Before the

MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

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CASE No. 229 of 2022

In the matter of

Petition of Adani Electricity Mumbai Ltd.-Generation for approval of final Truing-up of Aggregate Revenue Requirement (ARR) for FY 2019-20, FY 2020-21 and FY 2021-22, Provisional Truing-up of ARR for FY 2022-23 and determination of revised ARR and Tariff for FY 2023-24 to FY 2024-25

Coram
Sanjay Kumar, Chairperson
I. M. Bohari, Member
Mukesh Khullar, Member

ORDER

Date: 31 March, 2023

M/s Adani Electricity Mumbai Limited (Generation Business) (**AEML-G**), having its office at CTS 407/A (New), Eksar, Devidas lane off SVP Road, Borivali (W), Mumbai 400103, has filed a Mid-Term Review (**MTR**) Petition, for approval of final Truing-up of Aggregate Revenue Requirement (**ARR**) for FY 2019-20, FY 2020-21, and FY 2021-22, Provisional Truing-up of ARR for FY 2022-23, determination of revised ARR and Tariff for FY 2023-24 and FY 2024-25 of 4th MYT Control Period.

The Petitioner has sought Truing-up of ARR for FY 2019-20 in accordance with the MERC (Multi Year Tariff) Regulations, 2015 (**MYT Regulations, 2015**). The Truing-up of ARR for FY 2020-21 and FY 2021-22, Provisional Truing-up of ARR for FY 2022-23 and revised forecast of ARR for FY 2023-24 and FY 2024-25 has been sought in accordance with the MERC (Multi Year Tariff) Regulations, 2019 (**MYT Regulations, 2019**).

The Commission in exercise of the powers vested in it under Sections 61 and 62 of the Electricity Act, 2003 (**EA**) and all other powers enabling it in this behalf, and after taking into consideration the submissions made by AEML-G and in the public consultation process, and all other relevant material, the Commission issues the following Order.

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LIST OF ABBREVIATIONS

Abbreviations	
ADTPS	Adani Dahanu Thermal Power Station
AEML	Adani Electricity Mumbai Ltd
AEML-G	Adani Electricity Mumbai Ltd - Generation Business
AEML-T	Adani Electricity Mumbai Ltd - Transmission Business
AEML-D	Adani Electricity Mumbai Ltd - Distribution Business
AFC	Annual Fixed Charges
ARR	Aggregate Revenue Requirement
ARB	As Received Basis
APTEL	Appellate Tribunal for Electricity
ATL	Adani Transmission Limited
Aux.	Auxiliary
A&G	Administrative and General
BEWU	Bombay Electric Worker's Union
BSES Ltd	Bombay Suburban Electric Supply Ltd.
CA	Chartered Accountant
CAPEX	Capital Expenditure
CENVAT	Central Value Added Tax
CERC	Central Electricity Regulatory Commission
CEA	Central Electricity Authority
CBEC	Central Board of Excise and Customs
CFR	Cost and Freight
CIL	Coal India Limited
CIMFR	Central Institute of Mining and Fuel Research
Commission/ MERC	Maharashtra Electricity Regulatory Commission
CPI	Consumer Price Index
CSR	Corporate Social Responsibility
CWIP	Capital Work in Progress
DA	Dearness Allowance

Abbreviations	
DPR	Detailed Project Report
DTPS	Dahanu Thermal Power Station
EA, 2003	Electricity Act, 2003
EB	Equilibrated Basis
FAC	Fuel Adjustment Cost
FDA	Fixed Dearness Allowance
FGD	Flue Gas Desulphurisation
FOB	Free on Board
FoR	Forum of Regulators
FSA	Fuel Supply Agreement
FY	Financial Year
GCV	Gross Calorific Value
GFA	Gross Fixed Assets
GGH	Gas-gas Heater
H1	First Half of Financial Year (April-19 to September-19)
H2	Second Half of Financial Year (October-19 to March-20)
HBA Indices	Harga Batubara Acuan Indices
HFO	Heavy Fuel Oil
ICI	Indonesian Coal Index
IDC	Interest During Construction
IoWC	Interest on Working Capital
IT	Income Tax
kcal	kilo Calories
kJ	kilo Joule
Kl	kilo Liter
Km	Kilo Meter
kW	kilo Watt
kWh	kilo Watt hour
LDO	Light Diesel Oil
LoA	Letter of Assurance

Abbreviations	
MAT	Minimum Alternate Tax
MCLR	Marginal Cost of funds-based Lending rate
ML	Milli Liter
MoC	Ministry of Coal
MOD	Merit Order Despatch
MoEF	Ministry of Environment, Forest and Climate Change
MSLDC	Maharashtra State Load Despatch Centre
MSPGCL	Maharashtra State Power Generation Company Limited
MT	Metric Tonne
MTBF	Mean Time Between Failure
MTR	Mid-Term Review
MU	Million Units
MW	Mega Watt
MYT	Multi Year Tariff
NABL	National Accreditation Board for Testing and Calibration Laboratories
NAPAF	Normative Annual Plant Availability Factor
NCD	Non-Convertible Debenture
NIT	Notice Inviting Tender
NTI	Non-Tariff Income
OPEX	Operational Expenditure
O&M	Operation & Maintenance
PAF	Plant Availability Factor
PBT	Profit Before Tax
PLF	Plant Load Factor
PLR	Prime Lending Rate
PPA	Power Purchase Agreement
RBI	Reserve Bank of India
R&M	Repair & Maintenance
REC	Rate of Energy Charge

Abbreviations	
REGSL	Reliance Electric Generation and Supply Limited
RInfra	Reliance Infrastructure Ltd.
RInfra-D	Reliance Infrastructure Ltd. (Distribution Business)
RInfra-G	Reliance Infrastructure Ltd. (Generation Business)
RInfra-T	Reliance Infrastructure Ltd. (Transmission Business)
RLA	Residual Life Assessment
RoE	Return on Equity
RTL	Rupee Term Loan
SBI	State Bank of India
SBAR	State Bank Advance Rate
SECL	South Eastern Coalfields Limited
SERC	State Electricity Regulatory Commission
SFOC	Secondary Fuel Oil Consumption
SHR	Station Heat Rate
SLDC	State Load Despatch Centre
TPS	Thermal Power Station
TM	Total Moisture
USD	United State Dollar
WPI	Wholesale Price Index

1 BACKGROUND AND BRIEF HISTORY

1.1 Background

1.1.1 Adani Electricity Mumbai Limited (**AEML**) is a 100% subsidiary of Adani Transmission Ltd. (**ATL**) formed post acquisition of Reliance Infrastructure Limited's integrated Generation, Transmission and Distribution businesses in Mumbai (**GTD Mumbai Business**). During FY 2018-19, vide a Scheme of Arrangement, which had been duly approved by the Hon'ble High Court of Bombay vide its Order dated 20 November, 2017 read with earlier Order dated 19 January, 2017, the Mumbai GTD Business of Reliance Infrastructure Limited was transferred to AEML (formerly known as Reliance Electric Generation and Supply Limited- REGSL). Accordingly, AEML has started its operations in Mumbai for Generation, Transmission and Distribution businesses in its own name from 29 August, 2018.

1.1.2 AEML-G operates a Coal-fired Thermal Power Plant at Dahanu, Maharashtra with an installed capacity of 500 MW (2 x 250 MW) which supplies power to Adani Electricity Mumbai Limited- Distribution Business (**AEML-D**) for its Distribution License area in Mumbai. The two Units of ADTPS were commissioned on 6 January 1995 and 29 March 1996 respectively.

1.1.3 The supply of power from Adani Dahanu Thermal Power Station (**ADTPS**) is governed under Power Purchase Agreement/Arrangement (**PPA**) approved by the Commission vide its Order dated 8 February, 2018 in Case No. 5 of 2017, for a term of 5 years, i.e., up to 22 February 2023. While issuing the MYT Order, the Commission directed the Petitioner to intimate, at least one year before the expiry of the PPA, the intention of AEML-G to extend the PPA. Subsequent to the aforementioned direction, the Commission has extended the PPA till 15 October, 2024 vide its Order dated 1 November, 2022 in Case No. 32 of 2022.

1.2 Relevant MYT Regulations, Tariff Orders, Appeals and MTR Petition

1.2.1 **Multi Year Tariff (MYT) Regulations, 2015**: The Commission notified the MYT Regulation, 2015 on 8 December, 2015 and thereafter a first amendment on 29 November, 2017. These Regulations are applicable for the 3rd Control Period from FY 2016-17 to FY 2019-20.

1.2.2 **Multi Year Tariff (MYT) Order for the 3rd MYT Control Period FY 2016-17 to FY 2019-20*:*** Vide its Order dated 18 August, 2016 in Case No. 14 of 2016, the Commission approved the Tariff for the 3rd MYT Control Period from FY 2016-17 to FY 2019-20. In the said Order, the Commission had also approved the final Truing-up for FY 2014-15 and provisional Truing-up for FY 2015-16.

1.2.3 **Mid-Term Review (MTR) order for the 3rd Control Period FY 2016-17 to FY 2019-20*:*** Vide its Order dated 12 September 2018 in Case No. 202 of 2017, the Commission had approved the final Truing-up True up of ARR for FY 2015-16 and FY 2016-17, Provisional True up of ARR for FY 2017-18, Revised ARR and Determination of Tariff for FY 2018-19 and FY 2019-20.

1.2.4 **MYT Regulations, 2019**: The Commission notified the MYT Regulations, 2019 on 1 August, 2019. These Regulations are applicable for MYT 4th MYT Control Period, i.e., from FY 2020-21 to FY 2024-25.

1.2.5 **Multi Year Tariff (MYT) Order for the 4th MYT Control Period FY 2020-21 to FY 2024-25**: Vide its Order dated 30 March, 2019 in Case No 298 of 2019, the Commission approved the Tariff for 4th MYT Control Period from FY 2020-21 to FY 2024-25. In the said Order, the Commission had also approved the final Truing-up for FY 2017-18 and FY 2018-19.

1.2.6 **Mid Term Review Petition for the 4th MYT Control Period FY 2020-21 to FY 2024-25**: AEML-G in accordance with the MYT Regulations, 2019 has filed MTR Petition for the 4th MYT Control Period on 1 November 2022, with following request:

(i) Final true-up of ARR for FY 2019-20 to be carried out in accordance with the MYT Regulations, 2015;

(ii) Final true-up of ARR for FY 2020-21 and FY 2021-22 to be carried out in accordance with the MYT Regulations 2019;

(iii) Provisional true-up of ARR for FY 2022-23 to be carried out in accordance with MYT Regulations, 2019;

(iv) Revised ARR for FY 2023-24 and FY 2024-25 of the 4th MYT Control Period under MYT Regulations, 2019;

1.2.7 The Commission has taken into consideration the above referred Orders and Regulations issued from time to time for this final and provisional Truing-up for the period FY 2019-20 to FY 2022-23 and for determination of revised Tariff for FY 2023-24 and FY 2024-25.

1.3 Pending Appeals filed before Hon'ble Supreme Court of India and Hon'ble Appellate Tribunal of Electricity (ATE)

1.3.1 Certain appeals are pending before the Hon'ble ATE, which were preferred by AEML-G against the MTR Order dated 26 June 2015, MYT Order dated 18 August 2016, MTR Order dated 12 September 2018 and MYT Order dater 30 March 2020 issued by the Commission has been highlighted below:

1.3.2 **Civil Appeal No 4825 of 2012**: AEML-G erstwhile RInfra-G filed a Civil Appeal No. 4825 of 2012 before the Hon'ble Supreme Court of India on the issue of Transit loss on imported coal, which is presently sub-judice

1.3.3 **Appeal No 225 of 2015 against Case No 222 of 2014**: AEML-G erstwhile RInfra-G filed an Appeal before the Hon'ble APTEL in Appeal No. 225 of 2015 on the following issues, which is sub-judice before APTEL:

- Disallowance of Carrying Cost on Income-Tax claimed for the period FY 2009-10, FY 2010-11 and FY 2011-12.

- Disallowance of Carrying Cost on compounded interest basis (i) in respect of revised capitalization for FY 2010-11 and FY 2011-12, reassessment of interest on loan and revenue gap on truing up for FY 2012-13 and FY 2013-14 on which carrying costs was allowed on simple interest basis and (ii) in respect of income-tax.

1.3.4 **Appeal No. 315 of 2016 against Case No. 14 of 2016**: AEML-G erstwhile RInfra-G filed an Appeal before the Hon'ble APTEL in Appeal No. 315 of 2016 on the following issues, which is sub-judice before Hon'ble APTEL:

- Disallowance of Impact of wage revision over and above the benchmark for O&M expenses for the control period FY 2016-17 to FY 2019-20;
- Consideration of payables for fuel in the computation of working capital and interest thereon.

1.3.5 **Appeal No. 442 of 2019 against Case No. 202 of 2017**: AEML-G has filed an Appeal before Hon'ble APTEL in Appeal No. 442 of 2019 against the MTR Order in Case No. 202 of 2017 on the following issues and said appeal is sub-judice before the Hon'ble APTEL.

- Actual Interest on Working Capital for FY 2016-17 was considered as Nil and difference between normative and actual Interest on Working Capital was considered as efficiency gains.
- Consideration of normative Fuel cost, O&M expenses & Interest on Working Capital while computing Profit Before Tax (PBT) for FY 2015-16 and FY 2016-17.

1.3.6 **Appeal No. 395 of 2022 against Case No 298 of 2019**: AEML-G has filed an Appeal before Hon'ble APTEL in Appeal No. 395 of 2022 against the MYT Order in Case No. 298 of 2019 on the following issues and said appeal is sub-judice before the Hon'ble APTEL:

- Disallowance of additional auxiliary energy consumption of 0.80% for tube type coal mill.
- Disallowance of Auxiliary Energy consumption of Flue Gas Desulphurisation (FGD) of FY 2018-19 and FY 2019-20.
- With respect to non-consideration of Provident Fund as uncontrollable expenses pursuant to Hon'ble Supreme Court Judgment in Civil Appeal No 6221 of 2011 and batch
- Disallowance of capital cost on account of cost and time over-run for FY 2017-18 and FY 2018-19.
- Grossing up Return on Equity (**RoE**) with Effective Tax rates for the MYT Control Period.
- Disallowance with respect to the Income tax for FY 2019-20.
- Non-consideration of refinancing charges of Rs. 14.83 Cr. and consideration of net refinancing charges proportionate to regulatory debt

- Computation of Net savings on account of refinancing
- Consideration of regulatory depreciation equivalent to repayment.
- Consideration of discount rate as pre-tax cost of debt.

1.3.7 As the appeals before the Hon'ble APTEL and the Hon'ble Supreme Court are pending, the Commission has not considered their impact in this Order.

1.4 Admission of the Petition and Public Consultation Process

1.4.1 AEML-G has filed an MTR Petition on 1 November, 2022, for approval of final Truing-up of ARR for FY 2019-20 as per MYT Regulations, 2015, final Truing-up for FY 2020-21 and FY 2021-22, Provisional Truing-up of ARR for FY 2022-23 and determination of revised ARR and Tariff for FY 2023-24 and FY 2024-25 as per MYT Regulations, 2019.

1.4.2 Preliminary data gaps on AEML-G's Petition were forwarded to AEML-G vide e-mails dated 15 November, 2022 and 14 December, 2022 to which AEML-G submitted its replies on 30 November, 2022, 10 December, 2022 and 21 December, 2022. Subsequently the Commission issued further data gaps, which were duly replied by AEML-G.

1.4.3 The Technical Validation Session (TVS) was held on 12 December, 2022. The list of persons who attended the TVS is annexed herewith as **Appendix 'I'**.

1.4.4 Subsequently, AEML-G filed the revised Petition on 21 December, 2022 incorporating replies given to data gaps raised by the Commission.

1.4.5 AEML-G's main prayers are as follows:

1. *Approve the actual revenue gap/ surplus arising on account of truing-up for FY 2019-20, FY 2020-21 and FY 2021-22 along with the carrying / holding cost as worked out in this petition;*
2. *Approve the provisional ARR and revenue gap/ surplus for FY 2022-23 as worked out in this petition;*
3. *Approve the ARR for fourth and fifth year of the Control Period i.e., for FY 2023-24 and FY 2024-25, as projected in this Petition;*
4. *Approve the Fixed Charge and Energy Charge for Adani Dahanu Thermal Power Station (ADTPS) for FY 2023-24 and FY 2024-25, as projected in this Petition;*
5. *Allow specific deviations from the MYT Regulations, 2015 and MYT Regulations, 2019, wherever sought in this Petition;*
6. *Grant specific prayers, wherever made in this Petition, for reconsideration / relaxation of rulings made in previous Tariff Orders;*

1.4.6 The Commission admitted the revised Petition on 23 December, 2022. In accordance with Section 64 (2) of the EA, 2003, the Commission directed AEML-G to publish its Petition in an abridged form inviting comments/objections on its Petition and to reply expeditiously to all suggestions and objections received from the public on its Petition.

1.4.7 AEML-G published a Public Notice inviting comments/suggestions/objections on its Petition. The Public notice was published in the following newspapers inviting public suggestions/objections and intimating the date of Public Hearing.

Table 1: Publication of Notice for Public Hearing

Newspaper	Date
Time of India (English)	28 December 2022
Hindustan Times (English)	
Maharashtra Times (Marathi)	
Saamna (Marathi)	

1.4.8 Copies of the Petition and its Executive Summary were made available to the public at AEML's offices and on AEML's website (www.adanielectricity.com/regulatory). The Public Notice and Executive Summary of the Petition were also made available on the website of the Commission (www.merc.gov.in) in downloadable format.

1.4.9 The Commission received one written suggestions or objections on the Petition, which was replied by AEML-G subsequently. An E-Public Hearing through video conferencing was held on 25 January, 2023. The list of persons who attended the Public Hearing is annexed at **Appendix 'II'**.

1.4.10 The Commission received written responses, as well as oral suggestion and objections during the E-Public Hearing which have been duly considered in Section 2 of the Order.

1.4.11 The Commission has ensured that the due process contemplated under the law to ensure transparency and public participation was followed at every stage and adequate opportunity was given to all concerned to present their say.

1.5 Organisation of the Order:

1.5.1 This Order is organized in the following Chapters;

- **Chapter 1** provides a brief history and sets out the quasi-judicial regulatory process undertaken by the Commission. A list of abbreviations with their expanded forms is included.
- **Chapter 2** set out the suggestions and objections given in writing as well as those presented during the Public Hearing. They are summarised issue-wise, followed by the response of AEML-G and ruling of the Commission on each issue.
- **Chapter 3** deals with the approval of final Truing-up of ARR for FY 2019-20, including sharing of efficiency gains/ (losses) as per MYT Regulations, 2015.
- **Chapter 4** deals with the approval of final Truing-up of ARR for FY 2020-21 and FY 2021-22 as per MYT Regulations, 2019.
- **Chapter 5** deals with the Provisional Truing-up of ARR for FY 2022-23 as per MYT Regulations, 2019.
- **Chapter 6** deals with the approval of revised ARR and determination of Tariff for FY 2023-24 and FY 2024-25 as per MYT Regulations, 2019.
- **Chapter 7** deals with the compliance of previous directives issued to AEML- G, and further directives issued in this Order.
- **Chapter 8** deals with the applicability of the Order.

2 SUGGESTIONS/ OBJECTIONS RECEIVED, AEML-G'S REPLY AND COMMISSION'S VIEW

Based on the direction of the Commission. AEML-G published the Public Notice in the daily newspapers on 28 December, 2022 inviting suggestions/objections on its MTR Petition and intimating the date of E-Public Hearing i.e. 25 January 2023. The comments/suggestions/objections received in response to the public notices, replies of AEML-G and the Commission's views are presented as below:

Objections and Comments by Dr. Ashok Pendse

2.1 AEML-D License validity and PPA with AEML-G

2.1.1 As per Hon'ble ATE judgement in respect of Noida power, it is observed that "*Any license including deemed license shall continue to be force for 25 Years as per section 15 of the Act*." Also, there is no stay on this judgment. Since the grant of license for Adani is less than 25 years, it expires on 30 March 2023. Due to this judgement, it will not expire in 2023. Subsequently all actions such PPA, and other actions need to be modified.

2.1.2 Hence Commission should give judgement on this issue on priority basis. Then only other issues can be decided.

AEML'G Response

2.1.3 The Distribution License of AEML-D is valid till 15 August 2036 which has been granted by the Commission on 11 August, 2011 in Case No. 65 of 2011. As regards PPA with AEML-G, the Commission, in the Order dated 1 November, 2022 in Case No. 32 of 2022, has approved the extension of PPA between AEML-G and AEML-D till 15 October, 2024 or actual commissioning date of successful bidder under the RE-RTC competitive bidding, whichever is earlier.

Commission's View

2.1.4 The Commission is cognizant of the PPA duration and accordingly has issued specific direction while issuing the MYT Order in Case No 298 of 2019. As per the said direction, AEML-G has filed a Petition in Case No 32 of 2022 wherein the Commission has approved the extension of PPA between AEML-G and AEML-D till 15 October 2024 or actual commissioning date of RE-RTC project approved under the competitive bidding, whichever is earlier. Further, it is also a matter of the fact that the Distribution Licence granted to AEML-D is valid till 15 August 2036.

2.2 Landed cost of coal and high variable rate of ADTPS

2.2.1 As per MOD, following are variable charges from April to December 2022 of Dahanu station.

Month	Variable Charge 2022 (Rs/unit)
April	3.62
May	4.89
June	4.75
July	4.96
August	5.53
September	4.60
October	5.34
November	5.83
December	4.54

2.2.2 ADTPS has high variable cost of power and therefore its scheduling is poor, which is reflecting in lower PLF. In November 2021, ADTPS was ranked 43 among 51 stations in Maharashtra. Hence, there should be short term PPA of AEML-D with ADTPS and ADTPS should have one unit as standby. Rest of the power should be bought by AEML-D from cheapest sources

AEML'G Response

2.2.3 The rate of generation forecast from ADTPS is much lower compared to the short-term power rate available in the market at this time. In any event, power procurement management is done by AEML-D on the basis of the rate from AEML-G and short-term power and decisions for backing down are taken accordingly, in order to optimize power purchase cost.

Commission's View

2.2.4 The Commission is of the view that tariff of ADTPS is determined as per provisions of Tariff Regulations. ADTPS has PPA with AEML-D. As per State Grid Code, ADTPS declares its availability, whereas dispatch schedule is given by Maharashtra State Load Dispatch Centre (MSLDC) based on drawal schedule of AEML-D as per decentralized Merit Order Dispatch (MOD) principles. The issue raised pertains to power purchase cost optimization by AEML-D. AEML-D is required to optimize its power purchase cost having regard to the rates of all approved sources including the ADPTS subject to appropriate instructions from MSLDC regarding scheduling/re-scheduling of generation of ADPTS .

2.3 Onsite transit loss of imported coal at Dahanu vis-à-vis Coal transportation from Dahej Port

2.3.1 As mentioned in the Petition, Dahanu port gets closed from May to September. However, all calculations from October to March and April should be considered for Dahanu transported coal only.

2.3.2 It is necessary to evaluate the cost of coal received through Dahej port vis a vis the cost of coal received through Dahanu port. Also, Gujarat port is bulk buying and Adani get price advantage so that it offsets additional cost of transit loss of coal and freight charges.

AEML'G Response

2.3.3 The reasons for procurement of imported coal through Dahej port have been provided in the section pertaining to provisional truing up of FY 2022-23. AEML-G had to import coal through Dahej port, as raw coal that it was procuring earlier, was not available by April 2022. Also, Dahanu port, not being all-weather, coal import could not be done at that time through Dahanu port. Considering the existing contract of AEML-G, the price of imported coal, if it had been procured the same through Dahanu port, would have been Rs. 19,233/MT as against imported coal price of Rs. 15,236/-, which was procured in May 2022 through Dahej port through competitive bidding due to the significant increase in the background indices, with which this price is linked. Hence, the cost of coal procured through Dahej port has been lower even after adding cost of transportation from Dahej to Dahanu and considering transit losses at 0.8%, compared to the cost that would have been incurred in case of procurement through Dahanu port.

Commission's View

2.3.4 The Commission is of the view that the regulated entities need to explore options that can help reduce their cost to pass on the benefits to the end consumers. However, the treatment of sourcing of coal from Dahanu and Dahej port and impact of the same has been dealt in detail in subsequent part of this Order.

2.4 PLF projections for FY 2023-24 and FY 2024-25

2.4.1 PLF for years 2023-24 and 2024-25 has been projected the same as the availability. PLF depends upon ranking in MOD as per Variable Cost. Also, the Gross Generation figures considered by AEML-G are higher. The Commission should consider the same as per earlier years and not same as that proposed by AEML-G and accordingly, all other calculations should be modified.

AEML-G's Response

2.4.2 The cost of generation considering the GCV and price of domestic coal works out to Rs. 3.84/kWh. Considering the prevailing prices of power in short term market, availability of power from ADTPS (generated using domestic coal) to the maximum extent is beneficial for AEML-D consumers. Considering this fact, AEML-D has asked AEML-G to make arrangement for additional quantum of domestic coal to generate at full capacity only on domestic coal. In that case, ADTPS will run at maximum capacity and therefore the PLF of ADTPS has been projected at around 93%, i.e., upto the level of projected availability of ADTPS. However, the actual PLF of ADTPS in future will depend on the actual cost of generation vis-a-vis the cost of power available from short term market. The actual PLF in future will therefore depend on the generation schedule as per the requirement of AEML-D in accordance with the MERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2019.

Commission's View

2.4.3 The Commission has dealt with this issue in relevant section while approving the operational parameters for FY 2023-24 and FY 2024-25.

2.5 Matters pending in Appeals against past MYT/MTR Orders of AEML-G

2.5.1 The Appeals filed by AEML-G are pending before the Hon'ble ATE and till then all issues should be as per the Commission's ruling.

AEML-G's Response

2.5.2 For determining various components of ARR in the MTR Petition, AEML-G has adopted the methodology followed by the Commission in earlier Orders and same is without prejudice to its contentions in the pending Appeals. Wherever AEML-G has sought specific deviation, it has provided detailed explanation for consideration of the Commission.

Commission's View

2.5.3 The Commission has taken a view which is consistent with the earlier Orders and also consistent with the MYT Regulations.

2.6 GCV loss in transit for raw coal

2.6.1 The GCV loss in transit shown for FY 2023-24 and FY 2024-25 is 576 kCal/kg. The Commission should set some guidelines on limiting the GCV loss as it is very high.

AEML-G's Response

2.6.2 As per Regulation 50.6 of the MYT Regulations, 2019, maximum 300 kCal/kg of GCV loss is allowable between As Billed GCV and As Received GCV of primary fuel. In case of ADTPS, a blend of washed coal, raw coal and imported coal is used as primary fuel. The difference between blended As Billed GCV and blended As Received GCV is lower than the limit of 300 kCal/kg in FY 2020-21, FY 2021-22 and FY 2022-23. As regards FY 2023-24 and FY 2024-25, it is submitted that although the GCV loss in transit for raw coal has been shown as 576 kCal/kg (based on actual GCV loss in transit from July 2022 to September 2022), it has no impact on the calculation of Energy Charge for FY 2023-24 and FY 2024-25, because cost of generation has been computed using washed coal only. In any case, even if raw coal is used for generation in future, the GCV loss for blended coal will remain regulated at a maximum of 300 Kcal/kg.

Commission's View

2.6.3 The issue of GCV loss is already addressed by the Commission in the MYT Regulations, 2019 wherein maximum 300 kCal/kg of GCV loss is allowable between As Billed GCV and As Received GCV of primary fuel.

2.7 Total per unit cost of ADTPS

2.7.1 AEML-G has suggested ratio of washed : imported : raw coal as 70: 10:20 for FY 2023-

24 and FY 2024-25. The variable cost in that case works out to be Rs 4.74/kWh. The per unit fixed cost works out to Rs. 1.20/kWh and the total cost works out to Rs 5.94/kWh, which is very high

AEML-G's Response

2.7.2 The generation cost of Rs. 4.74/kWh considering the ratio of 70:10:20 (of washed: imported: raw coal) has been presented only as a scenario under Fuel Utilization Plan for FY 2023-24 and FY 2024-25. The Energy Charge projected by AEML-G for FY 2023-24 and FY 2024-25 is Rs. 3.84/kWh considering 100% availability of domestic coal only. However, the actual Energy Charge in future will depend on the actual coal utilization, including imported and raw coal, if any. Further, the per unit fixed cost works out to Rs. 1.34/kWh and Rs. 1.09/kWh for FY 2023-24 and FY 2024-25 respectively. The per unit fixed charge for FY 2023-24 is higher due to past gap of Rs. 104.77 Cr (till FY 2022-23) proposed to be recovered in FY 2023-24. Considering the fixed charges, the total per unit charges work out to 5.18/kWh for FY 2023-24 and Rs. 4.93/Kwh for FY 2024-25.

Commission's View

2.7.3 The Commission has noted the response of AEML-G. The Commission has dealt the issue in relevant section while approving the operational parameters for the years in question.

3 TRUING-UP OF ARR FOR FY 2019-20

3.1 Background

3.1.1 The Commission in MYT Order has undertaken the Provisional Truing-up of ARR for FY 2019-20. AEML-G, in the instant Petition, has sought the final Truing-up of ARR for FY 2019-20 based on the actual expenditure and revenue as per the Audited Account statements for FY 2019-20 and MYT Regulations, 2015. It has also submitted the reasons for difference in actual expenses for FY 2019-20 as compared to those approved in the MYT Order dated 30 March, 2020 in Case No. 298 of 2019.

3.1.2 The Commission, vide its Order dated 8 February, 2018 in Case No. 5 of 2017, had approved the Power Purchase Agreement (PPA) between AEML-D (earlier RInfra-D) and AEML-G (earlier RInfra-G) for a period of 5 years, i.e., till 22 February, 2023. Further, the Commission, vide its Order dated 1 November, 2022, in Case No. 32 of 2022 has extended the PPA till 15 October, 2024. Accordingly, the entire capacity of 500 MW from ADTPS is tied up with AEML-D.

3.1.3 AEML-G had submitted the audited accounts for FY 2019-20 on a consolidated basis for the Company. The Commission had directed AEML-G to submit the audited statements pertaining to the generation business. AEML-G has submitted the segregated audited statements for generation business in its reply to data gaps. Considering the details provided and additional information obtained during these proceedings, as per the provisions of MYT Regulations, 2015, the Commission has undertaken the final Truing-up as set out below.

3.2 Norms of operation

3.2.1 The parameters for which norms of operation have been specified under the MYT Regulations, 2015 for thermal generating stations are as follows:

(i) Availability;
(ii) Plant Load Factor (PLF);
(iii) Auxiliary Energy Consumption;
(iv) Station Heat Rate (SHR);
(v) Secondary fuel oil consumption (SFOC) and
(vi) Transit and handling loss

3.2.2 AEML-G has submitted the actual performance of ADTPS in FY 2019-20. The Commission has analysed and approved the actual operational parameters based on the norms specified in MYT Regulations, 2015. Operational Parameters such as Availability, SHR, SFOC etc. are better than the norms, however, actual PLF and Transit and handling losses as claimed by AEML-G are below the norms as defined in MYT Regulations, 2015. AEML-G’s submissions on the actual performance for FY 2019-20 and the Commission’s analysis are detailed hereunder.

3.3 Availability for FY 2019-20

AEML-G's Submission

3.3.1 ADTPS has maintained availability of 91.93% for FY 2019-20 which is well above the Normative Annual Plant Availability Factor (NAPAF) of 85% specified in MYT Regulations, 2015.

3.3.2 The Availability claimed by AEML-G is on the basis of actual performance recorded and as certified by MSLDC for the respective years. AEML-G has submitted MSLDC certificate for FY 2019-20 in support of the Availability claimed by it.

Commission's Analysis and Ruling

3.3.3 As per Regulation 44.1 of the MYT Regulations, 2015, full Annual Fixed Charges (AFC) shall be recovered only if the actual Availability is equal to or higher than the target i.e. 85%. AEML-G has provided MSLDC certificate to substantiate its claim for Availability.

Table 2: Availability and PLF Certified by MSLDC for FY 2019-20

Month, FY 2019-20	Declared Generation by DTPS (MU)	MSLDC Scheduled Ex Bus Generation for DTPS (MU)	Actual Ex Bus Generation (MU)	Availability (%)	PLF (%) at Normative Aux Consumption	PLF (%) at Actual Aux Consumption	Backing Down (MU)
Apr-19	317.49	278.34	278.63	97.83	85.86	85.43	39.15
May-19	338.52	280.91	280.83	100.99	83.78	83.48	57.61
Jun-19	327.6	261.75	262.44	100.99	80.9	80.65	65.85
Jul-19	338.06	269.55	270.44	100.85	80.68	80.3	68.51
Aug-19	338.35	279.16	279.11	100.92	83.25	82.84	59.19
Sep-19	299.23	237.62	237.56	92.42	73.37	73.19	61.61
Oct-19	203.42	167.5	168.26	60.81	50.3	50.43	35.92
Nov-19	323.92	275.26	276.11	99.83	85.09	84.68	48.67
Dec-19	328.54	288.62	289.24	98.09	86.35	85.79	39.92
Jan-20	196.33	169.37	169.69	58.47	50.35	50.72	26.96
Feb-20	291.89	247.19	247.89	93.13	79.09	78.68	44.7
Mar-20	333.57	265.62	266.48	99.63	79.16	79.16	67.95
Total	**3836.92**	**3020.89**	**3026.69**	**91.93**	**76.5**	**76.22**	**616.03**

3.3.4 The Commission has considered the actual Availability as certified by MSLDC vide letter nos. CELD/Tech-SO/00650 dated 25 March, 2021 and taken cognizance of the same while approving the Availability.

Table 3: Availability approved by the Commission for FY 2019-20

FY	Unit	Normative	MYT Order	AEML Submission	MSLDC Certificate	Approved in Order
FY 2019-20	%	85	93.32	91.93	91.93	91.93

3.3.5 Accordingly, the Commission approves the Availability as 91.93% for Truing-up of ARR for FY 2019-20.

3.3.6 As per Regulation 44.1 of MYT Regulations, 2015 recovery of full AFC is allowable at target Availability of 85%. Since the actual Availability of 91.93% for FY 2019-20 is higher than the target Availability, the Commission allows the full recovery of Fixed charges (AFC) for FY 2019-20.

3.4 PLF and Gross Generation for FY 2019-20

AEML-G's Submission

3.4.1 AEML-G has achieved PLF of 76.22% with gross generation of 3,347.42 MU in FY 2019-20 respectively.

3.4.2 The actual PLF for FY 2019-20 was below normative PLF of 85% due to backing down instructions received from MSLDC to the tune of 616.03 MU in FY 2019-20 which resulted in the lower PLF and the same is also certified by MSLDC.

Commission's Analysis and Ruling

3.4.3 Regulation 44.3 of MYT Regulations, 2015 specifies the target PLF of 85% for thermal generating stations, to be eligible for the incentive for actual generation in excess of ex-bus energy corresponding to target PLF.

3.4.4 The Commission, vide its MYT Order, had provisionally approved the PLF of 83.37% and Gross generation of 3651.47 MU. The Commission had relied upon the actual PLF of H1 of FY 2019-20 and provisional estimate for H2 of FY 2019-20.

3.4.5 The Commission observes that the actual PLF and gross generation are lower than those approved in the MYT Order. Backing down instructions received from MSLDC to the tune of 616.03 MU is the main reason for such low PLF below norms for FY 2019-20.

3.4.6 The Commission has verified the actual PLF achieved by ADTPS, from MSLDC certificates, as 76.22% at actual Auxiliary Energy Consumption of 9.75% for FY 2019-20. The Commission while approving the PLF has also considered the actual Auxiliary Consumption of FGD over and above the normative Auxiliary Consumption of 8.5%.

3.4.7 Accordingly, the Commission approves the PLF of 76.22% based on actual Auxiliary Energy Consumption (including FGD) for FY 2019-20 as per MSLDC Certificate.

3.4.8 Since the actual PLF for FY 2019-20 is below the target PLF of 85%, AEML-G does not qualify for the incentive for actual generation in excess of ex-bus energy corresponding to target PLF, as per the norms specified in MYT Regulations, 2015.

Table 4: PLF and Gross Generation Approved by the Commission

FY	Particulars	Unit	Normative*	MYT Order	MTR Petition	Approved in Order
FY 2019-20	Gross Generation	MU	3,359.96	3,651.47	3,347.42	3,347.42
	PLF	%	76.50	83.37	76.22	76.22

**-Normative Gross Generation has been calculated based on net generation and normative auxiliary consumption*

3.4.9 The Commission approves the Plant Load Factor as 76.22% and actual gross generation of 3,347.42 MU corresponding to normative gross Generation of 3,359.96 as per the MSLDC certificate and the actual Auxiliary Consumption (including actual consumption for FGD) for FY 2019-20.

3.5 Auxiliary Energy Consumption and Net Generation for FY 2019-20

AEML-G's Submission

3.5.1 The Auxiliary Energy Consumption of ADTPS (excluding FGD) was 8.16% for FY 2019-20 as compared to the normative consumption of 8.5% allowed as per the MYT Regulations, 2015.

3.5.2 With regards to the FGD consumption, for the Truing-up of FY 2019-20, AEML-G has claimed actual Auxiliary Energy Consumption for FGD of 47.67 MU. Considering the Auxiliary Energy Consumption of FGD as 47.67 MU, the total actual Auxiliary Energy Consumption works out to 9.58% and normative Auxiliary Energy Consumption works out to 9.92% for FY 2019-20.

3.5.3 AEML-G has achieved actual net generation of 3,026.69 MU in FY 2019-20.

Commission's Analysis and Ruling

3.5.4 Regulation 44.15 of the MYT Regulations, 2015 specifies Auxiliary Energy Consumption for existing Thermal power plants as 8.5% excluding FGD. The said Regulations do not specify any specific norms for Auxiliary Energy Consumption for the FGD plant, however, the proviso to Regulation 44.13 of the MYT Regulations, 2015 states that the additional Auxiliary Energy Consumption shall be allowed on case-to-case basis after prudence check by the Commission.

3.5.5 The Commission, in its MYT Order, has approved the Auxiliary Consumption of FGD as 51.08 MU, recognizing the improving GCV of coal and its impact on improvement of auxiliary consumption. However, the Commission has allowed the auxiliary consumption of FGD subject to prudence check of the actual claim by AEML-G.

3.5.6 To verify the claim of FGD consumption, the Commission has analysed the past performance of the plant and observes that FGD-GGH losses were higher in both the Units resulting in rise in Auxiliary Energy Consumption of FGD in FY 2017-18 onwards due to fall in GCV, higher backing down of stations, higher air ingress in boiler furnace and flue gas ducts and air preheater seal leakages. The comparative performance of the plant in relation to FGD consumption is outlined as below:

Table 5: FGD consumption of DTPS for last 6 years

Operational Parameter	Units	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
PLF	%	**91.26**	87.09	85.45	80.69	82.58	**76.50**
Aux Power FGD	MU	**47.85**	45.12	45.89	51.05	53.18	**47.67**
GCV (Washed Coal)	kcal/kg	**3,869**	3,997	3,960	3,743	3,761	**3903**

3.5.7 From the above table, it is observed that as GCV of the coal and PLF have been reducing, the FGD consumption has been increasing. However, the FGD consumption of FY 2019-20 is comparable with FY 2014-15 considering the fact that GCV are almost similar in both the years.

3.5.8 Further, AEML-G, in reply to the data gaps, has submitted that in the past, specific coal consumption was higher due to lower GCV of coal which has resulted into higher coal consumption which led to increase in total air flow and hence loading of FD Fans, ID Fans and Booster fans increased, which in turn led to increase in FGD auxiliary power consumption.

3.5.9 Based on the above submission and analysis of the past performance, the Commission considers the actual FGD consumption of 47.67 MU as submitted by AEML-G for computation of the total auxiliary consumption of the plant. **Accordingly, the Commission approves the Auxiliary Energy Consumption for FGD for FY 2019-20 as claimed by AEML-G**.

3.5.10 The Auxiliary Energy Consumption, excluding that of FGD, is below the normative stipulation, hence the Commission has considered the actual Auxiliary Energy Consumption and net generation as submitted by AEML-G for the Truing-up of ARR for FY 2019-20 as shown in the Table below:

Table 6: Auxiliary Consumption and Net Generation for FY 2019-20 as approved by the Commission

Particulars	Unit	Normative	MYT Order	MTR Petition	Approved in Order
Gross Generation	MU	3,359.96	3,651.47	3,347.42	3,347.42
Auxiliary Energy Consumption excluding FGD	MU	285.60	310.38	273.05	273.05
	%	8.50	8.50	8.16	8.16
Auxiliary Energy Consumption of FGD	MU	47.67	51.05	47.67	47.67
Total Auxiliary Energy Consumption including FGD	MU	333.27	361.43	320.72	320.72
	%	9.92%	9.90%	9.58%	9.58%
Net Generation	**MU**	**3,026.69**	**3,290.05**	**3,026.69**	**3,026.69**

3.5.11 The actual Auxiliary Energy Consumption as claimed by AEML-G has also been verified from MSLDC certificates as discussed in **Para 3.4 of this Order**.

3.5.12 The Commission approves total actual Auxiliary Energy Consumption of 9.58% and normative Auxiliary consumption of 9.92% for FY 2019-20, including actual Auxiliary Consumption for FGD. Accordingly, the Commission approves Net Generation of 3,026.69 MU for FY 2019-20.

3.5.13 As per MYT Regulations, 2015 the Commission has considered the Auxiliary Energy Consumption as a controllable parameter. Hence, the difference between the actual Auxiliary Energy Consumption and the normative Auxiliary Energy Consumption for FY 2019-20 been considered for computing the sharing of efficiency gains and has been dealt in subsequent section of this Order.

3.6 Station Heat Rate for FY 2019-20

AEML-G's Submission

3.6.1 The actual SHR submitted is 2263 kCal/kWh in FY 2019-20 which is better than the norm of 2450 kCal/kWh as specified in the MYT Regulations, 2015.

3.6.2 AEML-G has proposed the sharing of gains and losses in total variable charges, on account of variation in norms of operation, in accordance with the MYT Regulations, 2015.

Commission's Analysis and Ruling

3.6.3 As per MYT Regulations, 2015 the normative SHR is 2450 kcal/kWh for FY 2019-20. AEML-G has submitted the actual SHR of 2263 kCal/kWh for FY 2019-20, which is well within the normative SHR of 2450 kCal/kWh.

3.6.4 Accordingly, the SHR approved by the Commission is as shown in Table below:

Table 7: Station Heat Rate for FY 2019-20 as approved by the Commission

Particulars	Unit	Normative	MYT Order	MTR Petition	Approved in this Order
Station Heat Rate	kCal/kWh	2450	2450	2263	2263

3.6.5 The Commission approves the actual Station Heat Rate of 2263 kCal/kWh for Truing-up of FY 2019-20.

3.6.6 As the Station Heat Rate is a controllable performance parameter, the sharing of gains or losses on the difference between the actual and the normative Station Heat Rate has been computed as per the MYT Regulations, 2015 and has been dealt in subsequent section of this Order.

3.7 Secondary Fuel Oil Consumption for FY 2019-20

AEML-G's Submission

3.7.1 The actual Secondary Fuel Oil Consumption (**SFOC**) was 0.14 ml/kWh in FY 2019-20, which is lower than the norms of 0.50 ml/kWh as approved by the Commission in its MYT Order.

Commission's Analysis and Ruling

3.7.2 As per Regulation 44.11 of the MYT Regulations, 2015, the normative SFOC for coal based Thermal Generating Stations is 0.50 ml/kWh.

3.7.3 The Commission observes that the actual SFOC is significantly lower than the norm and therefore, the Commission has accepted the claim of AEML-G and allows the actual SFOC.

Table 8: Specific Fuel Consumption for FY 2019-20 as approved by the Commission

Particulars	Unit	Normative	MYT Order	MTR Petition	Approved in this Order
Specific Fuel Consumption	ml/kWh	0.50	0.50	0.14	0.14

3.7.4 The Commission approves the actual Specific Fuel Consumption of 0.14 ml/kWh for Truing-up of FY 2019-20.

3.7.5 SFOC being a controllable parameter, the difference between actual SFOC of 0.14 ml/kWh for FY 2019-20 and normative SFOC of 0.50 ml/kWh is considered for computing the sharing of efficiency gains as per the MYT Regulations, 2015 and has been dealt in subsequent section of this Order.

3.8 Operational Parameters Approved by the Commission

3.8.1 Based on the above approach as adopted by the Commission, the approved operational parameters are summarized as per Table below. The sharing of efficiency gains/ losses is described in the subsequent section.

Table 9: Summary of Operational Parameters for FY 2019-20 as approved by the Commission

Particulars	Unit	Normative	MYT Order	MTR Petition	Approved in Order
Availability	%	91.93	93.32	91.93	91.93
PLF	%	76.50	83.37	76.22	76.22
Gross Generation	MU	3,359.96	3,651.47	3,347.42	3,347.42
Auxiliary Consumption excluding FGD	MU	285.60	310.37	273.05	273.05
	%	8.50	8.50	8.16	8.16
Aux Consumption of FGD	MU	47.67	51.05	47.67	47.67
Total Auxiliary Consumption excluding FGD	MU	333.27	361.43	320.72	320.72
	%	9.92%	9.90%	9.58%	9.58%
Net Generation	MU	3,026.69	3,290.05	3,026.69	3,026.69
SHR	kCal/kWh	2450	2450	2263	2263
SFOC	ml/kWh	0.50	0.50	0.14	0.14

3.9 Transit and Handling Loss for FY 2019-20

AEML-G's Submission

3.9.1 The Transit and handling Loss in case of domestic washed coal and imported coal has been 0.99% and 0.17% respectively in FY 2019-20. The Transit and handling loss in case of washed coal was higher than the normative parameter approved by the Commission, however, the Transit and handling loss in case of imported coal is lower than the normative parameter approved by the Commission in its MYT Order.

3.9.2 AEML-G has considered the actual audited landed cost of FY 2019-20 and has considered the normative transit lost to calculate the landed cost for FY 2019-20 to evaluate the efficiency gains.

3.9.3 The actual transit loss of washed coal in FY 2019-20 is more than the normative transit loss, however, they have considered normative transit loss of 0.80% for washed coal for computing the normative fuel cost.

Commission's Analysis and Ruling

3.9.4 As per the Regulation 44.19 of MYT Regulations, 2015, the norms for Transit and handling Loss for domestic coal is 0.80% for non-pit head Generating stations and is 0.2% in case of imported coal.

3.9.5 The actual transit loss for washed coal is higher than the normative transit loss allowable as per the MYT Regulations, 2015. However, AEML-G has claimed the normative transit loss for FY 2019-20 for calculation of normative fuel cost.

3.9.6 AEML-G, in reply to the query raised by the Commission for the clarification on the higher transit loss as compared to the norms, has stated that the actual transit loss of washed coal in FY 2019-20 was more than normative due to the following reasons:

- Washed coal is transported over a distance of 1400 kms (from Korba, Chhattisgarh to ADTPS in Maharashtra) in open railway wagons. The transportation time from source to destination is approximately 90 hrs with multiple stoppages enroute, hence there is pilferage of coal during transportation.
- Two different weighing systems are deployed for weight measurement i.e. at loading end Railways has provided in-motion weighing system whereas ADTPS uses static type weighing system. Due to different weighing systems, the transit loss could appear to be higher.
- AEML-G is not claiming actual transit losses and is limiting its claim to normative loss of 0.8% only.

3.9.7 AEML-G further stated that as per the contract of imported coal, the delivery point is Dahanu anchorage port, which is 10 to 12 nautical miles away from Dahanu jetty. Therefore, coal is transported from Vessel from anchorage port to jetty through barges and from jetty to coal yard through trucks and accordingly there are transit losses. Hence, there is actual transit loss during transport of coal from vessel to Dahanu coal yard and, in accordance with the Regulations, has claimed the normative transit losses of 0.2%.

3.9.8 The Commission approves normative Transit and handling Loss of 0.80% on domestic coal and 0.20% on imported coal as per Regulation 44.19 of MYT Regulations, 2015.

3.9.9 Being a Controllable Parameter, the Commission has computed the sharing of gains/losses on account of the difference between the actual and normative Transit Loss as per MYT Regulations, 2015 and has been dealt in subsequent section of this Order.

3.10 GCV and Landed Cost of Fuel for FY 2019-20

AEML-G's Submission

3.10.1 The GCV and the landed coal cost as approved in MYT Order and as considered by

AEML-G is provided in the following table:

Table 10: As Fired GCV and Landed cost of Coal and Secondary Fuel Oil for FY 2019-20 as submitted by AEML-G

Particulars	Unit	MYT Order	Actual
Washed Coal	kCal/kg	3,912	3,903
Imported Coal	kCal/kg	4,029	4,042
LDO	kCal/kl	10,759	10,803
Washed Coal	Rs./MT	5,356	5,463
Imported Coal	Rs./MT	5,426	5,236
Secondary Fuel Oil	Rs./Kl	46,317	48,153

3.10.2 The actual 'As-fired GCVs' for FY 2019-20 as a whole are slightly different from the values considered in MYT Order. The actual As-fired GCVs are derived considering the monthly As-fired GCVs and the monthly consumed quantity of coal for FY 2019-20.

3.10.3 As per MYT Regulations, 2015, any variation in price and calorific value of fuel as received at unloading point less actual stacking loss subject to the maximum stacking loss of 150 kCal/kg has been passed through in Fuel Adjustment Charge (FAC).

3.10.4 For FY 2019-20, a stacking loss claimed is 44 kcal/kg and 228 kcal/kg for domestic washed coal and imported coal respectively and thus the weighted average stacking loss claimed is 109 kcal/kg. Accordingly, for FY 2019-20 as a whole, the actual stacking loss for blended coal works out to 109 kCal/kg, which is lower than the norm of 150 kCal/kg, has been considered for the purpose of Truing-up.

Commission's Analysis and Ruling

3.10.5 As sought by the Commission, AEML-G provided details of actual GCV for primary and secondary fuel for FY 2019-20.

3.10.6 The Commission had sought the following additional information with respect to imported coal, domestic washed coal and liquid fuel for FY 2019-20:

- Month-wise details of opening fuel stock, fuel received, fuel consumed and closing fuel stock;
- Month-wise calculation for GCV 'as fired';
- Copies of fuel bills for domestic washed coal, imported coal and liquid fuel.

3.10.7 The GCV claimed by AEML-G is the weighted average GCV of fuel received and the opening stock of each month for FY 2019-20. The Commission analysed the fuel bills and information provided relating to quantity and GCV and verified the same with audited accounts.

3.10.8 Also, as per direction of the Commission, AEML-G submitted that an independent Third Party Agency has already been appointed, i.e., Central Institute of Mining and Fuel Research (CIMFR) for undertaking the work of sampling and analysis, of coal at the loading end on behalf of both the ADTPS and SECL.

3.10.9 However, AEML-G has provided GCV of washed coal at washery end and at ADTPS end and the Commission also sought the data of GCV at loading of (Coal India Ltd.) CIL end on Equilibrated basis which was provided by AEML-G. AEML-G has provided the data and submitted that the coal lifted from SECL is transported to washery through trucks and the GCV measurement at mine end is done by selecting coal from trucks on random basis. The quantum of coal supplied to washery and quantum of washed coal supplied to ADTPS from washery during the year are different as certain stock are either in transit or still with washery. Hence the GCV of coal at mine end and GCV of coal at washery end / ADTPS end cannot be compared one to one basis. The Commission has noted the submission made by AEML-G and has tried to consider GCV (As Billed) on weighted average basis.

3.10.10 The MYT Regulations, 2015 specify that the GCV of coal be considered on "As Fired" basis. Accordingly, the Commission has considered the calorific value ('As Fired' GCV) of coal and actual proportion (blending) of domestic and imported coal, as submitted by AEML-G. The Commission has considered the GCV of fuels for final Truing-up of fuel cost for FY 2019-20, as submitted by AEML-G.

3.10.11 As per MYT Regulations, 2015, maximum stacking loss of 150 kcal/kg is allowed wherein the actual overall average stacking loss is 109 kcal/kg for FY 2019-20 which is below the norms and is approved by the Commission.

3.10.12 The detailed approach for calculation of fuel cost for imported coal and relevant parameters is provided in the subsequent section.

Landed cost of Coal

3.10.13 The Commission notes that similar to GCV, the landed cost of coal and LDO as approved by the Commission during MYT Order while carrying out provisional Truing-up for FY 2019-20 was based on H1 data of FY 2019-20.

3.10.14 ADTPS uses both Domestic (washed) and Imported coal for its generation. With regards to Domestic coal, ADTPS procures it from the South Eastern Coalfields Limited (**SECL**) having a GCV range band of G-10 & G-11 with GCV in the range of 4000 kCal/kg.

3.10.15 The Commission observes that the landed cost data for entire financial year takes into account the weighted average impact of coal received and costs paid for each agency involved in coal value chain starting from SECL, Railways, Coal Handling agents, Coal washing agents etc. Similarly, the imported coal has been procured on spot basis, and the prices are dependent upon fluctuating GCV based coal indices in global market.

Washed Coal

3.10.16 The landed cost (i.e., Basic cost + Freight + Taxes/Duties + Handling charges + Other charges + Washery / Beneficiation Charges) of domestic washed coal is considered for energy charge computation as claimed by ADTPS.

3.10.17 The basic price of raw coal available at the boundary of mine is as per price circular issued by SECL on time to time basis. This raw coal is then transported to Coal washery and gets washed. Thereafter such washed coal is despatched to ADTPS by first transporting coal from washery to Railway Siding and thereafter transporting the washed coal through Rail to ADTPS station. Accordingly, washery charges, railway freight charges, local transport charges and other handling charges are added to above basic cost of coal to arrive at the landed cost of coal at ADTPS station. The Commission has considered the landed cost per MT charges as submitted by AEML-G calculated on the Moving Average Price Method on the basis of coal inventory stock pertaining to previously purchased coal and recently added coal as shown in Table below:

Table 11: Landed Cost of Washed Coal for FY 2019-20

Particulars	Unit	Actual Fuel Cost	Normative Fuel Cost
Basic Cost	Rs/MT	2,170.85	2,170.85
Freight	Rs/MT	2,735.92	2,735.92
Fuel Handling Charges (Local Transportation Charges, Beneficiation Charges and other handling charges)	Rs/MT	202.59	202.59
Any other charges (Liaisoning and loading supervision, Weighment, Maintenance of GCV, Third Party Sampling Charges etc)	Rs/MT	299.63	299.63
Total Price excluding Transit Loss	**Rs/MT**	**5,408.99**	**5,408.99**
Transit Loss	%	0.99%	0.80%
Total Price including Transit Loss	**Rs/MT**	**5,463.08**	**5,452.61**

3.10.18 It was observed that the Raw coal procured from SECL is 1.90 MMT and the washed coal procured from washery was 1.61 MMT resulting in loss of 15%. Accordingly, it was noticed that yield of the raw coal post beneficiation process (Washery) is around 85% which is in line with the guarantee provided in the beneficiation agreement.

