Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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CASE No. 297 of 2019

Case of Adani Electricity Mumbai Ltd. for Truing-up of ARR for FY 2017-18 and FY 2018-19, Provisional Truing-up of ARR for FY 2019-20 and approval of ARR for 4th Control Period FY 2020-21 to FY 2024-25

Coram
Shri Anand B. Kulkarni, Chairperson
Shri I. M. Bohari, Member
Shri Mukesh Khullar, Member

ORDER

Date: 30 March, 2020

Adani Electricity Mumbai Ltd.'s Transmission Business (**AEML-T**), H Block, 1st Floor, Dhirubhai Ambani Knowledge City, Navi Mumbai 400710, has filed a Multi-Year Tariff (MYT) Petition for the 4th Control Period on 1 November, 2019 comprising of Truing-up of Aggregate Revenue Requirement (ARR) for FY 2017-18 and FY 2018-19, provisional Truing-up for FY 2019-20 and approval of ARR for FY 2020-21 to FY 2024-25. Subsequently, the revised Petition was filed on 6 December, 2019.

The Petition has been filed in accordance with the MERC (Multi Year Tariff) Regulations, 2015 ("**MYT Regulations, 2015**") for Truing-up of FY 2017-18 and FY 2018-19, Provisional Truing-up of FY 2019-20 and MERC (Multi Year Tariff) Regulations, 2019 ("**MYT Regulations, 2019**") for approval of ARR for FY 2020-21 to FY 2024-2025.

The Commission, in exercise of the powers vested in it under Sections 61 and 62 of the Electricity Act (**EA**), 2003 and all other powers enabling it in this behalf, and after taking into consideration the submissions made by AEML-T, upon Public consultation process, and upon considering all other relevant material, has approved the Truing-up of FY 2017-18 and FY 2018-19, Provisional Truing-up of FY 2019-20 and approval of ARR for FY 2020-21 to FY 2024-25 in this Order.

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A&G	Administrative and General
AEML	Adani Electricity Mumbai Limited
AEML-D	Adani Electricity Mumbai Limited - Distribution
AEML-T	Adani Electricity Mumbai Limited - Transmission
ARR	Aggregate Revenue Requirement
APTEL	Appellate Tribunal for Electricity
ATL	Adani Transmission Limited
Capex	Capital Expenditure
CWIP	Capital Works In Progress
DPR	Detailed Project Report
EA 2003	Electricity Act, 2003
EHV	Extra High Voltage
FY	Financial Year
GOM	Government of India
GFA	Gross Fixed Assets
GIS	Gas Insulated Sub-station
GTD	Generation, Transmission, Distribution
ICD	Inter Corporate Deposit
IDC	Interest During Construction
IOWC	Interest on Working Capital
InSTS	Intra-State Transmission System
ISTS	Inter State Transmission System
kV	Kilo Volt
MAT	Minimum Alternate Tax
MCGM	Municipal Corporation of Greater Mumbai
MCLR	Marginal Cost of Funds based Lending Rate
MERC	Maharashtra Electricity Regulatory Commission
MOM	Minutes of Meeting
MSETCL	Maharashtra State Electricity Transmission Company Limited
MSLDC	Maharashtra State Load Despatch Centre
MTR	Mid Term Review

MVA	Mega Volt Amperes
MYT	Multi Year Tariff
NTI	Non-Tariff Income
O&M	Operation & Maintenance
PBT	Profit before tax
PWD	Public Works Department
R&M	Repair & Maintenance
REL	Reliance Energy Limited
REGSL	Reliance Electric Generation and Supply Ltd.
RInfra	Reliance Infrastructure Limited
RInfra-T	Reliance Infrastructure Limited - Transmission Business
RoE	Return on Equity
SC	Supreme Court
SCADA	Supervisory Control and Data Acquisition
SIS	System Improvement Scheme
SLDC	State Load Despatch Centre
STU	State Transmission Utility
TBCB	Tariff Based Competitive Bidding
TPC	Tata Power Company
TSU	Transmission System Users

1 INTRODUCTION

1.1 Background

1.1.1 Adani Electricity Mumbai Limited (AEML) is a vertically integrated utility carrying out the functions of generation, transmission, wheeling and retail supply of electricity in the suburbs of Mumbai. Adani Electricity Mumbai Limited has been granted Transmission Licence No. 1 of 2011 vide Order dated 11 August, 2011 in Case No. 70 of 2011. Adani Electricity Mumbai Limited is a Transmission Licensee under Alternative 2 as per the MERC (Transmission Licence Conditions) Regulations, 2004 as amended in 2006, for a period of 25 years w.e.f. 16 August, 2011. The Transmission License granted to AEML-T is an asset specific Licence, which includes list of existing and proposed Transmission Lines as well as Transmission Bays.

1.1.2 Reliance Infrastructure Limited (RInfra) and Reliance Electric Generation and Supply Ltd. (hereinafter referred to as REGSL) filed Petition before the Commission in Case No. 139 of 2017 seeking approval of the Commission to assign the Transmission Licence granted to RInfra to REGSL & the transfer of assets of the transmission system of RInfra to REGSL and subsequent sale of shares of REGSL to Adani Transmission Limited (ATL).

1.1.3 Subsequently vide letter dated 29 August , 2018, the Commission was intimated about the implementation of the scheme of arrangement to transfer Mumbai Generation, Transmission & Distribution business of RInfra to REGSL w.e.f. 1 April, 2018 and the sale of 100% shareholding of REGSL to ATL on 29August , 2018. Further, the Commission was informed about the application of REGSL for change of name to M/s Adani Electricity Mumbai Limited (hereinafter referred to as AEML) with the concerned Authority.

1.1.4 Subsequently, AEML, vide letter dated 1 September, 2018, informed the Commission about the change of name of M/s Reliance Electric Generation and Supply Ltd. (REGSL) to AEML, pursuant to a fresh Certificate of Incorporation issued by Registrar of Companies and requested the Commission to issue the Transmission Licence in the name of AEML.

1.1.5 The Commission vide letter dated 29 September, 2018 has assigned Transmission Licence to AEML.

1.1.6 Thus, Transmission Licence No. 1 of 2011 dated 11August, 2011, amendment to the Transmission Licence dated 14 March, 2016 and amendment to the Transmission Licence dated 18August, 2017 stands in the name of AEML.

1.1.7 AEML-T has filed the licence amendment Petition in Case No. 195 of 2019 which is presently under consideration with the Commission.

1.2 MYT Regulations

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

1.2.2 Subsequently, the Commission has notified the MYT Regulations, 2019 on 1 August, 2019. These Regulations are applicable for the 4th Control Period from FY 2020-21 to FY 2024-25, and as may be extended by the Commission

1.3 Petition and Prayers of AEML-T

1.3.1 Since the present Petition pertains to the Transmission business of AEML, AEML-T (transmission business of AEML) has filed its MYT Petition on 1 November, 2019 for Truing-up of ARR for FY 2017-18 and FY 2018-19, Provisional Truing-up of ARR for FY 2019-20 under the MYT Regulations, 2015, and for approval of the ARR for the 4th Control period FY 2020-21 to FY 2024-25 in accordance with the MYT Regulations, 2019. The main prayers of AEML-T in its revised Petition submitted on 6 December, 2019 are as below:

- *Admit the Petition as submitted herewith;*
- *Approve the actual revenue gap/surplus arising on account of Truing-up for FY 2017-18 and FY 2018-19 along with the carrying cost as worked out in this Petition;*
- *Approve the provisional ARR and revenue gap/surplus for FY 2019-20 as worked out in this Petition;*
- *Approve the ARR for each year of the Control Period FY 2020-21 to FY 2024-25, as projected in this Petition;*

1.3.2 On 11 November, 2019, the Commission conveyed the preliminary data gaps and information required from AEML-T. Subsequently a Technical Validation Session on the Petition was held on 25 November, 2019. The List of persons who participated in the discussion is at **Appendix -1**.

1.3.3 AEML-T filed the revised Petition on 6 December 2019, in accordance with the relevant provisions of MYT Regulations, 2019, incorporating replies to the queries raised in preliminary data gaps and clarifications on the issues raised during the discussion.

1.4 Admission of Petition and Public Consultation process

1.4.1 The Commission admitted the Petition on 10 December, 2019 and directed AEML-T to publish it in accordance with Section 64 of the EA 2003, in the specified abridged form and manner, and to reply expeditiously to any suggestions and comments received.

1.4.2 AEML-T published a Public Notice inviting comments/suggestions/objections on its Petition. The Public Notice published in English in Hindustan Times and Indian Express, and in Marathi in Loksatta and Saamana, all daily newspapers, on Friday, 13 December, 2019. The Petition and its Summary was made available for inspection/purchase at AEML-T's offices and Website (www.aeml.com). The Public Notice and Executive Summary of the Petition also made available on the websites of the Commission (www.merc.gov.in) in downloadable format.

1.4.3 The Commission received one suggestion/ objection on the Petition. A Public Hearing was held in Mumbai on 7 January, 2020, at 10:00 hours at the office of the Commission. No Oral suggestions/objections were put forward at the Public Hearing either. The List of Persons who attended the Public Hearing is at **Appendix -2**.

1.4.4 The Commission has ensured the due process contemplated under the law to ensure transparency and Public participation is followed at every stage and adequate opportunity was given to all concerned to express their views.

1.5 Organisation of the Order

1.5.1 This Order is organised in the following Sections:

- **Section 1** provides a brief of the regulatory process undertaken by the Commission.
- **Section 2** deals with suggestions/ objections received, AEML-T's Response and the Commission's Ruling.
- **Section 3** deals with the Truing-up of ARR for FY 2017-18 and FY 2018-19.
- **Section 4** deals with the Provisional Truing-up of ARR for FY 2019-20.
- **Section 5** deals with the approval of the ARR for the 4th Control period FY 2020-21 to FY 2024-25.
- **Section 6** deals with the mechanism for Recovery of Transmission Charges
- **Section 7** deals with the Applicability of the Order.

2 SUGGESTIONS/ OBJECTIONS RECEIVED, AEML-T'S RESPONSE AND THE COMMISSION'S RULING

2.1 Tariff based Competitive Bidding

Suggestion/ Objections

2.1.1 Tata Power has raised the following objection:

- 1000 MW HVDC (VSC based) Transmission link between MSETCL Kudus Substation and AEML Aarey Substation for bulk power injection to meet TSUs load requirement of Mumbai is proposed as part of AEML-T MYT Petition.
- Department of Industries, Power and Labour, Government of Maharashtra has issued Government Resolution No. Misc – 2018/ No. 214/ Power-4 dated 4 January, 2019 regarding adoption of new Tariff Based Competitive Bidding (TBCB) Process in the state of Maharashtra ["Notification"]
- As per Government Resolution, the Government of Maharashtra had decided to implement Tariff Based Competitive Bidding process for establishment of new transmission schemes through state-of-art technologies. As this project is state-of-art technology, it should be awarded through TBCB process.

AEML-T's Response

2.1.2 AEML-T submitted that TPC-T has made a reference to Letter No. MSETCL/CO/STU/PLAN/04036 dated 28 May, 2019. The said letter refers to the STU Five Year Plan, published by the STU as per Clause 39 of the Act & Regulation 8 of State Grid Code Regulation 2006 after considering all aspects and deliberations with stakeholders. TPC-T was a party to the mentioned process and had not raised any objection during the finalization of the STU Five-year Plan and even after the publication of the Five-year plan.

2.1.3 The AEML HVDC scheme was conceived subsequent to a recommendation of a Standing Committee constituted by the Commission to form a Five-year transmission development plan for Mumbai Metropolitan Region (MMR). The Committee recommended implementation of various schemes including AEML HVDC scheme as a long-term plan for strengthening Mumbai Transmission system. As per the observations of the Committee, considering constraints in Mumbai, AEML HVDC Scheme is of strategic importance for Mumbai as HVDC (VSC based) technology acts as Virtual Generation available at load center, with features like Black start, without any adverse impact of short-circuit level and having inbuilt provisions for Reactive Power management.

2.1.4 The AEML HVDC project was included in the STU Five Year plan of FY 2010-11 to FY 2014-15 for the first time. Subsequent to the approval of STU, the DPR of HVDC project was submitted to the Commission.

2.1.5 The Commission granted its in-principle approval for AEML HVDC DPR for erection of 2x500 MW HVDC (VSC based) transmission link to AEML (erstwhile RInfra) vide letter MERC/Capex/2014-15/00097 dated 10 April 2014.

2.1.6 Meanwhile, STU/ MSETCL proposed 400 kV O/H HVAC (Aarey-Kudus) scheme and requested the Commission on 5 January, 2015 to cancel the approved HVDC scheme of AEML. Accordingly, the Commission, vide letter dated 6 May, 2016, cancelled the in-principle approval of HVDC DPR in view of the STU proposed 400 kV O/H HVAC (Aarey-Kudus) scheme.

2.1.7 Since the Aarey-Kudus 400 kV O/H HVAC scheme of the STU did not materialize, which formed the basis of cancellation of HVDC scheme to meet the system demand, the original HVDC scheme of AEML which was also of strategic importance for Mumbai Transmission System Strengthening, stands revived. Taking into account the physical constraints in bringing transmission lines into the City of Mumbai, considering the technological benefits of HVDC (VSC based) & importance of reliability of power supply for Mumbai and benefits towards Voltage Regulation, the scheme is of strategic importance for maintaining Grid Security of Mumbai.

2.1.8 The Commission vide letter reference no MERC/ Mumbai/ Transmission/2019-20/23 dated 28 June, 2019 mentioned that, based on the study report of CEA, STU vide letter dated 27 June, 2019 has confirmed that Kudus-Aarey 1000 MW HVDC link is required for pushing additional power into Mumbai as the link creates a separate additional transmission corridor. STU vide letter ref no. MSETCL/CO/STU/No.6616 dated 04 September, 2019 enclosed Commission letter dated 28 June, 2019 for further needful action by AEML.

2.1.9 Accordingly, AEML vide letter references no AEML-MT/HVDC-DPR/ AKS/ 07/2019-20 dated 3 January, 2020 again submitted the Detailed Project Report (DPR) for scheme of 1x1000 MW HVDC VSC based Link between MSETCL 400 kV Kudus and 220 kV AEML Aarey EHV Station for approval to STU.

2.1.10 Hence, AEML-T submitted that the HVDC scheme proposed by it for inclusion in the License is not a new scheme, but is a scheme which was already approved for execution by AEML (erstwhile RInfra). In fact, if not for the delay, the scheme would already have been executed and the much needed transmission capacity for Mumbai would have already been created.

2.1.11 In its submission, TPC has stated that as HVDC is a project to be set up using state of the art technology, it should be executed through Tariff Based Competitive Bidding (TBCB) as per the Resolution of the Govt. of Maharashtra dated 4 January, 2019. In this regard, AEML-T submitted that the said GR does not mention that all projects using state of the art technology must be implemented through TBCB. The GR only specifies that TBCB would ensure benefit of latest technology and infusion of private capital in transmission sector. As per the GR, an Empowered Committee is to be created for operationalizing TBCB. The STU has been entrusted to refer the projects to the Empowered Committee for this purpose. However, in the instant case, the HVDC project has been assigned to AEML-T since 2010-11. It is not a new project, conceptualised after the creation of the said Empowered Committee.

2.1.12 It is submitted that Mumbai is in dire need of additional transmission corridor. Without creation of additional transmission capacity, it would not be possible to relieve existing transmission constraints and bring power into Mumbai to meet its growing needs. The Commission by its Order dated 2 January, 2019 in Case No. 249 of 2018 (BEST Petition for approval of PPA), observed as follows:

"…. Without strengthening of Mumbai transmission system, it would be difficult to meet the growing electricity demand of Mumbai city and its suburbs…."

2.1.13 Further, the Commission, in its Order dated 29 January, 2019 in Case No. 3 of 2019 again reiterated the need of increasing the Transmission System capacity to prevent jeopardizing the power security of Mumbai. The relevant extract is as follows:

"18. Considering the geographical location of Mumbai, density of the population, environmental issues and scarcity of power generation resources, increase of embedded generations does not appear viable. Hence, only option available to increase ATC of Mumbai.
19. Existing transmission lines importing power to Mumbai are critically loaded and cannot carry additional power to Mumbai………… further delay in increase in ATC of Mumbai Transmission would jeopardize the power security of Mumbai…."

2.1.14 The Commission held reviews with Mumbai Transmission and Distribution utilities on 12 October, 2018 and on 11 February, 2019 on Mumbai transmission system strengthening. Further, the Commission expressed concern to the Principal Secretary (Energy), GoM about delay in planning and implementation of STU Transmission schemes relating to strengthening of Mumbai Transmission Corridor in April 2019.

"…. It is requested that STU may kindly be directed to immediately respond to the direction of the Commission for setting up a credible monitoring mechanism, finalize agency for Vikhroli substation on TBCB, evaluate and finalize the HVDC scheme as proposed by Khaparde expert committee and

finalize the year wise, agency wise detailed plan for implementing all the approved or planned schemes for Mumbai Transmission corridor…"

2.1.15 STU vide its letter dated 28 May, 2019 submitted its final Five-year Transmission Plan FY 2018-19 to FY 2023-24, after discussion with various stakeholders. The Plan included proposed HVDC scheme from Kudus to Aarey in FY 2023-24 for implementation by AEML-T.

2.1.16 The CEA carried out load flow/ system and concluded vide letter dated 13 June, 2019 as follows:

"In view of above, Kudus-Aarey 1000 MW HVDC Link provides infeed to Mumbai as well as increases reliability. The link being VSC based technology would also help in voltage regulation.
Keeping in view future requirements, possibility of provision in terms of RoW and space at Kudus for another 1000 MW may be explored along with Kudus to Aarey HVDC Link. This second 1000 MW link could be extended to other suitable locations based on studies and implementation feasibility".

2.1.17 The need for this HVDC project for Mumbai cannot be overemphasized. It was originally planned for completion in FY 2014-15 and is thus five years overdue already. The party to execute has long been identified and the only step that remains is the revised approval of the DPR by the Commission. The process of DPR approval by the Commission would anyway ensure that the prudency of cost estimates is thoroughly examined and approved. On approval of DPR, AEML would follow the principles of Competitive Bidding while awarding the Contracts for Project Implementation. In this regard, it is also submitted that under the Electricity Act 2003, the State Commissions have powers and discretion to approve tariffs both under Section 62 (cost plus) as well as under Section 63 (competitive bidding). Starting a new process in terms of TBCB now, would considerably delay the project when it is already overdue. In any event, it is submitted that this project, having been approved for execution by AEML-T in 2014 is not a new project to be now referred for TBCB. AEML-T has the required credentials to execute the project and the cost prudency will anyway be achieved through the regulatory process of DPR approval. AEML is a privately owned company and the Adani Group has sufficient expertise of executing HVDC projects. Adani Transmission was the first private player to execute an HVDC project – the Mundra - Mohindergarh 500 kV, 2500 MW transmission line, which spans more than 1000 KM. In fact, Adani Transmission is the first private sector Company in the country to build High Voltage Direct Current (HVDC) System spanning ~1000 Kms, with maximum capacity of 2500MW and this is the first project of this nature to be completed in a record time of 24 months.

2.1.18 AEML-T further submitted that the Hon'ble APTEL in its Judgement in Appeal No. 106 & 107 of 2009 dated 31 March, 2010, observed that while Section 63 mandates the Commission to adopt tariff discovered through competitive bidding it doesn't take away its duty to determine tariff under Section 62. The relevant extract from the judgment is as follows:

> *"18. (ii) .....The wording contained in Sections 62 and 63 of the Act would make it clear that Section 63 is not couched as a non- obstante clause being an exception carved out from Section 62. Section 62 is a substantive provision. Section 63 is an exception. So the exception contained in Section 63 cannot override the scope of the substantive namely Section 62. In other words, Section 62 provides substantive power to the Appropriate Commission for determination of tariff with the sole exception of price discovery through the Competitive Bidding Process under Section 63.*
> *30. .....As referred to above, the State Commission has rightly pointed out that Section 62(1) (a) and Section 63 are alternative methods available to the Appropriate Commission for determination of tariff and therefore, it is open to the Appropriate Commission to adopt either of the procedures prescribed under Section 62(1) and under Section 63 of the Act in relation to the determination of tariff."*

Commission's Analysis and Ruling

2.1.19 The Commission has noted the submission of TPC-T and AEML-T. As stated by AEML-T, the HVDC scheme has been considered as a critical requirement for strengthening of the Mumbai transmission system since the year 2010. Further, the State Transmission Utility has already considered the 2 X 500 MW HVDC (VSC based) Substation at Kudus and HVDC cable link between Kudus & Aarey 80 km scheme for strengthening transmission network around Mumbai area in its latest Five Year plan dated 28 May, 2019 from the period FY 2018-19 to FY 2023-24.

2.1.20 The STU, based on the recommendations of Khaparde Expert Committee, had planned a series of schemes for the purpose of strengthening Mumbai transmission corridor. The schemes recommended by the Khaparde Committee included two critical schemes viz. Interconnection Point at Vikhroli and HVDC scheme. However, considering the delay in planning and implementation of the STU Transmission Schemes relating to augmentation of the Mumbai Transmission Corridor, the Commission vide its letter dated 28 March, 2019 emphasized on the need for increasing the Available Transmission Capacity by around 2000 MW by the year 2030. In this context the Commission also expressed its concern regarding the delay in planning and implementation of the STU Transmission schemes; particularly the two critical schemes mentioned earlier and requested the

Department of Industries, Energy and Labour, Govt. of Maharashtra to direct the STU to plan and implement all the approved or planned schemes for Mumbai transmission corridor. Accordingly, the Commission considers timely implementation of these schemes as critical for the strengthening of the Mumbai Transmission Corridor.

2.1.21 Further, AEML-T has already filed its Petition in Case No. 195 of 2019 seeking amendment of its Transmission Licence which also includes the proposed HVDC scheme. The Petition for Transmission Licence amendment is under consideration with the Commission.

2.1.22 As regards the project to be undertaken under TBCB, the STU vide its letter dated 22 January, 2020 has submitted that the 1000 MW HVDC Kudus-Aarey schemes has been referred to the Empowered Committee formed by the Govt. of Maharashtra and the decision of Empowered Committee is awaited.

2.1.23 **In view of the above, the Commission will decide regarding the HVDC scheme during proposed Transmission Licence Amendment of AEML-T in Case No. 195 of 2019 or any other proceedings as deemed appropriate.**

3 TRUING-UP OF ARR FOR FY 2017-18 and FY 2018-19

3.1 Background

3.1.1 AEML-T has sought Truing-up of ARR for FY 2017-18 and FY 2018-19 based on the actual expenditure and revenue as per the Audited Accounts for FY 2017-18 and FY 2018-19 and in accordance with the provisions of the MYT Regulations, 2015. AEML-T also submitted reasons for variation in the actual expenses for FY 2017-18 and FY 2018-19, as compared to the expenses approved in the Mid Term Review (MTR) Order dated 12 September, 2018 in Case No. 201 of 2017.

3.1.2 AEML has started conducting Mumbai Generation, Transmission and Distribution business in its own name from 29 August, 2018. So for Truing-up for FY 2018-19, revenues and expenses has been taken for two separate periods, from 1 April, 2018 till 28 August, 2018 (referred as Pre-AEML) and from 29 August, 2018 till 31 March, 2019 (referred as Post-AEML). Though AEML-T's submission consists of two separate periods for FY 2018-19, the Commission has analysed the entire FY 2018-19 as single period and approvals are provided accordingly.

3.1.3 The analysis underlying the Commission's Truing-up for FY 2017-18 and FY 2018-19 is set out below.

3.2 Operation and Maintenance Expenses

AEML-T's Submission

3.2.1 The Commission has excluded un-utilized Bays while estimating the normative O&M expenses for FY 15-16. AEML-T has challenged the issue of un-utilised Bays in its Appeal against the MYT Order (Case No. 237 of 2016), which is admitted and pending before the APTEL. The Commission has accepted the contentions of AEML that all the required Bays (for 220 kV Bays), even if some of them are required for future connectivity have to be commissioned together for engineering and technical reasons of compatibility, etc. Further, the 33 kV Bays have only become unused due to re-orientation of feeders by transmission system users and this is after continuous service of more than 20 years as the Commission has itself recognized in the MYT Order in Case No. 13 of 2016. However, in the present Petition, without prejudice to its contentions in the said Appeal, as summarized above, AEML-T has worked out the normative O&M expenses considering the circuit kms and bays approved by the Commission in the MYT Order in Case No. 13 of 2016.

3.2.2 In FY 2017-18, 220 kV cable from AEML Saki to TPC Saki has been commissioned and 2 number of 220 kV bays at existing Saki EHV Station are utilized which the Commission had considered as un-utilized in the MYT Order in Case No. 13 of 2016. Further, 3rd Transformer at Goregaon scheme is commissioned in FY 2017-18 and 1 number of 220 kV bays at existing Goregaon EHV Station is utilized which the Commission had considered as un-utilized in the MYT Order in Case No. 13 of 2016. 33 kV GIS Board at Goregaon EHV Station is commissioned during FY 2017-18 which added 14 numbers of 33 kV bays to the asset base. This totals 107 numbers of 220 kV bays and 381 numbers of 33 kV bays at the end of FY 2017-18.

3.2.3 AEML-T has 541.13 circuit Kms of 220 kV lines as the beginning of FY 2018-19 and also AEML-T has considered 107 Numbers of 220 kV bays and 381 Numbers of 33kV bays at the beginning of FY 2018-19 in line with truing up of FY 2017-18. The closing balance ckt-km of lines and bays for FY 2018-19 are the same as the opening balance as there is no addition to the network during the year.

3.2.4 AEML-T has derived the normative O&M expenses for FY 2017-18 and FY 2018-19 as per Regulation 58.4 of the MYT Regulations, 2015 and considering the average numbers of bays and line length approved by the Commission in the MYT Order in Case No. 13 of 2016 is as under:

Table 1: Normative O&M expenses for FY 2017-18 and FY 2018-19, as submitted by AEML-T (Rs. Crore)

Normative O&M expenses	FY 2017-18		FY 2018-19	
	MTR Order	Actual	MTR Order	Actual
Line length ckt. Km.				
Opening		538.66		541.13
Addition		2.47		-
Closing		541.13		541.13
Average	539.89	539.89		541.13
O&M cost norms (Rs. Lakh/ ckt. Km)	0.62	0.62		0.65
Normative O&M expenses (Rs. Crore) – A	**3.35**	**3.35**	**3.52**	**3.52**
220 kV Bays				
Opening		104		107
Addition		3		-
Closing		107		107
Average	106	106		107
O&M cost norms (Rs. Lakh/bay)	29.09	29.09		30.54

Normative O&M expenses	FY 2017-18		FY 2018-19	
	MTR Order	Actual	MTR Order	Actual
Normative O&M expenses (Rs. Crore) – B		**30.69**		**32.68**
33 kV Bays				
Opening		367		381
Addition		14		-
Closing		381		381
Average	370	374		381
O&M cost norms (Rs. Lakh/ bay)	6.08	6.08		6.38
Normative O&M expenses (Rs. Crore) – C		**22.74**		**24.31**
Normative O&M expenses Bays (Rs. Crore) – D = B+C	**53.19**	**53.43**	**56.48**	**56.99**
Total Normative O&M expenses – A+D	**56.53**	**56.78**	**59.99**	**60.50**

3.2.5 In MTR Petition in Case No. 201 of 2017, pertaining to truing up for FY 2016-17, AEML-T has requested the Commission to approve annual ground rent demanded by PWD as uncontrollable expense under "Change in Law" as per Regulation 9.1 (b) of MYT Regulations, 2015 since they were raised for the first time in FY 2016-17 and thus was not provided for in the O&M norms for the Control Period FY 2016-17 to FY 2019-20. The Commission rejected the Review Petition and did not allow any additional expenses over and above the Normative O&M expenses. AEML-T has filed Appeal No. 105 of 2019 before the APTEL. The matter is pending before the APTEL. As the matter is sub-judice, AEML-T, without prejudice to its contentions in the Appeal, has considered the total actual O&M expenses for the purpose of sharing of efficiency gains and losses, without considering the PWD ground rent as uncontrollable for FY 2017-18 and for FY 2018-19.

3.2.6 AEML-T has submitted that it has commissioned nine 220 kV Bays in MSETCL's EHV station at Borivali and five 220 kV Bays in MSETCL's EHV station at Trombay. As per Regulation 58.8 of the MYT Regulations, 2015, O&M expenses will be allowed to AEML-T for such bays and out of such allowance, a portion will be passed on to MSETCL towards compensation for maintenance activities carried out by MSETCL. However, AEML-T has submitted that the said bays are included in the total bays for AEML-T for computing normative O&M expenses of AEML-T. AEML-T has submitted the O&M Agreement containing percentage of sharing with MSETCL for Borivali and Trombay Stations with the Petition.

3.2.7 AEML-T has submitted for FY 2017-18 and FY 2018-19 (Pre-AEML Period), an allocation of corporate cost from RInfra for the RInfra operation period is claimed in the Petition. Subsequent to the transfer of business (i.e. post period from 29 August, 2018), the services required by AEML are being sourced from within the expertise and resources available in the Adani Group and the cost so incurred by AEML towards such services is being booked under A&G expenses in AEML books.

3.2.8 The actual O&M expenses for FY 2017-18 and FY 2018-19 after considering expenditure capitalized are shown in the following table.

Table 2: Actual O&M expenses for FY 2017-18 and 2018-19, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2017-18		FY 2018-19
	Actual		Actual
Gross Employee expenses	41.18		41.13
Less: Expenses capitalized	(15.25)		13.68
Add: Corporate allocation	2.01		
Total Employee expenses		**27.94**	**27.45**
A&G expenses	22.03		23.95
Add: Corporate allocation	0.87		0.73
Total A&G expenses		**22.90**	**24.68**
R&M expenses	8.17		
Add: Corporate allocation	0.10		8.37
Total R&M expenses		**8.27**	**8.37**
Total O&M expenses		**59.12**	**60.51**

Commission's Analysis and Ruling

3.2.9 The Commission considers opening transmission line length for FY 2017-18 same as closing line length approved for FY 2016-17 in the MTR Order in Case No. 201 of 2017. In support of the claim regarding addition of 2.47 Ckt. Km to line length, AEML-T has submitted letter dated 19 March, 2018 intimating to the Commission regarding commissioning of AEML-T Saki to TPC Saki transmission line scheme as an "Exhibit-B" of the Petition. The Commission had sought loading data for each transmission line and observed loading on the AEML Saki to TPC Saki transmission line and accordingly the Commission approves addition of 2.47 Ckt. Km. during FY 2017-18 to the existing network of AEML-T.

3.2.10 As discussed in Section 3.5 of this Order, the Commission considers 104 number of 220 kV bays and 326 number of 33 kV bays as opening for FY 2017-18.

3.2.11 AEML-T has proposed utilization of 3 number of 220 kV bays during FY 2017-18 which were considered un-utilized in the MYT Order in Case No. 13 of 2016 pertaining to AEML Saki to TPC Saki scheme and 3rd Transformer at Goregaon scheme. In support of the claim of utilization of 2 number of 220 kV bays at Saki EHV Station, AEML-T has submitted letter dated 19 March, 2018 intimating to the Commission regarding commissioning of AEML-T Saki to TPC Saki transmission line scheme as an "Exhibit-B" of the Petition. In support of the claim of utilization of 1 number of 220 kV bay at Goregaon EHV Station, AEML-T has submitted letter dated 26 March, 2018 intimating to the Commission regarding commissioning of 3rd Transformer at Goregaon EHV Station as an "Exhibit-A" of the Petition. The Commission had sought loading data for each bays and observed loading on 2 numbers of 220 kV bays at Saki EHV Station and 1 number of 220 kV bay at Goregaon EHV Station and accordingly the Commission approves addition of 3 numbers of 220 kV bays during FY 2017-18 to the existing network of AEML-T.

3.2.12 AEML-T has proposed utilization of 33 kV GIS Board at Goregaon EHV Station during FY 2017-18 which added 14 numbers of 33 kV bays to the asset base. As discussed in Section 3.5 of this Order, the Commission approves addition of 6 numbers of 33 kV bays which are put to use during FY 2017-18 to the existing network of AEML-T.

3.2.13 Normative O&M expenses for FY 2017-18 and FY 2018-19 as per Regulation 58.4 of the MYT Regulations, 2015 and considering the average numbers of bays and line length approved by the Commission is as under:

Table 3: Normative O&M expenses for FY 2017-18 and FY 2018-19, as approved by the Commission (Rs. Crore)

Particulars	FY 2017-18			FY 2018-19		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Length in Ckt Km	539.89	539.90	539.90	541.13	541.13	541.13
Applicable O&M cost Norm for Transmission Lines (Rs. Lakh/Ckt Km)	0.62	0.62	0.62	0.65	0.65	0.65
Normative O&M expenses for Transmission Lines (Rs. Crore)	**3.35**	**3.35**	**3.35**	**3.52**	**3.52**	**3.52**
Number of 220 kV bays	106	106	106	107	107	107
Number of 33 kV bays	370	374	329	373	381	332
Applicable O&M Cost Norm for 220 kV Bays (Rs. Lakh/Bay)	29.09	29.09	29.09	30.54	30.54	30.54
Applicable O&M Cost Norm for 33 kV Bays (Rs. Lakh/Bay)	6.08	6.08	6.08	6.38	6.38	6.38
Normative O&M Expenses for Bays (Rs. Crore)	**53.19**	**53.43**	**50.69**	**56.48**	**56.99**	**53.86**
Total Normative O&M expenses	**56.53**	**56.78**	**54.04**	**59.99**	**60.50**	**57.38**

3.2.14 The Commission has analysed the actual O&M expenditure as submitted by AEML-T for each of the components including employee expenses, repairs and maintenance and administration and general expenses.

