tightening is not properly done during erection. Because of their superior mechanical properties, preformed helical fittings are widely used in EHV transmission lines. Under this scheme, around 1,230 Sets of helical grippers were procured. Some of them were installed in FY 2022-23 and balance were installed in FY 2023-24.

Benefits of the scheme – This would help in preventing any damage to the conductor of the Transmission line by preventing slippage of the conductor from towers.

AEML-T submits that, in the past, expenses of similar nature have always been carried out under capital investment given the fact that the asset component is new and adds value to the principal asset (i.e. transmission line). However, pursuant to the direction of the Hon'ble Commission, AEML-T is now showing these expenses under O&M, in its regulatory accounts. Due to this, the actual O&M cost as per regulatory books gets over-stated (these expenses are considered as capex in the Company's books of accounts). Further, as can be seen from the above, the actual O&M expenses of AEML-T are, in any case, higher than the normative allowance, even without inclusion of this Rs. 0.48 cr. As a result, the MYT provisions will only allow 1/3rd of the Rs. 0.48 cr. to AEML-T and balance Rs. 0.32 cr. will get disallowed, despite the fact that the expenses have resulted in a productive and value adding asset, which will continue to safeguard the health of transmission lines and ensure reliability of supply.

Hence, AEML-T requests the Hon'ble Commission to approve the expenses of Rs. 0.48 cr. shifted from capex to O&M over above the net entitlement of O&M cost by exercising its powers to relax under Regulation 105 of MYT Regulations, 2019 and also considering the Hon'ble Commission's own intent of not considering such expenses under efficiency gains / losses sharing mechanism. It is further submitted that while AEML-T has on its own excluded works which have been held as O&M nature from capex and is claiming the same as additional O&M, AEML-T requests the Hon'ble Commission that, as part of true-up exercise, if any other works are additionally held as being O&M nature, the Hon'ble Commission may kindly allow the expenses towards the same under O&M cost allowance.

3.2.3 Efficiency gains/ loss in O&M

AEML-T calculated the net entitlement in O&M expense as per Regulation 11.1 of the MYT Regulations, 2019 as under:

Table 39: Net entitlement - O&M expense FY 2023-24

Particulars	Notation	Rs. Crore
Normative O&M Expense	a	59.77
Actual O&M Expense	b	63.44
Impact of SC Judgment on PF	c	0.07
Net Actual O&M Expense	d = b - c	63.37
Net Entitlement	e = a + (d-a)/3	60.97
Expense shifted from Capitalization to O&M	f	0.48
Total O&M Expense claimed	**g = c + e + f**	**61.52**

AEML-T requests the Hon'ble Commission to approve the O&M expenses for FY 2023-24 as submitted above.

3.3 Interest on Working Capital

AEML-T has calculated the normative interest on working capital as per first proviso to Regulation 32.2 of the MYT Regulations, 2019. As per the said Regulation, the Base Rate has been defined as One year MCLR of SBI plus 150 basis points. The weighted average SBI one year MCLR plus 150 Basis Points in FY 2023-24 works out to 10.07%. Based on the above, the normative interest on working capital for FY 2023-24 is shown in the table below:

Table 40: Normative Interest on Working Capital FY 2023-24

Particulars (Rs. Crore)	MTR Order	Revised
O&M Expense for one month	4.87	4.98
Maintenance Spares @1% of the Opening GFA	21.43	21.39
1.5 months of the expected revenue from transmission charges	46.63	47.44
Less: Amount of Security Deposit from Transmission System Users	0	0
Total Working Capital Requirement	**72.94**	**73.81**
Rate of Interest (% p.a.) - SBI Base Rate plus 150 basis points	9.45%	10.07%
Interest on Working Capital	**6.89**	**7.43**

AEML has incurred actual interest on working capital in FY 2023-24 for the company as a whole. The same has been segregated among the three regulated divisions in the ratio of average working capital utilization of each of the three divisions. Also as submitted in the MTR Petition (Case no. 230 of 2022), the bond surplus of Rs. 360.52 Cr after refinancing in FY 2019-20 has been used as working capital in the business. Therefore, a part of the interest paid for bonds has also been allocated towards interest on working capital (on proportionate basis) for FY 2023-24, as the bonds have, inter alia. been availed by the Company for general corporate purposes. The interest on bond surplus has been allocated among three regulated divisions in the ratio of average working capital utilization in FY 2023-24. The actual interest on working capital for FY 2023-24 incurred for the three regulated divisions is shown in the table below:

Table 41: Actual Interest on working capital for FY 2023-24

Particulars / (Rs. Crore)	Generation	Transmission	Distribution - Wires	Distribution - Supply	Total
Interest on surplus from Bonds used for working capital financing	7.66	3.53	16.32	4.87	32.39
Interest on other working capital loans	9.19	4.23	19.57	5.84	38.84
Total	**16.85**	**7.76**	**35.90**	**10.72**	**71.23**

A summary of month wise interest on working capital charged by banks in FY 2023-24 along with the interest allocation from the bond surplus of Rs. 360.52 Crore is provided in **Annexure 17 (Soft copy only).** Sample documentary evidence for interest on working capital charged by banks is also provided in the Annexure.

As per Regulation 32.6 of the MYT Regulations, 2019, the difference between the normative interest on working capital and the actual interest on working capital shall be considered as efficiency gain / loss and shall be shared between generating company and the beneficiaries in the ratio as per MYT Regulations, 2019. The net entitlement in interest on working capital as per MYT Regulations, 2019.

Table 42: Net Entitlement in Interest on working capital for FY 2023-24

Particulars	(Rs. Crore)
Normative IoWC	7.43
Actual IoWC	7.76
Gain / (Loss)	-0.33
Net Entitlement	7.54

The Hon'ble Commission is requested to approve the net entitlement in the interest on working capital for FY 2023-24.

3.4 Contribution to Contingency Reserves

Regulation 35.1 of the MYT Regulations, 2019 provides for Contribution to Contingency Reserves (CR) a sum not less than 0.25% and not more than 0.5% of the original cost of fixed assets. In view of the above, AEML-T has considered the contribution to contingency reserve at 0.25% of the original cost of fixed assets as on 01-04-2023.

Table 43: Contribution to Contingency Reserves FY 2023-24

Particulars (Rs. Crore)	MTR Order	Actual
Opening balance of Contingency Reserves	51.17	51.17
Opening Gross Fixed Assets (GFA)	2,143.23	2,138.74

Particulars (Rs. Crore)	MTR Order	Actual
Opening balance of Contingency Reserves as % of Opening GFA	2.39%	2.39%
Contribution to Contingency Reserves	**5.36**	**5.35**

The contribution to contingency reserve to be made both by AEML-T and AEML-D in accordance with MYT Regulations, 2019 in FY 2023-24 is as under:

Table 44: Contribution to Contingency Reserves FY 2023-24 by AEML-T and AEML-D

Particulars (Rs. Crore)	AEML-T	AEML-D	Total
Opening balance of Contingency Reserves	51.17	193.97	245.15
Contribution to Contingency Reserves	5.35	1.98	7.33
Closing balance of Contingency Reserves	56.52	195.95	252.47

As per MYT Regulations, 2019, the contribution to contingency reserve for the year is to be invested in Government securities within six months of completion of the year. Hence the contribution to contingency reserve for FY 2023-24 was to be invested by September 2024. However, the actual contingency reserve as on 31st March 2024 (as per the books of accounts) is as under:

Table 45: Contingency Reserves as on 31st March 2024 for AEML-T and AEML-D as per Books of Accounts

Particulars (Rs. Crore)	AEML-T	AEML-D	Total
Contingency Reserve investment as on 31st March 2024	60.84	207.23	268.07
Accrued interest	0.74	2.38	3.12
Net Contingency Reserve investment as on 31st March 2024	60.10	204.85	264.95

As seen from the above, the contingency reserve investment as on March 2024 as per books of accounts is more than the contingency reserve balance required as per MYT Regulations, 2019 both for AEML-T and AEML-D. Therefore, AEML-T has not made any further investment in Govt. securities in September 2024. The Hon'ble Commission is requested to consider the above submissions and allow contribution to contingency reserve for FY 2023-24 as claimed above.

3.5 Revenue for FY 2023-24

3.5.1 Revenue from InSTS

As per the InSTS tariff order dated 33.03.2023 in Case No. 239 of 2022, the revenue recoverable from TSUs in FY 2023-24 was Rs. 373.04 Crore. The actual revenue billed to TSUs for FY 2023-24 was Rs. 373.08 Crore, which has been considered in this petition. The actual additional transmission charges collected by STU from the TSUs and remitted to the AEML-T in FY 2023-24 was Rs. 0.34 Crore, which has also been considered in revenue. The actual transmission charges from partial open access charges remitted to STU by TSUs and in turn remitted to AEML-T by STU is Rs. 6.15 Crore, which has also been considered as revenue for FY 2023-24. Also, as per Regulation 36.4 of the MYT Regulations, 2019, all rebates or incentives given by the Generating Company or Licensee shall be allowed as expense in ARR. AEML-T has provided Rs. 0.34 Crore incentive for early payment of transmission charges by TSUs. The same has been claimed as expense in FY 2023-24.

3.5.2 Non-Tariff Income

The Hon'ble Commission had approved Rs. 3.98 Crore of Non Tariff Income for FY 2023-24 in the MTR Order dated 31.03.2023 in Case No. 230 of 2022. The head wise actual non tariff income for FY 2023-24 is shown in the table below:

Table 46: NTI for FY 2023-24

Particulars (Rs. Crore)	MTR Order	Actual
Income from rent of land or buildings (land usage charges)	1.32	1.32
Income from sale of scrap	2.00	3.41
Income from investments (contingency reserve)	0.26	3.60
Unclaimed liabilities written back		0.18
Other/Miscellaneous receipts	0.40	0
Total	**3.98**	**8.51**

- <u>Interest on contingency reserve investments:</u>

The interest on contingency reserve investment for AEML-T in FY 2023-24 was Rs. 3.83 Crore. As submitted above, the cumulative contribution to contingency reserve at the end of FY 2023-24 as per regulatory books is Rs. 56.52 Crore. However, the cumulative contribution to contingency reserve at the end of FY 2023-24 as per actual books of accounts is Rs. 60.84 Crore (including accrued interest of Rs. 0.74 Crore). Hence the interest on contingency reserve received has been apportioned, since the actual investment is more than the required amount as per Regulatory books. The interest considered for FY 2023-24 is shown in the table below:

Table 47: Interest from Contingency Reserve for FY 2023-24

Particulars	Rs. Cr
Interest on Contingency Reserve as per Books	3.83
Contingency reserve (as on 31.03.2023) as per regulatory	56.52
Contingency reserve (as on 31.03.2023) as per company books – excluding accrued interest	60.10
Interest on Contingency Reserve-proportionate	3.60

In addition to the above, rental income, income from sale of scrap, and liabilities written back in FY 2023-24 have been included in the non tariff income. Delayed payment charges and interest on employee loans have not been considered as part of Non Tariff Income in line with practice followed in earlier orders. AEML-T requests the Hon'ble Commission to approve non Tariff income for FY 2022-23 presented above.

3.5.3 Income from Other Business

No income from other business has been received by AEML-T in FY 2023-24 as there was no arrangement with any third party agency or organization for optimum utilization of assets in accordance with MYT Regulations, 2019.

3.6 Recovery of Revenue gap/ (surplus) up to FY 2022-23 in FY 2023-24

The Hon'ble Commission in the MTR Order dated 31.03.2023 in Case no. 230 of 2022 had approved a revenue gap of Rs. 8.94 Crore (including carrying cost) after truing up of FY 2019-20 to FY 2021-22 and provisional truing up of FY 2022-23. In order to smoothen the impact of AEML-T ARR on InSTS charges, the Hon'ble Commission had allowed recovery of revenue gap of Rs. 48.00 Crore in FY 2023-24 and revenue surplus of Rs. 42.94 Crore in FY 2024-25 in the MTR Order. Hence AEML-T has included Rs. 48.00 Crore in expense side for the purpose of truing up of FY 2023-24 also.

3.7 Revenue Gap/ Surplus for FY 2023-24

The summary of Truing up for FY 2023-24 is provided below:

Table 48: Truing up Summary for FY 2023-24

Particulars (Rs. Crore)	MTR Order	Normative	Actual	Net Entitlement
Operation & Maintenance Expenses	58.48	59.77	63.37	60.97
Impact of SC Judgment on PF	0.15	0.07	0.07	0.07
Expense shifted from Capitalization to O&M		0.48	0.48	0.48
Depreciation Expenses	99.03	102.36	102.36	102.36
Interest on Long-term Loan Capital	40.32	43.95	43.95	43.95
Financing charges		0.71	0.71	0.71
Foreign Exchange Rate Variation		17.09	17.09	17.09
Interest on Working Capital and on security deposits	6.89	7.43	7.76	7.54
Contribution to Contingency reserves	5.36	5.35	5.35	5.35
Total Revenue Expenditure	**210.23**	**237.21**	**241.14**	**238.52**
Return on Equity Capital	118.79	131.05	131.05	131.05
Aggregate Revenue Requirement	**329.02**	**368.27**	**372.20**	**369.58**
Less: Non Tariff Income	3.98	8.51	8.51	8.51
Less: Income from Other Business	0	0	0	0
Add; Early payment incentive to TSUs		0.34	0.34	0.34

Particulars (Rs. Crore)	MTR Order	Normative	Actual	Net Entitlement
Add: Revenue Gap / (Surplus) upto FY 2022-23 with carrying cost	48.00	48.00	48.00	48.00
Net ARR	**373.04**	**408.09**	**412.02**	**409.40**
Revenue from transmission charges	**373.04**	**373.08**	**373.08**	**373.08**
Revenue from Addnl. transmission charges	**0**	**0.32**	**0.32**	**0.32**
Revenue from POA consumers	**0**	**6.15**	**6.15**	**6.15**
Revenue Gap/(Surplus)	**0**	**28.54**	**32.47**	**29.85**

AEML-T requests the Hon’ble Commission to kindly approve the above-mentioned revenue gap for FY 2023-24.

4. PROVISIONAL TRUING UP FOR FY 2024-25

In this section, AEML-T is submitting the provisional actuals for first half and estimates for second half of FY 2024-25 with respect to capital expenditure, revenue expenditure and revenue income for the purposes of provisional truing up. Also, a comparison of expenditure and revenues considered by the Hon'ble Commission in the MTR Order dated 31.03.2023 in Case No. 230 of 2022 vis-à-vis the estimated / normative actuals for AEML-T has been provided.

4.1 Capital Expenditure and Capitalization

The Hon'ble Commission, in the MTR Order, had approved capitalization of Rs. 1151.40 Crore for FY 2024-25 on provisional basis. For provisional true up of FY 2024-25, AEML-T has estimated the capitalization at this stage, considering the progress of the ongoing schemes, already approved by the Hon'ble Commission prior to the issuance of MTR Order. Certain schemes have been approved by the Hon'ble Commission subsequent to the issue of the MTR Order, albeit no capitalisation has been estimated for such schemes in FY 2024-25 in accordance with the approved phasing.

In addition, AEML-T has estimated capitalization against certain Non-DPR schemes based on anticipated expenditure in FY 2024-25. The actual capitalization against DPR and Non-DPR schemes in FY 2024-25 shall be submitted at the time of truing up of FY 2024-25.