Imported Coal

3.10.19 It was observed that AEML-G has procured 860499 MT imported coal in FY 2019-20. The Commission has asked AEML-G to confirm if the imported coal has been procured through competitive bidding. In its response, AEML-G stated that it has procured imported coal through competitive bidding and submitted the relevant documents to the Commission.

3.10.20 As per AEML-G, the imported coal supply agreement with M/s Taurus Commodities General Trading LLC was signed and is valid till 13 November, 2024. AEML has invited bids from technically competent and financially sound coal traders / suppliers / miners for long term supply of non-coking coal for its 500 MW Dahanu Thermal Power Station through International Competitive Bidding (ICB) process and Bidding process was conducted in two stages; Technical bid and Price bid as submitted by bidders as per clause 11, 12 and 12.6 of "Instruction to Bidder" (ITB). Evaluation of bids was carried out to identify the most advantageous Bid(s) to AEML-G. The Price bids of those bidders whose Technical bids were found responsive in accordance with ITB clauses were opened to identify the "Most Favourable Bids". For the purpose of Bid evaluation, CIF Price of the Coal as quoted by Bidder duly complying with the guaranteed specification of coal as per ITB clause were considered. Evaluation was based on the CIF price ($/MT) at Point of Delivery as per the draft Coal Supply Agreement, forming part of Tender document. All the responsive bids received were compared for the purpose of evaluation and the Bidder offering lowest "evaluated base CIF price per tonne" was selected as the L1 Bidder. Based on evaluation of Price bids, bid submitted by M/s Taurus Commodities General Trading LLC was found to be Most Favourable Bid and accordingly LOI was issued, and Coal Supply Agreement (CSA) was signed with M/s Taurus Commodities General Trading LLC.

3.10.21 Under the Contract, the Free on Board (FOB) price is to be calculated as per the formula below and is subject to variations for payment purposes, considering the specified indices as Bill of lading date for each shipment: The price of coal is linked to New Castle index and Richards bay index.

$$\text{FOB} = \frac{\{API\ 4\ Index + NEWC\ Index\}\ X\ 0.90\ X\ 4400}{2 \times 6300}$$

3.10.22 Mainly international trade of coal takes place considering Newcastle and Richards Bay Indices (API 4 Index) and all vendors provide their quotes linked to the said Indices, pro-rated to the GCV required. Even in the case of competitive bidding, the bidding parameter is the spread (discount / premium) which the different vendors submit in their bids and hence the price discovered through the bidding process is also essentially linked to the Indices.

3.10.23 The Commission has considered the landed cost per MT charges of imported coal as submitted by AEML-G calculated on the Moving Average Price Method on the basis of coal inventory stock pertaining to previously purchased coal and recently added coal as shown in Table below:

Table 12: Landed Cost of Imported Coal for FY 2019-20

Particulars	Unit	Actual Fuel Cost	Normative Fuel Cost
Basic Cost	Rs/MT	4,281.57	4,281.57
Freight	Rs/MT	334.41	334.41
Other Charges and Taxes and Duties	Rs/MT	610.97	610.97
Total Price excluding Transit Loss	Rs/MT	**5.226.95**	**5.226.95**
Transit Loss	%	0.17%	0.20%
Total Price including Transit Loss	**Rs/MT**	**5,235.83**	**5.237.43**

3.10.24 The above computed cost includes basic purchase cost of imported coal (FOB price + Freight charges) and other charges such as stevedoring charges, loading/unloading charges at DTPS jetty, road transportation charges form ADTPS jetty to ADTPS stockyard, insurance, custom duty, analysis charges, taxes/duties etc.

3.10.25 Based on the above analysis, the Commission approves GCV of Coal/Oil and Cost of

Fuel as under:

Table 13: GCV of Coal/Oil and Rate of Fuel approved by the Commission

Particulars	Unit	Normative	MYT Order	MTR Petition	Approved in Order
GCV Fired of domestic Coal	kcal/kg	3,903	3,912	3,903	3,903
GCV Fired of Imported Coal	kcal/kg	4,042	4,029	4,042	4,042
GCV of SFOC	kcal/kl	10,803	10,759	10,803	10,803
Price- Washed Coal	Rs./MT	5,453	5,356	5,463	5,463
Price- Imported Coal	Rs./MT	5,237	5,426	5,236	5,236
Price- Secondary Fuel Oil	Rs./kl	48,153	46,317	48153	48153

3.11 Fuel Expenses for FY 2019-20

AEML-G's Submission

3.11.1 AEML-G uses suitable mix of domestic washed coal and imported coal at ADTPS. Better operational performance and proper blending of washed coal and imported coal has helped AEML-G reduce its fuel cost vis-a-vis fuel cost allowable at normative performance parameters.

3.11.2 In MYT Order, the Commission had considered a blending ratio of 76.5:23.5 (washed coal to imported coal) based on the actual blending ratio of washed coal to imported coal during the period April 2019 to August 2019. However, the actual bending ratio for the whole of FY 2019-20 works out to 64.6:35.4, which has been considered for calculated of weighted average basis of GCV and Landed cost of fuel, while claiming it for truing up for FY 2019-20.

3.11.3 As per MYT Regulations, 2015, any variation in Price and Calorific Value of fuel as received at unloading point less actual stacking loss, subject to the maximum stacking loss of 150 kcal/kWh, vis-a-vis the approved values shall be adjusted on a month-to-month basis. Accordingly, AEML-G in its monthly computations of FAC, has considered the stacking loss at actual subject to maximum 150 kcal/kWh, it is limited to the said threshold.

3.11.4 On yearly basis, the actual stacking loss at ADTPS for FY 2019-20 worked out to 109 kcal/kWh which are less than the norm of 150 kcal/kWh. Accordingly, ADTPS has reworked the normative variable cost on yearly basis for the purpose of Truing-up.

3.11.5 AEML-G has submitted that for procurement of imported coal, they have incurred an additional fuel expense on account of LC (Letter of Credit) bill discounting. AEML-G has submitted the supplier of imported coal provides the bill for the same in dollar ($) terms. For booking the cost of imported coal in the accounts, AEML-G considers the Rupee conversion rate on the date of payment of custom duty, since that is the official date on which imported coal has been received. At the time of making payment for the imported coal, the Dollar to Rupee conversion rate varies. Hence the corresponding FERV (gain or loss) is booked in accounts subsequently. Also, a part of the imported coal procured in FY 2019-20 has been paid through import LC bill discounting. It is a mechanism which involves an LC issuing bank (usually a bank in India) and LC discounting bank (usually a bank in other country).

3.11.6 AEML-G has submitted that it has tied up with different banks for issuance of LC facility for imported coal payment, for which LC tenure is of 180 days (usually). After shipment of coal, the supplier submits a copy of coal invoice in $ terms along with other supporting documents to the LC discounting bank, based in other country. The LC discounting bank, after verification of the invoice and documents sends those to the LC issuing bank in India. The LC issuing bank in turn asks for confirmation from AEML-G for payment of coal which has already been received.

3.11.7 AEML-G has submitted that after due verification of original invoice received from the coal supplier, it provides its consent for payment. Based on AEML-G's consent, the LC issuing bank provides instructions to LC discounting bank for release of payment in $ terms. AEML-G makes payment of the principal amount along with the interest to the LC issuing bank after expiry of LC, i.e., after the LC tenure. The LC issuing bank then settles the amounts with LC discounting bank. The interest rate of LC is market driven and is linked to LIBOR. FERV arises both at the time of providing consent to the LC issuing bank and LC repayment to the LC issuing bank by AEML-G, since the $ to Rupee conversion rate changes at both the instances. The total FERV (loss) incurred in FY 2019-20 due to payment of imported coal (either directly or through LC facility) is Rs. 3.77 Crore. Since this FERV (LC Facility) is related to payment for imported coal, it has been claimed as other fuel expense in FY 2019-20. AEML-G submitted that since such FERV is not related to the performance parameters such as SHR, Aux consumption etc. it has not been merged with the fuel cost and has been claimed separately for perusal and consideration of the Commission. In addition to the above, the FERV (loss) incurred in FY 2019-20 at the time of LC repayment of Rs. 13.06 Crore is considered to be related to financing for payment of imported coal and hence considered in finance charges under FERV as part of ARR.

3.11.8 The actual fuel cost incurred during FY 2019-20 is Rs. 1,037.15. However, the fuel cost computed on actual landed price and based on the normative parameters as per MYT Regulations, 2015 would be Rs. 1,129.53 Crore in FY 2019-20 which are the costs that ADTPS would be entitled to, if its operational performance was at normative levels. AEML-G has submitted that the difference represents efficiency gains on account of better performance with respect to the normative performance and in accordance with Regulation 11.1 of the MYT Regulations, 2015, two thirds of the efficiency gains so worked out is required to be passed on to the beneficiary as a rebate in tariff and the generating company is entitled to retain one third of the efficiency gain.

Commission's Analysis and Ruling

Stacking and handling Loss

3.11.9 The MYT Regulations, 2015 specify that the GCV of coal be considered on "as fired" basis. Accordingly, the Commission has considered the calorific value ('as fired' GCV) of coal and actual proportion (blending) of domestic and imported coal, as submitted by AEML-G. The Commission has considered the GCV of fuels for final Truing-up of fuel cost for FY 2019-20, as submitted by AEML-G.

3.11.10 As per MYT Regulations, 2015, maximum stacking loss of 150 kcal/kg is allowed wherein the actual overall weighted average stacking loss is 109 kcal/kg for FY 2019-20 which is claimed as the same is below the norm.

3.11.11 The Commission notes that though the stacking loss for domestic coal is less than the norm, however, the stacking loss for imported coal is much higher than the normative stacking loss allowed. Higher stacking loss in imported coal reflects high cost-high GCV getting spoiled and such losses must be contained to the extent permissible. The Commission has raised query to AEML-G seeking clarification on the higher GCV stacking loss in imported coal. AEML-G has replied stating that usually imported coal is kept in stock and fired when necessary depending on availability / shortfall in domestic coal. Since imported coal is stored for longer time than domestic coal, the stacking loss for imported coal is higher as compared to domestic coal.

3.11.12 The Commission notes the submission made by AEML-G. However, considering the MYT Regulations and past MYT Orders, whereby the stacking loss limit of 120 kCal/kg (difference between As Received GCV and As Fired GCV) is applied on a blended basis, rather than applying the limit to washed coal or raw coal individually, the Commission is inclined to consider GCV (As Fired Basis) and stacking loss as submitted by AEML-G for calculation of the fuel cost.

Credit note settlement with SECL

3.11.13 The Commission, in its MYT Order, had directed AEML-G to expedite the settlement process of credit notes by taking up the issue with SECL at the earliest and submit the efforts undertaken by AEML-G on this issue and future instance (if any) during the submission of MTR Petition. As submitted by the AEML-G, it was noted that a credit note of Rs. 1.08 Cr. for FY 2017-18, Rs. 1.21 Cr. for FY 2018-19 and Rs. 4.22 Cr. for FY 2019-20 were yet to be issued as on September 2020. It is observed that for certain claims, the delay in issue of credit note ranges from 6 months to 3 years.

3.11.14 The Commission notes that such delay in settlement of credit/debit note between AEML-G and SECL results in financial burden and AEML-G shall ensure that delay in settlement of such debit/credit should be minimized as per the provisions of the FSA.

3.11.15 The FSA provides for the period of settlement for credit note; hence AEML-G has to be diligent to ensure the settlement of credit note within the period of settlement mentioned in the FSA. Since AEML-G and SECL are the obligated parties in accordance with FSA, therefore both parties need to see that the provisions in the FSA get complied from time to time to avoid unnecessary burden of delay on account of variation in grade of coal dispatched and received at AEML-G's end and then being passed on to the consumers.

3.11.16 The Commission feels that though the efforts have been made by AEML-G, however, there has not been any fruitful resolution of the early settlement. In wake of this, the Commission feel it pertinent to direct AEML-G to make a time-bound plan for resolution of the settlement issue with SECL and provide the Quarterly submission of status of Credit note pending to be settled to the Commission office in its FAC Submissions.

GCV of the Coal

3.11.17 The Commission notes that AEML-G has relied upon the procurement of imported coal to the extent of 35.4% and 64.6% domestic washed coal used in FY 2019-20 compared to the provisional approved ratio of 23.5%:76.5% for imported and washed coal, considered in the MYT Order. The Commission notes that though marginal variation in blending ratio is acceptable, such wide variation of costly coal impacts the end consumers in the form of Fuel Adjustment Surcharge and thus directs AEML-G to be prudent and reasonable in submitting the fuel blending for projection purposes.

3.11.18 The Commission observes that the GCV of the washed coal has been marginally different than approved in its MYT Order. AEML-G has submitted that it is because the Commission while doing the provisional Truing-up had considered the actual GCV of H1 of FY 2019-20. However, the weighted average GCV of washed and imported coal claimed by AEML-G is based on actual for the entire financial year. **The Commission accordingly approves the blending ratio and GCV of fuel as submitted by AEML-G.**

Landed Cost of the Fuel

3.11.19 The Commission also notes that similar to GCV, the landed cost of coal and LDO as approved by the Commission during MYT Order while doing provisional Truing-up for FY 2019-20 was based on H1 data of FY 2019-20.

3.11.20 The Commission observes that such data for H1 ought to vary from the landed cost data for entire financial year which takes into account the weighted average impact of coal received and costs paid for each agency involved in coal value chain starting from SECL, Railways, Coal Handling agents, Coal washing agents etc. Similarly, the imported coal has been procured on spot basis, and the prices are dependent upon fluctuating GCV based coal indices in global market. Therefore, imported coal for entire year is likely to vary than actual H1 of FY 2019-20.

3.11.21 Based on the submission made by AEML-G, the Commission notes that blending of domestic and imported coal is in the ratio of 64.6:35.4 and thus has considered the same while computing the weighted average GCV.

3.11.22 Further, AEML-G in its submission has segregated cost of fuel for generation from ADTPS and other non-licensed business as per audited accounts and has claimed Rs. 1,033.38 Crore for FY 2019-20 as actual fuel expenses for ADTPS. The Commission has verified the fuel cost claim with the audited allocation statement of accounts and has sought the reconciliation of the same from AEML-G. The statement as provided by

AEML-G in reply to the data gaps is outlined as below:

Table 14: Fuel Cost reconciliation as per audited accounts for FY 2019-20 (Rs. Crore)

Particulars	Consolidated Account	MTR Petition	Difference
Fuel Cost	**1,018.23**	**1,033.38**	**-15.15**
IGST and interest thereon on Ocean freight for FY18-19 claimed in May19 (For vessels MV Ionic Spirit, MV Universal Bremen, MV Armonia GR and MV Vita Kouan)			*-1.33*
SECL Grade slippage booked in inventory in books			*-12.53*
Provisions for customs MOT(Merchant over time) charges for 4 vessels not considered			*0.02*
Reversal of Coal analysis charges for referee sample			*-0.03*
Penalty from washery not included			*-1.26*
Rounding off difference			*-0.02*

3.11.23 As per the clarification provided by AEML-G, the following cost has been adjusted in the audited fuel cost as the same are the entry reversal / provisional in nature or expenses not claimed in the past truing up and has been claimed in FY 2019-20 due to payment made in the current year. Hence, the same is not accounted in the actual fuel cost claimed in FY 2019-20:

- IGST and interest thereon on Ocean freight for FY18-19 claimed in May19 (Cost booked in FY 18-19 but was paid in FY 19-20);
- SECL Grade slippage booked in inventory in books (these expenses were booked in Audited Accounts in FY 2018-19, but were not claimed in actual fuel expense for FY 2018-19 during truing up of FY 2018-19);
- Provisions for customs MOT (Merchant over time) charges for 4 vessels
- Reversal of Coal analysis charges for referee sample

3.11.24 With respect to Penalty from Washery, AEML-G has not claimed the penalty of Rs. 1.26 Cr received from washery in FY 2019-20 due to higher transit loss of washed coal than the normative. However, since the AEML-G has been claiming normative transit loss, the same is not considered in the actual fuel cost. The Commission observes that the Coal Beneficiation Agreement clearly states that the aggregate rise in transit loss above 0.80% over the year will result into penalty payable to AEML-G. The sharing mechanism allows the sharing of gains between the normative and actual cost whereby the normative cost is calculated based on the norms as specified in the Regulations. Hence, the said cost is not considered under normative cost. However, the resultant penalty received has reduced the actual fuel cost and hence the same needs to be considered in the actual fuel cost. The Commission feels that the consumers cannot be burdened with higher transit loss under sharing mechanism, for which the penalty is received by the Generator. Hence, the Commission has adjusted the penalty received from Washery and the rounding off difference in the actual fuel cost.

Other Fuel Expenses

3.11.25 AEML-G has submitted that it has opted the LC discounting practice for payment of imported coal to suppliers which has led to avoidance of any advance payment. The Commission observes that AEML-G has incurred a Foreign Exchange Risk Variation (FERV) arising out of variation in dollar to rupees conversion on the date of payment of custom duty and date on which the imported coal is received.

3.11.26 The Commission observes that the FERV w.r.t. LC discounting is towards hedging of the imported coal prices and hedging does not always prevent Forex loss from being incurred. Since the Commission has adopted an approach allowing hedging of the coal prices in the MYT Order, the said cost is also required to be included into the fuel costs. Accordingly, the FOREX loss due to payment of imported coal ***(either directly or through LC facility)*** is considered to be a part of fuel cost for computing the landed fuel cost of imported coal.

3.11.27 Further, the FERV (loss) incurred in FY 2019-20 at the time of LC repayment is Rs. 13.06 Crore. Since this amount is related to financing for payment of coal, this has been claimed under FERV as part of ARR by AEML-G. However, the Commission would like to state that such expenses are in relation to the payment of coal and directly attributable to the fuel cost. Accordingly, the FOREX loss due to payment of imported coal ***(at the time of LC Repayment***) is nothing but part of fuel cost and is to be considered under the landed fuel cost of imported coal.

3.11.28 Based on the above observations, the following table shows the details of GCV, landed price of coal and fuel expenses approved by the Commission for Truing-up of ARR for FY 2019-20.

Table 15: Fuel Expenses and Energy Cost for FY 2019-20 approved by the Commission

Particulars	Unit	Normative	MYT Order	MTR Petition	Approved in Order
GCV of the blended Coal (As Received)	**kcal/kg**	**4061**	**4,014**	**4061**	**4061**
GCV-Washed Coal (As Received)	kcal/kg	3947	3,912	3947	3947
GCV-Imported Coal (As Received)	kcal/kg	4270	4,346	4270	4270
Stacking Loss	**kcal/kg**	**109**	**74**	**109**	**109**
GCV of the blended Coal (As Fired)	**kcal/kg**	**3952**	**3940**	**3952**	**3952**
GCV-Washed Coal (As Fired)	kcal/kg	3,903	3,912	3,903	3,903
GCV-Imported Coal	kcal/kg	4,042	4,029	4,042	4,042
GCV-Secondary Fuel Oil	kcal/kl	10,803	10,759	10,803	10,803
Price- Washed Coal	Rs./MT	5,453	5,356	5,463	5,463
Price- Imported Coal	Rs./MT	5,237	5,426	5,236	5,236
Price- Secondary Fuel Oil	Rs./kl	48153	46,317	48153	48153
Total Fuel Cost (including FERV)	**Rs. Crore**	**1,142.59**	**1,226.07**	**1,037.15**	**1,048.93**
Energy cost per unit	**Rs./kWh**	**3.775**	**3.727**	**3.427**	**3.466**

3.11.29 Accordingly, the Commission approves the actual Fuel Expenses of Rs.1,048.93 Crore and normative fuel expenses of Rs. 1,142.59 Crore for Truing-up of FY 2019-20. The Commission notes that approved fuel cost is higher than claimed by AEML-G is due to inclusion of Forex loss as mentioned above. Having considered the Forex loss in the fuel cost, the Commission has reduced the same from the financing cost claimed by AEML-

G.

3.11.30 As the energy charges approved by the Commission are at target norms of operation, viz., SHR, SFOC and transit and handling loss, and the norms of operation are controllable factors, the Commission has undertaken the sharing of gains and losses in energy charges on account of variation in norms of operation and actual fuel cost, as per the MYT Regulations, 2015 in the subsequent section of this Oder.

3.12 Annual Fixed Charges (AFC)

3.12.1 Regulation 40 of the MYT Regulations, 2015 specifies the components of AFC as follows:

Sum of

a. Operation and Maintenance (O&M) expenses;
b. Depreciation;
c. Interest on Loan;
d. Interest on Working Capital (IoWC);
e. Return on Equity (RoE);
f. Income Tax;
Less:
g. Non-Tariff Income (NTI)

3.13 Operation & Maintenance Expenses

AEML-G's Submission

3.13.1 The actual O&M expenses claimed by AEML-G including corporate allocation, water charges and Cost recovery charges for FY 2019-20 is Rs. 183.61 Crore.

Table 16: O&M Expense as approved in MYT Order and actuals as per AEML-G (Rs. Crore)

Particulars	MYT Order	Actual
O&M Expense	143.38	162.68
Corporate Expense Allocation	15.76	17.88
Water Charges	1.98	1.98
Cost recovery charges	1.08	1.07
Total O&M Expense	**162.20**	**183.61**

3.13.2 The wage revision for employees was carried out in FY 2017-18. However, 53 employees had not agreed to the wage revision at that time, as submitted in earlier Petition. Hence AEML-G has made provision of Rs. 0.80 Crore for wage revision pertaining to 53 employees in the books of accounts for FY 2019-20. AEML-G submitted that it has not claimed the same as part of actual O&M expense.

3.13.3 AEML-G submitted that though their request of waiver of efficiency factor from the calculation of escalation rate for normative O&M expenses was not considered by the Commission, they have raised the same as part of the Appeal against the MYT Order (DFR No. 228 of 2020), which is sub judice. Hence for the purpose of this Petition, AEML-G has determined the escalation rate based on average of 50% WPI inflation and

50% CPI inflation from FY 2014-15 to FY 2019-20, and adjusted for the efficiency factor of 1%.

3.13.4 AEML-G has further submitted that since FY 2016-17, the publication of Wholesale Price Indices based on 2004-05 series has been stopped. Instead, Wholesale Price Indices based on 2011-12 series is published. Therefore, AEML-G has modified the Wholesale Price Indices based on 2011-12 series for FY 2017-18, FY 2018-19 and FY 2019-20 appropriately to reflect Wholesale Price Indices based on 2004-05 series.

3.13.5 AEML-G for the purpose of Truing-up of FY 2019-20 in this Petition, has claimed the base O&M expense for FY 2019-20 by applying the escalation rate for FY 2019-20 to the approved base O&M expense for FY 2018-19 as approved in the MYT Order. AEML-G has submitted that the corporate expenses, water charges and cost recovery charges have been claimed on the basis of actuals.

3.13.6 Subsequently, AEML-G has revised the normative O&M expenditure of Rs. 164.43 Crore for FY 2019-20 as per details given in the Table below:

Table 17: Base O&M Cost for FY 2019-20 claimed by AEML-G (Rs. Crore)

Particulars	Normative O&M
Base O&M Expense for FY 2018-19 (Approved in MYT Order)	139.88
Escalation Factor	2.59%
Base O&M Expense for FY 2019-20	143.50
Corporate Allocation for FY 2019-20	17.88
Add: Water Charges	1.98
Add: Cost Recovery Charges	1.07
Total	**164.43**

3.13.7 AEML-G submitted that it has not considered the impact of wage revision as well as impact of GST on O&M expenses citing the Appeal (DFR No. 228 of 2020) before the Hon'ble APTEL against the MYT Order, which is pending for decision.

3.13.8 AEML-G has submitted that post acquisition of RInfra's Mumbai power business, AEML has been continuously reviewing the whole value chain of cost from generation bus to consumer doorstep and the way the various expenses are accounted and allocated to different cost and profit centres. AEML-G submitted that the aforementioned exercise is critical from point of consumers so as to provide a better relationship between the incident cost and its recovery as well as from the point of view of internal benchmarking within the organisation's various business segments and functions, because the performance and productivity of the business units can be correctly gauged only when the costs are correctly allocated to the businesses.

3.13.9 AEML-G submitted that the AEML has three distinct regulated businesses within it – pertaining to Generation, Transmission and Distribution (Wires and Supply). The various costs incurred by AEML to run its operations include the cost of manpower, administration and general expenses and Repairs and Maintenance expenses – all of which are accounted under O&M expenses. These O&M expenses are composed of resources and corresponding expenses directly pertaining to individual regulated business and those that are shared across the three segments. The expenses pertaining to direct resources and activities are accounted directly under the respective cost centres of the regulated business to which they pertain to. The shared resources and services are composed mainly of manpower cost from HR Dept, IT Dept, Accounts and Finance dept, Administration, Regulatory dept, Legal dept, Real Estate dept, etc. and cost of common IT software, licenses, cloud services, etc. These expenses so far have mostly been accounted under Distribution Wires business only and a very small portion was considered under Supply, without any allocation to other regulated business of Generation and Transmission.

3.13.10 AEML-G submitted that the O&M expenses pertaining to the common / shared resources and services must be allocated to all four Regulated segments – Generation, Transmission, Distribution-Wires and Distribution-Supply in a proper and scientific manner for a correct and fair reflection of cost. AEML submitted that if this is not done, it would only mean that the even though the shared manpower is working on the other segments and shared IT resources are used by all segments, their costs are being borne mainly by the Distribution business alone and that too in its Wires segment alone. This amounts to mean cross-subsidisation of Generation, Transmission and Distribution-Supply segments by the Distribution-Wires segment. The users of Wires business are unfairly bearing almost 100% of the cost of resources and services, which are being used in other segments as well and this practice requires correction.

3.13.11 AEML-G has cited the Commission’s guidelines for Voltage-wise allocation of asset base, where the Commission has stated the preference for direct cost accounting as much as possible and using proxies like number of customers, network length or any such other parameter only where assets / costs are not directly attributable. AEML-G submitted that it has adopted the same approach while allocating the shared service cost between the regulated business segments of AEML.

3.13.12 AEML-G submitted that it has identified the costs pertaining to shared resources and IT services/software, etc. which require allocation. Further, AEML has allocated the cost of shared resources in ratio of the respective Gross Fixed Asset (GFA) ratio (closing value for the given year) of different business segments. For allocating the costs of shared IT resources, AEML has considered sharing between Distribution Wires and Distribution Supply only as Generation and Transmission segments have their respective user specific licenses, services, service cost, etc. which is already directly considered under Generation and Transmission cost centres.

3.13.13 AEML-G has submitted that the aforementioned exercise is pertinent to be undertaken from FY 2019-20 to reflect the correct O&M expenses as going forward the O&M expenses adjusted with share of efficiency gain/loss will form the base for normative allowance under new MYT control period. Therefore, the AEML-G has used the GFA ratio (closing value for the given year) of different business segments to allocate the costs of shared resources. For allocating the costs of shared IT resources, AEML has considered sharing between Distribution Wires and Distribution Supply only as Generation and Transmission segments have their respective user specific licenses, services, service cost, etc. which is already directly considered under Generation and

Transmission cost centres. Accordingly, AEML-G has proposed the revised normative O&M expenses for FY 2019-20 as hereunder:

Table 18: Revised Normative O&M Cost for FY 2019-20 claimed by AEML-G

Particulars	Normative derived for FY 2019-20	Allocation from shared services	Revised Normative
Base O&M Expense for FY 2019-20	143.50	9.17	152.67
Corporate Allocation for FY 2019-20	17.88		17.88
Add: Water Charges	1.98		1.98
Add: Cost Recovery Charges	1.07		1.07
Total	**164.43**		**173.60**

3.13.14 AEML-G submitted that the expenses allocated to AEML from the Adani Group, is termed as Corporate Expense allocation, and is influenced by both the expenditure incurred at Corporate Level and the magnitude of its allocation to AEML depending upon the services / expertise obtained by AEML from the group resources. Hence these expenses vary from year to year. In any given year, if no additional services are procured by AEML, the expenses would represent just the normal allocation of resources in terms of the services provided on an ongoing basis, whereas if in a year, AEML undertakes some additional initiatives or requires additional expertise, not otherwise available from within AEML, then there is additional allocation of Corporate Expenses, depending upon the resources and services involved.

3.13.15 AEML-G has submitted that FY 2019-20 being the first year of independent operations of AEML post acquisition of RInfra-G's business, AEML has instituted several new systems and processes at various levels with the objective of improving employee productivity, bringing about greater efficiency in operations and service delivery, all of which have a direct impact on AEML's services towards its consumers. AEML-G has submitted a detailed note on various new initiatives taken up by AEML after acquisition of RInfra's businesses.

3.13.16 AEML has submitted that in the year FY 2019-20, AEML has, therefore, ended up incurring corporate expenses, as per its requirements at a level reflective of the services procured, which is higher than what would otherwise be obtained by simply escalating previously approved expenses by inflation. AEML-G has therefore requested to approve the total O&M expenses of AEML as a whole including the corporate expenses on actual allocated basis as the same have been incurred towards setting up various new processes and systems at AEML level and have resulted in corresponding improvements along the value chain of AEML, on an on-going basis.

Commission's Analysis and Ruling

Normative O&M Expenses

3.13.17 Regulation 45.1 of the MYT Regulations, 2015 specifies the methodology for determination of normative O&M expenses for thermal Generating Stations that achieved COD before 26 August, 2005.

3.13.18 The Commission has therefore, considered the O&M expenses approved in the Truing-up for FY 2018-19 as base O&M expenses for arriving at normative O&M expenses for FY 2019-20. As specified in the above Regulations, the Commission has computed the inflation factor considering 50% weightage of average yearly inflation derived based on the monthly WPI of the past five years and 50% weightage to the average yearly inflation derived based on the monthly Consumer Price Index (CPI) for Industrial Workers of the past five financial years.

3.13.19 The Commission is of the view that since the escalation factor originally considered in the MYT Order was based on WPI of 2004-05 series, the escalation factor to be applied at the time of Truing-up should also be based on WPI of 2004-05 series. However, from FY 2017-18, WPI based on 2004-05 series is no longer published and has been replaced by WPI based on 2011-12 series. Hence, the Commission has modified the WPI based on 2011-12 series for FY 2017-18 and FY 2018-19 to appropriately reflect WPI based on 2004-05 series so as to maintain consistency for comparison of approved numbers vis-à-vis Truing-up.

3.13.20 With respect to the Efficiency Factor of 1% while considering the escalation factor to arrive at normative O&M expenses for FY 2019-20, the Commission notes that the Efficiency Factor has been specified in the MYT Regulations, and was also considered for escalating the O&M expenses in the MYT Order. Applying the same rationale, the Commission has retained the approach adopted in the MYT Order, and has reduced the escalation factor for FY 2019-20 by the Efficiency Factor of 1%.

3.13.21 Further, the Commission notes that the Generation business of AEML is being carried out for past many years and the expenses are more or less streamlined. Hence, there is an opportunity to optimize the O&M operations and O&M expenses based on experiences gained in past years. Further any variation in the O&M expenses is being taken care by escalation based on WPI and CPI indices. Hence, the Commission in not inclined to consider the relaxation in efficiency factor as sought by AEML-G.

3.13.22 For the 4th MYT Control Period, the Commission has specified certain qualifying criteria for non-consideration of the Efficiency Factor, as elaborated in a subsequent Chapter of this Order.

3.13.23 The inflation factor worked out for FY 2019-20 is stated in the Table below:

Table 19: Inflation Factor approved for FY 2019-20

Year	WPI	WPI Inflation	CPI	CPI Inflation
FY 2014-15	181.19		250.83	
FY 2015-16	176.73	-2.46%	265.00	5.65%
FY 2016-17	183.16	3.64%	275.92	4.12%
FY 2017-18	188.51	2.92%	284.42	3.08%
FY 2018-19	196.57	4.28%	299.92	5.45%
FY 2019-20	199.86	1.67%	322.50	7.53%
Average from FY 2015-16 to FY 2019-20		2.01%		5.17%
Weight		50%		50%
Escalation Factor	3.59%			
Less: Efficiency Factor	1.00%			

Year	WPI	WPI Inflation	CPI	CPI Inflation
Escalation Factor net of efficiency factor	**2.59%**			

3.13.24 The Commission has escalated the normative O&M expenses approved in the Truing-up for FY 2018-19 with the escalation rate arrived in the above Table to compute normative O&M expenses for FY 2019-20.

3.13.25 As regards the other expenses claimed by AEML-G, the Commission is of the view as under:

Corporate Allocation and Shared Services

3.13.26 The Commission takes cognizance of the information shared by AEML-G with respect to identification of services pertaining to G-T-D activities. However, the cumulative expenditure alongwith the shared asset O&M expenses are following an increasing trend.

3.13.27 AEML-G has stated that the shared service expense was Rs. 44.07 Cr in FY 2019-20 which was getting booked in Distribution-Wires till date, has now been segregated among Generation, Transmission and Distribution (G, T & D) verticals in the ratio of average GFA as per books (Rs. 9.17 Crore in Generation, Rs. 7.97 Crore in Transmission and Rs. 26.92 Crore in Distribution). The Commission scrutinised the shared service expenses and the Commission notes that it represents employee expense of Sr. management people whose salary was being booked only under Distribution business till now.

3.13.28 AEML-G submitted that the actual O&M expenses of shared services, to the extent allocated to Generation and Transmission verticals, have been reduced from Distribution vertical. Further, normative expenses of the three verticals have also been adjusted in order to have a like for like comparison with the actuals.

3.13.29 Further, the Commission also observes that the corporate expense allocation for the generation business of AEML has increased from Rs. 15 Crore in FY 2017-18 to Rs. 19.25 Crore in FY 2018-19, i.e., an increase of 28.33%. However, the corporate expenses claimed in FY 2019-20 is Rs 17.88 Crore.

3.13.30 The Commission while issuing the MYT Order held that the that corporate expenses allowed to Regulated Entities cannot be exorbitantly high even though the same is certified by the Statutory Auditor and there needs to be a cap on the expenses which are allowed under Corporate Allocation. It appears that AEML-G, taking cue of the same, has now allocated such corporate expenses while introducing new head of expenses as 'shared resource expenses'. The Commission reiterates that irrespective of whether by way of new expense category or within existing sub-categories, the regulated businesses can't cross-subsidise the expenses incurred at AEML/Group level and there has to be a cap for the same.

3.13.31 Moreover, RInfra and AEML, while seeking the Commission's approval for the transfer of assets and license of Transmission and Distribution businesses from RInfra to AEML in Case No. 139 of 2017 and Case No. 140 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."

…

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)****.*

3.13.32 The Commission is of the view that since G, T & D are regulated businesses, the orders of the Commission passed in above two cases can be applied to AEML-G as well and Consumers of AEML-G cannot be overburdened with such transactions.

3.13.33 However, as seen from the above submissions of AEML-G, the takeover of Generation Business from RInfra to AEML has increased the Corporate Allocation expenses and the cost is proposed to be passed on to the consumers. Thus, the corporate expenses as well as shared expense allocation booked/claimed in FY 2019-20 is against the intent of the approval given for the transaction in Case No. 139 of 2017 and Case No. 140 of 2017.

3.13.34 The Commission further notes that the Hon'ble Supreme Court in its judgment Civil Appeal No(s). 4324/2015 and 4324/2015 dated 18 October, 2022, has observed as follows:

"*53. This view has been consistently followed by the APTEL in its subsequent judgments and we are in complete agreement with the above view of the APTEL.* ***In our opinion, 'truing up' stage is not an opportunity for the DERC to rethink de novo on the basic principles, premises and issues involved in the initial projections of the revenue requirement of the licensee.*** *'Truing up' exercise cannot be done to retrospectively change the methodology/principles of tariff determination and re-opening the original tariff determination order thereby setting the tariff determination process to a naught at 'true up' stage."*

3.13.35 The Commission is of the view that while undertaking the Truing-up exercise, as held by the Hon'ble Supreme Court, it is not prudent to consider any such expenses which were not placed on record while allowing the ARR for FY 2019-20 or any of the years of the

MYT Control Period.

3.13.36 The Commission notes the practice followed by AEML-G to prudently allocate the expenses to heads where it belongs, however, directs to submit the same at the time formulation of O&M norm for next MYT Control period. The Commission will undertake due-diligence into the nature and amount of such shared service and corporate expenses while formulating the norm and efficiency factor for the same and accordingly decide on applicability of such expenses while considering the normative O&M expenses.

3.13.37 In view of the aforesaid, the Commission approves the normative Corporate Expenses escalated as per O&M Escalation indices aforementioned, consistent with the methodology adopted during issuance of the MYT Order.

3.13.38 AEML-G has submitted that since the shared allocation costs are Employee expense (salary cost shared resources / management personnel working for all divisions of AEML), they are allocated among different heads of Employee Expense on pro-rata basis. The total shared service cost has been allocated to AEML-G, T and D basis the average gross fixed assets as per audited books of AEML for the concerned year and has been accounted and shown in the audited accounting statements. Hence the shared cost is included in the actual O&M cost claimed by AEML-G.

3.13.39 With respect to the cost Allocation from shared services, as per the ruling of the Hon’ble Supreme Court as mentioned herein above, the Commission is not inclined to allow any additional cost related to Shared services to the Generation function, as the same was not considered at the time of MYT Order and accordingly the said cost is also deducted from the actual cost claimed by AEML-G so as to consider the normative O&M Cost and actual O&M cost without having any impact of Shared Services cost.

Water Recovery charges

3.13.40 Water charges, as per Regulation 45.1 (e) of MYT Regulations, 2015, are payable on actual basis. The relevant paragraph of the Regulation is reproduced below:

“(e) Water Charges shall be allowed separately as per actuals, based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check:”

3.13.41 Accordingly, for FY 2019-20, the Commission approves the water charges of Rs. 1.98 Crore as per actuals based on the audited accounts for the said period.

Cost Recovery Charges

3.13.42 As directed by Commission in the MTR Order dated 12 September 2018 in Case No. 202 of 2017, Rs. 1.07 Crore for FY 2019-20 have been claimed separately under O&M expenses against cost recovery charges payable to Custom Department

3.13.43 The Commission records that the expenses pertaining to water recovery and cost recovery charges are statutory in nature are allowed on actuals and shall not be part of the base O&M expenses.

Reconciliation with the audited accounts

3.13.44 The Commission had observed a mismatch in the audited figures submitted by AEML-G and the Audited Allocation Sheet. AEML-G clarified that some expenses like Festival celebration expenses, guest house of DTPS, LC charges etc., which do not form part of the regulatory books, were not considered in the regulated ARR, while the Auditor's certificate reflects the O&M cost as per the books of accounts. The detailed reconciliation statement for O&M expenses is outlined as below:

Table 20: Reconciliation of Regulatory O&M expenses with Audited allocated O&M expenses (Rs. Crore)

Particulars	Consolidated Account	MTR Petition	Diff.	Remarks
Employee Expense	**117.00**	**116.12**	**0.88**	
Considered under A&G Expenses in ARR			*0.03*	*Inter-Account Adjustment*
Not considered in ARR working Temple expenses			*0.05*	*Non-Regulatory Expenses*
Provision for wage revision not considered in ARR			*0.80*	*Provisions not considered*
A&G Expense	**51.47**	**37.73**	**13.74**	
Guest House Expenses			1.46	*Non-Regulatory Expenses*
Foreign Exchange Fluctuation Loss			12.31	Claimed Separately
Considered in Employee Expenses in ARR			-0.03	*Inter-Account Adjustment*
R&M Expense	**33.83**	**29.76**	**4.07**	
Ash handling plant Expenses			*4.07*	*Inter-Account Adjustment with Non-Tariff Income*
Total	**202.30**	**183.61**	***18.69***	

3.13.45 Based on the above observation, the Commission therefore approves the O&M expenses for the FY 2019-20 as per Table herein below:

Table 21: O&M expenses for FY 2019-20 approved by the Commission

<table>
<tr><th>Particulars</th><th>Unit</th><th>MTR Petition</th><th>Approved in Order</th><th>MTR Petition</th><th>Approved in Order</th></tr>
<tr><th></th><th></th><th colspan="2">Normative</th><th colspan="2">Actual</th></tr>
<tr><td>Base O&M expenses for FY 2018-19</td><td>Rs Crore</td><td>139.88</td><td>139.88</td><td></td><td></td></tr>
<tr><td>Escalation Factor</td><td>%</td><td>2.59%</td><td>2.59%</td><td></td><td></td></tr>
<tr><td>O&M expenses of FY 2019-20</td><td>Rs Crore</td><td>143.50</td><td>143.50</td><td rowspan="2">162.68</td><td>153.51</td></tr>
<tr><td>Shared Service Cost allocation</td><td>Rs. Crore</td><td>9.17</td><td>0.00</td><td>0.00</td></tr>
</table>

Particulars	Unit	MTR Petition	Approved in Order	MTR Petition	Approved in Order
		Normative		Actual	
Corporate expense allocation	Rs Crore	17.88	15.78	17.88	17.88
Water recovery charges	Rs Crore	1.98	1.98	1.98	1.98
Cost recovery charges	Rs Crore	1.07	1.07	1.07	1.07
Total O&M expenses	**Rs Crore**	**173.60**	**162.32**	**183.61**	**174.44**

3.13.46 **The Commission approves Normative O&M Expenses of Rs. 162.32 Crore for Truing-up of FY 2019-20**. The actual O&M Expenses approved by the Commission of Rs. 174.44 Crore for FY 2019-20 are higher than the normative O&M expenses. Base O&M expenses being a controllable factor, the Commission has carried out the sharing of efficiency gains/losses on account of variation in normative O&M expenses and actual O&M expenses, in accordance with the MYT Regulations, 2015.

3.14 Capital Expenditure and Capitalisation for FY 2019-20

AEML-G's Submission

3.14.1 The actual capitalization for FY 2019-20 is Rs.57.56 Crore which includes Detailed Project Report (DPR) Schemes – Rs. 47.87 Crore and non DPR schemes – Rs. 9.59 Crore along with the Interest During Construction (IDC) of Rs. 0.53 Crore.

3.14.2 AEML-G submitted that the actual capitalization is against the DPR schemes approved by the Commission. AEML-G submitted the following capitalization details as part of their Petition:

Table 22 : Capitalization for FY 2019-20 (as per AEML-G)

Sr. No	DPR NO	DPR Name	Approved Cost (Rs. Cr)	Capitalization FY 19-20 in Rs. Cr (W/o IDC)	Remark
1	RINFRA-G/DPR/FY10/1	Renovation & Modernization, Reliability Improvement and Miscellaneous Projects At DTPS	25.96	2.18	Partial capitalization done in FY 19-20 by Up-gradation of Electronic Cards of DDC System for Reliability improvement.
2	RINFRA-G/DPR/FY10/2	Township Residential area renovation and Construction of Boundary wall	21.75	2.24	Renovation of balance C Type, D Type and S Type Quarters done. Cumulative Capitalization till FY 19-20 is 18.78 Crs. The delay is due to limited alternate quarters available and hence scheme was carried out in a phased manner.
3	RINFRA-G/DPR/BP11-16/DPR NO. 1	Renovation & Modernization Of Ash Handling System	21.2	1.88	Partial capitalisation done in FY 19-20. The work includes Renovation of valves & piping, Renovation of wet ash evacuation system and Renovation of ash slurry cast basalt pipe line to improve ash

Sr. No	DPR NO	DPR Name	Approved Cost (Rs. Cr)	Capitalization FY 19-20 in Rs. Cr (W/o IDC)	Remark
					utilisation & reliability of the system
4	RINFRA-G/DPR/BP11-16/DPR NO 11	Renovation & Modernization of Coal Handling System	21.55	1.36	Renovation of Dozer is done in FY 19-20. The work carried out in phased manner to ensure availability of equipment and to use useful life of existing equipment.
5	RINFRA-G/DPR/BP11-16/DPR NO 14	Procurement and Installation of IP and LP Turbine Module in Unit # 2	96.28	31.22	The IP turbine was replaced in Unit-2 in FY 19-20 during unit Shutdown.
6	Urgent Approval of DPR scheme (1-10)	Urgent approval of DPR schemes for 3rd MYT Control period (1-10)	22.78	4.90	Balance work under this scheme is completed in FY 19-20. The work includes Refurbishment of IP STOP & CONTROL VALVE 1 U#2, Refurbishment of turbine gland sealing system, Refurbishment of HP bypass / LP bypass and spray valves and Refurbishment of Milling system.
7	RINFRA-G/DPR/BP18-24/DPR NO. 26	Refurbishment of Boiler and Auxiliaries	67.48	1.05	Part capitalisation of Boiler and Auxiliaries done in FY 19-20. The work includes Refurbishment of Fan silencers and Refurbishment of Flue gas duct, Dampers & expansion bellows.

3.14.3 AEML-G has provided Project Completion Reports of the Capex schemes completed during FY 2019-20.

Commission's Analysis and Ruling

3.14.4 The additional Capitalisation claimed by AEML-G falls under the two categories namely (i) Works approved by the Commission by way of in-principle approval of DPR and (ii) Non-DPR Works.

3.14.5 The Commission has consistently been approving the capitalization in final Truing-up as per following principle:

- DPR Schemes (above Rs. 10 Crore each): 100% capitalisation is approved for all DPR schemes capitalised in the year in respect of which in-principle, approval has been accorded. However, the same is restricted to the extent of cost incurred due to cost over-run and time over run.
- Where some DPR schemes have been capitalised during the year, capitalisation of the non-DPR schemes has been considered up to 20% of the cost of the capitalised DPR schemes

3.14.6 The Commission has verified the schemes submitted for Capitalisation. All the DPR schemes proposed by AEML-G for Capitalisation have been accorded in-principle approval by the Commission. The IDC calculation has also been verified and it has been claimed on normative basis on the assets capitalised during FY 2019-20.

3.14.7 The Commission has sought clarification in respect of AMEL-G's claim regarding additional CAPEX missed out in CWIP of FY 2018-19 but included in CAPEX of FY 2019-20. AEML-G submitted that the same are related to meters, transformers etc and requested the Commission to ignore such submission and rectified the same in the revised petition submitted.

Schemes appearing common in merged DPR schemes and Non-DPR schemes

3.14.8 The Commission scrutinised the Non-DPR schemes and sought clarification from AEML-G with respect to the rationale behind execution as well as differentiation from resemblance of such schemes with bundled DPR schemes for which either the capitalization has been completed in previous financial years or incurred from FY 2019-20 onwards. The Commission also raised following queries to AEML-G:

- Clarification on utilization of the incurred capitalization w.r.t. 'NDPR - Construction of RCC Road from Asangaon to Ash Pond No # 3 for Security enhancement'.
- Clarification on how the NDPR scheme of Laptop + Desktop is different from bundled DPR scheme pertaining to the upgradation of IT infrastructure.
- Clarification on how the separate NDPR scheme as 'Shutdown Work' is separate from capitalization pertaining to schemes covered under capitalization work.
- Justification of NDPR scheme of CCTV Camera for Rs 0.08 Crore when there is a DPR scheme w.r.t. CCTV infrastructure.

3.14.9 AEML-G responded to these queries during and clarified such schemes though look similar, are different with respect to its deployment in the plant at different locations. AEML-G written response to specific queries are given herein below:

a) Upgradation of IT Infrastructure (Expense capitalized under NDPR scheme in FY 2019-20)

There was a similar scheme under approved DPR (RINFRA-G/DPR/FY10/1.25 - Up-gradation of IT Infrastructure at ADTPS). Hence, a query was raised on AEML-G as to why IT expenses were capitalized under NDPR scheme in FY 2019-20. AEML-G stated that the DPR scheme of Up-gradation of IT Infrastructure at ADTPS (RINFRAG/DPR/FY10/1.25) was approved on 31st March 2011. The scope of this DPR included Procurements of Storage and Application Servers, printers, network switches, desktops and software. However, the IT expense capitalized under NDPR scheme in FY 2019-20 relates to laptops purchased for all staff at ADTPS so as to ensure smooth operations of the business. Since the scope of the DPR approved earlier and the NDPR scheme carried out in FY 2019-20 are different, the expenses incurred in FY 2019-20 was not booked against the DPR approved earlier.

b) Capitalization of Capital Overhauling Expenses

AEML-G has capitalized shutdown/ capital overhauling expenses in FY 2019-20 and has proposed the capitalization of shutdown/ capital overhauling expenses in FY 2022-23 under NDPR schemes. The Commission had asked about the nature of expense and whether they could be capitalized. AEML-G submitted that the capital overhaul of a Unit is carried out after every 2-3 years to improve operational performance parameters like efficiency heat rate and auxiliary power consumption. During capital overhaul, all major equipment like Turbine, Generator, Boiler, Transformers etc, are completely dismantled for inspection and deteriorated major parts are replaced to improve its performance and useful life. This is a normal industry practice followed by other Utilities. Also, normal consumables which are used in every annual shutdown are not capitalized as part of the said Non-DPR schemes. Only the items which are used as part of capital overhaul process and which are likely to improve operational performance and useful life are capitalized.

3.14.10 The Commission notes the above justification of AEML-G and accepts it considering the different scope of the DPR sub-scheme and non-DPR scheme.

DPR schemes

3.14.11 As regards DPR schemes, it was noticed that certain schemes, which were approved in FY 2012-13, have a time and cost over-run as compared to approved in view of the delay in completion. It was expected that schemes would be completed in FY 2015-16.

3.14.12 The Commission sought reasons for cost overrun of certain schemes. In response, AEML-G stated that the cost over-run is less than 10% which is allowed as per Regulation 22.5 (C) of the MYT Regulations, 2015. The detailed justification for variation in cost given by AEML-G is as follows:

Table 23 : AEML-G justification for cost-overrun of DPR schemes

DPR No	DPR Name	Cumulative capitalization till FY 22 (Rs. Cr)	Approved cost (Rs. Cr)	Difference (Rs. Cr)	Reason
RINFRA-G/DPR/FY10/2.1	Township Residential area renovation	15.67	14.54	1.13	The scheme was executed in phased manner as the availability of vacant quarters for transit accommodation was limited. Whereas the original scope of project remains unaltered, cost escalation is on account of increase in price of material. Employee cost capitalised was not considered while submission of DPR.
RInfra-G/DPR/BP11-16/DPR No 3.4	Renovation & Modernisation of Milling system	2.38	2.00	0.38	The value of these schemes Was estimated in DPR based on budgetary offers and no escalation was considered and actual PO was placed

DPR No	DPR Name	Cumulative capitalization till FY 22 (Rs. Cr)	Approved cost (Rs. Cr)	Difference (Rs. Cr)	Reason
					based on new offers received. Employee cost capitalised; was not considered while submission of DPR.
RInfra-G/DPR/BP11-16/DPR No 11.3	Renovation of structure in CHP	3.84	3.10	0.74	The cost overrun is mainly on account of increase in prices of steel
RInfra-G/DPR/BP11-16/DPR No 11.6	Renovation of Dozers	2.07	2.00	0.07	Under the capex on Refurbishment of Dozers for FY21-22, overhauling of dozer engine was planned. During overhauling of engine, crankshaft of engine was found defective and needed replacement which was not originally envisaged. Hence this led to cost escalation.
RInfra-G/DPR/BP11-16/DPR No 16.6.2	Renovation of Wagon Tippler and associated equipment	2.06	1.65	0.41	The value of these schemes were estimated in DPR based on budgetary offers and no escalation was considered and actual PO was placed based on new offers received. Employee cost capitalised; was not considered while submission of DPR.
Schemes	**Urgent approval of DPR**				
Scheme 2	Refurbishment of Milling system	1.22	1.00	0.22	The value of these schemes were estimated in DPR based on budgetary offers and no escalation was considered and actual PO was placed based on new offers received.

3.14.13 The Commission finds the reason cogent in view of practical implementation and with respect to rising commodity prices, which would've bearing on rate difference during proposal and budgetary offers. The Commission accordingly allows the cost and time-overrun for aforementioned schemes while allowing the capitalisation for the FY 2019-20. However, the Commission is of the view that that the capex schemes should be executed as per the approved phasing and these schemes, even if approved in principle, cannot go on in an indefinite manner.

Old DPR schemes directed to be completed by FY 2020-21

3.14.14 The Commission, in its MYT Order dated 30 March 2020, had directed AEML-G to complete the DPR schemes approved between FY 2010-11 to FY 2013-14 by the end of FY 2020-21. Vide its subsequent submissions, AEML-G stated that most of the schemes had been completed, however, few schemes were delayed due to Covid 19 pandemic and further stated that that it shall complete these schemes in FY 2021-22 and FY 2022-23. The Commission notes that AEML-G has not been able to meet this timeframe and accordingly, it is directed that no further capitalization shall be allowed beyond FY 2022-23 against the following approved (approved between FY 2010-11 to FY 2013-14) DPR schemes:

i. RINFRA-G/DPR/FY10,

ii. RInfra-G/DPR/BP11-16/DPRs 1-16

iii. Urgent Approved DPR schemes

These schemes are considered to be deemed completed at the time of truing up of FY 2022-23.

Non-DPR capitalization in excess of 20%

3.14.15 The Commission notes that AEML-G has claimed the capitalisation against Non-DPR schemes of Rs 9.69 Crore, which exceeds 20% of the capitalisation against DPR schemes. The Commission has restricted the Non-DPR capitalization at 20% of the approved DPR capitalization for FY 2019-20.

3.14.16 Accordingly, the Commission approves the following Capitalisation for FY 2019-20 given herein below:

Table 24 : Capitalisation approved for FY 2019-20 by the Commission (Rs Crore)

Particulars	MYT Order	MTR Petition	Approved in Order
DPR Schemes	42.75	47.87	47.87
Non DPR Schemes	0.52	9.69	9.57
Total Capitalisation	**43.27**	**57.56**	**57.44**

3.14.17 **The Commission approves total Capitalisation of Rs. 57.44 Crore for FY 2019-20**.

3.15 Depreciation for FY 2019-20

AEML-G's Submission

3.15.1 AEML-G has submitted the depreciation in accordance with the rates specified in the MYT Regulations 2015, on the opening GFA of FY 2019-20 as approved by the Commission in its MTR Order and on the assets added during the year, based on the actual dates of Capitalisation.

3.15.2 In accordance with the Regulations, for assets whose opening balance as on 1 April, 2019 had reached 70% depreciation or had crossed it during FY 2019-20, the depreciation has been worked out by spreading the balance depreciable value over the balance useful life of the assets.

3.15.3 AEML-G has claimed depreciation of Rs. 34.63 Crore for FY 2019-20.

Commission's Analysis and Ruling

3.15.4 The Commission observes that there is a difference between the amount of depreciation claimed in the Petition and the amount mentioned in the audited accounts. In reply to data gaps raised by the Commission, AEML-G submitted that the depreciation is higher in books as assets in books are revalued due to scheme of arrangement. Also, depreciation against Guest House and Temple related assets are not considered in regulatory books.