3.2.15 The Commission observed that there was significant increase in some heads of actual O&M expenses claimed by AEML-T in FY 2017-18 and FY 2018-19, as compared to actuals of FY 2016-17. The Commission sought justification on the following heads of O&M expenses, where significant increase was observed:

- Leave Travel Allowance in FY 2017-18;
- Earned Leave Encashment in FY 2017-18;
- Legal Fees and Audit Charges in FY 2017-18;
- Gratuity Payments in FY 2018-19;
- Professional and Consultancy Fees in FY 2018-19.

3.2.16 **Leave Travel Allowances for FY 2017-18:** Leave Travel Allowances (LTA) have increased from Rs. 0.29 Crore to Rs. 0.67 Crore in FY 2017-18 over FY 2016-17. AEML-T submitted that it is related to the employees opting for the claim and hence there is no uniformity in increase/ decrease from one particular year to another year. The Commission has considered the submissions made by AEML-T and accordingly approved LTA for FY 2017-18.

3.2.17 **Earned Leave Encashment for FY 2017-18:** Earned Leave Encashment (ELA) has increased from Rs. 2.65 Crore to Rs. 4.49 Crore in FY 2017-18 over FY 2016-17. AEML-T submitted that it is considered based on inputs from the Registered Actuarial Value at the end of the year for the employees who are on the payroll as on the Balance Sheet date. AEML-T submitted that there is no uniformity in increase/decrease from one particular year to another year with respect to ELA. The Commission has considered the submissions made by AEML-T and accordingly approved ELA for FY 2017-18.

3.2.18 **Legal Fees and Audit Charges for FY 2017-18:** Legal fees and audit charges have increased from Rs. 0.04 Crore to Rs. 0.23 Crore in FY 2017-18 over FY 2016-17. AEML-T submitted that it has increased due to filing fees relating to MTR Petition and legal fees related to matters before APTEL. The Commission has considered the submissions made by AEML-T and accordingly approved legal fees and audit charges for FY 2017-18.

3.2.19 **Gratuity Payments in FY 2018-19:** Terminal Benefits have increased from Rs. 4.39 Crore in FY 2017-18 to Rs. 5.52 Crore in FY 2018-19. Similarly, Gratuity Payments have increased from Rs. 2.16 Crore in FY 2017-18 to Rs. 3.16 Crore in FY 2018-19. AEML-T submitted that Gratuity is considered based on inputs from the Registered Actuarial Value at the end of the year for the employees who are on the payroll as on the Balance Sheet date. AEML-T submitted that the there is no uniformity in increase/decrease from one particular year to another year with respect to Gratuity payments. The Commission has considered the submissions made by AEML-T and accordingly approved Rs. 3.16 Crore for FY 2018-19.

3.2.20 **Professional and Consultancy Fees in FY 2018-19:** Professional and Consultancy Fees have increased from Rs. 0.09 Crore in FY 2017-18 to Rs. 3.19 Crore in FY 2018-19. In response to the Commission's query, AEML-T submitted that the major component in professional and consultancy fees has been the Corporate Allocation booked in FY 2018-19. On further scrutinizing the submissions of AEML-T, it was observed that the Corporate Allocation expenses have increased significantly in FY 2018-19 as compared to the expenses booked in FY 2017-18. The following Table shows the amount of expenses incurred as Corporate Allocation Expenses in FY 2017-18 and FY 2018-19, booked under various Business segments based on the revenue earned from those segments:

Table 4: Corporate Expense Allocation for FY 2017-18 and FY 2018-19 of AEML (Rs. Crore)

Particulars	**FY 2017-18**	**FY 2018-19 (Pre-AEML)**	**FY 2018-19 (Post AEML)**	**FY 2018-19 (Other Allocation)**	**FY 2018-19 (Total)**
Generation Business	15.00	3.58	11.11	4.56	19.25
Transmission Business	2.98	0.73	2.26	0.93	3.92
Distribution Business	70.09	18.84	58.46	23.99	101.29
Total Corporate Expenses	**88.07**	**23.15**	**71.83**	**29.47**	**124.46**

The expenses covered under Other Allocation in above Table are Services availed from ATL Master Data migration, corporate communication, HR, IT, and Administration Services, procurement, support and MIS, etc., which are also Corporate Expenses only, and have hence, been considered along with Corporate Allocation, for the purpose of analysis.

As seen from the above Table, total Corporate Expenses of AEML-T have increased from Rs. 2.98 Crore in FY 2017-18 to Rs. 3.92 Crore in FY 2018-19, i.e., an increase of 31.54%.

The Transmission Business of RInfra was taken over by AEML in FY 2018-19. As seen from the above Table, the Corporate Expense in Pre-AEML period (01 April 2018 to 28 August 2018) is not as high as the Corporate Expenses in Post-AEML period (29 August 2018 to 31 March 2019). AEML-T has provided auditor certificate for authentication of these expenses in pre and post AEML-T period and also provided the expenses, which are coming under the Corporate Allocation.

The Commission is of the view that corporate expenses allowed to Regulated Entities cannot be exorbitantly high even though the same is certified by the Statutory Auditor. There needs to be a cap on the expenses which are allowed under Corporate Allocation. The Commission is of the view that taking over of Business by AEML from RInfra should not result in increase in Corporate Expenses and Corporate Allocation for the Regulated entities. Moreover, RInfra and AEML, while seeking the Commission's approval for the transfer of assets and licence from RInfra to AEML in Case No. 139 of 2017, confirmed that there would not be any tariff impact on the consumers on account of the Transaction. The relevant extracts of the Commission's Order in Case No. 139 of 2017 are as follows.

"78 RInfra and ATL have confirmed that the transaction shall not have any adverse impact on tariff payable by the consumers, as the tariff shall continue to be determined on the basis of regulated books of accounts."

The Commission also confirmed that there would not be any adverse impact of the Transaction on the consumers. The relevant extracts are as follows.

"79 The Commission confirms that the transaction shall not have any adverse impact on tariff payable by the consumers, as the tariff shall continue to be determined on the basis of regulated books of accounts.

…

80 The Commission is of the view that the Petitioners' proposals for assignment of licence and transfer of assets can be approved only if it is ensured that the same shall not have any adverse impact on the tariff payable by the consumers. Hence, the Commission directs that REGSL/ATL shall not claim any amount from the consumers on account of the proposed transaction, including inter-alia, any interest/penalty payable by REGSL/ATL to RInfra as per the terms and conditions of the Scheme of Arrangement and the SPA. The Commission further directs that the approval to RInfra to assign the Transmission Licence to REGSL and transfer transmission assets to REGSL, and sale of 100% shareholding in REGSL to ATL, is conditional and subject to the above restriction…."(emphasis added)

However, as seen from the above submissions of AEML-T, the takeover of Transmission Business from RInfra to AEML-T has increased the Corporate Allocation expenses in FY 2018-19 and thereby the cost proposed to be passed on to the consumers. Thus, the corporate expenses booked/claimed in FY 2018-19 are against the intent of the approval given for the transaction in Case No. 139 of 2017.

The Commission has therefore, considered the Corporate Expenses of FY 2017-18 and escalated the same by the inflation rate considered for escalation of normative O&M expenses in FY 2018-19, i.e., 3.07% (Escalation rate of Distribution Licensee in absence of escalation rate for Transmission Licensee) and approved Corporate expenses for FY 2018-19. The Commission has considered the corporate expenses allocation for AEML-T in proportion to the expenses submitted in the data gaps reply. The following Table shows the Corporate Expenses allocation considered for AEML-T:

Table 5: Corporate Expense Allocation for FY 2018-19, as approved by the Commission (Rs. Crore)

Particulars	FY 2017-18	Escalation Rate	FY 2018-19
Generation Business	15.00	3.07%	15.46
Transmission Business	2.98		3.07
Distribution Business	70.09		72.24

Particulars	FY 2017-18	Escalation Rate	FY 2018-19
Total Corporate Expenses	**88.07**		**90.77**

Based on the above discussion, the following Table shows the amount of expenses that have been disallowed in O&M expenses for FY 2017-18 and FY 2018-19:

Table 6: Actual O&M expenses Disallowed in FY 2018-19 for AEML-T (Rs. Crore)

Particulars	FY 2018-19
Corporate Allocation under Professional and Consultancy fees	
Claimed	3.92
Approved	3.07
Disallowed in O&M expenses	**0.85**

3.2.21 Based on the above, O&M expenses for FY 2017-18 and FY 2018-19 approved by the Commission are as given in the table below.

Table 7: Actual O&M expenses for FY 2017-18 and 2018-19, as approved by the Commission (Rs. Crore)

Particulars	FY 2017-18			FY 2018-19		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Base O&M expenses (Employee expense, R&M, A&G, expense) - Controllable	56.53	56.14	56.14	59.99	59.78	58.93
Corporate Allocation		2.98	2.98	-	0.73	0.73
Total O&M expenses	**56.53**	**59.12**	**59.12**	**59.99**	**60.51**	**59.66**

3.2.22 **The Commission thus approves actual O&M expenses of Rs. 59.12 Crore for FY 2017-18 and Rs. 59.66 Crore for FY 2018-19.**

3.3 Sharing of Gains and Losses of O&M Expenses for FY 2017-18 and FY 2018-19

AEML-T's Submission

3.3.1 AEML-T has submitted the actual O&M expenses for FY 2017-18 and FY 2018-19 which has been compared with normative O&M expenses worked out to determine efficiency gains and losses. Variations in O&M expenses are attributed to Controllable factors as per Regulations 9.2 (f) of the MYT Regulations, 2015.

3.3.2 Regulation 11.2 of the MYT Regulations, 2015 provides the mechanism for sharing of gain on account of controllable factors. The Net Entitlement of O&M cost for FY 2017-18 and FY 2018-19 is worked out as below:

Table 8: Net entitlement of O&M for FY 2017-18 and FY 2018-19, as submitted by AEML-T (Rs. Crore)

O&M expenses	FY 2017-18		FY 2018-19	
	MTR Order	AEML-T Submission	MTR Order	AEML-T Submission
Normative O&M (A)	56.53	56.78	59.99	60.50
Actual O&M for efficiency gain/loss (B)		59.12		60.51
Efficiency loss (C=A-B)		(2.34)		(0.003)
2/3rd loss to be borne by AEML-T (D=C*2/3)		(1.56)		(0.002)
Net entitlement (B+D)	**56.53**	**57.56**	**59.99**	**60.50**

Commission's Analysis and Ruling

3.3.3 The Commission has observed that AEML-T has computed an efficiency loss on account of O&M expenses as compared to normative O&M expenses worked out by the Commission for FY 2017-18 and FY 2018-19. The actual O&M expenses as approved by the Commission are Rs. 59.12 Crore and Rs. 59.66 Crore for FY 2017-18 and FY 2018-19 respectively. The normative O&M expenses worked out by the Commission are Rs. 54.04 Crore and Rs. 57.38 Crore for FY 2017-18 and FY 2018-19 respectively.

3.3.4 Regulation 11.2 of MYT Regulations, 2015 specifies the following:

"11.2 The approved aggregate loss to the Generating Company or Licensee or MSLDC on account of controllable factors shall be dealt with in the following manner:—
(a) One-third of the amount of such loss may be passed on as an additional charge in Tariff over such period as may be stipulated in the Order of the Commission under Regulation 8.4;
(b) The balance amount of such loss shall be absorbed by the Generating Company or Licensee or MSLDC."

3.3.5 As specified in the above Regulations, one third of the losses on account of O&M expenses are to be passed on in Tariff while two third are to be borne by the Licensee. In line with the above Regulations, the summary of net entitlement of O&M Expenses, including efficiency losses for FY 2017-18 and FY 2018-19, as approved by the Commission is shown below:

Table 9: Net entitlement of O&M for FY 2017-18 and FY 2018-19, as approved by the Commission (Rs. Crore)

Particulars	FY 2017-18		FY 2018-19	
	MYT Petition	Approved in this Order	MYT Petition	Approved in this Order
Normative O&M expenses (A)	56.78	54.04	60.50	57.38
Actual O&M expenses (B)	59.12	59.12	60.51	59.66
Efficiency Gain/ (Loss) on O&M expenses (C = A - B)	(2.34)	(5.08)	(0.00)	(2.28)
Efficiency Gain/ (Loss) to be passed on to the Consumer (D)	(0.78)	(1.69)	(0.00)	(0.76)
Total O&M expenses (E = (A - D)	**57.56**	**55.73**	**60.50**	**58.14**

3.3.6 **The Commission approves O&M expenses of Rs. 55.73 Crore and Rs. 58.14 Crore for FY 2017-18 and FY 2018-19 respectively along with the sharing of efficiency losses on O&M expenses.**

3.4 Capital Expenditure and Capitalization

AEML-T's Submission

3.4.1 AEML-T had submitted provisional actual capitalization of Rs. 84.29 Crore including Interest During Construction (IDC) of Rs. 3.96 Crore for FY 2017-18 in the MTR Petition in Case No. 201 of 2017 and the Commission approved the same. The actuals for FY 2017-18 are the same as that had been submitted in the MTR Petition.

3.4.2 Similarly, AEML-T had projected a capitalization of Rs. 20.68 Crore, including IDC of Rs 0.17 Crore for FY 2018-19 in its MTR Petition in Case No. 201 of 2017. The Commission had approved capitalization of Rs. 19.17 Crore in the MTR Order. However, the actual capitalization for FY 2018-19 is Rs. 30.69 Crore, including IDC of Rs. 0.36 Crore.

3.4.3 AEML-T has determined the IDC for FY 2017-18 and FY 2018-19 considering the capex phasing of the individual schemes and IDC capitalized has been worked out considering the duration for which works funded by loans have remained in progress. The interest rate for IDC is the approved interest rate for individual years for which the works remained in progress. AEML-T has also taken some fresh capital expenditure loans for FY 2018-19 which have accordingly been factored into the computation of weighted average interest rate.

3.4.4 AEML-T vide letter RInfra-T/MERC/SCR/FY2015-16/Saki EHV Station/02 dated 14 January, 2016 had submitted the scheme completion report of Saki EHV

Station to the Commission. In the said report, AEML-T had mentioned about the termination of services of the civil contractor, due to which legal proceedings were going on. 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.

3.4.5 AEML-T has submitted the capitalization for Non DPR Schemes is 15% and 17% of the capitalization for DPR for FY 2017-18 and FY 2018-19 respectively and thus does not exceed the limit of 20%.

3.4.6 AEML-T has also provided brief details of the various schemes which have been capitalised during the FY 2017-18 and FY 2018-19 in the Petition.

3.4.7 Summary of the capital expenditure and capitalization for FY 2017-18 and FY 2018-19 submitted by AEML-T is as below.

Table 10: Summary- Capital expenditure and Capitalization for FY 2017-18 and FY 2018-19, as submitted by AEML-T (Rs. Crore)

Particulars		FY 2017-18		FY 2018-19	
		MTR Order	Actual	MTR Order	Actual
Capital expenditure	DPR		81.22		45.21
	Non DPR		4.87		4.57
	Total		**86.09**		**49.78**
Capitalization	DPR	73.45	73.45	16.17	26.26
	Non DPR	10.84	10.84	3.00	4.44-
	Total	**84.29**	**84.29**	**19.17**	**30.69**

Commission's Analysis and Ruling

3.4.8 The Commission had approved capitalization of Rs. 84.29 Crore and Rs. 19.17 Crore for FY 2017-18 and FY 2018-19 in the MTR Order based on the work status of each of the schemes submitted by AEML-T in its submissions and prudence check.

3.4.9 Following are the scheme-wise capitalization as approved by the Commission in the MTR Order for FY 2017-18 and FY 2018-19 vis-à-vis capitalization claimed by AEML-T in the present MYT Petition:

Table 11: Capitalisation for FY 2017-18 and FY 2018-19

Particulars	Capitalization (Rs. Crore)		Brief description of work capitalized	Approval Remarks
	MTR Order	MYT Petition		
FY 2017-18				
220 kV cable link from AEML Saki to TPC Saki	41.11	41.11	• Laying of 6x 1C 1200 sq. mm 220 kV cable between 220 kV TPC Saki and AEML Saki (cable route length-1.5 Kms): completed, commissioned and charged • Utilization of 2 Numbers. of 220 kV bays at Saki EHV Station achieved	• Scheme is commissioned in March 2018 • 2 Numbers. of 220 kV Bays at existing Saki EHV Station is connected and charged. • 2.47 Ckt. Kms. Line length is added to the existing Ckt. Kms. • Remaining activities like minor civil work, compounding work, statutory compliances and balance payments are considered under capitalization under FY 2018-19
System Improvement scheme	14.26	14.26	• Replacement/ refurbishment of substation equipment • Refurbishment of cable trenches • Transmission Feeder related work	• The project execution is as per schedule. Out of 31 sub-schemes, 24 sub-schemes are completed in FY 2017-18. • Balance schemes are completed in FY 2018-19 due to various reasons.
3rd Transformer at Goregaon EHV Station	18.08	18.08	• Supply and Installation of one 125 MVA 220/33kV Transformer at Goregaon EHV Substation • Supply and Installation of 33 kV GIS Board (14	• Scheme is commissioned in March 2018. • The single 220 kV bay that was considered un-utilized by the Commission in the MYT Order is connected. • Further, 33 kV GIS Board at Goregaon EHV Station (14

Particulars	Capitalization (Rs. Crore)		Brief description of work capitalized	Approval Remarks
	MTR Order	MYT Petition		
			Panel) with associated equipment • Supply & Laying of 220 kV and 33 kV Cables from 220 kV GIS to Transformers and from Transformer to 33 kV GIS Board of Capacitor Bank • Supply & Installation of Auto Restoration System for 33 kV Outlets • Associated civil work for foundation of 125 MVA 220/ 33kV Transformer, 33 kV Board of capacitor bank • Fire-fighting system (N2FF), SCADA, protection system with spares	panels) is commissioned and the same is considered as addition in FY 2017-18.
Non-DPR Schemes	10.84	10.84	• For system reliability improvement Procurement of Potential Transformers, MPB test plugs, Power Quality	• Completed and final approval sought

Particulars	Capitalization (Rs. Crore)		Brief description of work capitalized	Approval Remarks
	MTR Order	MYT Petition		
			Analyser, Digital Multi-Function Meters, Auxiliary Indicating Meters • System upgradation activities in regular manner • Miscellaneous activities like civil work at GIS buildings of Gorai EHV stations, strengthening civil jobs etc.	
Total	**84.29**	**84.29**		
FY 2018-19				
220 kV cable link from AEML Saki to TPC Saki	0.49	1.89	• Minor civil work along the cable route as well as in the station premises were carried out and capitalized in FY 2018-19	• In line with the true-up of FY 2017-18 scheme completion report with necessary justification has been submitted • The scheme has been completed in all respects with cost of Rs. 43.00 Crore with respect to scheme approval of Rs. 41.60 Crore (inclusive of IDC in both values). There has been cost over-run to the extent of Rs. 1.40 Crore • The justification of time over-run has been submitted.
System Improvement scheme	13.31	15.35	• Tower strengthening and	• In line with the true-up of FY 2017-18 scheme completion

Particulars	Capitalization (Rs. Crore)		Brief description of work capitalized	Approval Remarks
	MTR Order	MYT Petition		
			refurbishment activities completed by availing outages • OPGW replacement/ refurbishment completed	report with necessary justification has been submitted • Time over run is due to RoW constraint for few tower locations and availability of outages during FY 2017-18. • The scheme has been completed with cost of Rs. 57.90 Crore with respect to the scheme approval of Rs. 64.34 Crore.
3rd Transformer at Goregaon EHV Station	2.37	6.14	• Commissioning of firefighting system- HVWS (High Velocity water spray) • Fire barriers for 220 kV cables & 33 kV GIS system • Chain link fencing for Transformer • Balance civil works and painting works	• Remaining activities like minor civil work and indirect supervision charges are capitalized • Minor capitalization of Rs. 0.51 Crore is proposed for FY 2019-20 • Majority of work of the scheme is completed with cost of Rs. 24.73 Crore with respect to the scheme approval of Rs. 28.72 Crore. There is no issue of cost overrun.
220 kV Saki EHV Station		2.87		• In line with section pertaining to true-up of FY 2017-18, an arbitration Order was issued on 16 May, 2017 against AEML with a financial liability of approx. Rs. 2.87 Crore, which is capitalized under the said scheme.

Particulars	Capitalization (Rs. Crore)		Brief description of work capitalized	Approval Remarks
	MTR Order	MYT Petition		
				• The matter has been 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 decapitalized. • The Scheme is completed within approved cost.
Non-DPR Schemes	3.00	4.44	• System reliability improvement • System up-gradation activities • Miscellaneous civil activities	• Completed and final approval sought
Total	**19.17**	**30.69**		

3.4.10 AEML-T further submitted that there has been no cost overrun in the DPR schemes for FY 2017-18 and the time overrun which has happened is due to extraneous factors. A summary of this report was also provided in AEML-T Petition. AEML-T has also submitted that for FY 2018-19 there has been minor cost over-run for 220 kV Cable Link from AEML Saki to TPC Saki scheme and the justification for delay in execution was provided in the MTR Petition in Case No. 201 of 2017, scheme completion report as well as in the present Petition. AEML-T has submitted that the majority of the delay in scheme completion is on account of delay in commencement of the scheme itself and thereafter due to unavoidable issues caused by refusal of permission from MCGM for bridge crossing; AEML-T should not be held responsible for that. AEML-T has further submitted that despite the delay of few years from the original completion plan, the actual cost over-run is very minor.

3.4.11 The Commission has already carried out detailed scrutiny of the 220 kV Cable Link from AEML Saki to TPC Saki scheme in MTR Order Case No. 201 of 2017. The relevant part of the same is reproduced here below:

"5.2.5 After detailed scrutiny, the Commission observed that for DPR scheme '220 kV Cable RInfra-Saki to TPC-Saki'; signing of Connection Agreement between RInfra-T and TPC-T was delayed due to failure to reach mutual consensus on terms of Connection Agreement. In this regard, the Commission in the Order in Case No. 110 of 2014 had also issued show-cause notice to RInfra-T as to why penalty should not be imposed under the provisions of Section 142 of the EA 2003. Thereafter, The Commission in Order in Case No. 140 of 2014, in the matter of penalty proceedings arising from Case No. 110 of 2014, noted that TPC-D's correspondence confirmed the allotment of 10 33 kV outlets to it by RInfra-T in compliance of directions. Consequently, the Commission in the same Order decided to not impose any penalty or undertake any proceeding against RInfra-T.

5.2.6 The Commission found that cost overrun in this scheme is primarily due to IDC of Rs. 3.79 Crore. Timely completion of the scheme would have lowered IDC and cost overrun could have been avoided. The Commission in the present Order has approved capitalization for FY 2017-18 without any disallowance. However, capitalization of this scheme in FY 2018-19 may be capped to the extent of in-principle approval accorded by the Commission."

3.4.12 In view of the above, the Commission had concluded that the cost overrun is not entirely due to uncontrollable factors. Accordingly, the Commission disallows capitalization to extent of cost overrun of Rs. 1.40 Crore for 220 kV Cable Link from AEML Saki to TPC Saki scheme and approves capitalization of Rs. 0.49 Crore as against submission of Rs. 1.89 Crore for FY 2018-19.

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.

3.4.14 The Commission has also carried out scrutiny of Non-DPR schemes and observed that it is 15% and 18% of DPR schemes for FY 2017-18 and FY 2018-19 respectively. Hence, Non-DPR scheme capitalization is within limit of 20% of DPR schemes as specified in the MYT Regulations, 2015.

3.4.15 The Commission vide Order in Case No. 94 of 2016 dated 18 August, 2017 directed AEML-T to ensure a wider and more transparent process of competitive bidding while executing its Transmission Schemes beyond its pool of approved vendors. With reference to query related to adoption of competitive bidding during FY 2017-18 and FY 2018-19, AEML-T vide its reply dated 16 January, 2020 submitted that all the DPR schemes against which capitalization is being claimed had been initiated much prior to the aforesaid Order. AEML-T also submitted that the process which was in place prior to the directions anyways ensured that material and services were procured competitively and optimally. Subsequent to the aforesaid Order, AEML has established the process of competitive bidding in accordance with the directions of the Commission and all schemes initiated thereafter have followed the process of competitive bidding as envisaged in the Order.

3.4.16 Based on the above, the Commission approves the capitalization for FY 2017-18 and FY 2018-19. The scheme wise capitalization submitted by AEML-T and that approved by the commission for FY 2017-18 and FY 2018-19 is shown in the table below:

Table 12: Capitalization for FY 2017-18 and FY 2018-19, as approved by the Commission (Rs. Crore)

Name of Scheme	FY 2017-18			FY 2018-19		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
220 kV cable link from AEML Saki to TPC Saki	41.11	41.11	41.11	0.49	1.89	0.49
System Improvement Scheme	14.26	14.26	14.26	13.31	15.35	15.35
3rd Transformer at Goregaon EHV Station	18.08	18.08	18.08	2.37	6.14	6.14
220 kV Saki EHV Station					2.87	2.87
Non-DPR	10.84	10.84	10.84	3.00	4.44	4.44
Total Capitalization	**84.29**	**84.29**	**84.29**	**19.17**	**30.69**	**29.29**

3.4.17 **The Commission approves capitalization of Rs. 84.29 Crore and Rs. 29.29 Crore for FY 2017-18 and FY 2018-19 respectively.**

3.5 Un-utilized Bays

AEML-T's Submission

3.5.1 AEML-T has submitted that in Case No. 201 of 2017, the Commission has directed AEML-T to bifurcate lines/ bays with regard to usage of assets 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 has become spare asset or decommissioned.

3.5.2 In this regard AEML-T has submitted the following:

- The existing 220 kV lines form part of (a) category
- With respect to category (b), the Commission has considered 11 numbers of 220 kV bays and 5 numbers of 33 kV bays as unutilized and not included in ARR with respect to the MYT Order dated 22 June, 2016 in Case No. 13 of 2016. AEML-T has challenged the same before the APTEL in Appeal no. 237 of 2016. Without prejudice to the contentions in the Appeal, AEML-T has submitted the status of assets not considered "utilized" in ARR in earlier Orders of the Commission, as under:

Table 13: Utilization schedule of Un-utilized 220 kV Bays, as submitted by AEML-T

220 kV Bays Assets considered "un-utilized" in earlier Orders	Numbers considered "un-used"	Status of utilisation (Actual/ Projected)			
		FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Aarey EHV station (Aarey Borivali cable connectivity)	2			2	
Chembur EHV Station	2				2
Saki EHV Station	2	2			
Borivali EHV Station	1				1
MSETCL Borivali (Aarey Borivali cable connectivity)	2			2	
Gorai EHV Station	1				1
Goregaon EHV Station	1	1			
Total	11	3	-	4	4

Table 14: Utilization schedule of Un-utilized 33 kV Bays, as submitted by AEML-T

33 kV Bays Assets considered "un-utilized" in earlier Orders	Numbers considered "un-used"	Status of utilisation (Actual/ Projected)
		FY 16-17
Godhbunder EHV Station	1	1
Versova EHV Station	4	
Total	**5**	**1**

3.5.3 AEML-T has submitted that it has without prejudice to its contentions in the above mentioned Appeal, considered the utilization of assets as shown above and computed the corresponding costs in the ARR for each year under consideration in the Petition.

AEML-T submissions on Capital Expenditure/ O&M cost allowance on un-utilized Bays

3.5.4 AEML-T has submitted that the allowance of certain elements of capex related cost (RoE) and normative O&M cost allowance has been linked to the 'utilization' of sub-station bays in line with the Commission's previous Orders. Further, with respect to assets falling under category (c) and why they should be considered as assets in use, AEML-T has made the following submissions for the consideration of the Commission:

Transmission System Planning and execution of capital works:

3.5.5 AEML-T has submitted that capital investment in transmission and distribution infrastructure in India is subject to approvals of the appropriate regulatory and only subsequent to receipt of in-principle approval, the investment is made. The investment plans of Transmission systems of a state (intra-state) or even in the Central sector (inter-state) are based to the requirements identified as per the long-term perspective transmission plan prepared by the State Transmission Utility (STU).

3.5.6 The whole planning of transmission system has worked on the principle of readiness of infrastructure to handle the demand. Transmission companies have made investment in creating EHV substations and associated bays so that the distributors could off-take power as per their requirement. The Distributors, in turn, will plan construction of the distribution system based on end user requirements of power in different areas based on the element of forecast about demand of power built in infrastructure planning and execution.

3.5.7 The demand forecast has stemmed from individual user projects and corresponding cluster demand across distributor areas. Since the forecast is associated with the uncertainty, no matter how accurate it has claimed to be, many a time the Transmission and Distribution infrastructure so created could be rendered un-used after commissioning because the TSU's projects/ developments that it was dependent upon, are delayed. However, the transmission system components remain charged and ready to be used by the TSU's.

3.5.8 AEML-T has further submitted that both 220 kV and 33 kV infrastructures are created in the system as result of planning of transmission system. The future readiness and redundancies are also integral to utility best practices and is a feature of all electrical systems since the future benefits of scalability and avoidance of compatibility and stability issues outweigh the capital and operational costs associated with the so called un-utilised assets or capacities.

3.5.9 The development of transmission system commences only after connection application from TSU and techno-commercial approval of the scheme from both the STU as well as the State Commission. Normally, the development of the transmission system is a long gestation project and it has timed to proceed as per the requirement of the user but it is not always necessary that the timelines will match precisely. Further, neither transmission nor distribution licensee could afford a situation where the required infrastructure is not available when the user needs it. In any event, the licensee has no control on the situation if the user project is delayed.

Disallowance of capital and operating cost of un-utilised assets - an impediment to advance network planning and roadblock to ease of doing business:

3.5.10 AEML-T has submitted that the assets in question mainly refers to the bays which are created for connecting other EHV substations through EHV lines and bays of EHV substations from where distribution feeders emanate. This is despite the fact that the assets were created after approvals of the STU as well as the Commission to meet the requirements of the distributors so that they could provide timely and efficient power supply to the customers. This trend signals the transmission licensees to not invest in creation of transmission systems till the time the distribution demand is actually realised.

3.5.11 The standard of performance of distribution Licensees has required them to provide consumer connection within the timelines as specified in the Regulations and the timelines commence from receipt of completed application and payment of charges. The distribution licensee is not allowed to time its network development in accordance with the pace at which the user's project/ development is proceeding as it has to follow the timelines specified in the Regulations. Neither there is a provision under EA 2003 or Regulation to penalize the consumer if he does not take supply when distribution licensee is ready with the network. User developments get delayed for a variety of reasons sometimes leaving the infrastructure of distribution as well as upstream transmission system either un-used or in other cases under-utilised. Normally, last mile service cables are not drawn till the user finally request for supply, but the upstream infrastructure is created so as to meet the SOP timelines. The capital so committed is required to be provided appropriate return and the asset so created also need regular maintenance and consequent expenses.

3.5.12 Over-time, the transmission system gets strengthened by adding new transmission lines and EHV substations and there is rearrangement of the distribution network to take load on the new EHV substation and to divert the long distribution feeders to nearest newly commissioned EHV substation to improve the reliability and reduce the losses. There are benefits to such re-arrangements which are directly passed on to the consumers which is the reason for the approval of its DPR of transmission licensee.

3.5.13 AEML-T has submitted that the provision for not considering capital cost for un-utilized assets is a regressive step and promotes inefficiency in infrastructure development by the Licensees. Due to the threat of stranded capital, utilities will tend to delay the developments which will impact power supply to end consumers and make a serious dent to Govt. of India initiatives such as Ease of doing Business. Regulator being the policy maker is the most important stakeholder to support these initiatives as regulatory policies, rules and regulations influence the operational practices of the Licensees.

3.5.14 AEML-T has stated the CERC Statement of Reasons (SOR) (pertaining to terms and conditions of tariff) Regulations, 2014 has elaborated on the 'assets not in use' as under:

> *"11.19…As regards the asset which are not in use due to change in technology or is not expected to be used for the purpose for which it was originally created the Commission is of the view that those assets which are not in use should be written off from the balance sheet and thus no capex related benefit should be provided for the same.."*

3.5.15 AEML-T has considered the CERC framework as very narrow and is not a general framework that applies to any and all assets that could become un-utilised due to inability to take off-take demand by the distribution licensees or due to load re-arrangement, both of which are natural consequences of planning.

3.5.16 If operational expenditure on the un-utilised assets is not allowed, licensees would not carry out any maintenance of such assets in their system in order to save costs and avoid efficiency loss and this would greatly risk the quality and reliability of electricity supply and expose the system to faults leading to loss of supply hours. Further, it would not permit these assets to be called into service when required and this would delay load release, load diversion and compromise N-1 redundancy of the transmission system. Also, putting theses bays back into service when required will result in high maintenance costs to ensure their readiness, while also delaying power supply to the end users.

Technical justification of advance planning:

3.5.17 AEML-T has further submitted that EHV station schemes are planned considering to meet future load growth. This is because the schemes are conceived after conducting system studies with a five-year time horizon, and not just the immediate future. Accordingly, GIS based EHV stations are planned with 10 numbers of 220 kV bays, which include 4 bays for Incoming lines (double feed, double-ckt lines), at least 3 bays for transformers, 1 bay for Bus coupler & 2 bays for Bus PT modules. In this process, even though a station is originally commissioned with a single feed or two transformers instead of the approved three, the GIS bays will be procured and installed considering future second incoming feed and future installation of the third transformer, keeping in mind the requirement of N-1 redundancy (through Ring Main system, ensured through incoming feed from two sources) as per planning criteria specified by the Central Electricity Authority.

3.5.18 In transmission system, additional 220 kV GIS bays are created in the beginning even though the requirements may arise in future. This is because of the following main reasons:

- If additional 220 kV GIS Bays are installed later, 220 kV GIS Bus needs to be extended through adaptor which consumes additional floor space
- Design & engineering of this adaptor is critical as this involves matching of old GIS bus configuration with the new proposed 220 kV GIS
- Manufacturers are reluctant to take up such GIS extension work later due to difficulty in matching of interconnection of 220 kV BUS because of requirement of OEM proprietary data of existing GIS switchgear
- Ensuring civil structural stability because of the addition of bays in future will be a challenge due to requirement of additional cut out in RCC slab
- Due to rapid change in technology, availability of compatible GIS switchgear would be difficult in future
- HV Site acceptance test for integrated existing & additional 220 kV GIS system cannot be conducted
- For future installation, long outage of entire Bays installation EHV is required, which is difficult to obtain
- Additional spares are required to be maintained, if extension of bays is of different make.