Table 49: Estimated Capitalization for FY 2024-25

Particulars / (Rs. Crore)	MYT Order	Estimates
220 kV AEML BKC EHV Scheme	1093.90	1093.90
220KV AIS to GIS Conversion at Aarey EHV	48.84	12.74
3rd Transformer at Borivali S/stn	0	0.17
Non DPR Schemes	8.66	32.14
Total	**1151.40**	**1138.94**

A brief description of the works being carried out under DPR schemes during FY 2024-25 is provided hereunder:

Brief description of DPR Schemes:

A. 220 kV BKC EHV DPR Scheme – (Capitalization - Rs.944.07 Cr)

1. Scheme is under execution:
   - Land acquired, Contract Award for main package completed on 22.06.2022 and work started at both fronts i.e. Sub stations constructions & 220 kV Cable trenching.
2. Cable trenching;

- All required materials received, i.e. 220 kV cable joints, 220 kV termination, DTS cable, OFC cable etc
- 10,103 mtrs of trenching & 9,743 mtrs of cable laying competed (Total scope 10.223 mtrs)
- 220 kV Cable jointing work:- 96 no's of 220 kV joints completed. (total Scope 120 no's)
- 220 kV cable termination: - 06 nos. of 220kV cable termination at Chembur completed (total scope 12 nos.)

3. <u>Substation Part:</u>
    - 220 kV GIS end:- HV test related work completed.
    - 33 kV GIS end:- HV Test for Board-1 & Board-2 successfully completed. Final Scheme checking for board-1 & 2 completed.
    - 125 MVA transformer 1 & 2:- Standalone testing of both transformers completed.
    - Erection of ACDB, DCDB , Battery, Battery charger, SCADA & CRP panel, N2FF panel completed.
    - 220 kV GIS bays exertion at Chembur end completed.
    - 220 kV Cable termination work completed at AEML Chembur EHV Station.
    - Following activities are planned in H2 of FY 25
    - Balance cable laying around 450 Mtr, near Govandi railway crossing
    - Approximately 120mtr, 12 nos. of joints, 6 nos. of terminations of 220kV Cable
    - Delivery & erection of Capacitor Banks and DG set including illumination activity
    - Balance area development work like minor civil work related to Compound wall, Road ash faulting etc.

B. 220 kV AIS to GIS at Aarey DPR Scheme– (Capitalization Rs.12.05 Cr)

The scheme was commissioned in December 2023 and Scheme Commissioning report has been submitted to Hon'ble Commission vide ref no. AEML-T/CoD/22kV AIS to GIS/ RR/29/FY 2023-24 dated 07.12.2023. Minor balance work including pending invoice processing to be completed in FY 2024-25.

C. 3rd Transformer at Borivali EHV Stn (Rs. 0.17 Crore) -

1. At AEML-T Borivali EHV S/stn, Chief Fire Officer (CFO) approval was received on 14.02.2018 for commissioning of 2 nos. 125 MVA Transformers.
2. Further approval from the Hon'ble Commission was received for commissioning of 3rd Transformer at Borivali EHV Station. 3rd 125 MVA Transformer was commissioned in FY 2020-21 and additional payment of Rs. 2 Lakh was done for CFO application dated 06.11.2023. Further, Scheme closing report submitted to the Hon'ble Commission in FY 2023-24.

3. Thereafter, in Aug 2024, Demand note of Rs. 16.5 lakh has been received from BMC towards the CFO approval, citing the changes in Maharashtra Fire Prevention and Life Safety Measures Act, 2006.
4. The cut-off date as per MYT Regulations, 2019 for 3rd transformer at Borivali EHV S/stn project is March 2024 (36 months fater COD). As per Regulation 25.2 of the MYT Regulations, 2019, additional capitalization beyond the cut-off date is allowable due to change in law, as reproduced below:

> ***" 25 Additional Capitalization***
>
> ***………………***
>
> *25.2 The capital expenditure incurred or projected to be incurred in respect of a new Project on the following counts within the original scope of work after the cut off date may be admitted by the Commission, subject to prudence check:*
>
> *(i) Liabilities to meet award of arbitration or for compliance of directions or order of any statutory authority or order or decree of any court of law;*
>
> *(ii) **Change in law** or compliance of any existing law; "*

Since the above expense is required to be incurred by AEML-T on account of change in BMC Regulations, the capitalization of the expense is allowable as per Regulation 25.2 of the MYT Regulations, 2019. Hence AEML-T requests the Hon'ble Commission to allow capitalization of Rs. 16.5 Lakh against the said DPR in FY 2024-25.

Non-DPR Schemes:

It is submitted that, typically, Non-DPR works being carried out are against categories pertaining to System Reliability Improvement, System up-gradation activities, Miscellaneous civil activities, etc. AEML-T is currently in the process of getting Non-DPR schemes for FY 2024-25 registered with the Hon'ble Commission. However, the process is ongoing and shall continue over the course of the remaining year based on the way requirements come up. As of now, AEML-T has provisionally estimated expenditure against Non-DPR works to the tune of Rs. 32.14 crore only. The actual schemes undertaken and the amount spent shall be presented at the time of true-up.

4.1.1 Financing plan for Capital Expenditure

Regulation 27 of the MYT Regulations, 2019 specifies that the funding of capex shall be in the normative Debt Equity ratio of 70:30. As no new loans have been contracted during FY 2024-25, the new capex during the year shall be funded through normative debt to the tune of 70%. Hence, for the purpose of ARR and tariff for FY 2024-25, AEML-T has considered the debt equity ratio of 70:30 on provisional basis. If any actual loans are contracted during FY 2024-25, the details of the same shall be presented at the time of true-up.

4.1.2 Depreciation

For the purpose of depreciation for FY 2024-25, AEML-T has considered the opening asset balances of FY 2024-25 and has determined the depreciation for these assets for FY 2024-25 considering the depreciation rates as per MYT Regulations, 2019 and as per first proviso to Regulation 28.1 (b) of MYT Regulations, 2019. The calculations are attached herewith as **Annexure 21 (Soft Copy only)**. For the assets estimated to be added in FY 2024-25 in various asset classes, depreciation for the year has been calculated considering the rates as per MYT Regulations, 2019 and with the assumption that the assets shall be added uniformly throughout the year. Depreciation for FY 2024-25 has been estimated by adding the depreciation on opening assets for FY 2024-25 and depreciation on assets estimated to be added in FY 2024-25. The actual depreciation for FY 2024-25 shall be presented considering the actual asset addition and retirement and based on number of days the assets were in service at the time of truing up of FY 2024-25.

Table 50: Depreciation for FY 2024-25

Particulars / (Rs. Crore)	MTR Order	Estimates
Depreciation	128.46	123.63
Opening GFA	2,249.56	2,236.11
Closing GFA	3,400.96	3,375.05

AEML-T requests the Hon'ble Commission to approve the estimated depreciation for FY 2024-25 as presented above.

4.1.3 Interest on Loan Capital

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 actual long term loan portfolio at the beginning of each year. The weighted average interest rate considering the opening balance of actual loans for FY 2024-25 works out to 9.28%.

Table 51: Interest rate for FY 2024-25

Source of Loan	Opening Loan Balance (Rs. Crore)	Interest Rate (%)
USD Bond	6269.64	9.05%
GMTN	2231.99	8.71%
Sub Debt	2009.64	10.61%
Weighted Average		**9.28%**

Accordingly, AEML-T has calculated the interest on loans for FY 2024-25 considering the above interest rate. For the purpose of provisional truing up of FY 2024-25, no asset retirement has been envisaged and hence no reduction of loan due to asset retirement has been considered. The same shall be considered at the time of truing up of FY 2024-25.

Table 52: Interest Expense for FY 2024-25

Particulars / (Rs. Crore)	MTR Order	Actual
Opening Balance	471.37	463.67
Addition	805.98	797.26
Repayment	128.46	123.63
Closing Balance	1148.89	1,137.30
Average loan balance	810.13	800.48
Interest Rate in %	8.34%	9.28%
Interest on long term loan	**67.53**	**74.26**

AEML-T requests the Hon'ble Commission to approve the interest expenses for FY 2024-25 presented above.

4.1.4 Financing Charges

Regulation 30.8 of the MYT Regulations, 2019 specifies that the finance charges incurred for obtaining loans from financial institutions for any year shall be allowed by the Hon'ble Commission at the time of truing-up, subject to prudence check. Accordingly, AEML-T shall submit the financing charges incurred for FY 2024-25 at the time of truing up of FY 2024-25.

4.1.5 Foreign Exchange Rate Variation

As submitted above, the actual loan portfolio of AEML at the beginning of FY 2024-25 consisted of Bond ($ 880 Million), Sub-debt ($ 282 Million) and GMTN ($ 300 Million). It has been planned to repay $ 100 Million out of $ 282 Million of Sub-debt in November 2024. At this stage, no FERV/ forex loss has been claimed in FY 2024-25. However, it is submitted that there shall be actual forex loss accruing to AEML due to the planned repayment in FY 2024-25 and the same shall be claimed at the time of truing up of FY 2024-25.

4.1.6 Return on Equity

The MYT Regulations, 2019 provides for allowing RoE in two parts i.e. Base RoE and additional RoE linked to actual performance. The additional RoE shall be allowed at the time of truing up for respective years based on actual performance. In the MTR Order dated 31.03.2023, the Hon'ble Commission had allowed the Base RoE only. Further, the second proviso to Regulation 34.4 of MYT Regulations, 2019 provides as follows:

"Provided further that effective tax rate shall be estimated for future year based on actual tax paid as per latest available Audited accounts, subject to prudence check."

As per this proviso, the Hon'ble Commission had considered the Effective tax rate for FY 2024-25 at MAT rate (17.47%) while allowing pre-tax RoE for FY 2024-25 in the MTR Order since AEML as a whole had paid income tax at MAT rate in FY 2021-22. In FY 2023-24 also, AEML as a whole has paid income tax at MAT rate. Therefore, for provisional truing up of FY 2024-25, AEML-T has claimed Effective tax rate at MAT rate, without prejudice to AEML-T's contention in Appeal no. 538 of 2023 that Effective tax rate for the regulated segment of AEML should be calculated on standalone basis based on regulatory PBT method in accordance with first proviso to Regulation 34.4 of the MYT Regulations, 2019.

Table 53: RoE for FY 2024-25

Particulars / (Rs. Crore)	MTR Order	Actuals
Regulatory Equity at the beginning of year	716.22	712.10
Capitalization during the year	1151.4	1138.94
Equity portion of capitalization during the year	345.42	341.68
Regulatory Equity at the end of year	1061.64	1053.78
RoE rate (%)	14.00%	14.00%
Effective Tax Rate (%)	17.47%	17.47%
Pre-tax RoE rate (%)	16.96%	16.96%
Return on Regulatory Equity at beginning of year	121.50	120.80
Return on Regulatory Equity addition during the year	29.30	28.98
Total Return on Regulatory Equity	150.79	149.78

AEML-T requests the Hon'ble Commission to approve the return on equity for FY 2024-25 presented above.

4.2 Operation & Maintenance (O&M) expenses

AEML-T has considered the closing line length and no. of Bays for FY 2023-24 (as per the section on truing up of FY 2023-24) as the opening line length and no . of Bays for FY 2024-25. The Hon'ble Commission, in the MTR Order, had considered line length addition of 24 Ckt. Km in FY 2024-25 on account of planned commissioning of BKC S/stn. AEML-T has considered the same as addition of line length in FY 2024-25 as, based on the progress of works, BKC S/stn. is planned to be commissioned in FY 2024-25 only. Also the Hon'ble Commission had considered addition of 9 no. of 220 kV GIS Bays and 20 no. of 33 kV GIS Bays in the MTR Order on account of planned commissioning of BKC S/stn in FY 2024-25. As opposed to that, 10 no. of 220 kV GIS Bays and 30 no. of 33 kV GIS Bays are planned to be added in FY 2024-25. The same has been considered for normative O&M expense calculation in FY 2024-25.

Further, out of 31 no. of 33 kV Bays considered as unutilized in the MTR Order, 9 no. of 33 kV GIS Bays are likely to be utilized in FY 2024-25. AEML-T has considered the same for normative O&M expense calculations in FY 2024-25. The total no. of Bays considered as utilized in FY 2024-25 is as under:

Table 54: Details of bay utilisation for FY 2024-25

Particulars	Total number of unutilized bays as per MTR Order (A)	No of AIS Bays already decommissioned prior to FY 2022-23 out of (A) : (B)	Net unutilized bays as per MTR Order (C)	Opening balance of utilized bays as on 01.04.2024 (B)	Bays likely to be utilized during FY 2024-25 out of (A) : (C)	No of Bays added due to BKC EHV Stn DPR (D)	Total Bays utilized during FY 2022-23 (B+C+D)
220 kV - AIS Bays				21			21
220 kV - GIS Bays				97		10	107
33 kV - AIS Bays	3	1	2	41			41
33 kV - GIS Bays	29		29	339	9	30	378

Based on the above, the normative O&M expense calculation for FY 2024-25 is as under:

Table 55: Estimated O&M Expense for FY 2024-25

Particulars	MTR Order	Estimates
Line length ckt. km.	585.03	585.03
O&M cost norms (Rs. lakh/ ckt. km)	0.82	0.82
Normative O&M expenses for lines (Rs. crore)	**4.80**	**4.80**
Number of 220 kV AIS bays	21	21
Number of 220 kV GIS bays	101	102
Number of 33 kV AIS bays	38	41
Number of 33 kV GIS bays	332	359
O&M cost norms (Rs. lakh/ bay) - 220 kV AIS bays	38.70	38.70
O&M cost norms (Rs. lakh/ bay) - 220 kV GIS bays	27.09	27.09
O&M cost norms (Rs. lakh/ bay) - 33 kV AIS bays	8.09	8.09
O&M cost norms (Rs. lakh/ bay) - 33 kV GIS bays	5.66	5.66
Normative O&M expenses for bays (Rs. crore)	**57.23**	**59.38**
Total normative O&M Expense (Rs. Crore)	**62.03**	**64.17**

The Hon'ble Commission, in the MTR Order, had approved Rs. 0.15 Crore as the impact of Hon'ble SC Judgment in provident fund (PF) on provisional basis. The actual impact on AEML-T O&M expense in

FY 2023-24 due to the Hon'ble SC Judgment has been Rs. 0.07 Crore. Based on the same, for the purpose of provisional truing up of FY 2024-25, AEML-T has considered Rs. 0.07 Crore as the impact of Hon'ble SC Judgment.

4.3 Interest on Working Capital

AEML-T has calculated the normative interest on working capital as per first proviso to Regulation 32.2 (a) of the MYT Regulations, 2019. The rate of interest for calculating the normative interest on working capital for FY 2024-25 (SBI MCLR plus 150 Basis Points) as on the date of filing this petition works out to 10.50%. The same has been considered for calculation of normative IoWC for FY 2024-25, as shown in the table below:

Table 56: IoWC for FY 2024-25

Particulars (Rs. Crore)	MTR Order	Estimates
O&M Expense for one month	5.17	5.35
Maintenance Spares @1% of the Opening GFA	22.50	22.36
1.5 months of the expected revenue from transmission charges	46.84	46.84
Less: Amount of Security Deposit from Transmission System Users	0	0
Total Working Capital Requirement	**74.51**	**74.55**
Rate of Interest (% p.a.) – SBI Base Rate plus 150 basis points	9.45%	10.50%
Interest on Working Capital	**7.04**	**7.83**

AEML-T has been availing short term loans to fund its working capital requirement in FY 2024-25. AEML-T shall present the actual interest on working capital along with the net entitlement at the time of truing up of FY 2024-25.