3.15.5 The Commission also observes that certain assets have zero opening balance but contains the value in Op. Accumulated depreciation – such as CAPEX Stores – Dahanu, EHTC - GOVERNING & ISKAMATIC UPGRADATION and sought clarification from AEML-G. AEML-G submitted that GFA value of these items are erroneously appearing as zero. However, these assets were fully depreciated (up to 90% value) prior to FY 2019-20. Hence no depreciation has been charged on these assets from FY 2019-20 onwards.

3.15.6 In accordance with Regulation 27.1 (b) of MYT Regulations, 2015, depreciation has been computed annually on the straight-line method at the specified rates.

3.15.7 The Commission has calculated the average rate of depreciation at the rates applicable for various classes of assets as per MYT Regulations, 2015. The average rate of depreciation is applied to arrive at the allowable depreciation for FY 2019-20.

3.15.8 The Commission has also observed that there is no retirement of assets undertaken for FY 2019-20 and same has been verified from the audited accounts.

3.15.9 Accordingly, as per Regulation 27.1 (b) of MYT Regulations, 2015, depreciation has been computed annually on the straight-line method at the specified rates.

3.15.10 The Commission has calculated the average rate of depreciation at the rates applicable for various classes of assets as per MYT Regulations, 2015. Also, the average rate of depreciation of each block of assets as booked in audited accounts is applied on pro-rata basis to arrive at the allowable depreciation for FY 2019-20. In view of the above, the depreciation approved by the Commission is shown in the Table below:

Table 25 : Depreciation approved for FY 2019-20 by the Commission (Rs Crore)

Particulars	**MYT Order**	**MTR Petition**	**Approved in Order**
Opening GFA	1,890.46	1890.45	1890.45
Additions during year	43.26	57.55	57.44
Less: Retirement of assets during year	0.00	0.00	0.00
Closing GFA	1933.72	1948.00	1947.89
Depreciation Rate	1.80%	1.81%	1.81%
Depreciation	**34.49**	**34.63**	**34.63**

3.15.11 The Commission approves Depreciation of Rs. 34.63 Crore for Truing-up of ARR for FY 2019-20.

3.16 Interest on Loan

AEML-G's Submission

3.16.1 AEML-G submitted that it has made financing arrangement for the capital expenditure of the company as whole. AEML-G submitted that for financing, the total capex requirement of AEML as a whole was Rs. 1,297.99 Crore and it raised capex loan from banks/financial institutions in FY 2019-20.

3.16.2 AEML-G has provided the detailed calculation of loans as per table herein below:

Table 26 : Capex allocation by AEML across regulated business for FY 2019-20 (Rs. Crore)

Particulars / (Rs. Cr)	AEML-G	AEML-T	AEML-D	AEML
Capitalization in FY 2019-20 (A)	57.56	298.73	713.42	1069.72
Opening WIP for FY 2019-20 (B)	2.27	73.73	91.32	167.32
Closing WIP for FY 2019-20 (C)*	14.95	97.89	282.74	395.59
Capital Expenditure for FY 2019-20 (D = C-B+A)	**70.25**	**322.89**	**904.85**	**1297.99**
Less: Consumer Contribution			20.19	20.19
Net Capex for FY 2019-20	**70.25**	**322.89**	**884.65**	**1277.79**

3.16.3 AEML-G submitted that the amount utilized for the purpose of meeting capex in FY 2019-20 is Rs. 868.87 Crore. AEML has considered 70% of capitalization deemed to be funded through debt and 30% through equity, in accordance with MYT Regulations, 2015.

3.16.4 AEML-G submitted that it has followed the approach for determining the interest on loan as per Regulation 29.5 of the MYT Regulations 2015, which requires the weighted average rate of interest based on actual loan portfolio during the concerned year. AEML-G accordingly has submitted that the weighted average interest cost considering all the loans in AEML's portfolio (including debt raised through bonds, sub-debt and External Commercial Borrowing (**ECB**)) works out to 9.01%.

3.16.5 AEML-G has submitted that there has been no retirement of asset during FY 2019-20 and therefore no retirement of loan has been considered. Accordingly, AEML-G has claimed Rs. 15.94 Crore as Interest on Loan for FY 2019-20.

Commission's Analysis and Ruling

3.16.6 For calculating interest on loan for FY 2019-20, the Commission has considered the closing balance of normative loan of FY 2018-19 as approved in the MYT Order.

3.16.7 The loan repayment has been taken equal to the depreciation allowed during FY 2019-20 in this Order, in accordance with Regulation 29.3 of MYT Regulations, 2015. The loan addition during the year has been considered at 70% of the capitalisation approved in this Order.

3.16.8 For FY 2019-20, the Commission has computed the weighted average interest rate for AEML-G on the basis of the actual loan portfolio of AEML as a whole during FY 2019-20 in line with Regulation 29.5 of MYT Regulations, 2015.

3.16.9 The summary of interest on loan as submitted by AEML-G and as approved by the Commission is as under

Table 27: Computation of Interest on Loan approved by the Commission for FY 2019-20 (Rs Crore)

Particulars	MYT Order	MTR Petition	Approved in Order
Opening balance of net normative loan (A)	**174.02**	**174.02**	**174.02**
Reduction of Normative Loan due to retirement or replacement of assets (B)	0	0	0

Addition of normative loan due to Capitalisation during the year (C)	30.28	40.28	40.21
Repayment of normative loan during the year (D)	34.49	34.63	34.63
Closing balance of net normative loan (E)= (A+B+C+D)	**169.81**	**179.67**	**179.60**
Weighted average rate of interest on actual Loans (%) (F)	9.05%	9.01%	9.01%
Interest on Loan (G) = (E*F)	**15.56**	**15.94**	**15.94**

3.16.10 The Commission approves Interest on Loan of Rs. 15.94 Crore for Truing-up of FY 2019-20.

3.17 Refinancing of Loans for FY 2019-20

AEML-G's Submission

3.17.1 AEML-G has submitted that in its MYT Petition in Case No. 298 of 2019, it has highlighted that the AEML has taken a Rupee term loan of Rs. 8500 Crore, to acquire the regulated business from RInfra.

3.17.2 It had raised loans from banks/financial institutions in FY 2018-19 and in FY 2019-20 for financing the capex post acquisition of regulated asset from RInfra and termed the same as New Capex Loan of FY 2018-19 and FY 2019-20.

3.17.3 During FY 2019-20, Rupee Term Loan (**RTL**) from Yes Bank Ltd has been replaced with RTL from ICICI Bank, Bank of Baroda and Union Bank of India as per the requirement of Yes Bank Ltd. and other Rupee Term Loans were refinanced through Bonds and shareholder affiliated debt.

Table 28: Rupee Term Loans (RTL) Balance in February 2020, as submitted by AEML-G (Rs. Crore)

Particulars	Opening RTL for FY 2019-20	Addition in loans	Repayment of loans	Replacement of loans	RTL as in Feb 2020
State Bank of India (SBI)	2,910.00	0	67.57	0.0	2,842.43
Yes Bank Limited (YBL)	1,988.50	0	4.67	1,983.83	0.00
Bank of India (BOI)	1,939.70	0	45.00	0	1,894.71
ICICI Bank Limited (ICICI)	727.50	499.61	24.66	0	1,202.45
HDFC Bank Limited (HDFC)	196.00	0	6.50	0	189.50
Bank of Baroda (BOB)	485.00	999.23	33.67	0	1,450.55
Union Bank of India (UBI)	0	485.00	11.25	0	473.75
Total	**8,246.70**	**1,983.83**	**193.32**	**1,983.83**	**8,053.38**

3.17.4 Further, during FY 2019-20, the new capex loan of FY 2018-19 from Yes Bank Ltd. was replaced with new capex loan from State Bank of India. Further, AEML drawn more new capex loans from banks/ financial institutions for funding of new capex in FY 2019-20. These new capex loans were also refinanced through Bonds and shareholder affiliated debt.

Table 29: New Capex Loans as on February 2020, as submitted by AEML-G (Rs. Crore)

Particulars	Opening New Capex loans for FY 2019-20	Addition in loans	Repayment of loans	Replacement of loans*	New capex loan as in Feb 2020
Yes Bank Limited (YBL)	35.66	155.14	0	190.79	0.00
State Bank of India (SBI)	44.13	317.93	7.60	0	354.46
Aditya Birla Finance Ltd. (ABFL)		250.00	0	0	250.00
Axis Bank Limited (AXIS)		200.00	0	0	200.00
Total	**79.78**	**923.06**	**7.60**	**190.79**	**804.46**

**Entire loan from YBL of Rs. 190.79 Crore has been replaced by new capex loan from SBI. The loan addition of Rs. 317.93 Crore against SBI includes Rs. 190.79 Crore.*

3.17.5 AEML-G has submitted that out of the Rs. 200 Cr Axis bank loan availed in FY 2019-20, Rs. 84.14 Crore was not utilized for capex. This amount was kept in Fixed Deposit (FD) till February 2020, till the time the entire Rupee Term loans and new capex loans availed from Indian banks were refinanced with Bond and Sub-debt. The said FD was subsequently terminated and the funds were utilized for revenue expenses – towards power purchase and various vendor payments related to R&M and services.

3.17.6 AEML-G has submitted a statement of its bank account maintained for Revenue / working capital, showing the inflow upon FD redemption and the outflow towards various revenue expenses.

3.17.7 AEML-G has further submitted that the Commission vide its Order dated 29 January 2020 in Case No. 341 of 2019 and 342 of 2019, had approved the changes in shareholding pattern in AEML on account of the transaction by the Qatar Holding LLC (the "Investor"), Ooredoo Tower, Diplomatic Area Street, West Bay, P.O. Box 23224, Doha, State of Qatar. Vide such transaction, the Qatar Holding LLC has acquired 25.1% of the total equity share capital of AEML from Adani Transmission Ltd. (**ATL**).

3.17.8 AEML-G submitted that the said transaction was carried out in February 2020. Pursuant to the said transaction, AEML has raised shareholder affiliated debt of $282 million (Rs. 2009.64 Crore) from the Investor in February 2020. Further, AEML raised $ 1000 million (Rs. 7124.58 Crore) senior secured notes (Bonds) from international market. AEML submitted that given the low benchmark of US treasury and favourable liquidity conditions in the international markets, there is an opportunity available to raise long term foreign currency funds for a tenure of 10 years at attractive interest rates.

3.17.9 AEML-G submitted that as per their view, there is a very high appetite amongst the International Investor fraternity for subscribing to debt issuances out of India and accordingly they explored the international market to pursue accessing foreign currency bond by issuance of Senior Secured Fixed Rate Notes (Bonds). Consequently, the Rupee Term Loans and new capex loans (for FY 2018-19 and FY 2019-20) availed from Indian banks/institutions was refinanced through Bonds and subordinate affiliated debt in February 2020.

3.17.10 The interest rates of RTL and new capex loans at the time of refinancing in February 2020 was 9.20%, whereas the Bonds and shareholder affiliated debt have been raised at much lower rate of interest as shown in table below:

Table 30: Rate of Refinancing in FY 2019-20

Particulars	Interest rate with Withholding Tax	Hedge Premium	Total
Bond	4.50%	3.90%	8.40%
Sub-Debt	6.85%	0.91%	7.76%
Weighted average			**8.25%**

3.17.11 AEML-G further submitted that the refinancing of the aforementioned capex loan and Rupee Term Loan towards acquisition was raised in surplus to the actual requirement of Rs 8857.86 crore (Loan amount corresponding to total refinancing charges are the RTLs (Rs. 8053.42 Cr) and new capex loans (Rs. 804.46 Cr) as in February 2020), which led to surplus of Rs. 276.36 Crore. This in addition to utilized FD of Rs 84.14 Crore has led to surplus fund of Rs 360.52 Crore.

Table 31: Refinancing of loans in FY 2019-20, as submitted by AEML-G

Particulars	USD Million	Rs. Crore
Bond	1,000	7,124.58
Sub Debt	282	2,009.64
Total inflow in February 2020	**1,282**	**9,134.22**
RTL balance in February 2020		8,053.38
New Capex loan balance in February 2020 (new capex loans taken during FY 18-19 and FY 19-20)		804.46
Total		**8,857.84**
Surplus after Refinance		***276.38***

3.17.12 AEML-G submitted that since the Bonds raised from international market were towards meeting predefined objective of serving the obligation of liability related to fixed assets as well as for general corporate purpose. The Sub-debt availed from Qatar Holding LLC was specifically for the objective of meeting the liability related to fixed assets. Thus, the surplus remaining as shown above after refinancing has been considered to be utilized as working capital in the business.

3.17.13 AEML-G has highlighted the Regulation 29.10 of the MYT Regulations, 2015 which provides the mechanism for computation of gains associated with savings in interest cost in case of refinancing of loans and further sharing of the same with the beneficiaries. The relevant extract of the Regulations was quoted as herein below:

"29.10 The Generating Company or the Licensee or 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."

3.17.14 AEML-G has submitted that it has incurred various financing charges such as lead manager fees, legal fees, professional fees, rating fees, commitment fees etc. for raising Bonds and shareholder affiliated debt in FY 2019-20. AEML-G also has submitted that it has paid pre-payment charges for early repayment of Rupee Term Loan towards the acquisition loans as well as Capex loans in FY 2019-20 and requested to consider the same as part of the financing charges towards refinancing through Bonds and shareholder affiliated debt.

3.17.15 AEML-G has submitted that the refinancing charges considered in their Petition is adjusted with the Bond Fees and refinancing charges towards the working capital portion of surplus capital of Rs 360.52 Crore.

3.17.16 The total refinancing charges incurred after apportioning a part of Bond fees to Financing Charges related to working capital portion of surplus capital is as under:

Table 32: Refinancing Charges for FY 2019-20 as claimed by AEML (Rs. Crore)

Particulars	Total Refinancing Charges	Bond*	Bond for general purpose	Bond fees as Refinancing charges	Bond Fees for availing Working Capital	Refinancing charges considered in this Petition
Bond Fees	80.49	6,764.06	360.52	76.42	4.07	76.42
Sub Debt Fees	39.03					39.03
Prepayment charges for early repayment of RTL and new capex loans	28.90					28.90
Bond Fees paid in FY 2020-21	5.72					5.72
Total	**154.13**					**150.06**

* - Bond amount used for refinancing of loans used for transaction / new capex (Rs. 7124.58 Crore - Rs. 360.52 Crore)

3.17.17 AEML-G also submitted that the Bond surplus after refinancing has been used as working capital in the business. Hence a part of the refinancing charges incurred for Bonds (derived on proportion basis) has been apportioned as finance charges for working capital loan. AEML-G submits that out of the Rs. 154.13 Crore of refinancing charges, only Rs. 150.06 Crore is considered in the Petition, the balance of Rs. 4.07 Crore is considered as financing charges for working capital since a part of the funds were utilised for working capital.

3.17.18 AEML-G further submitted that the total refinancing charges of Rs. 150.06 Crore of AEML was accordingly apportioned to G-T-D business in ratio of their regulatory loan approved by the Commission. Accordingly, the refinancing charges allocated towards AEML-G is Rs 2.94 Crore for the corresponding loan amount of Rs 173.61 Crore as on date of refinancing.

3.17.19 AEML-G has further submitted the net saving computation with respect to refinancing of loan through bonds and shareholder affiliated debt. AEML-G submitted that while computing the net saving, it has taken the present value of interest cost saving equating the repayment with depreciation for the year instead of actual repayment of loan. The discounting rate considered for arriving the NPV of net saving is rate of interest after refinancing. Accordingly, the net saving in FY 2019-20 is as per table herein below:

Table 33:Refinancing lead net saving for FY 2019-20

Particulars (Rs. Crore)	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25
Opening Balance of Loan	174.02	139.39	104.76	70.13	35.49	0.86
Repayment	34.63	34.63	34.63	34.63	34.63	0.86
Closing Balance of Loan	139.39	104.76	70.13	35.49	0.86	0.00
Average loan balance	156.70	122.07	87.44	52.81	18.18	0.43
Interest - Pre refinancing	1.93	11.22	8.04	4.86	1.67	0.04
Interest - Post refinancing	1.73	10.07	7.22	4.36	1.50	0.04
Saving in interest	0.20	1.15	0.82	0.50	0.17	0.00
NPV of saving	**2.48**					
Refinancing Cost	2.94					
Net saving	**-0.46**					
1/3rd for AEML-G	**-0.15**					

3.17.20 AEML-G has submitted that the though the present value of net saving during the term comes out to be negative, however, while considering the net saving for AEML as whole is positive as Rs 4.60 Crore.

Table 34: Net Saving in Interest cost for AEML-G, AEML-T and AEML-D (Rs. Crore)

Particulars	AEML-G	AEML-T	AEML-D(W)	AEML-D(S)	Total
PV of interest cost saving	2.48	9.46	26.91	0.42	39.27
Refinancing Charges	2.94	7.05	23.64	1.05	34.67
Net Saving	**(0.46)**	**2.41**	**3.27**	**(0.63)**	**4.60**

3.17.21 AEML-G requested that even though the net saving is negative, considering the net effective saving for regulated businesses as whole comes out to be positive. Hence, the refinancing charges and net saving (negative) should be approved by the Commission.

Commission's Analysis and Ruling

3.17.22 AEML-G has submitted that during acquisition of G-T-D business of RInfra in FY 2018-19, term loan of Rs 8500 Crore were drawn from the banks and financial institutions. Subsequently, AEML further raised loans from banks and financial institutions to finance the capex requirements of regulated business.

3.17.23 On 12 February 2020, AEML has opted for refinancing of their loan whereby it has been observed that against the total refinancing of Rs. 8,857.86 Crore, it has claimed Rs. 150.06 Crore as a refinance charges. Against this, the regulatory loan of G, T & D function as on the date of refinance is Rs. 2,046.74 Crore and hence it is evident that the refinance charges incurred is for total loan of AEML as whole and the Regulatory loan is the portion of the total loan which has been refinanced. Therefore, it is not prudent to allocate the total refinance charges to the regulatory businesses and hence same have been allocated in the ratio of Regulatory loan to total loan profile of AEML.

3.17.24 Accordingly, AEML is only eligible for proportionate recovery of refinancing cost pertaining to normative loans as on February 2020.

3.17.25 It has been observed that the refinancing charges has been claimed under the head of Sub Debt - Upfront Fees, Prepayment Charges, Bond - Upfront Fees and Bond Fees paid in FY 2020-21. AEML has incurred various charges such as lead manager fees, legal fees, professional fees, rating fees, commitment fees etc. for raising Bonds and shareholder affiliated debt in FY 2019-20 as under. AEML has also incurred prepayment charges for early repayment of RTL and new capex loans in FY 2019-20. These charges can be termed as the charges incurred for refinancing of RTL and new capex loans with Bonds and shareholder affiliated debt. There were certain fees related to Bonds which were paid in FY 2020-21. AEML has considered these charges as part of refinancing charges as well but has claimed the amount in FY 2020-21.

3.17.26 The Commission has analysed the refinance agreement and other supporting documents of AEML with consortium of Banks provided with the Petition. Based on the invoice as submitted by AEML and the review of the documents, the Commission is allowing the refinance expenses as outlined in the following table:

Table 35: Refinance charges approved for FY 2019-20 (Rs. Crore)

Particulars	MTR Petition	Approved in Order
Bond Fees		
Lead Manager Fees	41.36	41.36
Legal Fees	14.96	14.96
Professional Fees	1.61	1.61
Rating Fees	22.55	22.55
Allocated to Working capital Finance	-4.07	-4.07
Sub-total - Bond Fees	**76.42**	**76.42**
Sub Debt Fees		
Commitment fees	7.52	7.52
Prof & Legal Fees	31.51	31.36*
Sub-total - Sub-Debt Fees	**39.03**	**38.87**
Prepayment charges for early repayment of RTL and new capex loans	**28.90**	**28.90**
Bond Fees paid in FY 2020-21	**5.72**	**5.72**
Total	**150.06**	**149.91**

*- Adjustment of Rs. 0.15 Crore as specified in Para 3.17.28 of this Order

3.17.27 It was verified that Rs. 5.72 Crore has been paid in FY 2020-21 but is a part of the Refinancing charges for loans refinanced in FY 2019-20 and hence included in the total charges for calculation of the net saving. However, the amount equivalent to generation function will be considered in FY 2020-21.

3.17.28 It was observed that amount of Rs. 0.15 Crore paid to "The Bank of New York Mellon" included in the Sub Debt - Upfront Fees as Professional & Legal fees has been reversed in FY 2020-21 and the same has been adjusted in the finance charges of FY 2020-21. The Commission has adjusted the same in FY 2020-21.

3.17.29 Based on the approved Refinance charges, the Commission has recomputed the allocation of such charges to the G, T & D function based on the Regulatory loans as on 12 February 2020.

Table 36: Allocation of Refinance charges to G,T & D (as approved) – Rs. Crore

Refinancing Charges	Total	Regulatory	G	T	D - W	D - S
Sub Debt - Upfront Fees	38.87	8.98	0.76	1.83	6.12	0.27
Prepayment Charges	28.90	6.68	0.57	1.36	4.55	0.20
Bond - Upfront Fees	76.42	17.66	1.50	3.59	12.04	0.53
Bond fees paid in FY 21	5.72	1.32	0.11	0.27	0.90	0.04
Sub-total	**149.91**	**34.64**	**2.94**	**7.04**	**23.62**	**1.05**

3.17.30 The interest rates of RTL and new capex loans at the time of refinancing in February 2020 was @ 9.20%, whereas the Bonds and shareholder affiliated debt which have been raised was @8.25%. However, it was observed that AEML-G has considered the impact of withholding tax while calculating the refinance rate of 8.25%. Accordingly, the Commission sought clarification on the details of the rate of withholding tax considered along with the impact of the same on refinance interest rate. AEML-G replied that pursuant to Section 115A(1)(BA) read with Section 194LC of the IT Act, the Bond / ECB amount is subject to a withholding tax rate of 5% of the interest payable (plus various surcharge/cess). As per terms and conditions of the loan agreements of foreign currency loans (Bond/ECB), all payments of, or in respect of, interest on the Bond/ECB, will be made without deduction on account of any present or future taxes within India. Thus, the amount of withholding tax needs to be grossed up on the base interest amount. Also, Withholding Tax Rate is 5.46% (inclusive of surcharge/cess) on base interest amount and impact of the same on the interest amount is 0.23% to 0.25%. The Commission has noted the submission made by AEML-G.

3.17.31 Further, the Commission has considered 9.19% as weighted average interest rate of the existing loan portfolio of AEML-G as on 12 February 2020 for working out benefits due to refinancing of loan.

Table 37: Existing Weighted average rate of interest as on February 2020

Indian loans as on 12 February 2920	Amount	RoI
Rupee term loans	8053	9.20%
New Capex loans (except Axis)	604	9.20%
New Capex loans (Axis Bank)	200	8.95%
Wt. Avg. rate of interest		**9.19%**

3.17.32 AEML has refinanced the loan at 8.25% and the same has been considered as revised rate for working out benefits due to refinancing of loan.

3.17.33 In order to compute the Present Value of net savings, AEML-G has considered discounting rate equivalent to the new rate of refinancing i.e. 8.25%.

3.17.34 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.

3.17.35 For working out the net benefits, 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 2019-20 for calculating saving due to refinancing of existing loan portfolio. For FY 2019-20, 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.

3.17.36 The Commission has examined the Cost-Benefit Analysis of the refinancing transaction and resultant savings in interest cost. The Commission has considered opening normative loan for FY 2019-20 as opening loan and the repayment is considered same as the approved depreciation for FY 2019-20 to compute the closing balance of the loans. The computation has been carried out till the entire existing normative loan is repaid. The year wise savings in interest cost has been worked out as a difference between the interest payable considering the existing interest rate of 9.19% and that payable considering the revised interest rate of 8.25%. To compute the net savings from the transaction, net present value of the year wise savings is worked out using a discounting rate of 8.25%. This net present value is then compared with the cost of refinancing incurred by AEML-G to find out net benefits to the beneficiaries for allowing recovery through the ARR. The difference between the two is deemed to be the net savings from the transactions and which is to be shared between AEML-G and its beneficiaries 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-G to be recovered through the ARR. The Table below provides the detailed computation of the sharing of benefit between AEML-G and the Consumers:

Table 38: Refinancing Cost and sharing of Net Saving for FY 2019-20 (Rs. Crore)

Particulars	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25
Opening Balance of Loan	174.02	139.45	104.87	70.30	35.73	1.15
Repayment	34.57	34.57	34.57	34.57	34.57	1.15
Closing Balance of Loan	139.45	104.87	70.30	35.73	1.15	0.00
Average loan balance	156.73	122.16	87.59	53.01	18.44	0.58
Interest - Pre refinancing	1.93	11.23	8.05	4.87	1.70	0.05
Interest - Post refinancing	1.73	10.08	7.23	4.37	1.52	0.05
Saving in interest	0.20	1.15	0.83	0.50	0.17	0.01
NPV of saving	**2.49**					
Refinancing Cost	2.94					
Net saving	**-0.45**					
1/3rd for AEML-G	**-0.15**					

3.17.37 The Commission notes that Net saving for Generation function as such is negative, however, the same is positive for the AEML business as whole.

Table 39: Approved Net Saving in Interest cost for AEML-G, AEML-T and AEML-D (Rs. Crore)

Particulars	AEML-G	AEML-T	AEML-D(W)	AEML-D(S)	Total
NPV of interest cost saving	2.49	9.46	26.91	0.42	39.27
Refinancing Charges	2.94	7.04	23.62	1.05	34.67
Net Saving	**(0.45)**	**2.42**	**3.30**	**(0.63)**	**4.60**

3.17.38 As the AEML-G has shown willingness to absorb such loss on account of the negative NPV saving, to obviate burden being passed on to the end consumer, the Commission accepts the same and thus allows the refinancing of the loan for AEML-G in view of the fact that such refinancing is Positive for company as a whole.

3.17.39 Accordingly, the Commission approved the Refinance Charges of Rs. 2.94 Crore and the total loss of Rs. 0.45 Crore to be allowed as a passthrough in truing up of FY 2019-20. However, of Rs. 2.94 Crore allowed as a Refinancing charges, only Rs. 2.83 Crore is allowed to be recovered in FY 2019-20 and the balance of Rs. 0.11 Crore, related to Bond fees being incurred in FY 2020-21, the same is allowed to be adjusted in the ARR of that respective financial year i.e. FY 2020-21.

3.18 Finance Charges

AEML-G's Submission

3.18.1 AEML had raised loans from banks/ financial institutions in FY 2018-19 for funding new capex after takeover of business from RInfra. In FY 2019-20, AEML-D has further availed new loans for funding the new capex in FY 2019-20. The financing charges for new capex loans from banks/ financial institutions have been segregated among different business divisions of AEML in the ratio of the capitalization of different businesses in FY 2019-20.

3.18.2 Further, in February 2020, AEML has raised $ 70 million (Rs. 503.44 Crore) for new capex purposes through External Commercial Borrowing (ECB) route. The ECB facility limit of $400 million is exclusively for regulated capex with a minimum average maturity of 36 months. The drawdown will be as per capex requirement of the company. In FY 2019-20, $ 70 Million of ECB had been drawn. The rate of interest of all new capex loans from banks/ financial institutions in February 2020 was 9.20%, whereas the rate of interest for ECB facility was much lower at 8.06%.

Table 40 : Rate of Interest for ECB for FY 2019-20, as submitted by AEML-G

Particulars	Interest rate with Withholding Tax	Hedge Premium	Total
External Commercial Borrowing	4.45%	3.60%	8.06%

3.18.3 AEML has incurred commitment fees, arrangement fees, legal fees etc. for raising funds through ECB of Rs. 36.52 Crore. These charges have been segregated among different business divisions of AEML in the ratio of average regulatory loans of different businesses in FY 2019-20 and accordingly has allocated Rs. 2.98 Crore to Generation business.

3.18.4 Further, AEML has incurred forex loss of 0.20 Crore on the payment of such financing charges for EDB, Bond and Sub-debt which has also been claimed in the ratio of average regulatory loans of all divisions in FY 2019-20.

3.18.5 In addition to the above, bank charges of Rs. 13.92 Crore was incurred in FY 2019-20. Since these charges correspond to entire loan portfolio, AEML has claimed these charges in proportion to the average regulatory loan of different divisions of AEML.

3.18.6 In addition, AEML has raised working capital loans from banks / financial institutions for meeting the day to day cash requirements. AEML has also incurred LC and BG commission for payment to vendors through LC/BG for materials related to capex / opex. Further, as submitted in paragraphs related to Refinance charges, the bond surplus after refinancing has been considered to be utilized as working capital in the business. Hence a part of the refinancing charges incurred for Bonds (derived on proportion basis) has been claimed in the finance charges for working capital loans. All these financing charges corresponding to financing of working capital requirements and have been segregated among different regulated divisions in the ratio of normative working capital requirement of the different divisions of AEML (except for LC/BG charges which are claimed at actuals for each business segment).

3.18.7 Thus, AEML has claimed the total finance charges of Rs. 51.14 Crore which has been allocated to G,T & D verticals as outlined below:

Table 41: Finance Charges for FY 2019-20 (Rs. Crore)

Particulars (Rs. Cr)	Total Financing charges	Charges proportionate to Regulatory Loans - Total	Financing charges for AEML-G	Financing charges for AEML-T	Financing charges for AEML-D (Wires)	Financing charges for AEML-D (Supply)
Financing charges	61.27	51.14	5.23	9.72	33.86	2.33

Commission's Analysis and Ruling

3.18.8 As per submission of AEML-G, the finance charges consist of charges for new capex loans from banks/ financial institutions against raising of $ 70 million through ECB route, FOREX loss and charges for working capital loan.

3.18.9 Also, it has been observed that the ECB facility limit is of $400 million exclusively for regulated capex with a minimum average maturity of 36 months and in FY 2019-20, $70 Million of ECB had been drawn. The ECB limit is equivalent to around Rs. 2800 Crore and amount drawn in FY 2019-20 is only Rs. 490 Crore (considering $ rate as Rs. 70 against Re.1) which is only 17.5% of the total limit. AEML has incurred commitment fees, arrangement fees, legal fees etc. for raising funds through ECB for total limit of $ 400 million and claiming the same in toto against the drawl of only 17.5% may not be a prudent practise. Also, additional finance charges has been incurred in FY 2020-21 of Rs. 18.08 Crore by further raising $ 105 million (Rs. 767.53 Crore). Hence, the Commission is allowing the Finance charges only till the limit of actual amount drawn i.e. 17.5%

which results in Rs. 5.26 Crore against the amount incurred of Rs. 30.04 Crore and the same is considered for apportionment to G,T & D Function for FY 2019-20. Accordingly, the Commission has allocated the upfront fee paid towards the ECB borrowings for the regulated business and for AEML-G of Rs. 5.26 Crore.

3.18.10 With respect to Finance charges related to new CAPEX, it was observed that the Opening Rupee Term Loan (RTL) for FY 2019-20 was Rs 8,246.70 Crore from different banks. Out of this portfolio loan, RTL from Yes Bank Ltd was replaced from ICICI Bank, Bank of Baroda and Union Bank. The Commission scrutinised the loan details and based on the reply received to data gaps raised by the Commission, it notes that there was down selling of RTL loan from Yes Bank Ltd to meet the requirement of Yes Bank before refinancing of the RTL and Capex loan with bonds and shareholder debt in FY 2019-20. AEML-G has submitted that in FY 2019-20, Yes Bank exited the consortium and ICICI, Union Bank of India and Bank of Baroda took the loan portfolio of Yes Bank on the same rate of interest, terms & conditions. The Commission notes that the financing charges on this Yes Bank loan was already allowed to be recovered through the ARR in FY 2018-19 and accordingly, allowing recovery of these financing charges on the same loan through the ARR in FY 2019-20 would be inappropriate and unfair to the Consumers. Also, the Commission observes that the AEML-G has claimed the financing charges towards down sell of the RTL, whereby the same loan has been taken over by other banks for which such financing charges are paid by AEML-G, which ought not to be considered as this will amount to allowing the financing charges twice for the loan requirement for same purpose and hence the said amount of Rs. 6.47 Crore is disallowed.

3.18.11 Similarly, of the total bank charges of Rs. 13.92 Crore, the Bank charges of Rs. 11.97 Crore is related to processing charges on RTL paid to Union Bank of India, Bank of Baroda, ICICI Bank and State Bank of India, which is occurred due to downsell of YES Bank loan to the said bank and hence considering the duplication of the financing charges, the same is also disallowed.

3.18.12 The Commission is of the view that it is pertinent to allocate the forex gain/loss charges to be apportioned in ratio of regulatory loan portfolio and subsequently to the regulatory loan of AEML-G as the same has been applicable on the entire loan of AEML. Accordingly, the Forex gain/loss on the payment of such financing charges for EDB, Bond and Sub-debt which has also been claimed in the ratio of average regulatory loans of all divisions in FY 2019-20 is first apportioned in the ratio of AEML and Regulatory loans and later on in the proportion of G,T &D Regulatory loan.

3.18.13 With respect to Working Capital Financing charges, the Commission has reviewed all the invoice related to finance charges and it was observed that there was a calculation error of Rs. 0.18 Crore whereby with respect to charges paid to State Bank of India for execution of loan document in January 2020, the GST calculation undertaken by AEML is twice (i.e. GST is calculated on the amount including GST) and hence the same is disallowed. The details of the same are outlined as below:

Table 42: Duplication of GST amount under Working Capital Charges

Particulars	Date	Invoice	GST	Total	GST	Total

		Amount	Amount – 18%	Amount (approved)	amount - 18%	amount (Claimed by AEML)
SBI - 19202710253	07.01.2020	42,50,000	7,65,000	50,15,000	9,02,700	59,17,700
SBI - 19202710254	07.01.2020	42,50,000	7,65,000	50,15,000	9,02,700	59,17,700
Total		**85,00,000**	**15,30,000**	**100,30,000**	**18,05,400**	**118,35,400**

3.18.14 The Commission notes that since AEML-G has part utilized the loan borrowings to meet the working capital requirements, the financing charges for the same has been allowed in the ratio of regulatory loan of AEML-G.

3.18.15 With respect to LC & Bank Guarantee charges, the Commission sought details to provide the rationale on interest incurred for import LC bill discounting and to provide clarification of nature of such charges. AEML-G submitted that LC bill discounting under the Supplier Credit mechanism, helps AEML to avail economical source of working capital. Moreover, this is a standard industry practice in International Trade wherein the Exporter is able to discount the LC bills and realize the payment on sight basis and the Importer gets a short term credit facility for around 6 months at competitive interest rates which is linked to international benchmark rates like LIBOR. This facility is generally competitive with respect to the domestic loans since the international financing rates and liquidity are much cheaper as compared to the domestic market. The Commission notes the submissions made by AEML-G and allows such expenses under finance charges.

3.18.16 Accordingly, the financing charges for FY 2019-20 as approved by the Commission is outlined in the following Table:

Table 43:Financing Charges approved by the Commission for FY 2019-20

Particulars	MTR Petition	Approved in Order	For Regulatory Business	Allocated to Generation
Financing Charges for LT Loans				
Capex Loan – New	6.47	6.47	0.00	0.00
ECB - Upfront Fees	30.04	5.26	5.26	0.38
Forex loss / (gain)	0.20	0.20	0.04	0.00
Bank Charges	13.92	1.94	0.53	0.04
Sub-total	**50.63**	**13.87**	**5.83**	**0.42**
Financing Charges for WC Loans				
Working Capital	2.96	2.78	2.78	0.76
LC & BG COMM	3.60	3.60	3.60	0.33
Bond - Upfront Fees	4.07	4.07	4.07	1.12
Sub-total	**10.64**	**10.46**	**10.46**	**2.21**
Financing Charges – Total	**61.27**	**24.33**	**16.28**	**2.64**

3.18.17 Based on the above observation, the Commission approved the Finance charges of Rs. 2.64 Cr. to be allocated to Generation business for FY 2019-20.

3.19 Foreign Exchange Rate Variation

AEML-G's Submission

3.19.1 AEML-G submitted that Regulation 30 of MYT Regulations, 2015 specifies the provisions related to foreign exchange rate variation, as reproduced below:

"30.1 The Generating Company or Licensee may hedge foreign exchange exposure in respect of the interest on foreign currency loan and repayment of foreign loan acquired for the generating Station or the transmission system or distribution system, in part or in full at its discretion.

30.2 The Generating Company or Licensee shall be permitted to recover the cost of hedging of foreign exchange rate variation corresponding to the foreign debt, in the relevant year as expense, subject to prudence check by the Commission, and extra rupee liability corresponding to such variation shall not be allowed against the hedged foreign debt.

30.3 To the extent that the foreign exchange exposure is not hedged, any extra rupee liability towards interest payment and loan repayment corresponding to the foreign currency loan in the relevant year shall be allowed subject to prudence check by the Commission, provided it is not attributable to such Generating Company or the Licensee or its suppliers or contractors."

3.19.2 Further AEML-G submitted that it has contracted various hedging products to mitigate the risks of foreign exchange fluctuation. The hedging instruments and tenures are explained below:

(a) $ 400 Million of Bond is hedged through 5 year Cross Currency Swap (CCS)– which will be rolled over at the end of 5 years. Through this instrument both principal repayment and interest liability have been hedged.

(b) $ 300 Million of Bond is hedged through 10 year Principal Only Swap (POS) – which will be maturing at the end of the tenure. Through this instrument, liability of principal repayment has been hedged.

(c) Balance Bond of $ 300 Million is hedged through At The Money Forward (ATMF) Option contract for a period of 5 year. Through this instrument, liability of principal repayment has been hedged beyond Rs./$ conversion rate of Rs. 91.75/$.

(d) Interest liability for $ 600 Million (for Sr. b and Sr. c) is hedged through 5 year Coupon Only Swap (COS), which will be maturing at the end of the tenure.

(e) $ 70 Million of ECB is hedged through 1 year Cross Currency Swap (CCS) which is being rolled over at the end of the year. Through this instrument both principal repayment and interest liability have been hedged.

(f) $ 282 Million of Sub-debt is hedged through At The Money Forward (ATMF) Option contract for a period of 5 year. Through this instrument, liability of principal repayment has been hedged beyond Rs./$ conversion rate of Rs. 91.75/$.

3.19.3 As seen from above, the principal repayment for $ 300 million Bond and $ 282 million

Sub-debt is hedged beyond Rs./$ conversion rate of Rs. 91.75/$. The FERV loss or gain that will be incurred at the time of repayment of these loans shall be claimed by AEML in future. Further, the FERV (loss) accounted in books of the accounts of FY 2019-20 towards timing difference between the rate/$ considered for loan conversion and the rate/$ at the time of finalizing hedging contracts which is Rs. 1.04 Crore. The same has been segregated among AEML-G, AEML-T and AEML-D in the ratio of regulatory loans for FY 2019-20.

3.19.4 The FERV (loss) incurred in FY 2019-20 at the time of LC repayment is Rs. 13.06 Crore. Since this amount is related to financing for payment of coal, this has been claimed under FERV as part of ARR. AEML-G has incurred FERV (loss) at the time of LC repayment in FY 2019-20, which amounts to Rs. 13.06 Crore.

Table 44: FERV Claimed by AEML in FY 2019-20 (Rs. Crore)

Particulars	AEML-G	AEML-T	AEML (D – W)	AEML (D – S)	Total
FERV (loans)	0.08	0.23	0.70	0.03	**1.04**
FERV (LC repayment)	13.06				**13.06**
Total	**13.14**	**0.23**	**0.70**	**0.03**	**14.10**

Commission's Analysis and Ruling

3.19.5 As discussed in para 3.11.26 and 3.11.27 of this order, the Commission has considered the FERV related to imported fuel as a direct cost and is included in the fuel cost. The treatment of the same is provided in the said para of the Order.

3.19.6 With respect to FERV loss of Rs. 1.04 Crore, the same has been incurred for the total loan profile of AEML and it is not prudent to allocate the entire cost to the G, T & D function. Based on the approach as adopted by the Commission for the allocation of refinance charges, the FOREX loss as claimed by AEML will be first allocated proportionately with the total regulatory loan of G,T &D function with total loan profile and the amount so segregated to total Regulatory loan will be further segregated to G,T & D function in proportionate to their respective regulatory loan.

3.19.7 Accordingly, the Forex exchange rate variation as approved by the Commission is outlined as below:

Table 45: Approved Foreign Exchange rate variation for FY 2019-20 (Rs. Crore)

Particulars	FOREX amount	Allocated to Regulatory account	G	T	D - W	D - S
FERV (loans)	1.04	0.28	0.02	0.06	0.19	0.01

3.19.8 **The Commission approved the Foreign Exchange Rate variation of Rs. 0.02 Crore to be allocated to generation function**.

3.20 Interest on Working Capital (IoWC)

AEML-G's Submission

3.20.1 Regulation 31 of MYT Regulations, 2015 specifies the constituents of the working capital allowable to a Generating Company. AEML-G has computed the normative interest on working capital in accordance with the MYT Regulations, 2015.

Coal Stock

3.20.2 As per Regulation 31.1 (a) (i) of MYT Regulations, 2015, the cost of coal towards stock for thirty days for non-pit head Generation Station corresponding to its target availability, or maximum coal/ lignite stock storage capacity, whichever is lower is to be considered. In case of AEML-G, the storage capacity for coal, both washed coal and imported coal is more than that required for one month's generation at normative availability.

3.20.3 AEML-G has stated that the storage capacity for coal at ADTPS is much higher than the coal quantity required for one month's generation at normative Availability.

3.20.4 Also, the actual average coal stock days for FY 2019-20 works out to 57 days. Hence AEML-G has considered 30 days of cost of coal as per norms. Also AEML-G has considered 30 days of normative cost of coal towards generation of electricity and 2 months of normative cost of secondary oil in the normative working capital computations. These values were considered corresponding to the actual PLF since the actual PLF is lower than the target availability of 85%.

Maintenance Spares and O&M expenses

3.20.5 AEML-G has considered Maintenance Spares at 1% of the opening GFA and one month's O&M expenses as per Regulation 31.1 of MYT Regulations, 2015.

Cost of Fuel

(a) <u>Fuel Cost – Domestic Coal</u>

3.20.6 As per Regulation 31.1 (a) (vii), normative payable for fuel for one month corresponding to the target Availability must be considered depending on the modalities of payment. The Commission had considered payable for fuel as "Zero" for FY 2019- 20 based on actual modalities of payment for purchase of coal and secondary fuel oil as the same is part of the Fuel Supply Agreement.

3.20.7 For the purpose of payment and dispatch, the Annual Contracted Quantity (ACQ) is divided into quarterly quantities (25% of ACQ in each quarter), and monthly scheduled Quantity is worked out as 1/3rd of the quarterly quantity. Payment against this monthly quantity is made thrice in a month in advance, on 1st, 11th and 21st, considering 1/3rd of monthly scheduled quantity each time. AEML-G submitted that most of the time payment is made on predefined dates, if any holiday falls on these days, then payment is made one day before or next available working day. The delivery of coal against the payment made starts much later.

(b) <u>Fuel Cost - Imported Coal</u>

3.20.8 Regarding imported coal, AEML-G submitted that the coal is sent by the supplier through vessels. The vessel usually anchors around 15-20 km from the jetty, from where coal is transported in barges to the jetty and thereafter by trucks to the yard. The invoice for the coal is presented by the supplier after receipt of coal in the coal yard and payment for the same is made subsequently. The weighted average credit period for AEML-G with respect to payment of imported coal works out to 26.89 days which is considered towards payable for fuel in FY 2019-20.

(c) Freight Cost

3.20.9 AEML-G has submitted that in case of payment of freight to railways, regular payment is done through dedicated (e-payment) facility bank account. Railway is authorised to deduct the payment for the invoice/ Railway receipt on the same day when the railway receipt for a rake to be dispatched is issued.

3.20.10 Accordingly, the FSA with SECL does not provide any credit period to AEML-G for procurement of coal and hence AEML-G is required to make the payments in advance to SECL for procurement of coal. However, AEML-G has submitted that while computing the working capital requirement in its True-up Petition, it had not considered payable for fuel as the payment to SECL and Railways is made in advance and for imported coal, it has considered 26.89 days.

3.20.11 AEML-G has calculated interest rate of working capital, based on one-year SBI MCLR plus 150 basis points, which works out to 9.66% for FY 2019-20, as per the 1st Amendment to MYT Regulations, 2015.

3.20.12 AEML-G has claimed normative interest on working capital of Rs. 18.32 Crore for FY 2019-20.

Commission's Analysis and Ruling

3.20.13 As per the Regulation 31.1 of the MYT Regulations, 2015, the normative working capital requirements (cost of coal & oil, O&M Expenses, Maintenance Spares and receivables) is calculated at actual Availability or Target Availability of generating station whichever is lower, in true-up.

3.20.14 AEML-G has submitted the details of advance payment made to SECL and Railways for procurement of coal. Considering the above submission of AEML-G regarding advance payment to SECL and Railways, the Commission allows the period for payable for fuel related to domestic coal as nil.

3.20.15 The Commission has computed the total working capital requirement in accordance with Regulation 31.1 of the MYT Regulations, 2015. To estimate the working capital requirement for FY 2019-20, corresponding to O&M expenses, the Commission has considered the total approved normative O&M expenses as specified in the Para 3.13.46 of this Order.

3.20.16 On verifying the monthly coal stock data, it was found that the average coal stock maintained at ADTPS was for 57 days in FY 2019-20 on an average basis throughout the year. Hence, as per Regulation 31.1 of MYT Regulation, 2015 cost of coal for FY 2019-20 has been considered for 30 days. With respect to oil, the same has been considered for two months corresponding to the actual generation, while payables for fuel (including coal and secondary fuel oil) is considered as nil and the cost of imported fuel calculated on the actual generation for 26.89 days which is the credit period availed for payment of imported coal.

3.20.17 The interest rate for computing IoWC is considered as the weighted average SBI MCLR rate prevalent during FY 2019-20 plus 150 basis point which works out to be 9.66% (8.65% +1.50%).

Table 46: Weighted average rate for Interest on working capital for FY 2019-20

Particulars	Date	No. of Days	%
Opening SBI Base Rate / MCLR Rare	01-04-2019	9	8.55%
Revision in Base Rate by RBI	10-04-2019	30	8.50%
Revision in Base Rate by RBI	10-05-2019	61	8.45%
Revision in Base Rate by RBI	10-07-2019	31	8.40%
Revision in Base Rate by RBI	10-08-2019	31	8.25%
Revision in Base Rate by RBI	10-09-2019	30	8.15%
Revision in Base Rate by RBI	10-10-2019	31	8.05%
Revision in Base Rate by RBI	10-11-2019	30	8.00%
Revision in Base Rate by RBI	10-12-2019	62	7.90%
Revision in Base Rate by RBI	10-02-2020	29	7.85%
Revision in Base Rate by RBI	10-03-2020	22	7.75%
Closing Rate	31-03-2020		
Weighted Average Rate		**366**	**8.16%**
Plus 150 Basis Point			**1.50%**
Total Weighted Average Rate			**9.66%**
https://www.sbi.co.in/portal/web/interest-rates/mclr-historical-data			

3.20.18 The Commission has computed the IoWC for FY 2019-20 considering the above rates as follows:

Table 47: Interest on working capital approved for FY 2019-20

Particulars	MYT Order	MTR Petition	Approved in Order
Total Working Capital Requirement (Rs Crs)	233.44	189.62	188.68
Interest Rate	9.55%	9.66%	9.66%
Interest on Working Capital (Rs Crs)	**22.29**	**18.32**	**18.23**

3.20.19 The Commission approves IoWC of Rs.18.23 Crore for Truing-up of ARR for FY 2019-20.

3.20.20 As IoWC Expenses is controllable and hence the Commission has undertaken sharing of efficiency gain/losses in accordance with the MYT Regulations, 2015.

3.21 Return on Equity for FY 2019-20

AEML-G's Submission

3.21.1 AEML-G has referred to Regulation 28.3 of MYT Regulations, 2015 and has claimed RoE @ 15.5% for FY 2019-20 on the opening equity base of that particular year. AEML-G submitted that the new loan for FY 2019-20 is 66.83% of total capex, while remaining portion was financed through equity. However, the equity portion deployed for capital expenditure is more than 30%, and in accordance with the MYT Regulations, 2015, the same is therefore restricted to 30% for determining RoE.

Table 48: Return on Equity Claimed by AEML-G for FY 2019-20 (Rs. Crore)

Particulars	Amount
Regulatory Equity at beginning of year (A)	615.80
Capitalization during the year	57.55
Equity portion of capitalized expenditure (B)	17.26
Less: Equity portion of Retired Assets	0
Regulatory Equity at end of year	633.06
Return on regulatory equity at beginning of year C=(A*15.5%)	95.45
Return on regulatory equity addition during the year D= ((B*15.5%)/2)	1.34
Total return on regulatory equity (C+D)	96.79

3.21.2 AEML-G has claimed Rs. 96.79 Crore as Return on Equity for FY 2019-20.

Commission's Analysis and Ruling

3.21.3 The Commission has computed RoE at 15.5% on the opening equity of the year, in accordance with Regulation 28.1 of the MYT Regulations, 2015.

3.21.4 For arriving at the Regulatory equity at the beginning of the year for FY 2019-20, the Commission has considered the closing equity at the end of FY 2018-19 as approved in MYT Order.

3.21.5 Equity addition during the year has been computed considering the debt: equity ratio as 70:30 and the capitalisation approved in this Order. The Commission has considered equity addition of Rs. 17.23 Crore for FY 2019-20 i.e., 30% of the approved Capitalisation during the year FY 2019-20.

Table 49: RoE Computation of FY 2019-20 approved by the Commission (Rs. Crore)

Particulars	MYT Order	MTR Petition	Approved in Order
Regulatory Equity at beginning of year	615.80	615.80	615.80
Capitalization during the year	43.26	57.55	57.44
Equity portion of capitalized expenditure	12.98	17.26	17.23
Less: Equity portion of Retired Assets	-	-	-
Regulatory Equity at end of year	628.78	633.06	633.03
Return Computation			
Return on regulatory equity at beginning of year	95.45	95.45	95.45
Return on regulatory equity addition during the year	1.01	1.34	1.34
Total return on regulatory equity considered	**96.45**	**96.79**	**96.78**

3.21.6 The Commission approves Return on Equity of Rs. 96.78 Crore for FY 2019-20.

3.21.7 The Return on Equity approved is lower than the amount claimed by AEML-G due to marginal disallowance of capitalization in FY 2019-20 resulting in lower addition to Equity.

3.22 Income Tax for FY 2019-20

AEML-G's Submission

3.22.1 AEML-G has submitted that the Commission had approved income tax provisionally at the same level as approved for FY 2018-19 (NIL), in accordance with the MYT Regulations, 2015. AEML-G had submitted that the principle for allowing income tax provisionally at the same level as approved for the previous year cannot be applied to FY 2018-19 because the income tax for FY 2018-19 was working out to be zero due to surplus of previous year being adjusted in revenue of FY 2018-19 and that was an aberration.

3.22.2 AEML-G has submitted that the Commission has provisionally approved the income tax as NIL for FY 2019-20.

3.22.3 With regard to Truing-up of FY 2019-20, as AEML has more than one regulated business, it has claimed income tax based on Regulatory PBT in accordance with Regulations 33.1 of MYT Regulations, 2015.

3.22.4 It is submitted that the AEML-G has preferred an Appeal against the MYT Order which is pending. The issue raised in the appeal is in relation to Income Tax wherein double deduction of efficiency gains was made – first by deducting the entire normative expenses (which already includes entire efficiency gains) and then again by deducting the retained portion of efficiency gains from the revenue as well. This leads to double counting of efficiency gains and therefore the approach adopted by the Commission was incorrect. However, as the matter is sub-judice, AEML-G has considered the methodology as specified in the MYT Order without prejudice to its contentions in the said appeal.

3.22.5 As per the methodology for allowing Income Tax for regulated businesses, certain Income Tax related expenses allowed and disallowed are also required to be adjusted in the determination of Regulatory PBT, which have been considered as per actual for FY 2019-20.

3.22.6 The third proviso of Regulation 33.1 of the MYT Regulations, 2015 stipulates that no Income Tax shall be considered on the amount of efficiency gains and incentive earned by the Generating Companies, Transmission and Distribution Licensees.

3.22.7 Accordingly, for the purpose of Truing-up of Income Tax, efficiency gains pertaining towards O&M expenses, fuel expenses and incentive for higher PLF allowable for FY 2019-20, AEML-G has submitted that the same has not been considered while computing allowable Income Tax for FY 2019-20.

3.22.8 AEML-G has claimed Rs. 21.21 Crore as Income Tax for FY 2019-20 based on Regulatory PBT method as approved by the Commission.

Commission's Analysis and Ruling

3.22.9 The Commission has calculated the Income Tax in accordance with Regulation 33 of MYT Regulations, 2015 and as specified by Hon'ble APTEL in its judgment in Case No.

138 & 139 of 2012 dated 2 December, 2013.

3.22.10 The ratio with regards 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.

3.22.11 Also, necessary adjustment are undertaken by Commission in disallowance of Capitalisation and difference in sharing of efficiency has resulted into variation in Income Tax as claimed by AEML-G and approved by the Commission.

3.22.12 The Commission has considered the Income Tax for Truing-up based on audited annual accounts and while approving the Income Tax for FY 2019-20, the Commission had arrived at Income Tax paid on regulatory PBT basis. Further, no efficiency gains and incentive are considered for computation of tax on PBT basis, as submitted by AEML-G.

Table 50: Income Tax computation of FY 2019-20 approved by the Commission (Rs. Crore)

Particulars	Formula	MTR Petition	Approved in Order
Revenue			
Revenue from sale		1,469.92	1,469.92
Non-Tariff Income		19.61	19.61
Less: Eff. Gain in fuel cost		30.79	31.22
Less: Eff. Gain in O&M Expense		-	-
Less: Eff. Gain in IoWC		(01.3)	-
Total Revenue	**a**	**1,458.87**	**1,458.31**
Expenses			-
Fuel Related Expenses		1,125.76	1,142.59
Other Fuel Expense		3.77	-
Operation & Maintenance Expenses		173.60	162.32
Depreciation Expenses		34.63	34.63
Interest on Long-term Loan Capital		15.94	15.94
Foreign exchange rate variation		13.14	0.02
Financing Charges		5.23	2.64
Refinancing Charges		2.83	2.83
PV of interest cost saving		-0.46	-
Interest on Working Capital		18.32	18.23
Total Expenses	**b**	**1,392.75**	**1,379.19**
Profit Before Tax	**c=a-b**	**66.11**	**79.12**
Tax Adjustment			
Add			
Depreciation considered in Expenses	d	34.63	34.63
Other disallowance while computing IT	e	17.77	17.77
Total Tax Disallowances	**f=d+e**	**52.40**	**52.40**
Less			-
Tax Depreciation	g	43.01	43.01
Other expenses allowed for computing Income	h	14.82	14.82

Particulars	Formula	MTR Petition	Approved in Order
Tax			
Deduction - U/s 80 IA	i	-	-
Other Deduction under IT	j	-	-
Exempt Income under IT	k	-	-
Total Tax Allowances	**l=g to k**	**57.83**	**57.83**
Total Taxable Income	**m=c+f-l**	**60.68**	**73.69**
Tax Payable at Normal rate (Corporate Tax Rate)	**n= m x Tax**	**21.21**	**25.76**
Tax Payable under MAT Rate	**q = MAT working**	**11.55**	**13.82**
Tax Applicable	**r=max(n,q)**	**21.21**	**25.76**

3.22.13 The Commission has worked the income tax computation based on PBT for regulatory account of generation business as per aforementioned and in line with the Hon'ble APTEL in its Judgment in Case No. 138 & 139 of 2012 dated 2 December, 2013.