3.5.19 33 kV bays, on the other hand, are created as per the outlet requirement of the Transmission System Users (TSUs) i.e. the Distribution Licensees. Load re-arrangement by the distribution licensees is a continuous process and happens as a result of creation of additional receiving stations by the transmission licensee in the vicinity. In order to optimize the length of its 33 kV feeders, the distribution companies keep re-arranging their load on their 33 kV feeders, which results in moving the 33 kV feeders connected to one transmission receiving station to another station, leaving the 33 kV bays at the first receiving station vacant, which makes it temporarily un-utilized. This is a regular feature of the system and is done to ultimately benefit the end consumers, by making the power delivery system more efficient, as explained above.

3.5.20 AEML-T has submitted that the 220 kV and 33 kV bays which might be presently un-utilized are no different from the bays which are catering to load or connected to other receiving stations. Therefore, they also need regular maintenance, just the same way as load bearing bays do. If no maintenance of these bays is carried out, it could result in moisture ingress in the chamber of isolators, CT, PT and bus bar spouts etc. and may result in arcing subsequently resulting in bus fault.

3.5.21 Further, CT secondary wiring may get loose due to humming and vibrations in the live systems and open circuiting of these CTs may cause CT flashover and lead to major failure and damage to the system. Planned maintenance of all bays addresses such issues. Purity check of SF6 gas in GIS bays is also of utmost importance, as reduced purity may result into undue flashover and tripping of the equipment. Further to this, in case of non-maintenance of any feeder and subsequent tripping, failure may result into entire bus shut down which is totally undesirable in a live system. Also, if maintenance of the un-utilized bay is not carried out, it will result in rusting and degradation of the breaker mechanism, and insulation etc. This will result in hotspots leading to system tripping.

3.5.22 AEML-T has claimed that based on the reasoning provided above, except for the 220 kV and 33 kV bays which are "un-utilized" (in accordance with utilization schedule shown in table above) as per the rulings of the Commission in its previous Orders and are under challenge before the APTEL, the rest of the bays are considered utilized.

Commission's Analysis and Ruling

3.5.23 In line with the submission in MYT Order in Case No. 13 of 2016, AEML-T in its present Petition submitted that 8 number of 220 kV GIS bays and 4 number of 33 kV AIS bays are "un-utilized". AEML-T has also provided utilization schedule of 8 number of 220 kV GIS bays.

3.5.24 For prudence check of the present status of un-utilized bays, the Commission had sought information regarding sub-station wise and bay wise load details, year of commissioning, type (AIS/GIS), capital cost etc. The Commission had also sought details of year since the bays are un-utilized, reason for un-utilization and prospective plan of use of the bays where the loading is zero.

3.5.25 As per data submitted by AEML-T, there are 8 number of 220 kV bays and 53 number of 33 kV bays (49 GIS Bays and 4 AIS Bays) where loading is zero and are currently un-utilized. The list of the un-utilized bays is provided at **Appendix -3.** The detail of sub-station wise un-utilized bays is provided by AEML-T is under:

Table 15: Un-utilized Bays, as submitted by AEML-T

Name of Sub-station	220 kV		33 kV	
	GIS	AIS	GIS	AIS
220 kV Aarey EHV Station	2	-	1	2
220 kV Versova EHV Station	-	-	7	
220 kV Ghodbunder EHV Station	-	-	4	2
220 kV Chembur EHV Station	2	-	10	
220 kV Saki EHV Station	-	-	2	
220 kV Borivali EHV Station	1	-	10	
220 kV Gorai EHV Station	1	-	3	-
220 kV Goregaon EHV Station	-	-	12	
220 kV MSETCL EHV Station	2	-	-	-
Total	**8**	**-**	**49**	**4**

3.5.26 The Commission in its MYT Order in Case No. 13 of 2016, considered the difficulties of GIS bays installation and disallowed capital cost of only un-utilized AIS bays. The relevant part of the MYT Order in Case No. 13 of 2016 is reproduced here below:

> *"4.3.9 The Commission notes the reasons cited by RInfra-T in para. 4.3.3 for erection of additional Bays at the beginning of execution of the GIS Sub-station. They include the difficulties that may arise later in the availability of matching configurations of GIS bus and inter-connection of 220 kV bus, compatibility of GIS switchgear, structural stability of additional Bays, additional spares of the same make, etc.* ***Hence, the Commission is not disallowing the capitalisation against these 220 kV GIS Bays. However, these constraints do not apply to Air Insulated Sub-station (AIS) Bays, including 33 kV Bays, and an appropriate treatment is given to them accordingly.****"*

3.5.27 AEML-T in its present submission has also reiterated the reasons because of which the bays should not be considered as un-utilized. The Commission has noted the submissions and in line with the approach adopted in the MYT Order, the Commission has not disallowed capital cost of un-utilized GIS bays. The Commission also observes that there are 4 number of AIS bays where loading is zero and are currently un-utilized. AEML-T in its submission has provided justification that these bays were loaded earlier, however, due to reconfiguration of network, these bays are no longer loaded and are currently un-utilized. The details of the 4 number of unutilized 33 kV bays is as under:

Table 16: Details of Un-utilized 33 kV AIS Bays, as submitted by AEML-T

Substation Name	Bay No.	Nomenclature	Type	Prospective Plan (as per TSU)	CoD	Year since when unutilized where loading is "0"
Aarey	Sw.41	Proposed for Torino receiving station	OG		1/23/2005	Till 08/12/2016, it was feeding load of Vikhroli DSS (FY 14-15: 15.03 MW, FY 15-16: 15.60 MW, FY 16-17: 17.09 MW). Reconfiguration was carried out after outlet allotment from TPC Hirananadani EHV for cable length optimization.
Aarey	Sw.47	Proposed for Torino receiving station	OG		1/23/2005	Till 15/10/2016, it was feeding load of Chedda Nagar DSS (FY 14-15: 16.12 MW, FY 15-16: 14.46 MW, FY 16-17: 10.23 MW). Reconfiguration was carried out from AEML Chembur EHV for cable length optimization.
Ghodbunder	Sw.01	Proposed 20 MVA-3	OG		4/15/1995	Till 01/12/2016, connected to 20 MVA Transformer at Ghodbunder EHV (FY 14-15: 11.26 MW, FY 15-16: 8.50 MW). Presently decommissioned by TSU (AEML-D) for load rearrangement.
Ghodbunder	Sw.24	Proposed - Dahisar Quarters-1	OG	Expected connectivity by mid of FY 20-21. Civil works in progress for 33kV receiving station	8/14/1995	Till 20/06/2017, there was load on this Bay feeding Devidas Lane RSS (FY 15-16: 11.50 MW, FY 16-17: 9.75 MW, FY 17-18: 7.20 MW). Reconfiguration was carried out from

Substation Name	Bay No.	Nomenclature	Type	Prospective Plan (as per TSU)	CoD	Year since when unutilized where loading is "0"
						Gorai EHV for cable length optimization.

3.5.28 Reconfiguration of network is carried out for optimal use of the network and hence the Commission is not inclined to disallow capital cost of such AIS bays. Accordingly, in case of AEML-T, all the 4 number of 33 kV AIS bays are currently un-utilized due to reconfiguration of network and hence no capital cost is disallowed for un-utilized AIS bays also.

3.5.29 AEML-T has submitted that due to shuffling of the load across bays, 5 number of 33 kV un-utilized bays declared in MYT Order Case No. 13 of 2016 are now utilized and are loaded presently. Accordingly, the Commission has reinstated the earlier disallowed equity amount of Rs. 0.0381 Crore for 5 number of 33 kV un-utilized bays in opening equity for FY 2017-18.

3.5.30 For O&M expenses, the Commission adopted the similar approach as adopted in MYT Order in Case No. 13 of 2016. Considering that bays are un-utilized presently, it may not be appropriate to allow AEML-T to recover O&M expense against these un-utilized AIS and GIS bays. The relevant part of the MYT Order in Case No. 13 of 2016 outlining the approach adopted by the Commission is reproduced here below:

> *"4.3.13 However, the Commission is of the view that the claim for O&M expenses by RInfra-T against the unutilised AIS and GIS Bays is not justified. Even though the capitalisation for the unutilised GIS Bays has been allowed, they are not in use or remain idle in the network. Hence, allowing O&M expenses corresponding to these Bays would tantamount to approval of expenses without any benefits accruing to consumers. Therefore, the Commission has considered the impact of unutilised GIS as well as AIS Bays while calculating the normative O&M expenses for FY 2014-15. The normative O&M expenses for FY 2014-15 are worked out by reducing 11 x 220 kV Bays and 5 x 33 kV Bays. The detailed explanation is set out in para 4.7 while approving O&M expenses."*

3.5.31 In line with the above, the Commission has not considered un-utilized GIS as well as AIS bays while calculating normative O&M expenses.

3.5.32 Out of 53 number of 33 kV un-utilized bays, 45 number bays were commissioned before FY 2017-18 while the remaining 8 number bays were commissioned during FY 2017-18. Accordingly, 326 number (371 number of existing 33 kV bays – 45 number of un-utilized 33 kV bays) of 33 kV bays has been considered as opening number of bays for FY 2017-18. Out of the 14 number of 33 kV bays added during FY 2017-18, only 6 number of 33 kV bays is considered as addition during the year for calculation of normative O&M expenses as the remaining 8 number of 33 kV bays are un-utilized.

3.5.33 In case of 220 kV bays, out of the total of 115 number of bays, 11 bays were identified as un-utilized in the MYT Order in Case No. 13 of 2016 and accordingly, 104 number (115 number of existing 220 kV bays – 11 number of un-utilized 220 kV bays) of 220 kV bays has been considered as opening number of bays for FY 2017-18. Subsequently, 3 number of 220 kV bays were utilised during the FY 2017-18 and hence considered as addition during the FY 2017-18 for calculation of normative O&M expenses.

3.5.34 AEML-T has provided prospective utilization plan for some of the un-utilized bays. However, presently the Commission has not considered this prospective utilization plan for the future year. The utilisation of the bays will be considered at the time of Truing-up, subject to prudence check.

3.5.35 The Commission adopts the procedure for approval of capital cost for the Utilities in the State of Maharashtra in accordance with the "Guidelines for in-principle clearance of proposed investment schemes 2005" and the applicable MYT Regulations for respective Control Period. The Guidelines stipulate the capital cost approval in a two-stage process, i.e., in-principle approval prior to initiating the capital expenditure scheme; and during Tariff determination/ARR review process during and/or after completion of the capital expenditure scheme. A key factor for evaluating these schemes as specified in the Guidelines is to assess the benefits that have accrued to the consumers who are to pay for these schemes through tariffs.

3.5.36 The Commission notes that the number of un-utilized bays has been increasing over the past period and which is not an encouraging sign. Further, it is also noted that AEML-T does not have any visibility regarding utilisation of many of these bays in the near future. Such trend cannot be allowed to continue for too long as it is not appropriate to load cost of such un-utilized bays on the consumers. The MYT Regulations, 2015 and 2019 are very clear in specifying that the capitalisation will be considered only against assets which are "put to use". The relevant part of the MYT Regulations, 2019 is reproduced here below:

"24. Capital Cost and Capital Structure

....

Provided further that the capital cost of the assets forming part of the Project but not put to use or not in use, shall be excluded from the capital cost of Generation Project and transmission system:

...

Provided also that the following shall be excluded from the capital cost of the existing and new projects:

(a) The assets forming part of the project, but not in use, as declared in the tariff petition;

..."

3.5.37 Accordingly, allowing the capitalisation against un-utilized GIS & AIS bays is not in line with the provisions of the MYT Regulations and also not prudent practise. Accordingly, the present practise of not disallowing the capital cost of GIS and AIS (reconfiguration cases) bays should be treated as an interim measure and cannot be considered as a stated practise of the Commission to be followed indefinitely. In view of the above, the Commission shall be constrained to disallow capital cost of un-utilized bays (GIS and AIS both) from FY 2020-21 onwards during Mid-Term Review Process. Accordingly, it is pertinent for AEML-T to devise a plan to utilise all its existing un-utilized bays and also ensure that the planned capitalisation in the future is taken up in manner which ensures utilisation of commissioned bays. Further, in case AEML-T does not envisage utilisation of certain bays in the near future, it may explore possibility of utilising these bays in upcoming capital expenditure schemes in the future.

3.6 Retirement

AEML-T's Submission

3.6.1 The impact of the retirement is adjusted in Gross Fixed Assets (GFA), Depreciation, Interest on long term loan and Return on Equity for FY 2017-18 and FY 2018-19.

3.6.2 AEML-T has submitted that the value of assets removed from the system for FY 2017-18 and FY 2018-19 is Rs. 0.62 Crore and Rs. 3.16 Crore respectively. AEML-T has further submitted that for FY 2017-18, there are certain assets which are retired before reaching 90% depreciation and these assets have been retired due to technological obsolescence and/ or damage beyond repairs. Retirement of capacitors is a part of the System Improvement Scheme being undertaken for FY 2017-18.

3.6.3 The accumulated depreciation of Rs. 0.43 Crore is reduced for FY 2017-18 and Rs.2.84 Crore for FY 2018-19.

3.6.4 AEML-T has submitted that there are certain assets where the ratio of the accumulated depreciation to GFA is less than 70% and in such cases , the differential % to the extent of 70% computed over the GFA is reduced from loan balance, being reduction of normative loan due to retirement of assets. Such reduction is 0.04 Crore for FY 2017-18. AEML-T has submitted that all the retired assets have achieved 90% depreciation and therefore there is no debt outstanding against them and hence no adjustment is warranted in long term loan of FY 2018-19.

3.6.5 The equity component of 30% is reduced from equity balance for FY 2017-18 and FY 2018-19.

3.6.6 AEML-T has considered the profit on a sale of asset is approx. Rs. 0.01 Crore and Rs. 0.04 Crore, considering the net asset value of Rs. 0.19 Crore and Rs. 0.32 Crore on account of assets retired in FY 2017-18 and FY 2018-19 respectively.

Commission's Analysis and Ruling

3.6.7 Based on the submissions of AEML-T's audited account, the Commission approves retirement of assets of Rs. 0.62 Crore and Rs. 3.16 Crore as proposed by AEML-T for FY 2017-18 and FY 2018-19 respectively.

3.6.8 **The Commission approves reduction in normative loan of Rs. 0.04 Crore and nil for FY 2017-18 and FY 2018-19 respectively. The Commission also approves reduction in equity of Rs. 0.19 Crore and Rs. 0.95 Crore for FY 2017-18 and FY 2018-19 respectively**.

3.6.9 **The Commission approves profit on sale of assets of Rs. 0.01 Crore and Rs. 0.04 Crore for FY 2017-18 and FY 2018-19 respectively**.

3.7 Depreciation

AEML-T's Submission

3.7.1 AEML-T has claimed depreciation in line with Regulation 27 of MYT Regulations, 2015, wherein it has applied depreciation up to 70% of the original cost of asset and thereafter the remaining depreciable value of the assets as on 31 March of the year is spread over balance useful life for FY 2017-18 and FY 2018-19.

3.7.2 AEML-T has adopted the useful life as specified in the Companies Act for such assets where the useful life has not been provided in the MYT Regulations. Further, AEML-T confirmed that no depreciation has been claimed on the asset beyond 90% of the asset value for FY 2017-18 and FY 2018-19.

Table 17: Depreciation for FY 2017-18 and FY 2018-19, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2017-18		FY 2018-19	
	MTR Order	Actual	MTR Order	Actual
Depreciation	64.78	64.78	69.19	68.95
Opening GFA	1,504.93	1,504.93	1,588.59	1,588.59
Closing GFA	1,588.59	1,588.59	1,607.76	1,616.13

Commission's Analysis and Ruling

3.7.3 AEML-T in the present Petition has submitted depreciation expenses claimed in line with the Regulation 27 of MYT Regulations, 2015. The Commission has scrutinized the details of calculation of asset wise depreciation expenses as provided by AEML-T in its Petition and considered the same for approval.

3.7.4 The Commission for the purpose of calculation of depreciation for FY 2017-18 has considered opening GFA same as that of closing GFA for FY 2016-17 approved in MTR Order in Case No. 201 of 2017. For FY 2018-19, the Commission has considered the opening GFA same as closing GFA of FY 2017-18 as approved by the Commission in this Order. Addition in GFA is considered equal to capitalization approved by the Commission. Further, AEML-T has claimed certain retirement of assets for FY 2017-18 and FY 2018-19.

3.7.5 The summary of depreciation expense for FY 2017-18 and FY 2018-19 as submitted by AEML-T and as approved by the Commission is as given in the Table below.

Table 18: Depreciation for FY 2017-18 and FY 2018-19, as approved by the Commission (Rs. Crore)

Particulars	FY 2017-18			FY 2018-19		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Opening GFA	1,504.93	1,504.93	1,504.93	1,588.59	1,588.59	1,588.59
Additions of Assets during the year	84.29	84.29	84.29	19.17	30.69	29.29
Retirement of Assets during the year	0.62	0.62	0.62	-	3.16	3.16
Closing GFA	1,588.59	1,588.79	1,588.59	1,607.76	1,616.13	1,614.73
Average Depreciation Rate	4.19%	4.19%	4.19%	4.33%	4.30%	4.30%
Total Depreciation	**64.78**	**64.78**	**64.78**	**69.19**	**68.95**	**68.91**

3.7.6 **The Commission approves Depreciation of Rs. 64.78 Crore for FY 2017-18 and Rs. 68.91 for FY 2018-19.**

3.8 Interest on Loan Capital

AEML-T's Submission

3.8.1 AEML-T in its Petition has considered the opening balance of normative loan for FY 2017-18 as equal to closing normative loan balance of FY 2016-17 and the opening balance of normative loan for FY 2018-19 as equal to closing normative loan balance of FY 2017-18. AEML-T has considered loan addition equal to 70% of the capitalization and in accordance with Regulation 29.3 of the MYT Regulations, 2015, the repayments equal to annual depreciation. There has been retirement of assets in FY 2017-18 and FY 2018-19 and AEML-T has considered the consequential reduction of loan due to retirement of assets in the ARR.

3.8.2 AEML-T has computed the weighted average rate of interest on the basis of actual loan portfolio during the year in accordance with Regulations 29.5 of MYT Regulations, 2015. Weighted average rate of interest calculated by AEML-T for FY 2017-18 is 10.49%. The actual loan portfolio during FY 2018-19 comprises of loans pertaining to pre AEML period, which were refinanced during post AEML period, with addition of fresh debt for capital expenditure. The weighted average interest rate amounts to 9.32% for FY 2018-19. The interest rate is applied on the average normative loan balance to determine interest chargeable to ARR for FY 2017-18 and FY 2018-19.

Table 19: Interest on Loan Capital for FY 2017-18 and FY 2018-19, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2017-18		FY 2018-19	
	MTR Order	Actual	MTR Order	Actual
Opening Balance	526.36	526.36	520.55	520.55
Addition - equivalent to 70% of capitalization	59.00	59.00	13.42	21.49
Reduction due to retirement of assets	0.04	0.04	-	-
Repayment (equal to depreciation claimed)	64.78	64.78	69.19	68.95
Closing balance	520.55	520.55	464.78	473.09
Average loan balance	**523.46**	**523.46**	**492.66**	**496.82**
Interest Rate in %	10.88%	10.49%	9.98%	9.32%
Interest on long term loan	**56.94**	**54.89**	**49.15**	**46.32**

3.8.3 AEML-T has submitted that for FY 2018-19 during the Post-AEML period i.e. from 29 August, 2018 till 31 March, 2019, fresh loans have been taken for capital expenditure. A total of Rs. 79.79 Crore was borrowed by AEML towards capital expenditure, out of which Rs. 7.85 Crore is towards capital works of AEML-T.

3.8.4 AEML-T has submitted that the total capitalisation is Rs. 30.69 Crore and hence the actual debt is lower than 70% of capitalisation. A debt equity ratio of 70:30 has been considered as per MYT Regulations, 2015, thereby considering the balance equity deployed as normative debt.

3.8.5 AEML-T has obtained working capital sanctions from lending institutions and in the process has incurred finance charges in addition to capital expenditure loans taken by AEML-T.

3.8.6 AEML-T has submitted that finance charges comprises of service fees, and other bank charges such as bank remittance charges, bank commission, stamp duty towards working capital limit enhancements, consultancy charges for arranging loans, LC opening charges, BG commission, etc. An amount of Rs. 2.18 Crore has been incurred towards these charges which have been claimed towards Finance charges for Truing-up of FY 2018-19.

3.8.7 The finance charges incurred towards capex has been considered in the books of accounts and the finance charges incurred towards working capital is apportioned amongst the Generation, Transmission and Distribution businesses considering the regulatory working capital requirement for FY 2018-19.

Commission's Analysis and Ruling

3.8.8 The Commission considered the normative opening loan balance for FY 2017-18 as approved closing balance of loan of FY 2016-17 in MTR Order in Case No. 201 of 2017. The normative opening loan balance for FY 2018-19 is considered same as approved closing balance of loan of FY 2017-18 in this Order. The loan additions are considered equivalent to 70% of the approved capitalization for FY 2017-18 and FY 2018-19.

3.8.9 The repayments are considered equal to depreciation allowed during the year. The weighted average interest rate is to be worked out as per proviso of Regulation 29.5 of MERC MYT Regulations 2015. Same is quoted as follows:

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

3.8.10 AEML-T provided the details of the interest paid during the year, opening balance and closing balance for FY 2017-18 as shown in the Table below. Bank certificates were submitted as documentary evidence to corroborate interest amounts and same were verified by the Commission.

Table 20: Actual loan portfolio of AEML-T for FY 2017-18 (Rs. Crore)

Bank*	Opening balance	Closing balance	Avg. Balance	Interest
FY 2017-18				
SBI	319.00	285.39	302.20	33.45
SBH	79.53	70.43	74.98	7.86
SIB	119.30	106.74	113.02	12.56
Total	**517.83**	**462.56**	**490.20**	**53.87**

** SBI- State Bank of India, SBH- State Bank of Hyderabad, SIB- South Indian Bank*

3.8.11 As per MYT Regulations, 2015, weighted average interest rate on long term loan capital is calculated by dividing actual interest incurred during the year with the average balance of the loans which works out to 10.99% for FY 2017-18 as per the Table above. AEML-T has adopted different methodology and sought lower weighted average interest rate of 10.49% for FY 2017-18 by not considering repayment done on last day of financial year. The computation of weighted average interest rate based on the quarterly repayments which is provided in the Table below:

Table 21: Calculation of weighted average interest rate for FY 2017-18

Particulars	South Indian Bank	State Bank of India	State Bank of Hyderabad	Total	Weighted Average Interest rate
FY 2017-18					
Opening Loan (Actual) - 01-04-2017	119.30	319.00	79.53	517.82	10.88%
	11.00%	10.80%	11.00%		
Opening Loan (Actual) - 01-05-2017	119.30	319.00	79.53	517.82	10.88%
	11.00%	10.80%	11.00%		
Opening Loan (Actual) - 01-06-2017	119.30	319.00	79.53	517.82	10.88%
	11.00%	10.80%	11.00%		
Opening Loan (Actual) - 01-07-2017	116.16	310.60	77.44	504.19	10.82%
	11.00%	10.70%	11.00%		
Opening Loan (Actual) - 01-08-2017	116.16	310.60	77.44	504.19	10.82%
	11.00%	10.70%	11.00%		
Opening Loan (Actual) - 01-09-2017	116.16	310.60	77.42	504.18	10.80%
	11.00%	10.70%	10.90%		
Opening Loan (Actual) - 01-10-2017	113.02	302.19	74.64	489.85	10.76%
	11.00%	10.65%	10.85%		
Opening Loan (Actual) - 01-11-2017	113.02	302.19	74.64	489.85	9.98%
	10.90%	9.70%	9.70%		
Opening Loan (Actual) - 01-12-2017	113.02	302.19	74.61	489.82	9.98%
	10.90%	9.70%	9.70%		
Opening Loan (Actual) - 01-01-2018	109.88	293.79	72.52	476.19	9.98%
	10.90%	9.70%	9.70%		
Opening Loan (Actual) - 01-02-2018	109.88	293.79	72.52	476.19	9.98%
	10.90%	9.70%	9.70%		
Opening Loan (Actual) - 01-03-2018	109.88	293.79	72.52	476.19	9.98%
	10.90%	9.70%	9.70%		
Cumulative Weighted Average Interest Rate					**10.49%**

3.8.12 The Commission approves weighted average interest rate of 10.49% as sought by AEML-T as it is lower than the 10.99%, the methodology prescribed in MYT Regulations, 2015

3.8.13 During FY 2018-19, AEML-T has two set of loan portfolios i.e. Pre-AEML and Post-AEML. AEML-T has worked out weighted average interest rate for FY 2018-19 based on the average loan portfolio and applicable interest rate. AEML-T provided the details of the interest paid during the year, opening balance and closing balance for FY 2018-19. Bank certificates were submitted as documentary evidence to corroborate interest amounts and same were verified by the Commission.

3.8.14 AEML-T has submitted Exhibit-Y as part of data gaps which has details of applicable interest rate for FY 2017-18 and FY 2018-19. As per Exhibit-Y of the Petition, applicable interest rate of South Indian Bank was 12.90% for FY 2018-19 which is significantly higher than FY 2017-18. As per Sanction/ Renewal of credit facilities letter issued by South Indian Bank on 15 February, 2016, rate of interest is Base Rate + spread of 1%. It is observed that Base rate during 1 April, 2018 to 29 August, 2018 was 9.90% and hence applicable interest rate should be 10.90% during the said period. The Commission has considered interest rate of 10.90% as against submission of 12.90% by AEML-T for South Indian bank for FY 2018-19.

3.8.15 The computation of weighted average interest rate for FY 2018-19 is provided in the Table below:

Table 22: Calculation of weighted average interest rate for FY 2018-19

Bank Name	Average Loan (Rs. Crore)	Interest Rate (%)
State Bank of Hyderabad	70.43	9.70%
South Indian Bank	106.74	10.90%
State Bank of India	285.39	9.70%
Consortium Bank	1,892.09	9.05%
SBI	3.04	9.05%
Yes	0.89	9.05%
Weightage Average Interest Rate		**9.23%**

3.8.16 The Commission considers the interest rate of 10.49% and 9.23% for computation of interest expense for FY 2017-18 and FY 2018-19 respectively. The weighted average interest rate is then applied on the average of opening and closing normative loan balance for the year to calculate the interest expenses for FY 2017-18 and FY 2018-19.

3.8.17 AEML-T has also incurred finance charges comprising of service fees, and other bank charges amounting to Rs. 2.18 Crore for FY 2018-19 for long-term loans as well as working capital loans. Financing charges paid by AEML for long-term loans is allocated in ratio of actual loan allocated to each business i.e. Generation, Transmission and Distribution. Financing charges paid by AEML for working capital loans is also allocated in ratio of normative working capital requirement for each business i.e. Generation, Transmission and Distribution. Accordingly, the Commission approves finance charges of Rs. 2.18 Crore for AEML-T for FY 2018-19.

3.8.18 The interest expense on loan capital as approved by the Commission is shown in the Table below.

Table 23: Interest on Loan Capital for FY 2017-18 and FY 2018-19, as approved by the Commission (Rs. Crore)

Particulars	FY 2017-18			FY 2018-19		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Opening Balance of Debt	526.36	526.36	526.36	520.55	520.55	520.55
Addition of loan during the year	59.00	59.00	59.00	13.42	21.49	20.51
Reduction due retirement of assets	0.04	0.04	0.04	-	-	-
Repayment of loan during the year	64.78	64.78	64.78	69.19	68.95	68.91
Closing Balance of Debt	520.55	520.55	520.55	464.78	473.09	472.15
Average loan balance	**523.46**	**523.46**	**523.46**	**492.67**	**496.82**	**496.35**
Interest rate for the year	10.88%	10.49%	10.49%	9.80%	9.32%	9.23%
Interest expense	**56.94**	**54.89**	**54.89**	**49.15**	**46.32**	**45.82**
Financing Charges	-	-	-	-	2.18	2.18
Total Interest Expenses including financing charges	**56.94**	**54.89**	**54.89**	**49.15**	**48.50**	**48.00**

3.8.19 **The Commission approves Interest on Loan Capital of Rs. 54.89 Crore and Rs. 48.00 Crore for FY 2017-18 and FY 2018-19, respectively.**

3.9 Refinancing of Loans for FY 2018-19

AEML-T's Submission

3.9.1 AEML-T has submitted that subsequent to acquisition of RInfra's business, AEML has refinanced the outstanding loans of RInfra by lower cost loans from a consortium of banks. The key highlights of the refinanced loans are given in the table below:

Table 24: Key features of Refinancing

Sr. No.	Purpose	Lender	Loan Amount (Rs. Crore)	Tenure/ Repayment period	Interest Rate
1	Term Loan	State Bank of India	3,000	61 quarterly instalments	9.05%
2		Yes Bank Limited	2,550	61 quarterly instalments	9.05%
3		Bank of India	2,000	61 quarterly instalments	9.05%
4		ICICI Bank Limited	750	61 quarterly instalments	9.05%
5		HDFC Bank Limited	200	61 quarterly instalments	9.05%
		Total	**8,500**		

3.9.2 For the refinancing of loan, AEML has incurred total expenditure of Rs. 157.18 Crore as refinancing charges. The said expenditure is apportioned amongst the Generation, Transmission and Distribution business considering the regulated outstanding debt as on 21 March, 2019.

Table 25: Refinancing charges (Rs. Crore)

Particulars	ADTPS	AEML-T	AEML-D (W)	AEML-D (S)	Total
Refinancing charges	**12.10**	**32.78**	**107.41**	**4.89**	**157.18**
Upfront fee					*128.26*
Loan underwriting fee					*6.22*
Stamp duty					*0.20*
Consultancy fees					*22.50*

3.9.3 AEML-T has submitted that in accordance with the Regulation 29.10 of the MERC (MYT) Regulations, 2015, AEML has determined the net saving in interest cost for each year over the remaining duration term of loans and determined the present value of the savings. In order to compute the present value of net savings, the discount rate considered is the post-tax cost of debt for AEML, which is 5.89%. The net savings in interest cost are then worked out by subtracting the refinancing cost from the present value of interest savings. The summary of net saving in interest cost is shown in the following table:

Table 26: Refinancing benefit (Rs. Crore)

Particulars	ADTPS	AEML-T	AEML-D (W)	AEML-D (S)	Total
Total interest cost saving	21.99	61.97	174.61	9.45	268.02
Total interest cost saving (NPV)	16.60	46.78	131.81	7.14	202.31
Refinancing charges	12.10	32.78	107.41	4.89	157.18
Net savings	4.50	**14.00**	24.39	2.25	45.13
Share of consumers (2/3)	3.00	9.33	16.26	1.50	30.09
Share of AEML (1/3)	1.50	4.67	8.13	0.75	15.04

3.9.4 AEML-T has proposed to share the net savings on interest of Rs. 14.00 Crore on account of refinancing in the ratio of 2:1 as per Regulation 29.10 of the MERC (MYT) Regulations, 2015.

Commission's Analysis and Ruling

3.9.5 AEML has refinanced the total loan portfolio of Rs 8500 Crore and has considered the refinance cost of Rs 157.18 crore.

3.9.6 The Commission has analysed the refinance agreement and other supporting documents of AEML with consortium of Banks provided as an Exhibit-L and Exhibit-S of the Petition.

3.9.7 As per Credit Facility letter dated 29 March, 2018 along with its amendment which is also dated 29 March, 2018 provided by Yes Bank, loan facility of Rs. 5,500 Crore was sanctioned and Rs. 97.35 Crore (inclusive of taxes) was paid as an upfront fees. The relevant Tax Invoice has been provided as Annexure 1 as part of Exhibit-L along with the Petition in support of the claim. As per the Credit Facility letter, the loan facility of Yes Bank was to be utilized by the AEML towards the following purposes:

- Meeting the Purchase Consideration, other than equity as agreed between Promoter and Reliance Infrastructure Limited (RINFRA) for Generation, Transmission and Distribution (GTD) business acquisition including repayment of/ prepayment of any funding availed by the Borrower (other than YBL facility);
- Meeting the transaction cost (other than equity)/ financing expenses & other costs including cost of refinancing/ prepayment, if any;
- Meeting of any statutory dues and other duties;

- Payments of creditors/ loans of REGSL availed from RINFRA towards acquisition of GTD business.

3.9.8 Further, as per the Sanction Letter of State Bank of India dated 26 June, 2018, loan facility of Rs. 3,000 Crore was sanctioned and Rs. 19.67 Crore (inclusive of taxes) was paid as an upfront fees. The relevant Tax Invoice has been provided as Annexure 2 as part of Exhibit-L along with the Petition. As per the terms of the Sanction Letter, the loan facility of State Bank of India was to be utilized by the AEML towards the following purposes:

- Repayment/ prepayment/ refinancing of the existing debt/ NCD of the Borrower;
- Repayment/ prepayment of Loan/ NCD from Reliance Infrastructure Limited for repayment of its identified borrowings;
- Meeting the transaction cost/ financing expenses & other costs including cost of refinancing/ prepayment, if any;
- Meeting of any statutory dues and other duties

3.9.9 It is very evident from the above submissions that the higher amount of loan refinanced by AEML was mainly for the purpose of financing the transaction costs towards acquisition of the business of RInfra by REGSL.