4.4 Contribution to Contingency Reserve

Regulation 35.1 of the MYT Regulations, 2019 provides for Contribution to Contingency Reserves (CR) of a sum not less than 0.25% and not more than 0.5% of the original cost of fixed assets. In view of the above, AEML-T has considered the contribution to contingency reserve at 0.25% of the original cost of fixed assets as on 01-04-2024.

Table 57: Contribution to Contingency Reserve for FY 2024-25

Particulars (Rs. Crore)	MTR Order	Estimates
Opening balance of Contingency Reserves	56.53	56.52
Opening Gross Fixed Assets (GFA)	2,249.56	2,236.11
Opening balance of Contingency Reserves as % of Opening GFA	2.51%	2.53%
Contribution to Contingency Reserves	**5.62**	**5.59**

4.5 Revenue for FY 2024-25

4.5.1 Revenue from InSTS

The Hon'ble Commission in the InSTS tariff order dated 31.03.2023 in Case No. 239 of 2022, had approved a revenue of Rs. 341.71 Crore for AEML-T for FY 2024-25. For the purpose of provisional truing up of FY 2024-25, AEML-T has considered the revenue from InSTS charges as Rs. 341.71 Crore.

4.5.2 Non Tariff Income

For provisional true-up, AEML-T has estimated Non-Tariff Income for FY 2024-25 at the same level as that of actuals for FY 2023-24.

Table 58: Estimated NTI for FY 2024-25

Particulars (Rs. Crore)	MTR Order	Actual
Income from rent of land or buildings (land usage charges)	1.32	1.32
Income from sale of scrap	2.00	3.41
Income from investments (contingency reserve)	0.26	3.60
Unclaimed liabilities written back		0.18
Other/Miscellaneous receipts	0.40	0
Total	**3.98**	**8.51**

The Hon’ble Commission is requested to approve the Non-Tariff Income for FY 2024-25 as shown above.

4.5.3 Income from Other Business

In view of no existing arrangements for utilisation of assets or generation of other business income, no income from Other Business has been estimated for FY 2024-25 for provisional true of FY 2024-25.

4.6 Recovery of Revenue gap/ (surplus) up to FY 2022-23 in FY 2024-25

The Hon’ble Commission in the MTR Order dated 31.03.2023 in Case no. 230 of 2022 had approved a revenue gap of Rs. 8.94 Crore (including carrying cost) after truing up of FY 2019-20 to FY 2021-22 and provisional truing up of FY 2022-23. In order to smoothen the impact of AEML-T ARR on InSTS charges, the Hon’ble Commission had allowed recovery of revenue gap of Rs. 48.00 Crore in FY 2023-24 and revenue surplus of Rs. 42.94 Crore in FY 2024-25 in the MTR Order. Hence AEML-T has included revenue surplus of Rs. 42.94 Crore in expense side for the purpose of provisional truing up of FY 2024-25 also.

4.7 Revenue Gap/Surplus for FY 2024-25

The summary of provisional truing up for FY 2024-25 is provided below:

Table 59: Provisional Truing up Summary for FY 2024-25

Particulars (Rs. Crore)	MTR Order	Provisional True up
Operation & Maintenance Expenses	62.03	64.17
Impact of SC Judgment on PF	0.15	0.07
Depreciation Expenses	128.46	123.63
Interest on Long-term Loan Capital	67.53	74.26
Interest on Working Capital and on security deposits	7.04	7.83
Contribution to Contingency reserves	5.62	5.59
Total Revenue Expenditure	**270.83**	**275.55**
Return on Equity Capital	150.79	149.78
Aggregate Revenue Requirement	**421.62**	**425.33**
Less: Non Tariff Income	3.98	8.51
Less: Income from Other Business	0	0
Add: Revenue Gap / (Surplus) upto FY 2022-23 with carrying cost	-42.94	-42.94
Net ARR	**374.71**	**373.88**
Revenue from transmission tariff	**374.71**	**374.71**
Revenue Gap/(Surplus)	**0**	**(0.83)**

AEML-T requests the Hon'ble Commission to kindly approve the above-mentioned revenue gap/ (surplus) for FY 2024-25.

5. AGGREGATE REVENUE REQUIREMENT FROM FY 2025-26 TO FY 2029-30

In this section, AEML-T has presented the projections of ARR for five years of next Control period (FY 2025-26 to FY 2029-30). The projections are based on the following:

1. The actual / provisional cost and other technical and financial parameters of previous years.
2. Assumptions for the ARR for Control Period, rationale for which is provided subsequently in this section.
3. Regulatory provisions as per MYT Regulations, 2024 and determination of normative cost accordingly.

5.1 Capital Investment Plan and Capitalization

Regulation 78 of the MYT Regulations, 2024 requires the Transmission Licensee to submit a detailed capital investment plan for the Control Period along with the MYT Petition, as reproduced below:

> *"78.1 The Transmission Licensee shall submit a detailed capital investment plan, financing plan and physical targets for each year of the Control Period for strengthening and augmentation of the intra-State transmission system of the Transmission Licensee, meeting the requirement of load growth, improvement in quality of supply, reliability, metering, reduction in congestion, etc., to the Commission for approval, as a part of the Multi-year Aggregate Revenue Requirement for the entire Control Period.*
>
> *78.2 The Capital Investment Plan shall be a least cost plan for undertaking investments and shall cover all capital expenditure projects of a value as specified in the Regulation 4.1 of the MERC (Approval of Capital Investment Schemes) Regulations, 2022. The Capital Investment Plan shall be accompanied by such information, particulars and documents as may be required including but not limited to the information such as number of bays, name, configuration and location of grid substations, substation capacity (MVA), transmission line length (circuit kilometres) showing the need for the proposed investments, alternatives considered, cost-benefit analysis and other aspects that may have a bearing on the transmission charges."*

As per the above provision, AEML-T has submitted the Capital investment plan for the Control Period. Some of the DPR schemes, capitalization of which is proposed below, have been approved by the Hon'ble Commission in accordance with the MERC (Approval of Capital Investment Schemes) Regulations, 2022. Five DPR schemes (Dahisar EHV Scheme, Uttan EHV scheme, Khardanda EHV scheme, 220KV Switching S/s at Ghodbunder and Chandivali 2nd feed connectivity scheme) have been submitted to the Hon'ble Commission after prudence check by STU in accordance with Capex Regulations, 2022 and the same are pending approval. Apart from the above, there are other schemes (as explained subsequently), where capital investment has been envisaged by AEML-T for strengthening of Intra State Transmission system. These schemes have also been considered for implementation by AEML-T as per the STU ten year plan from FY 2024-25 to FY 2033-34, recently finalized and issued by STU, included herewith as **Annexure 22 (Soft copy only)**. AEML-T has also filed a Petition, before the Hon'ble Commission, for amendment to transmission license of AEML (Transmission License no. 1 of 2011) on 30.09.2024 (Case no. 159 of 2024), by considering all the above schemes (as per STU ten year plan from FY 2024-25 to FY 2033-34) and the same is pending. Further, AEML-T has submitted its Rolling Capital Investment Plan for the Control Period FY 2025-26 to FY 2029-30 in accordance with the Capex Regulations, 2022 and submits that all schemes included in this petition are part of the Rolling Capital Investment Plan.

In line with the same, AEML-T has proposed the capital investment scheme for the next Control period. As regards Non-DPR schemes, AEML-T has estimated the year wise capital investment on lumpsum basis. The year wise scheme wise capital expenditure is shown in the table below:

Table 60: Proposed Capital Expenditure from FY 2025-26 to FY 2029-30

Particulars/ (Rs. Crore)	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
DPRs approved by Commission					
220/33 kV GIS EHV S/S at Chandivali	182.82	16.29	0	0	0
100-120 MVAR Reactor at Chembur EHV S/s	29.17	1.74	0	0	0
220 kV D/C cable connectivity Between 220 kV AEML-T BKC and 220 kV AEML-T Aarey	181.97	196.44	207.00	77.78	0
220/33 kV GIS EHV S/S at Kandivali	94.69	178.10	155.84	22.26	0
DPRs submitted to Commission					
220/33 kV GIS EHV S/S at Dahisar	105.36	158.05	237.07	26.34	0
220kV Scheme at Uttan/ Rai Village	0	54.12	120.36	220.65	20
220/33kV GIS EHV S/S at Khardanda	188.78	82.73	165.45	165.45	0
220KV Switching S/s at Ghodbunder (Augmentation of Borivali-Ghodbunder-Boisar LILO line)	32.25	109.94	16.12	0	0
20kV S/C from AEML Aarey to AEML Chandivali and S/C from AEML Aarey to TPC Saki	55.20	82.80	124.20	13.80	0
Future Schemes					
3rd Transformer at BKC	9.00	19.50	1.50	0	0
220kV AIS to GIS Conversion (Versova)	0	52.30	113.31	8.72	0
220kV AIS to GIS Conversion (Ghodbunder)	44.21	95.80	7.37	0	0
33kV AIS GIS Board at ARY (2) VSV (1) & GBR (1)	11.65	16.02	1.46	0	0
33kV Reactor Installation at 220 kv/ 33 kV AEML-T EHV stations	0	14.28	53.57	3.57	0
Installation of 250 MW BESS at Dahanu	0	0.00	139.35	185.80	557.40
Line Augmentation with HTLS/ Twin Conductors	0	110.88	114.24	110.88	0

Particulars/ (Rs. Crore)	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
220kV D/C cable Connectivity Between Dahisar EHV Station – 220kV AEML-T Borivali EHV S/S	0	0	0	109.41	150.43
3rd Transformer at Chandivali	0	9.00	19.50	1.50	0
220kV Scheme at Tilak Nagar/ Sidharth Nagar	0	0	96.40	132.55	12.05
220kV Nahar EHV Station	0	0	0	133.54	145.56
220/33 kV GIS EHV S/S at Malad	0	0	96.71	133.57	150.27
220/33kV EHV S/S at Airport	0	0	0	164.50	226.18
3rd Transformer at Kandivali EHV S/s	0	0	0	9.00	19.50
3rd Transformer at Dahisar EHV S/s	0	0	0	9.00	19.50
3rd Transformer at Uttan EHV S/s	0	0	0	0.00	9.00
3rd Transformer at Khardanda EHV S/s	0	0	0	0	9.00
220kV Kashi Village EHV S/s	0	0	0	60.00	120.00
220 kV Tagor Nagar GIS EHV S/s	0	0	0	132.38	102.50
220kV Vajira naka (Don Bosco) EHV S/s	0	0	0	0	125.62
3rd Transformer at Airport	0	0	0	0	9.00
Non-DPR Schemes	30.00	40.00	30.00	40.00	30.00
Total	**965.11**	**1237.98**	**1699.45**	**1760.70**	**1706.08**

The year wise scheme wise capitalization (without IDC) proposed for next Control Period are as under:

Table 61: Proposed Capitalization from FY 2025-26 to FY 2029-30

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
DPRs approved by Commission					
220/33 kV GIS EHV S/S at Chandivali	309.48	16.29	0	0	0
100-120 MVAR Reactor at Chembur EHV S/s	0	34.79	0	0	0
220 kV D/C cable connectivity Between 220 kV AEML-T BKC and 220 kV AEML-T Aarey	0	0	0	670.63	0
220/33 kV GIS EHV S/S at Kandivali	0	0	481.94	25	0
DPRs submitted to Commission					
220/33 kV GIS EHV S/S at Dahisar	0	0	500.48	26	0
220kV Scheme at Uttan/ Rai Village	0	0	0	395	20
220/33kV GIS EHV S/S at Khardanda	0	0	0	602	0
220KV Switching S/s at Ghodbunder (Augmentation of Borivali-Ghodbunder-Boisar LILO line)	0	142	16.12	0	0
20kV S/C from AEML Aarey to AEML Chandivali and S/C from AEML Aarey to TPC Saki	0	0	262.20	13.80	0
Future Schemes					
3rd Transformer at BKC	0	28.50	1.50	0	0
220kV AIS to GIS Conversion (Versova)	0	0.00	165.61	9	0

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
220kV AIS to GIS Conversion (Ghodbunder)	0	140.01	7.37	0	0
33kV AIS GIS Board at ARY (2) VSV (1) & GBR (1)	0	27.67	1.46	0	0
33kV Reactor Installation at 220 kv/ 33 kV AEML-T EHV stations	0	0	67.85	3.57	0
Installation of 250 MW BESS	0	0	0	0	883
Line Augmentation with HTLS/ Twin Conductors	0	111	114.24	110.88	0
220kV D/C cable Connectivity Between Dahisar EHV Station – 220kV AEML-T Borivali EHV S/S	0	0	0	0	259.84
3rd Transformer at Chandivali	0	0	28.50	1.50	0
220kV Scheme at Tilak Nagar/ Sidharth Nagar	0	0	0	228.95	12.05
220/33 kV GIS EHV S/S at Malad	0	0	0	0	380.55
220/33kV EHV S/S at Airport	0	0	0	0	390.68
3rd Transformer at Kandivali EHV S/s	0	0	0	0	28.50
3rd Transformer at Dahisar EHV S/s	0	0	0	0	28.50
3rd Transformer at Uttan EHV S/s	0	0	0	0	0.00
3rd Transformer at Khardanda EHV S/s	0	0	0	0	28.50
Non-DPR Schemes	30.00	40.00	30.00	40.00	30.00
Total	**339.48**	**540.33**	**1677.27**	**2127.30**	**2061.23**

At this time, AEML-T has estimated IDC on capitalization for each year of Control Period on provisional basis. The actual IDC shall be submitted at the time of truing up of respective years.

Table 62: Capitalization with IDC from FY 2025-26 to FY 2029-30

Particulars/ (Rs. Crore)	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Capitalization (W/o IDC)	339.48	540.33	1677.27	2127.30	2061.23
Projected IDC	47.17	71.64	222.37	269.47	261.10
Total capitalization	**386.65**	**611.96**	**1899.64**	**2396.77**	**2322.33**

The asset class wise addition for each year of next Control Period has been estimated in the same ratio as that of actuals for FY 2023-24. The actual asset class wise asset addition shall be submitted at the time of truing up of respective years. Further no asset retirement has been estimated at this stage.

A brief explanation of various capital investment schemes for which capital investment has been proposed is as under:

1. 220/ 33 kV GIS EHV S/s at Chandivali

- Scheme brief:
  - To meet the load growth in and around Chandivali area due to Residential & Commercial development including upcoming datacenters happening in the area.
  - Load at existing 220kV Aarey & Saki EHV Station is estimated to cross its firm capacity limit within 3-4 years considering the estimated load growth around Chandivali area.
- Scope:
  - Construction of 220 kV GIS EHV Substation with 2 x 125 MVA transformers and associated system along with space provision for future expansion.
  - Extension of 220 kV GIS bays at existing 220kV Aarey EHV Station.
  - LILO of TPC 220 kV Salsette/Vikhroli-Saki line, 220kV D/C Underground Cable Connectivity from LILO tower location to the proposed 220kV Chandivali EHV SUBSTATION (approx. distance of 0.350 kms route length), OFC, cable trenching and associated civil works.
  - Est. CoD by Mar’ 2026

- Proposed benefits:
  - Provide 250MVA transformation capacity in this region at 220kV/33kV level through strong 220kV D/C connectivity LILO of TPC 220 kV Salsette-Saki with provision for 3rd transformer in future.
  - Reduce 33kV feeder length in addition to reduced RoW / RI charges for TSU, optimizing T & D losses benefiting consumers at large
  - Proposed 220kV station at Chandivali will Improve network flexibility and reliability for TSUs.