3.22.14 Accordingly, the Commission approves Income Tax of Rs. 25.76 Crore for FY 2019-20 as outlined in the following table:

Table 51: Income Tax approved for FY 2019-20 (Rs. Crore)

Particulars	MYT Order	MTR Petition	Approved in Order
Income Tax	-	21.21	25.76

3.23 Incentives on higher PLF for FY 2019-20

AEML-G's Submission

3.23.1 AEML-G has not considered PLF Incentive for FY 2019-20

Commission's Analysis and Ruling

3.23.2 The Commission has verified the MSLDC certificate validating the PLF and availability and based on the same notes that the PLF is 76.50% which is below the normative PLF of 85% for FY 2019-20. **Therefore, there is no PLF incentive considered for Truing-up of FY 2019-20.**

3.24 Sharing of Gains and Losses on Fuel Expenses for FY 2019-20

AEML-G's Submission

3.24.1 The Regulation 11.1 of MYT Regulations, 2015, states that 2/3rd of the efficiency gains based on the normative operational norms of SHR, Auxiliary Consumption, SFOC and Transit Loss, so worked out are passed on as rebate to the consumers and the generating station is entitled to retain the remaining 1/3rd of the efficiency gains i.e., ADTPS is entitled to a variable cost of Rs. 1,033.38 Crore plus 1/3rd of the difference between Rs. 1,064.17 Crore for FY 2019-20.

3.24.2 Accordingly, AEML-G has estimated a total efficiency gain of Rs. 61.59 Crore in FY 2019-20 in line with MYT Regulations 2015, out of which Rs. 30.79 Crore will be the entitlement for AEML-G.

Commission's Analysis and Ruling

3.24.3 The Commission in its MYT Regulations, 2015 has provided the following methodology for treatment of sharing and gains/losses:

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

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

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

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

11.2 The approved aggregate loss to the Generating Company or Licensee or MSLDC on account of controllable factors shall be dealt with in the following manner: —

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

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

3.24.4 Accordingly, the difference between the actual fuel cost and the fuel cost as per normative SHR, Auxiliary Consumption, SFOC and Transit Loss is considered for sharing of efficiency gains.

3.24.5 As specified in the Regulations 11 of the MYT Regulations 2015, $1/3^{rd}$ of the efficiency gains are allowed to be retained by AEML-G. The efficiency gains on account of fuel cost as proposed by AEML-G and approved by the Commission for FY 2019-20 are as per the Table below:

Table 52: Sharing of gains/ (losses) on account of fuel parameters for FY 2019-20 approved by the Commission (Rs. Crore)

Particulars	MTR Petition	Approved in Order
Normative Fuel Cost	1,125.76	1,142.59*
Actual Fuel Cost	1,033.38	1,048.93
Efficiency Gains	92.38	93.66
To be passed to the consumers (through AEML-D) (2/3rd)	61.59	62.44

To be Retained by AEML-G (1/3rd)	30.79	31.22
Final Fuel Cost to be allowed after sharing of Efficiency Gains/ (Losses)	**1,064.17**	**1,080.15**

* - including FOREX Loss and LC charges

3.24.6 The Commission approves the Sharing of efficiency gain for Fuel Cost to be retained by AEML-G as Rs. 31.22 Crore for FY 2019-20.

3.25 Sharing of Gains and Losses on O&M Expenses for FY 2019-20

AEML-G's Submission

3.25.1 For FY 2019-20 AEML has claimed losses on accounts of O&M efficiency and accordingly proposed Rs. 3.34 Crore to be passed on to consumers as efficiency losses in line with MERC MYT Regulations 2015.

3.25.2 AEML-G while arriving the efficiency gains/loss on account of O&M has revised the normative O&M expenses while revising the base O&M expenses. AEML-G has considered the allocation of shared services of AEML to AEML-G as Rs. 9.17 Crore and compared the same with actual O&M expenses of Rs. 162.68 Crore against revised normative O&M expenses of Rs. 152.67 Crore.

Commission's Analysis and Ruling

3.25.3 In line with Regulation 11.1 of the MYT Regulations, 2015, 2/3rd of the gains are to be passed on to consumers, as rebate in Tariff due to sharing of gains on controllable parameters. However, as per Regulation 11.2 of the MYT Regulations, 2015 1/3rd of the losses are to be passed on to consumers as an additional charge on tariff due to sharing of losses on controllable parameters.

3.25.4 The Commission has considered the difference between the actual base O&M expenses allowed after Truing-up and the O&M expenses approved in this Order, for computing the efficiency gains. Accordingly, for FY 2019-20, 2/3rd of gains on O&M has been passed on to the Distribution Licensee, AEML-D in this case, as rebate and 1/3rd shall be retained by AEML-G.

3.25.5 The Water Charges, Cost recovery charges and the Corporate Allocation have not been considered while computing the sharing of gains and losses on O&M expenses.

Table 53: Sharing of gains/ (losses) on account of O&M expenses for FY 2019-20 approved by the Commission (Rs. Crore)

Particulars	MTR Petition	Approved in this Order
Normative base O&M expenses	152.67	143.50
Actual Base O&M expenses	162.68	153.51
Efficiency Gain/ Loss	10.01	10.01
1/3rd Efficiency Gain (2/3rd of Efficiency Loss) to be retained by AEML-G	3.34	3.34
2/3rd Efficiency Gain (1/3rd of Efficiency Loss) to be passed on consumers	6.68	6.68
O&M expense allowable to AEML-G after sharing of	**156.01**	**146.84**

Particulars	MTR Petition	Approved in this Order
efficiency gains		
Water Charges	1.98	1.98
Cost Recovery Charges	1.07	1.07
Corporate Expense Allocation	17.88	15.78
Total O&M expenses (Net Entitlement)	**176.94**	**165.66**

3.25.6 The Commission approves O&M Expenses of Rs. 165.66 Crore for FY 2019-20 after sharing of efficiency gains/ losses for Truing-up of ARRs for FY 2019-20.

3.26 Sharing of Efficiency Gains / Losses on Interest on Working Capital for FY 2019-20

AEML-G's Submission

3.26.1 In FY 19-20, AEML-G has submitted that the actual Interest on Working Capital is Rs. 18.69 Crore against normative IoWC of Rs. 18.32 Crore, leading to efficiency loss of Rs. 38 Lakh, which leads to the net entitlement as per MERC MYT Regulations 2015 as Rs. 18.44 Crore.

Commission's Analysis and Ruling

3.26.2 As per Regulation 31.6 of the MYT Regulations 2015, the variation between the normative IoWC computed at the time of Truing-up and the actual IoWC incurred by the Generating Company, 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.

3.26.3 The Commission has inquired about the actual working capital borrowings of AEML-G and it was stated that the surplus loan post RTL and capex loan has been used for meeting the working capital requirements.

3.26.4 Further AEML-G submitted that Rs. 360.52 Cr of surplus funds resulting from issuance of Bonds were used for working capital purpose in the business from Feb 2020 onwards. The all in interest rate of Bond proceeds was 8.40% in FY 19-20, 8.40% in FY 20-21 and 8.42% in FY 21-22 which was lower than the normative interest on working capital as per MYT Regulations, 2015/2019. Thus by employing the surplus funds from Bonds as working capital, AEML-G has accrued Efficiency gains in IoWC due to interest rate difference vis-à-vis normative. Also, if there was no surplus from Bonds and additional capital was borrowed by AEML to fund working capital, the interest rate for the same could not have been ascertained. Interest rates vary depending upon how much exposure a particular financial institution is taking in the business, their perception of risk and also from lender to lender. Accordingly, the actual IoWC considered is Rs. 18.69 Crore.

3.26.5 Accordingly, for FY 2019-20 the Commission, is sharing of IoWC as calculated below:

Table 54: Sharing of gains/ (losses) on account of Interest on Working Capital for FY 2019-20 approved by the Commission (Rs. Crore)

Particulars	MTR Petition	Approved in Order
Normative IOWC	18.32	18.23
Actual IOWC	18.69	18.69
Efficiency Gain/ Loss	0.38	0.47
1/3rd Efficiency Gain (2/3rd of Efficiency Loss) to be retained by AEML-G	0.25	0.31
2/3rd Efficiency Gain (1/3rd of Efficiency Loss) to be passed on consumers	0.13	0.16
IOWC Expenses allowable to AEML-G after sharing of efficiency gains	**18.44**	**18.38**

3.26.6 The Commission approves sharing of Interest on Working capital of Rs. 18.38 Crore for FY 2019-20, to be shared with consumers in line with the MYT Regulations, 2015.

3.27 Non-Tariff Income for FY 2019-20

AEML-G's Submission

3.27.1 AEML-G at ADTPS uses washed coal and imported coal to meet its fuel requirement. The raw coal procured from SECL is washed in the nearby coal beneficiation unit to remove the impurities and coal rejects. The coal rejects so collected separately are sold and revenue is realized from it which is considered as Non-Tariff Income. AEML-G has submitted Rs. 19.61 Crore as Non-Tariff Income out of which Rs. 17.09 Crore were received against sale of coal rejects and fly ash.

3.27.2 The NTI of Rs. 19.61 Crore for FY 2019-20 also included income from sale of scrap, investments and commercial training etc.

Commission's Analysis and Ruling

3.27.3 As per the audited accounts the actual NTI comprises of income from sale of scrap, income from investment, income from sale of ash or rejected coal, income from rental, insurance claims, interest on staff loans and advances and other Miscellaneous receipts including fees from Commercial Training.

3.27.4 The Commission has verified the various heads of NTI with the allocation statement provided. The Commission had sought reconciliation of NTI with Audited Accounts since there were a difference in the NTI being claimed and as mentioned in the audited accounts. AEML-G submitted that the difference is due to the non-regulated business component which is reflected into the audited account but not claimed as part of the regulatory accounts. The reconciliation of the Non-Tariff income with the Allocated statement is outlined as below:

Table 55: Reconciliation of Non-Tariff Income with Allocated statement (Rs. Crore)

Particulars	Accounting Statement	MTR Petition	Difference
Non- Tariff Income	**24.15**	**19.61**	**4.54**

Ash Handling Plant expenses reduced from NTI			*4.06*
Guest House Rent			*0.19*
Interest on Employee Loans			*0.29*

3.27.5 The income earned from RoE will not be included in NTI as specified in Regulation 42 of the MYT Regulations, 2015. AEML-G has submitted that the interest earned on staff loan and advances is funded from RoE and accordingly same is not considered as NTI by the Commission. Also, the income under Non-Tariff Income and expenses under O&M expenses from the Ash Handling Plant being inter-account adjustment and the amount being same is not considered under the Regulatory business.

3.27.6 Accordingly, the Non-Tariff Income as approved by the Commission for FY 2019-20 is outlined as below:

Table 56: Non-Tariff Income for FY 2019-20 approved by the Commission (Rs. Crore)

Particulars	**MYT Order**	**MTR Petition**	**Approved in Order**
Income from Sale of Scrap	1.62	1.83	1.83
Income from investments	0.06	-	-
Income from sale of ash/rejected coal	15.28	17.09	17.09
Income from Rental from contractors	0.41	0.24	0.24
Income from commercial training	0.67	0.30	0.30
Other/Miscellaneous receipts	0.89	0.15	0.15
Total	**18.93**	**19.61**	**19.61**

3.27.7 Thus, the Commission approves the Non-Tariff Income of Rs. 19.61 Crore for FY 2019-20.

3.28 Revenue from Sale of Power for FY 2019-20

AEML-G's Submission

3.28.1 The revenues from sale of electricity generated by ADTPS including Energy Charge (plus FAC) and Fixed Charges are Rs. 1,469.92 Crore for FY 2019-20.

3.28.2 AEML-G has submitted that Rs. 101.80 Crore has been received towards the Fuel Adjustment Surcharge mechanism and Rs. 1021.50 Crore is the actual audited variable cost resulting in total variable cost of Rs. 1123.30 Crore.

Commission's Analysis and Ruling

3.28.3 AEML-G has provided the actual audited details of revenue earned in FY 2019-20, along with the PLF incentive and FAC revenue recovered from AEML-D. The Commission has considered the revised revenue submitted, which amount to Rs 1469.92 Crore for FY 2019-20.

Table 57: Revenue for FY 2019-20 approved by the Commission

Particulars	**Units**	**MYT Order**	**MTR Petition**	**Approved in Order**
Fixed Charge	Rs. Core	346.62	346.62	346.62
Net Generation	MU	3,290.05	3,026.69	3,026.69

Variable Cost including FAC	Rs. Crore	1,226.83	1,123.30	1,123.30
Energy Charge	Rs. Crore	-	1,021.50	1,021.50
PLF Incentive	Rs. Crore	-	-	-
FAC Revenue	Rs. Crore		*101.80*	*101.80*
Total Revenue	Rs. Crore	**1,573.45**	**1,469.92**	**1,469.92**

3.29 Summary of Truing up and Revenue Gap / (Surplus) for FY 2019-20

3.29.1 Based on the Truing up of various elements of expenses and revenue and AEML-G's share of Efficiency Gains/ Losses, the Commission has determined the total Revenue Gap/Surplus as against that estimated by AEML-G. The summary of the net ARR and sharing of Efficiency Gains/Losses as approved by the Commission for FY 2019-20 are as under:

3.29.2 Thus, the Summary of ARR for FY 2019-20 is as follows:

Table 58: Summary of Revenue Gap/(Surplus) for FY 2019-20 approved by the Commission (Rs. Crore)

Sr. No	Particulars	MYT Order	MTR Petition	Approved in Order
	Expenditure			
1	Total Fuel Related Expenditure	1,226.07	1,125.76	1,142.59
2	Other Fuel Expenses	-	3.77	-
3	O&M Expenses including water charges	162.20	173.60	162.32
4	Depreciation	34.49	34.63	34.63
5	Interest on Loan	15.56	15.94	15.94
6	Interest on Working Capital	22.29	18.32	18.23
7	Refinancing Cost	-	2.83	2.83
8	NPV of Interest Cost Saving	-	(0.46)	(0.45)
9	Finance Charges		5.23	2.64
10	Foreign Exchange Risk Variation		13.14	0.02
11	Income Tax	-	21.21	25.76
12	**Total Expenditure (1 to 11)**	**1,460.61**	**1,413.96**	**1,404.50**
13	Return on Equity	96.45	96.79	96.78
14	Les: 2/3rd of Efficiency gain in Fuel Cost pass on to consumers		(61.59)	(62.44)
16	Add: 1/3rd of Efficiency loss in O&M pass on to consumers		3.34	3.34
17	Add: 1/3rd of Efficiency Loss in IoWC pass on to consumers		0.13	0.16
18	**Total of Expenditure +RoE+ Gains+ Incentive (12 to 17)**	**1,557.06**	**1,452.63**	**1,442.34**
19	**Revenue**			
20	Revenue from sale of electricity	1,573.45	1,469.92	1,469.92
21	Non-Tariff Income	18.93	19.61	19.61
22	**Total Revenue (20+21)**	**1,592.38**	**1,489.53**	**1,489.53**
23	**Revenue Gap/ (Surplus) for FY 2019-20 (18 -19)**	**(35.32)**	**(36.90)**	**(47.20)**

3.29.3 AEML-G has recognized the revenue gap/(surplus) in a given year and the carrying cost on the same is computed on yearly basis. AEML-G has considered the short-term interest rate (on year-on-year basis) as worked out for calculating IoWC for FY 2019- 20.

3.29.4 The Commission notes the submission made by AEML-G and the same is dealt in the Chapter 0 of this Order.

3.29.5 **The Commission approves a Revenue Surplus of Rs. 47.20 Crore in the Truing-up of FY 2019-20**. The Commission in the past used to adjust the revenue surplus/gap in the Tariff in the ensuing years of AEML-G. However, in line with the last MYT Order and to have a more rational approach, the Commission has considered this surplus amount along with holding cost while approving the ARR of FY 2023-24 for AEML-D.

4 Truing up of ARR for FY 2020-21 and FY 2021-22

4.1 Background

4.1.1 The Commission in MYT Order has undertaken the determination of ARR for FY 2020-21 and FY 2021-22. AEML-G, in the instant Petition, has sought the final Truing-up of ARR for FY 2020-21 and FY 2012-22 based on the actual expenditure and revenue as per the Audited Account statements for FY 2020-21 and FY 2021-22 respectively as per the MYT Regulations, 2019. It has also submitted the reasons for difference in actual expenses for FY 2020-21 and FY 2021-22, as compared to those approved in the MYT Order dated 30 March, 2020 in Case No. 298 of 2019.

4.1.2 AEML-G had submitted the audited accounts for FY 2020-21 and FY 2021-22 on a consolidated basis for the Company as a whole. The Commission had directed AEML-G to submit the audited statements pertaining to the generation business. AEML-G has submitted the segregated audited statements for generation business during the reply to data gaps. Considering the details provided and additional information obtained during these proceedings, as per the provisions of MYT Regulations, 2019, the Commission has undertaken the Truing-up as set out below:

4.2 Norms of operation

4.2.1 The parameters for which norms of operation have been specified under the MYT Regulations, 2019 for thermal generating stations are as follows:

(i) Availability;
(ii) Plant Load Factor (PLF);
(iii) Auxiliary Energy Consumption;
(iv) Station Heat Rate (SHR);
(v) Secondary fuel oil consumption (SFOC) and
(vi) Transit and handling loss

4.2.2 AEML-G has submitted the actual performance of ADTPS in FY 2020-21 and FY 2021-22. The Commission has analysed and approved the actual operational parameters based on the norms specified in MYT Regulations, 2019. Operational Parameters such as Availability, SHR, SFOC etc. are better than the norms, however, actual PLF and Transit and handling losses as claimed by AEML-G are below the norms as defined in MYT Regulations, 2019. AEML-G's submissions on the actual performance for FY 2020-21 and FY 2021-22 and the Commission's analysis are detailed hereunder.

4.3 Availability for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.3.1 ADTPS has maintained Availability of 98.78% and 87.97% in FY 2020-21 and FY 2021-22 respectively which is well above the Normative Plant Availability Factor (NAPAF) of

85% as specified in the MYT Regulations, 2019.

4.3.2 The Availability claimed by AEML-G is on the basis of actual performance recorded and as certified by Maharashtra State Load Dispatch Centre (MSLDC) for the respective years. AEML-G has submitted MSLDC certificates for FY 2020-21 and FY 2021-22 in support of the Availability claimed by it.

Commission's Analysis and Ruling

4.3.3 As per Regulation 46.1 of the MYT Regulations, 2019, entire Annual Fixed Charges (AFC) shall be recovered only if the actual Availability is equal to or higher than the target availability i.e. 85%.

4.3.4 Also, as per Regulations 50.1 of MYT Regulations 2019, AFC is required to be recovered on a monthly basis as "Capacity Charges" and shall be recovered under two segments of the year, i.e., High Demand Season (period of three months) and Low Demand Season (period of remaining nine months), and within each season in two parts, viz., Capacity Charge for Peak Hours of the month and Capacity Charge for Off-Peak Hours of the month.

"50.1 The fixed cost of a thermal generating station shall be computed on annual basis based on the norms specified under these Regulations and recovered on monthly basis under Capacity Charge. The total Capacity Charge payable for a generating station shall be shared by its beneficiaries as per their respective percentage share or allocation in the capacity of the generating station. The Capacity Charge shall be recovered under two segments of the year, i.e., High Demand Season (period of three months) and Low Demand Season (period of remaining nine months), and within each season in two parts, viz., Capacity Charge for Peak Hours of the month and Capacity Charge for Off-Peak Hours of the month as follows:

Capacity Charge for the Year (CCy) = Sum of Capacity Charge for three months of High Demand Season + Sum of Capacity Charge for nine months of Low Demand Season."

4.3.5 Accordingly, AEML-G has provided MSLDC certificate to substantiate its claim for Availability, based on High Demand Season (period of three months) and Low Demand Season (period of remaining nine months), and within each season in two parts, viz., Peak Hours and Off-Peak Hours for the month for the FY 2020-21 and FY 2021-22.

Table 59: Availability Certified by MSLDC for FY 2020-21 and FY 2021-22 (%)

Particulars	Approved	Normative	Actual	Approved	Normative	Actual
	FY 2020-21			FY 2021-22		
Annual Availability	**94.38**	**85.00**	**98.78**	**94.38**	**87.97**	**87.97**
High Demand Season – Peak Hrs		*85.00*	*98.35*		*89.08*	*89.08*
High Demand Season – Off Peak Hrs		*85.00*	*98.32*		*88.52*	*88.52*

Particulars	Approved	Normative	Actual	Approved	Normative	Actual
	FY 2020-21			FY 2021-22		
Low Demand Season – Peak Hrs		*85.00*	*98.89*		*87.31*	*87.31*
Low Demand Season – Off Peak Hrs		*85.00*	*98.94*		*87.42*	*87.42*

4.3.6 Accordingly, the Commission has considered the actual Availability as certified by MSLDC vide its letter dated 01 November 2022 for FY 2020-21 and FY 2021-22. Accordingly, the Commission approves the Availability as 98.78% and 87.97% for the FY 2020-21 and FY 2021-22 respectively.

4.3.7 As per Regulation 46.1 of MYT Regulations 2019, recovery of full AFC is allowable at target Availability of 85% and as per Regulation 50.1 of MYT Regulations 2019, the same will be recovered based on High Demand Season (period of three months) and Low Demand Season (period of remaining nine months), and within each season in two parts, viz., Peak Hours and Off-Peak Hours for the month. Since the actual Availability during High Demand season and Low demand season alongwith peak and off peak hours is higher than the target Availability of 85% for FY 2020-21 and FY 2021-22, the Commission allows the full recovery of AFC for the respective years of the Truing up.

4.4 PLF and Gross Generation for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.4.1 AEML-G has achieved PLF of 73.20% and 76.21% with gross generation of 3,206.12 MU and 3,294.43 MU in FY 2020-21 and FY 2021-22 respectively.

4.4.2 From 11 October, 2021 onwards, the Commission had introduced Deviation Settlement Mechanism (DSM) as per the DSM Regulations, 2019 in the State of Maharashtra. Hence from 11 October 2021 onwards, AEML-G has considered the energy scheduled to DISCOM (AEML-D) only for normative calculations.

4.4.3 AEML-G has submitted that the actual PLF for FY 2020-21 and FY 2021-22 are below normative PLF of 85% due to backing down instructions received from MSLDC to the tune of 529.34 MU in FY 2020-21 and 469.37 MU in FY 2021-22 which resulted in the lower PLF and the same is also certified by MSLDC.

Commission's Analysis and Ruling

4.4.4 Regulations 46.3 of MYT Regulations, 2019 specifies the target PLF of 85% for thermal generating stations, to be eligible for the incentive for actual generation in excess of ex-bus energy corresponding to target PLF.

4.4.5 The Commission observes that the actual PLF and gross generation is lower than those approved in the MYT Order. The reasons for such low PLF below norms is mainly due to backing down instructions received from MSLDC.

4.4.6 The Commission has verified the actual PLF of 73.20% and 76.21% for the FY 2020-21 and FY 2021-22 respectively achieved by ADTPS from the MSLDC certificate. The Commission while approving the actual PLF has considered the normative Auxiliary Consumption of FGD of 1.2% over and above the normative Auxiliary Consumption of 8.5%.

4.4.7 The Commission has taken cognizance of the drop in PLF caused due to the backing down instructions issued by MSLDC as 529.34 MU in FY 2020-21 and 469.37 MU in FY 2021-22.

Table 60: Gross Generation and PLF Certified by MSLDC for FY 2020-21

Particulars	Approved	Normative	Actual	Approved	Normative	Actual
	Gross Generation (MU)			**PLF (%)**		
For FY 2020-21	**4134.00**	**3,208.70**	**3,206.12**	**94.38**	**73.26**	**73.20**
High Demand Season – Peak Hrs		*927.92*	*925.06*		84.34	*84.08*
High Demand Season – Off Peak Hrs					*83.99*	*83.73*
Low Demand Season – Peak Hrs		*2280.78*	*2281.06*		*76.28*	*76.29*
Low Demand Season – Off Peak Hrs					*68.29*	*68.30*

Table 61: Gross Generation and PLF Certified by MSLDC for FY 2021-22

Particulars	Approved	Normative	Actual	Approved	Normative	Actual
	Gross Generation (MU)			**PLF (%)**		
For FY 2021-22	**4134.00**	**3,294.43**	**3337.96**	**94.38**	**76.21**	**75.22***
High Demand Season – Peak Hrs		*926.94 Actual – 916.44 (Schedule under DSM)*	*924.87*		*85.57*	*85.38*
High Demand Season – Off Peak Hrs					*83.64*	*83.45*
Low Demand Season – Peak Hrs		*2405.22 Actual – 2377.99 (Schedule under DSM)*	*2413.08*		*78.45*	*78.71*
Low Demand Season – Off Peak Hrs					*72.41*	*72.65*

* - adjusted based on Schedule Generation post implementation of DSM mechanism

4.4.8 For FY 2021-22, since DSM is implemented from 11 October, 2021 onwards, AEML-G has considered the energy scheduled for DISCOM (AEML-D) only for normative calculations. Hence for normative calculations, gross generation as 3,294 MU (after considering normative auxiliary consumption of 9.70%) is considered against the actual gross generation of 3,332 MU (after considering normative auxiliary consumption).

4.4.9 The Commission has taken cognizance of the drop in PLF caused due to the backing down instructions issued by MSLDC to the tune of 529.34 MU in FY 2020-21 and 469.37 MU in FY 2021-22 respectively.

4.4.10 Accordingly, the Commission approves the PLF of 73.20% and 76.21% based on normative Auxiliary Energy Consumption (including FGD) for FY 2020-21 and FY 2020-21 respectively.

4.4.11 Since the actual PLF during High demand Season and Low Demand Season for FY 2020-21 achieved are below the target PLF of 85%, AEML-G does not qualify for the incentives for actual generation in excess of ex-bus energy corresponding to target PLF for FY 2020-21, as per the norms specified in MYT Regulations, 2019.

4.4.12 With respect to the PLF for FY 2021-22, it was observed that AEML-G has achieved higher PLF during High Demand season of more than target PLF of 85% and hence qualify for the incentives. Accordingly, the Commission has computed the incentive on higher PLF achieved as per the MYT Regulations, 2019 for FY 2021-22, subsequently in this Section.

4.4.13 Accordingly, the Commission approves the Normative Gross Generation of 3208.70 MU and 3294.43 MU for FY 2020-21 and FY 2020-21 respectively.

4.5 Auxiliary Energy Consumption and Net Generation for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.5.1 AEML-G has submitted the Auxiliary Energy Consumption of DTPS (excluding FGD) as 8.37% and 8.69% for FY 2020-21 and FY 2021-22 respectively as compared to the normative consumption of 8.5% allowed as per the MYT Regulations, 2019.

4.5.2 With regards to the FGD consumption, for the Truing-up of FY 2021-22 and FY 2022-23, AEML-G has claimed actual Auxiliary Energy Consumption for FGD of 40.49 MU (1.26%) and 38.92 MU (1.17%) respectively.

4.5.3 Considering the Auxiliary Energy Consumption of FGD as 40.49 MU, the total actual Auxiliary Energy Consumption works out to 9.63% for FY 2020-21 whereas total actual Auxiliary Energy Consumption works out to be 9.86% for FY 2021-22 considering 38.92 MU as FGD consumption.

4.5.4 AEML-G has achieved actual net generation of 2,897.45 MU in FY 2020-21 and 3,008.94 MU in FY 2021-22.

Commission's Analysis and Ruling

4.5.5 The Regulation 46.13 of the MYT Regulations, 2019 specify Auxiliary Energy Consumption for existing Thermal power plants as 8.5% excluding FGD and additional 1.2% for thermal Generating Stations with FGD for 250 MW thermal plants resulting in total auxiliary consumption norm of 9.7%.

4.5.6 With regards to the FGD consumption, for the Truing-up of FY 2021-22 and FY 2022-23, AEML-G has claimed actual Auxiliary Energy Consumption for FGD of 40.49 MU (1.26%) and 38.92 MU (1.17%) respectively against the normative Auxiliary Consumption of 1.2% for FGD.

4.5.7 The Commission observes that though the gross Auxiliary Consumption of the ADTPS is within the norm, however, the auxiliary consumption for FGD for FY 2020-21 is 1.26% which is higher than normative 1.2% as specified in the MYT Regulations, 2019. In response to the query raised by the Commission for marginally higher FGD Auxiliary Consumption than the notified norm of 1.2%, AEML-G submitted that the same has resulted due to usage of lower GCV raw coal for FY 2020-21. It was observed that GCV (As Fired Basis) for FY 2020-21 was 4064 kCal/kg whereas for FY 2021-22 is 3793 kCal/kg due to lower dependence on imported coal and higher dependence on raw coal with lower GCV.

4.5.8 Accordingly, the Commission has taken note of the AEML-G response and has considered the actual auxiliary consumption for FGD as 1.26% and 1.17% for the FY 2020-21 and FY 2021-22 respectively for calculation of actual fuel cost. However, for normative fuel cost, the Auxiliary consumption for FGD is considered as 1.2% as per norms specified in MYT Regulations 2019.

4.5.9 Based on the above analysis, the Commission approves the Auxiliary consumption and net generation for FY 2020-21 and FY 2021-22 as outlined in the below table:

Table 62: Auxiliary Consumption and Net Generation for FY 2020-21 as approved by the Commission

Particulars	Unit	FY 2020-21				FY 2021-22			
		MYT Order	MTR Petition	Approved in Order	Normative	MYT Order	MTR Petition	Approved in Order	Normative
Gross Generation	MU	4,134	3206	3,206	3209	4,134	3,338	3,338	3294
Auxiliary Energy Consumption excluding FGD	MU	351	268	268	273	351	290	290	280
	%	8.50	8.37	8.37	8.50	8.50	8.69	8.69	8.50
Auxiliary Energy Consumption of FGD	MU	50	40	40	39	50	39	39	40
	%	1.20	1.26	1.26	1.20	1.20	1.17	1.17	1.20
Auxiliary Energy Consumption including FGD	MU	401	309	309	311	401	329	329	320
	%	9.70	9.63	9.63	9.70	9.70	9.86	9.86	9.70
Net Generation	**MU**	**3,733**	**2897**	**2897**	**2897**	**3,733**	**3008**	**3008**	**2975**

4.5.10 The actual Auxiliary Energy Consumption as claimed by AEML-G has also been verified from MSLDC certificates as discussed in Para 4.3 of this Order.

4.5.11 For FY 2021-22, since DSM was implemented from 11 October 2021 onwards, AEML-G has considered the energy scheduled for DISCOM (AEML-D) only for normative calculations. Hence for normative calculations, net normative generation is 2,975 MU (after considering normative auxiliary consumption of 9.70%).

4.5.12 The Commission approves total actual Auxiliary Energy Consumption (including FGD consumption) of 9.63% and 9.86% against the normative Auxiliary consumption of 9.70% for FY 2020-21 and FY 2021-22 respectively.

4.5.13 Also, the Commission approves actual Net Generation of 2,897 MU for FY 2020-21 and 3,008 MU for FY 2021-22 respectively.

4.5.14 As per MYT Regulations, 2019 the Commission has considered the Auxiliary Energy Consumption as a controllable parameter. Hence, the difference between the actual

Auxiliary Energy Consumption and the normative Auxiliary Energy Consumption for the respective years have been considered for computing the sharing of efficiency gains and has been dealt in subsequent section of this Order.

4.6 Station Heat Rate for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.6.1 The actual SHR submitted is 2,263 kCal/kWh in FY 2020-21 and 2,261 kCal/kWh in FY 2021-22 which are below the norms as specified in the MYT Regulations, 2019.

4.6.2 AEML-G has proposed the sharing of gains and losses in total variable charges, on account of variation in norms of operation, in accordance with the MYT Regulations, 2019.

Commission's Analysis and Ruling

4.6.3 As per MYT Regulations, 2019 the normative SHR is 2430 kCal/kWh for FY 2020-21 and FY 2021-22 respectively. AEML-G has submitted the actual SHR of 2263 kCal/kWh for FY 2020-21 and 2261 kCal/kWh for FY 2021-22, which is well within the normative SHR of 2430 kcal/kWh.

4.6.4 Accordingly, the SHR approved by the Commission is as shown in Table below:

Table 63: Station Heat Rate as approved by the Commission

Particulars	Unit	FY 2020-21			FY 2021-22		
		Normative	MTR Petition	Approved in Order	Normative	Petition	Approved in Order
Station Heat Rate	kcal/kWh	2430	2,263	2,263	2430	2,261	2,261

4.6.5 The Commission approves the actual Station Heat Rate of 2263 kCal/kWh and 2261 kCal/kWh for Truing-up of FY 2020-21 and FY 2021-22 respectively.

4.6.6 As the Station Heat Rate is a controllable performance parameter, the sharing of gains or losses on the difference between the actual and the normative Station Heat Rate has been computed as per the MYT Regulations, 2019 and has been dealt in subsequent section of this Order.

4.7 Secondary Fuel Oil Consumption for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.7.1 The actual Secondary Fuel Oil Consumption (SFOC) was 0.091 ml/kWh in FY 2020- 21 and 0.11 ml/kWh in FY 2021-22, which is below the norms of 0.50 ml/kWh as approved by the Commission in its MYT Order.

Commission's Analysis and Ruling

4.7.2 As per Regulation 46.11 of the MYT Regulations, 2019, the normative SFOC for coal based Thermal Generating Stations is 0.50 ml/kWh.

4.7.3 The Commission observes that the actual SFOC is significantly lower than the norm therefore the Commission has the accepted the claim of AEML-G and allows the actual SFOC.

Table 64: Specific Fuel Consumption as approved by the Commission

Particulars	Unit	FY 2020-21			FY 2021-22		
		Normative	MTR Petition	Approved in Order	Normative	Petition	Approved in Order
Specific Fuel Consumption	ml/kWh	0.50	0.09	0.09	0.50	0.11	0.11

4.7.4 SFOC being a controllable parameter, the difference between actual SFOC for FY 2020-21 and FY 2021-22 and normative SFOC of 0.50 ml/kWh is considered for computing the sharing of efficiency gains as per the MYT Regulations, 2015 and has been dealt in subsequent section of this Order.

4.8 Operational Parameters Approved by the Commission

4.8.1 Based on the above approach as adopted by the Commission, the approved operational parameters are summarized as per Table below. The sharing of efficiency gains/ losses is described in the subsequent sections:

Table 65: Summary of Operational Parameters for FY 2020-21 and FY 2021-22 as approved by the Commission

Particulars	Unit	FY 2020-21			FY 2021-22		
		Normative	MTR Petition	Approved in Order	Normative	MTR Petition	Approved in Order
Availability	%	85	98.78	98.78	85	87.97	87.97
PLF	%	73.26	73.20	73.20	76.21	75.22	75.22
Gross Generation	MU	3,209	3,206	3,206	3,294	3338	3338
Total Auxiliary Consumption including FGD	MU	311	309	309	320	329	329
	%	9.70	9.63	9.63	9.70	9.86	9.86
Net Generation	MU	2897	2897	2897	2975	3008	3008
SHR	kcal/kWh	2430	2,263	2,263	2430	2,261	2,261
SFOC	ml/kWh	0.50	0.09	0.09	0.50	0.11	0.11

4.9 Transit and Handling Loss for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.9.1 For the FY 2020-21, the actual transit loss in case of washed coal, imported coal and raw coal has been 0.82%, 0.88% and 1.10% respectively, as against the normative transit loss of 0.80%, 0.20% and 0.80% respectively.

4.9.2 For the FY 2021-22, the actual transit loss in case of washed coal, imported coal and raw coal has been 0.81%, 0.89% and (0.03) % respectively, as against the normative transit loss of 0.80%, 0.20% and 0.80% respectively.

4.9.3 AEML-G submitted that it has considered normative transit loss for determination of landed cost of fuel for FY 2020-21.

Commission's Analysis and Ruling

4.9.4 As per the Regulation 46.18 of MYT Regulations, 2019, the norms for Transit and handling Loss on domestic coal is 0.80% for non-pit head Generating stations and in case of imported coal is 0.20%.

4.9.5 The actual transit loss for washed / imported and Raw coal is higher than the normative transit loss allowable as per the MYT Regulations 2019 in FY 2020-21. However, for FY 2021-22, even though the actual transit loss of Washed / imported coal is higher than normative transit loss, the same is negative for Raw coal.

4.9.6 AEML-G in reply to the query raised by the Commission for the clarification on the higher transit loss as compared to the norms for FY 2020-21 and negative transit loss for Raw coal in FY 2021-22, has submitted the following reasons:

- Washed coal is transported over a distance of 1400 kms (from Korba, Chhattisgarh to ADTPS in Maharashtra) in open railway wagons. The transportation time from source to destination is approximately 90 hrs with multiple stoppages enroute, hence there is pilferage of coal during transportation.
- Two different weighing systems are deployed for weight measurement i.e. at loading end, Railways has provided in-motion weighing system whereas ADTPS uses static type weighing system. Due to different weighing systems, the transit loss could appear to be higher.
- Also, for imported coal, the actual transit loss was higher due to improper handling of coal by stevedoring agency against which the penalty was also levied.
- As regards raw coal the transit loss is negative in FY 2021-22, which might be due to different weighing systems. Further, the weight of coal increases at unloading end in the monsoon months. This has also contributed to the negative transit loss.

In any event, it is submitted that AEML-G is not claiming actual transit losses and is limiting its claim to normative loss of 0.8% only.

4.9.7 AEML-G further submitted that as per the contract of imported coal, the delivery point is Dahanu anchorage port, which is 10 to 12 nautical miles away from Dahanu jetty. Therefore, coal is transported from Vessel from anchorage port to jetty through barges and from jetty to coal yard through trucks and accordingly there are transit losses. Hence, there is actual transit loss during transport of coal from vessel to Dahanu coal yard and, in accordance with the Regulations, claims the normative transit losses of 0.2%.

4.9.8 Furter, AEML-G submitted that it has claimed the normative transit loss for FY 2020-21 and FY 2021-22 for calculation of normative fuel cost.

4.9.9 The Commission noted the submission made by AEML-G and accordingly, approves normative Transit and handling Loss of 0.80% on domestic coal and 0.20% on imported coal as per Regulation 46.18 of MYT Regulations, 2015.

4.9.10 Being a Controllable Parameter, the Commission has computed the sharing of gains/losses on account of the difference between the actual and normative Transit Loss as per MYT Regulations, 2019 and has been dealt in subsequent section of this Order.

4.10 GCV for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.10.1 As per Regulations 50.6 of MYT Regulations, 2019, the quantity of primary fuel consumed shall be calculated on the basis of normative SHR (less heat contributed by secondary fuel oil for coal based generating station) and gross calorific value of coal as billed by the supplier, less:

a) Actual loss in calorific value of coal between "as billed by supplier" and "as received at generating station", subject to the maximum loss in calorific value of 300 kCal/kg; and

b) actual stacking loss subject to the maximum stacking loss of 85 kCal/kg for pithead stations and 120 kcal/kg for non-pithead stations;

4.10.2 AEML-G uses both domestic washed coal and imported coal at ADTPS. Also, in the month of September 2020, it has also used raw coal procured from CIL for generating power. Historically the stacking loss at ADTPS has been calculated as the difference between weighted average As Received GCV (of both washed coal and imported coal) and weighted average As Fired GCV (of both washed coal and imported coal). In the same manner, AEML-G has calculated the GCV loss in transit between As Billed GCV and As Received GCV by considering the difference between weighted average As Billed GCV and the weighted average As Received GCV. The Commission in the FAC approval for September 2020 dated 6 December, 2020 had approved the FAC for September, 2020 considering this methodology.

4.10.3 Further, the Commission, in AEML-G's MYT Order had analysed the GCV of coal at mine end and at ADTPS end (post washing) and had observed that GCV of coal is being improved due to washing. Thus, the Commission had stated that the relaxation of transit loss of 300 kCal/kg allowed as per the MYT Regulations, 2019 between GCV 'as billed' by supplier and GCV 'as received' at generating station" is not applicable in case of AEML-G.

"5.4.29 Based on the above analysis and the fact that AEML-G uses washed coal, it is evident that the GCV of coal is being improved due to washing. ***Thus, the relaxation of transit loss of 300 kcal/kg allowed as per the MYT Regulations, 2019 between GCV 'as billed' by supplier and GCV 'as received' at generating station" is not applicable in AEMLG's case****. Further, AEML-G itself has submitted that loss in calorific value is much less than 300 kcal/kg.*

*5.4.30 Considering the washery process undertaken by the AEML-G and having a yield loss of 15%, the burden of which is pass on to the consumers, the Commission is not inclined to provide any actual loss in calorific value of coal between 'as billed' and 'as received'***.** *However, in future, the Higher of GCV at Mine end or ADTPS (washed coal) will be considered for computation of energy charges, whereby GCV will be considered on ARB* *basis post moisture correction based on the formula as provided by MoP and World council.*

……………….

5.4.32 However, the Commission shall take a final call on GCV at the time of true-up based on the results of third-party analysis and prudence check by the Commission. (Emphasis added)"

4.10.4 AEML-G further submitted that the Commission has relaxed the norm for MSPGCL in MYT Order dated 30 March, 2020 in Case No. 296 of 2019 and further relaxation in the Review Order dated 01 March 2021 in Case No. 180 of 2020 (Review of MYT Order of MSPGCL).

4.10.5 From the ruling of the Commission in MSPGCL Order, it appears that the intent is to allow GCV loss both due to moisture correction (between equilibrated method and ARB method) and due to grade slippage. In case of washed coal, the GCV of coal improves due to washing and therefore its grade improves. However, GCV loss due to moisture correction would still remain. Hence the observation of the Commission that transit loss of 300 kCal/kWh is not applicable for washed coal is not correct. Without prejudice to the above contentions, AEML-G has considered the weighted average GCVs as provided and approved by the Commission during prudence check of fuel cost in monthly FAC approvals.

4.10.6 For FY 2021-22, AEML-G submitted that in FAC approvals from September 2021 onwards, the Commission is applying the limit of 300 kCal/kg in GCV loss in transit to the "As Billed GCV" of raw coal separately instead of applying the limit to the "weightage average As Billed GCV" of washed coal and raw coal for the month.

4.10.7 Since all calculations of FAC for AEML-G are made using blended quantity and rate, the loss in GCV of transit should also be with respect to the difference between blended As Billed GCV and blended As Received GCV. In case of stacking loss also, the Commission applies the limit of 120 kCal/kg to the difference between As Received GCV and As Fired GCV on a blended basis, rather than applying the limit to washed coal or raw coal individually. Similar philosophy should also be adopted for GCV loss between as billed and as received GCV.

4.10.8 AEML-G for FY 2021-22 has considered the monthly GCVs as submitted in monthly FAC filings for deriving the weighted average GCVs. Further, for calculation of stacking loss. AEML-G, in the FAC submission for August 2021, had submitted that the As Received GCV should be considered as the weightage average of As Received GCV of opening stock of coal and As Received GCV of coal received during the month. This is because coal fired during the month is either from opening stock or from coal received during the month or from both. The Commission had accepted the method proposed by AEML-G in the prior approval of FAC for August 2021. Accordingly, for calculation of stacking loss for FY 2021-22, AEML-G has calculated the "As Received GCV" as the weightage average "As Received GCV" of opening stock of coal for the month and the "As Received GCV" of coal received during the month for each month of FY 2021-22.

4.10.9 Accordingly, GCV (As Billed, As Received and As Fired Basis) as considered in the

MYT Order and as per actuals as per AEML-G are shown in table below:

Table 66: GCV - As Billed, As Received GCV and As Fired GCV for FY 2020-21and FY 2021-22 as per AEML-G (kCal/kg)

Particulars	MYT Order	Actual	MYT Order	Actual
	FY 2020-21		FY 2021-22	
As Billed GCV: (Quantity procured during year)				
Weighted Average GCV	**4,100**	**4,097**	**4,100**	**3924**
Washed Coal	3,990	4,013	3,990	3953
Imported Coal	4,411	4,250	4,411	4065
Raw Coal	0	3,940	0	3670
Difference - As Billed and As Received GCV	17	(16)	17	39
As Received GCV: (Quantity procured during year)				
Weighted Average GCV	**4,083**	**4,113**	**4,083**	**3885**
Washed Coal	3,990	4,044	3,990	3955
Imported Coal	4,346	4,250	4,346	4065
Raw Coal	0	3,396	0	3289
As Received GCV: (Weighted average basis during year) – For calculation of stacking loss				
Weighted Average GCV				**3918**
Washed Coal				4004
Imported Coal				4065
Raw Coal				3184
Stacking Loss	83	50	83	125
As Fired GCV:				
Weighted Average GCV	**4,000**	**4,064**	**4,000**	**3793**
Washed Coal	3,990	4,029	3,990	3876
Imported Coal	4,029	4,137	4,029	3855
Raw Coal	0	3,433	0	3089
GCV of Secondary Fuel (kcal/kl)	10,759	10.784	10,759	10,804

4.10.10 AEML-G has considered the actual bending ratio of 63.8 : 35.6 : 0.6 for FY 2020-21 and 88.8: 0.7: 10.6 for FY 2021-22, for computing weighted average GCVs against usage of Washed / Imported / Raw coal respectively.

4.10.11 With respect to Stacking loss, Since the weightage average stacking loss for FY 2021-22, works out to more than 120 kCal/kg, AEML-G has limited the stacking loss to 120 kCal/kg as per MYT Regulations, 2019.

4.10.12 Accordingly, considering these parameters, AEML-G has worked out the normative variable cost on yearly basis for the purpose of truing up considering the same principle as adopted during approval of the variable cost for FY 2017-18 and FY 2018-19 during

Truing-up in the MYT Order.

Commission's Analysis and Ruling

4.10.13 As sought by the Commission, AEML-G provided details of actual GCV for primary and secondary fuel for FY 2020-21 and FY 2021-22.

4.10.14 The Commission had sought the following additional information with respect to imported coal, domestic washed coal and liquid fuel for FY 2020-21 and FY 2021-22:

- Month-wise details of opening fuel stock, fuel received, fuel consumed and closing fuel stock;
- Month-wise calculation for GCV 'as fired';
- Copies of fuel bills for domestic washed coal, imported coal and liquid fuel.

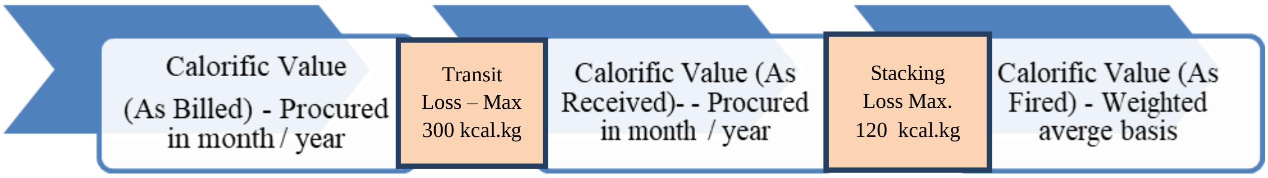
4.10.15 It is observed that AEML-G has considered different method in FY 2021-22 for calculation of GCV (As Received Basis) as compared to approach adopted in FY 2020-21 against which the stacking loss is claimed. As per AEML-G, the approach in FY 2021-22 has been changed for calculation of stacking loss (i.e. difference between the GCV (As Received Basis) and GCV (As Fired Basis)), the As Received GCV should be considered as the weightage average of As Received GCV of opening stock of coal and As Received GCV of coal received during the month as the coal fired for the generation of the power is also considered on the weighted average basis.

4.10.16 However, the Commission is of the view that approach adopted by AEML-G to compute two (2) sets of "As Received GCV" (procured during the month / year and weighted average GCV) cannot be considered for computing the overall GCV loss (i.e. GCV loss between As billed and As Received) in view of the fact that both will be isolated cases as GCV loss in transit will be calculated considering the Coal procured during the month / year and Stacking loss will be calculated considering GCV on weighted average basis. Correspondingly, for calculation of stacking loss, no impact of GCV (As Received Basis) with any GCV loss correction of 300 kcal/kg will be considered in the approach adopted by AEML-G which is not the intent of the MYT Regulations 2019. The principle as specified in Statement of Reasons for MYT Regulations 2019 is outlined as below:

> *"**It is the responsibility of the Generator to ensure quantity as well as quality of coal from loading point till the unloading point and further to firing of coal.** Since the Generator is paying price of coal for a particular range of GCV, the Generator should ensure all quality checks in procurement of coal. The GCV of coal for which the price is being paid by the Generator should not be less than the minimum of the range of GCV specified in the standard. The Consumers are paying the price of coal at loading point and hence, in the interest of consumers, it is proposed to consider the quality of Coal for which the Generator pays.*

4.10.17 Accordingly, the Commission has recalculated GCV (As Received Basis) on the coal procured during the month / year and the weighted average GCV so computed is considered for computation of stacking loss against the GCV (As Fired). The impact of opening / closing stock has not been considered while computing GCV (As Received

Basis), the cyclical usage of the coal will nullify the impact in the going concern in future month / year. Hence, the Commission has adopted following approach for calculation of GCV loss in transit and stacking loss:



4.10.18 Further, as per Regulations 50.6 of MYT Regulations, 2019, the actual loss in calorific value of coal between “As billed by supplier” and “As received at generating station”, is limited to the maximum loss in calorific value of 300 kcal/kg. AEML-G has considered the loss on the weighted average GCV (As Received) and (As Billed) basis. As per AEML-G, since all calculations of FAC for AEML-G are made using blended quantity and rate, the loss in GCV of transit should also be with respect to the difference between blended As Billed GCV and blended As Received GCV. Further, it stated that in case of stacking loss also, the Commission applies the limit of 120 kCal/kg to the difference between As Received GCV and As Fired GCV on a blended basis, rather than applying the limit to washed coal or raw coal individually. Similar philosophy should also be adopted for GCV loss between “As Billed” and “As Received” GCV.

4.10.19 Before deriving on any formula for determination of transit loss, the Commission has analysed the GCV Transit loss as submitted by AEML-G as follows:

Table 67: GCV Transit loss for FY 2020-21 and FY 2021-22 (kCal/kg)

Particulars	FY 2020-21	FY 2021-22
As Billed GCV:	**4097**	**3924**
Washed Coal	4013	3953
Imported Coal	4250	4065
Raw Coal	3940	3670
As Received GCV:	**4113**	**3885**
Washed Coal	4044	3955
Imported Coal	4250	4065
Raw Coal	3396	3289
GCV loss in transit:	**-17**	**39**
Washed Coal	-31	-1
Imported Coal	0	0
Raw Coal	544	382

4.10.20 It is observed from the above table that GCV loss of raw coal is 544 kCal/kg and 382 kCal/kg for FY 2020-21 and FY 2021-22 which is higher than the GCV loss restricted in MYT Regulations, 2019 to the limit of 300 kCal/kg. However, the GCV Transit loss is NIL in case of Imported coal due to contractual obligation and for Washed coal, there is an improvement due to washing of coal. Hence, the Commission has concluded in the last MYT Order that the relaxation of transit loss of 300 kcal/kg allowed as per the MYT Regulations, 2019 between GCV 'as billed' by supplier and GCV 'as received' at generating station" is not applicable in AEML G's case due to usage of Washed / Imported coal. However, from FY 2020-21 onwards, AEML-G has started using raw coal and has proposed to cross subsidise the inefficiency of the raw coal with the efficiency of imported / Washed coal. This conveniently veneers the stacking inefficiency of individual coal source procured by AEML-G. Further, as provided in the Statement of Reasons, "***it is the responsibility of the Generator to ensure quantity as well as quality of coal from loading point till the unloading point and further to firing of coal. Since the Generator is paying price of coal for a particular range of GCV, the Generator should ensure all quality checks in procurement of coal."*** Therefore, GCV of coal at the loading point is a contractual obligation between the coal company and the generator and since every FSA differs with different source of coal, it is necessary to ensure the Transit GCV loss source-wise rather than on weighted average basis. In case the weighted average basis is adopted for calculation of GCV transit loss, then the inefficiency in relation to the coal procurement process and contractual obligation is unnecessarily passed on to the consumers. Hence, the Commission does not approve the methodology as suggested by AEML-G to calculate the GCV Transit loss on the weighted average basis and is of the view that the limit of 300 kCal/kg in GCV loss in transit to the "As Billed GCV" of raw coal is to be considered separately instead of applying the limit to the "weightage average As Billed GCV" of washed coal and raw coal for the month, is the correct approach.

4.10.21 GCV of the Secondary fuel is approved as submitted by AEML- G after prudence check by reviewing the bills.

4.10.22 Accordingly, the GCV as approved by the Commission (As Billed, As Received and As Fired basis) considering the 300kCal/g transit loss and 120 kCal/kg stacking loss is outlined as below:

Table 68: GCV of Coal/Oil for FY 2020-21 and FY 2021-22 approved by the Commission

Particulars	MYT Order	Actual	Approved	MYT Order	Actual	Approved
	FY 2020-21			FY 2021-22		
As Billed GCV: (Quantity procured during year)						
Weighted Average GCV	**4,100**	**4,097**	**4,097**	**4,100**	**3924**	**3,924**
Washed Coal	3,990	4,013	4,013	3,990	3953	3,953
Imported Coal	4,411	4,250	4,250	4,411	4065	4,065
Raw Coal	0	3,940	3,940	0	3670	3,670
Transit Loss - Difference of As Billed and As Received GCV	**17**	**-17**	**-18**	**17**	**39**	**30**
Washed Coal		-31	-31		-2	-1
Imported Coal		0	0		0	0
Raw Coal		544	300		382	300

Particulars	MYT Order	Actual	Approved	MYT Order	Actual	Approved
	FY 2020-21			FY 2021-22		
As Received GCV: (Quantity procured during year)						
Weighted Average GCV	**4,083**	**4,113**	**4,115**	**4,083**	**3,885**	**3,894**
Washed Coal	3,990	4,044	4,044	3,990	3,955	3,955
Imported Coal	4,346	4,250	4,250	4,346	4,065	4,065
Raw Coal	0	3,396	3,640	0	3,289	3,370
Stacking Loss	**83**	**50**	**51**	**83**	**93**	**101**
Washed Coal		15	15		79	79
Imported Coal		113	113		210	210
Raw Coal		-37	207		199	281
As Fired GCV:						
Weighted Average GCV	**4,000**	**4,064**	**4,064**	**4,000**	**3793**	**3,793**
Washed Coal	3,990	4,029	4,029	3,990	3876	3,876
Imported Coal	4,029	4,137	4,137	4,029	3855	3,855
Raw Coal	0	3,433	3,433	0	3089	3,089
GCV of Secondary Fuel (kcal/kl)	10,759	10,784	10,784	10,759	10,804	10,804

4.10.23 While approving the GCV, the Commission has analysed the fuel bills and information provided relating to GCV (as certified by third party agency).