3.9.10 Subsequent to the above, Yes Bank has undertaken down-selling of its portfolio to other banks like Bank of India, ICICI Bank and HDFC Bank. Yes Bank has reduced its exposure from Rs. 5,500 Crore to Rs. 2,550 Crore. As a part of the down-selling process, Bank of India has approved loan amount of Rs. 2,000 Crore, ICICI has approved loan amount of Rs. 750 Crore and HDFC Bank has approved loan amount of Rs. 200 Crore. To avail the facility, AEML paid Rs. 8.26 Crore to Bank of India, Rs. 2.21 Crore to ICICI Bank, Rs. 0.77 Crore to HDFC Bank as upfront fees. Relevant invoices have been provided by AEML-T as Annexure 3, Annexure 4 and Annexure 5 to the Petition for Bank of India, ICICI Bank and HDFC Bank respectively. Further, Yes Bank has charged underwriting fees of Rs. 6.22 Crore for the entire loan of Rs. 5,500 Crore and Tax Invoice for the same has been provided as an Annexure 6 as part of Exhibit-L along with the Petition. AEML has also incurred stamp duty fees of Rs. 0.2 Crore for the entire transaction.

3.9.11 AEML has refinanced the loan to the tune of Rs. 8,500 Crore and Yes Bank has further down sold its loan exposure to other banks and as per the terms of the Credit Facility Letter issued to AEML by Yes Bank and agreed by both the parties. As discussed in the earlier paragraph, for undertaking the above transaction, AEML has incurred Rs. 134.68 Crore as refinancing cost which is claimed for recovery through the ARR subject to the relevant provisions of the MYT Regulations, 2015**.**

3.9.12 Further, AEML has also availed services of SBI Capital Markets Limited for providing M&A Advisory and syndication services for which agreement was signed on 18 January, 2018. As per agreement, services to be provided by SBI Capital Markets Limited were as under:

- M&A Services:
  - Assistance in preparation of a detailed financial model for the project, to represent the base case and financial and operative sensitives to various parameters
  - Assisting the management of the Client in negotiation and discussions with the Seller and finalization of the definitive term sheet for the transaction
  - Assisting the Client in finalization of capital structure and structuring of the term loan for optimizing the valuation.
  - Advising the Client on certain measures which may improve the valuation of the Project post acquisition including refinancing term loan
- Syndication Services:
  - The Advisor would provide syndication services mainly by assisting the Company in arranging the proposed funding for refinancing of the existing debt and additional debt for capital expenditure requirement for the project. The Advisor would also assist the Company in arranging the proposed Working capital facilities determined in the course of financial analysis/ advisory for the Project. The Working Capital Facilities would comprise of Working Capital Fund based Facilities (FB), Bank Guarantee (BG), Derivative Limit and other Working Capital Non-Fund based Facilities (NFB).

3.9.13 As can be seen from the above, the scope of services provided by SBI Capital Markets Limited included activities which did not pertain to the refinancing of term loans undertaken by AEML and against which AEML is seeking the refinancing cost incurred as a pass through in the tariff under the relevant provisions of the MYT Regulations, 2015. Further, AEML has submitted details of various payments made to SBI Capital Markets Limited amounting to Rs. 14.24 Crore through five invoices and supporting documents are provided as Annexure in Exhibit-L of the Petition. The details of the payment and services provided are as under:

Table 27: Payment to SBI Capital Markets Limited by AEML

Sr. No.	Services provided by SBI Capital	Invoice No.	Invoice Date	Amount (Rs. Crore)	Supporting Document – Exhibit L of the Petition
1	M&A Buy Side Advisory	18182710137	9/28/2018	5.90	Annexure 7

Sr. No.	Services provided by SBI Capital	Invoice No.	Invoice Date	Amount (Rs. Crore)	Supporting Document – Exhibit L of the Petition
2	Working Capital	18192710138	9/28/2018	0.32	Annexure 8
3	Term Loan	18192710139	9/28/2018	1.50	Annexure 9
4	Working Capital II	18192710149	10/11/2018	0.35	Annexure 10
5	Term Loan II	18192710150	10/11/2018	6.83	Annexure 11

3.9.14 It is clearly evident from the above that AEML has paid SBI Capital Markets Limited for services other than refinancing related services for term loan. AEML has paid SBI Capital Markets for availing M&A Buy side advisory and working capital facility services which are not eligible for recovery under refinancing cost. Consequently, only the payments made to SBI Capital Markets Limited for Term Loan (Rs. 1.50 Crore) and Term Loan II (Rs. 6.83 Crore) are eligible for recovery as part of refinancing cost.

3.9.15 In addition, AEML has also considered Rs. 8.26 Crore paid to Adani Finserve Limited as part of refinancing cost. AEML has provided letter written by Adani Finserve Limited to AEML dated 13 September, 2018 for providing financial advisory services for loan facilities as Annexure 12a of Exhibit S of the Petition. The letter has been signed by only one party. AEML has made payment of Rs. 8.26 Crore to Adani Finserve on 22 October, 2018 against the services provided under this arrangement.

3.9.16 As per letter, scope of services included the following:

- Advise on refinancing through replacing an existing debt obligation and/or to attain a change in terms.
- Support on running a competitive financing process with various lenders
- Support for managing dialogue with financiers and compare and analyse offers.

3.9.17 Based on the details submitted by AEML, the process of refinancing of loans was completed by 29 August, 2018 as the data of opening loans shared by AEML for the post AEML period shows an opening loan balance of Rs. 8500 Crore with the revised rate of interest of 9.05% as on 29 August, 2018. In this context, the letter sent by Adani Finserve to AEML for providing financial advisory services is dated 13 September, 2018 i.e. period after the process of refinancing of loans was completed. The relevant excerpts of the letter from Adani Finserve Private Limited mentioning about providing services for the proposed refinancing of term loans is reproduced below for reference:

"Dear Sir:

Re: Financial Advisory Services for Loan Facilities

We refer to discussions on our engagement for providing financial services ("Services") to Adani Electricity Mumbai Limited ("Company") in relation to the proposed refinancing of the Company's term loan facilities, and the raising of working capital and capital expenditure loan facilities by the Company ("Engagement").

..."

3.9.18 It is evident from the above that the services to be provided by Adani Finserve is possibly for future refinancing activities to be undertaken by the company and not for the refinancing carried out in the past by AEML. Hence, the cost of Rs. 8.26 Crore is presently not considered as part of the refinancing cost incurred by AEML for the refinancing carried out for Rs. 8,500 Crore of term loans and hence is not eligible for recovery through the ARR.

3.9.19 **Accordingly, the refinancing cost of Rs. 142.35 Crore could be considered subject to due diligence.**

3.9.20 It is also clearly evident from the above that loan amount of Rs. 8,500 Crore refinanced by AEML is not solely for the purpose repayment of existing loans taken for Generation, Transmission and Distribution business. AEML has used the loans for other purposes like financing transaction cost, statutory dues etc.

3.9.21 The Commission in its Order in Case No. 139 of 2017 has provided approval of Licence Assignment and Asset Transfer with certain conditions. One of the conditions was that REGSL shall not claim any amount from the consumers on account of the proposed transaction. The Commission also approved the sale of 100% shareholding in REGSL to ATL under section 17(3) of the Act, subject to various conditions and one of the conditions was REGSL/ATL shall not claim any amount from the consumers on account of the proposed transaction. Relevant part of the Order in Case No. 139 of 2017 is reproduced below for reference.

"Conditions for Approval of Licence Assignment and Asset Transfer

88. In accordance with the above analysis and rulings, the Commission approves the assignment of the Transmission Licence of RInfra to REGSL and transfer of transmission utility including transmission assets from RInfra to REGSL, in accordance with the Scheme of Arrangement under Section 17(3) of the Act, subject to the following conditions:

.....

h. REGSL shall not claim any amount from the consumers on account of the proposed transaction;

.....

89. In accordance with the above analysis and rulings, the Commission approves the sale of 100% shareholding in REGSL to ATL under Section 17(3) of the Act, subject to the following conditions:

…

b. REGSL/ATL shall not claim any amount from the consumers on account of the proposed transaction;

…"

3.9.22 Considering the above, it is clear that AEML is not eligible for any amount incurred for the transaction between RInfra and ATL. AEML is only eligible for proportionate recovery of refinancing cost pertaining to normative loans as on 29 August, 2018. Outstanding normative loans as on 29 August, 2018 for AEML-T business was Rs. 494.69 Crore and hence refinancing cost on pro-rata basis worked out to Rs. 8.28 Crore for AEML-T. The computation of the proportionate sharing of costs is provided in the table below:

Table 28: Computation of eligible Refinancing Cost for Regulatory Loan of AEML-T (Rs. Crore)

Particular	Amount
Total Loan Refinanced by AEML	8,500.00
Total Refinancing Cost claimed by AEML	157.10
Total Eligible Refinancing Cost	142.35
AEML (G, T and D) Regulatory Loan	2,189.01
Pro-rata Refinancing Cost eligible for AEML (G, T and D) Regulatory Loan	36.66
AEML-T Regulatory Loan	494.69
Pro-rata Refinancing Cost eligible for AEML-T Regulatory Loan	**8.28**

3.9.23 For the purpose of working out the benefit from the refinancing transaction, AEML has considered weighted average interest rate of 10.48%. However, AEML-T has not provided any supporting documents or basis for the weighted average interest rate of 10.48%. Further, the credit facility letter from Yes Bank was dated 29 March, 2018 included the offered revised rate of 9.05%. Accordingly, the benefit computation should consider the applicable interest rates for the existing loan portfolio as on 31 March, 2018 (i.e. date of signing of the credit facility letter with Yes Bank) and the revised interest rate after signing of the credit facility letter for refinancing of the term loans.

3.9.24 AEML-T has submitted Exhibit-Y as part of data gaps which has details of applicable interest rate for FY 2017-18 and FY 2018-19. As per Exhibit-Y of the Petition, applicable interest rate of South Indian Bank was 12.90% for FY 2018-19 which is significantly higher than FY 2017-18. As per Sanction/ Renewal of credit facilities letter issued by South Indian Bank on 15 February, 2016, rate of interest is Base Rate + spread of 1%. It is observed that Base rate during 1 April, 2018 to 29 August, 2018 was 9.90% and hence applicable interest rate should be 10.90% during the said period. The Commission has considered interest rate of 10.90% as against submission of 12.90% by AEML-T for South Indian bank for FY 2018-19. Accordingly, as per details submitted by AEML-T for bank wise outstanding loan and applicable interest rate, the weighted average interest rate as on 31 March, 2018 was 9.98%. The working of the existing weighted average interest rate as on 31 March, 2018 for AEML-T actual loan portfolio is provided as under:

Table 29: Computation of existing weighted average interest rate as on 31 March, 2018 for AEML-T Actual Loan Portfolio (Rs. Crore)

Bank Name	Loan as on 31 March, 2018 (Rs. Crore)	Applicable Interest Rate (%)
State Bank of Hyderabad	70.43	9.70%
South Indian Bank	106.74	10.90%
State Bank of India	285.39	9.70%
Weightage Average Interest Rate		**9.98%**

3.9.25 Accordingly, the Commission has considered 9.98% as weighted average interest rate of the existing loan portfolio of AEML-T as on 31 March 2018 for working out benefits due to refinancing of loan. AEML has refinanced the loan at 9.05% and same has been considered as revised rate for working out benefits due to refinancing of loan.

3.9.26 In order to compute the Present Value of net savings, AEML-T has considered discounting rate post tax cost of debt for AEML, which is 5.89%. As per MYT Regulations, 2015, AEML-T is eligible for income tax as per PBT method and hence there will not be any impact of income tax on savings accruing due to refinancing of loan. In cost plus regulatory regime, approved income allowed for recovery through the InSTS Order is dependent on the expenses (ARR) approved for the respective year. Hence, if there is any reduction in expenses (ARR) due to refinancing, income allowed for recovery through the InSTS Order is automatically adjusted and taxable income as per PBT method remains unchanged. In view of the same, the Commission has considered discounting rate of 9.05% which is cost of debt for the purpose of working out the present value of net savings.

3.9.27 The Regulation 29.10 of MYT Regulations, 2015 specifies that any saving in interest cost due to refinancing of loans is to be shared in the ratio of 2:1 and the relevant para is reproduced below:

"29.10 The Generating Company or the Licensee or the MSLDC, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event, the costs associated with such re-financing shall be borne by the Beneficiaries and the net savings shall be shared between the Beneficiaries and them in the ratio of 2:1, subject to prudence check by the Commission:

Provided that the Generating Company or the Licensee or the MSLDC, as the case may be, shall submit documentary evidence of the costs associated with such re-financing:

Provided further that the net savings in interest shall be calculated as an annuity for the term of the loan, and the annual net savings shall be shared between the entity and Beneficiaries in the specified ratio."

3.9.28 For working out the net benefits, though AEML-T has considered repayment schedule as per loan agreement, as per the provisions of the MYT Regulations, 2015, repayment during the year shall be deemed to be equal to the depreciation allowed for the year. The Commission has considered opening normative loan and depreciation approved for FY 2018-19 for calculating saving due to refinancing of existing loan portfolio. For FY 2018-19, saving is calculated for the number of days for which new rates were applicable and for remaining period of loan, saving is calculated for full financial year.

3.9.29 The Commission has carried out a Cost-Benefit Analysis of the refinancing transaction and resultant savings in interest cost. The Commission has considered opening normative loan for FY 2018-19 as opening loan and the repayment is considered same as the approved depreciation for FY 2018-19 to compute the closing balance of the loans. The computation has been carried out till the entire existing normative loan is repaid. No additions to the normative loans has been assumed for the purpose of this benefit computation as any new capitalisation proposed by the Licensee during this period will be funded through separate loans to be approved by the Commission. The year wise savings in interest cost has been worked out as a difference between the interest payable considering the existing interest rate of 9.98% and that payable considering the revised interest rate of 9.05%. The saving for FY 2018-19 is considered pro-rata to number of days for which revised rate on loan was applicable and for remaining years, it is considered for full financial year. To compute the net savings from the transaction, net present value of the year wise savings is worked out using a discounting rate of 9.05%.

This net present value is then compared with the cost of refinancing incurred by AEML-T and eligible for recovery through the ARR and the difference between the two is deemed to be the net savings from the transactions and which is to be shared between the TSUs and AEML-T in the ratio specified in the MYT Regulations, 2015. The cost of refinancing eligible for recovery from the ARR is allowed for recovery over and above the share of benefit of AEML-T to be recovered through the ARR. The table below provides the detailed computation of the sharing of benefit between the utility and the TSUs:

Table 30: Refinancing Cost and sharing of Net Saving for FY 2018-19, as approved by the Commission (Rs. Crore)

Financial Year	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Opening balance of the debt	520.55	451.64	382.73	313.82	244.91	176.01	107.10	38.19
Addition	-	-	-	-	-	-	-	-
Repayment	68.91	68.91	68.91	68.91	68.91	68.91	68.91	38.19
Closing balance of debt	451.64	382.73	313.82	244.91	176.01	107.10	38.19	-
Average loan balance	486.09	417.19	348.28	279.37	210.46	141.55	72.64	19.09
Interest @ Existing Rate (9.98%)	48.50	41.62	34.75	27.87	21.00	14.12	7.25	1.91
Interest @ Revised Rate (9.05%)	43.99	37.76	31.52	25.28	19.05	12.81	6.57	1.73
Saving	2.65	3.87	3.23	2.59	1.95	1.31	0.67	0.18
NPV of Saving @ Revised Rate (9.05%)	13.64							
Refinancing Cost to be recovered as part of ARR	**8.28**							
Net Saving	5.35							
Share of Utility in Net Saving to be recoveered as part of ARR	**1.78**							

3.9.30 **The Commission approves refinancing cost of Rs. 8.28 Crore and sharing of benefits of Rs. 1.78 Crore for FY 2018-19.**

3.10 Interest on Working Capital

AEML-T's Submission

3.10.1 AEML-T has calculated interest on working capital as per Regulation 31.2 (a) of the MYT Regulations, 2015 by using actuals in the formula specified in the Regulations for FY 2017-18 and FY 2018-19.

3.10.2 AEML-T has considered O&M expenses in the computation which is the revised normative amount in accordance with the Commission's approach for truing up of FY 2016-17 in the MTR Order for FY 2017-18 and FY 2018-19.

3.10.3 AEML-T has also considered revenue from Transmission charges same as that approved in InSTS Order dated 22 July, 2016 in Case No. 91 of 2016 i.e. billed revenue of Rs. 310.15 Crore per annum for FY 2017-18. However, for FY 2018-19, the following revenue has been considered:

- Revenue from Transmission charges applicable from 1 April, 2018 to 31 August 2018 i.e. 5 months amounting to Rs 133.40 Crore (considering billed revenue of Rs. 320.15 Crore per annum) as approved in the InSTS Order in Case No. 91 of 2016 dated 22 July, 2016
- Revenue from Transmission Charges applicable from 1 September, 2018 to 31 March, 2019 i.e. 7 months amounting to Rs. 162.32 Crore (considering billed revenue of Rs. 278.26 Crore per annum) as approved in the InSTS Order in Case No. 265 of 2018 dated 12 September, 2018.

3.10.4 There is no security deposit with AEML-T and hence no interest is applicable on the same.

3.10.5 AEML-T has considered interest on working capital equal to the weighted average Base rate prevailing during the concerned year plus 150 basis points as per Regulation 31.2(b) of MYT Regulations, 2015. In case of FY 2017-18, AEML-T has adopted Base Rate of SBI as per MYT Regulations, 2015 till 28 November, 2017 and for the remaining period from 29 November, 2017 till 31 March, 2018, the Base Rate equal to one year MCLR as declared by SBI has been considered in view of the MYT (First Amendment) Regulations, 2017. For FY 2018-19, the Base Rate equal to one year MCLR as declared by SBI has been considered in view of the MYT (First Amendment) Regulations, 2017. Accordingly, the interest on working capital works out to 10.20% (8.70%+1.50%) for FY 2017-18 and 9.89% (8.39%+1.50%) for FY 2018-19.

3.10.6 The following Table shows the interest on working capital for FY 2017-18 and FY 2018-19 as submitted by AEML-T.

Table 31: Interest on Working Capital for FY 2017-18 and FY 2018-19, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2017-18		FY 2018-19	
	MTR Order	Actual	MTR Order	Actual
O&M expenses for 1 month	4.71	4.73	5.00	5.04
Maintenance spares @ 1% of opening GFA	15.05	15.05	15.89	15.89
One and half months of InSTS revenue	38.77	38.77	34.78	36.96
Working capital requirement	**58.53**	**58.55**	**55.67**	**57.89**
Interest rate (%)	10.20%	10.20%	9.45%	9.89%
Interest on Working Capital (IOWC)	**5.97**	**5.97**	**5.26**	**5.73**

Commission's Analysis and Ruling

3.10.7 The Commission has considered revised normative O&M expenses as approved in this Order and Revenue as per InSTS Order (net of rebate) for calculation of normative IoWC.

3.10.8 The MYT Regulations, 2015 stipulate that the rate of IoWC shall be considered on normative basis and shall be equal to the weighted average Base Rate prevailing during the concerned year plus 150 basis points. As per Regulation 31.2 of MERC MYT Regulations 2015:

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

3.10.9 As per the First Amendment in MYT Regulations, 2017, definition of Base Rate is changed to one-year MCLR as declared by the State Bank of India from time to time. Accordingly, the Commission has calculated weighted average base rate for FY 2017-18 and FY 2018-19.

3.10.10 The Commission has reworked the calculation as per SBI Portal details of which are given in the table below:

Table 32: Rate of Interest on Working Capital for FY 2017-18 and FY 2018-19

Date	No. of days	Rate	Remarks
FY 2017-18			
01-04-2017	91	9.10%	SBI Base Rate
01-07-2017	92	9%	SBI Base Rate
01-10-2017	60	8.95%	SBI Base Rate
30-11-2017	91	7.95%	SBI MCLR Rate
01-03-2018	31	8.15%	SBI MCLR Rate
	Weighted Average	**8.68%**	
FY 2018-19			
01-04-2018	61	8.15%	
01-06-2018	92	8.25%	
01-09-2018	30	8.45%	
01-10-2018	70	8.50%	
10-12-2018	112	8.55%	
	Weighted Average	**8.39%**	

3.10.11 Accordingly, the rate of interest on working capital works out to 10.18% (8.68% plus 1.50%) and 9.89% (8.39% plus 1.50%) for FY 2017-18 and FY 2018-19 respectively.

3.10.12 The summary of normative IoWC for FY 2017-18 and FY 2018-19 as submitted by AEML-T and as approved by the Commission is as per the Table below.

Table 33: Interest on Working Capital for FY 2017-18 and FY 2018-19, as approved by the Commission (Rs. Crore)

Particulars	FY 2017-18			FY 2018-19		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
One-twelfth of the O&M Expense	4.71	4.73	4.50	5.00	5.04	4.78
Maintenance spares at one percent of the opening GFA for the year	15.05	15.05	15.05	15.89	15.89	15.89
One and half months of the expected revenue from Transmission charges at the prevailing Tariffs	38.77	38.77	38.60	34.78	36.96	36.90
Total Working Capital Requirement	58.53	58.55	58.15	55.67	57.89	57.57
Interest Rate on Working capital (%)	10.20%	10.20%	10.18%	9.45%	9.89%	9.89%
Interest on Working Capital (IoWC)	**5.97**	**5.97**	**5.92**	**5.26**	**5.73**	**5.69**

3.10.13 **The Commission approves normative Interest on Working Capital of Rs. 5.92 Crore and Rs. 5.69 Crore for FY 2017-18 and FY 2018-19 respectively.**

3.11 Sharing of Gains and Losses of Interest on Working Capital (IOWC) for FY 2017-18 and FY 2018-19

3.11.1 In FY 2017-18, there is no actual interest on working capital and requirement is met through internal accruals.

3.11.2 In line with judgements of Hon'ble APTEL in Appeal No. 203 of 2010 and Appeal No. 17, 18, 19 of 2011, absence of external funding of working capital does not mean that the cost of funds deployed is "zero". Internal funds also carry cost and a reasonable cost for the same is required to be worked out by the Commission and allowed for determination of Interest on Working Capital for FY 2017-18.

3.11.3 AEML-T has filed appeal before the APTEL against the MTR Order, on the above issue and the matter is pending. Without prejudice to the above, AEML-T in the present Petition has computed efficiency gain / loss and net entitlement on interest on working capital for FY 2017-18 in accordance with approach of Commission in the MTR Order.

3.11.4 AEML-T has submitted for FY 2018-19 that subsequent to transfer of RInfra business from 29 August, 2018, AEML has taken fresh short term loans to fund working capital requirement, in addition to using its own internal accruals.

3.11.5 AEML-T has considered that for Pre-AEML period, the actual interest on working capital is zero in line with reply from RInfra and the approach of the Commission. Therefore only the interest incurred by AEML for the period 29 August, 2018 to 31 March, 2019 has been considered as the Interest on Working Capital for FY 2018-19 as a whole.

3.11.6 The actual Interest on Working Capital for FY 2018-19 includes the interest paid for Inter Corporate Deposit (ICD) to ATL. With respect to the interest rate of 11% on the said ICD it is submitted that the interest charged for any lending represents the perception of risk associated with such capital.

3.11.7 The total Interest on Working Capital of Rs. 3.25 Crore is considered for computing efficiency gain/loss and net entitlement thereon. The net entitlement on Interest on Working Capital for FY 2017-18 and FY 2018-19 is as follows:

Table 34: Net entitlement- Interest on Working Capital for FY 2017-18 and FY 2018-19, as submitted by AEML-T (Rs. Crore)

Interest on Working Capital (IoWC)	FY 2017-18	FY 2018-19
	Actual	Actual
Normative IOWC (A)	5.97	5.73
Actual IOWC for efficiency gain/loss (B)	0	3.25
Efficiency loss (C=A-B)	5.97	2.47
1/3rd gain retained by AEML-T (D=C*1/3)	1.99	0.82
Net entitlement on IOWC (B+D)	**1.99**	**4.08**

Commission's Analysis and Ruling

3.11.8 Sharing of gain on account of IoWC is approved in this Order as per provisions of Regulation 11 of MYT Regulations, 2015. Relevant extract of the Regulation is reproduced below.

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

3.11.9 Normative IoWC of Rs. 5.92 Crore and Rs. 5.69 Crore for FY 2017-18 and FY 2018-19 is considered as approved in this Order. AEML-T has considered Actual IoWC as nil and Rs. 3.25 Crore for FY 2017-18 and FY 2018-19 respectively. The

Commission has sought data from AEML-T regarding working capital loan taken from various sources and AEML-T has provided the details as an "Exhibit M" and "Exhibit T" of the Petition. The actual interest on working capital is nil and Rs. 3.25 Crore for FY 2017-18 and FY 2018-19 as per audited Annual Accounts.

3.11.10 The Commission has observed that AEML-T has not considered contribution of delay in receipt of payment to the actual interest on working capital. Relevant extract of Regulation 31.6 of MYT Regulations, 2015 is reproduced below:

"31.6 For the purpose of Truing-up for each year, the variation between the normative interest on working capital computed at the time of Truing-up and the actual interest on working capital incurred by the Generating Company or Licensee or MSLDC, substantiated by documentary evidence, shall be considered as an efficiency gain or efficiency loss, as the case may be, on account of controllable factors, and shared between it and the respective Beneficiary or consumer as the case may be, in accordance with Regulation 11 :

Provided that the contribution of delay in receipt of payment to the actual interest on working capital shall be deducted from the actual interest on working capital, before sharing of the efficiency gain or efficiency loss, as the case may be."

3.11.11As per audited Annual Accounts, AEML-T has received delay payment charges of Rs. 2.48 Crore which is reduced from the actual Interest on Working Capital before sharing of the efficiency gain or efficiency loss for FY 2018-19. The Commission approves actual interest on working capital of Rs. 0.77 Crore for sharing of the efficiency gain or efficiency loss for FY 2018-19.

Table 35: Net entitlement- Interest on Working Capital for FY 2017-18 and FY 2018-19, as approved by the Commission (Rs. Crore)

Particulars	FY 2017-18		FY 2018-19	
	MYT Petition	Approved in this Order	MYT Petition	Approved in this Order
Normative IOWC (A)	5.97	5.92	5.73	5.69
Actual IOWC (B)	-	-	3.25	0.77
Efficiency Gain/ (Loss) on IoWC expenses (C = A - B)	5.97	5.92	2.47	4.92
Efficiency Gain/ (Loss) to be passed on to the Consumer (D)	1.99	3.95	0.82	3.28
Total IoWC expenses (E = (A - D)	**1.99**	**1.97**	**4.08**	**2.41**

3.11.12**The Commission approves IoWC expenses of Rs. 1.97 Crore and Rs. 2.41 Crore for FY 2017-18 and FY 2018-19 respectively along with the sharing of efficiency gains on IOWC expenses.**

3.12 Return on Equity (RoE)

AEML-T's Submission

3.12.1 AEML-T has filed Appeal No. 237 of 2016 against the MYT Order in Case No. 13 of 2016 on the issue of un-utilised bays and has claimed that a bay once commissioned and charged is part of the transmission system and cannot be termed as "spare" or "un-utilised" for FY 2017-18.

3.12.2 The Commission accordingly reduced the opening equity balance for FY 2014-15 which gets reflected in the opening equity balance for FY 2017-18. AEML-T has submitted the reduced equity balance for FY 2017-18 in accordance with the MYT Order. If the appeal is decided in AEML-T's favour, the regulated equity balance of all years from FY 2014-15 onwards will stand restored and RoE thereon to be allowed, along with appropriate carrying cost.

3.12.3 AEML-T has considered the opening equity for FY 2018-19 as equal to closing equity of FY 2017-18.

3.12.4 AEML-T has computed RoE based on Regulation 28 of the MYT Regulations, 2015, i.e., rate of 15.5% on the equity capital at the beginning of the year plus 15.5 % on 50% of the equity portion for the assets capitalized during the year (net off retirement) for FY 2017-18 and FY 2018-19.

Table 36: Return on Equity for FY 2017-18 and FY 2018-19, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2017-18		FY 2018-19	
	MTR Order	Actual	MTR Order	Actual
Regulatory equity at the beginning of the year	**492.71**	**492.71**	**517.81**	**517.81**
Equity portion of expenditure capitalized	25.29	25.29	5.75	9.21
Equity portion of asset retired during the year	0.19	0.19	-	0.95
Regulatory equity at the end of the year	**517.81**	**517.81**	**523.56**	**526.07**
Return Computation				
RoE at the beginning of the year	75.37	75.37	80.26	80.26
RoE on capitalization during the year	1.97	1.95	0.45	0.64
Total Return on Equity	**75.86**	**78.31**	**80.71**	**80.90**

Commission's Analysis and Ruling

3.12.5 The Commission has considered the regulatory equity at the beginning of the FY 2017-18, same as that of closing equity for FY 2016-17 approved by the Commission in MTR Order in Case No. 201 of 2017. As 5 AIS bays (1 of Ghodbunder and 4 of Versova) which were disallowed in MYT Order in Case No.

13 of 2016 are utilised now and hence the Commission has restated disallowed equity of Rs. 0.038 Crore as part of opening equity of FY 2017-18. Regulatory equity at the beginning of the year for FY 2018-19 is considered same as closing equity for FY 2017-18 approved by the Commission in this Order. The additions are taken up equal to the equity portion of assets capitalized during FY 2017-18 and FY 2018-19 approved by the Commission.

3.12.6 Further, RoE has been computed at 15.50 % of the equity, in accordance with Regulation 28.2 of the MYT Regulations, 2015, on the opening equity of the year and on 50% of the equity portion of the approved capitalization in FY 2017-18 and FY 2018-19.

3.12.7 The summary of RoE for FY 2017-18 and FY 2018-19 as submitted by AEML-T and as approved by the Commission is provided in Table below.

Table 37: Return on Equity for FY 2017-18 and FY 2018-19, as approved by the Commission (Rs. Crore)

Particulars	FY 2017-18			FY 2018-19		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Regulatory equity at the beginning of the year	492.71	492.71	492.74	517.81	517.81	517.84
Add: Equity portion of expenditure capitalized	25.29	25.29	25.29	5.75	9.21	8.79
Less: Equity portion of asset retired during the year	0.19	0.19	0.19		0.95	0.95
Regulatory equity at the end of the year	517.81	517.81	517.84	523.56	526.07	525.69
Return Computation						
RoE at the beginning of the year	76.37	76.37	76.38	80.26	80.26	80.27
RoE on capitalization during the year	1.95	1.95	1.95	0.45	0.64	0.61
Total Return on Equity	**78.31**	**78.31**	**78.32**	**80.71**	**80.90**	**80.87**

3.12.8 **The Commission approves Return on Equity of Rs. 78.32 Crore and Rs. 80.87 Crore for FY 2017-18 and for FY 2018-19.**

3.13 Contribution to Contingency Reserve

AEML-T's Submission

3.13.1 AEML-T submitted that Regulation 34.1 of the MYT Regulations, 2015 provides for Contributions to Contingency Reserve a sum not less than 0.25 per cent and not more than 0.5 per cent of the original cost of fixed assets.

3.13.2 AEML-T has considered the contribution to contingency reserve at 0.25% of the original cost of fixed assets as on 01 April, 2017.

Table 38: Contribution to Contingency Reserve for FY 2017-18 and FY 2018-19, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2017-18		FY 2018-19	
	MTR Order	Actual	MTR Order	Actual
Opening balance of Contingency Reserves	24.04	24.04		27.80
Opening Gross Fixed Assets (GFA)	1504.93	1504.93		1588.59
Opening balance of Contingency Reserves as % of Opening GFA	1.60%	1.60%		1.75%
Contribution to Contingency Reserves	**3.76**	**3.76**	**3.97**	**3.97**

Commission's Analysis and Ruling

3.13.3 Regulation 34.1 of the MYT Regulations, 2015 provides for Contributions to Contingency Reserve a sum not less than 0.25 per cent and not more than 0.5 per cent of the original cost of fixed assets.

3.13.4 AEML-T has submitted folio statement of various mutual funds as part of documentary evidence for investment in Contingency Reserve. Accordingly, the Commission approves the contribution to contingency reserve of Rs. 3.76 Crore and Rs. 3.97 Crore for FY 2017-18 and FY 2018-19 respectively as it is in compliance to Regulation 34.1 of the MYT Regulations, 2015.

Table 39: Contribution to Contingency Reserve for FY 2017-18 and FY 2018-19, as approved by the Commission (Rs. Crore)

Particulars	FY 2017-18			FY 2018-19		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Opening Balance of Contingency Reserves	24.04	24.04	24.04	27.80	27.80	27.80
Opening Gross Fixed Assets	1,504.93	1,504.93	1,504.93	1,588.59	1,588.59	1,588.59
Opening Balance of Contingency Reserves as % of Opening GFA	1.60%	1.60%	1.60%	1.75%	1.75%	1.75%
Contribution to Contingency Reserves during the year	**3.76**	**3.76**	**3.76**	**3.97**	**3.97**	**3.97**

3.13.5 **The Commission approves Contribution to Contingency Reserve of Rs. 3.76 Crore and Rs. 3.97 Crore for FY 2017-18 and FY 2018-19 respectively.**

3.14 Income Tax

AEML-T's Submission

3.14.1 AEML-T submitted that the Commission had approved Income Tax for FY 2017-18 and FY 2018-19 based on Truing-up of FY 2016-17 in the MYT Order i.e. Rs. 22.85 Crore.

3.14.2 AEML-T in the present Petition has computed Income Tax for FY 2017-18 and FY 2018-19 based on stand-alone Regulatory Profit before Tax (PBT) for Transmission business as per the approach and methodology approved by the Commission in previous Orders.

3.14.3 The Commission has considered double deduction of Interest on Working Capital while computing Profit before Tax for FY 2016-17. AEML-T has filed appeal against the said matter and the matter is pending before the APTEL. Accordingly, the present Petition is filed in accordance to the Commission's ruling, without prejudice to AEML-T's contentions in the said Appeal.

3.14.4 AEML-T has computed Income Tax for FY 2017-18 and FY 2018-19 at Corporate Tax as well as MAT rate on Book Profit, after determining the Taxable Income. AEML-T has claimed income tax as per corporate tax rate as corporate tax rate is higher than the income tax as per MAT rate.