- Status:
  - There is proposed addition of 7 Nos. of 220 kV Bays, 30 Nos. of 33 kV Bays & laying of 0.70 ckt. kms as part of this scheme.
  - On 25.04.2023, DPR is approved by MERC.
  - Scheme is currently under execution.

2. 100 – 120 MVAR Reactor at Chembur EHV S/s

- Scheme brief:
  - AEML-T has ~ 541 ckt. kms of 220 kV transmission lines, which include around ~ 60 ckt. kms of 220 kV underground cable system.
  - Laying of various new 220 kV cables schemes are part of the STU Five-year plan.

- To offset the capacitive effect of 220 kV cable system and to ensure desired level of voltage limits and reactive power management in MMR power system, scheme to install Reactors in the system is proposed.
- Issue of Voltage dip in MMR power system was discussed at 83rd GCC (Grid Coordination Committee) meeting dated 30.08.2019, with report to address findings and remedial measures.
- Accordingly, installation of Reactor at 220 kV Chembur EHV station is being proposed.

- Scope:
  - Installation of 100 MVAR Reactor at 220 kV AEML Chembur EHV substation.
- Proposed benefits:
  - Reactor at AEML 220 kV EHV substations will help to support the reactive power management requirement in the Mumbai power system.
- CoD Details

  Est. CoD by June' 2026
- Status:
  - There is proposed addition of 1 No. of 220 kV bay at Chembur Station due to this scheme. This proposed addition is in the license amendment petition No. 127 of 2022, being filed before the Hon'ble Commission.
  - On 13.06.2024, the scheme is approved by MERC.
  - The scheme is currently under execution.

3. 220/ 33 kV GIS EHV S/s at Kandivali

- Scheme brief:
  - To meet the load growth in and around Kandivali/ Malad-Marve West area, a new EHV substation is being proposed. New residential/ commercial development/ shopping complexes, SRA projects, augmentation of transport infrastructure like Metro line 2A, Link Road, Coastal Road are expected to boost load growth in the region.

Scope:

- Construction of 220 kV GIS EHV Substation with 2 x 125 MVA transformers and associated system along with space provision for future expansion.
- LILO of 220 kV Boisar/ Dahanu-Versova line, laying 220 kV D/C underground cable system from LILO tower to EHV substation.

- Proposed benefits:
  - Proposed 220 kV EHV Substation will facilitate quality/ reliable power supply to existing/ new consumers in/ around Kandivali/ Malad West area and future development expected due to high raise buildings, Residential/ shopping complexes, commercial Business hubs, augmented Transport infrastructure (Metro 2B, Costal Road).
  - Proposed EHV Station will relieve future loading at Gorai EHV Substation and will help maintain firm capacities.
  - Avoid long distance 33 kV feeders at Discom end, optimize capex/ Technical loss of 33 kV feeders, improve system reliability.

CoD Details

  - Est. CoD by Mar' 2028

- Status:
  - There is proposed addition of 7 Nos. of 220 kV Bays, 30 Nos. of 33 kV Bays & laying of 9 ckt. kms as part of this scheme.
  - On 26.09.2024, scheme is approved MERC.
  - Presently scheme under execution

4. 220 kV D/C cable connectivity between 220 kV AEML-T BKC and 220 kV AEML-T Aarey

- Scheme brief:
  - AEML-T has proposed to commission 220 kV BKC EHV Station with 220 kV D/C underground cable connectivity from existing 220 kV Chembur EHV Station, as discussed earlier.
  - Initially BKC shall be fed from single source (radial mode). Scheme for 2nd feed will be further initiated during Control Period, where 2nd feed from 220 kV Aarey EHV Substation is proposed, which will connect BKC from two different source of Northern and Eastern network of MMR.
- Scope:
  - Substation Scope:
    - Installation, testing, and commissioning of 220kV GIS bays at BKC & Aarey Substation (2 + 2 Nos).
  - Connectivity Scope:
    - Procurement & erection of Cable, Cable Laying & associated accessories between BKC and Aarey EHV Station (35 Ckt Kms)
  - Associated Civil works

- Proposed benefits:
  - 220 kV Aarey EHV Station will form 2nd source to 220 kV BKC EHV Station, thereby bringing 220 kV BKC EHV Station into the ring main system.
  - Connectivity to BKC region from different sources i.e. Northern and Southern MMR Transmission network.
  - Scheme will improve quality/ reliable power supply in Mumbai system.

<u>CoD Details</u>

  - Est. CoD by Mar’ 2029
- Status
  - On 08.08.2024. MERC Approval for BKC 2nd feed scheme received.
  - There are 04 nos. of 220kV Bays proposed under the scheme.
  - Currently, scheme is under evaluation

5. 220KV Switching S/s at Ghodbunder (Augmentation of Borivali-Ghodbunder-Boisar LILO line)

- Scheme Brief
  - Earlier in Mar’ 2013, AEML-T had commissioned the LILO of 220kV Boisar – 220kV Borivali at 220kV AEML Ghodbunder Scheme.. Power flow was established in 220kV MSETCL Borivali-AEML Ghodbunder line and 220kV MSETCL Boisar- AEML Ghodbunder line, wherein AEML has used Cable of size 1200 SqMM (900 A capacity) for LILO Scheme.
  - Subsequently, MSETCL has executed strengthening of OH lines with M/C Tower and twin conductor to increase capacity to 1600 A under Mumbai Strengthening Scheme and accordingly uprated transmission corridor capacity at Boisar-Borivali route by way of high capacity conductor and multi circuit scheme.
  - Further, STU vide letter dated 07.07.2022 advised AEML to take up execution of uprating existing lower capacity of the LILO cables to higher one, to remove a bottleneck in MMR network, in time bound manner.
  - On 18.06.2024, CE, SLDC vide letter ref no.CE/MSLDC/Kalwa/Op/01197 has advised STU to uprate conductor capacity of the existing AEML Ghodbunder- Boisar LILO Line.
  - STU office vide email dated 24.09.2024, recommended option of laying additional 1 nos. of S/C, 220kV 2500 SqMM cable parallel from AEML Ghodbunder to LILO Tower.
  - In view of above the laying additional 2500 SqMM cable scheme is proposed
- Brief Scope

- To lay Parallel additional 220kV S/C 2,500 sqmm cable system from existing LILO Tower to AEML Ghodbunder EHV Station
- Bunching of existing DC 1200 Sqmm LILO cable with modification on existing support structure arrangement at LILO Tower.

CoD Details

- Est. CoD by Mar’ 2027

- Proposed benefits
  - The augmentation scheme will bring corridor capacity in line with MSETCL augmented line capacity.
  - In event of contingency, complete transmission corridor i.e. MSETCL Boisar to Borivali will be available in system with uprated capacity. Scheme will enhance stability & reliability of InSTS Transmission network.
- Status
  - 9th MTC dated 30.04.2024 & 9th GCC dated 31.07.2024, ratified scheme, STU vide letter dated 31.10.2024 approved the scheme.
  - Scheme is part STU 10 year Plan dated 05.09.2024, submitted to MERC and AEML Transmission License order in case no. 127 of 2022.
  - DPR has been submitted to the Hon’ble Commission and In-principle approval is awaited.

6. 33kV Reactor Installation at 220 kv/ 33 kV AEML-T EHV stations

- Scheme brief & need:
  - AEML-T has taken up necessary remedial measures suggested by MSLDC to resolve the high voltage issues. Measures related to load shifting, keeping Power Transformer Tap position at the lowest level, switching-off all the capacitor banks are being carried out by AEML-T.
  - STU has also suggested installing 33 kV reactors in the system for controlling the voltages during STU meeting dated 25.05.2021 on STU Five Year Plan for the period of FY 2021-22 to FY 2026-27.
  - Action points as per the MoM of the meeting shared vide letter No./MSETCL/CO/STU/No. 03323 dated 14.06.2021. Accordingly, AEML-T proposed 33kV Reactor Installation Scheme in its’ submitted STU 5 Year plan.
- Scope:
  - To install 10MVAR Reactors at AEML-T 220kV EHV Station at Versova, Ghodbunder, Borivali, Gorai and BKC (Under Execution) with associated equipment

- Installation of corresponding bays for reactors with 33kV Switchgears and associated equipment/ protection relays as the reactors cannot be accommodated in the existing 33 kV spare bays of AEML-T substations as the existing breakers will not be suitable for reactor switching.
- Associated civil Work

- Proposed benefits

  - Reduce high voltage fluctuation during off peak hours and improve voltage regulation.
  - Support Reactive power management of Transmission and Distribution network system and strengthening of underground cable system.
  - Provide quality power to Mumbai consumers.

- Status:

  - Scheme is part of STU 5-year plan FY 2023-27, dated 16.11.2023.
  - The scheme is part of existing License Order in Case No. 127 of 2022

7. 220/33 kV GIS EHV S/S at Dahisar

- Scheme brief & need:
  - Apart from 220 kV Borivali EHV Station, 220 kV Ghodbunder EHV Station is the only EHV Transmission facility in North Mumbai, which is ~ 10 kms. apart.
  - Residential/ commercial development along with augmentation of transport infrastructure like Metro lines (2A/ 7/ 7 Extension/ 10), flyover connectivity between link road/ WE-highway/ East-West connectivity is expected to boost power demand in the region.
  - 220 kV Dahisar Scheme is proposed to cater upcoming load growth in the region.
- Scope:
  - Construction of 220 kV GIS EHV Substation with 2 x 125 MVA transformers and associated system along with space provision for future expansion.
  - 220 kV D/C Cable system from AEML Ghodbunder EHV substation and associated GIS bays and civil work.
- Proposed benefits:
  - Proposed 220 kV EHV Substation will facilitate quality/ reliable power supply to existing/ new consumers in and around Dahisar area and to cater to future development expected due to high rise buildings, shopping complexes, commercial Business hubs, augmented Transport infrastructure.

- Proposed EHV Station will relieve future loading at other EHV Substation at Ghodbunder/ Borivali and will help maintain firm capacities.
- Avoid long distance 33 kV feeders at Discom end, improve system reliability.

- Status:
  - On 14.02.2024, scheme approved by MTC in 5th MTC meeting dated 14.02 2024/STU Prudence check approval received on 30.01.2024.
  - On 18.03.2024 DPR submitted to MERC.
  - On 17.04.2024 Data gap received from MERC, Data Gap Response submitted on 21.06.2024.
  - Scheme is part of STU 5-year plan FY 2023-27, dated 16.11.2023.
  - This is scheme part of existing AEML-T License Order in Case No. 127 of 2022
  - The scheme is under MERC approval.

8. 220/33 kV GIS EHV S/S at Malad

- Scheme brief & need:
  - To meet the load growth in and around Malad/ Goragaon/ Kandivali East area, EHV substation is being proposed. New residential/ commercial high-rise buildings, shopping complexes, Business hubs, SRA projects, augmentation of transport infrastructure like Metro line 7, East-West Flyover connectivity, proposed Goregaon-Mulund link road are expected to boost load growth in the region.
  - One of the alternatives for meeting the incremental demand in this area is laying long length cable from the existing EHV stations at Aarey/ Borivali/ Goregaon-W, which will lead to high losses/ unreliable network and high cost for TSU's. Hence, 220 kV EHV Substation is proposed near to the load center.
- Scope:
  - Construction of 220/ 33 kV GIS EHV Substation with 2 x 125 MVA transformers and associated system along with space provision for future expansion.
  - LILO of 220 kV AEML Aarey-Borivali OH line, laying 220 kV D/C underground Cable system from LILO tower to EHV substation.
- Proposed benefits:
  - Proposed 220 kV EHV Substation will facilitate quality/ reliable power supply to existing/ new consumers in/ around Malad/ Goregaon/ Kandivali East area and future development expected due to high raise buildings, Residential/ shopping complexes, Business hubs, augmented Transport infrastructure (Metro 7).

- Proposed EHV Station will relieve future loading at other EHV Substation and will help maintain firm capacities.
- Avoid long distance 33 kV feeders at Discom end, improve system reliability.

- Status:

  - 0n 07.02.2023, in 6th MTC meeting scheme discussed & not cleared in view of approved MSETCL scheme at FilmCity.
  - On 20.05.2023, AEML-D submitted letter to C.E. STU w.r.t. projected load requirement of Malad/Goregaon-East area and requirement of 220kV Malad EHV Station.
  - On 12.07.2023 STU letter to AEML-D stated that the AEML-D load requirement will be meet from Proposed MSETCL Film City EHV Station.
  - On 16.10.2023 AEML-D submitted letter to STU for 220 kV EHV substation.
  - On 07.10.2024AEML-D submitted letter to STU requesting necessary arrangements of Transmission infrastructure to cater upcoming load (over 291 MVA) in Malad / Goregaon East area, as MSETCL-Goreagaon Film city EHV is not in STU 10 year plan.
  - This Proposed Scheme is part of STU 5-year plan FY 2023-27, dated 16.11.2023 and STU 10 year plan FY 2025- 34, dated 05.09.2024.
  - This scheme is part of the existing AEML-T License Order in Case No. 127 of 2022.

9. 220/33kV GIS EHV S/S at Khardanda

- Scheme brief & need:
  - Between Versova/ Andheri-W up to Bandra-W, towards Western side of Mumbai Suburb, around 15 kms there is no 220 kV EHV Station. TSU's 33 kV network is fed from long distance 33 kV feeders from Versova/ Dharavi, which leads to vulnerable network and high technical losses.
  - Thus, 220 kV EHV substation is being proposed to strengthen T&D infrastructure, to improve power supply, to cater future load growth and for avoiding long distance 33 kV feeders in & around area.
  - This area has been suffering from periodic outages for a long time, recently MERC referred Sh. Asish Shelar, letter dated 05.06.2024, issued by Hon'ble MLA, Bandra West Assembly in matter of frequent power failures for a long time in Bandra W /Khar/ Santazruz (W) / Khardanda area, to which AEML submitted response letter on 21.06.2024 stating proposed EHV s/s as long term remedial measures.
- Scope:
  - 220/ 33 kV GIS based EHV Station along with 2 x 125 MVA Transformers.

- 220kV D/C Underground Cable LILO Connectivity (~3.5 kms) on Aarey-BKC line (2nd Feed BKC) with proposed Khardanda Stn,

- Proposed benefits:
  - Proposed 220 kV EHV Substation will facilitate quality/ reliable power supply to existing/ new consumers in/ around Vile Parle/ Santacruz/ Khar West area.
  - Proposed EHV Station will relieve future loading at other EHV Substation and will help maintain firm capacities.
  - Avoid long distance 33 kV feeders at Discom end and improve system reliability.
- Status:
  - 8th MTC meeting conducted on 19.10.2023 Scheme discussed,.
  - On 13.03.2024 9th MTC meeting Khardanda scheme was discussed. As per 9th MTC MoM, AEML was advised to submit revised Khardanda DPR.
  - On 10.05.2024 AEML submitted revised Khardanda DPR to STU for its consent.
  - On 06.06.2024 Data-gap received from STU empanelled consultant regarding 220kV Khardanda EHV Scheme.
  - Data gap response submitted to STU empanelled consultant on 27.06.2024.
  - On 21.07.2024 observations on Data gap response for 220kV Khardanda EHV Scheme received from STU (consultant)
  - Data gap response submitted to STU (consultant) on 23.07.2024.
  - 9th GCC ratified the scheme for inclusion in STU Plan.
  - STU Approval with prudence check report received on 12.08.2024,
  - The scheme is part of STU 5-year plan FY 2023-27, dated 16.11.2023 and STU 10 year plan FY 2025- 34, dated 05.09.2024. This scheme is part of AEML-T License amendment petition dated 30.09.2024 & MYT Petition, being submitted to MERC.
  - On 11.11.2024, DPR submitted to MERC.