4.11 Landed Cost of fuel for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.11.1 The Commission had considered the landed cost of fuel based on the average fuel price from April 2019 to August 2019 and had applied an escalation factor of 3% to the average fuel price determined above to consider the fuel price for FY 2020-21 and FY 2021-22 in MYT Order.

4.11.2 Also, the Commission had considered LDO price as Rs. 46,317/kL, based on the actual price of LDO for the period April 2019 to August 2019.

4.11.3 The actual landed cost of Coal and LDO for FY 2020-21 and FY 2021-22 considered for Truing-up has been outlined in the following table:

Table 69: Landed Cost of Coal and LDO for FY 2020-21 and FY 2021-22, as per AEML-G

Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition
	FY 2020-21		FY 2021-22	
Landed Cost				
Washed Coal (Rs./MT)	5,524	5,542	5,690	5,407

Particulars	MYT Order	MTR Petition	MYT Order	MTR Petition
	FY 2020-21		FY 2021-22	
Imported Coal (Rs./MT)	5,662	5,292	5,832	6,649
Raw Coal (Rs./MT)	0	4,867	0	4,863
LDO (Rs./KL)	46,317	44,042	46,317	47,866

Commission's Analysis and Ruling

Landed cost of Coal

4.11.4 The Commission notes that similar to GCV, the landed cost of coal and LDO as approved by the Commission during MYT Order for FY 2020-21 and FY 2021-22 was based on H1 data of FY 2019-20.

4.11.5 ADTPS uses both Domestic (washed) and Imported coal for its generation. With regards to Domestic coal, ADTPS procures it from the South Eastern Coalfields Limited (**SECL**) having a GCV range band of G-10 & G-11 with GCV in the range of~ 4000 kCal/kg.

4.11.6 The Commission observes that the landed cost data for entire financial year takes into account the weighted average impact of coal received and costs paid for each agency involved in coal value chain starting from SECL, Railways, Coal Handling agents, Coal washing agents etc. Similarly, the imported coal has been procured on spot basis, and the prices are dependent upon fluctuating GCV based coal indices in global market. Therefore, imported coal for entire year is likely to be different than actual H1 of FY 2019-20.

Washed Coal

4.11.7 The landed cost (i.e., Basic cost + Freight + Taxes/Duties + Handling charges + Other charges + Washery / Beneficiation Charges) of domestic washed coal is considered for energy charge computation as claimed by ADTPS.

4.11.8 The basic price of raw coal available at the boundary of mine is as per price circular issued by SECL on time to time basis. This raw coal is then transported to Coal washery and is being washed. Thereafter, such washed coal is despatched to ADTPS by first transporting coal from washery to Railway Siding and thereafter transporting the clean coal through Rail to ADTPS station. Accordingly, washery charges, railway freight charges, local transport charges and other handling charges are added to above basic cost of coal to arrive at the landed cost of coal at ADTPS station.

4.11.9 The Commission has considered the landed cost per MT charges as submitted by AEML-G calculated on the Moving Average Price Method on the basis of coal inventory stock pertaining to opening stock and procured during the year as shown in Table below:

Table 70: Landed Cost of Washed Coal for FY 2020-21 and FY 2021-22

Particulars	Unit	Actual Fuel Cost	Normative Fuel Cost	Actual Fuel Cost	Normative Fuel Cost
		FY 2020-21		FY 2021-22	
Basic Cost	Rs/MT	2,149.07	2,149.07	2,080.00	2,080.00

Particulars	Unit	Actual Fuel Cost	Normative Fuel Cost	Actual Fuel Cost	Normative Fuel Cost
		FY 2020-21		FY 2021-22	
Freight	Rs/MT	2,799.82	2,799.82	2,797.02	2,797.02
Fuel Handling Charges (Local Transportation Charges, Beneficiation Charges and other handling charges)	Rs/MT	207.27	207.27	206.17	206.17
Any other charges (Liaisoning and loading supervision, Weighment, Maintenance of GCV, Third Party Sampling Charges etc)	Rs/MT	340.67	340.67	280.41	280.41
Total Price excluding Transit Loss	**Rs/MT**	**5,496.83**	**5,496.83**	**5,363.60**	**5,363.60**
Transit Loss	%	0.82%	0.80%	0.81%	0.80%
Total Price including Transit Loss	**Rs/MT**	**5,542.31**	**5,541.16**	**5,407.66**	**5,406.86**

4.11.10 For FY 2020-21, no coal was procured from SECL for the month of April 2020 to July 2020. Also, the Raw coal procured from SECL was 0.98 MMT against which the washed coal procured from washery was 0.83 MMT resulting in loss of 15%. Accordingly, it was noticed that yield of the raw coal post beneficiation process (Washery) is around 85% which is in line with the guarantee provided in the beneficiation agreement.

4.11.11 For FY 2021-22, the Raw Coal procured from SECL was 1.89 MMT against which the washed coal procured from washery was 1.61 MMT resulting in loss of 15%. Accordingly, it was noticed that yield of the raw coal post beneficiation process (Washery) is around 85% which is in line with the guarantee provided in the beneficiation agreement.

Imported Coal

4.11.12 It was observed that AEML-G has procured 407739 MT imported coal in FY 2020-21 and 108044 MT in FY 2021-22 i.e. also in the month of March 2022. It was observed that AEML-G was utilising the imported coal from the inventory till the month of August 2021 and post which no Imported coal was used till February 2022. The Commission has asked AEML-G to confirm if the imported coal has been procured through competitive bidding. In its response, AEML-G stated that it has procured imported coal through competitive bidding.

4.11.13 As per AEML-G, the imported coal supply agreement with M/s Taurus Commodities General Trading LLC was signed and is valid till 13.11.2024. AEML has invited bids from technically competent and financially sound coal traders / suppliers / miners for long term supply of non-coking coal for its 500 MW Dahanu Thermal Power Station through International Competitive Bidding (ICB) process and Bidding process was conducted in two stages; Technical bid and Price bid as submitted by bidders as per clause 11, 12 and 12.6 of Instruction to Bidder (ITB). Evaluation of bids were carried out to identify the most advantageous Bid(s) to AEML-G. The Price bids of those bidders whose Technical bids were found responsive in accordance with ITB clauses were opened to identify the "Most Favourable Bids". For the purpose of Bid evaluation, CIF Price of the Coal as quoted by Bidder duly complying with the guaranteed specification of coal as per ITB clause were considered. Evaluation was based on the CIF price ($/MT) at Point of Delivery as per the draft Coal Supply Agreement, forming part of Tender document. All the responsive bids received were compared for the purpose of evaluation and the Bidder offering lowest "evaluated base CIF price per tonne" was selected as the L1 Bidder. Based on evaluation of Price bids, bid submitted by M/s Taurus Commodities General Trading LLC was found to be Most Favourable Bid and accordingly LOI was issued, and CSA was signed with M/s Taurus Commodities General Trading LLC.

4.11.14 Under the Contract, the Free on Board (FOB) price shall be calculated as per the formula below and is subject to variations for payment purposes, considering the specified indices as Bill of lading date for each shipment: The price of coal is linked to New Castle index and Richards bay index.

$$\text{FOB} = \frac{\{API\ 4\ Index + NEWC\ Index\}\ X\ 0.90\ X\ 4400}{2 \text{ x } 6300}$$

4.11.15 Mainly international trade of coal takes place considering Newcastle and Richards Bay Indices (API 4 Index) and all vendors provide their quotes linked to the said Indices, pro-rated to the GCV required. Even in the case of competitive bidding, the bidding parameter is the spread (discount / premium) which the different vendors submit in their bids and hence the price discovered through the bidding process is also essentially linked to the Indices.

4.11.16 The Commission has considered the landed cost per MT charges of imported coal as submitted by AEML-G calculated on the Moving Average Price Method on the basis of coal inventory stock pertaining to opening stock and procured during the year as shown in Table below:

Table 71: Landed Cost of Imported Coal for FY 2020-21 and FY 2021-22

Particulars	Unit	Actual Fuel Cost	Normative Fuel Cost	Actual Fuel Cost	Normative Fuel Cost
		FY 2020-21		FY 2021-22	
Basic Cost and Freight	Rs/MT	4,5,90.60	4,590.60	6,090.74	6,090.74
Other Charges and Taxes and Duties	Rs/MT	654.88	654.88	545.06	545.06
Total Price excluding Transit Loss	**Rs/MT**	**5,245.48**	**5,245.48**	**6,635.80**	**6,635.80**
Transit Loss	%	0.88%	0.20%	0.89%	0.20%
Total Price including Transit Loss	**Rs/MT**	**5291.87**	**5.255.99**	**6,695.13**	**6,649.10**

4.11.17 The above computed cost includes the basic purchase cost of imported coal (FOB price + Freight charges) and the other charges such as stevedoring charges, loading/unloading charges at DTPS jetty, road transportation charges form ADTPS jetty to ADTPS stockyard, insurance, custom duty, analysis charges, taxes/duties etc..

Raw Coal

4.11.18 The landed cost (i.e., Basic cost + Freight + Taxes/Duties + Handling charges + Other charges) of raw coal is considered for energy charge computation as claimed by ADTPS.

4.11.19 The basic price of raw coal available at the boundary of mine is as per price circular issued by SECL on time to time basis. Thereafter such raw coal is despatched to ADTPS through Rail to ADTPS station. Accordingly, railway freight charges, local transport charges and other handling charges are added to above basic cost of coal to arrive at the landed cost of coal at ADTPS station. The Commission has considered the landed cost per MT charges as submitted by AEML-G calculated on the Moving Average Price Method on the basis of coal inventory stock pertaining to opening stock and procured during the year as shown in Table below:

Table 72: Landed Cost of Raw Coal for FY 2020-21 and FY 2021-22

Particulars	Unit	Actual Fuel Cost	Normative Fuel Cost	Actual Fuel Cost	Normative Fuel Cost
		FY 2020-21		FY 2021-22	
Basic Cost	Rs/MT	1,797.46	1,797.46	1,754.15	1,754.15
Freight	Rs/MT	2,802.58	2,802.58	2,822.78	2,822.78
Fuel Handling Charges (Local Transportation Charges and other handling charges)	Rs/MT	205.40	205.40	207.24	207.24
Any other charges (Liaisoning and loading supervision, Weighment, Maintenance of GCV, Third Party Sampling Charges etc)	Rs/MT	8.36	8.36	39.59	39.59
Total Price excluding Transit Loss	**Rs/MT**	**4,813.81**	**4,813.81**	**4,823.76**	**4,823.76**
Transit Loss	%	1.10%	0.80%	-0.03%	0.80%
Total Price including Transit Loss	**Rs/MT**	**4,867.18**	**4,852.63**	**4,822.21**	**4,862.66**

4.11.20 In FY 2021-22, there was a mandate of import substitution by the Government of India to all generating companies. As part of import substitution, AEML-G had signed MoUs for procuring 1 million ton of raw coal from SECL and MCL. However, the MoUs were on best effort basis, i.e. there was no obligation on SECL/ MCL to supply the full quantity of coal as agreed in MoUs. Since, use of raw coal was beneficial, as prices of imported coal increased significantly compared to domestic coal, AEML-G procured raw coal to the maximum extent in FY 2021-22.

4.11.21 AEML-G has started the procurement of Raw coal from FY 2020-21 whereby the Raw coal procured was 0.01 MMT in FY 2020-21 which was used in the month of September 2020 and 0.21 MMT for FY 2021-22 as a substitute to Imported coal due to increase in the price of imported coal.

4.11.22 Price of the Secondary fuel is approved as submitted by AEML- G after prudence check and reviewing the bills.

4.11.23 Based on the above analysis, the Commission approves GCV of Coal/Oil and Cost of Fuel as under:

Table 73: Rate of Fuel for FY 2020-21 approved by the Commission

Particulars	Unit	Normative	MYT Order	MTR Petition	Approved in Order
Price- Washed Coal	Rs./MT	5,541.16	5,524.00	5,542.31	5,542.31
Price- Imported Coal	Rs./MT	5.255.99	5,662.00	5,291.87	5,291.87
Price- Raw Coal	Rs./MT	4,852.63	-	4,867.18	4,867.18
Price- Secondary Fuel Oil	Rs./kl	44,042.00	46,317.00	44,042.00	44,042.00

Table 74: Rate of Fuel for FY 2021-22 approved by the Commission

Particulars	Unit	Normative	MYT Order	MTR Petition	Approved in Order
Price- Washed Coal	Rs./MT	5,406.86	5,690.00	5,407.66	5,407.66
Price- Imported Coal	Rs./MT	6,649.10	5,832.00	6,695.13	6,695.13
Price- Raw Coal	Rs./MT	4,862.66	-	4,822.21	4,822.21
Price- Secondary Fuel Oil	Rs./kl	47,865.69	46,317.00	47,865.69	47,865.69

4.12 Fuel Expenses for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.12.1 AEML-G uses suitable mix of domestic washed coal and imported coal at ADTPS. Better operational performance and proper blending of washed coal and imported coal has helped AEML-G reduce its fuel cost vis-a-vis fuel cost allowable at normative performance parameters.

4.12.2 For FY 2020-21, AEML-G submitted that in MYT Order, the Commission had considered a blending ratio of 74:26 (washed coal to imported coal) in the MYT Order based on the actual blending ratio of washed coal to imported coal during the period April 2019 to August 2019. However, the actual bending ratio for the whole of FY 2020-21 works out to 63.8:35.6:0.6 (washed coal, imported coal and raw coal) which has been considered for calculated of weighted average basis of GCV and Landed cost of fuel, while claiming it for truing up for FY 2020-21.

4.12.3 For FY 2021-22, AEML-G submitted that in MYT Order, the Commission had considered a blending ratio of 74:26 (washed coal to imported coal) in the MYT Order and the actual bending ratio for the whole of FY 2021-22 works out to 88.8:0.07:10.6 (washed coal, imported coal and raw coal) which has been considered for calculated of weighted average basis of GCV and Landed cost of fuel, while claiming it for truing up for FY 2020-21.

4.12.4 As per MYT Regulations, 2019, any variation in Price and Calorific Value of fuel as received at unloading point less actual stacking loss, subject to the maximum stacking loss of 150 kcal/kWh, vis-a-vis the approved values shall be adjusted on a month-to-month basis. Accordingly, AEML-G in its monthly computations of FAC, has considered the stacking loss at actuals and in whichever month actual exceeded the threshold of 150 kcal/kWh, it is limited to the said threshold.

4.12.5 On yearly basis, the actual stacking loss at ADTPS for FY 2020-21 worked out to 50 kcal/kWh whereas for FY 2021-22 the stacking loss is 125 kcal/kWh, which are less than the norm of 150 kcal/kWh. Accordingly, ADTPS has reworked the normative variable cost on yearly basis for the purposes of true-up.

4.12.6 Further, in addition to the landed cost of fuel, AEML-G has also incurred additional fuel expenses of Rs. 0.14 Crore for FY 2020-21 and Rs. 0.17 Crore for FY 2021-22 respectively. For FY 2020-21, the cost is related to FERV (loss) booked against the coal payment through LC and for FY 2021-22, the same is related to FERV (loss) of Rs. 0.17 Crore on a debit note of $ 5,10,000 (received in FY 2021-22) by coal supplier (M/s Taurus) for delay in unloading coal vessels received between October 2020 to January 2021. The above charges are booked as other fuel expenses in the petition by AEML-G.

4.12.7 Accordingly, the actual fuel cost incurred during FY 2020-21 and FY 2021-22 as claimed by AEML-G is outlined in the following table:

Table 75: Total Fuel Cost claimed by AEML-G (Rs. Crore)

Particulars	MYT Order	Normative	Actual	MYT Order	Normative	Actual
	FY 2020-21				FY 2021-22	
Fuel Cost	1,403.10	1,047.91	973.96	1,444.91	1,135.07	1,055.01*
Other Fuel Expenses		0.14	0.14		0.17	0.17

*- Actual fuel cost considered in proportion to the energy scheduled for DISCOM (AEML-D) in FY 2021-22

4.12.8 AEML-G submitted that the difference represents efficiency gains on account of superior performance of ADTPS with respect to operational norms as per Regulations 11.1 of MYT Regulations 2019, two thirds of the efficiency gains so worked out is required to be passed on to the beneficiary as a rebate in tariff and the generating company is entitled to retain one third of the efficiency gain.

Commission's Analysis and Ruling

4.12.9 The MYT Regulations, 2019 specify that the GCV of coal be considered on "as fired" basis. Accordingly, the Commission has considered the calorific value ('as fired' GCV) of coal and actual proportion (blending) of domestic and imported coal, as submitted by AEML-G. The Commission has considered the GCV of fuels as approved and discussed in para 4.10 of this order.

Stacking and handling Loss

4.12.10 The MYT Regulations, 2019 specify that the GCV of coal be considered on "as fired" basis. Accordingly, the Commission has considered the calorific value ('as fired' GCV) of coal and actual proportion (blending) of domestic and imported coal, as submitted by AEML-G. The Commission has considered the GCV of fuels for final true-up of fuel cost for FY 2019-20, as submitted by AEML-G.

4.12.11 The Commission notes that the Regulation 50.6 of the MYT Regulations 2019 allows maximum stacking loss of 85 kcal/kg for pit head stations and 120 kcal/kg for non-pit head stations

4.12.12 The Commission notes that though the stacking loss for Washed coal is less than the norm, the stacking loss for imported coal is much higher than the normative stacking loss allowed and negative in case of Raw Coal. The Commission has raised query to AEML-G seeking clarification on the higher GCV stacking loss in imported coal and negative stacking loss in Raw Coal. AEML-G has replied stating that usually imported coal is kept in stock and fired when necessary depending on availability / shortfall in domestic coal. Since imported coal is stored for longer time than domestic coal, the stacking loss for imported coal is higher as compared to domestic coal. As regards raw coal, it was submitted that the As Fired GCV was more than As Received GCV as there remains an error margin of 50 kCal/kg in GCV measurements and this difference is within the error margin.

4.12.13 The Commission note the submission made by AEML-G. However, considering the MYT Regulations and past MYT Order, whereby the stacking loss limit of 120 kCal/kg (difference between As Received GCV and As Fired GCV) is applied on a blended basis, rather than applying the limit to washed coal or raw coal individually, the Commission consider GCV (As Fired Basis) and stacking loss as submitted by AEML-G for calculation of the fuel cost.

4.12.14 Also, by recomputing the GCV (As Received Basis), as discussed in para 4.10 of this order, whereby the GCV loss in transit is limited to 300 kcal/kg for Raw coal, the stacking loss also has been increased for Raw Coal. Accordingly, based on the approach as adopted by the Commission for calculation of GCV loss under transit and stacking loss, it is observed that, for Imported coal and Raw coal, the stacking loss is much higher than the normative stacking loss allowed under blending approach and raises concern on stacking loss, which otherwise could've been avoided. Higher stacking loss in imported / Raw coal reflects high cost-high GCV getting spoiled and such losses must be contained to the extent permissible. However, considering the MYT Regulations and past MYT Order, whereby the stacking loss limit of 120 kCal/kg (difference between As Received GCV and As Fired GCV) is applied on a blended basis, rather than applying the limit to washed coal or raw coal individually, the Commission deems it appropriate to consider GCV (As Fired Basis) and stacking loss as submitted by AEML-G for calculation of the fuel cost.

Landed Cost of the Fuel

4.12.15 The Commission also notes that similar to GCV, the landed cost of coal and LDO were approved by the Commission during MYT Order for FY 2020-21 and FY 2021-22 based on H1 data of FY 2019-20.

4.12.16 The Commission observes that such data ought to be different from the landed cost data for entire financial year which takes into account the weighted average impact of coal received and costs paid for each agency involved in coal value chain starting from SECL, Railways, Coal Handling agents, Coal washing agents etc. Similarly, the imported coal has been procured on spot basis, and the prices are dependent upon fluctuating GCV based coal indices in global market. Therefore, imported coal cost for entire year is likely to be different than actual H1 of FY 2019-20.

4.12.17 Based on the submission made by AEML-G, the Commission notes that blending of domestic and imported coal is in the ratio of 63.8:35.6:0.6 for FY 2020-21 and 88.8:0.07:10.6 for FY 2021-22 (Washed : Imported : Raw Coal) and has been considered while computing the weighted average GCV. However, it is to be noted that the Commission has approved the fuel mix of 74:26:0 in the MYT Order

4.12.18 Also, as per Regulation 40.9 of the MYT Regulations, 2019, at the time of Truing-up of respective year, the Commission shall scrutinise the implementation of actual Fuel Utilisation Plan vis-à-vis approved plan, deviations, if any, and justification submitted by a Generating Company thereon and may disallow the variable cost of generation on account of operational inefficiencies in utilisation of fuel. Accordingly, the Commission has raised the query on the impact on the variable charges by deviating from the approved fuel utilisation mix.

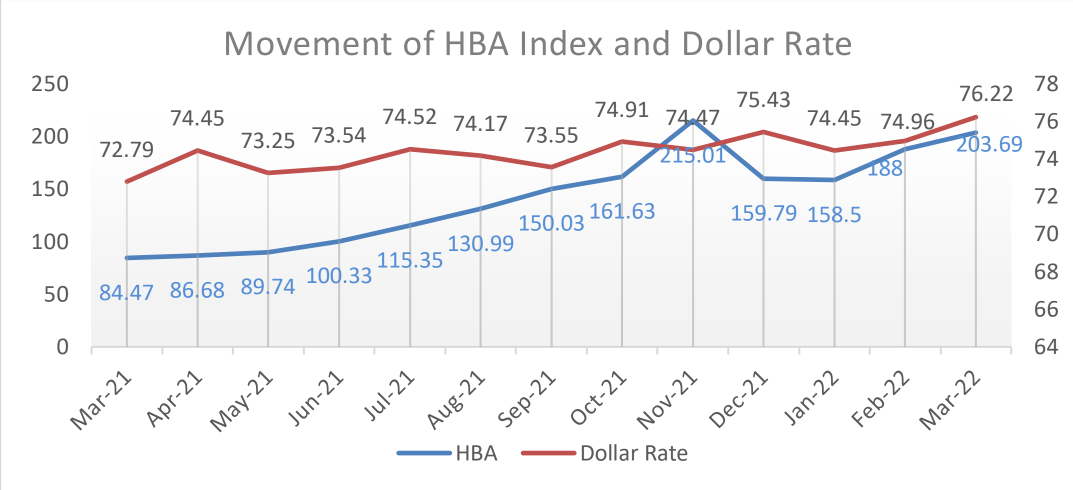
FY 2020-21

4.12.19 AEML-G submitted that the percentage of imported coal in FY 2020-21 in the actual blending ratio has increased compared to the percentage of imported coal in the blending ratio considered at the time of approval of fuel cost for FY 2020-21 in the MYT Order. However, the cost of actual imported coal in FY 2020-21 is less than the cost of imported coal considered while approving fuel cost for FY 2020-21 in the MYT Order. Also the actual cost of imported coal in FY 2020-21 is less than the actual cost of washed coal in FY 2020-21. Hence in case the percentage of imported coal in the actual blending ratio would have been less, the fuel cost would have increased. This proves that increase in more quantity of imported coal in FY 2020-21 has resulted in optimization of fuel cost.

FY 2021-22

4.12.20 In this context, AEML-G has submitted that the percentage of imported coal in FY 2021-22 in the actual blending ratio has decreased compared to the percentage of imported coal in the blending ratio considered at the time of approval of fuel cost for FY 2021-22 in the MYT Order due to increase in the price of imported coal. Hence a percentage reduction in utilisation of imported coal has actually helped reduce the cost of generation. Due to the increase in price of imported coal in FY 2021-22, AEML-G had executed an MOU with SECL and MCL for supply of 1 million ton of raw coal in FY 2021-22. However, raw coal supply under this route was limited, nonetheless AEML-G availed the supply of raw coal to the maximum extent possible. Reduction in use of imported coal was compensated by both increased in use of washed coal and use of raw coal in FY 2021-22, resulting in optimization of fuel cost.

4.12.21 Also, the Commission has made its analysis on the price movement of the imported fuel whereby it has been witnessed that under HBA indices (i.e., Harga Batubara Acuan for Indonesian coal which is set by Ministry of Energy and Mineral Resources (Indonesia)), the rate of imported coal has been increased 2.40 times (i.e. from 84.47$ in March 2021 to 203.69$ in March 2022) and also Dollar Rate has appreciated by 5% for the same period.



4.12.22 It can be observed that the HBA index has witnessed substantial increase from June, 2021 whereby HBA Index has after peak of 215.01$/MT in November 21 has decreased to 188 $/MT in February 2022 and again increased to 203.69 $/MT in March, 2022. Therefore, it has been apprehended that the price rise in imported coal was manifold and if used in the ratio as approved under Fuel Utilisation plan, then the impact on the energy charges shall be on a higher side resulting in additional burden on the end consumers.

4.12.23 Further, the Commission has also tried to evaluate the impact of such change in the fuel utilisation plan on the variable cost and has observed that the actual fuel utilisation plan is beneficial to end consumers. The estimated variable cost under actual and approved Fuel utilisation plan is outlined as below:

Table 76: Estimate Variable cost under Actual and approved Fuel Utilisation plan

Particulars	Unit	As per Fuel Plan	Actual	As per Fuel Plan	Actual
		FY 2020-21		FY 2021-22	
Fuel Mix*	%	74:26:0	63.8 : 35.6 : 0.6	74:26:0	88.8 : 0.07 : 10.6
Landed price of Washed Coal	Rs./MT	5541	5541	5,407	5,407
Landed price of Imported Coal	Rs./MT	5256	5256	6649	6649
Landed price of Raw Coal	Rs./MT	4853	4853	4,863	4,863
Weighted Landed price of Coal	Rs./MT	**5,466**	**5,435**	**5,733**	**5,358**
Variable Charge	Rs./kWh	3.638	3.617	3.975	3.617
Saving in Variable Charge	%	0.58%		9.01%	

*- Fuel Mix considered is Washed Coal : Imported Coal : Raw Coal

4.12.24 As can be analysed from the above table, the resultant saving in cost due to deviation in approved fuel utilisation plan is 0.58% and 9.02% for FY 2020-21 and FY 2021-22 respectively. Since, the ultimate end result by deviation in approved fuel utilisation plan is beneficial to end consumers and results in saving, the Commission approves the Actual Fuel Utilisation by AEML-G for FY 2020-21 and FY 2021-22.

4.12.25 Further, AEML-G in its submission has segregated cost of fuel for generation from ADTPS and other non-licensed business as per audited accounts and has claimed Rs. 973.96 Crore for FY 2020-21 and Rs. 1067.11 Crore for FY 2020-21 as actual fuel expenses for ADTPS. The Commission has verified the fuel cost claim with the audited allocation statement of accounts and has sought the reconciliation of the same from AEML-G. The statement as provided by AEML-G in reply to the data gaps is outlined as below:

Table 77: Fuel Cost reconciliation as per audited accounts for FY 2020-21 and FY 2021-22 (Rs. Crore)

Particulars	Consolidated Account	MTR Petition	Difference
FY 2020-21			
Fuel Cost	**972.56**	**973.96**	**-1.40**
Reversal of provisions for customs MOT (Merchant over time) charges for 4 vessels not considered			*-0.02*
Provision for Total Moisture compensation from Washery in Q4 of FY 20-21 not considered			*-1.37*
FY 2021-22			
Fuel Cost	**1,065.99**	**1,067.10**	**-1.11**
Reversal of provision for Total Moisture compensation from Washery in Q4 of FY 20-21 not considered			*1.37*
Transit loss penalty from Stevedoring agency not considered			*-1.57*
Provision for Total Moisture compensation from Washery in Q4 of FY 21-22 not considered			*-0.98*
Provision for Casual labour wages in Mar 2022 not considered			*0.07*
Other adjustments			*0.00*
Rounding off difference			*-0.01*

4.12.26 As per the clarification provided by AEML-G, the following cost has been adjustment in the audited fuel cost as the same are the entry reversal in nature and has already been adjusted in the fuel cost in the past or are provisions in nature. Hence, the same is not accounted in the actual fuel cost claimed in FY 2020-21 and FY 2021-22:

- Provisions for customs MOT (Merchant over time) charges for 4 vessels
- Provision for Total Moisture compensation from Washery
- Provision for Casual labour wages

4.12.27 With respect to Transit loss penalty from Stevedoring agency, AEML-G has not claimed the penalty of Rs. 1.57 Crore received from washery in FY 2021-22 due to higher transit loss of washed coal than the normative. However, since the AEML-G has been claiming normative transit loss, the same is not considered in the actual fuel cost. As stated in earlier section of this order, since the sharing mechanism allowed the sharing of gain between the normative and actual cost whereby the normative cost is calculated based on the norms as specified in the Regulations, the same will not be considered under normative cost. However, the resultant penalty received has reduced the actual fuel cost and hence the same needs to be considered in the actual fuel cost. The Commission feels that the consumers cannot be burdened with higher transit loss under sharing mechanism, for which the penalty on the same is received by the Generator. Hence, the Commission has adjusted the penalty received and the rounding off difference in the actual fuel cost.

Other Fuel Expenses

4.12.28 Further, in addition to the landed cost of fuel, AEML-G has also incurred additional fuel expenses of Rs. 0.14 Crore for FY 2020-21 and Rs. 0.17 Crore for FY 2021-22 respectively. For FY 2020-21, the cost is related to FERV (loss) booked against the coal payment through LC and for FY 2021-22, the same is related to FERV (loss) of Rs. 0.17 Crore on a debit note of $ 5,10,000 (received in FY 2021-22) by coal supplier (M/s Taurus) for delay in unloading coal vessels received between October 2020 to January 2021. The above charges are booked as other fuel expenses in the petition by AEML-G.

4.12.29 The Commission has observed that as submitted by AEML-G, the FERV w.r.t. LC discounting is towards hedging of the imported coal prices and can be made depending on the type of contracts available in the market. Hence, hedging does not always prevent Forex loss from being incurred. Further AEML-G has also submitted that hedging is a business decision, depending upon the type of hedging products available, their cost and an estimate of forex movement in future. Since the Commission has adopted an approach allowing hedging of the coal prices in the MYT Order and therefore the same shall be included into the fuel costs. Accordingly, the FOREX loss due to payment of imported coal (either directly or through LC facility) is considered to be a part of fuel cost and is to be considered under the landed fuel cost of imported coal.

4.12.30 Further, the FERV (loss) incurred in FY 2021-22 is related to amount received from coal supplier due to delay in unloading coal vessels. Since the payment received is adjusted in the landed cost of fuel, the FERV on the same is allowed to be claimed under other fuel expenses.

4.12.31 Further, for FY 2020-21 and FY 2021-22, at the time of LC repayment, FERV is claimed of Rs. (5.21) Crore and Rs.1.19 Crore respectively. Since this amount is related to financing for payment of coal, this has been claimed under FERV as part of ARR by AEML-G. However, the Commission would like to state that such expenses are in relation to the payment of coal and directly attributable to the fuel cost. Accordingly, the FOREX loss due to payment of imported coal (at the time of LC Repayment) is considered to be a part of fuel cost and is to be considered under the landed fuel cost of imported coal.

4.12.32 Based on the above observations, the following Table shows the details of landed price of coal and fuel expenses approved by the Commission for Truing-up of ARR for FY 2020-21 and FY 2021-22.

Table 78: Actual Fuel Expenses and Energy Cost for FY 2020-21 and FY 2021-22 approved by the Commission

Particulars	Unit	FY 2020-21		FY 2021-22	
		MTR	Approved	MTR	Approved

Particulars	Unit	FY 2020-21		FY 2021-22	
		Petition	in Order	Petition	in Order
Price- Washed Coal	Rs./MT	5542	5,542	5,408	5,408
Price- Imported Coal	Rs./MT	5292	5,292	6,695	6,695
Price- Raw Coal	Rs./MT	4867	4,867	4,822	4,822
Price- Secondary Fuel Oil	Rs./kl	44042	44,042	47,866	47,866
Actual Fuel Cost	Rs. Crore	973.96	973.96	1,067.10	1,067.10
Other Fuel Expenses	Rs. Crore	0.14	-5.07	0.17	1.36
Penalty received	Rs. Crore	0.14	-		-1.58
Total Actual Fuel Cost	**Rs. Crore**	**974.25**	**968.89**	**1,067.27**	**1,066.87**
Actual Energy cost per unit	**Rs./kWh**	**3.36**	**3.34**	**3.55**	**3.55**
Total Normative Fuel Cost	**Rs. Crore**	**1,048.06**	**1,042.85**	**1,135.29**	**1,138.02**
Normative Energy cost per unit	**Rs./kWh**	**3.62**	**3.60**	**3.82**	**3.83**

4.12.33 The Commission approves Fuel Expenses of Rs. 968.89 Crore and Rs 1066.87 Crore for Truing-up of FY 2020-21 and FY 2021-22 respectively.

4.12.34 As the energy charges approved by the Commission are at target norms of operation, viz., SHR, SFOC and transit and handling loss, and the norms of operation are controllable factors, the Commission has undertaken the sharing of gains and losses in energy charges on account of variation in norms of operation and actual fuel cost, as per the MYT Regulations, 2019 in the subsequent section of this Order.

4.13 Annual Fixed Charges (AFC)

4.13.1 Regulation 42 of the MYT Regulations, 2019 specifies the components of AFC as follows:

Sum of

a. Operation and Maintenance (O&M) expenses;
b. Depreciation;
c. Interest on Loan;
d. Interest on Working Capital (IoWC);
e. Return on Equity (RoE);
f. Income Tax;
Less:
g. Non-Tariff Income (NTI)

4.14 Operation & Maintenance Expenses for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.14.1 The actual O&M expenses claimed including corporate allocation and water charges for FY 2020-21 is Rs. 174.29 Crore and for FY 2021-22 is Rs. 180.77 Crore.

Table 79: O&M Expense as approved in MYT Order and actuals for FY 2020-21 and FY 2021-22 as per AEML-G (Rs. Crore)

Particulars	MYT Order	Actual	MYT Order	Actual

	FY 2020-21		FY 2021-22	
O&M Expense	165.38	152.24	170.53	157.56
Corporate Expenses		17.84		19.73
COVID Related expenses		0.53		
Water Charges	1.97	2.75	1.97	2.50
Cost recovery charges	1.00	0.94	1.00	0.98
Total O&M Expense	**168.35**	**174.29**	**173.50**	**180.77**

4.14.2 AEML-G has submitted that the last wage revision for employees were made in FY 2016-17. However, 53 employees had not agreed to the wage revision at that time. Hence AEML-G made provisions for wage revision pertaining to 53 employees in the books of accounts. Also, another wage agreement with the unionized employees is pending from July 2020 onwards, which has not been implemented yet. Hence AEML-G submitted that it made provisions for wage revision for all employees in the books of accounts. For FY 2020-21, the wage revision provision (both for the 53 employees whose wage revision is pending since FY 2016-17 and for all employees whose wage revision is pending from July 2020) is Rs. 2.20 Crore. However, AEML-G has not claimed as part of actual audited expenses.

4.14.3 AEML-G submitted that out of 53 employees, 42 employees had accepted the wage revision effected in FY 2016-17 after negotiation in FY 2021-22 and against the provision made for these 42 employees (from FY 2016-17 onwards till FY 2020-21), Rs. 2.61 Crore has been paid in FY 2021-22.

4.14.4 AEML-G submitted that it had claimed Rs. 2.61 Crore additionally in FY 2021-22 as part of actual employee expense. The provision for wage revision for balance 11 no. of employees, who have not accepted the wage revision in FY 2016-17 is Rs. 0.15 Crore. Further, another wage revision is due for all employees of AEML-G from July 2020 onwards. The wage revision provision made for all employees in FY 2021-22 for the same is Rs. 1.69 Crore. Thus, a total of Rs. 1.84 Crore has not been claimed in the actual employee expense for FY 2021-22. AEML-G submitted to claim the actual wage revision in future based on actual amount paid.

4.14.5 AEML-G submitted that for the FY 2020-21 and FY 2021-22, the O&M expenses pertaining to shared services have been re-allocated among the four business segments of AEML – Generation, Transmission, Distribution-Wires and Distribution-Supply – to achieve a correct reflection of expenses pertaining to each segment and to ensure there is no cross-subsidisation from one segment to another. The actual O&M expenses of FY 2020-21 and FY 2021-22 have been accounted accordingly.

4.14.6 The Corporate Expense for FY 2020-21 and FY 2021-22 segregated between generation, transmission and distribution business of AEML on the basis of turnover of different businesses.

4.14.7 AEML-G further submitted that the concerned financial year of FY 2020-21 and FY 2021-22 was affected by COVID pandemic – an unprecedented natural calamity that slowed down all businesses across the Country and for extended periods of time. As a result, total expenses incurred at corporate level by the Adani Group itself were lower, coupled with the fact that due to business slow-down, no additional activities, which required services or resources available at corporate level, were undertaken by AEML. As a result, the allocation of corporate expenses to AEML was much lower this year compared to FY 2019-20 and only related to on-going services and resources as utilised by AEML.

4.14.8 AEML-G submitted that the corporate expenses of FY 2020-21 were thus significantly lower and do not represent a normal, business as usual year and hence cannot be used as a yardstick for assessment or incurrence of future corporate expenses as allocated to AEML.

4.14.9 AEML-G requests the Commission to assess and approve its total O&M expenses, including allocated corporate expenses as a whole, as per the terms of the MYT Regulations, 2019.

4.14.10 With respect to the normative O&M expenses, as per Regulation 47.1 of MYT Regulations 2019, the efficiency factor will be considered as zero in case the availability of all generating stations of the generating company is more than NAPAF. For ADTPS the actual availability in FY 2020-21 and FY 2021-22 is higher than NAPAF and hence has considered the efficiency factor as zero for calculation of normative O&M expenses.

4.14.11 Further, Labour Bureau had been issuing the CPI with 2011 series. However, from September 2020, onwards Labour Bureau has shifted to 2016 series. In order to derive the CPI inflation for FY 2020-21, monthly CPIs from September 2020 have been suitably converted from 2016 series to 2011 series.

4.14.12 Subsequently, AEML-G has revised the normative O&M expenditure of Rs. 164.43 Crore for FY 2019-20 as per details given in the Table below:

Table 80: Normative O&M Cost for FY 2020-21 and FY 2021-22 claimed by AEML-G (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22
Base O&M Expense of preceding year	173.89	180.27
Escalation Factor	3.67%	4.87%
Revised Base O&M Expense for the relevant Financial Year	180.27	189.06
Corporate Allocation for FY 2019-20*	-	-
Add: Water Charges	2.75	2.50
Add: Cost Recovery Charges	0.94	0.98
Total	**183.96**	**192.54**

*- Merged under Base O&M expenses

Commission's Analysis and Ruling

4.14.13 The Commission has taken note of the AEML-G submissions to approve the total O&M expenses including the allocated corporate expenses as whole.

<u>Normative Expenses</u>

4.14.14 Regulation 47.1 of the MYT Regulations, 2019 specifies the methodology for determination of normative O&M expenses for thermal Generating Stations that achieved

COD before 26 August, 2005. The Commission notes that as per the said Regulation, at the time of truing up, the O&M expenses for FY 2020-21 needs to be derived on the basis of the Final Trued-up Operation and Maintenance expenses after adding/deducting the sharing of efficiency gains/losses, for the base year ending March 31, 2020, excluding abnormal expenses :

"47.1 …….

b) The Operation and Maintenance expenses excluding water charges and including insurance shall be derived on the basis of the average of the Trued-up Operation and Maintenance expenses after adding/deducting the share of efficiency gains/losses, for the three Years ending March 31, 2019, excluding abnormal Operation and Maintenance expenses, if any, subject to prudence check by the Commission:

………………………………

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

c) The Operation and Maintenance expenses for each subsequent year shall be determined by escalating these Base Year expenses of FY 2019-20 by an inflation factor with 50% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the respective past five financial years as per the Office of Economic Advisor of Government of India and 50% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the past five financial years as per the Labour Bureau, Government of India, as reduced by an efficiency factor of 1% or as may be stipulated by the Commission from time to time, to arrive at the permissible Operation and Maintenance expenses for each year of the Control Period:

Provided that, in the Truing-up of the O&M expenses for any particular year of the Control Period, an inflation factor with 50% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the respective past five financial years (including the year of Truing-up) and 50% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the respective past five financial years (including the year of Truing-up), as reduced by an efficiency factor of 1% or as may be stipulated by the Commission from time *to time, shall be applied to arrive at the permissible Operation and Maintenance Expenses for that year:*

Provided further that the efficiency factor shall be considered as zero, in case the Availability Factor of all Generating Units/Stations of the Generating Company is higher than NAPAF, or there is an improvement in the Availability Factor of all Generating Units/Stations of the Generating Company of at least 2 percent annually over the last 3 years, in case the Availability Factor of all Generating Units/Stations of the Generating Company is lower than NAPAF.

d) Water Charges shall be allowed separately as per actuals, based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check:"

4.14.15 Based on the said proviso of the MYT Regulations, 2019, the net entitlement of O&M expenses of Rs. 146.84 Crore as approved for FY 2019-20 and computed in Table 53 of this Order is approved as base O&M expenses for year ending 31 March 2020 and escalation would be considered on the same amount to determine the normative O&M expenses of FY 2020-21 and FY 2021-22.

4.14.16 As specified in the above Regulations, the Commission has computed the inflation factor considering 50% weightage of average yearly inflation derived based on the monthly WPI of the past five years and 50% weightage to the average yearly inflation derived based on the monthly Consumer Price Index (CPI) for Industrial Workers of the past five financial years.

4.14.17 Further, as submitted by AEML-G, Labour Bureau had been issuing the CPI with 2011 series but from September 2020, onwards Labour Bureau has shifted to 2016 series. In order to derive the CPI inflation for FY 2020-21, monthly CPIs from September 2020 have been suitably converted from 2016 series to 2011 series so as to maintain consistency for comparison of approved numbers vis-à-vis truing up.

4.14.18 With respect to the Efficiency Factor of 1% while considering the escalation factor to arrive at normative O&M expenses, since the availability factor for FY 2020-21 and FY 2021-22 of AEML-G Station is 98.78% and 87.97% which is higher than the NAPAF of 85%, the same is considered as 0%.

4.14.19 Accordingly, the inflation factor worked out for FY 2020-21 and FY 2021-22 is stated in the table below:

Table 81: Inflation Factor approved for FY 2020-21 and FY 2021-22

Year	WPI	WPI Inflation	CPI	CPI Inflation	WPI	WPI Inflation	CPI	CPI Inflation
	FY 2020-21				FY 2021-22			
FY 2015-16	109.72		265.00					
FY 2016-17	111.62	1.73%	275.92	4.12%	111.62		275.92	
FY 2017-18	114.88	2.92%	284.42	3.08%	114.88	2.92%	284.42	3.08%
FY 2018-19	119.79	4.28%	299.92	5.45%	119.79	4.28%	299.92	5.45%

FY 2019-20	121.79	1.67%	322.50	7.53%	121.79	1.67%	322.50	7.53%
FY 2020-21	123.38	1.30%	338.69	5.02%	123.38	1.30%	338.69	5.02%
FY 2021-22	139.39		356.06		139.39	12.98%	356.06	5.13%
Average of last 5 years		2.38%		5.04%		4.63%		5.24%
Weight		50%		50%		50%		50%
Escalation Factor	**3.71%**				**4.94%**			

4.14.20 The Commission has escalated the normative O&M expenses (after adding/deducting the sharing of efficiency gains/losses) approved in the truing up for FY 2019-20 with the escalation rate arrived in the above Table to compute normative O&M expenses for FY 2020-21 and FY 2021-22.

4.14.21 As regards the other impacts considered by AEML-G, the Commission is of the view as under:

<u>Corporate Allocation and Shared Services</u>

4.14.22 The Commission while allowing the O&M expenses for FY 2020-21 and FY 2021-22 in the MYT Order, though stated that Corporate Allocation charges can be included in base O&M considering the acquisition of RInfra by AEML which may result into non-occurrence of Corporate Allocation charges in future and accordingly, approved the O&M expenses including the corporate expense allocation. However, the Commission also stated that it may be reworked at the time of True-up of the respective years of the 4th MYT Control period based on the submission by AEML-G and prudence check. The relevant reference of the MYT Order is outlined as below:

" 5.5.11 ……

While determining the actual average O&M Expenses, AEML-G has considered the Corporate Allocation & cost recovery charges to Base O&M and has separately claimed water charges as it continues to be allowed separately for the 4th MYT Control Period. ***<u>The Commission has analysed that though the Corporate Allocation charges can be included in base O&M considering the acquisition of RInfra by AEML which may result into non-occurrence of Corporate Allocation charges in future, AEML-G has already considered Corporate Allocation charges in FY 2019-20</u>****.* ***<u>Accordingly, Commission though at present includes the corporate allocation charges under base O&M, the same may be reworked at the time of True-up of the respective years of the 4th MYT Control period based on the submission by AEML-G and prudence check</u>****. However, the Cost recovery charges are with respect to the order of the custom department and may differ on year to year basis. Also, the same were claimed over and above the normative O&M cost by AEML-G in past and accordingly the Commission would consider the same to be allowed on an actual basis.*

4.14.23 The Commission notes that corporate expenses still prevail and in addition AEML-G has also claimed of Shared Services allocation in the base O&M Expenses which was not envisaged at the time of issuance of MYT order.

4.14.24 As stated in Para 3.13.30 of this Order, corporate expenses allowed to Regulated Entities cannot be exorbitantly high even though the same is certified by the Statutory Auditor and there needs to be a cap on the expenses which are allowed under Corporate Allocation. Hence, the Commission approves the normative Corporate Expenses escalated as per O&M Escalation indices as mentioned above.

4.14.25 Further with respect to shared allocation cost, as held by the Hon'ble Supreme Court in its judgment dated 18 October, 2022 in Civil Appeal No(s). 4324/2015 and 4324/2015, the Commission is not inclined to allow any additional cost related to Shared services to the generation function, as the same was not considered at the time of MYT Order and hence the same cost is also deducted from the actual cost claimed by AEML-G so as to consider the normative O&M Cost and Actual O&M cost without having any impact of Shared Services cost.

Water Recovery charges

4.14.26 Water charges, as per Regulation 47.1 (d) of MYT Regulations, 2019, are payable on actual basis. Accordingly, for FY 2020-21 and FY 2021-22, **the Commission approves the water charges of Rs. 2.75 Crore and Rs. 2.50 Crore as per actual based on the audited accounts for the said period**.

Cost Recovery Charges

4.14.27 As directed by Commission in the MTR Order in Case No. 202 of 2017 dated 12 September 2018, Rs. 0.94 Crore and Rs. 0.98 Crore for FY 2020-21 and FY 2021-22 respectively, have been claimed separately under O&M expenses against cost recovery charges payable to Custom Department

4.14.28 The Commission records that the expenses pertaining to water recovery and cost recovery charges are statutory in nature and shall be allowed on actual and shall not be part of the base O&M expenses.

4.14.29 Accordingly, based on the audited accounts, the Commission approves the Cost Recovery Charges of Rs. 0.94 Crore and Rs. 0.98 Crore for FY 2020-21 and FY 2021-22 respectively.

Reconciliation with the audited accounts

4.14.30 The Commission had observed a mismatch in the audited figures submitted by AEML-G and the Audited Allocation Sheet. AEML-G clarified that some expenses like Festival celebration expenses, guest house of DTPS, LC charges etc., which do not form part of the regulatory books, were not considered in the regulated ARR, while the Auditor's certificate reflects the O&M cost as per the books of accounts. The detail reconciliation statement for O&M expenses are outlined as below:

Table 82: Reconciliation of Regulatory O&M expenses with Audited allocated O&M expenses for FY 2020-21 (Rs. Crore)

Particulars	Consolidated Account	MTR Petition	Diff.	Remarks
Employee Expense	**106.28**	**104.03**	**2.25**	
Considered under A&G Expenses in ARR			*0.01*	*Inter-Account Adjustment*
Not considered in ARR working Temple expenses			*0.04*	*Non-Regulatory Expenses*
Provision for wage revision not considered in ARR			*2.20*	*Provisions not considered*
A&G Expense	**42.81**	**40.33**	**2.48**	
Guest House Expenses			2.63	*Non-Regulatory Expenses*
Not considered - Loss on Sale of Assets			-0.14	Claimed Separately
Considered in Employee Expenses in ARR			-0.01	*Inter-Account Adjustment*
R&M Expense	**33.28**	**29.94**	**3.34**	
Ash handling plant Expenses			*3.34*	*Inter-Account Adjustment with Non-Tariff Income*
Total	**182.37**	**174.29**	***8.08***	

Table 83: Reconciliation of Regulatory O&M expenses with Audited allocated O&M expenses for FY 2021-22 (Rs. Crore)

Particulars	Consolidated Account	MTR Petition	Diff.	Remarks
Employee Expense	**108.77**	**109.47**	**-0.70**	
Food Expenses considered in A&G Exp in ARR			*0.02*	*Inter-Account Adjustment*
Arrears for wage revision paid			*-2.61*	*Claimed as per Regulations*
Provision for Wage Revision not considered in ARR			*1.84*	*Provisions not considered*
Temple Expenses not considered in ARR			*0.05*	*Non-Regulatory Expenses*
A&G Expense	**42.13**	**38.64**	**3.49**	*Non-Regulatory Expenses*
Food Expenses considered in Employee Exp in AS			-0.02	*Inter-Account Adjustment*
Foreign Exchange Fluctuation Loss			1.35	*Claimed separately*
Guest House Expenses not considered in ARR			2.16	*Non-Regulatory Expenses*

Particulars	Consolidated Account	MTR Petition	Diff.	Remarks
R&M Expense	**36.00**	**32.66**	**3.34**	
Ash handling plant Expenses			*3.34*	*Inter-Account Adjustment with Non-Tariff income*
Total	**186.90**	**180.77**	***6.13***	

4.14.31 With reference to the variance in the expenses head of O&M Expenses, AEML-G has submitted as follows:

- The actual O&M expense for FY 2020-21 also includes the wage revision arrears paid to contract labours amounting to Rs 6.25 Crore. The arrears paid were pertaining to the period September 2017 to March 2021 and as per Regulation 47.1 (e) & (f) of the MYT Regulations, 2019, the impact of Wage Revision may be considered at the time of true-up only on expenses actually incurred.
- Even though the generation in FY 2020-21 is lower than FY 2019-20, the water charges has been increased to large extent in FY 2020-21 by 38% and reduced in FY 2021-22. AEML-G submitted that the water charges are incurred on the water consumed for all purposes at ADTPS (DM water used for generation, firefighting, horticulture, colony consumption etc.) and hence increase or decrease in water charges cannot be directly correlated with increase or decrease in generation. Further, as per the contract, ADTPS is required to pay for 90% of the contracted water quantity (minimum) irrespective of the water quantity actually consumed. The quantity charged in FY 19-20 was 18,22,331 cubic meters which increased to 19,99,975 cubic meters and then reduced to 18,13,502 cubic meters. The per cubic meters rate in FY 19-20 was Rs. 10.56 in FY 19-20 in initial months. From Jul 2019 to Sept 2019, the rate reduced to Rs. 2.88/cubic meter as the irrigation dept. provided discount to ADTPS for water consumption during monsoon months. From Oct 2019 onwards the rate was increased to Rs. 11.52/cubic meter by irrigation dept, which has remained constant in FY 20-21 and FY 21-22. Further local cess of 20% is applicable on water charges. Due to all the above reasons, the water charges for FY 20-21 is more than the water charges for FY 19-20 by 38%.
- Rent, rates and taxes amount has increased from Rs. 1.35 Crore in FY 2019-20 to Rs. 2.07 Crore in FY 2020-21 because of additional rent of new premises being booked from FY 2020-21 onwards. The new premises are utilised for purposes of AEML as a whole. Therefore the rent for the building is segregated among G,T&D functions in the ratio of turnover of three functions.
- Conveyance and travel expenses amount has increased from Rs. 0.14 Crore in FY 2019-20 to Rs. 0.47 Crore in FY 2020-21. The additional expenses incurred was on account of social distancing norms due to pandemic.
- Bank charges have increased from Rs. 0.04 Crore in FY 19-20 to Rs. 0.81 Crore in FY 2020-21. This was due to increase in bank charges for import LC bill discounting

in FY 2020-21.

- Miscellaneous expense has increased from Rs. 4.56 Crore in FY 2019-20 to Rs. 6.2 Crore in FY 2020-21 was mainly due to increase in horticulture expenses by Rs. 1.26 Crore. AEML-G has clarified that as per Condition 21 of Schedule IV of the consent to operate provided by Maharashtra Pollution Control Board, the applicant shall cover minimum 33% of the available open land under green coverage / plantation. The horticulture expenses incurred are towards fulfilment of the above mandatory condition. The increase in expense in FY 20-21 is due to increase in wages of workers (post wage revision in FY 20-21) maintaining this green coverage/ plantation. There is no revenue accruing because of such plantation works and these works are not towards CSR expenses of AEML-G, but towards mandatory compliance to the Consent to Operate.
- Professional and consultancy fees have increased from Rs. 1.42 Crore in FY 2020-21 to Rs. 2.52 Crore in FY 2021-22 as instead of hiring new employees on payroll, services of professionals are obtained on cases to case basis which has resulted in increase in professional and consultancy charges. Further, there were specific assignments provided to external agencies to meet new governance requirements, such as Bilancia Consulting Pvt Ltd for Engagement of ESG Consulting Services (Rs 0.42 Crore) and Comprehensive study of Biodiversity: Confederation Of Indian Industry (Rs 0.09 Crore)
- There is a significant increase in R&M expense (civil works) in FY 2020-21 as compared to FY 2019-20 whereby the civil works for FY 2019-20 was Rs. 1.14 Crore which increased to Rs. 2.17 Crore in FY 2020-21 and then reduced to Rs. 1.79 Crore in FY 2021-22. The increase in expense in FY 2020-21 was mainly due to payment of Arrears as per Union agreement and hike in wages because of the agreement.

4.14.32 The Commission observes that the Normative O&M expenses is higher than the actual O&M expenses as approved and hence the wage revision amount paid is not excluded from Actual O&M expenses for computation of efficiency gain as per Regulations 47.1 (e) of the MYT Regulations, 2019.