3.14.5 AEML-T has started conducting Mumbai GTD business in its own name from 29 August, 2018. As AEML has more than one Regulated business, the Income Tax is required to be worked out as per Regulatory PBT method in accordance with Regulation 33.1 of the MERC MYT Regulations, 2015.

3.14.6 In FY 2018-19, ATL took over Mumbai Generation, Transmission and Distribution business of RInfra i.e. AEML and in the process took over the liabilities pertaining to regulated business as well, by replacing the existing loans with lower cost loans. As the process of taking over required loans worth Rs. 8,500 Crore, in the process the existing regulatory loans were replaced. The depreciation in the audited account and subsequently the tax depreciation for Income Tax purposes are substantially high as compared to Regulated depreciation resulting in lower PBT for actual tax purposes. However the consumers have not been burdened with higher interest cost of loans, it is imperative that the income tax is also computed considering regulated asset base and corresponding depreciation and interest only.

3.14.7 Accordingly, as per the settled principle by the Tribunal in its various Orders and subsequently as implemented by the Commission, income tax has been worked out in a water-tight compartment on Regulatory PBT method for FY 2017-18 and FY 2018-19 as given in the table below.

Table 40: Income Tax for FY 2017-18 and FY 2018-19, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2017-18		FY 2018-19	
	MTR Order	Actual	MTR Order	Actual
Revenue from InSTS		308.79		295.19
Non-Tariff Income		4.59		5.72
Less: Availability incentive		2.15		2.43
Less: Efficiency gains on IOWC		1.99		(0.82)
Total revenue		**309.24**		**297.66**
O&M expenses		56.58		60.502
Depreciation		64.78		68.95
Interest on long term loan		54.89		46.32
Financing charges				2.18
Refinancing charges				32.78
Refinancing benefit NPV				4.67
IOWC (Normative)		5.97		5.73
Contribution to contingency reserves		3.76		3.97
Total expenditure		**186.19**		**225.09**
Profit Before Tax		**123.05**		**72.57**
Add: ARR Depreciation		64.78		68.95
Less: I-Tax Depreciation		108.43		75.46
Add: Other disallowances				2.89

Particulars	FY 2017-18		FY 2018-19	
	MTR Order	Actual	MTR Order	Actual
Less: Other allowances				4.74
Total taxable income		**79.40**		**64.21**
Tax payable	**22.85**	**27.48**	**22.85**	**22.44**

Commission's Analysis and Ruling

3.14.8 The Commission has computed Income Tax in accordance with Regulation 33.1 of MYT Regulations, 2015 and as specified in Hon'ble APTEL Judgement dated 2 December 2013 in Case No. 138 and 139 of 2012.

3.14.9 As per Regulation 33.1 of MERC MYT Regulations 2015:

"Provided further that no Income Tax shall be considered on the amount of income from Delayed Payment Charges or Interest on Delayed Payment or Income from Other Business, as well as on the income from any source that has not been considered for computing the Aggregate Revenue Requirement :

Provided also that no Income Tax shall be considered on the amount of efficiency gains and incentive approved by the Commission, irrespective of whether or not the amount of such efficiency gains and incentive are billed separately:"

3.14.10 As specified in the Regulations and Hon'ble APTEL Judgment, the Commission has arrived at Income Tax paid based on Regulatory Profit before Tax (PBT) considering the normative cost allowed by the Commission. The ratio with regard to tax liability is calculated on the regulatory income and cost within the MYT regime considering the applicable tax depreciation for computation of the Income Tax. Accordingly, the calculation of Income tax provides the tax payable for the Regulatory business whereby all the items of ARR and Revenue are considered on normative basis for tariff purpose. Also in line with MYT Regulations, 2015 no efficiency gains and incentive earned are considered for computation of Tax on PBT basis.

3.14.11 Income Tax calculation for FY 2017-18 and FY 2018-19 is as shown in Table below:

Table 41: Income Tax for FY 2017-18 and FY 2018-19, as approved by the Commission (Rs. Crore)

Particulars	FY 2017-18			FY 2018-19		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Revenue from InSTS		308.79	308.79		295.19	295.21
Non Tariff Income		4.59	4.59		5.72	5.72
Less: Incentives		2.15	2.15		2.43	2.27
Less: Efficiency Gains		1.99	1.97		0.82	1.64
Total Revenue		**309.24**	**309.26**		**297.66**	**297.02**
O&M Expenses		56.78	54.04		60.50	57.38
Depreciation		64.78	64.78		68.95	68.91
Interest on long-term loan		54.89	54.89		46.32	45.82
Financing charges					2.18	2.18
Refinancing charges					32.78	8.28
Refinancing benefit NPV					4.67	1.78
Interest on Working Capital		5.97	5.92		5.73	5.69
Contribution to Contingency Reserve		3.76	3.76		3.97	3.97
Total Expenditure		**186.19**	**183.40**		**225.09**	**194.02**
Profit Before Tax		**123.05**	**125.86**		**72.57**	**103.00**
Add: Depreciation as per ARR		64.78	64.78		68.95	68.91
Add: Other Disallowances					2.89	2.89
Less: Depreciation as per I-Tax		108.43	108.43		75.46	75.46
Less: Other expenses allowed					4.74	4.74
Total Taxable Income		**79.40**	**82.21**		**64.21**	**94.61**
Tax Payable at Normal rate (Corporate Tax Rate, i.e., 34.68%*)	**22.85**	**27.48**	**28.45**	**22.85**	**22.44**	**33.06**

3.14.12 **The Commission approves Income Tax of Rs. 28.45 Crore and Rs. 33.06 Crore for FY 2017-18 and FY 2018-19, respectively.**

3.15 Revenue from Transmission Charges

AEML-T's Submission

3.15.1 AEML-T has considered Rs. 310.15 Crore and Rs. 295.71 Crore for FY 2017-18 and FY 2018-19 respectively as revenue from transmission charges billed same as approved by the Commission in the applicable InSTS Orders.

3.15.2 AEML-T has received its revenue from State Transmission Utility (STU) Pool Account and not directly from any user for FY 2017-18 and FY 2018-19.

3.15.3 Further, AEML-T has submitted that the actual revenue received during FY 2017-18 and FY 2018-19 is Rs. 308.79 Crore and Rs. 295.19 Crore for respectively. Balance revenue of Rs. 1.36 Crore and Rs. 0.52 Crore is on account of rebate offered to TSUs for prompt payment of bills as per Regulation 35 of MYT Regulations, 2015. AEML-T has submitted that rebates or incentives given by the Licensee are allowed as an expense for the Licensee as per Regulation 35.3 of the MYT Regulations, 2015. Accordingly, the actual revenue considered for FY 2017-18 and FY 2018-19 is net off rebate as shown in the table below:

Table 42: Revenue from InSTS for FY 2017-18 and FY 2018-19, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2017-18		FY 2018-19	
	MTR Order	Actual	MTR Order	Actual
Revenue from InSTS	310.15	308.79	278.26	295.19

Commission's Analysis and Ruling

3.15.4 For FY 2017-18, InSTS Order in Case No. 91 of 2016 dated 22 July, 2016 was applicable and revenue approved for recovery by the Commission was Rs. 310.15 Crore. For FY 2018-19, InSTS Order in Case No. 91 of 2016 dated 22 July, 2016 was applicable from April, 2018 to August, 2018 and InSTS Order in Case No. 265 of 2018 dated 12 September, 2018 was applicable from September, 2018 to March, 2019 and revenue approved for recovery by the Commission was Rs. 295.71 Crore.

3.15.5 Rebates or incentives given by the licensee are allowed as an expense for the licensee as per Regulation 35.3 of the MYT Regulations, 2015:

"*All rebates or incentives earned by the Generating Company or Licensee or MSLDC shall be considered under its Non-Tariff Income, while all rebates and incentives given by the Generating Company or Licensee or MSLDC shall be allowed as an expense for the Generating Company or Licensee or MSLDC*"

3.15.6 Accordingly, the Commission has considered net revenue from Transmission charges equal to Rs. 308.79 Crore after reducing rebate of Rs. 1.36 Crore as submitted by AEML-T in reconciliation statement between audited accounts and MYR format for FY 2017-18.

3.15.7 Similarly, in case of FY 2018-19, the net income of sale of power of transmission charges is Rs. 295.21 Crore as per audited accounts. The Commission has considered net revenue from Transmission charges equal to Rs. 295.21 Crore after reducing rebate of Rs. 0.50 Crore as per Audited annual accounts as against Rs. 295.19 Crore submitted by AEML-T for FY 2018-19.

3.15.8 The following Table shows the revenue from Transmission charges approved by the Commission for FY 2017-18 and FY 2018-19.

Table 43: Revenue from InSTS for FY 2017-18 and FY 2018-19, as approved by the Commission (Rs. Crore)

Particulars	FY 2017-18			FY 2018-19		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Revenue from Transmission charges	310.15	310.15	310.15	278.26	295.71	295.71
Less: Rebate for Prompt Payment	-	1.36	1.36	-	0.52	0.50
Net Revenue from Transmission charges	310.15	308.79	308.79	278.26	295.19	295.21

3.15.9 **The Commission approves Revenue from Transmission Charges of Rs. 308.79 Crore and Rs. 295.21 Crore for FY 2017-18 and FY 2018-19 respectively.**

3.16 Non -Tariff Income

AEML-T's Submission

3.16.1 AEML-T has been getting income due to interest on investment made for contingency reserve in Central Government of India securities with varied interest rate of 8.12%, 8.27% and 7.68%. Considering the average interest rate of all securities amounting to 8.03%, the interest on contingency reserve investment for FY 2017-18 has been computed. Similarly for FY 2018-19, the interest on contingency reserves as per the books of accounts has been considered.

3.16.2 Liquidated damages which are receipts from vendors on account of delay in a scheduled delivery date of equipment also come under Non-Tariff Income for FY 2017-18.

3.16.3 Unclaimed liabilities is the amount retained from vendors invoices as retention till defect liability period as per PO terms which is not claimed by vendors for more than three years is written back. This amount is also considered under Non-Tariff Income for FY 2017-18 and FY 2018-19.

3.16.4 Non-Tariff Income also includes realization of exchange loss, rental income from land usage charges. AEML-D has installed its receiving stations on the land owned by AEML-T at Aarey, Versova and Ghodbunder EHV stations plots, for which AEML-T is receiving rental charges from AEML-D on the basis of the MOM executed between the two divisions.

3.16.5 Further, interest on staff loans and advances has been excluded from Non-Tariff income as these loans are extended out of Regulatory Return of AEML-T, which is the capital available to the Company to invest, extend loans, declare dividend, etc. in accordance with Regulation 43.2 of the MYT Regulations, 2015.

3.16.6 Delayed Payment Charge received by AEML-T in FY 2017-18 and FY 2018-19 is also not considered under Non-Tariff Income as per Regulation 36.3 of the MYT Regulations, 2015.

3.16.7 Accordingly, the non-tariff income claimed for truing up of FY 2018-19 is given in the table below:

Table 44: Non-Tariff Income for FY 2017-18 and FY 2018-19, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2017-18		FY 2018-19	
	MTR Order	Actual	MTR Order	Actual
Income from rent of land or buildings (land usage)		1.36		1.43
Interest on contingency reserve investments		2.08		2.66
Liquidated damages		0.38		-
Realisation of exchange gain/(loss)		(0.01)		(0.01)
Scrap sale		0.51		1.03
Unclaimed liabilities written back		0.26		0.61
Total	**4.37**	**4.59**	**3.82**	**5.72**

Commission's Analysis and Ruling

3.16.8 The Commission has scrutinized the income from contingency reserve 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.

3.16.9 No formal agreement for Land Usage Charges can be executed between AEML-T and AEML-D as these are regulated businesses of the same entity. Therefore, AEML has formalized an arrangement for land usage charges through Minutes of Meeting (MoM). Income from land usage charges receivable from AEML-D is in line with MOM provided. Income from rent of land or buildings is considered as Non-Tariff Income.

3.16.10 The Commission has scrutinized the other Non-Tariff Income claimed by AEML-T from audited annual accounts and accordingly approves the same.

3.16.11 The Commission has excluded delayed payment charges and staff loans & advances from the Non-Tariff Income considering the submissions of AEML-T in this matter.

Table 45: Non-Tariff Income for FY 2017-18 and FY 2018-19, as approved by the Commission (Rs. Crore)

Particulars	FY 2017-18			FY 2018-19		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Income from rent of land or buildings	1.36	1.36	1.36	1.43	1.43	1.43
Income from sale of scrap	0.51	0.51	0.51		1.03	1.03
Income from investments (Contingency Reserve Investment)	2.08	2.08	2.08	2.39	2.66	2.66
Unclaimed liabilities written back	0.04	0.26	0.26		0.61	0.61
Realization of exchange gain	-0.01				-0.01	-0.01
Liquidated damages	0.38	0.38	0.38		-	
Profit on Sale of Assets	0.01					
Total	**4.37**	**4.59**	**4.59**	**3.82**	**5.72**	**5.72**

3.16.12 **The Commission approves Non-Tariff Income of Rs. 4.59 Crore and Rs. 5.72 Crore for FY 2017-18 and FY 2018-19 respectively.**

3.17 Income from Other Business

AEML-T's Submission

3.17.1 AEML-T has submitted that it has let out space on its sub-station rooftops for installation of BTS towers of Reliance Communication Ltd and has received Rs. 0.13 Crore for FY 2017-18 and 0.17 Crore for FY 2018-19 towards the same.

3.17.2 AEML-T has considered 2/3rd income from other business equal to Rs. 0.09 Crore and Rs. 0.11 Crore for FY 2017-18 and FY 2018-19 respectively as per Regulation 60 of MERC MYT Regulations 2015.

Table 46: Income from Other Business for FY 2017-18 and FY 2018-19, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2017-18		FY 2018-19	
	MTR Order	Actual	MTR Order	Actual
Income from Other Business	0.09	0.09	0.09	0.11

Commission's Analysis and Ruling

3.17.3 The Commission has scrutinized the income from other business of Rs 0.13 Crore and Rs. 0.17 Crore for FY 2017-18 and FY 2018-19 respectively as submitted by AEML-T from the audited annual accounts of AEML-T. 2/3rd of this net Income is considered for deduction from the ARR as per Regulation 60 of MYT Regulations, 2015.

3.17.4 Accordingly, the Commission approves the Income from Other Business in ARR of FY 2017-18 and FY 2018-19 as shown in the Table below.

Table 47: Income from Other Business for FY 2017-18 and FY 2018-19, as approved by the Commission (Rs. Crore)

Particulars	FY 2017-18			FY 2018-19		
	MTR Order	MYT Petition	Approved in this Order	MTR Order	MYT Petition	Approved in this Order
Income from Other Business	0.09	0.09	0.09	0.09	0.11	0.11

3.17.5 **The Commission approves Income from Other Business of Rs. 0.09 Crore and Rs. 0.11 Crore for FY 2017-18 and FY 2018-19 respectively.**

3.18 Incentive on Availability of AEML-T Network

AEML-T's Submission

3.18.1 AEML-T has claimed incentive on achieving annual availability beyond the Target Availability. The incentive for FY 2017-18 and FY 2018-19 has been claimed in line with Regulations 57.1 (a), 57.1 (b) and 57.2 of the MYT Regulations, 2015.

3.18.2 AEML-T has also provided MSLDC certificate for the Transmission system availability for AEML-T at 99.84% and 99.75% for FY 2017-18 and FY 2018-19 respectively.

3.18.3 AEML-T has computed incentive for transmission availability up to 99.75% as per Regulation 57.2 of MYT Regulations, 2015, which works out to Rs. 2.15 Crore and Rs. 2.46 Crore for FY 2017-18 and FY 2018-19.

Commission's Analysis and Ruling

3.18.4 The Commission has analysed the submissions of AEML-T and verified its Transmission System Availability from the certification provided by MSLDC for

FY 2017-18 and FY 2018-19. The MYT Regulation, 2015 specifies the provisions for Incentive on achieving Transmission Availability higher than 99%.

3.18.5 As per Regulation 57 and Regulation 54 of the MYT Regulation, 2015, Annual Transmission Charges comprise ARR including Income Tax.

3.18.6 Further, as per Regulation 57 of the MYT Regulation, 2015, for recovery of full Annual Fixed Cost, the Target Availability should be 98% and above, while for incentive computation minimum Target Availability should be 99%.

3.18.7 Based on the above, the Commission has calculated the Incentive on Transmission Availability for FY 2017-18 and FY 2018-19 in accordance with the Regulations and has considered ARR including the approved Income Tax for FY 2017-18 and FY 2018-19. The Incentive approved by the Commission is as shown in the following Table below:

Table 48: Incentive on Availability of AEML-T Network for FY 2017-18 and FY 2018-19, as approved by the Commission (Rs. Crore)

Particulars	FY 2017-18		FY 2018-19	
	MYT Petition	Approved in this Order	MYT Petition	Approved in this Order
Aggregate Revenue Requirement from Transmission Tariff	284.10	283.24	320.94	299.60
Actual Availability (%)	99.84%	99.84%	99.75%	99.75%
Normative Availability (%)	99.00%	99.00%	99.00%	99.00%
Incentive	2.15	2.15	2.43	2.27

3.18.8 **The Commission approves Incentive on Availability of Rs. 2.15 Crore and Rs. 2.27 Crore for FY 2017-18 and FY 2018-19 respectively.**

3.19 Revenue Gap/ (Surplus) for FY 2017-18 and FY 2018-19

AEML-T's Submission

3.19.1 AEML-T has determined the revenue gap/ (surplus) for FY 2017-18 and FY 2018-19 by comparing the revenue from InSTS and the Aggregate Revenue Requirement (net of Non-Tariff Income and Income from Other Business).

3.19.2 AEML-T has submitted the summary of Truing up for FY 2017-18 and FY 2018-19 which is provided in the Table below.

Table 49: Summary of Truing-up of ARR for FY 2017-18 and FY 2018-19, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2017-18		FY 2018-19	
	MTR Order	Actual	MTR Order	Actual
Expenditure				
Operation and Maintenance Expenses	56.53	57.56	59.99	60.50
Depreciation	64.78	64.78	69.19	68.95
Interest on Long-term Loan capital	56.94	54.89	49.15	46.32
Financing Charges				2.18
Refinancing Charges				32.78
Refinancing NPV				4.67
Interest on Working Capital	5.97	1.99	5.26	4.08
Income Tax	22.85	27.48	22.85	22.44
Contribution to contingency reserve	3.76	3.76	397.	3.97
Total Revenue Expenditure	**210.83**	**210.47**	**210.41**	**245.88**
Return on Equity	78.31	78.31	80.71	80.90
Aggregate Revenue Requirement	**289.14**	**288.78**	**291.12**	**326.78**
Less: Non-Tariff Income	4.37	4.59	3.82	5.72
Less: Income from other business	0.09	0.09	0.09	0.11
Net ARR from Transmission tariff	**284.69**	**284.10**	**287.21**	**320.94**
Availability Incentive		2.15	-	2.43
Gap till FY 2017-18			**(13.52)**	**(13.52)**
Carrying Cost for past gaps			**4.57**	**4.57**
ARR from Transmission	**284.69**	**286.25**	278.26	314.42
Revenue from InSTS	**310.15**	**308.79**	278.26	295.19
Revenue Gap/ (Surplus)	**(25.46)**	**(22.54)**		**19.23**

Commission's Analysis and Ruling

3.19.3 Based on discussion on various cost components in this Chapter, the Commission has computed total ARR and Revenue Gap/ (Surplus) for FY 2017-18 and FY 2018-19 as detailed in the Table below.

Table 50: Summary of Truing-up of ARR for FY 2017-18 including sharing of efficiency gains/ (loss), as approved by the Commission (Rs. Crore)

Sr. No.	Particulars	MTR Order	MYT Petition	Approved in this Order
1	Operation & Maintenance Expenses	56.53	57.56	55.73
2	Depreciation Expenses	64.78	64.78	64.78
3	Interest on Long-term Loan Capital & financing charges	56.94	54.89	54.89
4	Interest on Working Capital	5.97	1.99	1.97
5	Income Tax	22.85	27.48	28.45
6	Contribution to Contingency reserves	3.76	3.76	3.76
7	**Total Revenue Expenditure**	**210.83**	**210.47**	**209.60**
8	Return on Equity Capital	78.31	78.31	78.32
9	**Aggregate Revenue Requirement**	**289.14**	**288.78**	**287.92**
10	Less: Non-Tariff Income	4.37	4.59	4.59
11	Less: Income from Other Business	0.09	0.09	0.09
12	**Aggregate Revenue Requirement from Transmission Tariff**	**284.69**	**284.10**	**283.24**
13	Revenue from Transmission Tariff	310.15	308.79	308.79
14	Availability Incentive		2.15	2.15
15	**Revenue Gap/(Surplus)**	**(25.46)**	**(22.54)**	**(23.40)**

3.19.4 **After Truing up of various elements for FY 2017-18 as discussed in earlier paragraphs, Revenue Surplus works out to Rs. 23.40 Crore. There is incremental Revenue Gap of Rs. 2.06 Crore as compared to the Provisional Truing-up of FY 2017-18.**

Table 51: Summary of Truing-up of ARR for FY 2018-19 including sharing of efficiency gains/ (loss), as approved by the Commission (Rs. Crore)

Sr. No.	Particulars	MTR Order	MYT Petition	Approved in this Order
	Expenditure			
1	Operation & Maintenance Expenses	59.99	60.50	58.14
2	Depreciation Expenses	69.19	68.95	68.91
3	Interest on Long-term Loan Capital	49.15	46.32	45.82
4	Financing charges		2.18	2.18
5	Refinancing charges		32.78	8.28
6	Refinancing NPV		4.67	1.78
7	Interest on Working Capital	5.26	4.08	2.41
8	Income Tax	22.85	22.44	33.06
9	Contribution to Contingency reserves	3.97	3.97	3.97
10	**Total Revenue Expenditure**	**210.41**	**245.88**	**224.56**
11	Return on Equity Capital	80.71	80.90	80.87
12	**Aggregate Revenue Requirement**	**291.12**	**326.78**	**305.43**
13	Less: Non-Tariff Income	3.82	5.72	5.72
14	Less: Income from Other Business	0.09	0.11	0.11
15	**Net Aggregate Revenue Requirement**	**287.21**	**320.94**	**299.60**
16	Incentive		2.43	2.27
17	Gap till FY 2017-18	(13.52)	(13.52)	(13.52)
18	Carrying cost for past gaps	4.57	4.57	4.57
19	**ARR from Transmission**	**278.26**	**314.42**	**292.92**
20	**Revenue from InSTS**	278.26	295.19	295.21
21	**Revenue Gap/ (Surplus)**		**19.23**	**(2.29)**

3.19.5 **After Truing up of various elements for FY 2018-19 as discussed in earlier paragraphs, Revenue Surplus works out to Rs. 2.29 Crore. The Carrying cost/ (holding) cost for Revenue Gap/ (Surplus) for FY 2017-18 and FY 2018-19 is worked out separately and entire recovery is envisaged by FY 2020-21.**

4 PROVISIONAL TRUING-UP OF ARR FOR FY 2019-20

4.1 Background

4.1.1 AEML-T has filed the MTR Petition in Case No. 201 of 2017 which included the ARR determination for FY 2019-20. The Commission issued an Order dated 12 September, 2018 approving the ARR for FY 2019-20.

4.1.2 AEML-T has submitted the provisional actuals for FY 2019-20 with respect to capital expenditure, revenue expenditure and revenue income. AEML-T has presented the comparison of expenditure and revenues as approved by the Commission in the MTR Order in Case No. 201 of 2017 for FY 2019-20 with the provisional actuals for AEML-T.

4.1.3 The analysis underlying the Commission's Provisional Truing-up for FY 2019-20 is set out below.

4.2 Operation and Maintenance Expenses

AEML-T's Submission

4.2.1 AEML-T has considered the addition of circuit Kms and bays based on provisional actual capitalization as elaborated in the section on capital investment plan for FY 2019-20. Norms have been applied as provided in Regulation 58.4 of the MYT Regulations, 2015 for voltages that already exist in AEML-T system.

4.2.2 AEML-T has submitted that impact on O&M expenses due to any levies imposed or changes in rules made by external agencies cannot be considered to be in control of AEML-T, nor can AEML-T be expected to reduce its regular O&M activities in order to accommodate the increase in expenses on account of such changes, as cutting corners in regular maintenance so as to remain within regulatory expense target would affect system performance and reliability. In any such event, such changes should be considered as "change in law" and therefore uncontrollable as per MYT Regulations, 2015.

4.2.3 AEML-T has submitted that when norms such as that for O&M expenses are made considering past costs, the norms in Rs./ckt-Km or Rs./bay, consider the past average expenses, and accordingly the taxes, statutory charges of various authorities, etc. which are included in those expenses are also represented at an average level over the historical period considered. That average is not even at the "current (base year) level" and a normative O&M expense for future, which is based on such average, therefore, neither accounts for base year level of such charges, nor does it account for any subsequent changes that may occur in those charges. The escalation factor used in the norms is only to compensate for inflationary increase and does not account for any irregular changes in any such extraneous charges. Therefore, AEML-T has submitted that where normative allowance is based on historical costs, any subsequent changes not attributable to the Licensee should be separately analysed and allowed over and above the norms, if justified.

4.2.4 As elaborated in the section pertaining to truing up for FY 2017-18 with respect to the PWD ground rent to be considered as uncontrollable, the matter is sub-judice before the APTEL and hence, without prejudice to its contentions in the said Appeal, AEML-T has considered the normative O&M without considering the PWD ground rent as a separate expense element.

4.2.5 AEML-T has started paying the provident fund contribution on all allowances along with the basic pay on account of the judgement of the Hon'ble Supreme Court (SC) on 28 February, 2019 on the issue of calculation of deduction and contribution of amounts to the provident fund accounts of the employees. The additional impact on O&M expenses due to this Judgement in FY 2019-20 is estimated to be Rs. 0.11 Crore.

4.2.6 Government of Maharashtra (GOM) has revised the basic wages payable to employees employed in shops or commercial establishments under the Minimum Wages Act, with effect from 24 July, 2019. The additional impact on O&M expenses in FY 2019-20 is expected to be Rs. 0.059 Crore. Also, the incremental gratuity pay out to employees due to the revision in basic wages is expected to be Rs.0.05 Crore.

4.2.7 Based on the above, the O&M expense estimated by AEML-T is as follows:

Table 52: Normative O&M expenses for FY 2019-20, as submitted by AEML-T (Rs. Crore)

Normative O&M expenses	MTR Order	Provisional Normative allowance
Line length ckt. Km.		
Opening		541.13
Addition		30.00
Closing		571.13
Average		556.13
O&M cost norms (Rs. Lakh/ ckt. Km)		0.68
Normative O&M expenses (Rs. Crore) – A	**3.78**	**3.78**
220 kV Bays		
Opening		107
Addition		6
Closing		113
Average		110
O&M cost norms (Rs. Lakh/bay)		32.07
Normative O&M expenses (Rs. Crore) – B		**35.28**

Normative O&M expenses	MTR Order	Provisional Normative allowance
33 kV Bays		
Opening		381
Addition		-
Closing		381
Average		381
O&M cost norms (Rs. Lakh/ bay)		6.70
Normative O&M expenses (Rs. Crore) – C		**25.53**
Normative O&M expenses Bays (Rs. Crore) – D = B+C	**60.91**	**60.80**
Total Normative O&M expenses – A+D	**64.69**	**64.59**
Additional claim on account of Hon'ble SC judgement and GOM notification	-	0.17
Total claimed O&M expenses	**64.69**	**64.76**

Commission's Analysis and Ruling

4.2.8 The Commission has considered opening ckt. km. of transmission line and number of bays for FY 2019-20 same as the closing value of ckt. km. of transmission line and number of bays approved for FY 2018-19 in this Order.

4.2.9 The Commission provisionally approves addition of 30 ckt. km of line length during FY 2019-20 due to commissioning of Aarey Borivali cable connectivity as capitalization of the same is provisionally approved by the Commission. 2 Numbers of 220 kV bays at existing Aarey EHV Station and 2 Numbers of 220 kV bays at MSETCL Borivali Substation, which the Commission had considered as un-utilized in the MYT Order, are proposed to be connected and charged due to commissioning of Aarey Borivali cable connectivity. Due to completion of Bays extension at Versova, 2 Numbers of 220 kV bays will be added to the network.

4.2.10 As discussed in Section 3.5 of this Order, presently the Commission has not considered prospective utilization plan for the future year. The utilisation of the bays will be considered at the time of Truing-up, subject to prudence check. Accordingly, the Commission provisionally approves addition of 2 Numbers of 220 kV bays at Versova during FY 2019-20.

4.2.11 Considering that presently the provisional truing up for FY 2019-20 is being undertaken, the Commission has also not considered the additional claim of Rs. 0.17 Crore arising due to Hon'ble Supreme Court judgement which directed that the contribution to provident fund should computed on all components of wages and also on account of revision of basic wages by Government of Maharashtra. AEML-T to submit the exact impact of the same along with detailed justification during Truing-up of FY 2019-20 and the Commission will consider it appropriately, subject to prudence check.

4.2.12 The summary of normative O&M expenses for FY 2019-20 as submitted by AEML-T and as provisionally approved by the Commission is provided in Table below:

Table 53: Normative O&M expenses for FY 2019-20, as approved by the Commission (Rs. Crore)

Particulars	MTR Order	MYT Petition	Approved in this Order
Length in Ckt Km	556.13	556.13	556.13
Applicable O&M cost Norm for Transmission Lines (Rs. Lakh/Ckt Km)	0.68	0.68	0.68
Normative O&M expenses for Transmission Lines (Rs. Crore)	**3.78**	**3.78**	**3.78**
Number of 220 kV bays	112	110	108
Number of 33 kV bays	373	381	332
Applicable O&M Cost Norm for 220 kV Bays (Rs. Lakh/Bay)	32.07	32.07	32.07
Applicable O&M Cost Norm for 33 kV Bays (Rs. Lakh/Bay)	6.70	6.70	6.70
Normative O&M Expenses for Bays (Rs. Crore)	**60.91**	**60.80**	**56.88**
Total Normative O&M expenses	**64.69**	**64.59**	**60.66**

4.2.13 **The Commission thus provisionally approves normative O&M expenses of Rs. 60.66 Crore for FY 2019-20.**

4.3 Capital Investment Plan and Capitalization

AEML-T's Submission

4.3.1 AEML-T has submitted the capital expenditure/ capitalization for FY 2019-20 considering the proposed planning for the entire FY 2019-20, including the provisional actuals for the first half. The provisional capitalization in H1 of FY 2019-20 is Rs.5.21 Crore and that estimated for H2 is Rs.344.12 Crore.

4.3.2 AEML-T has considered the schemes that are principally approved by the Commission and schemes that are submitted / will be submitted in due course subject to in-principal approval of the Commission (on the premise that these schemes will receive in-principle approval before issuance of MYT Order). The schemes pending for submission before the Commission are at various stages of discussion before the STU and will be submitted to the Commission once the STU accords its approval.

4.3.3 AEML-T has determined the Interest During Construction (IDC) for FY 2019-20 considering the capex phasing of the individual schemes and IDC capitalized has been worked out considering the duration for which works funded by loans have remained in progress.

4.3.4 Summary of the capital expenditure and capitalization for FY 2019-20 submitted by AEML-T is as below.

Table 54: Summary- Scheme-wise Capital expenditure for FY 2019-20, as submitted by AEML-T (Rs. Crore)

Capex	H1 (provisional actual)	H2 (projected)	Total
DPR (Schemes approved)			
3rd Transformer at Goregaon EHV station	0.51		0.51
Aarey Borivali cable connectivity	57.59	153.79	211.38
Bays extension at Versova	2.70	18.74	21.45
33 kV AIS TO GIS conversion	0.07	3.64	3.71
2nd Feed at Chembur	0.04	60.59	60.63
DPR (Schemes submitted pending for approval)			
3rd Transformer at Borivali EHV Substation		2.87	2.87
Ghodbunder-Boisar LILO upgradation		7.11	7.11
DPR (Schemes to be submitted, at various stages of discussion with STU)			
220 kV BKC EHV Scheme		172.97	172.97
220 kV Dahisar EHV Scheme		26.20	26.20
Substation at Kandivali (W)		28.20	28.20
Replacement of Polymer Insulators		3.28	3.28
HVDC		42.00	42.00
Non-DPR	5.61	34.39	40.00
Total	**66.53**	**553.78**	**620.31**

Table 55: Summary- Scheme-wise Capitalization for FY 2019-20, as submitted by AEML-T (Rs. Crore)

Capitalization including IDC (Rs. Crore)	MTR Order	H1 (provisional actual)	H2 (projected)	Total
DPR (Schemes approved)				
3rd Transformer at Goregaon EHV station		0.51		0.51
Aarey Borivali cable connectivity	280.15		291.39	291.39
Bays extension at Versova	73.02		24.44	24.44
Non-DPR	30.00	4.70	28.30	33.00
Total	**383.17**	**5.21**	**344.12**	**349.33**

Commission's Analysis and Ruling

4.3.5 The Commission had approved capitalization of Rs. 383.17 Crore for FY 2019-20 in the MTR Order. The Commission had approved such capitalization based on the status of each of the scheme provided by AEML-T in its submissions.

4.3.6 The Commission has scrutinized all the schemes for capitalization submitted by AEML-T in its MTR Petition including DPR schemes. Following is the scheme-wise capitalization as approved by the Commission for FY 2019-20 in the MTR Order vis-a-vis capitalization submitted by AEML-T in the MYT Petition.