10. 220kV Scheme at Uttan/ Rai Village

- Scheme brief & need:
  - In view of upcoming various Infra projects, Residential and commercial development activities will boost power demand in the region. Hence, there is a need to proactively strengthen T&D infrastructure in Mira Bhayender/ Uttan/ Manori area.
  - Currently the projected load in nearby Uttan area is estimated @ 173 MW including new load (142MW) & re-configuration (31MW).
  - TSU's network is fed from long distance 11 kV feeders from Ghodbunder and Versova, which leads to vulnerable network and high technical losses.

- Thus, 220 kV EHV substation is proposed to cater to future load growth and reliable power supply by avoiding long distance 33 kV feeders.

- Scope:
  - 220/ 33 kV GIS based EHV Station along with 2 x 125 MVA Transformers.
  - Installation of 220kV GIS EHV Substation at UTTAN (LILO of 220kV Dahanu- Versova line).
- Proposed benefits:
  - The proposed 220 kV EHV Substation will facilitate quality/ reliable power supply to existing/ new consumers in/ around Mira Bhayendar/ Uttan/ Manori area.
  - Reactive power requirement & management of system due transmission network strengthening by underground cable system.
  - This scheme will provide reliable quality power to consumers.
- Status:
  - This Scheme is part of STU 5-year plan FY 2023-27, dated 16.11.2023 and STU 10 year plan FY 2025- 34, dated 05.09.2024. On 05.07.2024, revised DPR submitted to STU consultant for prudence check.
  - On 18.07.2024 Datagap received from STU (consultant) for 220kV Uttan EHV Scheme.
  - Datagap response submitted to STU (consultant) on 26.07.2024.
  - STU Approval with prudence check report received on 12.08.2024.
  - On 11.11.2024, DPR submitted to MERC.

11. Installation of 250 MW BESS

- Scheme brief & need:
  - AEML -T proposes to install a BESS system with capacity like 250 MW can act as an embedded generation and meet the Mumbai demand in contingencies which will mitigate the constraints on corridor lines. BESS will reduce the load shedding required to be done during the grid disturbances.
  - As per MERC directive in High Level Committee (HCL) on Mumai Grid Disturbance on 12.10.2020, Energy Storage Systems (ESS) can be used to mitigate the impact of transmission congestion.
  - As per MERC (State Grid Code) Regulations 2020, Regulation 29.8 (Frequency Regulation) , all Transmission Licensees are to make all possible efforts to maintain frequency to remain at desired level.

- Scope:
    - AEML-T has proposed installation of 250 MWh Battery Energy Storage system with 0.415/33kV Transformers, 4x33kV GIS Boards, 2x275 MVA Transformers (33/220kV), 220kV GIS, 220kV Cables, 220kV outdoor Cable terminations including land, land development, Civil work for substation building with associated facilities of Office / Control room / Security etc.
    - Installation of 220kV GIS Bays along with Bus Extension at BESS with necessary control & protection systems with control & LT cables and associated civil works.
    - Further scope of works as required.
- Proposed benefits:
    - Reduce Network congestion.
    - Improve Power quality.
    - Peak Shaving and Load Leveling
    - Frequency Regulation
    - Whenever there is major contingency in the Eastern corridor there is overloading of the interconnecting lines and load shedding is to be done in Mumbai area to save the further collapse of system. Mumbai has experienced many such incidences.
    - The BESS system with capacity like 250 MW can act as an embedded generation and bridge the gap to meet the Mumbai demand during the period of contingencies till the constraints in transmission corridor are addressed.
- Status:
    - Scheme is being conceptualised. Preliminary discussion with STU and MTC is complete and STU is now carry out system study at MMR level.

12. Line augmentation with HTLS/ Twin Conductors

- Scheme brief & need:
    - AEML-T network includes 220 kV O/H transmission lines connecting Adani Dahanu Thermal Power station - MSETCL Boisar - Ghodbunder - Versova - Aarey - Gorai - Goregaon - TPC Borivali.
    - Line augmentation scheme is being proposed to strengthen Mumbai Transmission network by optimizing usage of existing OH line corridor/ RoW, so as to meet growing load growth in future.

- Scope:
    - Replace existing AAAC conductor with HTLS conductor on 220 kV Transmission OH lines in AEML network in Mumbai.
- Proposed benefits:
    - HTLS conductors have more current carrying capacity compared to existing AAAC conductors. The scheme will enhance corridor capacity by optimizing usage of existing corridor/ RoW, help improve quality/ reliable power supply in Mumbai.
- Status:
    - Scheme discussed in 11th MTC meeting dated 16.10.2024. in MoM dated 29.10.2024, MTC mentioned that these lines need to be strengthened to bring more power in Mumbai Power System in view of depleting Dahanu Generation and upcoming 400kV Talegaon scheme. To meet future load and mitigate severe RoW issue, MTC recommended the proposal for submission to GCC for approval.

13. 220 kV AIS to GIS Conversion (Versova & Ghodbunder)

- Scheme brief & need::
    - AEML's 220 kV AIS substations at Versova and Ghodbunder are in operation since 1995-96.
    - 220 kV Versova EHV Station is located in corrosive and saline atmosphere of Versova creek, surrounded by sewage treatment plant/ garbage dumping yard of MCGM and Nallah.
    - Due to development around Ghodbunder area, AEML 220 kV Ghodbunder EHV Station has turned into low lying area, causing waterlogging during rainy season, posing threat of EHV substation in extreme rain during hightide period.
    - Frequent maintenance is required to arrest impact of corrosive environment on AIS equipment. OEM support is difficult for old/ absolute technology equipment. Installation need relocation/ rise from ground level.
    - Hence, 220 kV AIS to GIS conversion scheme is being proposed at Versova and Ghodbunder Substation.
- Scope:
    - Replacement of existing 220 kV AIS system with 220 kV GIS system at 220 kV EHV Station at Versova and Ghodbunder along with associated equipment and required civil works.

Proposed benefits:

- Replacement of old/ absolute equipment with new technology having OEM support, optimize maintenance efforts, maintain desired level of system availability/ reliability.

- Status:
  - 220kV AIS to GIS Conversion at Versova- MERC referred the DPR back on 02.02.2022 for consideration of the alternatives to resolve the issues of Corrosion.
  - 220kV AIS to GIS Conversion at Ghodbunder- MERC referred the DPR back on 02.02.2022 for consideration of the alternatives to resolve the issues of Corrosion.
  - AEML-T has proposed schemes in view of system strengthening, issues due to coastal/saline areas, waterlogging issues and old step-up.

14. 220 kV GIS EHV substation at Airport

- Scheme brief & need:
  - 220 kV EHV substation is proposed at Andheri East area near Airport, to cater to future load growth in the region.
  - At present, AEML's 220 kV Saki EHV substation feeds power supply in and around area. As load on the Substation is approaching its firm capacity of 250 MVA, addition of transformation capacity will be required.
  - Due to space constraint, further capacity addition is not feasible at existing Saki EHV Substation. Hence, 220 kV EHV substation is envisaged at Airport on existing AEML-D's 33/ 11 kV Receiving station plot, by optimizing space with common facility of Transmission and Distribution.
- Scope:
  - 220/ 33 kV GIS based EHV Station along with 2 x 125 MVA Transformers.
  - LILO of 220 kV D/C underground cable system between 220 kV Aarey EHV Station and proposed BKC EHV Station.
- Proposed benefits:
  - This proposal will help provide necessary 33 kV outlets, ensure uninterrupted quality power supply to Mumbai International Airport Pvt. Ltd. and consumers around Airport area.
  - Proposed 220 kV EHV Substation will facilitate quality/ reliable power supply to existing/ new consumers in and around Andheri/ Vile-Parle East area.
  - Proposed EHV Station will relieve future loading at Saki EHV Substation and will help maintain firm capacities.
  - Avoid long distance 33 kV feeders at Discom end, improve system reliability.
- Status:
  - Scheme details are being worked upon and scheme will be put up to STU for consent.
  - There is proposed addition of 7 Nos. of 220 kV Bays, 28 Nos. of 33 kV Bays & laying of 4 ckt. kms as part of this scheme.

- This scheme is part of existing AEML-T License Order in Case No. 127 of 2022.

15. 20kV S/C from AEML Aarey to AEML Chandivali and S/C from AEML Aarey to TPC Saki

- Scheme brief & need::
  - To provide alternative supply to proposed 220kV Chandivali EHV Sub Station and strengthen Transmission Network.
- Scope:
  - Extension of 220 kV GIS bays at existing 220kV Aarey EHV Station.
  - 220kV Cable Connectivity from existing 220kV AEML Aarey EHV Station through laying of 220 kV S/C connectivity to proposed Chandivali EHV Substation and 220kV S/C Cable connectivity from existing 220kV AEML Aarey to 220kV TPC Saki.
- Proposed benefits:
  - 220kV Chandivali S/s being commissioned through LILO of T-Saki Vikhroli OH line. Upcoming load develop constrains in the network.
  - 220 kV Aarey EHV Substation will form 2nd source to 220 kV Chandivali EHV Station, thereby bringing additional feed to Chandivali & associated network.
  - Scheme will improve quality/ reliable power supply in Mumbai system.
- Status:
  - There is proposed addition of 4 Nos. of 220 kV Bays & laying of 6.6 ckt. kms as part of this scheme.
  - This Scheme is part of STU 5-year plan FY 2023-27, dated 16.11.2023 and STU 10 year plan FY 2025- 34, dated 05.09.2024.
  - This scheme is part of existing AEML-T License Order in Case No. 127 of 2022.
  - Scheme discussed in 8th MTC, revised based on STU study report.
  - STU approved scheme with prudence check report on 28.10.2024, AEML submitted DPR to Hon'ble Commission on 31.10.2024.

16. 220kV D/C cable Connectivity Between Dahisar EHV Station – 220kV AEML-T Borivali EHV S/S

- Scheme brief & need:
  - As discussed earlier, AEML-T has proposed to commission 220 kV Dahisar EHV Station with 220 kV D/C underground cable connectivity from existing 220 kV Ghodbunder EHV Station.
  - As EHV Substation shall be fed from single source (radial mode), any contingency on 220 kV cable system or AEML-T Ghodbunder EHV Station can disconnect 220 kV feed to Dahisar EHV station.

- In view of above, scheme of 2nd Feed to Dahisar Substation will also be subsequently carried out, were second feed will be provided from existing AEML's 220 kV Borivali EHV Station.

- Scope:
  - Installation of 220 kV GIS bays at existing AEML Borivali and proposed Dahisar EHV Substation.
  - Laying of 220 kV underground D/C cable system between AEML Borivali EHV Substation and AEML Dahisar EHV Substation with associated equipment and civil work.
- Proposed benefits:
  - 220 kV Borivali EHV Station will form 2nd source to 220 kV Dahisar EHV Station, thereby bringing 220 kV Dahisar EHV Station into the ring main system.
  - In case of contingency, AEML Dahisar Substation will have 220 kV feed from other side of network, benefitting consumers at large with reliable and quality power supply.
- Status:
  - Scheme will be put up to STU for consent.
  - There is proposed addition of 4 Nos. of 220 kV Bays & laying of 12 ckt. kms as part of this scheme.
  - This Scheme is part of STU 5-year plan FY 2023-27, dated 16.11.2023 and STU 10 year plan FY 2025- 34, dated 05.09.2024.

This scheme is part of existing AEML-T License Order in Case No. 127 of 2022.

17. 220kV Scheme at Tilak Nagar/ Sidharth Nagar

- Scheme brief & need:
  - 220 kV EHV substation is proposed at Tilak nagar, to cater to future load growth in the region.
  - At present, there is TPC Dharavi- salsette/Vikhroli lines crossing nearby area.
  - AEML proposes LILO on the afore said line for establishing connectivity to grid.
- Scope:
  - 220/ 33 kV GIS based EHV Station along with 2 x 125 MVA Transformers, arrangement of land
  - LILO of 220 kV D/C underground cable system TPC Dharavi- salsette/Vikhroli line and proposed Tilak Nagar EHV Station.
- Proposed benefits:
  - This proposal will help provide necessary 33 kV outlets, ensure uninterrupted quality power supply to Tilaknagar and consumers around area.
  - Proposed 220 kV EHV Substation will facilitate quality/ reliable power supply to existing/ new consumers in and Tilaknagar area.
  - Avoid long distance 33 kV feeders at Discom end, improve system reliability.

- Status:
    - This Scheme is part of STU 5-year plan FY 2023-27, dated 16.11.2023.
    - The scheme is discussed in 9th MTC meeting dated 13.03.2024 and as per MoM dated 30.04.2024, the MTC committee directed AEML-T to submit DPR to STU, DPR under compilation.
    - Scheme will be put up to STU for consent shortly.
    - There is proposed addition of 7 Nos. of 220 kV Bays, 30 Nos. of 33 kV Bays & laying of 4 ckt kms as part of this scheme. This proposed addition is part of the license amendment petition dated 30.09.2024, filed before the Hon'ble Commission.

18. 3rd Transformer at certain EHV Stations

- Scheme brief & need:
    - Installation of 3rd PT at the Proposed EHV Substations at BKC, Dahisar, Khardanda, Uttan, Kandivali, Chandivali, etc.
    - As load on Substation increases up to firm capacity, scheme of 3rd Transformer will be required to enhance firm transformation capacity and to ensure reliable/ quality power supply in the region (as per Grid code / CEA Planning criteria).
    - These would help TSUs in the said areas to provide more nos. of power supply feeders in the area.
- Scope
    - Installation of 220 kV GIS Bays at above mentioned EHV Substation.
    - Supply & Installation of 125 MVA, 220/ 33kV Transformer along with 33 kV GIS bays and associated civil work
    - Est. CoD estimated after two years from commissioning of Main S/s

19. 33kV AIS to GIS Conversion at Aarey (2 boards), Versova (1 board) & Ghodbunder (1 board)

- Scheme brief & need:
    - 33kV AIS to GIS conversion at Aarey, Versova and Ghodbunder S/s.
    - Replacing old AIS based switchgear equipment with GIS boards.
- Scope:

a. Removal of existing 33kV AIS system.

b. Installation of new 33kV GIS Bays.

- Proposed Benefits

a. 33kV AIS boards are in operation for over more than 25-20 years. Over the period the network has grown significantly resulting in growth of fault levels of existing 33kV network.

b. 33kV AIS boards are no longer compatible with the fault current levels thus for increasing overall reliability of the system upgradation of 33kV AIS board is essential.

c. Also, the old equipment has turned obsolete and spare part availability / OEM support is a big concern now.

d. The proposed scheme will ensure reliable power supply.