<u>COVID related expenses</u>

4.14.33 AEML-G has submitted that there are certain expenses of Rs. 0.53 Crore incurred by AEML-G due to Covid-19 pandemic in FY 2020-21 which are identified as below and as claimed them separately in O&M expenses:

- Due to Covid 19, AEML-G had to retain contract labours in first few months of FY 2020-21 within its plant premises for safe and continuous operation of plant. AEML-G has to provide food to the contract labours free of cost during this period as they were not allowed to leave the plant premises.
- Incentives were provided to Contract labours in April 2020, as they had worked during Covid period for continuous operation of the plant and for ensuring continuous supply of electricity to Mumbai consumers, particularly hospitals.

- AEML-G had also bought safety and sanitization material in order to prevent spreading of Covid-19 pandemic within plant premises.

4.14.34 The Commission notes the submission of AEML-G on Covid related expenses. However, the Commission observes that the Normative O&M expenses is higher than the actual O&M expenses as approved and hence such expenses are not considered separately under O&M Expenses but will be included in the Actual cost of O&M expenses, which will be considered for calculation of efficiency gain/loss.

Additional R&M expenses

4.14.35 The Commission notes that in FY 2019-20 and FY 2020-21, AEML-G had submitted few DPRs seeking replacement/refurbishment of existing assets of ADTPS for . Since it was observed that the schemes proposed did not qualify the criteria of capital expenditure and essentially were having R&M nature, the Commission, vide its letter dated 19 April, 2021 referred back these DPRs to AEML-G. Following schemes were referred back:

Table 84: Capital Schemed considered under R&M expenses (Rs. Crore)

S. No.	Name of Capex	Cost
1.	Coal Handling Plant Refurbishment	14.31
2.	Civil works at Dahanu Thermal Power Station	38.30
3.	Refurbishment of Coal mill	13.57
4.	Refurbishment of Boiler- Replacement of Final Superheater, LTSH, Z panel and Seal Plates	113.93
5.	Security Automation.	20.79
6.	Installation of MOIS, Replacement of SADC, Replacement of flame scanners and system for both units, replacement of station battery sets & Raw water treatment system	22.22

4.14.36 The Commission, while reviewing the non-DPR schemes executed by AEML-G, found aforesaid schemes included in conflict with the aforesaid instructions. Such expenses should've been considered as part of the Repair & Maintenance expenses instead of Capitalisation.

4.14.37 Keeping in view of the same, such schemes finding similarity during FY 2019-20 and FY 2020-21 are also not eligible for considering under capital related schemes. However, since the Commission, informed AEML-G during start of the FY 2021-22 only, such disallowance will not be justified. At the same time, knowing that such schemes are required to be considered as repair and maintenance expenses, allowing the same as part of capitalisation is equally unjustified. Therefore, the Commission has considered the expense of Rs 5.63 Crore as part of the repair & maintenance expenses in FY 2021-22. The Commission has explained the nature of such schemes in subsequent section on capitalisation.

4.14.38 The Commission observes that the Normative O&M expenses is higher than the actual O&M expenses as approved and hence such expenses are not considered separately under O&M Expenses but will be included in the Actual cost of O&M expenses, which will be considered for calculation of efficiency gain/loss.

4.14.39 Based on the above analysis, the Normative and Actual O&M expenses as approved by the Commission for FY 2020-21 and FY 2021-22 is outlined as below:

Table 85: O&M expenses for FY 2020-21 approved by the Commission (Rs. Crore)

Particulars	Unit	MTR Petition	Approved in Order	MTR Petition	Approved in Order
		Normative		Actual	
Base O&M expenses for FY 2019-20	Rs Crore	173.89	146.84		
Escalation Factor	%	3.67%	3.71%		
O&M expenses of FY 2020-21	Rs Crore	180.27	152.29	143.69	144.22
COVID19 Related expenses	Rs Crore			0.53	
Shared Service Cost allocation	Rs. Crore			8.55	0
Corporate expense allocation	Rs Crore		16.36	17.84	17.84
Water recovery charges	Rs Crore	2.75	2.75	2.75	2.75
Cost recovery charges	Rs Crore	0.94	0.94	0.94	0.94
Total O&M expenses	**Rs Crore**	**183.96**	**172.34**	**174.29**	**165.75**

Table 86: O&M expenses for FY 2021-22 approved by the Commission (Rs. Crore)

Particulars	Unit	MTR Petition	Approved in Order	MTR Petition	Approved in Order
		Normative		Actual	
Base O&M expenses for FY 2020-21	Rs Crore	180.27	152.29		
Escalation Factor	%	4.87%	4.94%		
O&M expenses of FY 2021-22	Rs Crore	189.06	159.80	149.52	155.15*
Shared Service Cost allocation	Rs. Crore			8.04	0
Corporate expense allocation	Rs Crore		17.17	19.73	19.73
Water recovery charges	Rs Crore	2.50	2.50	2.50	2.50
Cost recovery charges	Rs Crore	0.98	0.98	0.98	0.98
Total O&M expenses	**Rs Crore**	**192.54**	**180.46**	**180.77**	**178.37**

*- Inclusion of additional R&M expenses allowed as per para 4.14.37 of this order

4.14.40 The Commission approves actual O&M Expenses of Rs. 165.75 Crore and Rs 178.37 Crore for Truing-up of FY 2020-21 and FY 2021-22 respectively.

4.14.41 Base O&M expenses being a controllable factor, the Commission has carried out the sharing of efficiency gains/losses on account of variation in normative O&M expenses and actual O&M expenses, in accordance with the MYT Regulations, 2019.

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

AEML-G's Submission

4.15.1 The actual capitalisation for FY 2020-21 is Rs. 27.65 Crore (Detailed Project Report

(DPR) Schemes – Rs. 23.26 Crore and non DPR schemes – Rs. 4.39 Crore (including the Interest During Construction (IDC) of Rs. 20 Lakhs).

4.15.2 AEML-G has submitted the details of capitalization for FY 2020-21 as herein below:

Table 87: Capitalisation for FY 2020-21 (Rs. Crore)

Sr. No	DPR NO	DPR Name	Approved Cost	Capitalisation (W/o IDC)	Remark
1	RINFRA-G/DPR/BP11-16/DPR NO. 1	Renovation & Modernization of Ash Handling System	**21.2**	1.91	Partial capitalisation done in FY 20-21. The work includes Procurement of classifier assemblies, Renovation of AHP pumps & clinker grinders and Renovation of ash slurry cast basalt pipe line for availability improvement.
2	RINFRA-G/DPR/BP11-16/DPR NO.2	Renovation & Modernization of Turbine and its auxiliaries	**51.7**	1.64	Part Capitalisation done in FY 20-21. It includes Renovation of BFP cartridges, Procurement of new BFP cartridge, Renovation of CEP cartridge and Procurement of modified new design debris filter. The work carried out in a phased manner to ensure availability of equipment and to use useful life of existing equipment.
3	RINFRA-G/DPR/BP11-16/DPR NO.3	Renovation & Modernization of Boiler and its auxiliaries	**22.9**	2.12	Part Capitalisation done in FY 20-21. It includes Renovation of PA fan rotor, and Renovation & Modernisation of Milling system. The work carried out in phased manner to ensure availability of equipment and to use useful life of existing equipment.
4	RINFRA-G/DPR/BP11-16/DPR NO 10	Renovation & Modernization of Control & Instrumentation System of Main Plant	**60**	1.31	Partial capitalisation done in FY 20-21 by Up-gradation of Electronic Cards of DDC System in both Units for Reliability improvement.
5	RINFRA-G/DPR/BP11-16/DPR NO 11	Renovation & Modernization of Coal Handling System	**23.05**	1.22	Part Capitalisation done in FY 20-21. It includes Renovation of structure in CHP, Renovation of coal yards and Renovation of Dozers. The work carried out in phased manner to ensure availability of equipment and to use useful life of existing equipment.
6	RINFRA-G/DPR/BP11-16/DPR No 16	Bundled DPR for Non-DPR Capex schemes for Renovation & Modernization of Resubmitted Projects in 2nd MYT Control Period at DTPS	**96.38**	2.84	Part Capitalisation done in FY 20-21. It includes Renovation & Up-gradation of Gravimetric Feeders, Renovation & Up-gradation of Flue Gas Analysers, Procurement of CCTV system, Renovation of Locomotive and Renovation & Modernization of Air Handling Units. The work carried out in phased manner to ensure availability of equipment and to use useful life of existing equipment.
7	RINFRA-G/DPR/BP18-24/DPR NO. 28	Refurbishment of HPT Module at DTPS	**22.6**	7.88	Refurbishment of HPT Module both inner and outer module is done in FY 20-21 & FY 21-22
8	RINFRA-G/DPR/BP18-24/DPR NO. 30	Refurbishment of Turbine & its auxiliaries	**14.5**	1.07	Part capitalisation for Refurbishment of BFP Hydraulic coupling is done in FY 20-21.

4.15.3 The actual capitalisation for FY 2021-22 is Rs. 55.81 Crore (Detailed Project Report (DPR) Schemes – Rs. 47.65 Crore and non DPR schemes – Rs. 8.16 Crore (including the Interest During Construction (IDC) of Rs. 32 Lakhs).

4.15.4 AEML-G has submitted the details of capitalization for FY 2021-22 as herein below:

Table 88: Capitalisation for FY 2021-22

Sr. No	DPR NO	DPR Name	Approved Cost	Capitalisation (W/o IDC)	Remark
1	RINFRA-G/DPR/BP11-16/DPR NO. 1	Renovation & Modernization of Ash Handling System	**21.2**	3.36	Partial capitalisation done in FY 21-22. The work includes Renovation of Dry ash conveying system, Renovation of valves & piping, Renovation of AHP pumps & clinker grinders, Renovation of high-pressure, low-pressure rubber lined piping & valve fittings and Renovation of bottom ash hoppers & its anticorrosive painting for reliability and availability improvement.
2	RINFRA-G/DPR/BP11-16/DPR NO.2	Renovation & Modernization Of Turbine and its auxiliaries	**51.7**	1.58	Cumulative Capitalisation till FY 21-22 is 26.69 Crs. The work includes Procurement of modified new design HP Bypass spray valves and Procurement & installation of condenser inlet valve. The work is carried out in phased manner to ensure availability of equipment and to use useful life of existing equipment.
3	RINFRA-G/DPR/BP11-16/DPR NO.3	Renovation & Modernization of Boiler and its auxiliaries	**22.9**	2.23	Cumulative Capitalisation till FY 21-22 is 8.67 Crs. The work includes Renovation of FD fan rotor and Renovation & Modernisation of Girth gear. The work is carried out in phased manner to ensure availability of equipment and to use useful life of existing equipment.
4	RINFRA-G/DPR/BP11-16/DPR NO 9	Strengthening of Electrical System at DTPS	**24.4**	2.93	Cumulative Capitalisation till FY 21-22 is 12.59 Crs. It includes Renovation of 6.6kV HT switchgear, Renovation & Modernization of fast Bus Transfer System, Renovation & Modernisation of 220KV switchyard Equipment and Renovation & Modernization of Protection system for LT Switchgear. The work is carried out in phased manner to ensure availability of equipment and to use useful life of existing equipment.
5	RINFRA-G/DPR/BP11-16/DPR NO 10	Renovation & Modernization of Control & Instrumentation System of Main Plant	**60**	2.79	Partial capitalisation done in FY 2021-22 by Up-gradation of Electronic Cards of DDC System, Governing system Hp/LP Bypass valves for Reliability improvement.
6	RINFRA-G/DPR/BP11-16/DPR NO 11	Renovation & Modernization of Coal Handling System	**23.05**	2.73	Cumulative Capitalisation till FY 21-22 is 18.03 Crs. It includes Renovation of stacker reclaimer for reliability improvement, Renovation of coal yards and Renovation of Dozers. The work carried out in phased manner to ensure availability of equipment and to use useful life of existing equipment.

Sr. No	DPR NO	DPR Name	Approved Cost	Capitalisation (W/o IDC)	Remark
7	RINFRA-G/DPR/BP11-16/DPR No 16	Bundled DPR for Non-DPR Capex schemes for Renovation & Modernization of Resubmitted Projects in 2nd MYT Control Period at DTPS	**96.38**	3.24	Cumulative Capitalisation till FY 21-22 is 58.02 Crs. It includes Procurement of CCTV system, R & M of Wagon Tippler Drive system, Refurbishment of P.H. Building. Cladding, Upgradation of Storm Water Drain in Plant, Renovation of & Modernization of office, Replacement of AC sheet by colour coated, R&M of Ventilation and AHU system and Spillage oil recovery system from creek. The work carried out in phased manner to ensure availability of equipment and to use useful life of existing equipment.
8	RINFRA-G/DPR/BP18-24/DPR NO. 26	Refurbishment of Boiler and Auxiliaries	**67.48**	3.31	Part capitalisation of Boiler and Auxiliaries done in FY 19-20 & FY 21-22 and balance work will be planned in FY22-23.
9	RINFRA-G/DPR/BP18-24/DPR NO. 27	Refurbishment of FGD Plant auxiliaries	**21.18**	11.90	Part capitalisation of FGD plant Auxiliaries done in FY 21-22. The work includes Procurement of Booster Fan Rotor and Procurement of flow meters for FGD Sea water flow measurement.
10	RINFRA-G/DPR/BP18-24/DPR NO. 28	Refurbishment of HPT Module at DTPS	**22.6**	1.52	Refurbishment of HPT Module both inner and outer module is done in FY 20-21 & FY 21-22
11	RINFRA-G/DPR/BP18-24/DPR NO. 29	Refurbishment of IP Turbine	**15.67**	7.52	Refurbishment of IP Turbine completed in FY 21-22.

4.15.5 However, in replies to data gaps AEML-G has revised the capitalisation values schemes and hence the total capitalisation for FY 2020-21 and FY 2021-22 are as follows:

Table 89: Capitalisation Claimed by AEML-G

Particulars	Capitalisation	
	FY 2020-21	FY 2021-22
DPR Schemes	23.26	47.65
Non-DPR Schemes	4.39	8.16
Total Capitalisation	**27.65**	**55.81**

4.15.6 AEML-G pleaded the Commission to approve the actual capitalization for FY 2020-21 and FY 2021-22 as aforementioned.

Commission's Analysis and Ruling

4.15.7 The additional Capitalisation claimed by AEML-G falls under the two categories namely (i) Works approved by the Commission by way of in-principle approval of DPR and (ii) Non-DPR Works.

4.15.8 The Commission has verified the schemes submitted for Capitalisation. All the DPR schemes proposed by AEML-G for Capitalisation have been accorded in-principle approval by the Commission. The IDC calculation has also been checked.

4.15.9 The Commission has examined the actual additional Capitalisation claimed by AEML-G on the basis of Project Completion Reports submitted for FY 2020-21 and FY 2021-22.

4.15.10 Based on the above submissions of AEML-G, the Commission notes that the Non-DPR schemes are undertaken for the generation activities and also Capitalisation amount of Non-DPR scheme is within the range of 20% of approved DPR schemes for the years of truing up and hence the Commission approves the Capitalisation towards Non-DPR schemes.

4.15.11 The Commission has noted that there are DPR schemes approved in FY 2009-10, FY 2010-11 and FY 2015-16 with projected capitalisation till FY 2019-20 have yet not been completed and accordingly sought AEML-G to clarify the same. AEML-G responded to allow capitalisation corresponding to such schemes by end of FY 2022-23.

4.15.12 The Commission while investigating the Non-DPR schemes has come across following schemes which either find resemblance with bundled DPR schemes or appears to be part of bundled DPR submitted to the Commission for approval:

Table 90: Non-DPR Schemes of R&M in nature for FY 2021-22

Particulars	**Rs Crore**
Refurbishment of Offsite Plant auxiliary	0.50
Procurement of Fire Fighting equipment	1.13
Procurement of Battery Set - 220V CW pump house, FGD & SWPH	0.43
Procurement of bearings, seals and bearing housing assembly of GGH	0.40
Procurement of CWP discharge valve	0.69
Procurement of Station Battery Set for U #1	0.95
Refurbishment & Procurement of Fire Fighting	0.14
Refurbishment of conveyor belt along with structure	0.54
Refurbishment of New Diesel Dispensing Unit	0.01
Refurbishment of Plant earthing & lighting	0.23
Refurbishment of Ultraviolet system at STP	0.04
Sea Water pump	0.55
Repair work of IP turbine inner casing	-
Repair work of HP Turbine Module	-
Procurement of Oxidation Blower internals	-
Milling System - - Procurement of Liners (2 sets) & Grinding media	-
Refurbishment of Conveyor Belt and associated parts	-
Refurbishment of structures in CHP	-
Refurbishment of apron feeder	-
Procurement of Busbar protection system for redundancy	-
Cable tray structure strengthening	-
Total	**5.63**

4.15.13 The Commission has rejected such Non-DPR schemes and considered the same as an additional expenses towards repair and maintenance under O&M expenses, accordingly, has excluded such capitalisation from the FY 2021-22. The Commission find it pertinent to instruct AEML-G to refrain considering schemes of R&M related schemes as a part of Non-DPR schemes.

4.15.14 Accordingly, the Commission approves the following Capitalisation for the FY 2020-21 and FY 2021-22 as herein below:

Table 91 : Capitalisation approved by the Commission (Rs Crore)

Particulars	Unit	FY 2020-21		FY 2021-22	
		MTR Petition	Approved in Order	MTR Petition	Approved in Order
DPR Schemes	Rs Crore	23.26	23.26	47.65	47.65
Non DPR Schemes	Rs Crore	4.39	4.39	8.16	2.53
Total Capitalisation	**Rs Crore**	**27.65**	**27.65**	**55.81**	**50.18**

4.15.15 Accordingly, the Commission approves the capitalisation of Rs. 27.65 Crore and Rs. 50.18 Crore for FY 2020-21 and FY 2021-22 respectively.

4.16 Depreciation for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.16.1 AEML-G has calculated depreciation in accordance with the rates specified in the MYT Regulations 2019, on the opening GFA of FY 2020-21 as explained in aforementioned section and considering the assets added during the respective years of FY 2020-21 and FY 2021-22, based on the actual dates of Capitalisation.

4.16.2 In accordance with the Regulations, for assets whose opening balance as on 1 April, for respective financial year, which had reached 70% depreciation or had crossed it during respective financial year, the depreciation has been worked out by spreading the balance depreciable value over the balance useful life of the assets.

4.16.3 AEML-G submitted the depreciation of Rs. 37.93 Crore for FY 2020-21 and Rs. 37.06 Crore for FY 2021-22 respectively and requested to approve the same.

Commission's Analysis and Ruling

4.16.4 The Commission observes that there is a difference between the amount of depreciation claimed in the Petition and the amount mentioned in the audited accounts. Upon query, AEML-G submitted that the depreciation is higher in books as assets in books are revalued due to scheme of arrangement. Also, depreciation against Guest House and Temple related assets are not considered in regulatory books.

4.16.5 The Commission has also analysed the nature of retired assets and their values from the submissions made by AEML-G. It has further verified that the values of retired assets from the audited accounts and the same have been deducted before calculating the net

GFA and depreciation for the respective years. Accordingly, the Commission approves the values of retired assets as submitted by AEML-G.

4.16.6 In accordance with Regulation 28.1 (b) of MYT Regulations, 2019, depreciation has been computed annually on the straight-line method at the specified rates.

4.16.7 The Commission has calculated the average rate of depreciation at the rates applicable for various classes of assets as per MYT Regulations, 2019. Also, the average rate of depreciation of each block of assets as booked in audited accounts is applied on pro-rata basis to arrive at the allowable depreciation for FY 2020-21 and FY 2021-22.

4.16.8 In view of the above, the depreciation approved by the Commission is shown in the Table below:

Table 92 : Depreciation for FY 2020-21 and FY 2021-22 approved by the Commission (Rs Crore)

Particulars	Unit	FY 2020-21			FY 2021-22		
		MYT Order	Petition	Approved	MYT Order	Petition	Approved
Opening GFA	Rs Crore	1,933.72	1,948.00	1,947.89	2,005.92	1,975.35	1,975.24
Additions during year	Rs Crore	72.20	27.65	27.65	76.56	55.81	50.18
Less: Retirement of assets during year	Rs Crore		0.30	0.30		0.31	0.31
Closing GFA	Rs Crore	2,005.92	1,975.35	1,975.24	2,082.47	2,030.85	2,025.11
Average GFA		1,969.82	1,961.68	1,961.57	2,044.20	2,003.10	2,000.17
Depreciation as % of average GFA	Rs Crore	1.83%	1.93%	1.93%	1.89%	1.85%	1.85%
Depreciation	**Rs Crore**	**36.00**	**37.93**	**37.93**	**38.73**	**37.06**	**36.94**

4.16.9 The Commission approves Depreciation of Rs. 37.93 Crore and Rs 36.94 Crore for Truing-up of ARRs for FY 2020-21 and FY 2021-22 respectively.

4.17 Interest on Loan for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.17.1 AEML-G submitted that it has considered a normative Debt: Equity ratio of 70:30 for capitalized assets during this period in accordance with the first proviso of Regulation 29.5 of MYT Regulations, 2019, which is reproduced herein below:

> *"Provided that at the time of Truing-Up, the weighted average rate of interest computed on the basis of actual loan portfolio during the concerned year need to be considered as rate of interest".*

4.17.2 AEML-G submitted that the financing of the capital expenditure is arranged for AEML as whole. AEML-G submitted that the total loans used for new capex for FY 2020-21 was Rs. 837.53 Crore which is 69.19% of the total capex made in FY 2020-21. Since the debt used in capex is 69.19%, the debt used in capitalization in FY 2019-20 need to be considered as 69.19%. Since the actual debt percentage was less than 70%, AEML considered 70% of capitalization deemed to be funded through debt and 30% through equity, in accordance with MYT Regulations, 2019.

4.17.3 AEML-G submitted that in FY 2021-22, it raised $ 300 million loans (Rs. 2,231.98 Crore) through Sustainability Linked Bonds (also known as Global Medium-Term Notes – GMTN), out of which $ 175 million was for repayment of the loans raised through ECB and the rest was for funding the new capital expenditure in FY 2021-22. The ECB loan on the date of refinance in FY 2021-22 (26/07/2021) including the forex loss was Rs. 1,302.73 Crore. Thus, part of GMTN was used for new capex in FY 2021-22 of Rs. 929.26 Crore (Rs. 2,231.98 Crore - Rs. 1,302.73 Crore). Further, out of the FD amount of Rs. 80 Crore kept in FY 2020-21, an amount of Rs. 20 Crore was utilized in FY 2021-22. Thus, the total loans used for new capex for FY 2021-22 was Rs. 949.26 Cr., which was 61.07% of the total capex made in FY 2021-22. Since the debt used in capex is 61.07%, the debt used in capitalization in FY 2021-22 need to be considered as 61.07%. However, since the actual debt percentage is less than 70%, AEML considered 70% of capitalization deemed to be funded through debt and 30% through equity, in accordance with MYT Regulations, 2019.

4.17.4 As per first proviso of Regulation 30.5 of MYT Regulations, 2019, at the time of Truing-Up, the weighted average rate of interest based on actual loan portfolio during the concerned year needs to be considered as the rate of interest. The weighted average interest cost for FY 2020-21, considering all the loans in AEML's portfolio (including the debt raised through bonds, sub-debt and ECB) works out to 8.19% for FY 2020-21 and 8.35% for FY 2021-22. Accordingly, the interest on loan was submitted as herein below:

Table 93 : Interest on Loan for FY 2020-21 and FY 2021-22 as claimed by AEML-G (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22
Opening Balance	179.67	161.02
Reduction in loans due to retirement in loans	0.07	0.04
Addition of new loans	19.35	39.07
Repayment	37.93	37.06
Closing Balance	161.02	162.99
Interest Rate (%)	8.19%	8.35%
Interest on Loans	**13.95**	**13.53**

Commission's Analysis and Ruling

4.17.5 The Commission for computing the interest on loan capital for FY 2020-21, has considered the closing balance of normative loan as approved for FY 2019-20.

4.17.6 The loan repayment has been taken as equal to the depreciation allowed during FY 2020-21 and FY 2021-22 respectively in this Order, in accordance with Regulation 30.4 of MYT Regulations, 2019. The loan addition during the year has been considered at 70% of the Capitalisation approved in this Order.

4.17.7 For FY 2020-21 and FY 2021-22, the Commission has computed the weighted average interest rate for AEML-G on the basis of the actual loan portfolio of AEML-G during FY 2020-21 and FY 2021-22 respectively in line with Regulation 30.5 of MYT Regulations, 2019.

4.17.8 The summary of interest on loan as submitted by AEML-G and as approved by the Commission is as under:

Table 94: Computation of Interest on Loan approved by the Commission (Rs Crore)

Particulars	Unit	FY 2020-21			FY 2021-22		
		MYT Order	MTR Petition	Approved in Order	MYT Order	MTR Petition	Approved in Order
Opening balance of Normative loan (A)	Rs Crore	169.81	179.67	179.60	184.36	161.02	160.95
Reduction of Normative Loan due to retirement or replacement of assets (B)	Rs Crore	-	0.07	0.07		0.04	0.04
Addition of normative loan due to Capitalisation during the year (C)	Rs Crore	50.54	19.35	19.35	53.59	39.07	35.12
Repayment of normative loan during the year (D)	Rs Crore	(36)	37.93	37.93	(38.73)	37.06	36.94
Closing balance of net normative loan (E)= (A+B+C+D)	**Rs Crore**	**184.36**	**161.02**	**160.95**	**199.22**	**162.99**	**159.09**
Average Balance of Net Normative Loan	Rs Crore	177.09	170.35	170.27	191.79	162.00	160.02
Weighted average rate of interest on actual Loans (%) (F)	%	9.05%	8.19%	8.19%	9.05%	8.35%	8.35%
Interest on Loan (G) = (E*F)	**Rs Crore**	**16.03**	**13.95**	**13.95**	**17.36**	**13.53**	**13.36**

4.17.9 The Commission approves Interest on Loan of Rs. 13.95 Crore and Rs. 13.36 Crore for Truing-up of FY 2020-21 and FY 2021-22 respectively.

4.18 Refinance Charges for FY 2021-22

AEML-G's Submission

4.18.1 AEML-G raised financing arrangement for required capital expenditure for company as whole. Accordingly, the company has raised $105 million (Rs. 767.53 Crore) through ECB for financing new capex in FY 2020-21.

4.18.2 AEML raised $70 million (Rs. 503.44 Crore) for new capex purposes through External Commercial Borrowing (ECB). In FY 2020-21, AEML has raised further $105 million (Rs. 767.53 Crore) through ECB for financing new capex in FY 2020-21. Thus, the total ECB raised till FY 2020-21 was $175 million (Rs. 1,270.97 Crore). In FY 2021-22, AEML raised $300 million loans (Rs. 2,231.98 Crore) through Sustainability Linked Bonds (also known as Global Medium-Term Notes – GMTN), out of which $ 175 million was for repayment of the loans raised through ECB and the rest was for funding the new capital expenditure in FY 2021-22. The ECB loan as on the date of refinance in FY 2021-22 (26/07/2021) including the forex loss was Rs. 1,302.73 Crore. Thus, part of GMTN used for new capex in FY 2021-22 was Rs. 929.26 Crore (Rs. 2,231.98 Crore - Rs. 1,302.73 Crore). Further, out of the FD amount of Rs. 80 Crore kept in FY 2020-21, an amount of Rs. 20 Crore was kept utilized in FY 2021-22.

4.18.3 The ECB facility was at a floating interest rate which was linked to LIBOR rate. The LIBOR rate saw significant increase during FY 2021-22 and FY 2022-23, as compared to the coupon rate of GMTN. Hence, it was beneficial to refinance the ECB loans with funds raised through GMTN.

4.18.4 The interest rates for ECB and for GMTN in FY 2021-22 are as shown in table below:

Table 95: Interest rate of ECB and GMTN in FY 2021-22

Particulars	Interest rate with Withholding Tax	Hedge Premium	Total
ECB	3.26%	5.85%	9.11%
GMTN	4.13%	4.52%	8.65%

4.18.5 AEML submitted that it paid commitment fees and arrangement fees towards ECB and the same need to be segregated amongst generation, transmission and distribution in the ratio of average regulatory loans of the three businesses.

4.18.6 AEML-G submitted that as the Regulation 30.10 of the MERC (MYT) Regulations, 2019 provides the mechanism for computation of gains associated with savings in interest cost in case of refinancing of loans and further sharing of the same with the beneficiaries. The relevant extract of the Regulations is quoted as follows:

"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 also 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 also 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."

4.18.7 AEML submitted that for raising the GMTN funds of Rs. 300 million, it incurred various charges such as lead manager fees, rating fees, legal charges etc. amounting to Rs. 29.92 Crore. Since out of $ 300 million, $ 175 million was for refinancing the ECB loan and rest was for new capex purpose, AEML bifurcated the fees associated with GMTN towards refinancing and new capex. AEML further segregated the refinancing charges (as derived above) in the ratio of regulatory loans (as on date of refinance) among the different business segments.

Table 96: Bifurcation of GMTN Fees between New Capex and Refinance

Particulars	Rs. Crore
GMTN Fees – total	29.92
GMTN Fees - towards new capex ($ 125 million)	12.47
GMTN Fees - towards refinancing ($ 175 million)	17.45*

*- Considered for segregation in the ratio of regulatory loans

4.18.8 AEML has segregated the refinancing charges (as derived above) in the ratio of regulatory loans (as on date of refinance) among the different business segments as shown in table below:

Table 97: Refinancing Charges for FY 2021-22

Particulars	Total Refinancing charges	AEML-G	AEML-T	AEML-D (Wires)	AEML-D (Supply)
Loan amounts		156.39	660.01	2056.22	5.99
Refinancing charges	17.45	0.95	4.00	12.47	0.04

4.18.9 AEML-G has submitted the net saving computation in accordance with the methodology adopted by the Commission in its MYT Order, as per table herein below:

Table 98 : Net Saving from refinancing of loan (Rs. Crore)

Particulars (Rs. Crore)	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Opening Balance of Loan	161.02	123.96	86.91	49.85	12.79
Repayment	37.06	37.06	37.06	37.06	12.79
Closing Balance of Loan	123.96	86.91	49.85	12.79	0.00
Average loan balance	142.49	105.43	68.38	31.32	6.40
Interest - Pre refinancing	8.82	9.61	6.23	2.85	0.58
Interest - Post refinancing	8.38	9.12	5.92	2.71	0.55
Saving in interest	0.45	0.49	0.32	0.14	0.03
NPV of saving	**1.30**				
Refinancing Cost	0.95				
Net saving	**0.35**				
1/3rd for AEML-G	**0.12**				

4.18.10 AEML-G submitted that since the net saving is positive, therefore the refinancing charges has been claimed in FY 2021-22.

Commission's Analysis and Ruling

4.18.11 As specified in Para 0, even though the Bond Fees of Rs. 5.72 Crore is considered under refinance charges in FY 2019-20, it was limited to the calculation of the Net saving due to refinancing. However, the actual pass through of the cost is allowed in FY 2020-21 in the ratio of the AEML Loan to the AEML-G loan and accordingly is considered in ARR of FY 2020-21.

Table 99: Allocation of Refinance Charges incurred in FY 2020-21 (Rs. Crore)

Particulars	Total Amount	Allocated to Regulatory business	Allocated to AEML-G	Allocated to AEML-T	Allocated to AEML-D (Wires)	Allocated to AEML-D (Supply)
Refinancing charges	5.32	1.32	0.11	0.27	0.90	0.04

4.18.12 The Commission observes that in FY 2021-22, AEML has raised $ 300 million loans (Rs. 2,231.98 Crore) through Sustainability Linked Bonds (also known as Global Medium Term Notes – GMTN), out of which $ 175 million was for repayment of the loans raised through ECB in FY 2020-21 and the rest was for funding the new capital expenditure in FY 2021-22.

4.18.13 AEML has raised $70 million (Rs. 503.44 Crore) for new capex purposes through External Commercial Borrowing (ECB) in FY 2019-20 and in FY 2020-21, additional fund of $105 million (Rs. 767.53 Crore) was raised through ECB for financing new capex in FY 2020-21.

4.18.14 It has been observed that overall Rs. 1270.97 Crore has been raised through ECB which was used for new CAPEX in between FY 2019-20 to FY 2021-22. Further, the ECB loan as on the date of refinance in FY 2021-22 (26/07/2021) including the forex loss was Rs. 1,302.73 Crore. Thus, part of GMTN used for new capex in FY 2021-22 was Rs. 929.26 Crore (Rs. 2,231.98 Crore - Rs. 1,302.73 Crore). Further, out of the FD amount of Rs. 80 Crore kept in FY 2020-21, an amount of Rs. 20 Crore was kept utilized in FY 2021-22.

4.18.15 AEML-G has claimed that the said CAPEX has been incurred for G,T & D function only and hence the whole refinancing charges are allocated in the ratio of Regulatory loans of respective function as on the date of refinancing. To verify the claim, the Capital expenditure incurred by AEML for Generation, Transmission and distribution function as on FY 2019-20 to FY 2021-22 is analysed outlined as follows:

Table 100: Capital Expenditure by AEML on G,T & D for FY 2019-20 to FY 2021-22 (Rs. Crore)

Function	FY 2019-20	FY 2020-21	FY 2021-22	Total	Proportion
Generation	69.76	19.43	55.46	**144.65**	4%
Transmission	317.45	170.33	561.41	**1049.19**	26%
Distribution	898.57	1021.61	954.54	**2874.72**	71%
Total	**1285.78**	**1211.37**	**1571.41**	**4068.56**	100%

4.18.16 As can be observed that total capex incurred is Rs. 4068.56 for FY 2019-20 to FY 2021-22 and Rs. 2497.15 Crore for FY 2019-20 to FY 2021-22 against which the refinance undertaken by AEML is of Rs. 1302.73 Crs and hence it can be concluded that the refinancing of the loan pertains to the CAPEX incurred by AEML for Generation, Transmission and Distribution Function.

4.18.17 With respect to charges, AEML has claimed Rs. 29.92 Crore as the cost incurred for refinancing of the loan and towards new capex. Since out of $ 300 million, $ 175 million was for refinancing the ECB loan and rest was for new capex purpose, AEML has bifurcated the fees of Rs. 17.45 Crore associated with GMTN towards refinancing and Rs. 12.47 Crore to new capex.

4.18.18 The nature of expense incurred by AEML for ECB refinancing activities undertaken in FY 2021-22 is outlined in the following table:

Table 101: Refinance Charges for FY 2021-22 (Rs. Crore)

Nature of Expenses	Amount
Lead Manger Fees	13.21
Professional Charges	4.26
Rating Fees	3.93
Lenders International Legal Counsels	3.84
Comfort Letter for USD 2bn GMTN	1.69
AEML Domestic Legal Counsels	0.65
Lenders Domestic Legal Counsels	0.65
Other Expenses	1.68
GMTN Fees – total	**29.92**
GMTN Fees - towards new capex ($ 125 million)	**12.47**
GMTN Fees - towards refinancing ($ 175 million)	**17.45**

4.18.19 The other expenses includes the nominal expenses such as Communication, Document Production, Registration Fees, SGX Listing, Second Party Opinion on AEML Sustainability Linked Bond, Programme Set-up & Annual Fees, Legal Council of Madison (Professional Service), Cloud Service, Industry Report, Trusteeship Fees, Certifying of sourcing of Renewable Energy, License & Assurance Fee - GHG Verification, Annual Fees (Jul-21 to Jul-22), Programme Set-up Fees, Process Agent Fees, Programme Drawdown Listing Fees, Programme application processing fees, Issuance Fees, Audio Recording, etc.

4.18.20 However, it was noticed that certain ECB commitment fees were paid to Citicorp International Limited to the extent of Rs. 3.91 Crore which AEML has claimed separately under Finance charges. Since the whole ECB has been refinanced, the same charges cannot be isolated as Financing charges and hence the same has been considered under refinance charges and excluded from Finance charges.

4.18.21 Accordingly, the total refinance charges considered by the Commission is Rs. 21.36 Crore (i.e. Rs.17.45 Crore + Rs. 3.91 Crore).

4.18.22 Based on the approved Refinance charges, the Commission has recomputed the allocation of such charges to the G, T & D function based on the Regulatory loans as on 27 July 2020.

Table 102: Allocation of Refinance charges to G,T & D (as approved) for FY 2021-22 – Rs. Crore

Particulars	Total	Regulatory	G	T	D - W	D - S
Refinancing Charges	21.36	21.36	1.16	4.90	15.26	0.04

4.18.23 Further, the Commission has considered 9.11% as weighted average interest rate of the existing loan portfolio of AEML-G as on 27 July 2020 for working out benefits due to refinancing of loan. AEML has refinanced the loan at 8.65% and the same has been considered as revised rate for working out benefits due to refinancing of loan.

Table 103: Interest rate of ECB and GMTN in FY 2021-22

Particulars	Interest rate with Withholding Tax	Hedge Premium	Total
ECB	3.26%	5.85%	9.11%
GMTN	4.13%	4.52%	8.65%

4.18.24 In order to compute the Present Value of net savings, AEML-G has considered discounting rate equivalent to the new rate of refinancing i.e. 8.65%.

4.18.25 The Regulation 30.10 of MYT Regulations, 2019 specifies that any saving in interest cost due to refinancing of loans is to be shared in the ratio of 2:1.

4.18.26 For working out the net benefits, as per the provisions of the MYT Regulations, 2019, 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 2021-22 for calculating saving due to refinancing of existing loan portfolio. For FY 2021-22, 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.

4.18.27 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 2021-22 as opening loan and the repayment is considered same as the approved depreciation for FY 2021-22 to compute the closing balance of the loans. The computation has been carried out till the entire existing normative loan is repaid. The year wise savings in interest cost has been worked out as a difference between the interest payable considering the existing interest rate of 9.11% and that payable considering the revised interest rate of 8.65%. To compute the net savings from the transaction, net present value of the year wise savings is worked out using a discounting rate of 8.65%. This net present value is then compared with the cost of refinancing incurred by AEML-G 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 Consumers and AEML-G in the ratio specified in the MYT Regulations, 2019. The cost of refinancing eligible for recovery from the ARR is allowed for recovery over and above the share of benefit of AEML-G to be recovered through the ARR. The Table below provides the detailed computation of the sharing of benefit between AEML-G and the Consumers:

Table 104: Refinancing Cost and sharing of Net Saving for FY 2021-22 (Rs. Crore)

Particulars	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27
Opening Balance of Loan	157.68	120.63	83.57	46.51	9.46	0.00

Particulars	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27
Repayment	37.06	37.06	37.06	37.06	9.46	0.00
Closing Balance of Loan	120.63	83.57	46.51	9.46	0.00	0.00
Average loan balance	139.16	102.10	65.04	27.99	4.73	0.00
Interest - Pre refinancing	8.62	9.30	5.93	2.55	0.43	0.00
Interest - Post refinancing	8.18	8.83	5.63	2.42	0.41	0.00
Saving in interest	0.44	0.47	0.30	0.13	0.02	0.00
NPV of saving	**1.24**					
Refinancing Cost	1.16					
Net saving	**0.08**					
1/3rd for AEML-G	**0.03**					

4.18.28 The Commission notes that Net saving for Generation function as such is positive and hence the same is allowed. Accordingly, the Commission approves refinancing cost of Rs. 21.36 Crore as a Whole and Rs. 1.16 Crore to Generation Function and sharing of benefits of Rs. 0.03 Crore to consumers for FY 2021-22.

4.19 Finance Charges

AEML-G's Submission

<u>FY 2020-21</u>

4.19.1 In FY 2020-21, AEML has raised further $ 105 million (Rs. 767.53 Crore) through ECB for financing new capex in FY 2020-21. AEML has paid commitment fees and arrangement fees towards ECB of Rs. 18.08 Crore and the same has been segregated amongst generation, transmission and distribution in the ratio of average regulatory loans of the three businesses in FY 2020-21.

4.19.2 Further, it has also incurred FERV (loss) on these finance charges in FY 2020-21, amounting Rs. 0.19 Crore which again segregated across the regulated businesses in ratio of the regulatory loans. In addition, there were other fees (annual fees, agency fees etc.) paid with respect to bond and sub-debt, some of fees earlier paid were refunded in FY 2020-21 and the net amount was distributed across the regulatory loans of regulated business. Accordingly, Rs. (0.36) crore has been claimed as other Finance charges for FY 2020-21.

4.19.3 AEML further stated that the working capital loans were availed from banks / financial institutions for meeting the day-to-day cash requirements. AEML also incurred LC and BG commission for payment to vendors through LC/BG for materials related to capex / opex. All these financing charges corresponding to financing of working capital requirements amounted to Rs. 2.98 Crore had been segregated among different regulated divisions in the ratio of normative working capital requirement of the different divisions of AEML (except for LC/BG charges which are claimed at actuals for each division of business).

<u>FY 2021-22</u>

4.19.4 AEML has raised $ 300 million loans (Rs. 2,231.98 Crore) through Sustainability Linked Bonds (also known as Global Medium Term Notes – GMTN), out of which $ 175 million was for repayment of the loans raised through ECB and the rest was for funding the new capital expenditure in FY 2021-22. Accordingly, the finance charges related to funding of new CAPEX of $ 125 million is claimed under finance charges of Rs. 12.47 Crore which is allocated proportionately.

4.19.5 Further, AEML has also incurred commitment fees for ECB of Rs. 3.91 Crore in FY 2021-22 till the time of refinance. AEML has also incurred FERV (loss) of Rs. 18,088/- on the finance charges in FY 2021-22.

4.19.6 AEML has incurred Escrow management fees, agency fees etc. in FY 2021-22 amounting to Rs. 5,92,264.

4.19.7 In addition to the above, AEML has incurred financing charges for arranging working capital from banks / financial institutions in FY 2021-22. AEML has also incurred LC and BG charges in FY 2021-22 for payment to vendors through LC/BG for materials related to capex / opex. These charges have been claimed in the ratio of normative working capital requirement for FY 2021-22 (Except for LC/BG charges which have been claimed at actuals for each business segment). Accordingly, Rs. 1.63 Crore has been charged against the financing charges for working capital.

4.19.8 Accordingly, AEML-G submitted the total financing charges as per table herein below:

Table 105 : Financing Charges for FY 2020-21 and FY 2021-22

Particulars (Rs. Cr)	Total Financing charges	Charges proportionate to Regulatory Loans	Financing charges for AEML-G	Financing charges for AEML-T	Financing charges for AEML-D (Wires)	Financing charges for AEML-D (Supply)
Financing charges for FY 2020-21	20.89	21.15	2.12	4.32	13.33	1.38
Financing charges for FY 2021-22	18.06	18.06	0.95	3.53	13.54	0.03

Commission's Analysis and Ruling

<u>For FY 2020-21</u>

4.19.9 As per submission of AEML-G, it has paid commitment fees and arrangement fees of Rs. 18.08 Crore towards additional ECB fund of $ 105 million (Rs. 767.53 Crore) for financing new capex in FY 2020-21. The Commission observed that these fees are Commitment and Arrangement fees paid to Citicorp International Limited and Qatar National Bank against the Commitment fees clause. The Commission has reviewed the details from the invoice submitted by AEML-G and found the same in order.

4.19.10 With respect to Rs. (0.36) crore claimed, it has been observed that refund of Rs. 0.15 Crore which was paid to "The Bank of New York – Mellon" related to subdebt fees was already accounted in FY 2019-20 under refinance charges and the Commission vide para 0 of this order, has excluded the same from the Refinance charges and therefore the impact of the refund of this charges is not considered in FY 2021-22. Also, the other charges claimed under this head is related to Acceptance fees, Annual Fees, Legal Fees related to Bond, Rupee Loan, ECB, etc. Accordingly, the Commission has recomputed the charges and after non-consideration of Refund of Rs. 0.15 Crore, the Commission allows Rs. (0.21) Crore as other charges.

4.19.11 The FERV loss of Rs. 0.19 crore has been substantiated by AEML by providing the reconciliation of the same with the audited accounts and the same is verified by the Commission.

4.19.12 Also the Processing fees of Rs. 0.28 crore with respect to working capital loan has been paid and has been verified from the invoices submitted by AEML-G. The Commission notes that since the AEML-G has utilized the loan borrowings to meet the working capital requirements, the financing charges for the same has been allowed in the ratio of regulatory loan of AEML-G. AEML also incurred LC and BG commission for payment to vendors through LC/BG for materials related to capex / opex which has resulted into additional charges of Rs. 2.70 Crore. The same is also approved and allocated on actual basis to each function of AEML.

4.19.13 Accordingly, the finance charges as approved for FY 2020-21 and allocated to Generation function is outlined as below:

Table 106: Finance Charges approved for FY 2020-21 (Rs. Crore)

Particulars	MTR Petition	Approved in Order	Regulatory Function	Generation
Financing Charges for LT Loans				
ECB Fees	18.08	18.08	18.08	1.10
FERV (Finance cost)	0.19	0.19	0.05	0.00
Other fees	(0.36)	(0.21)	(0.06)	(0.00)
Sub-total	**17.91**	**18.06**	**18.07**	**1.10**
Financing Charges for WC Loans				
Working Capital	0.28	0.28	0.28	0.09
LC & BG COMM	2.70	2.70	2.70	0.91
Sub-total	**2.98**	**2.98**	**2.98**	**1.00**
Financing Charges – Total	**20.89**	**21.04**	**21.05**	**2.10**

For FY 2021-22

4.19.14 As per submission of AEML-G, it has raised $ 300 million loans (Rs. 2,231.98 Crore) through Sustainability Linked Bonds (also known as Global Medium Term Notes – GMTN), out of which $ 175 million was for repayment of the loans raised through ECB and the rest was for funding the new capital expenditure in FY 2021-22. Accordingly, the same has been allocated into Refinance charges and finance charges in the ratio of actual loan. As specified in Para 4.18 of this order, the amount has been reverified from the original invoice and has been approved. Accordingly, Rs. 12.47 Crore equivalent to finance charges related to new loan has been approved under Finance Charges.

4.19.15 As specified in Para 4.18.20, it was noticed that certain ECB commitment fees were paid to Citicorp International Limited to the extent of Rs. 3.91 Crore which AEML has claimed separately under Finance charges. Since the whole ECB has been refinanced, the same charges cannot be isolated as Financing charges and hence been considered under refinance charges and excluded from Finance charges.

4.19.16 The FERV loss of Rs. 18,088 and Escrow management fees, agency fees etc of Rs. 5,92,264 has been substantiated by AEML by providing the reconciliation of the same with the audited accounts alongwith the invoices and the same is verified by the Commission.

4.19.17 Also the Processing fees of Rs. 0.24 Crore with respect to working capital loan has been paid and has been verified from the invoices submitted by AEML-G. The Commission notes that since AEML-G has utilized the loan borrowings to meet the working capital requirements, the financing charges for the same has been allowed in the ratio of regulatory loan of AEML-G. AEML also incurred LC and BG commission for payment to vendors through LC/BG for materials related to capex / opex which has resulted into additional charges of Rs. 1.39 Crore. The same is also approved and allocated on actual basis to each function of AEML.

4.19.18 Accordingly, the finance charges as approved for FY 2021-22 and allocated to Generation function is outlined as below:

Table 107: Finance Charges approved for FY 2021-22 (Rs. Crore)

Particulars	MTR Petition	Approved in Order	Regulatory Function	Generation
Financing Charges for LT Loans				
GMTN fees	12.47	12.47	12.47	0.64
ECB commitment fees	3.91	0.00	0.00	0.00
FERV (finance charges)	0.00	0.00	0.00	0.00
Other fees	0.06	0.06	0.06	0.00
Sub-total	**16.43**	**12.52**	**12.52**	**0.64**
Financing Charges for WC Loans				
Working Capital	0.24	0.28	0.28	0.08
LC & BG COMM	1.39	1.39	1.39	0.00
Sub-total	**1.63**	**1.63**	**2.98**	**0.08**
Financing Charges – Total	**18.06**	**14.15**	**14.15**	**0.72**

4.20 Foreign Exchange Rate Variation

AEML-G's Submission

<u>FY 2020-21</u>

4.20.1 AEML submitted that the principal repayment for $ 300 million Bond and $ 282 million Sub-debt is hedged beyond Rs./$ conversion rate of Rs. 91.75/$. The FERV (loss or gain) that will accrue at the time of repayment of these loans shall be claimed by AEML in future. As submitted in earlier section, FERV is also accrued at the time of LC repayment. The FERV (gain) accrued due to LC repayment in FY 2020-21 was Rs. 5.21 Crore.

FY 2021-22

4.20.2 The FERV (loss) accounted in books of the accounts of FY 2020-21 towards timing difference between the rate/$ considered for loan conversion and the rate/$ at the time of finalizing hedging contracts for the funds raised through GMTN is Rs. 0.46 Crore. The same has been claimed in the ratio of average regulatory loans for FY 2021-22.

4.20.3 Also, the FERV accrued due to LC repayment (LC used for payment of imported coal) is Rs. 1.19 Crore.

Table 108: FERV Claimed by AEML in FY 2020-21 and FY 2021-22 (Rs. Crore)

Particulars	AEML-G	AEML-T	AEML (D – W)	AEML (D – S)	Total
FY 2020-21					
FERV (LC repayment)	(5.21)				(5.21)
FY 2021-22					
FERV (loans)	0.02	0.10	0.33	0.00	0.46
FERV (on LC repayment)	1.19				1.19
Total	**1.21**	**0.10**	**0.33**	**0.00**	**1.64**

Commission's Analysis and Ruling

4.20.4 As discussed in para 4.12.29, 4.12.30 and 4.12.31 of this Order, the Commission has considered the FERV related to imported fuel as a direct cost and is included in the fuel cost. The treatment of the same is provided in the said para of the order.

4.20.5 With respect to FERV loss of Rs. 0.46 Crore, the same has been incurred for the total loan profile of AEML and it is not prudent to allocate the entire cost to the G, T & D function. Based on the approach as adopted by the Commission for the allocation of refinance charges, the FOREX loss as claimed by AEML will be first allocated proportionately with the total regulatory loan of G,T &D function with total loan profile and the amount so segregated to total Regulatory loan will further be segregated to G,T & D function in proportionate to their respective regulatory loan.

4.20.6 Accordingly, the Forex exchange rate variation as approved by the Commission is outlined as below:

Table 109: Approved Foreign Exchange rate variation for FY 2020-21 and FY 2021-22 (Rs. Crore)

Particulars	MTR Petition	Approved in Order	Allocated to Regulatory account	G	T	D - W	D - S
FY 2020-21							
FERV (LC repayment)	(5.21)	-	-	-	-	-	-
FY 2021-22							
FERV (loans)	0.46	0.46	0.13	0.01	0.03	0.09	0.00

FERV (on LC repayment)	1.19	-					
Total of FY 2021-22	**1.64**	**0.46**	**0.13**	**0.01**	**0.03**	**0.09**	**0.00**

4.20.7 The Commission approved the Foreign Exchange Rate variation of Rs. 0.01 Crore to be allocated to generation function for FY 2021-22.

4.21 Return on Equity for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.21.1 AEML-G submitted that as per MERC MYT Regulations, 2019 provides for allowing RoE in two parts i.e., Base RoE and additional RoE linked to actual performance. The additional RoE shall be allowed at the time of truing up for respective years based on actual performance.

4.21.2 AEML-G stated that the Commission in its MYT Order, had allowed the Base RoE only. For generation business, the Base RoE is 14% per annum and eligibility for additional RoE is linked to performance parameters of ramp rate and Mean Time Between Failures (MTBF).

4.21.3 AEML-G has reproduced the relevant paragraph of the MERC MYT Regulations 2019 as herein below:

"29.6 In case of a thermal generating Unit, with effect from 1.4.2020, at the time of true-up:

a) an additional rate of Return on Equity of 0.25% shall be allowed for every incremental ramp rate of 0.10% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of Return on Equity of 0.50%, for the year in which such ramp rate is achieved:

Provided that the additional rate of Return on Equity shall be allowed on pro-rata basis for incremental ramp rate of more than 0.10% per minute.

b) an additional rate of Return on Equity shall be allowed as per the following schedule:

i. 0.50% for Unit that achieves Mean Time Between Failure (MTBF) of at least 45 days;

ii. 0.75% for Unit that achieves Mean Time Between Failure (MTBF) of at least 90 days;

iii. 1.00% for Unit that achieves Mean Time Between Failure (MTBF) of at least 120 days

…………………………..

Provided further that the equity base for the respective Unit shall be considered in proportion to the installed capacity of the generation *station, in case the tariff is determined for the generation station as a whole."*

4.21.4 AEML-G submitted that the ramp rate of Unit 1 of ADTPS in FY 2020-21 was 1.61% and that of Unit 2 was 1.55%, accordingly claimed additional RoE of 0.5% as per MYT Regulations, 2019. AEML-G stated that MTBF achieved by Unit 1 in FY 2020-21 was 364.89 days and that achieved by Unit 2 was 358.80 days.

4.21.5 AEML-G further submitted that the ramp rate of Unit 1 of ADTPS in FY 2021-22 was 1.60% and that of Unit 2 was 1.57% and the MTBF achieved were 182.34 days and that achieved by Unit 2 was 364.90 days for respective units of ADTPS.

4.21.6 AEML-G substantiated their claim of additional ROE by providing the certificate from MSLDC for the FY 2020-21 and FY 2021-22 and accordingly claimed ROE of 15.5% for respective years.

4.21.7 AEML-G submitted that the MERC MYT Regulations, 2019 provide for the following with regard to working out Effective Tax Rate for grossing up RoE:

"34.3 The base rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

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

Where "t" is the effective tax rate

34.4 The effective tax rate shall be considered on the basis of actual tax paid in respect of financial year in line with the provisions of the relevant Finance Acts by the concerned Generating Company or Licensee or MSLDC, as the case may be:

Provided that, in case of the Generating Company or Licensee or MSLDC has engaged in any other regulated or unregulated Business or Other Business, the actual tax paid on income from any other regulated or unregulated Business or Other Business shall be excluded for the calculation of effective tax rate:

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

4.21.8 AEML-G submitted that as per second proviso of the aforesaid regulation, the Taxable Income for a Generating Company or Licensee or SLDC is required to be determined in isolation of its any other un-regulated or regulated activity or other business and the effective tax rate be determined from such taxable income accordingly.

4.21.9 AEML-G stated that in line with aforementioned, the taxable income and hence effective tax rate of Generating Company or Generation segment of AEML, which is AEML-G, required to be worked out in isolation of its other regulated and non-regulated segments of Transmission, Distribution (both regulated) and Corporate-treasury (un-regulated).

AEML-G accordingly stated that it has segmented their company's financial into G-T-D and Corporate Treasury segments and submitted statutory auditor certificate for the taxable income. AEML-G while computing the taxable income of generation business has accordingly removed the financial effect of assets and liabilities of non-regulated business so to reveal the true taxable income as per the financial values obtained from regulatory books alone.