Table 56: Capitalisation for FY 2019-20

Particulars	Capitalization (Rs. Crore)		Brief description of work capitalized	Approval Remarks
	MTR Order	MYT Petition		
Aarey Borivali Cable Connectivity	280.15	291.39	• Construct 220 kV Cable link between AEML Aarey & MSETCL Borivali	• All statutory permission are in place and RoW issues are being resolved on case to case basis • Completion of balance work and Commissioning will be in March 2020
Bay extension at Versova	73.02	24.44	• 220 kV connectivity of TPC-T Versova EHV Substation to AEML-T	• Scheme optimization and deployment of new technology is primary reason for cost reduction

Particulars	**Capitalization (Rs. Crore)**		**Brief description of work capitalized**	**Approval Remarks**
	MTR Order	**MYT Petition**		
			Versova EHV Substation	• Scheme will be completed in March 2020
3rd Transformer at Goregaon EHV Station	-	0.51	• Minor work relating to capacitor bank shifting	• Scheme is proposed to be completed without cost overrun or time overrun
Non-DPR Schemes	30.00	33.00	• System Reliability Improvement • System Up-gradation activities • Miscellaneous civil activities	• Actual bifurcation of Non-DPR scheme against these categories will be made available once the financial year is completed
Total Capitalization	**383.17**	**349.33**		

4.3.7 In case of DPR schemes where capitalization is claimed in FY 2019-20, AEML-T has claimed capitalization only on assets that are likely to be put to use. Cost overrun is not expected as per AEML-T's submission in any of the schemes being capitalized in FY 2019-20.

4.3.8 The Commission has provisionally approved the capitalization for the above-mentioned schemes in FY 2019-20, however, the final approval of the capital cost would be done only on the basis of detailed scrutiny of the actual works executed at the time of Truing-up for FY 2019-20.

4.3.9 AEML-T has claimed Non-DPR capitalization of Rs. 33 Crore for FY 2019-20. Following are the details of some of the expected Non-DPR capitalization specified by AEML-T in FY 2019-20.

- Refurbishment of Versova and Ghodbunder Control Room
- Construction of shed on GIS at 220 kV Gorai EHV Substation
- Augmentation of Load shedding Priority Feeders from 100-200
- Online DC earth fault monitoring system for all 220 kV GIS Substation
- Supply, Installation & commissioning of Intrusion detection system on U/G 220 kV cables
- Supply and Installation of 267kWp Grid connected roof top solar PV system at MTB Substations.

- Supply & application of Anti-corrosive Painting at EHV Station equipment & Transmission Line Tower
- Supply & Installation of 8 Numbers of N2FF System and Augmentation of Fire-fighting system
- Civil work for strengthening of 220 kV Gorai EHV Substation

4.3.10 The ratio of Non-DPR capitalization to approved DPR capitalization is around 10%, therefore the proposed Non-DPR capitalization for the FY 2019-20 is within the limit of 20% specified by the Commission. Accordingly, the Commission provisionally approves the Non-DPR capitalization of Rs. 33 Crore for FY 2019-20.

4.3.11 The following table shows the capitalization provisionally approved by the Commission for FY 2019-20.

Table 57: Summary- Scheme-wise Capitalization for FY 2019-20, as approved by the Commission (Rs. Crore)

Particulars	MTR Order	MYT Petition	Approved in this Order
3rd Transformer at Goregaon EHV station	-	0.51	0.51
Aarey Borivali cable connectivity	280.15	291.39	291.39
Bays extension at Versova	73.02	24.44	24.44
Non-DPR	30.00	33.00	33.00
Capitalization	**383.17**	**349.33**	**349.33**

4.3.12 **The Commission thus provisionally approves Capitalisation of Rs. 349.33 Crore for FY 2019-20.**

4.4 Retirement

AEML-T's Submission

4.4.1 AEML-T has submitted that it has retired certain vehicles from the system in H1 of FY 2019-20 to the extent of Rs. 0.30 Crore.

4.4.2 The gross value of the assets and corresponding accumulated depreciation is reduced from the regulated asset base. Long-term loan balance is adjusted in cases where the accumulated depreciation is lower than 70% of original cost and adjustment is made to the extent of such difference. The equity component of 30% is reduced from the equity balance. The loss on sale of asset (approximately Rs. 0.12 Crore) is considered in A&G expenses for H1 of FY 2019-20.

4.4.3 No further retirement is presently considered for H2 of FY 2019-20. Actual retirement, if any, would be submitted at the time of truing up and the consequential adjustment thereon would be provided.

Commission's Analysis and Ruling

4.4.4 **The Commission provisionally approves retirement of assets of Rs. 0.30 Crore as proposed by AEML-T for FY 2019-20. Consequentially, the Commission provisionally approves reduction of long-term loan and equity component as proposed by AEML-T for FY 2019-20. The Commission also provisionally approves loss on sale of assets of Rs. 0.12 Crore**.

4.5 Depreciation

AEML-T's Submission

4.5.1 AEML-T has adopted the same principle with respect to depreciation for FY 2019-20 as elaborated in the section pertaining to depreciation in FY 2017-18 truing up.

4.5.2 AEML-T has determined the depreciation on opening balance of assets as on 1 April, 2019 using depreciation rates of MYT Regulations, 2015 but only up to 70% of original cost. If any asset from such opening balance reaches 70% during the said period, the balance value is spread over the balance useful life provided in MYT Regulations, 2015 for Transmission line & AC and DC Sub-station and for useful life not provided in MYT Regulations, 2015, same is considered as per the Companies Act.

4.5.3 For assets projected to be added in H2 of FY 2019-20, the computation is done considering the mid-point addition i.e. December and correspondingly depreciation value is arrived at.

4.5.4 AEML-T confirmed that depreciation has not been claimed beyond 90% of the asset value for FY 2019-20.

4.5.5 The summary of depreciation as claimed in the Petition is provided below:

Table 58: Depreciation for FY 2019-20, as submitted by AEML-T (Rs. Crore)

Particulars (Rs. Crore)	MTR Order	Provisional Actual	Difference
Depreciation	**79.54**	**74.57**	**(4.97)**
Opening GFA	1607.76	1616.13	
Closing GFA	1990.93	1965.29	

Commission's Analysis and Ruling

4.5.6 AEML-T in the present Petition has submitted depreciation expenses claimed in line with the Regulation 27 of MYT Regulations, 2015. The Commission has gone through the details of calculation of asset wise depreciation expenses as provided by AEML-T in its Petition.

4.5.7 The Commission for the purpose of calculation of depreciation for FY 2019-20 has considered opening GFA of FY 2019-20 same as that of closing GFA for FY 2018-19. Addition in GFA is considered equal to capitalization approved by the Commission in the earlier sections of this Order.

4.5.8 The summary of depreciation for FY 2019-20 as submitted by AEML-T and as provisionally approved by the Commission is given in the Table below.

Table 59: Depreciation Cost for FY 2019-20, as approved by the Commission (Rs. Crore)

Particulars	MTR Order	MYT Petition	Approved in this Order
Opening GFA	1,607.76	1616.13	1,614.73
Additions of Assets during the year	383.17	349.33	349.33
Retirement of Assets during the year	-	0.30	0.30
Closing GFA	1,990.93	1965.16	1,963.76
Average Depreciation Rate	4.42%	4.16%	4.16%
Total Depreciation	**79.54**	**74.57**	**74.50**

4.5.9 **The Commission provisionally approves Depreciation of Rs. 74.50 Crore for FY 2019-20.**

4.6 Interest on Loan Capital

AEML-T's Submission

4.6.1 AEML-T has considered the opening normative loan balance for FY 2019-20 as equal to closing normative loan balance of FY 2018-19. AEML-T has considered a normative Debt: Equity ratio of 70:30 for capitalized assets in accordance with the MYT Regulations, 2015. In accordance with Regulation 29.3 of the MYT Regulations, 2015, the repayment is deemed to be equal to the depreciation allowed for that year.

4.6.2 AEML-T has computed the weighted average rate of interest on the basis of actual loan portfolio at the beginning of the year as per Regulation 29.5 of the MYT Regulations, 2015. AEML-T has submitted 9.05% as the weighted average rate of interest as on 1 April, 2019 as per the existing loan portfolio. This interest rate is applied on the normative loan balance (after considering depreciation equivalent repayment) to determine interest chargeable to ARR.

Table 60: Interest on Loan Capital for FY 2019-20, as submitted by AEML-T (Rs. Crore)

Particulars	MTR Order	Provisional Actual	Difference
Opening Balance	464.78	473.09	
Addition - equivalent to 70% of proposed capitalization	268.22	244.53	
Reduction due to retirement of assets		0.07	
Repayment (equal to depreciation claimed)	79.54	74.57	
Closing balance	653.45	642.98	
Average loan balance	559.12	558.03	
Interest Rate in %	9.98%	9.05%	
Interest on long term loan	**55.78**	**50.50**	**(5.28)**

Commission's Analysis and Ruling

4.6.3 As the Commission is undertaking Provisional True up for FY 2019-20, the Commission has presently considered the interest rate of 9.05% for FY 2019-20 which is the weighted average interest rate based on the opening loan portfolio of FY 2019-20. Any change due to revision in interest rate on account of the actual interest paid during FY 2019-20 will be considered at time of final Truing up of FY 2019-20.

4.6.4 The opening balance of the loan for FY 2019-20 is considered same as the closing balance of loan for FY 2018-19 approved by the Commission in the earlier sections of the Order. Further, the loan additions are considered as 70% of the approved capitalization for FY 2019-20. The repayments are considered equal to depreciation allowed during the year. The closing balance of the loan for FY 2019-20 is arrived by adding the load additions and deducting the normative repayments as computed by the above methodology.

4.6.5 The interest rate provisionally approved above is then applied on the average of opening and closing loan balance for the year to calculate the interest expenses for FY 2019-20. The computation of interest on loan capital as provisionally approved by the Commission for FY 2019-20 is provided in the Table below:

Table 61: Interest on Loan Capital for FY 2019-20, as approved by the Commission (Rs. Crore)

Particulars	MTR Order	MYT Petition	Approved in this Order
Opening Balance of Debt	464.78	473.09	472.15
Addition of loan during the year	268.22	244.53	244.53
Reduction due retirement of assets		0.07	0.07
Repayment of loan during the year	79.54	74.57	74.50
Closing Balance of Debt	653.45	642.98	642.11
Average loan balance	559.12	558.03	557.13
Interest rate for the year	9.98%	9.05%	9.05%
Interest expense	55.78	50.50	50.42
Financing Charges	-	-	-
Total Interest Expenses including financing charges	**55.78**	**50.50**	**50.42**

4.6.6 **The Commission provisionally approves Interest on Loan Capital including financing charges of Rs. 50.42 Crore for FY 2019-20.**

4.7 Interest on Working Capital

AEML-T's Submission

4.7.1 AEML-T has calculated interest on working capital for FY 2019-20 as per Regulation 31.2 of the MYT Regulations, 2015.

4.7.2 AEML-T has considered O&M expenses as normative expenses. As regards revenue from transmission charges for FY 2019-20, the same is as per the InSTS Order dated 12 September, 2018 in Case No. 265 of 2018 i.e. billed revenue of Rs. 318.44 Crore per annum.

4.7.3 AEML-T has considered interest on working capital as weighted average Base rate prevailing during the concerned year plus 150 basis points as per Regulation 31.2(b) of MYT Regulations, 2015. The Base Rate is one year MCLR of SBI as per MYT Regulations, 2017. Accordingly, the interest rate for working capital for FY 2019- 20 works out to 9.50% (8.00%+1.50%).

4.7.4 The following Table shows the interest on working capital as submitted by AEML-T.

Table 62: Interest on Working Capital for FY 2019-20, as submitted by AEML-T (Rs. Crore)

Particulars	MTR Order	Provisional Actual	Difference
O&M expenses for 1 month	5.39	5.38	
Maintenance spares @ 1% of opening GFA	16.08	16.16	
One and half months of InSTS revenue	39.80	39.80	
Working capital requirement	**61.27**	**61.35**	
Interest rate (%)	9.45%	9.50%	
Interest on Working Capital (IOWC)	**5.79**	**5.83**	**0.04**

Commission's Analysis and Ruling

4.7.5 As the Commission is presently provisionally Truing up for FY 2019-20, the interest on working capital has been considered on normative basis as per the Regulation 31.2 of MYT Regulations, 2015.

4.7.6 As per MYT Regulations, 2015, rate of interest on working capital shall be on normative basis and shall be equal to the Base Rate as on the date on which the Petition for determination of Tariff is filed, plus 150 basis points. AEML-T has filed Petition on 1 November, 2019 and applicable base rate was 8.05%. Accordingly, interest rate provisionally approved by the Commission for calculation of interest on working capital is 9.55%.

4.7.7 The above interest rate is applied on the normative working capital requirement to arrive at the interest on working capital. The computation of the interest on working capital provisionally approved by the Commission is provided in the Table below.

Table 63: Interest on Working Capital for FY 2019-20, as approved by the Commission (Rs. Crore)

Particulars	MTR Order	MYT Petition	Approved in this Order
One-twelfth of the O&M Expense	5.39	5.38	5.06
Maintenance spares at one percent of the opening GFA for the year	16.08	16.16	16.15
One and half months of the expected revenue from Transmission charges at the prevailing Tariffs	39.80	39.80	39.80
Total Working Capital Requirement	**61.27**	**61.35**	**61.01**
Interest Rate on Working capital (%)	9.45%	9.50%	9.55%
Interest on Working Capital (IoWC)	**5.79**	**5.83**	**5.83**

4.7.8 **The Commission provisionally approves normative Interest on Working Capital of Rs. 5.83 Crore for FY 2019-20, as against Rs. 5.83 Crore submitted by AEML-T.**

4.8 Return on Equity

AEML-T's Submission

4.8.1 AEML-T has considered the opening equity for FY 2019-20 as equal to closing equity of FY 2018-19.

4.8.2 AEML-T has computed RoE based on Regulation 28 of the MYT Regulations, 2015, i.e., rate of 15.5% on the equity capital at the beginning of the year plus 15.5 % on 50% of the equity portion for the assets capitalized during the year.

Table 64: Return on Equity for FY 2019-20, as submitted by AEML-T (Rs. Crore)

Particulars	MTR Order	Provisional Actual	Difference
Regulatory equity at the beginning of the year	523.56	526.07	
Equity portion of expenditure capitalized	114.95	104.80	
Equity portion of asset retired during the year		0.09	
Regulatory equity at the end of the year	638.51	630.78	
Return Computation			
RoE at the beginning of the year	81.15	81.54	
RoE on capitalization during the year	8.91	8.11	
Total Return on Equity	**90.06**	**89.66**	**(0.40)**

Commission's Analysis and Ruling

4.8.3 The Commission has considered the regulatory equity at the beginning of the year of FY 2019-20, same as that approved closing equity for FY 2018-19 in this Order. The additions are considered equal to the equity portion of assets capitalized during FY 2019-20 and provisionally approved in this Order.

4.8.4 Further, RoE has been computed at 15.5 % of the equity, in accordance with Regulation 28.2 of the MYT Regulations, 2015, on the opening equity of the year and on 50% of the equity portion of the approved capitalization in FY 2019-20.

4.8.5 The summary of RoE for FY 2019-20 as submitted by AEML-T and as provisionally approved by the Commission is provided in Table below:

Table 65: Return on Equity for FY 2019-20, as approved by the Commission (Rs. Crore)

Particulars	MTR Order	MYT Petition	Approved in this Order
Regulatory equity at the beginning of the year	523.56	526.07	525.69
Add: Equity portion of expenditure capitalized	114.95	104.80	104.80
Less: Equity portion of asset retired during the year	-	0.09	0.09
Regulatory equity at the end of the year	638.51	630.78	630.39
Return Computation			
RoE at the beginning of the year	81.15	81.54	81.48
RoE on capitalization during the year	8.91	8.11	8.11
Total Return on Equity	**90.06**	**89.66**	**89.60**

4.8.6 **The Commission provisionally approves Return on Equity of Rs. 89.60 Crore for FY 2019-20.**

4.9 Contribution to Contingency Reserve

AEML-T's Submission

4.9.1 AEML-T submitted that Regulation 34.1 of the MYT Regulations, 2015 provides for Contributions to Contingency Reserve of a sum not less than 0.25% and not more than 0.5% of the original cost of fixed assets.

4.9.2 AEML-T has considered the contribution to contingency reserve at 0.25% of the original cost of fixed assets as on 01 April, 2019. Further, the total opening balance of Contingency Reserve is less than 2% of opening GFA as on 1 April, 2019 and hence the total appropriation is within the 5% limit as per MYT Regulations. Accordingly, further appropriation in FY 2019-20 as per Regulations is allowable.

Table 66: Contribution to Contingency Reserve for FY 2019-20, as submitted by AEML-T (Rs. Crore)

Particulars	MTR Order	Provisional Actual	Difference
Opening balance of Contingency Reserves		31.78	
Opening Gross Fixed Assets (GFA)		1,616.13	
Opening balance of Contingency Reserves as % of Opening GFA		1.97%	
Contribution to Contingency Reserves	**4.02**	**4.04**	0.02

Commission's Analysis and Ruling

4.9.3 As the provisional Truing up for FY 2019-20 is being taken up, the Commission has considered the investments in securities as submitted by AEML-T and the final investments will be verified during the Truing up exercise.

4.9.4 The Commission has observed that AEML-T has invested in Mutual Fund Growth Option wherein the investments are market linked and carries greater market risk. The Net Asset Value (NAV) of Mutual Fund is volatile due to dependency on market conditions and there can be instances wherein the losses are incurred. Therefore, the investment in Mutual Funds does not serve the intent of the MYT Regulations, 2015 regarding making investment towards Contingency Reserves. The intent of making investment towards Contingency Reserves is to create a Reserve Fund by the Utility to deal with certain situations. The situations wherein the utility is allowed to draw from the Contingency Reserve are clearly identified in Regulation 34.2 of the MYT Regulations, 2015.

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.

4.9.6 In line with the Regulation 34 of MYT Regulations, 2015, the Commission has provisionally approved the contribution to contingency reserve as 0.25% of the Opening GFA provisionally approved by Commission in this Order for FY 2019-20.

Table 67: Contribution to Contingency Reserve for FY 2019-20, as approved by the Commission (Rs. Crore)

Particulars	MTR Order	MYT Petition	Approved in this Order
Opening Balance of Contingency Reserves	31.77	31.78	31.78
Opening Gross Fixed Assets	1,607.76	1,616.13	1,614.73
Opening Balance of Contingency Reserves as % of Opening GFA	1.98%	1.97%	1.97%
Contribution to Contingency Reserves during the year	**4.02**	**4.04**	**4.04**

4.9.7 **The Commission provisionally approves Contribution to Contingency Reserve of Rs. 4.04 Crore for FY 2019-20, as claimed by AEML-T.**

4.10 Income Tax

AEML-T's Submission

4.10.1 AEML-T has provisionally considered the Income Tax for FY 2019-20 at the same level as the actual payable Income Tax for FY 2018-19 worked out on the basis of Regulated Profit before Tax as per Regulation 33.1 including the first proviso of the MYT Regulations, 2015.

Table 68: Income Tax for FY 2019-20, as submitted by AEML-T (Rs. Crore)

Particulars	MTR Order	Provisional Actual	Difference
Income Tax	**22.85**	**22.44**	**(0.41)**

Commission's Analysis and Ruling

4.10.2 As per Regulation 33.1 of MERC MYT Regulations, 2015:

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

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

…"

4.10.3 Since, the latest Audited Accounts is available for FY 2018-19, the Commission in line with the above stated Regulations considers the income tax approved by the Commission for FY 2018-19 to be provisionally approved for FY 2019-20. The final income tax based on Trued up income and expenses will be taken up at the time of Truing-up of FY 2019-20.

Table 69: Income Tax for FY 2019-20, as approved by Commission (Rs. Crore)

Particulars	MTR Order	MYT Petition	Approved in this Order
Income Tax	22.85	22.44	33.06

4.10.4 **Accordingly, the Commission provisionally approves Income Tax of Rs. 33.06 Crore for FY 2019-20, as against Rs. 22.44 Crore submitted by AEML-T.**

4.11 Revenue from Transmission Charges

AEML-T's Submission

4.11.1 AEML-T has submitted the billed revenue for FY 2019-20 as per the InSTS Order dated 12 September, 2018 in Case No. 265 of 2018 i.e. Rs. 318.44 Crore.

Commission's Analysis and Ruling

4.11.2 The Commission observes that the Transmission charges submitted in the Petition are in line with the InSTS Order in Case No. 265 of 2018 dated 12 September, 2018 applicable for FY 2019-20.

4.11.3 The Commission has considered revenue from Transmission charges in accordance with the aforementioned Order.

4.11.4 The following Table shows the revenue from Transmission charges provisionally approved by the Commission for FY 2019-20.

Table 70: Revenue from Transmission Charges for FY 2019-20, as approved by the Commission (Rs. Crore)

Particulars	MTR Order	MYT Petition	Approved in this Order
Revenue from Transmission charges	318.44	318.44	318.44

4.11.5 **The Commission provisionally approves Revenue from Transmission Charges of Rs. 318.44 Crore for FY 2019-20, as claimed by AEML-T.**

4.12 Non -Tariff Income

AEML-T's Submission

4.12.1 AEML-T has estimated Rs. 3.77 Crore as Non-Tariff Income (NTI) for FY 2019-20. The provisional actual NTI for H1 of FY 2019-20 is Rs. 2.45 Crore. For H2, considering the past trends and the provisional actual for H1, NTI is estimated as Rs. 1.31 Crore.

4.12.2 Non-Tariff Income includes rental income from land usage for FY 2019-20 as elaborated in section in FY 2017-18. Based on the MOM, the land usage charges receivable by RInfra-T for FY 2019-20 is considered as NTI. NTI also includes interest on contingency reserve investments.

4.12.3 AEML-T has included the provisional actual for H1 for liquidated damages, realization of exchange gain, scrap scale, etc. in the NTI for FY 2019-20. If actual income is booked under these heads in H2 of FY 2019-20, it will be presented at the time of truing up, when actuals are submitted to the Commission.

4.12.4 Further, income from Delayed Payment Charge and from interest on staff loans and advances are not considered under NTI, as per MYT Regulations, 2015, elaborated in the section pertaining to truing up for FY 2017-18.

Table 71: Non-Tariff Income for FY 2019-20, as submitted by AEML-T (Rs. Crore)

Particulars	MTR Order	Provisional Actual	Difference
Non-Tariff Income	**4.21**	**3.77**	**(0.44)**

Commission's Analysis and Ruling

4.12.5 The Commission has scrutinized the income under each head claimed by AEML-T in its Petition. Provisional actual numbers for FY 2019-20 are accepted for provisional Truing up. Any variation in actual numbers against provisional numbers will be adjusted at time of final Truing-up.

4.12.6 The Commission has excluded delayed payment charges and interest on staff loans & advances as AEML-T has submitted that these are extended out of Regulated Return of AEML-T and in line with the approach adopted in Truing-up of Non-Tariff Income of FY 2018-19 in the earlier sections of the Order.

Table 72: Non-Tariff Income for FY 2019-20, as approved by the Commission (Rs. Crore)

Particulars	MTR Order	MYT Petition	Approved in this Order
Income from rent of land or buildings	1.50	1.50	1.50
Income from sale of scrap		0.22	0.22
Income from investments (Contingency Reserve Investment)	2.71	2.04	2.04
Unclaimed liabilities written back			
Realization of exchange gain		0.01	0.01
Liquidated damages			
Interest on staff loans and advances			
Total	**4.21**	**3.77**	**3.77**

4.12.7 **The Commission provisionally approves Non-Tariff Income of Rs. 3.77 Crore for FY 2019-20.**

4.13 Income from Other Business

AEML-T's Submission

4.13.1 AEML-T has submitted that there is no agreement or arrangement subsisting in FY 2019-20 with respect to the letting out space on its substation rooftops for BTS towers. Thus, there is no income from other business considered from FY 2019-20 onwards.

Commission's Analysis and Ruling

4.13.2 As there is no agreement or arrangement subsisting with respect to the letting out space on its substation rooftops for BTS towers, the Commission provisionally approves nil income from other business for FY 2019-20.

4.14 Provisional Revenue Gap/ Surplus for FY 2019-20

AEML-T's Submission

4.14.1 AEML-T has determined the revenue gap/ (surplus) for FY 2019-20 by comparing the revenue received from InSTS and the Aggregate Revenue Requirement (net of Non-Tariff Income and Income from Other Business).

4.14.2 AEML-T has submitted the summary of provisional actual of FY 2019-20 which is provided below:

Table 73: Summary of Truing-up of ARR for FY 2019-20, as submitted by AEML-T (Rs. Crore)

Particulars	MTR Order	Provisional Actual	Difference
Expenditure			
Operation and Maintenance Expenses	64.69	64.76	0.07
Depreciation	79.54	74.57	(4.97)
Interest on Long-term Loan capital	55.78	50.50	(5.28)
Interest on Working Capital	5.79	5.83	0.04
Income Tax	22.85	22.44	(0.41)
Contribution to contingency reserve	4.02	4.04	0.02
Total Revenue Expenditure	**232.67**	**222.14**	**(10.53)**
Return on Equity	90.06	89.66	(0.40)
Aggregate Revenue Requirement	**322.73**	**311.79**	**(10.94)**
Less: Non-Tariff Income	4.21	3.77	(0.44)
Less: Income from other business	0.09	-	(0.09)
ARR from Transmission	**318.44**	**308.03**	**(10.41)**
Revenue from InSTS	318.44	318.44	0.00
Revenue Gap/ (Surplus)	**-**	**(10.41)**	**(10.41)**

Commission's Analysis and Ruling

4.14.3 Based on discussion on various cost components in this Chapter, the Commission has computed total ARR and Revenue Gap/ (Surplus) for FY 2019-20 as detailed in the Table below.

Table 74: Summary of Provisional True up for FY 2019-20, as approved by the Commission (Rs. Crore)

Sr. No.	Particulars	MTR Order	MYT Petition	Approved in this Order
1	Operation & Maintenance Expenses	64.69	64.76	60.66
2	Depreciation Expenses	79.54	74.57	74.50
3	Interest on Long-term Loan Capital & financing charges	55.78	50.50	50.42
4	Interest on Working Capital	5.79	5.83	5.83
5	Income Tax	22.85	22.44	33.06
6	Contribution to Contingency reserves	4.02	4.04	4.04
7	**Total Revenue Expenditure**	**232.67**	**222.14**	**228.50**
8	Return on Equity Capital	90.06	89.66	89.60
9	**Aggregate Revenue Requirement**	**322.73**	**311.79**	**318.10**
10	Less: Non-Tariff Income	4.21	3.77	3.77
11	Less: Income from Other Business	0.09	-	-
12	**Aggregate Revenue Requirement from Transmission Tariff**	**318.44**	**308.03**	**314.33**
13	**Revenue from Transmission Tariff**	**318.44**	**318.44**	**318.44**
14	**Revenue Gap/(Surplus)**		**(10.41)**	**(4.11)**

4.14.4 **The Commission provisionally approves Revenue Surplus of Rs. 4.11 Crore for FY 2019-20.**

5 ARR FOR 2020-21 to FY 2024-25

5.1 Background

5.1.1 AEML-T has presented the ARR projections for the next 5 years of the Control Period i.e. FY 2020-21 to FY 2024-25 as per the provisions of the MYT Regulations, 2019.

5.1.2 The projections are based on the actual/ provisional cost and other technical & financial particulars for the previous years, the assumptions for the ARR for the Control Period and the Regulatory provisions as per the MYT Regulations, 2019 and determination of the normative cost accordingly.

5.2 Operation and Maintenance Expenses

AEML-T's Submission

5.2.1 AEML-T has estimated the addition of circuit Kms and bays for each year of the Control Period based on the proposed completion of various capital works. Norms have been applied as provided in Regulation 61.4 for voltages that already exist in AEML-T system and as provided in Regulation 61.6 for voltages that are proposed by AEML-T for the first time.

5.2.2 With respect to the PWD ground rent of Rs. 0.09 Crore to be considered as uncontrollable, the matter is sub-judice before the Hon'ble APTEL as has been elaborated in the section pertaining to truing up for FY 2017-18 and hence, without prejudice to its contentions in the said Appeal, AEML-T has considered the normative O&M without considering the PWD ground rent as a separate expense element.

5.2.3 As explained in the section of Provisional Truing-up of FY 2019-20, AEML-T has started paying the provident fund contribution on all allowances along with the basic pay consequent to the judgement issued by the Hon'ble Supreme Court (SC) on 28 February, 2019 on the issue of calculation of deduction and contribution of amounts to the provident fund accounts of the employees. This additional impact on O&M expenses due to this Judgement is estimated to be Rs. 0.11 Crore per year. Further, Government of Maharashtra (GOM) has also revised the basic wages payable to employees employed in shops or commercial establishments under the Minimum Wages Act, with effect from 24 July, 2019. The additional impact on O&M expenses on this account is expected to be Rs. 0.059 Crore per year. Also, the incremental gratuity pay out to employees due to the revision in basic wages is expected to be Rs.0.05 Crore.

5.2.4 Further, Aarey-Borivali cable connectivity is proposed to 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.

Such charges amounting to approximately Rs. 8 Crore are claimed as additional cost over and above the normative allowance for each year of the Control Period. The actual charges as demanded shall be presented and claimed in addition to the normative O&M cost during Truing-up of respective year of the Control Period.

5.2.5 Accordingly, the O&M expenses claimed by AEML-T for the period FY 2020-21 to FY 2024-25 are given in the table below:

Table 75: O&M expenses for FY 2020-21 to FY 2024-25, as submitted by AEML-T (Rs. Crore)

O&M expenses	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Circuit Km. basis					
440 kV		0.01	0.02	0.02	0.02
220 kV	4.07	4.34	4.61	5.04	5.48
Number of Bays basis					
400 kV GIS		7.29	15.14	15.72	16.33
220 kV AIS	10.32	5.36			
220 kV GIS	19.57	27.46	38.31	43.70	47.68
33 kV AIS	5.22	2.89	3.00	3.12	3.24
33 kV GIS	15.05	18.24	21.89	25.41	27.98
HVDC				11.90	24.64
Normative O&M expenses	**54.23**	**65.59**	**82.97**	**104.91**	**125.36**
Additional claim on account of Hon'ble SC judgement and GOM notification	0.17	0.17	0.17	0.17	0.17
Additional claim on account of PWD rent for Aarey-Borivali cable connectivity	8.00	8.00	8.00	8.00	8.00
Total O&M expenses	**62.40**	**73.76**	**91.15**	**113.08**	**133.53**

Commission's Analysis and Ruling

5.2.6 The Commission has considered opening Ckt. km. of transmission line and number of bays for FY 2020-21 same as closing Ckt. km. of transmission line and number of bays approved for FY 2019-20 in this Order.

5.2.7 The Commission has considered addition of network (transmission line and number of bays) as per DPR scheme approved for FY 2020-21 to FY 204-25. No addition of network (transmission line and number of bays) is considered for the years where lump sum capitalization is approved based on the past trend. In such years, the actual addition of bays and transmission line will be considered at the time of truing up of respective years subject to prudence check.

5.2.8 2 numbers of 220 kV bays at Chembur sub-station, 1 number of 220 kV bay at Borivali sub-station and 1 number of 220 kV bay at Gorai sub-station each, which the Commission had considered as un-utilized in the MYT Order, are proposed to be connected and charged. As discussed in Section 3.5 of this Order, presently the Commission has not considered prospective utilization plan for the future year. The utilisation of the bays will be considered at the time of Truing-up, subject to prudence check.

5.2.9 During projection period of FY 2020-21 to FY 2024-25, the Commission has not considered the additional claim of Rs. 8.17 Crore arising due to Hon'ble Supreme Court's judgement relating to computation of the contribution to provident fund based on all components of wages, revision of basic wages by Government of Maharashtra and PWD charges. AEML-T to submit the exact impact of the same along with detailed justification during Truing-up of respective year and the Commission will take appropriate decision, subject to prudence check.

5.2.10 Based on above, the addition in bays and Ckt Km lines in the respective year, the Commission has computed the normative O&M expenses for FY 2020-21 to FY 2024-25 as shown in the table below:

Table 76: O&M expenses for FY 2020-21 to FY 2024-25, as approved by the Commission (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Length in Ckt Km	573.63	576.13	576.13	576.13	576.13
Applicable O&M cost Norm for Transmission Lines (Rs. Lakh/Ckt Km)	0.71	0.74	0.76	0.79	0.82
Normative O&M expenses for Transmission Lines (Rs. Crore)	**4.07**	**4.26**	**4.38**	**4.55**	**4.72**
Number of 220 kV AIS bays	31	31	31	31	31
Number of 220 kV GIS bays	78	78	78	78	78
Number of 33 kV AIS bays	71	36	36	36	36
Number of 33 kV GIS bays	264	302	302	302	302
Applicable O&M Cost Norm for 220 kV AIS Bays (Rs. Lakh/Bay)	33.28	34.56	35.89	37.27	38.70
Applicable O&M Cost Norm for 220 kV GIS Bays (Rs. Lakh/Bay)	23.30	24.19	25.12	26.09	27.09
Applicable O&M Cost Norm for 33 kV AIS Bays (Rs. Lakh/Bay)	6.96	7.22	7.50	7.79	8.09
Applicable O&M Cost Norm for 33 kV GIS Bays (Rs. Lakh/Bay)	4.87	5.05	5.25	5.45	5.66
Normative O&M Expenses for	**46.29**	**47.45**	**49.28**	**51.18**	**53.14**
Total Normative O&M expenses	**50.36**	**51.71**	**53.66**	**55.73**	**57.87**

5.2.11 **The Commission approves O&M expenses of Rs. 50.36 Crore for FY 2020-21, Rs. 51.71 Crore for FY 2021-22, Rs. 53.66 Crore for FY 2022-23, Rs. 55.73 Crore for FY 2023-24 and Rs. 55.87 Crore for FY 2024-25.**

5.3 Capital Investment Plan and Capitalization

AEML-T's Submission

5.3.1 AEML-T has submitted that the schemes considered for the Control Period include the schemes which are in-principally approved by the Commission and schemes that are submitted/ will be submitted in due course, subject to in-principle approval by the Commission (on the premise that these schemes will receive in-principle approval before issuance of the MYT Order). AEML-T also submitted that the schemes pending for submission before the Commission are at various stages of discussion before the STU and will be submitted to the Commission once approved by the STU.