- Status
  - Scheme discussed at 11th MTC Committee meeting dated 16.10.2024. In view of technology obsolescence, non availability of OEM spares and breach of faults, MTC committee recommended the scheme for submission to GCC for approval.

a. DPR under submission to STU.

The Hon'ble Commission is requested to approve the capital investment plan as submitted above.

5.1.1 Financing plan

Regulation 27.1 of the MYT Regulations, 2024 specifies that the funding of capex shall be carried out using Debt Equity ratio of 70:30. AEML-T submits that it shall fund the capex requirement by debt to the extent of 70% only. As no further loans have been contracted at this time, AEML-T has considered the debt equity ratio of 70:30 on provisional basis, for each year of the Control Period.

5.1.2 Depreciation

For the purpose of depreciation for each year, AEML-T has considered the opening asset balances of FY 2024-25 and has determined the depreciation for these assets for each year considering the depreciation rates as per Annexure I of MYT Regulations, 2024 and as per first proviso to Regulation 28.1 (b) of MYT Regulations, 2024. The calculations are provided in **Annexure 21 (Soft Copy only).** For the assets estimated to be added in FY 2024-25 in various asset classes, depreciation for each year has been calculated considering the rates as per Annexure I of MYT Regulations, 2024 and with the assumption that the assets shall be added uniformly throughout the year. For the assets projected to be added in each year during the Control Period, depreciation on assets out of DPR schemes approved prior to issuance of MYT Regulations, 2024 has been calculated considering the rates as per Annexure I of MYT Regulations, 2024 and depreciation on assets pertaining to schemes yet to be approved and future schemes as envisaged has been calculated considering the rates as per Annexure II of the MYT Regulations, 2024, with the assumption that the assets shall be added uniformly throughout the year.

The actual depreciation for each year shall be presented considering the actual asset addition and retirement and based on number of days the assets were in service at the time of truing up of respective years.

Table 63: Depreciation for FY 2024-25

Particulars/ (Rs. Crore)	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Opening GFA	3375.05	3761.70	4373.66	6273.31	8670.07
Addition	386.65	611.96	1899.64	2396.77	2322.33
Closing GFA	3761.70	4373.66	6273.31	8670.07	10992.41
Depreciation	152.96	159.17	205.84	301.28	402.85

AEML-T requests the Hon'ble Commission to approve the projected depreciation for each year as presented above.

5.1.3 Interest on Loan Capital

As per Regulation 30.5 of MYT Regulations, 2024, the rate of interest shall be the weighted average rate of interest computed on the basis of actual long term loan portfolio at the beginning of each year. The weighted average interest rate considering the opening balance of actual loans for FY 2024-25 works out to 9.28%.

Table 64: Interest rate for FY 2024-25

Source of Loan	Opening Loan Balance (Rs. Crore)	Interest Rate (%)
USD Bond	6269.64	9.05%
GMTN	2231.99	8.71%
Sub Debt	2009.64	10.61%
Weighted Average		**9.28%**

Accordingly, AEML-T has calculated the interest on loans for each year of Control Period considering the above interest rate. As no asset retirement has been envisaged as of now, no reduction of loan due to asset retirement has been considered at this stage. The same shall be considered at the time of truing up of respective years.

Table 65: Interest on loans from FY 2025-26 to FY 2029-30

Particulars/ (Rs. Crore)	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Opening Balance	1137.30	1254.99	1524.20	2648.11	4024.57
Addition of new loans	270.65	428.37	1329.75	1677.74	1625.63
Repayment	152.96	159.17	205.84	301.28	402.85

Closing Balance	1254.99	1524.20	2648.11	4024.57	5247.36
Interest Rate (%)	9.28%	9.28%	9.28%	9.28%	9.28%
Interest on Loans	110.96	128.90	193.52	309.49	430.05

AEML-T requests the Hon'ble Commission to approve the interest expenses for each year as presented above.

5.1.4 Financing Charges

Regulation 30.8 of the MYT Regulations, 2024 specifies that the finance charges incurred for obtaining loans from financial institutions for any year shall be allowed by the Hon'ble Commission at the time of truing-up, subject to prudence check. Accordingly, AEML-T shall submit the financing charges incurred at the time of truing up of respective years.

5.1.5 Foreign Exchange Rate Variation

The actual FERV, if any, shall be claimed at the time of truing up of respective years.

5.1.6 Return on Equity

Regulation 29.2 (i) and 29.3 of the MYT Regulations, 2024 are reproduced below:

> ***"29.2 Return on Equity at the time of MYT Proceedings***
> *i. Return on equity for the Generating Company having thermal, gas or hydro plants, Transmission Licensee and Distribution Wires Business, shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put to use, at the rate of 15.50 (base rate – 14 + performance linked -1.50) per cent per annum in Indian Rupee terms."*
> ………
> ***29.3 Return on Equity at the time of Truing Up Proceedings***
> *Performance Linked Return on Equity considered at the time of MYT Proceedings shall be reviewed and allowed at the time of truing up of respective year based on actual performance, after prudence check by the Commission."*

Thus, the intent of MYT Regulations, 2024 is to allow both the base RoE of 14% and performance linked RoE of 1.50% in the MYT Order. However, the performance linked RoE component shall be reviewed at the time of truing up of respective years based on actual performance and accordingly allowed. In case of a Transmission Licensee, performance linked RoE component is linked to Availability in the MYT Regulations, 2024. Hence at this stage, AEML-T has claimed RoE for each year of Control Period considering RoE rate of 15.50%.

Regulation 34.1 of the MYT Regulations, 2024 is reproduced below:

> *"34.1 The Income Tax for the Generating Company or ESSD or Licensee or MSLDC or STU for the regulated business shall be allowed on Return on Equity, including Performance Linked Return on Equity at the income tax rate applicable for the respective financial year, through*

the Tariff charged to the Beneficiary/ies, subject to the conditions stipulated in Regulations 34.2 to 34.5:

Provided that, at the time Multi Year Tariff Projections, the Income tax rate shall be allowed as the latest available Income Tax Rate approved by the Commission, whereas, at the time of true-up the Income Tax rate shall be approved based on the actual Income Tax paid by the Generating Company or ESSD or Licensee or MSLDC or STU, subject to prudence check;"

As per the latest completed years (FY 2023-24), AEML as a whole has paid income tax at MAT rate of 17.47%. Accordingly, for grossing up the RoE of respective years, AEML-T has considered the MAT rate of 17.47% on provisional basis. This is without prejudice to the contention of AEML-T in Appeal no. 538 of 2023 that tax rate for grossing up of RoE should be determined on standalone basis for each regulated entity on regulatory PBT basis.

Table 66: RoE from FY 2025-26 to FY 2029-30

Particulars/ (Rs. Crore)	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Regulatory Equity at the beginning of year	1053.78	1169.78	1353.37	1923.26	2642.29
Capitalization during the year	386.65	611.96	1899.64	2396.77	2322.33
Equity portion of capitalization during the year	115.99	183.59	569.89	719.03	696.70
Regulatory Equity at the end of year	1169.78	1353.37	1923.26	2642.29	3338.99
RoE rate (%)	15.50%	15.50%	15.50%	15.50%	15.50%
Effective Tax Rate (%)	17.47%	17.47%	17.47%	17.47%	17.47%
Pre-tax RoE rate (%)	18.78%	18.78%	18.78%	18.78%	18.78%
Return on Regulatory Equity at beginning of year	197.91	219.70	254.18	361.21	496.25
Return on Regulatory Equity addition during the year	10.89	17.24	53.52	67.52	65.42
RoE	**208.80**	**236.94**	**307.69**	**428.73**	**561.67**

AEML-T requests the Hon'ble Commission to approve the return on equity for each year as presented above.

5.2 Operation & Maintenance (O&M) expenses

MYT Regulations, 2024 specifies the norms for O&M expenses for Transmission Licensees linked to transmission line length, no. of Bays and transformation capacity. The norms for AEML-T specified in MYT Regulations, 2024 are as under:

"80.3 Norms for O&M expenses for Adani Electricity Mumbai Ltd. - Transmission (AEML-T) shall be:

Voltage Level	***FY 2025-26***	***FY 2026-27***	***FY 2027-28***	***FY 2028-29***	***FY 2029-30***
INR Lakh/ckt km					
220 kV	*6.12*	*6.39*	*6.68*	*6.98*	*7.29*
INR Lakh/Bay					
220 kV	*9.28*	*9.70*	*10.13*	*10.59*	*11.06*
33 kV	*1.94*	*2.03*	*2.12*	*2.21*	*2.31*
INR Lakh/MVA	***0.56***	***0.59***	***0.62***	***0.64***	***0.67***

………………..

The O&M expenses for the GIS bays shall be allowed as worked out by multiplying 0.70 to the normative O&M expenses for bays as allowed in Regulations 80.1 to 80.9."

The year wise scheme wise line length envisaged to be added during the Control Period is as shown in the table below:

Table 67: Year wise addition of Transmission lines from FY 2025-26 to FY 2029-30

Particulars / (Ckt. Km)	**FY 2025-26**	**FY 2026-27**	**FY 2027-28**	**FY 2028-29**	**FY 2029-30**
DPRs approved by Commission					
220/33 kV GIS EHV S/S at Chandivali	0.70	0	0	0	0
220 kV D/C cable connectivity Between 220 kV AEML-T BKC and 220 kV AEML-T Aarey	0	0	0	35	0
220/33 kV GIS EHV S/S at Kandivali	0	0	9	0	0
DPRs submitted to Commission					
220/33 kV GIS EHV S/S at Dahisar	0	0	13	0	0
220kV Scheme at Uttan/ Rai Village	0	0	0	8	0
220/33kV GIS EHV S/S at Khardanda	0	0	0	7	0
20kV S/C from AEML Aarey to AEML Chandivali and S/C from AEML Aarey to TPC Saki	0	0	6.60	0	0
Future Schemes					
220kV D/C cable Connectivity Between Dahisar EHV Station – 220kV AEML-T Borivali EHV S/S	0	0	0	0	12
220kV Scheme at Tilak Nagar/ Sidharth Nagar	0	0	0	4	0
220/33 kV GIS EHV S/S at Malad	0	0	0	0	2
220/33kV EHV S/S at Airport	0	0	0	0	4
Total	**0.70**	**0**	**28.60**	**54.00**	**18.00**

The year wise scheme wise addition of 220 kV GIS Bays envisaged during the Control Period are shown in table below:

Table 68: Year wise addition of 220 kV Bays from FY 2025-26 to FY 2029-30

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
DPRs approved by Commission					
220/33 kV GIS EHV S/S at Chandivali	7	0	0	0	0
100-120 MVAR Reactor at Chembur EHV S/s	1	0	0	0	0
220 kV D/C cable connectivity Between 220 kV AEML-T BKC and 220 kV AEML-T Aarey	0	0	0	4	0
220/33 kV GIS EHV S/S at Kandivali	0	0	7	0	0
DPRs submitted to Commission					
220/33 kV GIS EHV S/S at Dahisar	0	0	9	0	0
220kV Scheme at Uttan/ Rai Village	0	0	0	7	0
220/33kV GIS EHV S/S at Khardanda	0	0	0	7	0
220KV Switching S/s at Ghodbunder (Augmentation of Borivali-Ghodbunder-Boisar LILO line)	0	7	0	0	0
20kV S/C from AEML Aarey to AEML Chandivali and S/C from AEML Aarey to TPC Saki	0	0	4	0	0
Future Schemes					
3rd Transformer at BKC	0	1	0	0	0
220kV AIS to GIS Conversion (Versova)	0	0	13	0	0
220kV AIS to GIS Conversion (Ghodbunder)	0	7	0	0	0
Installation of 250 MW BESS at Dahanu	0	0	0	0	10
220kV D/C cable Connectivity Between Dahisar EHV Station – 220kV AEML-T Borivali EHV S/S	0	0	0	0	4
3rd Transformer at Chandivali	0	0	1	0	0
220kV Scheme at Tilak Nagar/ Sidharth Nagar	0	0	0	7	0
220/33 kV GIS EHV S/S at Malad	0	0	0	0	7
220/33kV EHV S/S at Airport	0	0	0	0	7
3rd Transformer at Kandivali EHV S/s	0	0	0	0	1
3rd Transformer at Dahisar EHV S/s	0	0	0	0	1
Total	**8**	**15**	**34**	**25**	**31**

It is pertinent to note here that AIS to GIS conversion project at Ghodbunder EHV S/stn has been planned in FY 2026-27. Hence 9 no. of AIS Bays at Ghodbunder EHV S/stn shall be replaced by 7 no. of GIS Bays at Ghodbunder EHV S/stn in FY 2026-27. Similarly the AIS to GIS conversion project at Versova EHV S/stn has been planned in FY 2027-28. Hence 12 no. of AIS Bays at Versova EHV S/stn shall be replaced by 13 no. of GIS Bays at Versova EHV S/stn in FY 2027-28. The year wise scheme wise addition of 33 kV GIS Bays envisaged during the Control Period is shown in the table below:

Table 69: Year wise addition of 33 kV Bays from FY 2025-26 to FY 2029-30

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
DPRs approved by Commission					
220/33 kV GIS EHV S/S at Chandivali	30	0	0	0	0
220/33 kV GIS EHV S/S at Kandivali	0	0	30	0	0
DPRs submitted to Commission					
220/33 kV GIS EHV S/S at Dahisar	0	0	30	0	0
220kV Scheme at Uttan/ Rai Village	0	0	0	30	0
220/33kV GIS EHV S/S at Khardanda	0	0	0	30	0
Future Schemes					
3rd Transformer at BKC	0	15	0	0	0
33kV AIS GIS Board at ARY (2) VSV (1) & GBR (1)	0	41	0	0	0
33kV Reactor Installation at 220 kv/ 33 kV AEML-T EHV stations	0	0	14	0	0
Installation of 250 MW BESS at Dahanu	0	0	0	0	48
3rd Transformer at Chandivali	0	0	15	0	0
220kV Scheme at Tilak Nagar/ Sidharth Nagar	0	0	0	30	0
220/33 kV GIS EHV S/S at Malad	0	0	0	0	30
220/33kV EHV S/S at Airport	0	0	0	0	28
3rd Transformer at Kandivali EHV S/s	0	0	0	0	15
3rd Transformer at Dahisar EHV S/s	0	0	0	0	15
Total	**30**	**56**	**89**	**90**	**151**

It is pertinent to note here that 33 kV AIS to GIS conversion project at Aarey, Versova and Ghodbunder EHV S/stns has been planned in FY 2026-27. Hence 41 no. of 33 kV AIS Bays at these S/stns shall be replaced by 41 no. of GIS Bays at the same S/stns in FY 2026-27. The year wise scheme wise addition of transformation capacity envisaged during the Control Period is shown in the table below:

Table 70: Year wise addition of MVA capacity from FY 2025-26 to FY 2029-30

Particulars/ (MVA)	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
DPRs approved by Commission					
220/33 kV GIS EHV S/S at Chandivali	250	0	0	0	0
220/33 kV GIS EHV S/S at Kandivali	0	0	250	0	0
DPRs submitted to Commission					
220/33 kV GIS EHV S/S at Dahisar	0	0	250	0	0
220kV Scheme at Uttan/ Rai Village	0	0	0	250	0
220/33kV GIS EHV S/S at Khardanda	0	0	0	250	0
Future Schemes					
3rd Transformer at BKC	0	125	0	0	0
3rd Transformer at Chandivali	0	0	125	0	0
220kV Scheme at Tilak Nagar/ Sidharth Nagar	0	0	0	250	0