4.21.10 Accordingly, AEML-G has computed that the standalone Profit Before Tax for its regulated segment for the FY 2020-21 and FY 2021-22 as per table herein below:

Table 110 : Regulatory PBT based Income Tax for FY 2020-21 and FY 2021-22

Particulars	FY 2020-21	FY 2021-22
Revenue		
Revenue from sale	1356.98	1456.74
FY 2020-21 Truing up gap*	39.06	19.65
Non-Tariff Income	7.30	16.91
Total Revenue	**1403.34**	**1493.30**
Expenses		
Fuel Related Expenses	973.96	1,055.01
Other Fuel expense	0.14	0.17
Operation & Maintenance Expenses	174.29	180.77
Depreciation Expenses	37.93	37.06
Interest on Long-term Loan Capital	13.95	13.53
Foreign exchange rate variation	-5.21	1.21
Financing Charges	2.12	0.95
Refinancing Charges	0.11	0.95
Present Value of Interest cost saving	0	0.12
Interest on Working Capital	26.16	21.56
Other Expenses	0	0
Total Expenses	**1,223.46**	**1,311.33**
Profit Before Tax	**179.89**	**181.97**
Add: Depreciation considered in Expenses	37.93	37.06
Add: Other disallowance while computing IT	49.28	9.05
Less: Tax Depreciation	47.96	44.99
Less: Other expenses allowed for computing Income Tax	13.03	2.49
Profit Before Tax for Corporate tax	**206.11**	**180.59**
Tax Payable at Corporate Tax Rate	**72.04**	**63.11**
MAT Computation		
Total Revenue	1,403.34	1,493.30
Total Expenses	1,223.46	1,311.33
Book Profit	**179.89**	**181.97**
Tax Payable under MAT Rate	**31.43**	**31.79**

4.21.11 AEML-G submitted that the income tax applicable for AEML-G on a standalone basis, considering the regulated asset base corresponding cost is payable at Corporate tax rate and hence the Corporate tax rate should be considered as the effective tax rate. AEML-G accordingly has considered the aforementioned tax rate while grossing up the ROE for FY 2020-21 and FY 2021-22 as per table herein below:

Table 111 : Return on Equity for FY 2020-21 and FY 2021-22 (Rs. Crore)

Particulars	**FY 2020-21**		**FY 2021-22**	
	MYT Approved	**Petition**	**MYT Approved**	**Petition**
Regulatory Equity at the beginning of year	628.78	633.06	650.44	641.27
Capitalization during the year	72.20	27.65	76.56	55.81
Equity portion of capitalization during the year	21.66	8.29	22.97	16.74
Reduction in Equity Capital on account of retirement / replacement of assets	0	0.09	0.00	0.09
Regulatory Equity at the end of year	650.44	641.27	673.41	657.92
Return on Regulatory Equity at beginning of year	88.03	150.85	91.06	152.80
Return on Regulatory Equity addition during the year	1.52	0.99	1.61	1.99
Total Return on Regulatory Equity	**89.55**	**151.83**	**92.67**	**154.80**

Commission's Analysis and Ruling

4.21.12 The Closing equity for FY 2019-20 approved in this Order is considered as opening equity of FY 2020-21 and closing equity for FY 2020-21 approved in this Order is considered as opening equity of FY 2021-22. Equity addition during the year has been computed considering the debt: equity ratio as 70:30 and the capitalisation as approved in this Order and also considering the impact of the asset retirement by reducing the equity by 30% of the Gross Fixed Asset value. Further, the closing balance of equity for each of the year of FY 2020-21 and FY 2021-22 has remained the same.

4.21.13 The Commission has computed RoE according to Regulation 29 of MYT Regulations, 2019. The RoE for Generating station is allowed in two parts, i.e., Base rate of RoE of 14% and additional rate of RoE of 1.5% linked to actual performance (i.e., Ramp rate and Mean Time Between Failure (MTBF)) as specified in Regulations 29.6 of MYT Regulations 2019, whereby additional RoE will be allowed at time of Truing-up.

29.6 In case of a thermal generating Unit, with effect from 1.4.2020, at the time of true-up:

a) an additional rate of Return on Equity of 0.25% shall be allowed for every incremental ramp rate of 0.10% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of Return on Equity of 0.50%, for the year in which such ramp rate is achieved:

Provided that the additional rate of Return on Equity shall be allowed on pro-rata basis for incremental ramp rate of more than 0.10% per minute.

b) *an additional rate of Return on Equity shall be allowed as per the following schedule:*

i. 0.50% for Unit that achieves Mean Time Between Failure (MTBF) of at least 45 days;

ii. 0.75% for Unit that achieves Mean Time Between Failure (MTBF) of at least 90 days;

iii. 1.00% for Unit that achieves Mean Time Between Failure (MTBF) of at least 120 days:

Provided that the Mean Time Between Failure (MTBF) shall be computed as provided in Annexure-III to these Regulations:

Provided further that the equity base for the respective Unit shall be considered in proportion to the installed capacity of the generation station, in case the tariff is determined for the generation station as a whole.

4.21.14 The Ramp rate data as provided by AEML-G and MTBF as per certificate provided by MSLDC is outlined in the following table:

Table 112: Ramp Rate and MTBF as on FY 2020-21 and FY 2021-22

Financial Year	Parameter	Norm / Target	Actual	Additional RoE
FY 2020-21	Ramp Rate	1.20%/minimum	U1: 1.61%/min, U2: 1.55%/min.	0.5%
	MTBF	120 days minimum	U1: 364.89 days, U2: 358.80 days	1.0%
FY 2021-22	Ramp Rate	1.20%/minimum	U1: 1.60%/min, U2: 1.57%/min.	0.5%
	MTBF	120 days minimum	U1: 182.84 days, U2: 364.90 days	1.0%

4.21.15 It is noted from MSLDC Certificate that AEML-G has achieved Mean Time Between Failure (MTBF) as per the norms provided in the MYT Regulations 2019 and hence is eligible for additional performance RoE of 1%. However, with respect to the Ramp rate performance norms, though the data provided by AEML-G highlights that it has achieved the norms, the same has not been supported by any certification from MSLDC. Further, it was observed that MSLDC has sought the unit wise data for ramp rate computation from the ADTPS generators, which includes 15-min block wise & unit wise actual Ex-bus generation data, against which AEML-G has submitted the station wise data and reported the difficulty in providing the unit wise data. The Commission notes that as per Regulations 29.6 of MYT Regulations 2019, the performance to be assessed to determine the additional Performance based RoE is for a generating unit and not for a station as whole. In absence of such certificate from MSLDC with respect to achieving of Ramp Rate - unit wise, the Commission is not inclined to allow the additional performance-based RoE of 0.5% against the for incremental ramp rate as specified in MYT Regulations 2019. Accordingly, the total additional performance based RoE allowed is 1% against the claim of 1.5% by AEML-G.

4.21.16 The Commission observed that as per the audited accounts of FY 2020-21 and FY 2021-22, the income tax paid by AEML has been as per MAT rate, however AEML-G has claimed Pre-tax RoE by grossing up with Corporate Tax rate. AEML-G submitted that as per second proviso to Regulations 34.4 of the MYT Regulations 2019, it is clear that for a company with more than one regulated segment and/or having unregulated segment, the taxable income, on which income tax is to be allowed to be determined separately in isolation to other segment which is similar to earlier regulations and Hon'ble ATE judgment. The only difference being ROE is to be grossed up by income tax rate instead of tax amount. Further, it submitted that only way to determine effective tax rate of each regulated segment in water tight compartment and to determine tax in isolation to other business. Also, revenue and expenses in books of account may be different than Regulatory books due to various reasons. The Commission in Case No. 139 of 2018 held on acquisition of RINFRA business by Adani group that tariff to be continued on the basis of regulatory books. It cannot be the case that income tax is considered as per company's book and for the purpose of ARR, the Regulatory books are considered. In case the lower tax rate or actual income tax paid is considered, the expenses of unregulated segment are also required to be considered.

4.21.17 The Commission has also examined the justification provided by AEML-G with regards to considering the effective tax rate based on the stand-alone income tax computation for the individual regulated businesses. In this context, the Commission notes the provisions of the Regulation 34.4 and the intent behind these provisions. The relevant extract is reproduced below:

"34.3 The base rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

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

Where "t" is the effective tax rate

*34.4 The effective tax rate shall be considered on the basis of **<u>actual tax paid in respect of financial year</u>** in line with the provisions of the relevant Finance Acts by the concerned Generating Company or Licensee or MSLDC, as the case may be:*

*Provided that, in case of the Generating Company or Licensee or MSLDC has engaged in any other regulated or unregulated Business or Other Business, **the actual tax paid on income from any other regulated or unregulated Business or Other Business shall be excluded for the calculation of effective tax rate**:*

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

4.21.18 On close reading of the above provision, it is evident that the emphasis of the Commission, while outlining the principles of allowing recovery of income tax on Return on Equity, has been on allowing the effective tax rate based on the actual tax paid during the year. Even in the case where the licensee is engaged in some other unregulated business, the actual income tax paid on income from such unregulated business is envisaged to be excluded from the calculation of effective tax rate.

4.21.19 In this context, it would be important to examine the intent of the MYT Regulations, 2019 and it is observed that the Statement of Reasons while issuing the MYT Regulations 2019 states as follows:

"4.31.3 Analysis and Commission's Decision

The Commission has considered the submissions of the stakeholders and decided to simplify the method of computation of Income Tax to be recovered through the ARR and Tariff. ***The RoE and additional RoE allowed to be recovered by the Commission are the legitimate profit of the Utility, and Income Tax has to be allowed on such profit****, so that the Utilities are able to recover the assured RoE without having to pay Income Tax out of the RoE, which would result in lower effective RoE for the Utilities. Hence, the Commission has adopted the grossing up of RoE approach followed by the CERC, for allowing Income Tax to the Utilities. However, the Commission has built-in the following safeguards, while specifying the method of allowing Income Tax to the Utilities:*

(a) No Income Tax shall be considered on the amount of efficiency gains and incentive approved by the Commission and on the income from DPS 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 ARR;

(b) The deferred tax liability only before March 31, 2020 shall be allowed by the Commission, whenever they get materialised, after prudence check;

(c) ***The effective tax rate shall be considered on the basis of actual tax paid in the respective financial year by the concerned Utility****;*

(d) Provided that the actual tax paid on income from any other regulated or unregulated Business or Other Business shall be excluded for the calculation of effective tax rate;

4.21.20 As outlined above, the basic principle to consider the grossing up of RoE was to allow Income tax on the RoE which is the legitimate profit of the utility so as to ensure the recovery of RoE without paying tax from RoE. Also, the effective tax rate to be considered is on the basis of the actual income tax paid of the utility (as a whole). In case the Income tax is allowed on absolute value, then there is a probability of tax paid on efficiency gains and incentive, profit / loss of other unregulated business. However, due to grossing up approach, since the same is grossed up with RoE which is legitimate profit, such event does not occur and no additional tax is paid on such efficiency gains and incentive, profit / loss of other unregulated business. Thus, the intent of the Commission is clear that it would allow adequate recovery of income tax on the legitimate profit for the licensee so as to ensure that the licensee does not end up paying the income tax on his legitimate profit from his RoE. However, for determining the effective tax rate, it is necessary to determine the applicable income tax rate of the utility, as provided in the Statement of Reasons. The Utility should not earn any profit on account of being allowed higher Income Tax through tariff as compared to the Income Tax actually paid and amounts to unjust enrichment. Hence, a proviso was included in MYT Regulations 2019 linking the effective tax rate with income tax paid by the

Licensee, Generating Company or MSLDC, to limit the Income Tax recoverable by the regulated Business to the actual Income Tax paid by Company as a whole.

4.21.21 Even in case of utilities like AEML which are integrated utilities with multiple regulated / unregulated businesses within the same company, the intent of the Regulations has always been to allow recovery of adequate income tax on legitimate profits allowed under the regulatory regime. Accordingly, the licensees should not end up recovering higher income tax than their eligibility on account of being allowed higher Income Tax through tariff as compared to the Income Tax actually paid. This would amount to unjust enrichment by the Licensee.

4.21.22 Accordingly, the Commission deems it fit to compare the actual income tax rate applicable to the licensee based on actual tax paid to the income tax authorities by the company as a whole vis-à-vis the rate worked out based on a stand-alone basis as submitted by AEML-G. The intent is that the legitimate costs of the licensee are allowed to be recovered and the beneficiaries / consumers are not unduly burdened.

4.21.23 The Commission has noted that the effective tax payable by AEML is MAT rate @ 17.47% for the FY 2020-21 and FY 2021-22 respectively, however claimed Corporate tax of 34.95%. Accordingly, the rate of pre-tax return on equity can be computed as herein below:

Table 113: Pre-Tax Return on Equity for FY 2020-21 and FY 2021-22 approved by the Commission

Sr	Particulars	Formula	FY 2020-21		FY 2021-22	
			MTR Petition	Approved in Order	MTR Petition	Approved in Oder
1	Total Gross Income of Regulated Entity (Rs. Crore)	(a)		316.22		288.42
2	Actual Income Tax paid by the Entity #	(b)		55.25		50.39
3	Effective Tax Rate of the Company (%) $	c = (b/a)	34.95%	17.47%	34.95%	17.47%
4	Base Rate of Return on Equity (%)	(d)	15.50%	15.00%	15.50%	15.00%
5	**Rate of Pre-Tax Return on Equity (%)**	**e = d /(1-c)**	**23.83%**	**18.18%**	**23.83%**	**18.18%**

4.21.24 The Commission has further considered the equity addition during the year of truing up considering the debt: equity ratio as 70:30 and the capitalisation approved in this Order.

4.21.25 With respect to the retirement of assets, the Commission has also analysed the nature of retired assets and their values from the submissions made by AEML-G. It has further verified that the values of retired assets from the audited accounts and accordingly, 30% of the same have been deducted from the equity for the respective years. Accordingly, the Commission approves the values of retired assets as submitted by AEML-G.

4.21.26 Accordingly, the Return on Equity for the FY 2020-21 and FY 2021-22 is approved as per table herein below:

Table 114: Return on Equity approved by the Commission (Rs Crore)

Particulars	Unit	FY 2020-21		FY 2021-22	
		MTR Petition	Approved in Order	MTR Petition	Approved in Order
Regulatory Equity at beginning of year	Rs Crore	633.06	633.03	641.27	641.24

Particulars	Unit	FY 2020-21		FY 2021-22	
		MTR Petition	Approved in Order	MTR Petition	Approved in Order
Capitalization during the year	Rs Crore	27.65	27.65	55.81	50.18
Equity portion of capitalized amount	Rs Crore	8.29	8.29	16.74	15.05
Less: Equity portion of Retired Assets	Rs Crore	0.09	0.09	0.09	0.09
Regulatory Equity at end of year	Rs Crore	641.27	641.24	657.92	656.20
Return on Equity Computation					
Base Rate of Return on Equity	%	15.50%	15.50%	15.50%	15.50%
Pretax Return on Equity after considering effective Tax rate	%	23.83%	18.18%	23.83%	18.18%
Return on Regulatory Equity at the beginning of the year	Rs Crore	150.85	115.06	152.80	116.55
Return on Regulatory Equity addition during the year	Rs Crore	0.99	0.75	1.99	1.37
Total Return on Equity	**Rs Crore**	**151.83**	**115.81**	**154.80**	**117.92**

4.21.27 The Commission approves Return on Equity of Rs. 115.81 Crore for FY 2020-21 and Rs 117.92 Crore for FY 2021-22 as part of truing up considering the approved capitalization for the corresponding years.

4.22 Interest on Working Capital for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.22.1 Regulation 32 of MYT Regulations, 2019 specifies the constituents of the working capital allowable to a Generating Company. Accordingly, AEML-G computed working capital requirement for FY 2020-21 and FY 2021-22 in line with the Regulations.

Coal Stock

4.22.2 As per Regulation 32.1 (a) (i) of MYT Regulations, 2019, the cost of coal towards stock for thirty days for non-pit head Generation Station corresponding to its target availability, or maximum coal/ lignite stock storage capacity, whichever is lower is to be considered. In case of AEML-G, the storage capacity for coal, both washed coal and imported coal is more than that required for one month's generation at normative availability.

4.22.3 AEML-G has stated that the storage capacity for coal at ADTPS is much higher than the coal quantity required for one month's generation at normative Availability. Accordingly, cost of coal towards 30 days stock is considered for determining allowable working capital and normative cost of oil for two months has been considered corresponding to the actual PLF since actual PLF is lower than target availability of 85%.

Maintenance Spares

4.22.4 AEML-G has considered Maintenance Spares at 1% of the opening GFA and one month's O&M expenses as per Regulation 32.1 of MYT Regulations, 2019.

Cost of Fuel

a. Fuel Cost – Domestic Coal

4.22.5 As per Regulation 32.1 (a) (vii), normative payable for fuel for one month corresponding to the target Availability must be considered depending on the modalities of payment.

4.22.6 For the purpose of payment and dispatch, the Annual Contracted Quantity (ACQ) is divided into quarterly quantities (25% of ACQ in each quarter), and monthly scheduled Quantity is worked out as 1/3rd of the quarterly quantity. Payment against this monthly quantity is made thrice in a month in advance, on 1st, 11th and 21st, considering 1/3rd of monthly scheduled quantity each time.

b. Fuel Cost - Imported Coal

4.22.7 Regarding imported coal AEML-G has submitted that coal contracts generally allow a period of 5 (five) banking days for payment, after presentation of invoice by the supplier. However, in case of AEML-G, the coal quantity for the entire year is procured during the non-monsoon period of November to April only. AEML-G submitted that for imported coal, the weighted average credit period available in FY 2020-21 was 25.63 days and in FY 2021-22 was 14.04 days and the same was considered towards payables for imported coal in fuel for computing the normative working capital requirement.

c. Freight Cost

4.22.8 AEML-G submitted that in case of payment of freight to railways, regular payment is done through dedicated (e-payment) facility bank account. Railway is authorised to deduct the payment for the invoice/ Railway receipt on the same day when the railway receipt for a rake to be dispatched is issued.

4.22.9 Accordingly, the FSA with SECL does not provide any credit period to AEML-G for procurement of coal and hence AEML-G is required to make the payments in advance to SECL for procurement of coal. AEML-G has submitted that while computing the working capital requirement in its True-up Petition, it had not considered payable for fuel as the payment to SECL and Railways is made in advance and for imported the contract allows a payment period of 4 to 5 days after delivery of coal.

4.22.10 AEML-G has calculated interest rate of working capital, based on one-year SBI MCLR plus 150 basis points, which works out to 8.57%% for FY 2020-21 and for FY 2021-22 it is 8.50%, as per the 1st Amendment to MYT Regulations, 2019

4.22.11 AEML-G has claimed normative interest on working capital of Rs. 15.60 Crore for FY 2020-21 and Rs.16.34 Crore on actuals for FY 2021-22. Accordingly, the interest on working capital requirement is presented as per table below:

Table 115 : Interest on Working Capital for FY 2020-21 and FY 2021-22

Particulars / (Rs. Crore)	FY 2020-21	FY 2021-22
Cost of Coal towards stock for 30 days of generation	85.55	62.86
Cost of coal towards 30 days of generation	85.55	92.65
Cost of Secondary Fuel Oil for 2 months	1.18	1.31
O&M expenses	15.33	16.05
Maintenance Spares	19.48	19.75
Receivables	0	0

Particulars / (Rs. Crore)	FY 2020-21	FY 2021-22
Less: Payables for Fuel	25.17	0.36
Total Working Capital Requirement	**181.92**	**192.26**
Interest Rate (%)	8.57%	8.50%
Interest on Working Capital	**15.60**	**16.34**

Commission's Analysis and Ruling

4.22.12 As per the Regulation 32.1 of the MYT Regulations, 2019, the normative working capital requirements (cost of coal & oil, O&M Expenses, Maintenance Spares and receivables) is calculated at actual Availability or Target Availability of generating station whichever is lower, in true-up.

4.22.13 The Commission on verifying the monthly coal stock data, it was found that the average coal stock was maintained at ADTPS for 56 days in FY 2020-21 on an average basis throughout the year and 20 days in FY 2021-22 considering actual generation which was lower than normative PLF. However, while recalculating on normative PLF, the same is verified as 51 days and 18 days respectively for corresponding years.

4.22.14 With respect to oil, the same has been considered for two months corresponding to the target Availability. Payables for fuel (including Washed / Raw coal and secondary fuel oil) is considered as nil. Payable for imported fuel considered is based on the weighted average credit period available in FY 2020-21 of 25.63 days and in FY 2021-22 of 14.04 days and accordingly the cost of fuel was calculated on the target Availability have been taken.

4.22.15 The Commission has computed the total working capital requirement in accordance with Regulation 31.1 of the MYT Regulations, 2015. To estimate the working capital requirement for FY 2020-21 and FY 2021-22, corresponding to O&M expenses, the Commission has considered the total approved normative O&M expenses as specified in the Para 4.14.40 of this order.

4.22.16 The Commission has computed the maintenance spares @1% of the opening balance of GFA as approved for FY 2020-21 and FY 2021-22 respectively.

4.22.17 The interest rate for computing IoWC is considered as the weighted average SBI MCLR rate prevalent during FY 2020-21 and FY 2021-22 plus 150 basis point which works out to be 8.57% and 8.50% respectively.

Table 116: Weighted average rate for Interest on working capital for FY 2020-21 and FY 2021-22

Particulars	Date	No. of Days	%	Date	No. of Days	%
	FY 2020-21			**FY 2021-22**		
Opening SBI Base Rate / MCLR Rate	01-04-2020	9	7.75%	01-04-2021	365	7.00%
Revision in Base Rate by RBI	10-04-2020	30	7.40%	31-03-2022		
Revision in Base Rate by RBI	10-05-2020	31	7.25%			
Revision in Base Rate by RBI	10-06-2020	295	7.00%			
Revision in Base Rate by RBI	31-03-2021					

Closing Rate						
Weighted Average Rate		**365**	**7.07%**		**365**	**7.00%**
Plus 150 Basis Point			**1.50%**			**1.50%**
Total Weighted Average Rate			**8.57%**			**8.50%**
https://www.sbi.co.in/portal/web/interest-rates/mclr-historical-data						

4.22.18 The Commission has computed the IoWC for FY 2020-21 and FY 2021-22 considering the above rates as follows:

Table 117: Interest on working capital approved

Particulars	Unit	FY 2020-21		FY 2021-22	
		MTR Petition	Approved in Order	MTR Petition	Approved in Order
Total Working Capital Requirement	Rs Crore	181.92	180.95	192.26	191.38
Interest Rate	%	8.57%	8.57%	8.50%	8.50%
Interest on Working Capital	**Rs Crore**	**15.60**	**15.51**	**16.34**	**16.27**

4.22.19 The Commission approves IoWC of Rs. 15.51 Crore and Rs 16.27 Crore for Truing-up of ARRs for FY 2020-21 and FY 2021-22 respectively.

4.22.20 As IoWC Expenses is controllable, the Commission has undertaken sharing of efficiency gain/losses in accordance with the MYT Regulations, 2019.

4.23 Incentives on higher PLF for FY 2019-20

AEML-G's Submission

4.23.1 As per Regulation 50.8 of the MYT Regulations, 2019:

> *"Incentive shall be payable at a flat rate of 50.0 paise/kWh for actual energy generation in excess of ex-bus energy corresponding to target Plant Load Factor during peak hours and at a flat rate of 25.0 paise/kWh for actual energy generation in excess of ex-bus energy corresponding to target Plant Load Factor during off-peak hours, on a cumulative basis within each Season (High Demand Season or Low Demand Season, as the case may be), as specified in Regulation 46.3 of these Regulations."*

4.23.2 For FY 2020-21, the cumulative PLF of ADTPS is less than the target PLF of 85% (both in High Demand Season or Low Demand Season and also in Peak and Off-peak hours), AEML-G has not claimed any PLF incentive for the year.

4.23.3 For FY 2021-22, the PLF of ADTPS was higher than 85% for high demand season (peak hours) in FY 2021-22. Accordingly, PLF incentive of Rs. 0.05 Crore is allowable to AEML-G for FY 2021-22.

Commission's Analysis and Ruling

4.23.4 The Commission has worked out the incentive on account of higher PLF in accordance with Regulation 50.8 of the MYT Regulations, 2019.

4.23.5 The incentive has been calculated at a flat rate of 25 paise/kWh for the actual energy generation in excess of ex-bus energy corresponding to the target PLF of 85%.

Table 118: PLF Incentive as approved by the Commission for FY 2021-22

Particulars	Cumulative Actual Net Generation (MU)	Cumulative PLF %	Cumulative Target Net Generation (MU)	Cumulative Excess Net Generation (MU)	Incentive (Rs./kWh)	Cumulative Incentive for the year (Rs. Cr)	Incentive for the month (Rs. Cr)
Peak Hrs							
Apr-21	52.95	97.73%	46.05	6.90	0.50	0.34	0.34
May-21	93.87	85.21%	93.64	0.23	0.50	0.01	-0.33
Mar-22	142.18	85.57%	141.23	0.95	0.50	0.05	0.05
Off Peak Hrs							
Apr-21	254.76	94.04%	230.27	24.50	0.25	0.61	0.61
May-21	461.09	83.71%	468.21	0.00	0.25	0.00	-0.61
Mar-22	694.85	83.64%	706.15	0.00	0.25	0.00	0.00
Total							**0.05**

4.23.6 For FY 2020-21, the Commission has verified the MSLDC certificate validating the PLF and availability and based on the same notes that the PLF below the normative PLF of 85%. Therefore, there is no PLF incentive considered for truing up of FY 2020-21.

4.23.7 For FY 2021-22, the Commission has verified the MSLDC certificate validating the PLF and availability and based on the same notes that the PLF of High Demand (Peak Hours) is above the normative PLF of 85%. Therefore, the Commission approves the incentive on account of higher PLF of Rs. 0.05 Crore for Truing-up of ARR for FY 2021-22.

4.24 Sharing of Gains and Losses on Fuel Expenses for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.24.1 The Regulation 11.1 of MYT Regulations, 2019, states that 2/3rd of the efficiency gains based on the normative operational norms of SHR, Auxiliary Consumption, SFOC and Transit Loss, so worked out are passed on as rebate to the consumers and the generating station is entitled to retain the remaining 1/3rd of the efficiency gains.

4.24.2 For FY 2020-21, ADTPS submitted that it was entitled to actual variable cost of Rs. 974.96 Crore plus 1/3rd of the difference with normative fuel cost of Rs. 1,047.91 Crore.

4.24.3 For FY 2021-22, similarly, ADTPS has claimed an entitlement of Actual fuel cost of Rs. 1,055.01 Crore plus 1/3rd of the difference with normative fuel cost of Rs. 1,135.11 Crore.

4.24.4 Accordingly, AEML-G has estimated a total efficiency gain of Rs. 73.96 Crore in FY

2020-21 and Rs. 80.06 Crore in FY 2021-22. AEML-G proposes to share the same in line with MYT Regulations 2019.

Commission's Analysis and Ruling

4.24.5 The Commission in its MYT Regulations, 2019 has provided the following methodology for treatment of sharing and gains/losses:

> ***"11 Mechanism for sharing of gains or losses on account of controllable factors***
>
> *11.1 The approved aggregate gain to the Generating Company or Licensee or MSLDC on account of controllable factors shall be dealt with in the following manner:*
>
> *(a) Two-third of the amount of such gain shall be passed on as a rebate in Tariff over such period as may be stipulated in the Order of the Commission under Regulation 8.4;*
>
> *(b) The balance amount of such gain shall be retained by the Generating Company or Licensee or MSLDC.*
>
> *11.2 The approved aggregate loss to the Generating Company or Licensee or MSLDC on account of controllable factors shall be dealt with in the following manner:*
>
> *(a) One-third of the amount of such loss may be passed on as an additional charge in Tariff over such period as may be stipulated in the Order of the Commission under Regulation 8.4;*
>
> *(b) The balance amount of such loss shall be absorbed by the Generating Company or Licensee or MSLDC. "*

4.24.6 Accordingly, the difference between the actual fuel cost and the fuel cost as per normative SHR, Auxiliary Consumption, SFOC and Transit Loss is considered for sharing of efficiency gains.

4.24.7 As specified in the Regulations 11 of the MYT Regulations 2019, 1/3rd of the efficiency gains are allowed to be retained by AEML-G. The efficiency gains on account of fuel cost as proposed by AEML-G and approved by the Commission for FY 2020-21 and FY 2021-22 are as per the Table below:

Table 119: Sharing of gains/ (losses) on account of fuel parameters approved by the Commission (Rs. Crore)

Particulars	FY 2020-21		FY 2021-22	
	MTR Petition	Approved in Order	MTR Petition	Approved in Order
Normative Fuel Cost	1,047.91	1,042.85*	1,135.07	1,137.97*
Actual Fuel Cost	973.96$	968.89$	1,055.01$	1,054.79$
Efficiency Gains	73.95	73.96	80.06	83.18
To be passed to the consumers (2/3rd)	49.30	49.30	53.37	55.45
To be Retained by AEML-G (1/3rd)	24.65	24.65	26.69	27.73

Final Fuel Cost to be allowed after sharing of Efficiency Gains/ (Losses)	**998.61**	**993.54**	**1,081.70**	**1,082.52**

* - including FOREX Loss and LC charges and excluding PLF incentive

$ - the approved Actual Fuel cost is Rs. 1,066.87 which is adjusted with schedule generation due to implementation of DSM Mechanism

4.24.8 The Commission approves the Sharing of efficiency gain for Fuel Cost to be retained by AEML-G as Rs. 24.65 Crore and Rs 27.73 Crore for FY 2020-21 and FY 2021-22 respectively.

4.25 Sharing of Gains and Losses on O&M Expenses for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.25.1 For FY 2020-21, AEML-G has claimed Rs. 6.80 Crore as the amount to be shared with the consumers on account of sharing of efficiency gains on O&M cost.

4.25.2 For FY 2021-22, AEML has claimed Rs. 7.85 Crore as the amount to be shared with the consumers on account of sharing of efficiency gains on O&M cost..

Commission's Analysis and Ruling

4.25.3 In line with MERC MYT Regulations for 2/3rd of the gains are to be passed on to consumers, as rebate in Tariff due to sharing of gains on controllable parameters. However, as per Regulation 11.2 of the MYT Regulations, 2019 1/3rd of the losses are to be passed on to consumers as an additional charge on tariff due to sharing of losses on controllable parameters.

4.25.4 The Commission has considered the difference between the actual base O&M expenses allowed after Truing-up and the O&M expenses approved in the in this Order, for computing the efficiency gains / losses. Accordingly, for FY 2020-21 and FY 2021-22, considering the actual O&M Cost lower than the normative O&M cost, 2/3rd of gains on O&M has been passed on to the Consumer, AEML-D in this case, as rebate and 1/3rd shall be retained by AEML-G.

4.25.5 The Water Charges, Cost recovery charges and the Corporate Allocation have not been considered while computing the sharing of gains and losses on O&M expenses.

Table 120: Sharing of gains/ (losses) on account of O&M expenses for FY 2020-21 and FY 2021-22 approved by the Commission (Rs. Crore)

Particulars	FY 2020-21		FY 2021-22	
	MTR Petition	Approved in Order	MTR Petition	Approved in Order
Normative base O&M expenses	180.27	152.29	189.06	159.80
Actual Base O&M expenses	170.08	144.22	177.29	155.15
Efficiency Gain/ Loss	-10.20	-8.06	-11.77	-4.65
1/3rd Efficiency Gain to be retained by AEML-G	-3.40	-2.69	-3.92	-1.55
2/3rd Efficiency Gain to be passed on consumers	-6.80	-5.38	-7.84	-3.10
O&M expense allowable to AEML-G after sharing of efficiency gains	**173.48**	**146.91**	**181.21**	**156.70**
Corporate expenses		16.36		17.17

COVID related expenses	0.53			
Water Charges	2.75	2.75	2.50	2.50
Cost Recovery Charges	0.94	0.94	0.98	0.98
Total O&M expenses	**177.69**	**166.96**	**184.70**	**177.36**

4.25.6 The Commission approves O&M Expenses of Rs. 166.96 Crore and Rs 177.36 Crore for FY 2020-21 and FY 2021-22 after sharing of efficiency gains/ losses for Truing-up of ARRs.

4.26 Sharing of Efficiency Gains / Losses on IOWC for FY 2020-21 and FY 2021-22

AEML-G's Submission

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

4.26.2 AEML's cash flows were severely affected by the Covid-19 pandemic in FY 2020-21. Due to Covid-19 induced lockdown, many organizations closed operations or temporarily halted their activities. While large/ medium size commercial entities operated with very little activity, small commercial entities entirely closed operations, resulting in non-realization of receivable by AEML-D. Further, first few months in FY 2020-21, which were Covid-19 affected, AEML-D was carrying out provisional billing as actual billing was not taking place. This was in accordance with the practice directions given by the Commission at that time. Since the provisional bills were suppressed (meter reading being assessed in accordance with SoP Regulations, 2014), whatever realization was being made by AEML-D was also not reflective of the actual expenditure being incurred. Due to the above reasons, cash flows of all the segments of business i.e. generation, transmission and distribution were impacted because of which AEML had to avail higher working capital loans in FY 2020-21 to meet the shortfall in revenues.

4.26.3 AEML-G requested the Commission to allow actual interest on working capital to AEML-G without determining any efficiency loss in interest on working capital, since Covid-19 pandemic was a Force Majeure event. Accordingly, AEML-G has considered the actual interest on working capital, as presented above for truing up of FY 2020-21. AEML-G requested the Commission to exercise its Power to Relax as per MYT Regulations, 2019 and approve the actual interest on working capital.

4.26.4 AEML-G further submitted that the AEML incurred actual interest on working capital in FY 2021-22 for the company as a whole. AEML stated that, the bond surplus of Rs. 360.54 Cr after refinancing has been used as working capital in the business. Therefore, a part of the interest paid for bonds has been allocated to interest on working capital (on proportion basis) for FY 2021-22, as the bonds have, inter alia. been availed by the Company for general corporate purposes. All the above interest has been segregated between generation, transmission and distribution in the ratio of normative working capital requirement. Further interest has been incurred for import LC bill discounting, for payment of imported coal in FY 2021-22, which is specific to generation business. Hence interest incurred for the same has been included under the actual IoWC incurred for generation business.

4.26.5 AEML-G has cited that non consideration of cost of internal accruals in the actual interest on working capital, while sharing the efficiency gains or losses in interest on working capital at the time of truing up in the Appeal 395 of 2022 against the MYT Order, which is pending for decision. However, without prejudice to the contentions raised by AEML-G in the Appeal, AEML-G has considered the actual interest on working capital as appearing the in the books of accounts for FY 2021-22 and claimed the net entitlement as per MYT Regulations, 2019. Accordingly, computed the net entitlement in interest on working capital as per table herein below:

Table 121 : Entitlement of IoWC for FY 2020-21 and FY 2021-22

Particulars	FY 2020-21	FY 2021-22
Normative IoWC		16.34
Actual IoWC	26.16	21.56
Gain / (Loss)		5.22
Net Entitlement	**26.16**	**18.08**

Commission's Analysis and Ruling

4.26.6 As per Regulation 32.6 of the MYT Regulations 2019, the variation between the normative IoWC computed at the time of Truing-up and the actual IoWC incurred by the Generating Company, 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.

4.26.7 The Commission has inquired about the actual working capital borrowings of AEML-G and it was stated that the surplus loan post RTL and capex loan has been used for meeting the working capital requirements.

4.26.8 AEML-G in its submission has requested to the Commission to allow actual interest on working capital to AEML-G without determining any efficiency loss in interest on working capital, since Covid-19 pandemic was a Force Majeure event. Also, the cash flows of all the segments of business i.e. generation, transmission and distribution were impacted because of which AEML had to avail higher working capital loans in FY 2020-21 to meet the shortfall in revenues. However, the Commission observed that the additional expenses incurred by AEML-G with respect to COVID expenses claimed in O&M expenses was Rs. 0.53 Crore which even if included in the O&M expenses is below the normative O&M expenses. Also, the approved ARR of AEML-G for FY 2020-21 has been reduced as compared to ARR of FY 2019-20 whereby the fuel cost related to Washed Coal / Freight and Raw coal is paid in advance and against the imported coal, LC facility has been utilised by AEML-G, the cost of the same is allowed by the Commission. Hence, the Commission is not inclined to allow actual interest on working capital and has considered the sharing mechanism for FY 2020-21 as per MYT Regulations 2019.

4.26.9 Accordingly, the Commission is sharing of IoWC for FY 2020-21 and FY 2021-22 as calculated below:

Table 122: Sharing of gains/ (losses) on account of Interest on Working Capital for FY 2020-21 and FY 2021-22 approved by the Commission (Rs. Crore)

Particulars	FY 2020-21		FY 2021-22	
	MTR Petition	Approved in Order	MTR Petition	Approved in Order
Normative IOWC	15.60	15.51	16.34	16.27
Actual IOWC	26.16	26.16	21.56	21.56
Efficiency Gain/ Loss		10.65	5.22	5.29
2/3rd of Efficiency Loss to be retained by AEML-G		3.55	1.74	1.76
1/3rd of Efficiency Loss to be passed on consumers		7.10	3.48	3.53
IOWC Expenses allowable to AEML-G after sharing of efficiency gains	**26.16**	**19.06**	**18.08**	**18.03**

4.26.10 The Commission approves Sharing of Interest on Working capital of Rs. 19.06 Crore and Rs 18.03 Crore for FY 2020-21 and FY 2021-22 respectively.

4.27 Non-Tariff Income for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.27.1 AEML-G at ADTPS uses washed coal and imported coal to meet its fuel requirement. The raw coal procured from SECL is washed in the nearby coal beneficiation unit to remove the impurities and coal rejects. The coal rejects so collected separately are sold and revenue is realized form it which is considered as NTI. Additionally, some revenue is realized from selling the fly ash to the brick/ cement manufacturers, which generates income. AEML-G has submitted that in FY 2020-21 was Rs. 7.30 Crore were received against sale of coal rejects and fly ash and the same amount for FY 2018-19 were Rs. 16.91 Crore.

4.27.2 AEML-G submitted that income from both sale of coal rejects and fly ash reduced significantly in FY 2020-21 due to lower offtake of coal and lower fly ash generation in FY 2020-21. As the demand in FY 2020-21 had dropped considerably because of Covid-19 pandemic, the requirement of generation was reduced in FY 2020-21 and hence the offtake of coal from SECL was reduced. Since the quantity of coal consumed reduced in FY 2020-21, the quantity of fly ash generated from ADTPS also reduced. Thus, there was reduction in the income from sale of coal rejects / fly ash in FY 2020-21. Further, there was reduction in income from rental from contractors, income from commercial training and other miscellaneous income as these activities were significantly reduced due to Covid-19 pandemic in FY 2020-21.

4.27.3 AEML-G has claimed that there was an incident of fire in FGD scrubber in FY 2018-19, for which damages was claimed and the insurance company had released Rs. 2 Crore in FY 2018-19. The same was considered in FY 2018-19 while truing up as part of the MYT Order in Case No. 298 of 2019. The balance Rs. 1.71 Crore has been received from the insurance company in FY 2021-22. Accordingly, the NTI as per actual audited result was submitted as per table herein below:

Table 123: : Non Tariff Income for FY 2020-21 and FY 2021-22 (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22
Income from Sale of Scrap	1.44	1.70
Income from sale of ash/rejected coal	5.61	13.24
Income from Rental from contractors	019	0.20
Insurance claim received	0	1.71
Income from commercial training	0.01	0.06
Other/Miscellaneous receipts	0.05	0.00
Total	**7.30**	**16.91**

Commission's Analysis and Ruling

4.27.4 As per the audited accounts, the actual NTI comprised of income from sale of scrap, income from investment, income from sale of ash or rejected coal, income from rental, insurance claims, interest on staff loans and advances and other Miscellaneous receipts including fees from Commercial Training.

4.27.5 The Commission has verified the various heads of NTI with the allocation statement provided. The Commission had sought reconciliation of NTI with Audited Accounts since there were a difference in the NTI being claimed and as mentioned in the audited accounts. AEML-G submitted that the difference lies because of the non-regulated business component which is reflected into the audited account but not claimed as part of the regulatory accounts. The reconciliation of the Non-Tariff income with the Allocated statement is outlined as below:

Table 124: Reconciliation of Non-Tariff Income with Allocated statement for FY 2020-21 and FY 2021-22 (Rs. Crore)

Particulars	FY 2020-21			FY 2021-22		
	Accounting Statement	Petition	Difference	Accounting Statement	Petition	Difference
Non- Tariff Income	**15.71**	**7.30**	**8.41**	**31.89**	**16.91**	**14.98**
Ash Handling Plant expenses reduced from NTI			*4.06*			*3.35*
Guest House Rent			*0.19*			*0.06*
Interest on Employee Loans			*0.29*			*0.20*
Foreign Exchange Real & Unreal Profit			*4.82*			
Profit on Sale of Assets						*-0.08*
Sale of Power under VSE						*11.45*

4.27.6 With reference to insurance receipt, AEML-G has submitted that that there was an incident of fire in FGD scrubber in FY 2018-19, for which damages was claimed and the insurance company had released Rs. 2 Crore in FY 2018-19. The same was considered in

FY 2018-19 while truing up as part of the MYT Order in Case No. 298 of 2019. The balance Rs. 1.71 Crore has been received from the insurance company in FY 2021-22. The Commission hereby state the direction as provided in the MYT Order whereby it was directed to pass on the benefit of complete insured amount once it is received. Based on the said direction, the Commission notes that the insurance proceeds of Rs. 1.70 Crore is considered under Non-Tariff Income.

3.13.14 The Commission notes that for FY 2018-19 there is an increase in R&M expenses from Rs. 33.88 Crore as approved in the MTR Order to Rs. 40.14 Crore. AEML-G submitted that this increase was majorly due to fire in FGD scrubber. Since the asset was insured and the event was of accidental in nature a sum of Rs. 3.50 Crore had been claimed by AEML-G against which a sum of Rs. 2 Crore have been received and the pending Rs. 1.35 Crore is still being pursued with the insurer. The Commission has analysed the accounts and the subsequent submission made by AEML-G. The Commission thus allows this extra expense of Rs 40.14 Crore for FY 2018-19 and directs AEML-G to pass on the benefit of complete insured amount once it is received from the insurer. ***The Commission directs AEML-G to submit its efforts for claiming the balance amount of Rs. 1.35 Crore from the insurance company and the final Order at the time of submission of next MTR Petition.***

4.27.7 The income earned from RoE will not be included in NTI as specified in the MYT Regulations, 2019. AEML-G has submitted that the interest earned on staff loan and advances is funded from RoE and accordingly same is not considered as NTI by the Commission. Also, the income and expenses from the Ash Handling Plant, being intra account adjustment and the amount being same, is not considered under the Regulatory business.

4.27.8 With reference to income from Foreign Exchange Real & Unreal Profit of Rs. 4.82 Crore, it was observed that the same has not been claimed in Non-Tariff income but the benefit of the same is passed on under Foreign Exchange Rate Variation (FERV) which as provided in para 4.20 of this order has considered the gain of Rs. 5.20 Crore which includes the Gain of Rs. 4.82 Crore excluded from Non-Tariff income. Considering the same in Non-Tariff income will result in double accounting and hence the Commission agrees with the separate treatment provided for FERV.

4.27.9 Also, the Sale of Power under VSE is not considered as Non-Tariff Income. Against the query raised by the Commission, AEML-G replied that as per Regulation 51.5 of the MYT Regulations, 2019, the Energy Charge shall be payable by every Beneficiary for the total energy scheduled to be supplied to the Beneficiary/ies, on ex-bus basis, at the computed Energy Charge Rate. Thus the revenue shown by AEML-G in the MTR Petition for FY 2021-22 is the revenue recoverable from AEML-G. Further, Regulation 6(B)(iv) of DSM Regulations, 2019 is reproduced below:

"During real time operation, in case the grid parameters including frequency, voltage parameters and transmission line loading and substation loading

conditions deviate beyond permissible operating range, SLDC shall take suitable measures in the interest of reliable and safe grid operations or to ensure compliance of RLDC instructions in conformity with the provisions of the DSM Regulations of Central Commission and the amendments thereof. Accordingly, SLDC shall issue necessary despatch or curtailment instructions in accordance with Centralised MoD principles for the state as whole, so as to maintain the load- generation balance and comply with conditions stipulated under IEGC and State Grid Code."

4.27.10 As per this Regulation, MSLDC provides VSE schedule to AEML-G. The energy generated by AEML-G under VSE is for maintaining grid security for the whole of Maharashtra and are not confined to AEML-D consumers only. Hence, the revenue and cost corresponding to the units generated under VSE are not included for the purpose of truing up of FY 2021-22. As per Regulation 6(B)(vi) of DSM Regulations, 2019, the time block wise settlement of such power exchange on account of such actions initiated by SLDC shall be settled at the applicable Deviation rate including Additional Deviation Charges, if any, for the State at the State periphery for the respective time block. However, vide Order dated 02.08.2022, in the matter of Commercial implementation of the MERC (Deviation Settlement Mechanism and related matters) Regulations, 2019, post expiry of stabilization period, the Commission has changed the rate of settlement as the variable cost plus FAC of respective generators.

4.27.11 As regards the details of DISCOM schedule, it is submitted that the DSM bills received from MSLDC (from 11.10.2021 onwards) contain scheduled generation for both DISCOM and VSE schedule. Hence AEML-G has calculated the DISCOM schedule by subtracting the VSE schedule from the total (for the period 11.10.2021 to 31.03.2022). AEML-G has provided in supporting data of power schedule to AEML-D as per MSLDC DSM scheduling portal (Net schedule-"Intra State Generation") for Net Generation schedule. The Commission noted the submission of AEML-G and has not considered the income from VSE under Non-Tariff Income head.

4.27.12 The Commission accordingly approves the Non-Tariff Income for the FY 2020-21 and FY 2021-22 as per table below:

Table 125: Non-Tariff Income for FY 2020-21 and FY 2021-22 approved by the Commission (Rs. Crore)

Particulars	FY 2020-21		FY 2021-22	
	MTR Petition	Approved in Order	MTR Petition	Approved in Order
Income from Sale of Scrap	1.44	1.44	1.70	1.70
Income from investments				
Income from sale of ash/rejected coal	5.61	5.61	13.24	13.24
Income from Rental from contractors	0.19	0.19	0.20	0.20
Insurance Claim received			1.71	1.71
Income from commercial training	0.01	0.01	0.06	0.06
Other/Miscellaneous receipts	0.05	0.05	0.00	0.00
Total	**7.30**	**7.30**	**16.91**	**16.91**

4.27.13 Accordingly, the Commission approved the Non-Tariff Income of Rs. 7.30 Crore and Rs.

16.91 Crore for FY 2020-21 and FY 2021-22 respectively.

4.28 Revenue from Sale of Power for FY 2020-21 and FY 2021-22

AEML-G's Submission

4.28.1 The revenues from sale of electricity generated by ADTPS including Energy Charge (plus FAC) and Fixed Charges are Rs. 1356.98 Crore for FY 2020-21 and Rs. 1456.74 Crore for FY 2021-22.

Commission's Analysis and Ruling

4.28.2 AEML-G has provided the actual audited details of revenue earned in FY 2020-21 and FY 2021-22, along with the PLF incentive and FAC revenue recovered from AEML-D. The Commission has considered the Revenue as submitted and reconciled with the audited account, which amount to Rs 1356.98 Crore for FY 2020-21 and Rs 1456.74 Crore for FY 2021-22.

Table 126: Revenue for FY 2020-21 and FY 2021-22 approved by the Commission (Rs. Crore)

Particulars	Units	FY 2020-21		FY 2021-22	
		MTR Petition	Approved in Order	MTR Petition	Approved in Order
Fixed Charge	Rs. Crore	312.99	312.99	326.03	326.03
Net Generation	MU	2,897.45	2,897.45	2,974.87	2,974.87
Variable Cost including FAC	Rs. Crore	1,089.15	1,089.15	1,151.57	1151.57
PLF Incentive	Rs. Crore	-	-	0.04	0.04
FAC Revenue	Rs. Crore	-45.16	-45.16	-20.91	-20.91
Total Revenue	**Rs. Crore**	**1,356.98**	**1,356.98**	**1,456.74**	**1,456.74**

4.29 Summary of Truing up and Revenue Gap / (Surplus) for FY 2020-21 and FY 2021-22

4.29.1 Based on the Truing up of various elements of expenses and revenue and AEML-G's share of Efficiency Gains/ Losses, the Commission has determined the total Revenue Gap/Surplus as against that estimated by AEML-G. The summary of the net ARR and sharing of Efficiency Gains/Losses as approved by the Commission for FY 2020-21 and FY 2021-22 are as under:

4.29.2 Thus, the Summary of ARR for FY 2020-21 and FY 2021-22 is as follows:

Table 127: Summary of Revenue Gap/(Surplus) approved by the Commission (Rs. Crore)

Sr. No	Particulars	FY 2020-21		FY 2021-22	
		MTR Petition	Approved in this Order	MTR Petition	Approved in this Order
	Expenditure				
1	Total Fuel Related Expenditure	1,047.91	1,042.85	1,135.07	1,137.97
2	Other Fuel Expenses	0.14	-	0.22	0.05
3	O&M Expenses including water charges	183.96	172.34	192.54	180.46
4	Depreciation	37.93	37.93	37.06	36.94
5	Interest on Loan	13.95	13.95	13.53	13.36

Sr. No	Particulars	FY 2020-21		FY 2021-22	
		MTR Petition	Approved in this Order	MTR Petition	Approved in this Order
6	IoWC	26.16	15.51	16.34	16.27
7	Other Expenses	-	-	-	0.00
8	Refinancing Cost	0.11	0.11	0.95	1.16
9	NPV of Interest Cost Saving			0.12	0.03
10	Finance Charges	2.12	2.10	0.95	0.72
11	Foreign Exchange Risk Variation	(5.21)	-	1.21	0.01
12	**Total Expenditure (1 to 11)**	**1,307.08**	**1,284.77**	**1,397.98**	**1,386.95**
13	RoE	151.83	115.81	154.80	117.92
14	Les: 2/3rd of Efficiency gain in Fuel Cost pass on to consumers	(49.30)	(49.30)	(53.37)	(55.45)
15	Add: 1/3rd of Efficiency loss in O&M pass on to consumers	(6.27)	(5.38)	(7.84)	(3.10)
16	Add: 1/3rd of Efficiency Gains in IoWC pass on to consumers		3.55	1.74	1.76
17	**Total ARR (12 to 16)**	**1,403.34**	**1,349.46**	**1,493.30**	**1,448.08**
18	**Previous Surplus**				
	Revenue				
19	Revenue from sale of electricity	1,356.98	1,356.98	1,456.74	1,456.74
20	Non-Tariff Income	7.30	7.30	16.91	16.91
21	**Total Revenue (19+20)**	**1,364.28**	**1,364.28**	**1,473.64**	**1,473.64**
22	**Revenue Gap/ (Surplus) (17-21)**	**39.06**	**(14.83)**	**19.65**	**(25.56)**

4.29.3 AEML-G has recognized the revenue gap/(surplus) in a given year and the carrying / (holding) cost on the same is computed on yearly basis. AEML-G has considered the short-term interest rate (on year-on-year basis) as worked out for calculating IoWC for FY 2020-21 and FY 2021-22.

4.29.4 The Commission has noted the submission made by AEML-G and the same is dealt in the Chapter 0 of this Order.

4.29.5 The Commission approves a Revenue Surplus of Rs. 14.83 Crore in the Truing-up of FY 2020-21 and Revenue Surplus of Rs. 25.56 Crore for FY 2021-22. The Commission in the past used to adjust the revenue surplus/gap in the Tariff in the ensuing years of AEML-G. However, in line with the last MYT Order and to have a more rational approach, the Commission has considered this surplus amount along with holding cost while approving the ARR of FY 2023-24 for AEML-D.

5 Provisional Truing up of FY 2022-23

AEML-G, in this instant Petition has sought Provisional True-up of ARR for FY 2022-23 as per the MYT Regulations, 2019.

AEML-G in the instant Petition has submitted the data for first half year (H1) of FY 2022- 23 (April to September 2022) on actual basis and for second half year (H2) of FY 2022- 23 (October 2022 to March 2023) on estimated basis and the comparison of estimated actuals vis-à-vis MYT Order dated 30 March 2020.

Considering the details provided and additional information obtained during these proceedings, the Commission has undertaken the Provisional True-up of ARR for FY 2022-23 as set out below:

5.1 Norms of operation

5.1.1 The parameters for which norms of operation have been specified under the MYT Regulations, 2019 for thermal generating stations are as follows:

(i) Availability;
(ii) Plant Load Factor (PLF);
(iii) Auxiliary Energy Consumption;
(iv) Station Heat Rate (SHR);
(v) Secondary fuel oil consumption (SFOC);
(vi) Transit and handling loss;

The Commission has approved the norms of operation for FY 2022-23 based on the norms specified in MYT Regulations, 2019 and considering other aspects as detailed out in respective Orders. AEML-G has submitted the actual unaudited performance for H1 in FY 2022-23, which is reviewed in line with the provisions of the MYT Regulations 2019. The operational parameters such as Plant availability and SHR are well under the norms in H1 however, some of the parameters have deviated from the earlier approved limits. AEML-G's submissions on the provisional performance in FY 2022-23 and the Commission's analysis are detailed hereunder.

5.2 Availability for FY 2022-23

AEML-G's Submission

5.2.1 AEML-G has submitted that in H1 (April to September of FY 2022-23), ADTPS has maintained Availability of 90.96% however, during H2 (October to March) of FY 2022-23, ADTPS has estimated Availability of 87.36%. AEML-G has considered 23 days planned outage in month of January 2023.

5.2.2 AEML-G accordingly has submitted the estimated overall availability for FY 2022-23 as 88.86%, which is well above the normative specified as per MERC MYT Regulations 2019.

Commission's Analysis and Ruling

5.2.3 As per Regulation 46.1 of the MYT Regulations, 2019, full recovery of the AFC is allowed only if the actual Availability is equal to or higher than the target Availability of 85%. Also, the Availability factor approved in the earlier MYT Order was 94.38%.

5.2.4 The Availability as claimed by AEML-G is outlined as under:

Table 128: Estimated Availability for FY 2022-23

Particulars	Normative	MYT Order	Actual in H1	Estimation for H2	Approved in Order
Availability (%)	**85.00**	**94.38**	**90.96**	**87.36**	**88.86**

5.2.5 From the Table above, AEML-G has estimated lower availability in H2 because of planned outages of 23 days due to carry out planned maintenance activity for 3 days in Unit -1 and Annual overhauling of 40 days of which 20 days spread in FY 2022-23 and 20 days in FY 2023-24 and hence the over-all availability for FY 2022-23 is expected to be 88.86%.

5.2.6 The recovery of full AFC is allowable at the Target Availability of 85%. The availability of 88.86% as highlighted above are after considering planned outages. Accordingly, the overall availability for FY 2022-23 claimed is 88.86% which is being approved on provisional basis for FY 2022-23. The provisional Availability so approved is higher than the Target Availability.