5.3.2 AEML-T has requested Commission to consider the Capex plan as proposed in the section for the purpose of determination of ARR under the MYT Regulations, 2019 but allow AEML-T to submit the DPRs only for those schemes, for which project activities are required to be initiated in the next two-three years (depending on certainty of incurrence as assessed by the company).

5.3.3 AEML-T has determined the IDC for the Control Period considering the capex phasing out of individual schemes. IDC Capitalized has been worked out considering for the duration for which it remains work in progress (WIP).

5.3.4 AEML-T has provided full details of the various capital expenditure schemes proposed during 4th Control Period. The capital expenditure and capitalization (inclusive of IDC) are given below:

Table 77: Capital expenditure for FY 2020-21 to FY 2024-25, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
DPR (Schemes approved)					
Aarey Borivali cable connectivity	1.00				
Bays extension at Versova	1.00				
2nd Feed at Chembur EHV Station	64.54	1.00			

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
33 kV AIS TO GIS conversion	33.49	1.00			
DPR (Schemes submitted pending for approval)					
3rd Transformer at Borivali	17.59	2.49			
Ghodbunder-Boisar LILO upgradation	15.75	19.69	3.94		
DPR (Schemes to be submitted, at various stages of discussion with STU)					
220 kV EHV Scheme at BKC/Golibar	138.69	203.76	19.81		
220 kV EHV Scheme at Dahisar	29.86	69.72	166.70	13.89	
220 kV EHV Scheme at Kandivali	22.44	112.19	78.53	11.22	
2nd Feed at BKC			107.70	233.35	17.95
220 kV AIS to GIS conversion (Aarey, Versova, Ghodbunder)	40.00	150.00	10.00		
Replacement of Polymer Insulators	16.39	13.11			
2nd Feed to Dahisar			29.40	63.70	4.90
220 kV EHV Scheme at Khardana			54.76	95.40	206.70
220 kV Airport EHV Scheme				26.50	79.50
Line Augmentation-HTLS/ Twin Conductors- Aarey-Borivali, Versova-Aarey			16.00	22.00	2.00
3rd Transformer at BKC				9.00	19.50
3rd Transformer at Dahisar					9.00
HVDC	1,090.00	1,286.04	2,243.31	1,122.21	561.10
Installation of 100 MVAR Reactor at Gorai EHV Station	20.00				

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Installation of 100 MVAR Reactor at Chembur EHV Station	25.00				
220 kV Malad EHV Station (LILO of 220 kV Aarey –AEML Borivali OH Line)	32.36	51.30	111.15	8.55	
3rd Transformer at Malad			9.00	19.50	1.50
2nd Feed to Khardanada from AEML BKC					54.60
Non-DPR	**25.00**	**20.00**	**20.00**	**20.00**	**20.00**
Total	**1,573.10**	**1,930.29**	**2,870.30**	**1,645.32**	**976.75**

Table 78: Capitalization for FY 2020-21 to FY 2024-25, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
DPR (Schemes approved)					
Aarey Borivali cable connectivity	1.00				
Bays extension at Versova	1.00				
2nd Feed at Chembur EHV Station	129.01	1.00			
33 kV AIS TO GIS conversion	37.44	1.00			
3rd Transformer at Borivali	20.64	2.49			
DPR (Schemes submitted pending for approval)					
Ghodbunder-Boisar LILO upgradation		44.45	3.94		
DPR (Schemes to be submitted, at various stages of discussion with STU)					
220 kV EHV Scheme at BKC/Golibar		528.69	19.81		
220 kV EHV Scheme at Dahisar			301.29	13.89	

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
220 kV EHV Scheme at Kandivali			251.50	11.22	
2nd Feed at BKC				347.87	17.95
220 kV AIS to GIS conversion (Aarey, Versova, Ghodbunder)		192.53	10.00		
Replacement of Polymer Insulators	19.87	13.11			
2nd Feed to Dahisar				94.96	4.90
220 kV EHV Scheme at Khardana					362.90
Line Augmentation-HTLS/ Twin Conductors- Aarey-Borivali, Versova-Aarey				39.01	2.00
3rd Transformer at BKC					29.07
HVDC	411.84	372.03	35.21	5327.55	561.10
Installation of 100 MVAR Reactor at Gorai EHV Station	20.00				
Installation of 100 MVAR Reactor at Chembur EHV Station	25.00				
220 kV Malad EHV Station (LILO of 220 kV Aarey –AEML Borivali OH Line)			198.06	8.55	
3rd Transformer at Malad				29.07	1.50
Non-DPR	**32.78**	**20.00**	**20.00**	**20.00**	**20.00**
Total	**698.57**	**1,175.30**	**839.82**	**5,892.13**	**999.43**

Commission's Analysis and Ruling

5.3.5 The Capital investment plan submitted by AEML-T for FY 2020-21 to FY 2024-25 is segregated into the following groups:

- DPR schemes for which in-principle approval is already given by the Commission
- DPR schemes submitted to Commission for in-principle approval
- New DPR schemes envisaged by AEML-T which will be submitted to the Commission for in-principle approval in due course

- Non-DPR schemes

5.3.6 Based on the above segregation, capitalization proposed by AEML-T is shown in table below:

Table 79: Capitalization for FY 2020-21 to FY 2024-25, as submitted by AEML-T (Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-	FY 2023-24	FY 2024-	Total
1	Approved DPR	189.09	4.49	-	-	-	193.58
2	DPR submitted to MERC	-	44.45	3.94	-	-	48.39
3	DPR not submitted	476.71	1,106.38	815.87	5,872.12	979.42	9,250.50
4	Non-DPR	32.78	20.00	20.00	20.00	20.00	112.78
	Total Capitalization	**698.57**	**1,175.30**	**839.82**	**5,892.13**	**999.43**	**9,605.25**

5.3.7 The Commission has observed that DPRs are not submitted for majority of schemes for which capitalization is proposed by AEML-T during 4th Control Period. In absence of any DPR, it is difficult to assess requirement of particular schemes and reasonability of the associated cost. Hence, it is important to have approved DPR for any scheme before proposing recovery of associated cost through ARR from the beneficiaries.

5.3.8 In view of the above, the Commission has decided to allow only schemes for which DPR is already approved by the Commission for the 4th Control Period. However, as the 4th Control Period covers 5 years, hence it is likely that for the last 3-4 years, Licensee may not have any approved DPR schemes. It is also important to acknowledge that to continue its operations, the utility will be required to carry out capital expenditure. To provide for this unplanned/unapproved capital expenditure, the Regulation 24.6 of MYT Regulations 2019 provides the following:

> *"24.6 The Commission may approve, for each year of the Control Period, an additional amount equivalent to 20% of the total capital expenditure approved for that year, towards planned or unplanned capital expenditure that is yet to be approved by the Commission."*

5.3.9 Based on the above approach, even after considering the approval of the additional capitalisation towards planned/unplanned capital expenditure equivalent to 20% of the approved capitalisation as per the Regulation 24.6 of the MYT Regulations, 2019 and the approval of non-DPR schemes subject to the cap of 20% of the approved DPR schemes in line with the Regulation 24.7 of MYT Regulations, 2019, the Commission observes that the total capitalisation approvals in the later part of the Control period are significantly lower than that observed based on past trends.

5.3.10 The Commission notes that unapproved DPR schemes claimed by AEML-T in the present Petition for the 4th Control Period are part of the Five Year Plan for the period FY 2018-19 to FY 2023-24 published by the STU. While AEML-T has the option of getting the in-principle approval of DPRs from the Commission for such presently unapproved schemes which would be executed in the later part of the 4th Control Period before the upcoming MTR proceedings, however, in the interim, the capitalisation in those years would appear to be significantly lower than the past trends. Accordingly, there may be a sudden increase in the ARR for AEML-T at the time of MTR proceedings on account of the impact of including this capitalisation.

5.3.11 Accordingly, to avoid such significant increases in the ARR during the MTR proceeding, the Commission has considered the actual approved capitalisation for the past 5 years (FY 2015-16 to FY 2019-20) and allowed additional amount towards capitalisation for the period from FY 2023-24 and FY 2024-25 so as to ensure that the total capitalisation approval in this period i.e. FY 2023-24 and FY 2024-25 is at least equal to 50% of the average capitalisation approved for AEML-T during the past 5 years (FY 2015-16 to FY 2019-20) which works out to Rs. 53.54 Crores.

5.3.12 In continuation to the above, the Commission, as discussed in Paras 2.1.19 to 2.1.23 of this Order considers the timely implementation of the schemes pertaining to the strengthening of the Mumbai transmission corridor viz. Interconnection Point at Vikhroli and HVDC scheme, as very critical. The HVDC scheme is already part of the STU Five Year Plan (FY 2018-19 to FY 2023-24) and as per the plan, the scheme is envisaged to be executed by AEML-T in the year 2023-24. In this regard, AEML-T has already approached the Commission with a Petition to amend its existing Transmission License in Case No. 195 of 2019 to include the proposed HVDC scheme along with other proposed amendments which is under consideration with the Commission. Also, in order to assess its reasonability of the cost, AEML-T has recently submitted its DPR for in-principle approval of the Commission. Considering the critical nature of these schemes and time required for obtaining the necessary regulatory approvals, the Commission directs the STU and AEML-T to initiate all the necessary steps for implementing the critical schemes within the timeframe envisaged in the STU Five Year Plan. However, the implementation of the scheme would be subject to necessary Regulatory approvals.

5.3.13 The last five years capitalization trend of AEML-T is as shown in table below:

Table 80: Capitalization for FY 2015-16 to FY 2019-20 (Rs. Crore)

Particulars	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	Average	50% of Average
Capitalization	50.35	22.12	84.29	29.29	349.33	**107.08**	**53.54**

5.3.14 AEML-T has approved DPR for only FY 2020-21 and for remaining years of 4th Control Period, there is no approved DPR. In view of the above, the Commission approves lump sum Capitalization of Rs. 53.54 Crore for each year of 4th Control Period except FY 2020-21. For FY 2020-21, the approved DPR scheme of Rs. 189.09 Crore and Non-DPR scheme of Rs. 32.78 Crore is approved by the Commission. AEML-T will be required to submit the details of the scheme wise capitalisation undertaken during the 4th Control Period at the time of truing up of relevant years. AEML-T should ensure that all the DPRs against which the capitalisation approvals will be sought by AEML-T during the truing up process are submitted to the Commission in a timely manner for seeking necessary approval.

5.3.15 The following table shows the capitalization approved by the Commission for FY 2020-21 to FY 2024-25:

Table 81: Capitalization for FY 2020-21 to FY 2024-25, as approved by the Commission (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Capitalization	**221.86**	**53.54**	**53.54**	**53.54**	**53.54**

5.3.16 **The Commission approves capitalisation of Rs. 221.86 Crore for FY 2020-21, Rs. 53.54 Crore for FY 2021-22, Rs. 53.54 Crore for FY 2022-23, Rs. 53.54 Crore for FY 2023-24 and Rs. 53.54 Crore for FY 2024-25.**

5.4 Depreciation

AEML-T's Submission

5.4.1 AEML-T has calculated depreciation on the opening level of GFA for each year and on the assets added during the year as per the capitalization plan submitted in the Petition for each year of the Control Period and has been worked out in accordance with the depreciation rates specified in the MYT Regulations, 2019.

5.4.2 If any asset in opening balance as on 1st April for each year of the Control Period has reached 70% depreciation or crossed such value during the year, the depreciation thereafter on such assets is determined considering the revised rate as per Regulation 28 of the MYT Regulations, 2019.

5.4.3 AEML-T has considered the same proportion of asset addition during each financial year of the Control Period as considered in the opening GFA of FY 2019-20 after excluding land cost which is specifically attributable to land asset. The normative interest chargeable to capital works (IDC) is added to capitalization in Plant and Machinery asset class. The summary of depreciation as claimed by AEML-T for the 4th Control Period is provided in the table below:

Table 82: Depreciation for FY 2020-21 to FY 2024-25, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Depreciation	**105.28**	**148.92**	**193.47**	**357.83**	**522.44**
Opening GFA	1,965.16	2,663.73	3,839.03	4,678.85	10,570.98
Closing GFA	2,663.73	3,839.03	4,678.85	10,570.98	11,570.41

Commission's Analysis and Ruling

5.4.4 Regulation 28 of MYT Regulations, 2019 provides for determination of depreciation for the MYT fourth Control Period. The relevant clause is reproduced below.

"28.1 The Generating Company, Licensee, and MSLDC shall be permitted to recover depreciation on the value of fixed assets used in their respective Businesses, computed in the following manner:

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

Provided that the depreciation shall be allowed on the entire capitalized amount of the new assets after reducing the approved original cost of the retired or replaced or de-capitalised assets.

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

Provided that the Generating Company or Licensee or MSLDC shall ensure that once the individual asset is depreciated to the extent of seventy percent, remaining depreciable value as on 31st March of the year closing shall be spread over the balance Useful Life of the asset including the Extended Life, as provided in this Regulation"

5.4.5 As specified in the above Regulations, depreciation is to be claimed on original cost of fixed assets on straight line basis in line with the rates specified in these Regulations.

5.4.6 The Commission has considered the opening GFA of each year equal to the closing GFA of previous year. The addition to GFA for each year has been considered equal to the capitalization approved for respective years by the Commission in earlier sections of this Order. The Commission has also not considered any retirements of assets in line with the submissions of AEML-T and the retirement of assets would be taken up at the time of Truing-up of the respective years.

5.4.7 The Commission has worked out depreciation on each of the asset class in line with the deprecation rates specified in the Regulation.

Table 83: Depreciation Cost for FY 2020-21 to FY 2024-25, as approved by the Commission (Rs Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Opening GFA	1,963.76	2,185.62	2,239.16	2,292.70	2,346.24
Additions of Assets during the year	221.86	53.54	53.54	53.54	53.54
Retirement of Assets during the year	-	-	-	-	-
Closing GFA	2,185.62	2,239.16	2,292.70	2,346.24	2,399.78
Average Depreciation Rate	4.49%	4.50%	4.47%	4.47%	4.29%
Total Depreciation	**93.10**	**99.60**	**101.21**	**103.71**	**101.68**

5.4.8 **The Commission approves Depreciation of Rs. 93.10 Crore for FY 2020-21, Rs. 99.60 Crore for FY 2021-22, Rs. 101.21 Crore for FY 2022-23, Rs. 103.71 Crore for FY 2023-24 and Rs. 101.68 Crore for FY 2024-25.**

5.5 Interest on Loan Capital

AEML-T's Submission

5.5.1 AEML-T has considered the normative opening loan balance for each year of the Control Period as equal to closing normative loan balance for each preceding Financial Year.

5.5.2 AEML-T has considered a normative Debt: Equity ratio of 70:30 for capitalized assets during each year of the Control Period in accordance with the MYT Regulations, 2019. The repayment during each year shall be deemed to be equal to the depreciation allowed for that year as per Regulation 30.4 of the MYT Regulations, 2019.

5.5.3 AEML-T has computed the weighted average rate of interest on the basis of the actual long-term loan portfolio at the beginning of each year in line with Regulation 30.5 of the MYT Regulations, 2019. The actual weighted average rate of interest at the beginning of FY 2019-20 would depend on market fluctuations during FY 2019-20 and the same affects the loans from various funding institutions. Also, the weighted average rate of interest is also affected by the rate of interest of additional loan drawl during each year of the Control Period for execution of various proposed and approved Schemes. As of now, the same cannot be estimated with any degree of certainty.

5.5.4 AEML-T has considered the weighted average rate of interest at the start of each year of the Control Period same as at the beginning of FY 2019-20 i.e. 9.05%. This interest rate is applied on the average normative loan balance (after considering depreciation equivalent repayment) to determine interest chargeable to ARR.

5.5.5 The interest expense estimated for the period from FY 2020-21 to FY 2024-25 are provided in the table below:

Table 84: Interest on Loan Capital for FY 2020-21 to FY 2024-25, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY20 22-23	FY 2023-24	FY 2024-25
Opening Balance	642.98	1026.70	1700.49	2094.89	5861.55
Addition - equivalent to 70% of capitalization	489.00	822.71	587.87	4124.49	699.60
Repayment (equal to depreciation claimed)	105.28	148.92	193.47	357.83	522.44
Closing balance	1026.70	1700.49	2094.89	5861.55	6038.71
Average loan balance	834.84	1363.60	1897.69	3978.22	5950.13
Interest Rate in %	9.05%	9.05%	9.05%	9.05%	9.05%
Interest on loan capital	**75.55**	**123.41**	**171.74**	**360.03**	**538.49**

Commission's Analysis and Ruling

5.5.6 Regulation 30 of MYT Regulations, 2019 specifies the following:

"30.1 The loans arrived at in the manner indicated in Regulation 27 on the assets put to use shall be considered as gross normative loan for calculation of interest on loan:

Provided that in case of retirement or replacement or de-capitalization of assets, the loan capital approved as mentioned above, shall be reduced to the extent of outstanding loan component of the original cost of such assets based on documentary evidence

30.2 The normative loan outstanding as on April 1, 2020, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2020 from the gross normative loan.

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

30.4 Notwithstanding any moratorium period availed, the repayment of loan shall be considered from the first year of commercial operation of the Scheme and shall be equal to the annual depreciation allowed….."

5.5.7 As provided in the above Regulations, the Commission has considered normative opening loans for FY 2020-21 equal to the closing normative loan balance for FY 2019-20 approved in this Order. Loan additions are considered equal to 70% of the capitalization approved for each year. Repayments during the year are considered equal to depreciation as per Regulation 30.3 of MYT Regulations, 2019.

5.5.8 As per Regulation 30.5 of MYT Regulations, 2019:

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

5.5.9 As per above Regulation, the interest rate for FY 2019-20 is considered 9.05% based on actual opening balance as on 01 April, 2019 submitted by AEML-T. Interest rate for FY 2020-21 to FY 2024-25 is considered same as that for FY 2019-20. The actual weighted average rate of interest of the actual loan portfolio during the year as per the Regulation would be considered for interest expense approval during the Truing-up exercise of the respective years.

5.5.10 The Commission has not considered any retirement of asset during the FY 2020-21 to FY 2024-25 in line with the submissions of AEML-T and the same would be considered based on the actual data during the Truing-up for the respective years.

5.5.11 The Commission has applied the weighted average interest rate on the average of opening and closing loan balance to arrive at interest expenses for the MYT fourth Control Period.

5.5.12 The following Table shows the interest expenses approved by the Commission for the FY 2020-21 to FY 2024-25.

Table 85: Interest on Loan Capital for FY 2020-21 to FY 2024-25, as approved by the Commission (Rs Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Opening Balance of Debt	642.11	704.32	642.20	578.47	512.24
Addition of loan during the year	155.30	37.48	37.48	37.48	37.48
Repayment of loan during the year	93.10	99.60	101.21	103.71	101.68
Closing Balance of Debt	704.32	642.20	578.47	512.24	448.03
Interest rate for the year	9.05%	9.05%	9.05%	9.05%	9.05%
Interest expense	60.93	60.93	55.24	49.35	43.45
Financing Charges	-	-	-	-	-
Total Interest Expenses including financing charges	**60.93**	**60.93**	**55.24**	**49.35**	**43.45**

5.5.13 **The Commission approves interest of Rs. 60.93 Crore for FY 2020-21, Rs. 60.93 Crore for FY 2021-22, Rs. 55.24 Crore for FY 2022-23, Rs. 49.35 Crore for FY 2023-24 and Rs. 43.45 Crore for FY 2024-25.**

5.6 Interest on Working Capital

AEML-T's Submission

5.6.1 AEML-T has calculated working capital requirement as per Regulation 32.2 of the MYT Regulations, 2019 for each year of the Control Period.

5.6.2 AEML-T has considered O&M expenses as per norms for each Financial Year of the Control Period. As regards revenue from transmission charges, the expected revenue is considered equivalent to the projected ARR for each year of the Control Period, inclusive of the resultant gap/ surplus for FY 2017-18 to FY 2019-20.

5.6.3 AEML-T has considered interest on working capital on normative basis and equal to the base rate prevailing as on the date on which Petition was filed plus 150 basis points as per Regulation 32.2(b) of MYT Regulations, 2019. The Base Rate is the one year MCLR of SBI as per Regulation 2.1 (10) of the MYT Regulations, 2019. The rate of interest on working capital for each year of the Control Period works out to 9.50% (8.00%+1.50%) as elaborated in the section pertaining to FY 2019-20

5.6.4 The following Table shows the normative interest on working capital for each year of the Control Period as claimed by AEML-T:

Table 86: Interest on Working Capital for FY 2020-21 to FY 2024-25, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
O&M expenses for 1 month	4.52	5.47	6.91	8.74	10.45
Maintenance spares @ 1% of opening GFA	19.65	26.64	38.39	46.79	105.71
One and half months of InSTS revenue	50.20	68.83	90.49	162.26	235.40
Working capital requirement	**74.37**	**100.93**	**135.80**	**217.79**	**351.55**
Interest rate (%)	9.50%	9.50%	9.50%	9.50%	9.50%
Interest on Working Capital (IOWC)	**7.07**	**9.59**	**12.90**	**20.69**	**33.40**

Commission's Analysis and Ruling

5.6.5 Regulation 32.2 of MYT Regulations, 2019 specifies the methodology for assessment of working capital requirement by a Transmission Licensee. The relevant extracts are given as below

"32.2 Transmission: — (a) The working capital requirement of the Transmission Licensee shall cover:—

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

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

(iii) One and a half month equivalent of the expected revenue from transmission charges at the prevailing Tariff ;

minus

(iv) Amount held as security deposits in cash, if any, from Transmission System Users"

5.6.6 The Commission has approved O&M expenses for one month based of the normative O&M expenses approved in this Order for MYT fourth Control Period. The Commission has considered maintenance spares equivalent to 1% of GFA approved in this Order.

5.6.7 The Transmission charges considered for arriving the working capital requirement is the ARR including past gaps approved by the Commission for the respective years, i.e., FY 2020-21 to FY 2024-25 in this Order.

5.6.8 The MYT Regulations, 2019 stipulate that the rate of IoWC shall be considered on normative basis and shall be equal to base rate plus 150 basis points. The relevant extracts of Regulation 32.2 is provided as below

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

5.6.9 As per MYT Regulations, 2019, rate of interest on working capital shall be on normative basis and shall be equal to the Base Rate as on the date on which the Petition for determination of Tariff is filed, plus 150 basis points. AEML-T has filed Petition on 1 November, 2019 and applicable base rate was 8.05%. Accordingly, interest rate approved by the Commission for calculation of interest on working capital is 9.55%.

Table 87: Interest on Working Capital for FY 2020-21 to FY 2024-25, as approved by the Commission (Rs Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
One-twelfth of the O&M Expense	4.20	4.31	4.47	4.64	4.82
Maintenance spares at one percent of the opening GFA for the year	19.64	21.86	22.39	22.93	23.46
One and half months of the expected revenue from Transmission charges at the prevailing Tariffs	39.44	42.42	42.47	42.63	42.22
Total Working Capital	**63.28**	**68.59**	**69.33**	**70.20**	**70.50**
Interest Rate on Working capital (%)	9.55%	9.55%	9.55%	9.55%	9.55%
Interest on Working Capital (IoWC)	**6.04**	**6.55**	**6.62**	**6.70**	**6.73**

5.6.10 **The Commission approves interest on Working Capital of Rs. 6.04 Crore for FY 2020-21, Rs. 6.55 Crore for FY 2021-22, Rs. 6.62 Crore for FY 2022-23, Rs. 6.70 Crore for FY 2023-24 and Rs. 6.73 Crore for FY 2024-25.**

5.7 Return on Equity

AEML-T's Submission

5.7.1 According to the first proviso to Regulation 29.1 of the MYT Regulations, 2019 specified that Return on Equity (RoE) shall be allowed in two parts i.e. Base RoE and Additional RoE linked to actual performance.

5.7.2 As per Regulation 29.7 of MYT Regulations, 2019, the additional RoE shall be allowed at the time of truing-up. Considering that AEML-T transmission availability has historically being significantly better than the thresholds considered for additional RoE in the said Regulations, allowing the additional RoE at the time of truing up only amounts to deferring a near certain cost impact in case of AEML-T. .

5.7.3 AEML-T has submitted that the additional RoE, atleast for the period of two years, along with the applicable carrying cost, shall get included in the revised tariffs for FY 2023-24. Considering the likely additional RoE, this impact is expected to be around Rs. 22 Crore.

5.7.4 Further, AEML-T has submitted that while considering RoE at 14% at this stage would result in lower cost implication in InSTS Tariff, the inclusion of additional RoE, with carrying cost at time of true-up and revised ARR thereon would lead to increase in InSTS tariff later. AEML-T has submitted that it would be better to recognise all the near certain elements of costs at this stage itself so that ARR determined now reflects the actual cost more closely.

5.7.5 Since no retirement of assets has been projected at this stage during the Control Period, hence no reduction in equity has been considered. AEML-T has considered the RoE as 15.5% for each year of the Control Period in the Petition.

5.7.6 Regulation 34.2 of the MYT Regulations, 2019, specifies that the rate of RoE including additional rate of RoE as allowed by the commission, shall be grossed up with the effective tax rate of respective financial year.

5.7.7 Regulation 34.3 of the MYT Regulations, 2019, specifies that the base rate of RoE shall be rounded off to three decimal places and shall be computed as per the formula given below:

"Rate of pre-tax return on equity = Base rate of Return on Equity/ (1-t)

Where "t" is the effective tax rate"

5.7.8 The effective tax rate proposed in line with the MYT Regulations, 2019 MAT is considered at 15%, considering the revised MAT Rate recently announced by the Government of India. Therefore, in accordance with Regulation 34.5 of the MYT Regulations, 2019, in case of a transmission licensee paying MAT, "t" shall be considered as MAT rate including surcharge and cess, and in AEML's case it is 17.4720%.

Table 88: Return on Equity for FY 2020-21 to FY 2024-25, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Regulatory equity at the beginning of the year	630.78	840.35	1,192.94	1,444.88	3,212.52

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Equity portion of expenditure capitalized	209.57	352.59	251.95	1,767.64	299.83
Regulatory equity at the end of the year	840.35	1,192.94	1,444.88	3,212.52	3,512.35
Return Computation					
RoE at the beginning of the year	118.47	157.83	224.05	271.37	603.36
RoE on capitalization during the year	19.68	33.11	23.66	165.99	28.16
Total Return on Equity	**138.15**	**190.94**	**247.71**	**437.37**	**631.52**

Commission's Analysis and Ruling

5.7.9 Regulation 29 of MYT Regulations, 2019 specifies for determination of Return on Equity for the MYT fourth Control Period. The relevant clause is provided as below.

> *"29.1 Return on equity for a Generating Company, Transmission Licensee, Distribution Wires Business and MSLDC shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put to use, at the rate of 15.5 per cent per annum in Indian Rupee terms, and for the Retail Supply Business, Return on equity capital shall be allowed on the amount of equity capital determined in accordance with Regulation 27 at the rate of 17.5 per cent per annum in Indian Rupee terms.*
>
> *28.2 Base Return on equity for the Generating company, Transmission Licensee, Distribution Wires Business and MSLDC shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put to use, at the rate of 14 per cent per annum in Indian Rupee terms, and for the Retail Supply Business, Return on equity capital shall be allowed on the amount of equity capital determined in accordance with Regulation 27 at the rate of 15.5 per cent per annum in Indian Rupee terms.*
>
> *28.3 The return on equity shall be computed in the following manner:—*
>
> *(a) Return at the allowable rate as per this Regulation, applied on the amount of equity capital at the commencement of the Year; plus*
>
> *(b) Return at the allowable rate as per this Regulation, applied on 50 per cent of the equity capital portion of the allowable capital cost, for the investments put to use in Generation Business or Transmission Business or Distribution Business or MSLDC, for such Year.*

5.7.10 As specified in the above Regulations, for projection period, Base RoE of 14% has been considered. AEML-T is eligible for additional return on equity at time of Truing-up for respective year based on actual performance, after prudence check of the Commission.

5.7.11 Regulation 34.2 of the MYT Regulations, 2019, specifies that the rate of RoE including additional rate of RoE as allowed by the commission, shall be grossed up with the effective tax rate of respective financial year. The effective tax rate proposed in line with the MYT Regulations, 2019 MAT is considered at 15%, considering the revised MAT Rate recently announced by the Government of India. Therefore, in accordance with Regulation 34.5 of the MYT Regulations, 2019, in case of a transmission licensee paying MAT, "t" shall be considered as MAT rate including surcharge and cess, and in AEML's case it is 17.4720%. Considering the above, the Commission approves RoE of 16.96% for FY 2020-21 to FY 2024-25.

5.7.12 The Commission has considered closing equity balance of FY 2019-20 as opening equity balance for FY 2020-21. The equity addition has been considered as 30% of the approved capitalization for FY 2020-21 to FY 2024-25 respectively. There are no retirements considered and hence, no effects of retirements on equity balances.

5.7.13 AEML-T has not considered any retirements and hence the effect of the same in terms of writing off depreciation, reduction in equity and loan balances, etc. will be accounted on actual basis, as and when it is submitted for Truing-up.

5.7.14 The following Table shows the computation and approval of the Commission for Return on Equity for FY 2020-21 to FY 2024-25.

Table 89: Return on Equity for FY 2020-21 to FY 2024-25, as approved by the Commission (Rs Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Regulatory equity at the beginning of the year	630.39	696.95	713.01	729.08	745.14
Add: Equity portion of expenditure capitalized	66.56	16.06	16.06	16.06	16.06
Less: Equity portion of asset retired during the year	-	-	-	-	-
Regulatory equity at the end of the year	696.95	713.01	729.08	745.14	761.20
Return Computation					
RoE at the beginning of the year	106.94	118.23	120.96	123.68	126.40
RoE on capitalization during the year	5.65	1.36	1.36	1.36	1.36
Total Return on Equity	**112.59**	**119.59**	**122.32**	**125.04**	**127.77**

5.7.15 **The Commission approves Return on Equity of Rs. 112.59 Crore for FY 2020-21, Rs. 119.59 Crore for FY 2021-22, Rs. 122.32 Crore for FY 2022-23, Rs. 125.04 Crore for FY 2023-24 and Rs. 127.77 Crore for FY 2024-25.**

5.8 Contribution to Contingency Reserve

AEML-T's Submission

5.8.1 Regulation 35.1 of the MYT Regulations, 2019 provides for Contributions to Contingency Reserve a sum not less than 0.25 % and not more than 0.5 % of the original cost of fixed assets.

5.8.2 AEML-T has considered the contribution to contingency reserve at 0.25% of the original cost of fixed assets as on 1 April of each year of the Control Period.

Table 90: Contribution to Contingency Reserve for FY 2020-21 to FY 2024-25, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Opening balance of Contingency Reserves	35.82	40.73	47.39	56.99	68.68
Opening Gross Fixed Assets (GFA)	1,965.16	2,663.73	3,839.03	4,678.85	10,570.98
Opening balance of Contingency Reserves as % of Opening GFA	1.82%	1.53%	1.23%	1.22%	0.65%
Contribution to Contingency Reserves	**4.91**	**6.66**	**9.60**	**11.70**	**26.43**

Commission's Analysis and Ruling

5.8.3 Regulation 35 of MYT Regulations, 2019 provides for contribution to contingency reserve. The relevant extracts are as given below.

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

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

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

5.8.4 The Commission in line with the MYT Regulations, 2019 has approved Contribution to Contingency Reserve at 0.25% of the opening GFA approved by the Commission in this Order for each year of the MYT fourth Control Period.

5.8.5 The following Table shows the Contribution to Contingency Reserve as approved by the Commission for FY 2020-21 to FY 2024-25.

Table 91: Contribution to Contingency Reserve for FY 2020-21 to FY 2024-25, as approved by the Commission (Rs Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Opening Balance of Contingency Reserves	35.81	40.72	46.19	51.78	57.52
Opening Gross Fixed Assets	1,963.76	2,185.62	2,239.16	2,292.70	2,346.24
Opening Balance of Contingency Reserves as % of Opening GFA	1.82%	1.86%	2.06%	2.26%	2.45%
Contribution to Contingency Reserves during the year	**4.91**	**5.46**	**5.60**	**5.73**	**5.87**

5.8.6 **The Commission approves Contribution to Contingency Reserves of Rs. 4.91 Crore for FY 2020-21, Rs. 5.46 Crore for FY 2021-22, Rs. 5.60 Crore for FY 2022-23, Rs. 5.73 Crore for FY 2023-24 and Rs. 5.87 Crore for FY 2024-25.**

5.9 Non -Tariff Income

AEML-T's Submission

5.9.1 As elaborated in the section pertaining to FY 2019-20, income from liquidated damages, realization of exchange gain, scrap sale, etc. are not considered under

Non-Tariff Income as they cannot be projected with any degree of certainty at this point in time. If the actual income is booked under these heads, it will be presented at the time of truing up, when actuals are submitted to the commission.

5.9.2 Non-Tariff Income proposed for the Control Period includes rental income from land usage. The rental income for usage of land by AEML-D during the Control Period is projected considering the charges for FY 2019-20. The MOM entered into land usage charges arrangement is applicable till FY 2019-20. A fresh arrangement through MOM is likely to be entered and made applicable from 1 April, 2020 onwards, which will be based on the applicable Ready Reckoner rates.

5.9.3 Non-Tariff Income for the Control Period also consists of interest on contingency reserve investment which is projected considering the estimate for FY 2019-20.

5.9.4 Income from Delayed Payment Charge and from interest on staff loans and advances are not estimated under NTI, as per MYT Regulations, 2019 and also elaborated in the section pertaining to truing up for FY 2017-18.