Particulars/ (MVA)	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
220kV Nahar EHV Station	0	0	0	0	0
220/33 kV GIS EHV S/S at Malad	0	0	0	0	250
220/33kV EHV S/S at Airport	0	0	0	0	250
3rd Transformer at Kandivali EHV S/s	0	0	0	0	125
3rd Transformer at Dahisar EHV S/s	0	0	0	0	125
Total	**250**	**125**	**625**	**750**	**875**

As submitted in the section on truing up of FY 2022-23, the Hon'ble Commission had considered 3 no. of 33 kV AIS Bays and 29 no. of 33 kV AIS Bays as unutilized in the MTR Order dated 31.03.2023 in Case no. 230 of 2022. The year wise actual / estimated utilization till FY 2024-25, as submitted in the truing up sections of FY 2022-23/ FY 2023-24 and provisional truing up section of FY 2024-25 is as under:

Table 71: Actual/ Estimated utilization of Unutilized Bays in FY 2022-23, FY 2023-24 and FY 2024-25

Particulars	Total number of unutilized bays as per MTR Order (A)	No of AIS Bays already decommissioned prior to FY 2022-23 out of (A)	Net unutilized bays as per MTR Order (C)	Utilization in FY 2022-23 (Actual) - D	Utilization in FY 2023-24 (Actual) - E	Utilization in FY 2024-25 (Estimated) - F	Balance (C - D-E-F)
33 kV AIS Bays	3	1	2	2	0		0
33 kV GIS Bays	29		29	17	0	9	3
Total	**32**	**1**	**31**	**19**	**0**	**9**	**3**

The balance 3 GIS Bays are planned for utilization in FY 2025-26. The year-wise opening balance, closing balance and average balance of line length number of bays and transformation capacity as projected for estimating O&M expenses is as shown below:

Table 72: Year-wise opening balance, closing balance and average balance of line length, number of bays and transformation capacity

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
220 kV lines					
Opening balance	597.03	597.73	597.73	626.33	680.33
Addition through capex schemes	0.70	0.00	28.60	54.00	18.00
Closing balance	597.73	597.73	626.33	680.33	698.33
Average Balance for O&M expenses	597.38	597.73	612.03	653.33	689.33
220 kV bays - AIS					

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Opening balance	21	21	12	0	0
Addition through capex schemes	0	-9	-12	0	0
Closing balance	21	12	0	0	0
Average Balance for O&M expenses	21	17	6	0	0
220 kV bays - GIS					
Opening balance	107	115	130	164	189
Addition through capex schemes	8	15	34	25	31
Closing balance	115	130	164	189	220
Average Balance for O&M expenses	111	123	147	177	205
33 kV bays - AIS					
Opening balance	41	41	0	0	0
Addition through capex schemes	0	-41	0	0	0
Utilization of bays previously held unutilized					
Closing balance	41	0	0	0	0
Average Balance for O&M expenses	41	21	0	0	0
33 kV bays - GIS					
Opening balance	378	411	467	556	646
Addition through capex schemes	30	56	89	90	151
Utilization of bays previously held unutilized	3				
Closing balance	411	467	556	646	797
Average Balance for O&M expenses	395	439	512	601	722
Transformation Capacity (MVA)					
Opening balance	3500	3750	3875	4500	5250
Addition through capex schemes	250	125	625	750	875
Closing balance	3750	3875	4500	5250	6125
Average Balance for O&M expenses	3625	3813	4188	4875	5688

Based on the above, the normative O&M expense for each year of Control Period are shown in table below:

Table 73: Normative O&M expense from FY 2025-26 to FY 2029-30

Particulars/ (Rs. Crore)	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Line length ckt. km. (Average)	597.38	597.73	612.03	653.33	689.33
O&M cost norms (Rs. lakh/ ckt. km)	6.12	6.39	6.68	6.98	7.29
Normative O&M expenses for lines (Rs. crore)	**36.56**	**38.19**	**40.88**	**45.60**	**50.25**
Number of 220 kV AIS bays (Average)	21	17	6	0	0
Number of 220 kV GIS bays (Average)	111	123	147	177	205
Number of 33 kV AIS bays (Average)	41	21	0	0	0
Number of 33 kV GIS bays (Average)	395	439	512	601	722
O&M cost norms (Rs. lakh/ bay) - 220 kV AIS bays	9.28	9.70	10.13	10.59	11.06
O&M cost norms (Rs. lakh/ bay) - 220 kV GIS bays	6.50	6.79	7.09	7.41	7.74
O&M cost norms (Rs. lakh/ bay) - 33 kV AIS bays	1.94	2.03	2.12	2.21	2.31
O&M cost norms (Rs. lakh/ bay) - 33 kV GIS bays	1.36	1.42	1.48	1.55	1.62
Normative O&M expenses for bays (Rs. crore)	**15.31**	**16.57**	**18.62**	**22.38**	**27.50**
Transformation capacity (MVA) - Average	3625	3813	4188	4875	5688
O&M cost norms (Rs. lakh/ MVA)	0.56	0.59	0.62	0.64	0.67
Normative O&M expenses for Transformation capacity (Rs. crore)	**20.30**	**22.49**	**25.96**	**31.20**	**38.11**
Total normative O&M Expense (Rs. Crore)	**72.17**	**77.26**	**85.47**	**99.18**	**115.86**

During the MTR proceedings in Case No. 230 of 2022, AEML-T had submitted that there are certain shared resources and services such as those from HR Dept, IT Dept, Accounts and Finance dept, Administration, Regulatory dept, Legal dept, Real Estate dept, etc. and cost of common IT software, licenses, cloud services, etc, which are working / utilised for all segments of AEML, but their cost is being booked in Distribution-Wires business only. AEML-T had prayed for allocation of such expenses between three segments of the business from FY 2019-20 onwards. However, the Hon'ble Commission in the MTR Order dated 31.03.2023 in Case No. 230 of 2022 refused to accept the submission and directed AEML-T to submit the details of such shared service expense at the time of formulation of O&M norm for next MYT Control period. The relevant part of the MTR Order is reproduced below:

> *"3.3.54 The Commission notes the practice followed by AEML-T to allocate the expenses to relevant heads, however, AEML-T may submit the same at the time of formulation of O&M norm for the next MYT Control period. The Commission will undertake due-diligence into the nature and amount of such shared service and corporate expenses while formulating the norms and accordingly decide on applicability of such expenses while considering the normative O&M expenses for AEML-T."*

Accordingly, AEML-T had submitted the details for shared service expenses from FY 2019-20 to FY 2021-22 as part of its response (dated 04.01.2024) to the queries from the Hon'ble Commission during the formulation of MYT Regulations, 2024 and had requested the Hon'ble Commission to factor in the same while deriving the O&M norms for AEML-T for the fifth Control Period. However, it appears that the said cost has not been factored in the norms for AEML-T as specified in MYT Regulations, 2024. The Statement of Reasons issued by the Hon'ble Commission along with MYT Regulations, 2024 also does not clarify whether the shared services cost for AEML-T have been factored in while deriving norms for AEML-T. The section of Statement of Reasons explaining the process of derivation for norms for Transmission Licensees for next Control Period is reproduced below:

> *"The Commission has retained its methodology proposed for computation of O&M charges in the Draft MYT Regulations, 2024. However, the Commission has noted the submissions of the stakeholders of lower recovery of the O&M Expenses as compared to the norms derived in MYT Regulations, 2019. To address the concerns of the stakeholders, the Commission has first estimated the O&M Expenses for the 5th Control Period by escalating the actual approved O&M expenses of FY 2021-22 (post sharing of gains and losses) with actual 5 years average of CPI: WPI having the ratio of 70:30 upto the Base Year i.e. FY 2024-25. Such derived normalised for base year O&M and then further escalated over the 5th Control Period with the inflation rate of 5.33% and post adjustment of the 1% efficiency factor.*
>
> *…………………..*
>
> *The Commission while estimating the norms at the time of Draft Regulations had considered normative allocation of the O&M Expenses in terms of Lines, Bays and MVA Capacity. However, the transmission licensee as part of their submissions have submitted their respective actual allocations, which have been considered while estimating the revised norms. Such actual allocation ratio is applied on the estimated O&M Expenses for 5th Control Period and the same is linked with the average transmission line length, number of bays and transformation capacity have been considered from the data submitted by the licensees in lines with the methodology adopted in the Explanatory Memorandum. Further, the Commission notes that ATIL, JPTL, APTCL and VIPL-T does not have any transformation capacity, hence, the Commission has proposed to allocate the O&M expense of substation assets to bays only."*

As seen from the above, the Hon'ble Commission has first estimated the O&M Expenses for the fifth Control Period by escalating the actual approved O&M expenses of FY 2021-22 (post sharing of gains and losses) with 5.33% and then derived the norms for the Transmission Licensees by segregating the estimated O&M expenses between line, Bays and transformation capacity. It is submitted that the approved O&M expenses of FY 2021-22 (post sharing of gains and losses) for AEML-T in the MTR Order (Case no. 230 of 2022) was without the shared service cost allocation, because the Hon'ble Commission had not considered the submission of AEML for allocation of shared service expenses from AEML-D Wires business to generation and transmission segments. As a result of which, now there's a situation where the Hon'ble Commission neither approved allocation of shared service expenses to AEML-T for inclusion in FY 2021-22, nor considered the same while deriving the O&M norms for the next Control Period, despite its own ruling in the MTR Order that such expenses shall be considered while working out the norms for next MYT Period.

Hence, now AEML-T does not have any option but to claim the component of O&M expense pertaining to shared service expense from FY 2025-26 onwards, separately over and above the normative O&M expense claimed above. This is required since common manpower and common service expenses of different departments needs to be allocated among different divisions of AEML, as these human resources as well as services are being utilised for the services and benefit of all segments of AEML regulated business and not distribution (wires) alone.

For the purpose of projecting the expenses pertaining to shared service expenses, AEML-T has considered the shared service expense of Rs. 7.82 Crore for FY 2021-22 (as submitted in the MTR Petition in Case no. 230 of 2022) and has escalated the same by 5.33% (the same rate as considered by Hon'ble Commission for estimating the O&M expenses for fifth Control Period) to arrive at the projected expense for FY 2025-26 and onwards.

Further, there will be implications on operation and maintenance expense of AEML-T in future because of renewal land lease rent payable to Maharashtra Housing and Area Development Authority (MHADA) for Versova EHV station. 220/33kV EHV Substation at Versova has been in operation since around 30 years now. The station is with installed capacity of 525MVA and with 220kV connectivity with MSETCL Boisar, 500MW Dahanu Thermal power station, AEML Gorai S/s, AEML Ghodbunder S/s, AEML Goragaon /Aarey S/s, TPC-Versova S/s. In November 1992, MHADA had allotted land admeasuring 39200 SQMT for the EHV Station (Sr. No. 120, CTS No. 1374 A (pt) of village Versova, Taluka Andheri) to BSES (now AEML) under a lease for 30 years for construction of Versova EHV station. The lease period for the said land has ended in November 2023. The land was allotted as per Resolution No 3051 dated 18.11.1992 on lease rent with one time premium for 30 years and handing over taking over process was executed on 11.11.1993. AEML-T has always shown this land under Leasehold Land in its GFA and amortised the lumpsum lease payment to MHADA over the 30 year period. The annual amortization amount has since been claimed under Depreciation & Amortisation in the ARR. After the lease tenure had ended in November 2023, AEML-T has continued to pay lease rent to MHADA on historical rates and currently the lease rent at historical rates has been paid till March 2025.

As the lease period has ended, the same is required to be extended. On 10.05.2024, AEML-T had submitted application for renewal of lease agreement to MHADA Authority. However, the lease rent agreement is not renewed yet and it is communicated by MHADA that lease rent for the said plot shall be collected by MHADA on monthly basis and it shall not claim one time premium towards land lease rent as was done in 1992. Currently the formalities for renewal of lease agreement are ongoing with MHADA and AEML-T will have to incur addnl. O&M expense towards lease rent for the said plot in future. AEML-T submits that as Lease amount was so far being amortised and claimed in ARR, it has always been allowed under depreciation and therefore was separate and in addition to O&M expenses. Further, as it was claimed under depreciation & amortization, it has never been part of O&M expenses either and therefore the norms of O&M are not reflective of this cost. Further, the amount agreed in 1992 and that will be agreed as lease rent now are likely to be quite different as well. Therefore, AEML-T would request the Hon'ble Commission to kindly allow the same as additional O&M expenses, over and above net entitlement as per norms, so as to permit complete pass through of this cost. AEML-T has calculated the annual rent (payable to MHADA on monthly basis) from November 2023 onwards as per the MHADA circular 03.02.2023. The copy of the said circular and a note showing the derivation of the annual rent is attached herewith as **Annexure 23 (Soft Copy only).** The lease agreement is expected to the finalized by March 2025. Accordingly AEML-T will have to pay arrears of lease rent for the period November 2023 to March 2025 and annual lease rent from FY 2025-26 onwards. The year wise calculations are included in the MYT Petition financial model (Annexure A). Further there are certain one time expenses (stamp duty, registration charges and legal / consultancy charges) which will have to be incurred for renewable of lease rent agreement with MHADA. All the above charges are being submitted now on provisional basis and the actual charges along with their detailed justification will be submitted in the next tariff determination stage. The Hon'ble Commission is requested to approve the additional O&M expense towards lease rent of land of Versova EHV station and additional O&M expense towards shared service cost over and above the normative O&M expense by exercising its powers under Regulation 149 of the MYT Regulations, 2024.

Based on the above, the total O&M expenses, including the allocated shared service expenses, as claimed for the fifth Control Period are as under:

Table 74: O&M expense claimed from FY 2025-26 to FY 2029-30

Particulars/ (Rs. Crore)	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Normative O&M Expense	72.17	77.26	85.47	99.18	115.86
Expense pertaining to Shared Service Expense	9.63	10.14	10.68	11.25	11.85
Lease rent charges for Versova EHV station	17.75	4.85	4.85	4.85	4.85
Total	**99.55**	**92.25**	**101.00**	**115.28**	**132.55**

The Hon'ble Commission is requested to approve the projected O&M expense as submitted above.

5.3 Interest on Working Capital

AEML-T has calculated the normative interest on working capital as per Regulation 32.2 (a) of the MYT Regulations, 2024. As per MYT Regulations, 2024, the Base Rate has been defined as One year MCLR of SBI and rate of Interest for allowing normative interest on working capital shall be Base Rate plus 150 Basis Points. As on the date of filing this petition, the Base Rate plus 150 Basis Points works out to 10.50%.

Based on the above, the normative interest on working capital as per MYT Regulations, 2024 is worked out as shown in the table below:

Table 75: Interest on working capital from FY 2025-26 to FY 2029-30

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
O&M Expense for one month	8.30	7.69	8.42	9.61	11.05
Maintenance Spares @1% of the Opening GFA	33.75	37.62	43.74	62.73	86.70
1.5 months of the expected revenue from transmission charges	80.98	78.73	102.88	147.08	194.33
Less: Amount of Security Deposit from Transmission System Users	0	0	0	0	0
Total Working Capital Requirement	**123.02**	**124.04**	**155.03**	**219.42**	**292.08**
Rate of Interest (% p.a.) – SBI Base Rate plus 150 basis points	10.50%	10.50%	10.50%	10.50%	10.50%
Interest on Working Capital	**12.92**	**13.02**	**16.28**	**23.04**	**30.67**

5.4 Contribution to Contingency Reserve

Regulation 35.1 of the MYT Regulations, 2024 provides for Contribution to Contingency Reserves (CR) a sum equal to 0.25% of the original cost of fixed assets. In view of the above, AEML-T has considered the contribution to contingency reserve at 0.25% of the projected cost of fixed assets at the beginning of each year.