Table 92: Non-Tariff Income for FY 2020-21 to FY 2024-25, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Non-Tariff Income	**2.63**	**2.63**	**2.63**	**2.63**	**2.63**

Commission's Analysis and Ruling

5.9.5 As mentioned in the earlier section of this Order, AEML-T has been directed to transfer its Contribution against Contingency Reserve from Mutual Fund Growth Option to safe investments, i.e., in Fixed Deposit (FD) or Government Securities (G-Sec) within 6 months from the issue of this Order. The Commission has considered the approved value of Contribution to Contingency Reserve of Rs. 35.81 till FY 2019-20 to be invested in G-Sec within 6 months of issuance of this Order. The addition in Contribution to Contingency Reserve for the subsequent years in the MYT 4th Control Period has been considered same as approved in earlier section of this Order. However, the treatment for the actual amount of the above Mutual Fund received by AEML-T and its impact on the Non-Tariff Income would be dealt at the time of Truing-up.

5.9.6 The Commission has computed Non-Tariff Income against these investments for each year of the MYT 4th Control Period considering the interest rate of 6.86% 10 year G-sec rate of 31 January, 2020 as notified by Reserve Bank of India. Additionally, other interest income for each of the MYT 4th Control Period has been considered same as submitted by the AEML-T.

5.9.7 The Commission is of the view that impact of any change with respect to Non-Tariff Income can be considered for the respective year while Truing-up of that year.

5.9.8 The following Table shows the Non-Tariff Income approved by the Commission for the FY 2020-21 to FY 2024-25.

Table 93: Non-Tariff Income for FY 2020-21 to FY 2024-25, as approved by the Commission (Rs Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Non-Tariff Income	2.81	4.48	4.86	5.25	5.65

5.9.9 **The Commission approves Non-Tariff Income of Rs. 2.81 Crore for FY 2020-21, Rs. 4.48 Crore for FY 2021-22, Rs. 4.86 Crore for FY 2022-23, Rs. 5.25 Crore for FY 2023-24 and Rs. 5.65 Crore for FY 2024-25.**

5.10 Carrying cost on Revenue Gap/ Surplus for FY 2017-18 and FY 2018-19 till FY 2020-21

AEML-T's Submission

5.10.1 For FY 2017-18 the Commission in the MTR Order in Case No. 201 of 2017 has approved surplus of Rs. 25.46 Crore which the Commission has considered in FY 2018-19 ARR.

5.10.2 The revenue surplus considering the truing up of FY 2017-18 is Rs. 22.54 Crore. For the purpose of computation of carrying cost, the surplus excluding availability incentive amounts to Rs. 24.69 Crore.

5.10.3 Similarly, for FY 2018-19 the gap is considered as per truing-up for FY 2018-19 which amounts to Rs. 19.23 Crore. For the purpose of computation of carrying cost, the gap excluding availability incentive amounts to Rs. 16.80 Crore.

5.10.4 The carrying cost has been computed as per Regulation 32 of the MYT Regulations, 2015 till FY 2019-20 and as per Regulation 33 of the MYT Regulations, 2019 for FY 2020-21. The carrying cost computation is as follows:

Table 94 Carrying cost on FY 2017-18 gap/ (surplus), as submitted by AEML-T (Rs. Crore)

Particulars	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening		(24.69)	0.77	0.77
Addition (FY 17-18 truing-up surplus excluding availability incentive)	(24.69)	-	-	-
Recovery	-	(25.46)	-	0.77
Closing	(24.69)	0.77	0.77	-
Average	(12.34)	(11.96)	0.77	0.39
Carrying cost rate (%)	10.20%	9.89%	9.50%	9.50%
Carrying cost	(1.26)	(1.18)	0.07	0.04
Total carrying cost	**(2.33)**			

Table 95 Carrying cost on FY 2018-19 gap/ (surplus), as submitted by AEML-T (Rs. Crore)

Particulars	FY 2018-19	FY 2019-20	FY 2020-21
Opening	-	16.80	16.80
Addition (FY 18-19 truing-up surplus excluding availability incentive)	16.80	-	-
Recovery	-	-	16.80
Closing	16.80	16.80	-
Average	8.40	16.80	8.40
Carrying cost rate (%)	9.89%	9.50%	9.50%
Carrying cost	0.83	1.60	0.80
Total carrying cost	**3.22**		

Commission's Analysis and Ruling

5.10.5 The Commission has worked out carrying cost / (holding cost) on the Revenue Gap/ (Surplus) of FY 2017-18 and FY 2018-19 on simple interest basis. Carrying/ (holding) cost is given on addition in revenue gap/ (surplus) during the year excluding incentive.

5.10.6 The Commission has considered the interest rate in accordance with MYT Regulations, 2019. The relevant extracts are as follows.

"The Commission shall allow Carrying Cost or Holding Cost, as the case may be, on the admissible amounts, with simple interest, at the weighted average Base Rate prevailing during the concerned Year, plus 150 basis points."

5.10.7 Based on the above, the Commission approves the carrying/ (holding) cost on revenue gap/ (surplus) and the computation of the same is shown in the Table below.

Table 96: Carrying/ (Holding) Cost for FY 2017-18, as approved by the Commission (Rs Crore)

Particulars	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening balance of Revenue Gap/(Surplus)	0.00	(25.55)	(0.09)	(0.09)
Addition during the year	(25.55)	0.00	0.00	0.00
Less: Recovery during the year	0.00	(25.46)	0.00	(0.09)
Closing balance of Revenue Gap/(Surplus)	(25.55)	(0.09)	(0.09)	0.00
Rate of Interest	10.18%	9.89%	9.55%	9.55%
Carrying Cost/(Holding Cost)	(1.30)	(1.27)	(0.01)	(0.00)
Total Carrying Cost/(Holding Cost)	**(2.58)**			

Table 97: Carrying/ (Holding) Cost for FY 2018-19, as approved by the Commission (Rs Crore)

Particulars	FY 2018-19	FY 2019-20	FY 2020-21
Opening balance of Revenue Gap/(Surplus)	0.00	(4.56)	(4.56)
Addition during the year	(4.56)	0.00	0.00
Less: Recovery during the year	0.00	0.00	(4.56)
Closing balance of Revenue Gap/(Surplus)	(4.56)	(4.56)	0.00
Rate of Interest	9.89%	9.55%	9.55%
Carrying Cost/(Holding Cost)	(0.23)	(0.44)	(0.22)
Total Carrying Cost/(Holding Cost)	**(0.88)**		

5.11 Impact of Order in MTR Review Petition Case No. 315 of 2018

AEML-T's Submission

5.11.1 AEML-T had filed a review Petition in Case No. 315 of 2018 against the MTR Petition in Case No. 201 of 2017. The Commission vide its Order dated 12 December, 2018 had dismissed the review Petition with respect to the Order and in the Section 8.17 of the Order held as follows:

"8.17 Decrease in entitlement of Income Tax for FY 2016-17 by Rs. 1.25 Crore due to inclusion of 'transfer to contribution to contingency reserves' in Other Disallowances will be given effect in next tariff determination of AEML-T"

5.11.2 AEML-T has submitted that the total impact amounts to Rs. 1.75 Crore inclusive of carrying cost of Rs. 0.50 Crore. The carrying cost has been computed as per Regulation 32 of the MYT Regulations, 2015 till FY 2019-20 and as per Regulation 33 of the MYT Regulations, 2019 for FY 2020-21.

5.11.3 AEML-T has submitted the carrying cost computation given in the table below:

Table 98: Carrying cost on FY 2016-17 Review Order Impact, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening	-	(1.25)	(1.25)	(1.25)	(1.25)
Addition	(1.25)				
Recovery					(1.25)
Closing	(1.25)	(1.25)	(1.25)	(1.25)	-
Average	(0.63)	(1.25)	(1.25)	(1.25)	(0.63)
Carrying cost rate (%)	10.79%	10.20%	9.89%	9.50%	9.50%
Carrying cost	(0.07)	(0.13)	(0.12)	(0.12)	(0.06)
Total carrying cost	**(0.50)**				

Commission's Analysis and Ruling

5.11.4 The Commission in its Review Order Case No. 315 of 2018 dated 12 December, 2018, reduced the entitlement of Income Tax for FY 2016-17 by Rs. 1.25 Crore. The relevant part of the same is reproduced here below:

"*1) The Case No. 315 of 2018 is dismissed.*

2) As regards the inconsistency in the approach adopted in MTR Orders dated 12 September, 2018 in Case No. 200 of 2017 and Case No. 69 of 2018 for AEML-D and TPC-D respectively, the Commission will examine and take its appropriate view at the time of next tariff determination of AEML-D and TPC-D.

3) Decrease in entitlement of Income Tax for FY 2016-17 by Rs. 1.25 Crore due to inclusion of 'transfer to contribution to contingency reserves' in Other Disallowances will be given effect in next tariff determination of AEML-T. "

5.11.5 The Commission calculated holding cost on Rs. 1.25 Crore from FY 2016-17 till the year of recovery i.e. FY 2020-21. Holding cost computation is given in the table below:

Table 99: Holding cost on FY 2016-17 Review Order Impact, as approved by the Commission (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening balance of Revenue Gap/(Surplus)	0.00	(1.25)	(1.25)	(1.25)	(1.25)
Addition during the year	(1.25)	0.00	0.00	0.00	0.00
Less: Recovery during the year	0.00	0.00	0.00	0.00	(1.25)
Closing balance of Revenue Gap/(Surplus)	(1.25)	(1.25)	(1.25)	(1.25)	0.00
Rate of Interest	10.79%	10.18%	9.89%	9.55%	9.55%
Carrying Cost/(Holding Cost)	(0.07)	(0.13)	(0.12)	(0.12)	(0.06)
Total Carrying Cost/(Holding Cost)	**(0.50)**				

5.11.6 **The Commission approves Impact of Review Order of Rs. (1.25) Crore and its holding cost of Rs. (0.50) Crore for recovery in the 4th control period.**

5.12 ARR for FY 2020-21 to FY 2024-25

AEML-T's Submission

5.12.1 Based on the individual elements discussed in the Petition, the total projected Aggregate Revenue Requirement (ARR) for each year of the Control Period for FY 2020-21 to FY 2024-25 is shown in the table:

Table 100: ARR for FY 2020-21 to FY 2024-25, as submitted by AEML-T (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Expenditure					
Operation and Maintenance Expenses	62.40	73.76	91.15	113.08	133.53
Depreciation	105.28	148.92	193.47	357.83	522.44
Interest on Long-term Loan capital	75.55	123.41	171.74	360.03	538.49
Interest on Working Capital	7.07	9.59	12.90	20.69	33.40
Contribution to contingency reserve	4.91	6.66	9.60	11.70	26.43
Total Revenue Expenditure	**255.21**	**362.34**	**478.86**	**863.33**	**1,254.28**
Return on Equity	138.15	190.94	247.71	437.37	631.52
Aggregate Revenue Requirement	**393.36**	**553.28**	**726.57**	**1,300.69**	**1,885.79**
Less: Non-Tariff Income	2.63	2.63	2.63	2.63	2.63
ARR from Transmission	**390.74**	**550.65**	**723.94**	**1,298.06**	**1,883.17**
FY 17-18 revenue gap/ (surplus)-incremental	2.92				

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Carrying cost on above	(2.33)				
FY 18-19 revenue gap/ (surplus)	19.23				
Carrying cost on above	3.22				
FY 19-20 revenue gap/ (surplus)	(10.41)				
Revenue Gap/ (Surplus)	**401.63**	**550.65**	**723.94**	**1,298.06**	**1,883.17**

Commission's Analysis and Ruling

5.12.2 **The Commission approves ARR for FY 2020-21 to FY 2024-25 as shown in the following table based on rulings made for individual components in the previous sections of this Chapter**.

Table 101: ARR for FY 2020-21 to FY 2024-25, as approved by the Commission (Rs Crore)

Particulars	AEML-T Petition					Approved in this Order				
	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Operation & Maintenance Expenses	62.40	73.76	91.15	113.08	133.53	50.36	51.71	53.66	55.73	57.87
Depreciation Expenses	105.28	148.92	193.47	357.83	522.44	93.10	99.60	101.21	103.71	101.68
Interest on Loan Capital	75.55	123.41	171.74	360.03	538.49	60.93	60.93	55.24	49.35	43.45
Interest on Working Capital	7.07	9.59	12.90	20.69	33.40	6.04	6.55	6.62	6.70	6.73
Contribution to contingency reserves	4.91	6.66	9.60	11.70	26.43	4.91	5.46	5.60	5.73	5.87
Total Revenue Expenditure	**255.21**	**362.34**	**478.86**	**863.33**	**1,254.28**	**215.34**	**224.25**	**222.32**	**221.22**	**215.60**
Add: Return on Equity Capital	138.15	190.94	247.71	437.37	631.52	112.59	119.59	122.32	125.04	127.77
Aggregate Revenue Requirement	**393.36**	**553.28**	**726.57**	**1,300.69**	**1,885.79**	**327.92**	**343.84**	**344.63**	**346.27**	**343.37**
Less: Non Tariff Income	2.63	2.63	2.63	2.63	2.63	2.81	4.48	4.86	5.25	5.65
ARR from Transmission	**390.74**	**550.65**	**723.94**	**1,298.06**	**1,883.17**	**325.11**	**339.36**	**339.77**	**341.02**	**337.72**
FY 2017-18 revenue gap/ (surplus)-incremental	2.92					2.06	-	-	-	-
Carrying/ (holding) Cost for FY 2017-18	(2.33)					(2.58)	-	-	-	-
FY 2018-19 revenue gap/ (surplus)	19.23					(2.29)	-	-	-	-
Carrying/ (holding) Cost for FY 2018-19	3.22					(0.88)	-	-	-	-
FY 2016-17 - Impact of Review Petition with (holding) cost	(1.75)					(1.75)	-	-	-	-
FY 2019-20 revenue gap/ (surplus)	(10.41)					(4.11)	-	-	-	-
Net Aggregate Revenue Requirement	**401.63**	**550.65**	**723.94**	**1,298.06**	**1,883.17**	**315.56**	**339.36**	**339.77**	**341.02**	**337.72**

5.12.3 **The Commission approves Aggregate Revenue Requirement of Rs 315.56 Crore for FY 2020-21, Rs. 339.36 Crore for FY 2021-22, Rs. 339.77 Crore for FY 2022-23, Rs. 341.02 Crore for FY 2023-24 and Rs. 337.72 Crore for FY 2024-25.**

6 Recovery of Transmission Charges

6.1.1 In Accordance with the Transmission Pricing Framework specified under the MYT Regulations, 2019 the approved ARR of a Transmission Licensee for a particular financial year of the MYT 4th Control Period should be considered for recovery through the TTSC of that year.

6.1.2 As AEML-T forms a part of the InSTS system, its approved ARR for each year of MYT 4th Control Period shall be allowed to be recovered through the InSTS Transmission Tariff Orders, which the Commission shall issue for respective years of the MYT 4th Control Period.

7 Applicability of the Order

7.1.1 This Order on the Truing-up for FY 2017-18 and FY 2018-19, Provisional Truing-up for FY 2019-20 and approval of ARR for FY 2020-21 to FY 2024-25 shall come into force from 01 April, 2020.

The Petition of M/s Adani Electricity Mumbai Limited – Transmission in Case No. 297 of 2019 stands disposed of accordingly.

Sd/-	**Sd/-**	**Sd/-**
(Mukesh Khullar)	**(I.M. Bohari)**	**(Anand B. Kulkarni)**
Member	**Member**	**Chairperson**

(Abhijit Deshpande)
Secretary

8 Appendix-1: List of Persons present at the Technical Validation Session on 25 November, 2019

Sr. No.	Name of person
1	Kishor Patil
2	Vivek Mishra
3	Ganesh Balasubramanian
4	Pratik Shah
5	Rakesh Raj
6	Radha Prasad Muni
7	P.G. Phokmare

9 Appendix-2: List of Persons present at the Public Hearing on 7 January, 2020

Sr. No.	Name of person
1	Santosh Kumar Singh
2	Vivek Mishra
3	Karan Karande
4	P.G. Phokmare
5	Amir Kumar Samant
6	Radha Prasad Muni
7	Ms. Shradha Kaley
8	Rakesh Raj
9	Kishor Patil
10	Arvind Kumar Sharma
11	Abaji Naralkar

10 Appendix-3: List of Un-utilized bays

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
220 kV Bays									
1	Aarey	-	Sw.13	Proposed MSETCL Borivali-1	Aarey- Borivali Cable Connectivity	3/31/2011	GIS	142	It is submitted that 4 Nos. of bays were commissioned at Aarey EHV Station which included 2 Nos. of bays at AEML-Saki. Balance 2 Nos. of bays pertain to construction of Nagari Niwara EHV Station including commissioning of these 2 bays, which were to be implemented by AEML-T. Subsequent developments lead to only scheme of AEML Aarey- MSETCL Borivali cable connectivity link to be implemented by AEML-T. Thus, these 2 un-utilized bays pertain to the same. These bays will be utilized under Aarey-Borivali cable scheme, for which major works are completed and scheme will be commissioned in the present FY i.e. March 2020.
2	Aarey	-	Sw.15	Proposed MSETCL Borivali-2	Aarey- Borivali Cable Connectivity	3/31/2011	GIS	142	
3	Chembur	-	Sw.6	Proposed – MSETCL Nerul	2nd Feed at Chembur EHV Station	8/27/2012	GIS	145	It is submitted that 10 Nos. of bays were commissioned at Chembur EHV Station which included 3 Nos. of Transformer bays, 2 Nos. of

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
4	Chembur	-	Sw.9	Proposed – MSETCL Trombay 3	2nd Feed at Chembur EHV Station	8/27/2012	GIS	145	line bays, 1 No. of bus coupler bay and 2 Nos. of PT Bays. Balance 2 Nos. of bays pertain to future connectivity for second feed. The two (2) presently un-utilized bays are meant for future second incoming feed as per the approved scope of works under the Chembur EHV scheme. The utilization of these 2 bays was also mentioned as part of the '220 kV 2nd Feed Scheme at Chembur EHV Station (LILO of 220kV MSETCL Trombay- Nerul Line)' DPR and was also in-principally approved by the Commission in May 2019. Major Contract for the implementation of this scheme has been placed and work execution is in progress. Scheme commissioning scheduled in FY 2020-21.
5	Borivali	-	Sw.5	Proposed TR-3 (125 MVA)	Installation of 3rd	03/25/2012	GIS	142	It is submitted that 10 Nos. of bays were commissioned at Borivali EHV Station which

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
					Transformer at Borivali EHV Station				included 2 Nos. of Transformer bays, 4 Nos. of line bays, 1 No. of bus coupler bay and 2 Nos. of PT Bays. Balance 1 No. of bay is meant for additional 3rd 125 MVA transformer. The utilization of this 1 bay was also mentioned as part of the '3rd Transformer at Borivali EHV Station DPR and was also in principally approved by the Commission in November 2019. Major Contract for the implementation of this scheme has been placed and work execution is in progress. Scheme commissioning scheduled in FY 2020-21.
6	Gorai	-	Sw.4	Proposed TR-3/ Reactor / Connectivity	Installation of 100 MVaR Reactor at Gorai EHV Station	3/30/2011	GIS	139	It is submitted that 10 Nos. of bays were commissioned at Gorai EHV Station which included 2 Nos. of Transformer bays, 4 Nos. of line bays, 1 No. of bus coupler bay and 2 Nos. of PT Bays. Balance 1 No. of bay was meant for additional 3rd 125 MVA transformer.

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
									However, load growth envisaged at the time of submission of DPR has not materialized. However, subsequently during the system study, reactive power management is required at Gorai EHV Substation. Accordingly, DPR for installation of reactor was submitted to STU on 22/11/2019. After receiving consent from STU, AEML-T shall submit the scheme DPR to the Commission for its in-principle clearance. Scheme commissioning as per the DPR submitted to STU scheduled in March 2021.
7	MSETCL	-	Sw. 3	AEML Aarey-MSETCL Borivali CKT 1	Aarey- Borivali Cable Connectivity	3/5/2015	GIS	144	It is submitted that 9 Nos. of bays were commissioned at MSETCL Borivali EHV Station which included 2 Nos. of bays at AEMLBorivali, 2 Nos. of bays at Gorai EHV Station, 2 No. of incomer bays and 1 No. bus coupler bay. Balance 2 Nos. of bays pertain to construction of Nagari Niwara EHV Station including
8	MSETCL	-	Sw. 9	AEML Aarey-MSETCL Borivali CKT 2	Aarey- Borivali Cable Connectivity	3/5/2015	GIS	144	

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
									commissioning of these 2 bays, which were to be implemented by AEML-T. Subsequent developments lead to only scheme of AEML Aarey- MSETCL Borivali cable connectivity link to be implemented by AEML-T. Thus, these 2 unutilised bays pertain to the same. These bays will be utilized under Aarey-Borivali cable scheme, for which major works are completed and scheme will be commissioned in the present FY i.e. March 2020.
33 kV Bays									
1	Aarey	5	Sw.41	Proposed for Torino receiving station		1/23/2005	AIS	14.16	Till 08/12/2016, it was feeding load of Vikhroli DSS (FY 14-15: 15.03 MW, FY 15-16: 15.60 MW, FY 16-17: 17.09 MW). Reconfiguration was carried out after outlet allotment from TPC Hirananadani EHV for cable length optimization.
2	Aarey	5	Sw.47	Proposed for Torino receiving station		1/23/2005	AIS	14.16	Till 15/10/2016, it was feeding load of Chedda Nagar DSS (FY 14-15: 16.12 MW, FY 15-16: 14.46 MW, FY 16-17: 10.23 MW). Reconfiguration was carried out from AEML Chembur EHV for cable length optimization.

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
3	Aarey	7	Sw.76	Proposed Acme-1	Expected connectivity in FY 20-21. 33kV Receiving station works in progress at site.	3/21/2009	GIS	32.23	Till 08/12/2016, there was load on this Bay (FY 16-17: 14.80 MW). Subsequently, TSU has carried out load rearrangement at 11 kV.
4	Versova	5	Sw.41	Proposed -Mudran Kamgar / SNDT -1		3/24/2009	GIS	32.23	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of 5th 125 MVA Transformer at Versova EHV
5	Versova	5	Sw.49	Proposed -Sagarcity 1	Proposed for connectivity in FY 20-21, subject to availability of land for 33kV receiving station	3/24/2009	GIS	32.23	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of 5th 125 MVA Transformer at Versova EHV
6	Versova	5	Sw.54	Proposed -Khar	Connectivity planned in FY 19-20, based on progress of receiving station at site	3/24/2009	GIS	32.23	Till 05/04/2017, it was feeding load of Bandra-1 RSS (FY 15-16: 13.42 MW, FY 16-17 11.26 MW, FY 17-18: 11.05 MW). Temporarily used as 11 kV to relieve load on Santacruz (W). Expected connectivity in FY 19-20. 33kV Receiving station works in progress at site.

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
7	Versova	6	Sw.56	Allotted - TPC D - 1		9/24/2009	GIS	31.47	Allotted to AEML-D initially, subsequently allotted to TPC-D (Case No. 3 of 2015), vide letter from STU no. MSETCL/CO/C.E.-STU/ No. 6868 dated 23.06.2016 and letter to STU no. AEML-MT/MERC Dir. In C. No. 168/ Compliance/RR/ 46/ 2018 dated 19.11.2018
8	Versova	6	Sw.59	Allotted - TPC D - 2		9/24/2009	GIS	31.47	Allotted to AEML-D initially, subsequently allotted to TPC-D (Case No. 3 of 2015), vide letter from STU no. MSETCL/CO/C.E.-STU/ No. 6868 dated 23.06.2016 and letter to STU no. AEML-MT/MERC Dir. In C. No. 168/ Compliance/RR/ 46/ 2018 dated 19.11.2018
9	Versova	6	Sw.57	Proposed-Mudran Kamgar / SNDT-2		9/24/2009	GIS	31.47	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of 5th 125 MVA Transformer at Versova EHV
10	Versova	6	Sw.63	Proposed -Sagarcity 2	Proposed for connectivity in FY 20-21, subject to availability of land for 33kV receiving station (Same site as	9/24/2009	GIS	31.47	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of 5th 125 MVA Transformer at Versova EHV

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
					above in S No. 54)				
11	Ghodbunder	1	Sw.01	Proposed 20 MVA-3		4/15/1995	AIS	2.54	Till 01/12/2016, connected to 20 MVA Transformer at Ghodbunder EHV (FY 14-15: 11.26 MW, FY 15-16: 8.50 MW). Presently decommissioned by TSU (AEML-D) for load rearrangement.
12	Ghodbunder	3	Sw.24	Proposed - Dahisar Quarters-1	Expected connectivity by mid of FY 20-21. Civil works in progress for 33kV receiving station	8/14/1995	AIS	2.54	Till 20/06/2017, there was load on this Bay feeding Devidas Lane RSS (FY 15-16: 11.50 MW, FY 16-17: 9.75 MW, FY 17-18: 7.20 MW). Reconfiguration was carried out from Gorai EHV for cable length optimization.
13	Ghodbunder	4	Sw.42	Proposed - Bhyander W	Expected loading in FY 19-20, based on progress of works	3/31/2009	GIS	32.23	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of 4th 125 MVA Transformer at Ghodbunder EHV
14	Ghodbunder	4	Sw.44	Proposed - Jangid-1		3/31/2009	GIS	32.23	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
									commissioning of 4th 125 MVA Transformer at Ghodbunder EHV
15	Ghodbunder	5	Sw.54	Proposed - Vinamra-1/Poonam Garden-1	Expected connectivity in FY 19-20, based on progress of works	3/27/2009	GIS	34.52	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of 4th 125 MVA Transformer at Ghodbunder EHV
16	Ghodbunder	5	Sw.56	Proposed - Dahisar Quarters-2	Expected connectivity by mid of FY 20-21. Civil works in progress for 33kV receiving station	3/27/2009	GIS	34.52	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of 4th 125 MVA Transformer at Ghodbunder EHV
17	Chembur	1	Sw.05	Allotted - TPC D - 1	Plan may be obtained from TPC-D	8/27/2012	GIS	25.46	Allotted to AEML-D initially, subsequently allotted to TPC-D (Case No. 3 of 2015), vide letter from STU no. MSETCL/CO/C.E.-STU/ No. 6868 dated 23.06.2016.
18	Chembur	2	Sw.19	Allotted - TPC D - 2	Plan may be obtained from TPC-D	8/27/2012	GIS	25.46	Allotted to AEML-D initially, subsequently allotted to TPC- D (Case No. 3 of 2015), vide letter from STU no. MSETCL/CO/C.E.-STU/ No. 6868 dated 23.06.2016.

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
19	Chembur	2	Sw.24	Allotted - TPC D - 3	Plan may be obtained from TPC-D	8/27/2012	GIS	25.46	Allotted to AEML-D initially, subsequently allotted to TPC- D (Case No. 3 of 2015), vide letter from STU no. MSETCL/CO/C.E.-STU/ No. 6868 dated 23.06.2016.
20	Chembur	3	Sw.41	Allotted - TPC D - 4	Plan may be obtained from TPC-D	8/27/2012	GIS	31.24	Allotted to AEML-D initially, subsequently allotted to TPC- D (Case No. 3 of 2015), vide letter from STU no. MSETCL/CO/C.E.-STU/ No. 6868 dated 23.06.2016.
21	Chembur	1	Sw.10	Spare Line Feeder (HDIL Chunabhati)		8/27/2012	GIS	25.46	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Chembur EHV
22	Chembur	1	Sw.14	Proposed - Neelam Finance / Anik-2		8/27/2012	GIS	25.46	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Chembur EHV
23	Chembur	2	Sw.25	Proposed -Infra venture		8/27/2012	GIS	25.46	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Chembur EHV

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
24	Chembur	3	Sw.29	Proposed - Chembur 20MVA3		8/27/2012	GIS	31.24	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Chembur EHV
25	Chembur	3	Sw.33	Proposed - Anik-1		8/27/2012	GIS	31.24	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Chembur EHV
26	Chembur	3	Sw.39	Proposed - Infra Venture		8/27/2012	GIS	31.24	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Chembur EHV
27	Saki	1	Sw.03	Aarey Sw no 37/ Allotted - TPC D -1	Plan may be obtained from TPC-D	3/31/2011	GIS	23.33	Earlier connected to Aarey sw no 37. Subsequently allotted to TPC-D (Case No. 3 of 2015), v ide letter no. RInfra-MT/Case-03/RR/47/2015-16 dated 03.12.2015,
28	Saki	1	Sw.09	Allotted - TPC D -2	Plan may be obtained from TPC-D	3/31/2011	GIS	23.33	Allotted to AEML-D initially, subsequently allotted to TPC-D (Case No. 3 of 2015), vide letter no. RInfra-MT/Case-03/RR/47/2015-16 dated 03.12.2015,

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
29	Borivali	1	Sw.02	Proposed - Shah H-2		3/25/2012	GIS	25.86	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
30	Borivali	1	Sw.05	Proposed - Kalptaru Garden 20 MVA-1		3/25/2012	GIS	25.86	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
31	Borivali	1	Sw.06	Spare Line Feeder		3/25/2012	GIS	25.86	Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
32	Borivali	1	Sw.08	Proposed - Borivali 20 MVA-3	Additional transformer at Borivali 33kV station. Proposed connectivity in FY 20-21	3/25/2012	GIS	25.86	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
33	Borivali	1	Sw.12	Proposed - Kalpatru Garden 20MVA-2	Same site as above in S. No. 5	3/25/2012	GIS	25.86	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
34	Borivali	1	Sw.13	Proposed - Heritage 20 MVA-1	Expected connectivity in FY 20-21 based on progress of works (cable laid, civil work complete)	3/25/2012	GIS	25.86	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
35	Borivali	2	Sw.15	Proposed - Shah H-1	Same site as above in S. No. 2	3/25/2012	GIS	24.20	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
36	Borivali	2	Sw.18	Proposed - Lokhandwala / DB	Expected connectivity in FY 20-21 based on progress of works (civil works underway)	3/25/2012	GIS	24.20	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
37	Borivali	2	Sw.26	Proposed - Omkar/Malad/Dindoshi	Expected utilization in FY 20-21 (only reconfiguration required)	3/25/2012	GIS	24.20	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
38	Borivali	2	Sw.27	Proposed - Heritage 20 MVA-2	Expected connectivity in FY 20-21 based on progress of works (cable laid, civil work complete) - same site as above in S. No. 13	3/25/2012	GIS	24.20	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
39	Gorai	1	Sw.05	Proposed - Devidas Lane 1	Only reconfiguration required, Receiving station already existing. Expected connectivity in FY 20-21	3/30/2011	GIS	23.33	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
40	Gorai	2	Sw.19	Proposed - Don Bosco-2	Plot in hand. Tentative connectivity in FY 20-21	3/30/2011	GIS	23.33	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
41	Gorai	2	Sw.25	Proposed - Don Bosco-1	Plot in hand. Tentative connectivity in FY 20-21. Same	3/30/2011	GIS	23.33	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
					site as S. No. 19 above.				Board was commissioned during commissioning of Borivali EHV
42	Goregaon	1	Sw.05	Proposed - Nesco-1	Expected connectivity in FY 20-21. Cable laying underway. Receiving station completed.	3/9/2011	GIS	21.87	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
43	Goregaon	2	Sw.16	Proposed-Nesco-2	Expected connectivity in FY 20-21. Cable laying underway. Receiving station completed.	3/9/2011	GIS	21.87	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
44	Goregaon	2	Sw.18	Proposed - Nirlon new-2		3/9/2011	GIS	21.87	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
45	Goregaon	2	Sw.26	Proposed - Nirlon new-2		3/9/2011	GIS	21.87	Reserved by AEML-D Due to Technical design, entire 14 Panel GIS

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
									Board was commissioned during commissioning of Borivali EHV
46	Goregaon	3	Sw.31	Proposed- Nirlon-1	Expected connectivity in FY 20-21. Cable laying underway. Receiving station completed.	3/18/2018	GIS	35.64	Allotted to AEML-D Commissioned with 3rd Tx Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
47	Goregaon	3	Sw.32	Proposed- Nirlon-2	Expected connectivity in FY 20-21. Cable laying underway. Receiving station completed. Same site as above	3/18/2018	GIS	35.64	Allotted to AEML-D Commissioned with 3rd Tx Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
48	Goregaon	3	Sw.36	Proposed- Nirlon-3	Expected connectivity in FY 20-21. Cable laying underway. Receiving station completed. Same site as above in S. No. 31 and 32	3/18/2018	GIS	35.64	Allotted to AEML-D Commissioned with 3rd Tx Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
49	Goregaon	3	Sw.37	Proposed- Cama	Expected connectivity in	3/18/2018	GIS	35.64	Allotted to AEML-D

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
					FY 20-21. Cable laying underway. Receiving station completed.				Commissioned with 3rd Tx Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
50	Goregaon	3	Sw.40	Proposed- Mahananda-1	Expected connectivity in FY 20-21. Cable laying underway. Receiving station completed.	3/18/2018	GIS	35.64	Allotted to AEML-D Commissioned with 3rd Tx Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
51	Goregaon	3	Sw.41	Proposed- Mahananda-2	Expected connectivity in FY 20-21. Cable laying underway. Receiving station completed.	3/18/2018	GIS	35.64	Allotted to AEML-D Commissioned with 3rd Tx Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV
52	Goregaon	3	Sw.44	Proposed- Siddharth nagar-1		3/18/2018	GIS	35.64	Allotted to AEML-D Commissioned with 3rd Tx Due to Technical design, entire 14 Panel GIS

Sr. No.	Substation Name	Board No.	Bay No.	Nomenclature	Prospective Plan (as per TSU)	CoD	Type	Book Value (Rs. Lakhs)	Year since un-utilized where loading is "0"
									Board was commissioned during commissioning of Borivali EHV
53	Goregaon	3	Sw.45	Proposed- Siddharth nagar-2		3/18/2018	GIS	35.64	Allotted to AEML-D Commissioned with 3rd Tx Due to Technical design, entire 14 Panel GIS Board was commissioned during commissioning of Borivali EHV