Table 76: Contribution to Contingency Reserve from FY 2025-26 to FY 2029-30

Particulars/ (Rs. Crore)	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Opening balance of Contingency Reserves	62.11	70.55	79.95	90.89	106.57
Opening Gross Fixed Assets (GFA)	3375.05	3761.70	4373.66	6273.31	8670.07
Opening balance of Contingency Reserves as % of Opening GFA	1.84%	1.88%	1.83%	1.45%	1.23%
Contribution to Contingency Reserves	**8.44**	**9.40**	**10.93**	**15.68**	**21.68**

5.5 Non Tariff Income

For projection of Non-Tariff Income for Control Period, AEML-T has considered the various revenue elements (rental income from land usage charges, income from sale of scrap and unclaimed liabilities written back) at same level as that estimated for FY 2024-25. For projection of income from contingency reserve for each year of Control Period, AEML-T has considered the estimated income from contingency reserve for FY 2024-25 and has derived additional income in each year considering incremental contingency reserve investment in each year. For deriving additional income from incremental contingency reserve investment in each year, AEML-T has considered return rate of 6% since the average return realized from Treasury Bills is 6%. The projected Non-Tariff Income for each year of Control Period is shown in table below.

Table 77: Projected NTI from FY 2025-26 to FY 2029-30

Particulars/ (Rs. Crore)	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Income from rent of land or buildings (land usage charges)	1.32	1.32	1.32	1.32	1.32
Income from sale of scrap	3.41	3.41	3.41	3.41	3.41
Income from investments (contingency reserve)	3.86	4.90	7.34	11.97	19.93
Unclaimed liabilities written back	0.18	0.18	0.18	0.18	0.18
Total	**8.76**	**9.80**	**12.24**	**16.88**	**24.84**

5.6 Income from Other Business

No income from Other Business has been projected for the next Control Period at this stage since AEML-T does not have any agreement with third party for optimum utilization of its assets.

5.7 Revenue gap/ (surplus) till FY 2024-25

AEML-T proposes to recover / pass on the revenue gap/ (surplus) till FY 2024-25 entirely in FY 2025-26. The carrying cost on revenue gap/ (surplus) for FY 2022-23 and FY 2023-24 is shown in the table below. AEML-T has considered the carrying cost for FY 2022-23 and FY 2023-24 at the respective rates at which normative interest on working capital (i.e. SBI MCLR plus 150 Basis points) are determined. For FY 2024-25 and FY 2025-26, AEML-T has considered the carrying cost rate at 10.50%, i.e. the rate of interest as on the date on which Petition is filed.

Table 78: Carrying cost on incremental Revenue gap/ (surplus) for FY 2022-23 till FY 2025-26

Particulars (Rs. Cr)	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Opening balance	0	5.09	22.56	22.56
Addition	5.09			
Recovery / (refund)		(17.47)		22.56
Closing balance	5.09	22.56	22.56	0.00
Average balance	2.54	13.82	22.56	11.28
Carrying cost (%)	9.30%	10.07%	10.50%	10.50%
Carrying cost	0.24	1.39	2.37	1.18
Total Carrying cost				5.18

The carrying cost on revenue gap/ (surplus) for FY 2023-24 till FY 2025-26 is shown in the table below:

Table 79: Carrying cost on Revenue gap/ (surplus) for FY 2023-24 till FY 2025-26

Particulars (Rs. Cr)	FY 2023-24	FY 2024-25	FY 2025-26
Opening balance	0	29.85	29.85
Addition	29.85		
Recovery			29.85
Closing balance	29.85	29.85	0.00
Average balance	14.93	29.85	14.93
Carrying cost (%)	10.07%	10.50%	10.50%
Carrying cost	1.50	3.13	1.57
Total Carrying cost			6.20

AEML-T has not calculated any carrying cost on the provisional revenue gap/ (surplus) of FY 2024-25 as per past practice. The total revenue gap/ (surplus) till FY 2024-25 including carrying cost on incremental revenue gap/ (surplus) of FY 2022-23 and carrying cost on revenue gap/ (surplus) of FY 2023-24 is shown in the table below:

Table 80: Revenue gap/ (surplus) till FY 2024-25

Particulars	Rs. Crore
Incremental Revenue Gap/(surplus) for FY 2022-23	22.56
Carrying cost for FY 2022-23	5.18
Revenue gap/ (surplus) for FY 2023-24	29.85
Carrying cost for FY 2023-24	6.20
Provisional revenue gap for FY 2024-25	-0.83
Total	**62.97**

5.8 Summary of Aggregate Revenue Requirement

Based on the above, the Aggregate Revenue Requirement for each year of Control Period is shown in the table below:

Table 81: Aggregate Revenue Requirement from FY 2025-26 to FY 2029-30

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Operation & Maintenance Expenses	99.55	92.25	101.00	115.28	132.55
Depreciation Expenses	152.96	159.17	205.84	301.28	402.85
Interest on Loan Capital	110.96	128.90	193.52	309.49	430.05
Interest on Working Capital	12.92	13.02	16.28	23.04	30.67
Contribution to contingency reserves	8.44	9.40	10.93	15.68	21.68
Return on Equity Capital	208.80	236.94	307.69	428.73	561.67
Less: Non Tariff Income	8.76	9.80	12.24	16.88	24.84
Net ARR	**584.86**	**629.88**	**823.01**	**1176.62**	**1554.63**
Incremental Revenue Gap/(surplus) for FY 2022-23	22.56				
Carrying cost for FY 2022-23	5.18				
Revenue gap/ (surplus) for FY 2023-24	29.85				
Carrying cost for FY 2023-24	6.20				
Provisional revenue gap for FY 2024-25	-0.83				
Total ARR	**647.83**	**629.88**	**823.01**	**1176.62**	**1554.63**

AEML-T requests the Hon'ble Commission to kindly approve the ARR for each year of Control Period as submitted above.

6. COMPLIANCE TO DIRECTIVES IN EARLIER TARIFF ORDERS

6.1 Status of matter before Bombay High Court regarding AEML-T Saki to TPC Saki connectivity scheme

The Hon'ble Commission had given the following direction to AEML-T in the MYT Order dated 30.03.2020 in Case no. 297 of 2019.

"3.4.13 As regards Saki EHV station, AEML-T submitted that the Arbitration Order was issued on 16 May, 2017 against AEML with a financial liability of Rs. 2.87 Crore which is capitalized under the said scheme in FY 2018-19. Matter is however being pursued before the Bombay High Court under Section 34 of the Arbitration Act and if the matter is ruled in favour of AEML, the said cost shall be decapitalised. As the Arbitration Order is against AEML-T and payment of Rs. 2.87 Crore is made, it is necessary to recognize the same. The Commission has observed that there is no cost overrun in case of Saki EHV station scheme even after allowing the additional liability of Rs. 2.87 Crore arising due to the Arbitration Order. Accordingly, the Commission approves Rs. 2.87 Crore capitalization for Saki EHV station scheme in FY 2018-19. As AEML-T has pursued the matter before the Bombay High Court and decision is pending, the Commission directs AEML-T to decapitalize the approved capitalization if decision comes in favour of AEML-T."

It is submitted that the matter pertains to period prior to acquisition of RInfra's business by AEML, hence matter was pursued by RInfra before the Bombay High Court. After takeover of RInfra's business, RInfra informed AEML that owing to settled law and various judgments cited, it was unlikely that the High Court would have interfered with the Arbitration Order dated 16.05.2017 as the Arbitration Order was well reasoned and did not fall under the exceptions of interference under Section 34 of Arbitration & Conciliation Act. There was also a legal advice that in case of an unfavourable judgment against RInfra, RInfra would be liable to pay further compensation/interest to the vendor. **Owing to the above facts and circumstances and based on judgments and legal advice, it was suggested that matter be settled amicably with the vendor. Interest of approximately Rs. 3.26 Crore was saved** from the date of deposit of amount till date of settlement on account of amicable settlement between parties. The calculation of the interest saved is attached herewith as **Annexure 24 (Soft Copy only).** . Hence RInfra had filed an application before Hon'ble High Court of Mumbai for amicable settlement of the matter with the vendor and the Hon'ble High Court disposed off the Petition. Accordingly, AEML-T submits that the amount so paid as compensation to the contractor is not required to be decapitalized.

6.2 Shifting of Contingency Reserve investment from Mutual funds to Government Securities

The Hon'ble Commission had given the following direction to AEML-T in MYT Order dated 30.03.2020 in Case no. 297 of 2019.

"4.9.5 While framing of MYT Regulations, the Commission had envisaged that the Utilities will invest only in securities which are safe, and the reserve created out of these investments would be available to them in Force Majeure situations. However, though mutual funds are part of the list of securities authorised under the Indian Trusts Act, 1882, investment in such instruments exposes the reserve created to market risk. While the Regulation 34.3 of the MYT Regulations, 2015 clearly mentions that no diminution in the value of Contingency Reserve will be permitted, the Commission does not want the utilities to land in difficult situations wherein the value of the Contingency Reserve is negatively impacted due to market fluctuations. This in a way defeats the intent of the Regulations. Considering the above, the Commission is of the view that the Licensee shall not invest the Contingency Reserves amount in market linked instruments such as Mutual Funds, etc., since considering the purpose of this reserve, the risk cannot be passed on to consumers and also should not create situations wherein the fund is not available with the utility when it is required the most. Therefore, the Commission in exercise of its "Power to remove difficulties" as per Regulation 102 of MYT Regulations, 2015 directs -AEML-T to transfer the existing Mutual Fund investment towards Contribution to Contingency Reserve to safer instruments, i.e., Government Securities (G-Sec) within the 6 months of the issue of this Order. AEML-T also to ensure that the Contribution to Contingency Reserve for future period shall be invested only in the above specified investments."

It is submitted that the compliance to the above directive was made by AEML by shifting the contingency reserve investments from mutual funds to Government securities / treasury bills authorized under the Indian Trusts Act, 1882 and the same was intimated during MTR proceedings (Case No. 230 of 2022). The relevant section of the MTR Order is reproduced below:

"3.15.4.2 Out of the total amount as per books shown above, the amount of Rs. 185.07 Crore was invested in Mutual Funds as on 31 March, 2020. However, as per the Commission's direction in the MYT Order, the said amount was withdrawn and parked in Power Receivables Trust (PRT), a notified Trust under SEBI (Debenture Trustees) Rules and Regulations, 2019 and governed by Catalyst Trusteeship Limited. Further, an additional investment of Rs. 21.99 Crore was made towards complying with investing the contribution of FY 2019-20, till 30 September, 2020. Out of the same, an amount of Rs. 19.15 Crore was invested in PRT and the balance Rs.

2.84 Crore in G-Sec. Thereafter, as on December 2020, an amount of Rs. 204.66 Crore has been invested in G-Sec. in compliance with the Commission's directions …….”

The Hon'ble Commission had verified the contingency reserve investment as per the documentary evidence of investment made in Government securities in MTR proceedings and allowed the contingency reserve for the truing up years till FY 2021-22 in the MTR Order, as reproduced below:

“3.15.11The Commission has scrutinized the income from contingency reserve investments for each year under each head claimed by AEML-T in its Petition. The income from investments made for contribution to contingency reserve has been scrutinized by the Commission based on the audited annual accounts and are in line with the submission.”

6.3 Direction in MTR Order in Case No. 201 of 2017 dated 12.09.2018

The Hon'ble Commission had given the following direction to AEML-T in MTR Order dated 12.09.2018 in Case no. 201 of 2017.

“7.1.2 The Commission further notes that Operation and Maintenance expenses allowed in ARR Petition of the Transmission Licensees depend upon the number of bays and ckt.km of the Transmission Lines. Further, as the Transmission lines and bays are added in the system, the Transmission Licensees are entitled to claim the expenses related to capitalization such as Return on Equity, depreciation and Interest on loans. In view of the above, it is necessary that the assets position in the Transmission Licence, i.e., number of bays and Ckt. km. of the Transmission Lines should be accurate and updated. Accordingly, the Commission thinks it appropriate to issue the following directions to RInfra-T:

i. While submitting future DPRs (Detailed project reports), RInfra-T shall explicitly mention the voltage-wise number of bays and Ckt. km. of Lines proposed to be added under the said DPR.

ii. RInfra-T shall also mention in the DPR, which of the existing bays and Lines shall be decommissioned or would become spare line/spare bay as a result of the execution of the DPR.

iii. RInfra-T, while submitting half yearly report regarding DPRs should provide the voltage-wise number of bays and Ckt. km. of Lines added against each DPR. Also, if existing Lines/bays are decommissioned or become spare line/ bay, same should be mentioned in the half yearly report.

iv. RInfra-T shall file the Petition of amendment of its Licence 4 months prior to filing the next ARR Petition. In the said Petition, RInfra-T shall provide the updated number of bays including

33 kV bays of EHV substations and Ckt. km. of Transmission Lines. Also, RInfra- T shall provide bifurcation of its Lines/ bays into following categories:

a. Asset allowed in ARR and put to use

b. Asset not allowed in ARR and not put to use

c. Asset allowed in ARR earlier but now become spare asset or decommissioned"

It is submitted that while submitting the DPRs as per Capex Regulations, 2022, AEML-T provides the no. of Bays and line length that will be added upon execution of the scheme. In the half yearly progress report also, the updated no. of Bays and line length are provided along with schemes which are completed. Further, AEML-T files Petition for License amendment before filing of MYT/MTR Petitions for updating the no. of Bays and line length in accordance with the above direction. At present, AEML-T has filed the Petition before the Hon'ble Commission for fifth amendment to its Transmission License (No. 1 of 2011) in Case No. 159 of 2024 and the same is pending .

6. Prayers

AEML-T prays that the Hon'ble Commission may be pleased to:

1. Admit the petition as submitted herewith;
2. Approve the actual revenue gap/ surplus arising on account of truing-up of FY 2022-23 and FY 2023-24 along with the carrying / holding cost as worked out in this petition;
3. Approve the provisional ARR and revenue gap/ surplus for FY 2024-25 as worked out in this petition;
4. Approve the ARR for each year of fifth Control Period i.e. for FY 2025-26 to FY 2029-30, as projected in this Petition;
5. Allow specific deviations from the MYT Regulations, 2019 and MYT Regulations, 2024, wherever sought in this Petition;
6. Grant specific prayers, wherever made in this Petition, for reconsideration / relaxation of rulings made in previous Tariff Orders;
7. Allow additions / alterations / modifications/ changes to the Petition at a future date;
8. Condone any inadvertent errors/ inconsistencies/ omissions/ rounding off differences, etc. as may be there in the said Petition;
9. Allow any other relief or pass Order and direction, which the Commission deems fit to be issued.

In light of the prayers made hereinabove, the Petitioner requests the Hon'ble Commission to consider the same and grant us appropriate relief.

Kishor Patil
Authorized Representative
Adani Electricity Mumbai Ltd.

Mumbai
December 05, 2024