5.2.7 The Commission thus provisionally approves the recovery of full AFC for FY 2022-23. The Commission shall consider the actual Availability as certified by MSLDC for FY 2022-23 at the time of final Truing-up of ARR.

5.3 Plant Load Factor and Gross Generation for FY 2022-23

AEML-G's Submission

5.3.1 In the first half of FY 2022-23 (April 2022 to September 2022), AEML-G generated 1,588.57 MU (net generation) at a PLF of 80.11%. The actual PLF is lower than the target PLF as per MYT Regulations, 2019 due to the backing down instructions from MSLDC. However, it was more than the PLF achieved in FY 20-21 (73.2%) and FY 21-22 (76.21%) because the prices of short-term power at exchange were significantly higher in summer months and it was beneficial to generate more power from ADTPS even with the use of imported coal. AEML-G has considered a PLF of 75% for second half of FY 2022-23.

5.3.2 The cost of imported coal has increased significantly in FY 2022-23 as compared to earlier years due to geopolitical reasons, which have had a global impact on fuel prices. Hence it was prudent to use domestic coal to the maximum extent in order to keep the energy charge lower.

5.3.3 AEML-G had maximized its generation in the summer months in FY 2022-23 as the prices of short-term power in power exchanges / bilateral sources were significantly higher in the summer months. It was beneficial to generate more energy from ADTPS even with the use of imported coal, since the cost of generation was less than the prices of short term power available in the market. However, short term power prices have come down in recent months. Also, AEML-D has contracted 500 MW medium term power at Rs. 5.98/kWh, which was approved by the commission vide the Order dated 29 August 2022 in Case No. 149 of 2022. In its submission during the proceedings in Case No. 149 of 2022, AEML had stated that the contract for medium term power purchase can be used to optimize the cost of generation at ADTPS, considering prevailing prices of imported coal.

5.3.4 Further, the landed rate of imported coal for September 2022 was Rs. 19,559/MT (excluding transit loss). Thus, higher proportion of imported coal, if used in generation will only increase the cost of generation.

5.3.5 Considering the above factors, AEML-G has estimated the net generation in balance six months of FY 2022-23 at 75% only.

5.3.6 Thus, AEML-G has provisionally expected a PLF of 77.56% and a gross generation of 3397 MU for FY 2022-23 as a whole, considering the above factors.

Commission's Analysis and Ruling

5.3.7 AEML-G, in its submission, has provided the details of provisionally actual PLF and gross generation achieved in H1 and has projected PLF and gross generation for H2 of FY 2022-23. Based on the actual performance in H1 and projection for H2 PLF and gross generation for the entire year has been estimated.

5.3.8 The Commission observes that the actual PLF and gross generation is lower than the those approved in the MYT Order. The reasons for such low PLF below norms was because of backing down instructions received from MSLDC. The actual impact of backing downs on PLF and gross generation shall be verified at the time of final True-up when the MSLDC certificate is submitted to the Commission for FY 2022-23.

5.3.9 Also, the Commission has noted the submission made by AEML-G with respect to sudden surge in imported coal price due to geopolitical reasons and it would be prudent to use domestic coal till the market volatility related to imported price is stabilised. Also, considering the current medium term power procurement contract of 500 MW entered by AEML-D at Rs. 5.98/kWh, which was approved by the commission vide the Order dated 29.08.2022 in Case No. 149 of 2022, it is prudent to consider the PLF of 75% and actual generation may vary based on the actual demand and the MoD to be adopted at the time of scheduling the power.

5.3.10 Since the year FY 2022-23 has not yet completed and actual PLF cannot be verified at this point of time. The Commission has considered the projected PLF of 77.56% and gross generation of 3397.11 MU for the Provisional Truing-up of FY 2022-23.

5.3.11 Based on the actual unaudited PLF achieved in H1 and estimates for H2, the Commission provisionally approves the PLF of 77.56% for FY 2022-23 as submitted by AEML-G.

5.3.12 The provisionally approved PLF is lower than the target PLF of 85% for claiming PLF incentive as per Regulation 46.3 and 50.8 of MYT Regulations 2019. Hence AEML-G will not be eligible to claim any PLF incentive for FY 2022-23 in case the actual PLF remains below the target PLF at the time of final True-up for FY 2022-23.

Table 129: PLF Estimated for Provisional True-up of FY 2022-23

Particulars	Normative	MYT Order	Actual in H1	Estimation for H2	Approved in Order
PLF (%)	85	94.38	80.11	75.00	77.56
Gross Generation (MU)	3723	4134	1759.21	1637.90	3397.11

5.4 Auxiliary Consumption and Net Generation for FY 2022-23

AEML-G's Submission

5.4.1 The Auxiliary Consumption excluding FGD for H1 and H2 is claimed at normative i.e., 8.5% which is same for the whole year also and Auxiliary Consumption including FGD is projected to be 9.70%.

5.4.2 The actual net generation is 1588.57 MU in H1 and estimated net generation for H2 is 1479.02 MU. AEML-G has estimated net generation of 3067.59 MU for FY 2022-23.

Commission's Analysis and Ruling

5.4.3 AEML-G has claimed the normative auxiliary consumption in line with Regulations 46.15 of MYT Regulations 2019.

5.4.4 As per the said Regulations, Normative Auxiliary Energy Consumption is 8.5% (excluding FGD) and an Additional Auxiliary Energy Consumption of 1.2% for FGD is provided for 200/250 MW series.

5.4.5 Accordingly, as per MYT Regulations, 2019, the Commission has specifically defined and approved a limit on auxiliary power consumption for FGD in MYT Regulation, 2019.

5.4.6 Thus, the Commission provisionally approves the normative Auxiliary Consumption of 9.7% (8.5% + 1.2%) for FY 2022-23. The Commission shall consider the actual Auxiliary Consumption during the final truing up of FY 2022-23 based on the prudence check to consider for sharing of gains and losses.

5.4.7 The Commission approves Net Generation of 3067.59 MU for the Provisional Truing-up of FY 2022-23.

5.4.8 The Commission shall consider the difference between the actual and normative Auxiliary Energy Consumption for computing the sharing of efficiency gains/losses for FY 2022-23 in accordance with the MYT Regulations, 2019, in the final true-up of ARR of the said year.

5.5 Station Heat Rate for FY 2022-23

AEML-G's Submission

5.5.1 AEML-G has considered normative SHR of 2430 kcal/kWh for FY 2022-23 as per the norms specified in MYT Regulations, 2019.

Commission's Analysis and Ruling

5.5.2 As per Regulation 46.4 of MYT Regulations 2019, the normative SHR is 2430 kcal/kWh for FY 2022-23.

5.5.3 Since the claimed SHR is as per the norms, the Commission approves the SHR of 2430 kcal/kWh as submitted by AEML-G, for the provisional truing-up of FY 2022-23.

5.5.4 As SHR is a controllable performance parameter, the Commission shall consider the sharing of gains/losses as per the MYT Regulations, 2019, in the final true-up for FY 2022-23 on prudence check based on the actual SHR achieved and the normative allowed.

5.6 Secondary Fuel Oil Consumption for FY 2022-23

AEML-G's Submission

5.6.1 AEML-G has claimed SFOC to be 0.5 ml/kWh as per norms specified in MYT Regulation, 2019 for provisional true-up for FY 2022-23.

Commission's Analysis and Ruling

5.6.2 As per Regulation 46.11 of the MYT Regulations, 2019, the normative SFOC for coal based Thermal Generating Stations is 0.50 ml/kWh. Since AEML-G has provisionally projected the consumption of SFOC on normative basis, the Commission approves the SFOC of 0.50 ml/kWh as submitted by AEML-G for provisional True-up of FY 2022-23.

5.6.3 As SFOC is a controllable performance parameter, the Commission shall consider the sharing of gains/losses as per the MYT Regulations, 2019, at the time of final true-up of ARR for FY 2022-23 based on the actual SFOC claimed and the normative allowed.

5.7 Operational Parameters Approved for FY 2022-23

5.7.1 Based on the above approach as adopted by the Commission, the provisionally approves operational parameters are summarized in the Table below. The Commission shall review the operational parameters at the time of final Truing-up of FY 2022-23.

Table 130: Summary of Operational Performance Parameters approved by Commission for FY 2022-23

Particulars	Unit	MYT Order	MTR Petition	Approved in Order
Availability	%	94.38	88.86	88.86
PLF	%	94.38	77.56	77.56
Gross generation	MU	4134	3397.11	3397.11
Auxiliary Consumption excluding FGD	%	8.50	8.50	8.50

Particulars	Unit	MYT Order	MTR Petition	Approved in Order
Auxiliary Consumption of FGD	%	1.20	1.20	1.20
Total Auxiliary Consumption including FGD	%	9.70	9.70	9.70
Net generation	MU	3733	3067.59	3067.59
SHR	kcal/kWh	2430	2430	2430
Secondary fuel oil consumption	ml/kWh	0.5	0.5	0.5

5.8 Transit and handling Loss for FY 2022-23

AEML-G's Submission

5.8.1 The actual transit loss for Washed / Imported / Raw coal for the first half of FY 2022-23 has been 0.60%, 0.81% and 0.18% respectively. For the purpose of provisional truing up of FY 2022-23, AEML-G has considered normative transit loss of 0.8% and 0.2% as per MYT Regulations, 2019 for Washed / Raw coal and imported coal.

5.8.2 AEML-G submitted that it has been procuring imported coal through competitive bidding through Dahej port. Since Dahanu port is not an all-weather port and is closed from May 2022 to September 2022, the imported coal has been transported from Dahej through Railways and hence the normative transit loss of 0.2% should not be applicable.

5.8.3 AEML-G submitted that the first proviso to Regulation 46.18 of MYT Regulations 2019, recognizes the fact that when coal is otherwise procured by a pit head power plant from sources other than the pit head mines and transported by railways, then normative transit loss of 0.8% shall apply. Therefore, in case of AEML-G, the coal procured through Dahej Port is transported by railways to Dahanu and hence even though this is imported coal, transit loss of 0.8% should be applicable on such procurement. Thus, AEML-G requested the Commission to allow transit loss of 0.8% to imported coal procured through Dahej port.

5.8.4 AEML-G has procured two vessels of imported coal through Dahanu port in March 2022 and the coal from these two vessels was used in April 2022 and May 2022. From May 2022, AEML-G procured imported coal from Dahej port, which has been used from June 2022 onwards. The weighted average transit loss considering 0.2% for imported coal fired in April 2022 and May 2022 and 0.8% for coal fired from June 2022 to September 2022 works out 0.50%. Accordingly, AEML-G claimed transit loss of 0.50% in first half of FY 2022-23. Going forward, AEML-G expected to procure imported coal through Dahej port till Dahanu port becomes operational. For second half of FY 2022-23, AEML-G has claimed transit loss of 0.2% on imported coal on provisional basis. AEML-G submitted that it shall claim appropriate transit loss for imported coal at the time of truing up of FY 2022-23 depending on the quantum of imported coal procured through Dahanu port and Dahej port.

Commission's Analysis and Ruling

5.8.5 As per Regulation 46.18 of MYT Regulations, 2019, the normative transit and handling loss for domestic coal for non-pit generating stations is 0.80% and for imported coal, it is 0.20% and AEML-G, for provisional true-up, has claimed the normative transit loss for Washed / Raw coal as per the said Regulation.

5.8.6 To meet fuel demand and better GCV, AEML-G blends domestic and imported Coal. All such contracts were placed for delivery at Dahanu Anchorage and hence, in accordance with the Regulations, transit and handling loss is applicable for imported coal as well.

5.8.7 AEML-G has submitted that since Dahanu port is at present non-operational from June 2022, imported coal is procured from Dahej Terminal through Railway. Accordingly, it has claimed the normative transit loss of 0.8% for such coal transported from Railway. Further, for second half of FY 2022-23, AEML-G has claimed transit loss of 0.2% on imported coal on provisional basis and will claim appropriate transit loss for imported coal at the time of truing up of FY 2022-23 depending on the quantum of imported coal procured through Dahanu port and Dahej port.

5.8.8 The Commission is of the view that consideration of transit loss of 0.8% for imported coal is not in accordance with the MYT Regulations, 2019 the Regulations clearly state that Transit loss of 0.2% is applicable for imported coal. The non-operational of Dahanu Port is a temporary phenomenon, for which such relaxation cannot be provided. Hence, the Commission is not inclined to allow transit loss of 0.8% for imported coal to be transported through Rail.

5.8.9 Accordingly, the Commission has considered the normative Transit and handling Loss of 0.80% on Washed / Raw coal and 0.20% on imported coal in line with the norms specified in MYT Regulations, 2019 for Provisional Truing-up of FY 2022-23.

5.8.10 As transit and handling loss is a controllable performance parameter, the Commission shall compute the sharing of gains/losses as per the MYT Regulations, 2015, in the final true-up of FY 2022-23 based on the actual transit loss.

5.9 GCV of Fuel for FY 2022-23

AEML-G's Submission

5.9.1 The GCV for domestic washed coal, imported coal and secondary fuel is outlined as per Table below:

Table 131: GCV of Coal as submitted by AEML-G

Sr. No	Particulars	MYT Order	H1	H2	Petition
Actual Blending ratio					
1	Washed Coal	76	48.30	93.16	69.55
2	Imported Coal	24	19.11	0.00	10.06
3	Raw Coal	0	32.59	6.84	20.40
GCV in kcal/kg (As Billed Basis)		**4,100**	**3728**	**3785**	**3755**
1	Washed Coal	3,990	3,710	3788	3760
2	Imported Coal	4,411	3,748	4291	3748
3	Raw Coal		3,742	3743	3742

Sr. No	Particulars	MYT Order	H1	H2	Petition
4	Secondary Fuel	10,759	10,814	10814	10814
GCV in kcal/kg (As Received Basis)		**4,083**	**3533**	**3730**	**3626**
1	Washed Coal	3,990	3,699	3771	3745
2	Imported Coal	4,346	3,740	4282	3740
3	Raw Coal		3,166	3167	3166
4	Secondary Fuel	10,759	10,814	10814	10814
GCV in transit in kcal/kg		**17**	**195**	**55**	**129**
1	Washed Coal	0	11	17	15
2	Imported Coal	65	8	9	8
3	Raw Coal	0	576	576	576
4	Secondary Fuel	0	0	0	0
As Received GCV (for calculation of Stacking loss):			**3718**	**3778**	**3746**
1	Washed Coal		3803	3803	3781
2	Imported Coal		4144	4144	4144
3	Raw Coal		3431	3431	3431
4	Secondary Fuel		10841	10814	10814
GCV in kcal/kg (As Fired Basis)		**4,000**	**3591**	**3722**	**3653**
1	Washed Coal	3,990	3,677	3760	3730
2	Imported Coal	4,029	4,036	4036	4036
3	Raw Coal		3,203	3203	3203
4	Secondary Fuel	10,759	10,814	10814	10,759
Stacking Loss in kcal/kg			**120**	**56**	**93**
1	Washed Coal	83	66	43	51
2	Imported Coal		108	108	108
3	Raw Coal		228	228	228
4	Secondary Fuel		0	0	0

5.9.2 The weighted average GCV loss in transit for first half of FY 2022-23 works out to 195 kCal/kg, which is within the limit of 300 kCal/kg as per MYT Regulations, 2019 as per the justification as provided in the truing up chapter and covered in this order.

5.9.3 For estimating the As Billed GCV and As Received GCV for second half of FY 2022-23, AEML-G has considered the average GCVs for first five months of FY 2022-23 for imported coal (as no imported coal was procured in September 2022). As regards raw coal, AEML-G has considered the weighted average GCVs for July 2022 to September 2022 as the estimated As Billed GCV and As Received GCV for second half of FY 2022-23. As regards washed coal, it is submitted that the washery was closed in July 2022 and August 2022, hence AEML-G had received washed coal partly in July 2022 and has not received any washed coal in August 2022. The washery has resumed operations in September 2022 and AEML-G has received washed coal from washery in September 2022 partly. Therefore, the GCVs for July 2022 and September 2022 for washed coal are not representative. AEML-G has considered the weighted average GCVs for first three months of FY 2022-23 (April 2022 to June 2022) as the estimated As Billed GCV and As Received GCV for second half of FY 2022-23 for washed coal..

5.9.4 Also, the weighted average stacking loss for the first half of FY 2022-23 is more than 120 kCal/kg and hence AEML-G has limited the stacking loss to 120 kCal/kg as per MYT Regulations, 2019.

5.9.5 For estimating the As Received GCV (for calculation of stacking loss) and As Fired GCV for second half of FY 2022-23, AEML-G has considered the average GCVs for first six months of FY 2022-23 for imported coal. For raw coal, AEML-G has considered the weighted average GCVs for July 2022 to September 2022, while for washed coal, AEML-G has considered weighted average GCVs from April 2022 to June 2022.

5.9.6 The average GCV of LDO for first half of FY 2022-23 works out to 10,814 kCal/kg. The same has been considered for second half of FY 2022-23 for revised estimates for FY 2022-23.

Commission's Analysis and Ruling

5.9.7 As sought by the Commission, AEML-G provided details of actual GCV for primary and secondary fuel for H1 of FY 2022-23.

5.9.8 The Commission had sought the following additional information with respect to imported coal, domestic washed coal and liquid fuel for H1 of FY 2022-23:

- Month-wise details of opening fuel stock, fuel received, fuel consumed and closing fuel stock;
- Month-wise calculation for GCV 'as fired';
- Copies of fuel bills for domestic washed coal, imported coal and liquid fuel.

5.9.9 It was observed that as per past records of AEML-G, the GCV of washed coal as received was higher than the Washed coal GCV as billed. However, it is witnessed that there is a drop in GCV (As Received) in H1 of FY 2022-23 and has sought clarification on the same. AEML-G replied that while As Received GCV for most of the past months was higher than As Billed GCV, As Received GCV in certain months like Oct 2021 and Nov 2021 is lower than As Billed GCV. Though the GCV measurement at both ends is done by the same agency, however, error to the extent of 50 kCal/kg exists in individual measurements. The difference between As Billed GCV and As Received GCV in most of the past months is by and large within the error margin of 50 kCal/kg. Further, in FY 22-23 (H1) also, As Received GCV is more than As Billed GCV in July 2022, while it is less than As Billed GCV in first three months of FY 22-23 whereby the difference is within the error margin of 50 kCal/kg. Also, as per the Beneficiation agreement, there is no guaranteed GCV and the performance is linked to the ash content and moisture content of coal after washing. The Commission noted the submission made by AEML-G and noted that even though the GCV As Received is lower than GCV As Billed for Washed Coal, the difference is below 50 kcal/kg.

5.9.10 As discussed in para 4.10.156 of this Order, AEML-G has considered different method in FY 2021-22 for calculation of GCV (As Received Basis) as compared to approach adopted in FY 2020-21 against which the stacking loss is claimed and the same is claimed for FY 2022-23 also. As per AEML-G, the approach in FY 2021-22 has been changed for calculation of stacking loss (i.e. difference between the GCV (As Received

Basis) and GCV (As Fired Basis)), the As Received GCV should be considered as the weightage average of As Received GCV of opening stock of coal and As Received GCV of coal received during the month as the coal fired for the generation of the power is also considered on the weighted average basis.

5.9.11 However, the Commission feels that approach adopted by AEML-G to compute 2 sets of As Received GCV (procured during the month / year and weighted average GCV) cannot be considered for computing the overall GCV loss (i.e. GCV loss between As billed and AS fired) cause both will be isolated for calculation of GCV loss whereby GCV loss in transit is calculated considering the coal procured during the month / year and stacking loss is calculated considering GCV on weighted average basis. Correspondingly, for calculation of stacking loss, no impact of GCV (As Received Basis) with any GCV loss correction of 300 kcal/kg will be considered in the approach adopted by AEML-G which is not the intent of the MYT Regulations 2019.

5.9.12 Accordingly, the Commission has recalculated GCV (As Received Basis) on the coal procured during the month / year and the arrived weighted average GCV will be considered for computation of stacking loss against the GCV (As Fired). It is submitted that even though the impact of opening / closing stock has not been considered while computing GCV (As Received Basis), the cyclical usage of the coal will nullify the impact in the going concern in future month / year. Hence, the Commission has adopted the approach as specified in para 4.10.17 of this Order for calculation of GCV loss in transit and stacking loss.

5.9.13 Further, as per Regulations 50.6 of MYT Regulations, 2019 and as specified in para 4.10.20 of this Order, the actual loss in calorific value of coal between “As billed by supplier” and “As received at generating station”, is limited to the maximum loss in calorific value of 300 kcal/kg separately to individual source of coal rather than applying the limit to the “weightage average As Billed GCV” of washed coal and raw coal.

5.9.14 With regards to the value of GCV for H1 of FY 2022-23, the Commission has considered GCV (As Billed, As Received and As Fired) as per Actuals. For estimating for second half of FY 2022-23, the Commission has considered the average GCVs for three months of June 2022 to August 2022 for imported coal (as no imported coal was procured in September 2022). As regards Washed and Raw coal, the Commission has considered the GCV of November 2022 to January 2023 based on the data as received from the certifying agencies.

5.9.15 Also, with regards to Domestic coal, ADTPS procures it from the South Eastern Coalfields Limited (SECL) having a GCV range band (G-10 & G-11) with GCV in the range of 4000 kCal/kg. However, it has been observed that in H1 of FY 2022-23, the GCV of the coal has been deteriorated and is in the range of 3700 kcal/kg and for which no justification has been provided by AEML-G for the same. Accordingly, the Commission directs AEML-G to provide the detailed analysis of the drop in GCV of Washed coal below 4000 kcal/kg, the contractual provision in FSA, efforts made by AEML-G for improvement in the GCV and any penalty provided for offloading of the lower GCV under FSA / Washery contract at the time of true-up of FY 2022-23. The

Commission based on the prudence check will approve the GCV as per contractual provision during carrying out the truing up process.

5.9.16 GCV of the Secondary fuel for H1 of FY 2022-23 is considered at Actual as submitted by AEML- G after reviewing the bills and prudence check. For estimating for second half of FY 2022-23, the Commission has considered the GCV of November 2022 to January 2023 as considered for Raw / Washed coal for consistency in approach

5.9.17 Accordingly, the GCV as approved by the Commission (As Billed, As Received and As Fired basis) considering the 300 kcal/g transit loss and 120 kcal/kg stacking loss is outlined as below:

Table 132: GCV of Coal/Oil for FY 2022-23 as approved by the Commission

Sr. No	Particulars	MYT Order	MTR Petition	Approved in Order	H1 – FY 2022-23	H2 – FY 2022-23
					Approved	
Actual Blending ratio						
1	Washed Coal	76	69.55	69.69	48.30	93.49
2	Imported Coal	24	10.06	10.06	19.11	0.00
3	Raw Coal	0	20.40	20.25	32.59	6.51
GCV in kcal/kg (As Billed Basis)		**4,100**	**3785**	**3751**	**3828**	**3751**
1	Washed Coal	3,990	3760	3733	3,710	3747
2	Imported Coal	4,411	3748	4271	4,271	4390
3	Raw Coal		3742	3752	3,743	3804
4	Secondary Fuel	10,759	10814	10812	10,814	10810
GCV in kcal/kg (As Received Basis)		**4,083**	**3730**	**3720**	**3725**	**3715**
1	Washed Coal	3,990	3745	3719	3,699	3730
2	Imported Coal	4,346	3740	4271	4,271	4,390
3	Raw Coal		3166	3452	3,443	3504
4	Secondary Fuel	10,759	10814	10812	10,814	10810
GCV in transit in kcal/kg		**17**	**55**	**71**	**103**	**35**
1	Washed Coal	0	15	15	11	17
2	Imported Coal	65	8	0	0	0
3	Raw Coal	0	576	300	300	300
4	Secondary Fuel	0	0	0	0	0
As Received GCV (for calculation of Stacking loss):			**3778**			
1	Washed Coal		3781			
2	Imported Coal		4144			
3	Raw Coal		3431			
4	Secondary Fuel		10814			
GCV in kcal/kg (As Fired Basis)		**4,000**	**3722**	**3660**	**3591**	**3736**
1	Washed Coal	3,990	3730	3734	3,677	3766
2	Imported Coal	4,029	4036	4036	4,036	4036
3	Raw Coal		3203	3217	3,203	3294
4	Secondary Fuel	10,759	10,759	10812	10,814	10810
Stacking Loss in kcal/kg						
1	Washed Coal	83	**93**	**61**	**120**	**-20**

Sr. No	Particulars	MYT Order	MTR Petition	Approved in Order	H1 – FY 2022-23	H2 – FY 2022-23
				Approved		
2	Imported Coal		51	-15	21	-36
3	Raw Coal		108	235	235	354
4	Secondary Fuel		228	235	240	210

5.9.18 While approving and considering the GCV, the Commission has analysed the fuel bills / information provided relating to GCV (as certified by third party agency) and has also limited the transit loss and stacking loss to the limit of 300 kcal/kg and 120 kcal/kg as per MYT Regulations 2019.

5.10 Landed cost of fuel for FY 2022-23

AEML-G's Submission

5.10.1 AEML-G has provided the details of the landed cost of the fuel for First half of FY 2022-23 on actual basis. Further as per MYT Regulations 2019, 2019, the landed cost of primary fuel and secondary fuel for tariff determination shall be based on actual weighted average cost of primary fuel and secondary fuel of the three preceding months. AEML-G had received washed coal partly in July 2022 and September 2022 and did not receive any washed coal in August 2022 due to closure of washery operations. Hence AEML-G has considered the average landed rate of washed coal from April 2022 to June 2022 for energy charge calculations for second half of FY 2022-23. For imported coal, AEML-G has considered the average landed rate from July 2022 to September 2022 as per MYT Regulations, 2019. As regards raw coal, AEML-G has considered the average landed rate from July 2022 to September 2022 as the landed rate for second half of FY 2022-23.

5.10.2 The rate of LDO considered in the MYT Order for FY 2022-23 was Rs. 46,317/kL. However, based on the current market price of LDO (average from June 2022 to September 2022), the rate of LDO has been considered as Rs. 65,815/kL. The summary of rates of primary and secondary fuel considered for FY 2022-23 in the MYT Order and considered now are as under:

Table 133: Landed cost of Fuel for FY 2022-23

Particulars	MYT Order	Petition
Landed Cost		
Washed Coal (Rs./MT)	5,860	5,294
Imported Coal (Rs./MT)	6,007	13,557
Raw Coal (Rs./MT)	0	4,850
LDO (Rs./KL)	46,317	65,815

Commission's Analysis and Ruling

Landed cost of Coal

5.10.3 DTPS uses both Domestic (washed) and Imported coal for its generation. Also, from FY 2020-21 onward, AEML-G has started procuring Raw Coal also. With regards to Domestic coal, ADTPS procures it from the South Eastern Coalfields Limited (SECL) having a GCV range band (G-10 & G-11) with GCV in the range of 4000 kCal/kg.

5.10.4 The Commission observes that the landed cost data for H1 of FY 2022-23 takes into account the weighted average impact of coal received and costs paid for each agency involved in coal value chain starting from SECL, Railways, Coal Handling agents, Coal washing agents etc. Similarly, the imported coal has been procured on spot basis, and the prices are dependent upon fluctuating GCV based coal indices in global market.

5.10.5 For H2, as per MYT Regulations, 2019, the landed cost of primary fuel and secondary fuel for tariff determination shall be based on actual weighted average cost of primary fuel and secondary fuel of the three preceding months. Accordingly, the Commission states hereunder the approach considered for consideration of the landed cost of fuel.

Washed Coal

5.10.6 The landed cost (i.e., Basic cost + Freight + Taxes/Duties + Handling charges + Other charges + Washery / Beneficiation Charges) of domestic washed coal is considered for energy charge computation as claimed by ADTPS.

5.10.7 The basic price of raw coal available at the boundary of mine is as per price circular issued by SECL on time to time basis. This raw coal is then transported to Coal washery and is being washed. Thereafter such washed coal is despatched to ADTPS by first transporting coal from washery to Railway Siding and thereafter transporting the clean coal through Rail to ADTPS station. Accordingly, washery charges, railway freight charges, local transport charges and other handling charges are added to above basic cost of coal to arrive at the landed cost of coal at ADTPS station. The Commission has considered the landed cost per MT charges as submitted by AEML-G calculated on the Moving Average Price Method on the basis of coal inventory stock.

5.10.8 However, the Commission observes that while projecting the landed cost of washed coal, for July 2022, the cost has been reduced from around Rs. 5300/MT to Rs. 4637/MT against which AEML-G clarified that in July 2022, washery penalty for ash content being more than 36% in more than 3 rakes in June 2022 amounting to Rs. (26,19,534/-) has been considered in cost of washed coal. The washery had also issued credit note of Rs. 4,49,78,411/- towards ash content more than stipulated level in Q1 of FY 2022-23. The same has been considered in cost of washed coal in July 2022. This has resulted in the reduction of cost of washed coal to Rs. 4637/MT. The resultant impact of the same has been captured in the actual landed cost. However, the same will be reviewed at the time of Final Truing-up of FY 2022-23 and at present the Commission has considered the cost as submitted by AEML-G for approving the landed cost of imported coal on provisional basis.

5.10.9 The Commission has considered the actual landed cost for H1. Also, for H2, the Commission has considered the average landed cost of November 2022 to January 2023 as considered for GCV. pertaining to previously purchased coal and recently added coal as shown in Table below:

Table 134: Landed Cost of Washed Coal for FY 2022-23

Particulars	Unit	H1	H2
Basic Cost	Rs/MT	1981.06	2,044.81
Freight	Rs/MT	2800.01	2,776.46
Fuel Handling Charges (Local Transportation Charges, Beneficiation Charges and other handling charges)	Rs/MT	206.25	203.65
Any other charges (Liaisoning and loading supervision, Weighment, Maintenance of GCV, Third Party Sampling Charges etc)	Rs/MT	212.63	224.79
Total Price excluding Transit Loss	**Rs/MT**	**5,199.94**	**5,232.56**
Transit Loss	%	0.8%	0.8%
Total Price including Transit Loss	**Rs/MT**	**5,241.88**	**5,274.76**
Weighted Average price for FY 2022-23	**Rs/MT**	**5,262.76**	

Imported Coal

5.10.10 The imported coal supply agreement with M/s Taurus Commodities General Trading LLC was signed and is valid till 13.11.2024.

5.10.11 Under the Contract, the Free on Board (FOB) price shall be calculated as per the formula below and is subject to variations for payment purposes, considering the specified indices as Bill of lading date for each shipment: The price of coal is linked to New Castle index and Richards bay index.

$$FOB = \frac{\{API\ 4\ Index + NEWC\ Index\}\ X\ 0.90\ X\ 4400}{2 \text{ x } 6300}$$

5.10.12 The Commission has considered the actual landed cost of imported coal for H1. Also, for H2, the Commission has considered the average GCVs for three months of June 2022 to August 2022 for imported coal (as no imported coal was procured from September 2022).

5.10.13 Also, it was observed that the freight charges have been increased in FY 2022-23 for which AEML-G replied that in FY 2022-23, imported coal was received through Dahej port, for which Railway freight has been incurred. Normally only stevedoring charges are included in freight cost of imported coal, but due to additional freight charges of Railways, the freight cost for FY 2022-23 (H1) is increased.

5.10.14 The Commission has considered the landed cost per MT charges of imported coal as submitted by AEML-G calculated on the Moving Average Price Method on the basis of coal inventory stock pertaining to previously purchased coal and recently added coal as shown in Table below:

Table 135: Landed Cost of Imported Coal for FY 2022-23

Particulars	Unit	H1	H2
Basic Cost	Rs/MT	12095.93	
Freight	Rs/MT	637.26	
Other Charges and Taxes and Duties	Rs/MT	756.25	
Total Price excluding Transit Loss	**Rs/MT**	**13,489.44**	
Transit Loss	%	0.2%	
Total Price including Transit Loss	**Rs/MT**	**13,516.47**	**17,574**
Weighted Average price for FY 2022-23	**Rs/MT**	**13,516.47**	

* - No coal procured from September 2022.

Raw Coal

5.10.15 In FY 2021-22, there was a mandate of import substitution by the Government of India to all generating companies. As part of import substitution, AEML-G had signed MoUs for procuring 1 million ton of raw coal from SECL and MCL. However, the MoUs were on best effort basis, i.e. there was no obligation on SECL/ MCL to supply the full quantity of coal as agreed in MoUs. Since, use of raw coal was beneficial, as prices of imported coal increased significantly compared to domestic coal, AEML-G procured raw coal to the maximum extent in FY 2022-23 as a substitute to Imported coal due to increase in the price of imported coal.

5.10.16 The landed cost (i.e., Basic cost + Freight + Taxes/Duties + Handling charges + Other charges) of Raw coal is considered for energy charge computation as claimed by ADTPS.

5.10.17 The basic price of raw coal available at the boundary of mine is as per price circular issued by SECL on time to time basis. Thereafter, such Raw coal is despatched to ADTPS through Rail to ADTPS station. Accordingly, railway freight charges, local transport charges and other handling charges are added to above basic cost of coal to arrive at the landed cost of coal at ADTPS station.

5.10.18 However, it was observed that the cost of raw coal in May 2022 was Rs. 1641/MT whereas in June and July 2022, it was around Rs. 4700/MT. Considering such huge difference, the Commission has sought the clarification for variance in the price. AEML-G replied that in April 2022, the opening and closing quantity for raw coal was 91.60 MT as there was no usage in April 2022. However, certain adjustment related to past months pertaining to IGI Coal Analysis charges, CIMFR Raw coal analysis charges, Railway freight, CIMFR Coal Analysis charges have undertaken resulting in reduced cost of Rs. 1641/MT in May 2022. The Commission noted the submission made by AEML-G and will be considered at the time of final Truing-up of FY 2022-23.

5.10.19 The Commission has considered the actual landed cost for H1. Also, for H2, the Commission has considered the average landed cost of November 2022 to January 2023 as considered for GCV, pertaining to previously purchased coal and recently added coal as shown in Table below:

Table 136: Landed Cost of Raw Coal for FY 2022-23

Particulars	Unit	H1	H2
Basic Cost	Rs/MT	1,791.90	1,707.46
Freight	Rs/MT	2,802.44	2,773.79
Fuel Handling Charges (Local Transportation Charges and other handling charges)	Rs/MT	207.11	204.56
Any other charges (Liaisoning and loading supervision, Weighment, Maintenance of GCV, Third Party Sampling Charges etc)	Rs/MT	9.33	8.30
Total Price excluding Transit Loss	**Rs/MT**	**4,810.78**	**4,694.11**
Transit Loss	%	0.2%	0.2%
Total Price including Transit Loss	**Rs/MT**	**4,849.57**	**4,731.97**
Weighted Average price for FY 2022-23	**Rs/MT**	**4,831.69**	

5.10.20 Price of the Secondary fuel is approved as submitted by AEML- G after reviewing the bills as submitted and prudence check.

5.10.21 Based on the above analysis, the Commission approves GCV of Coal/Oil and Cost of Fuel as under:

Table 137: Rate of Fuel for FY 2022-23 approved by the Commission

Particulars	Unit	MYT Order	MTR Petition	Approved in Order
Price- Washed Coal	Rs./MT	5,524.00	5,294.20	5,262.76
Price- Imported Coal	Rs./MT	6,007	13,556.76	13,516.47
Price- Raw Coal	Rs./MT	-	4,849.71	4,831.69
Price- Secondary Fuel Oil	Rs./kl	46,317.00	65,814.72	69,368.36

5.11 Fuel Utilisation Plan and Fuel Cost for FY 2022-23

5.11.1 AEML-G uses suitable mix of domestic washed coal and imported coal at ADTPS. Better operational performance and proper blending of washed coal and imported coal has helped AEML-G to reduce its fuel cost vis-a-vis fuel cost allowable at normative performance parameters.

5.11.2 For FY 2022-23, AEML-G submitted that in MYT Order, the Commission had considered a blending ratio of 74:26 (washed coal to imported coal) in the MYT Order based on the actual blending ratio of washed coal to imported coal during the period April 2019 to August 2019.

5.11.3 Considering the increase in the imported coal price, it was prudent to use domestic coal to the maximum extent in order to keep the energy charge lower.

5.11.4 AEML-G had maximized its generation in the summer months in FY 2022-23 as the prices of short-term power in power exchanges / bilateral sources were significantly higher in the summer months. It was beneficial to generate more energy from ADTPS even with the use of imported coal, since the cost of generation was less than the prices of short term power available in the market. However, short term power prices have come down in recent months.

5.11.5 Also, AEML-D has contracted 500 MW medium term power at Rs. 5.98/kWh, which was approved by the Commission vide the Order dated 29.08.2022 in Case No. 149 of 2022. Thus, higher proportion of imported coal, if used in generation will only increase the cost of generation. Considering the above, AEML-G has estimated the net generation in balance six months of FY 2022-23 at 75% only, roughly at the same level as the PLF achieved in FY 2020-21 and FY 2021-22.

5.11.6 As per the existing Fuel Supply Agreement (FSA) with CIL, the Annual Contracted Quantity (ACQ) is 24,52,000 MT and in accordance with the existing policy of CIL, the coal supply is limited to 90% of ACQ. Further, the coal supplied by SECL is washed at washery and then transported to ADTPS through Railways. This results in improvement in GCV of coal but the quantity of coal gets reduced to 85% of the quantity before washing. Hence for the purpose of projecting the fuel utilization plan for second half of FY 2022-23, AEML-G has considered 9,94,163 MT of washed coal, corresponding to 85% of ACQ quantity for second half of FY 2022-23. The balance coal requirement, therefore, has to be met from imported coal or raw coal. AEML-G intends to use raw coal to the maximum extent to keep the cost of generation low.

5.11.7 AEML-G intends to procure additional raw coal through similar mechanism from SECL or other coal companies in second half of FY 2022-23. Hence for the purpose of projecting energy charge for second half of FY 2022-23, AEML-G has considered use of raw coal on provisional basis. Hence for the purpose of projecting fuel utilization plan for second half months of FY 2022-23, AEML-G has considered the blending ratio of 93:0:7 (washed coal, imported coal and raw coal).

5.11.8 AEML-G submitted that as per Regulation 40.8 of the MYT Regulations, 2019, the Commission may modify the fuel utilization plan for the remainder of the Control Period suo-motu or on a Petition filed by the Generating Company and requested to approve the revised fuel utilisation plan for FY 2022-23.

5.11.9 Further, AEML-G has procured imported coal through competitive bidding through Dahej port from May 2022 onwards. AEML-G submitted that it usually procures imported coal through Dahanu port during the period October to April, when the port is in operation. Hence the imported coal procured during the above period gets utilized during monsoon months in the subsequent year. However, in FY 2021-22, there was a mandate of import substitution by the Government of India to all generating companies. As part of import substitution, AEML-G had signed MoUs for procuring 1 million ton of raw coal from SECL and MCL. However, the MoUs were on best effort basis, i.e. there was no obligation on SECL/ MCL to supply the full quantity of coal as agreed in MoUs. However, use of raw coal was beneficial, as prices of imported coal increased significantly compared to domestic coal. However, raw coal was not available from SECL/ MCL from April 2022 onwards and in order to meet the balance coal requirement, AEML-G was forced to procure and use imported coal, even though the price of imported coal is more than domestic coal. The price of imported coal used in April 2022 (procured in March 2022) was around Rs. 10,800/MT compared to that of washed coal at around 5,350/MT. The stoppage of raw coal supply from MCL / SECL was not predicted and hence its substitution by higher quantity of imported coal could not have been carried out in March / April. In any case, even considering the existing contract of AEML-G, the price of imported coal, if it had been procured through Dahanu port, would have been Rs. 19,233/MT (as against imported coal price of Rs. 15,236/-, which was procured in May 2022 through Dahej port through competitive bidding) due to the significant increase in the background indices, with which this price is linked. Therefore, considering the prices, the stoppage of raw coal supply and the restriction of import at Dahanu port, AEML-G decided to import coal through Dahej port for onward transportation to ADTPS using railways.

5.11.10 Further, there is no certainty as to when the price of imported coal will reduce. Hence, AEML-G intends to use domestic coal to the maximum extent and only the shortfall quantity shall be met through imported coal. In the absence of sufficient quantity of domestic coal, Simultaneously, AEML-D is exploring the opportunity of buying more power through short term sources by backing down ADTPS. Further, generation from the 500 MW medium term contract made by AEML-D (which was approved by the Commission in Order dated 29 August 2022 in Case No. 149 of 2022) will also be used to replace generation from ADTPS to optimize overall cost.

5.11.11 Based on the performance parameters, GCV and fuel cost considered above, the estimated fuel cost for FY 2022-23 along with the fuel cost for FY 2022-23 approved in the MYT Order dated 30.03.2020, is shown in the table below

Table 138: Total Fuel Cost claimed for FY 2022-23 by AEML-G (Rs. Crore)

Particulars	MYT Order	H1	H2	FY 2022-23
Fuel Cost	1,487.97	800.61	570.14	1,370.75

5.11.12 AEML-G submitted that Actual fuel cost for FY 2022-23 based on the actual performance parameters, actual GCV and actual cost of fuel shall be presented at the time of truing up, along with the share of efficiency gains in fuel cost as per MYT Regulations, 2019.

5.11.13 Also, forex loss/gain due to variation in $ to Rupee conversion rates while making payment to coal supplier directly or through LC, for the purpose of provisional truing up of FY 2022-23, has not claimed by AEML-G and the actual amount will be claimed at the time of truing up of FY 2022-23 for consideration of the Commission.

Commission's Analysis and Ruling

5.11.14 Based on the submission made by AEML-G, the Commission notes that against the approved fuel utilisation plan of 74:26 (Washed / Imported coal), the actual bending ratio for H1 of FY 2022-23 is 48.30:19.11:32.59 (washed coal, imported coal and raw coal) which has been considered for calculated of weighted average basis of GCV and Landed cost of fuel.

5.11.15 Also, the bending ratio for the H2 of FY 2022-23 works out to 93.49:0.00:6.51 and 69.69:10.06:20.25 (washed coal, imported coal and raw coal) for FY 2022-23 as a whole and has been considered for calculated of weighted average basis of GCV and Landed cost of fuel, while claiming it for provisional truing up for FY 2022-23.

5.11.16 It is evident from the details available that there is an abnormal surge in the price of the imported coal resulting in the deviation in the fuel mix implemented by AEML-G as compared to the approved fuel mix plan in MYT Order. It is observed that a percentage reduction in utilisation of imported coal has actually helped reduce the cost of generation.

5.11.17 Also, an effort has been undertaken by AEML-G to offset the impact of the imported coal by executing an MOU with SECL and MCL for supply of 1 million ton of raw coal. However, raw coal supply under this route was limited, nonetheless AEML-G availed the supply of raw coal to the maximum extent possible. Reduction in use of imported coal was compensated by both increase in use of washed coal and use of raw coal in H1 of FY 2022-23, resulting in optimization of fuel cost and the similar approach has been proposed by AEML-G in H2 of FY 2022-23.

5.11.18 Also, the Commission has made its analysis on the price movement of the imported fuel whereby it has been witnessed that under HBA indices (i.e., Harga Batubara Acuan for Indonesian coal which is set by Ministry of Energy and Mineral Resources (Indonesia)), the rate of imported coal has been increased 2.40 times (i.e. from 84.47$ in March 2021 to 203.69$ in March 2022) and also Dollar Rate has appreciated by 5% for the same period and is highlighted in para 4.12.21 of this Order. Therefore, it has been apprehended that the price rise in imported coal was manifold and if used in the ratio as approved under Fuel Utilisation plan, then the impact on the energy charges shall be on a higher side resulting in additional burden on the end consumers.

5.11.19 Since, the ultimate end result by deviation in approved fuel utilisation plan is beneficial to end consumers and results in saving, the Commission provisionally approved the Actual Fuel Utilisation plan as proposed by AEML-G for FY 2022-23.

5.11.20 Also, as per AEML-G, even considering the existing contract of imported coal, the price of imported coal, if procured through Dahanu port, would have been Rs. 19,233/MT (as against imported coal price of Rs. 15,236/-, procured in May 2022 through Dahej port through competitive bidding) due to the significant increase in the background indices, with which this price is linked. Against the query of the Commission for the justification of this statement with the detail calculation, AEML-G submitted that the landed cost of imported coal procured from AEL (Adani Enterprises Ltd.) after carrying out competitive bidding by AEML in May 2022 was Rs, 15,236/MT, while the landed cost would have been Rs. 19,233/MT, in case coal it would have been procured through Dahanu port through M/s Taurus considering the date of tender as 03 May 2022. The detailed calculation of the same is outlined in the table below:

Table 139: Comparative Statement for Imported coal procured from Dahej and Dahanu

Procurement through M/S Taurus Commodities General Trading LLC		
Particulars	**UoM**	**Values**
Rechards Bay Index as on date of tender (6300 CV)	USD / MT	280
New castle Index as on date of tender (6300 CV)	USD / MT	356
Average FOB (6300 CV)	USD / MT	318
FOB adjusted to 4500 CV	USD / MT	227
Discount on FOB	USD / MT	10%
Resultant FOB	**USD / MT**	**204**
VLSFO Index as on Date of Tender	USD / MT	837
Ocean Freight	USD / MT	24
Resultant FOB + Ocean freight	**USD / MT**	**228**
Exchange rate	INR / USD	77.15
CIF	INR/MT	17625
GST	INR/MT	881
Compensation cess	INR/MT	400
Port handling charges	INR/MT	323
Analysis charges	INR/MT	3.46
Landed price	**INR/MT**	**19233**
GCV (ARB)	kCal/kg	4500
GCV (ARB) less 120 kCal/kg stacking loss	kCal/kg	4380
Landed price	INR/1000 kCal	4.39
SHR	kCal/kWh	2430
Aux consumption	%	9.70%
Per unit landed cost of coal	**INR / kWh**	**11.82**

Procurement of Ex Stock coal		
Particulars	**UoM**	**Values**
Ex Stock coal cost	INR/MT	13320
GST	INR/MT	666
Compensation cess	INR/MT	400
Railway freight	INR/MT	837
Landed price	INR/MT	**15223**
GCV (ARB)	kCal/kg	4500
GCV (ARB) less 120 kCal/kg stacking loss	kCal/kg	4380
Landed price	INR/1000 kCal	3.48
SHR	kCal/kWh	2430
Aux consumption	%	9.70%
Per unit landed cost of coal	**INR / kWh**	**9.35**

5.11.21 The Commission has noted the submission made by AEML-G and observes that Landed price is lower in case imported coal is procured from Dahej as compared to the same, if procured from Dahanu. However, the detailed analysis would be undertaken with all supporting at the time of final truing up and AEML-G is directed to provide the detail justification with cost benefit analysis for the imported coal to be procured from Dahej port rather than from Dahanu Port and any contractual liability, if any, in case the same is not procured from the contracted party i.e. M/S Taurus Commodities General Trading LLC.

5.11.22 However, as per Regulation 40.9 of the MYT Regulations, 2019, at the time of truing up of respective year, the Commission shall scrutinise the implementation of actual Fuel Utilisation Plan vis-à-vis approved plan, deviations, if any, and justification submitted by a Generating Company thereon and may disallow the variable cost of generation on account of operational inefficiencies in utilisation of fuel. Accordingly, AEML-G is directed to provide the detail justification, cost benefit analysis for deviation in the actual Fuel Utilisation Plan vis-à-vis approved plan in MYT Order.

Other Fuel Expenses

5.11.23 Also, with respect to any forex loss/gain due to variation in $ to Rupee conversion rates while making payment to coal supplier directly or through LC, such amount is not considered for FY 2022-23 and may be considered by the Commission at the time of truing up of FY 2022-23 based on the prudence check.

5.11.24 Based on the above observations, the following Table outlines the fuel cost and energy charges approved for FY 2022-23.

Table 140: Fuel Expenses and Energy Cost for FY 2022-23 approved by the Commission

Particulars	Unit	MYT Order	MTR Petition	Approved in Order
Estimated Fuel Cost	Rs. Crore	1,487.97	1,370.75	1,361.34
Actual Energy cost per unit	Rs./kWh	3.733	4.468	4.438

5.11.25 **The Commission approves Fuel Expenses of Rs. 1,361.34 Crore for Provisional Truing-up of FY 2022-23**. The Commission shall take up the actual fuel cost during final true-up of ARR for FY 2022-23 with prudence check.

5.11.26 As the energy charges approved by the Commission are at target norms of operation, viz., SHR, SFOC and transit and handling loss, and the norms of operation are controllable factors, the Commission shall undertake the sharing of gains and losses in energy charges on account of variation in norms of operation and actual fuel cost, as per the MYT Regulations, 2019 at the time of final truing up of ARR for FY 2022-23.

5.12 Annual Fixed Charges (AFC) for FY 2022-23

5.12.1 Regulation 42 of the MYT Regulations, 2019 specifies the components of AFC as follows:

Sum of

h. Operation and Maintenance (O&M) expenses;
i. Depreciation;
j. Interest on Loan;
k. Interest on Working Capital (IoWC);
l. Return on Equity (RoE);
m. Income Tax;

Less:

n. Non-Tariff Income (NTI)

5.13 Operation & Maintenance Expenses for FY 2022-23

AEML-G's Submission

5.13.1 The actual O&M expenses including corporate allocation and water charges for H1 of FY 2022-23 is Rs. 93.17 Crore and estimated expense for H2 of FY 2022-23 is Rs. 108.95

Crore. To project the Base O&M cost for FY 2022-23, AEML-G has applied the escalation factor of 4.87% on the Base O&M expenses of FY 2021-22 as claimed in its petition.

5.13.2 Also, the Efficiency Factor of 1% prescribed in the MYT Regulations, 2019 has not been considered by AEML-G as the availability of ADTPS has always been more than the target availability factor (NAPAF) of 85% as per MYT Regulations, 2019. AEML-G has claimed the water charges and cost recovery charges for FY 2022-23 at the same level as that of actuals for FY 2021-22, separately as per past practice.

5.13.3 Subsequently, AEML-G has claimed the O&M expenditure of Rs. 201.75 Crore for FY 2022-23, which comprises of:

Table 141: Provisional O&M Expenses for FY 2022-23 as per AEML-G (Rs. Crore)

Particulars	MYT Order	Petition		
		Apr- Sept (Actual)	Oct-March (Estimated)	Apr - March (Estimated)
Base O&M				
(i) Employee Expenses	175.83	53.77	**108.59**	198.27
(ii) A&G Expenses		17.33		
(iii) R&M Expenses		20.22		
(iv) O&M Expense Capitalized		-0.28		
Total (Base O&M)	**175.83**	**91.04**		**198.27**
Water Charges	1.97	1.64		2.50
Cost Recovery Charges	1.00	0.48		0.98
Total	**178.80**	**93.17**	**108.59**	**201.75**

Commission's Analysis and Ruling

5.13.4 As per Regulations 47.5 of MYT Regulations 2019, the water charges to be allowed based on actual. However, as per Regulations, on provisional basis the water charges as per latest audited accounts available is required to be approved on provisional basis. The relevant paragraph of the regulation is reproduced as herein below:

> "*d) Water Charges shall be allowed separately as per actuals, based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check:*
>
> *Provided that in the MYT Order, the Commission shall provisionally approve the Water Charges for each year of the Control Period based on the actual Water Charges as per latest Audited Accounts available for the Generating Company, subject to prudence check.*"

5.13.5 The Commission accordingly considering the audited account of FY 2021-22 as base and has allowed the water charges on provisional basis for the FY 2022-23. Such water charges will be subject to prudence check based on actual audited accounts for the FY 2022-23.

5.13.6 MYT Regulations 2019 provides for methodology for allowing the O&M expenses for the generating station as under:

c) *The Operation and Maintenance expenses for each subsequent year shall be determined by escalating these Base Year expenses of FY 2019-20 by an inflation factor with 50% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the respective past five financial years as per the Office of Economic Advisor of Government of India and 50% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the past five financial years as per the Labour Bureau, Government of India, as reduced by an efficiency factor of 1% or as may be stipulated by the Commission from time to time, to arrive at the permissible Operation and Maintenance expenses for each year of the Control Period:*

…………………………….:

Provided further that the efficiency factor shall be considered as zero, in case the Availability Factor of all Generating Units/Stations of the Generating Company is higher than NAPAF, or there is an improvement in the Availability Factor of all Generating Units/Stations of the Generating Company of at least 2 percent annually over the last 3 years, in case the Availability Factor of all Generating Units/Stations of the Generating Company is lower than NAPAF.

5.13.7 Considering the aforementioned, the Commission has worked out the annual escalation factor considering the given weightage of WPI and CPI from April 2017 to March 2022. Since the Petition has been filed in the mid of FY 2022-23, the Commission has used the escalation factor equivalent to that derived for FY 2021-22 as explained in para 4.14.19 of this Order. Hence, the Commission has applied the annual escalation rate of 4.94% over the normative approved O&M expenses for FY 2021-22 in accordance with the MYT Regulations 2019.

5.13.8 The escalation factor thus considered is in line with the practice followed during the MYT Order and Truing up year, the Commission has excluded the corporate expense allocation separately from the base O&M expenses. The Commission has considered allowing the normative corporate expense allocation rather than allowing it on actual as this puts check on expenses allocated to regulated business, subject to prudence check during truing up of such expenses.

5.13.9 Since the availability factor of the plant is higher than the target availability for several years in the past, the Commission is not considering the efficiency factor of 1% at present in line with Regulations 47.1 (c) of MYT Regulations 2019. However, the same will be reviewed at the time of final true-up of the respective years of the 4th MYT Control Period. Accordingly, though the efficiency factor has been relaxed, the same will be reviewed subject to prudence check based on actual audited accounts during truing up of FY 2022-23.

5.13.10 The Commission, in line with the approach adopted while allowing the additional R&M

expenses, has accordingly approved provisionally Rs 7.78 Crore which is disallowed from the capitalisation and will be considered while allowing actual O&M expenses at the time of truing up of FY 2022-23. While undertaking the truing up of FY 2022-23, the Commission will treat such expenses against normative allowed for sharing of efficiency gains/losses of O&M expenses. However, in the present order, the Commission is approving the normative O&M expenses and the impact of additional R&M expenses will be considered at the time of truing up.

5.13.11 The approved normative O&M Expenses for provisional true-up of FY 2022-23 as calculated and approved by the Commission are as follows:

Table 142: Provisional O&M Expenses approved for FY 2022-23 (Rs. Crore)

Particulars	MTR Petition	Approved in Order
(i) Employee Expenses	198.27	167.69
(ii) A&G Expenses		
(iii) R&M Expenses		
(iv) O&M Expense Capitalised		
Total (Base O&M)	**198.27**	**167.69**
Corporate Expense allocation		18.02
Water Charges	2.50	2.50
Cost Recovery Charges	0.98	0.98
Total	**201.75**	**189.19**

5.13.12 The Commission approves Rs 189.19 Crore for the FY 2022-23 on provisional basis subject to truing up based on actual audited accounts.

5.14 Scheduling Charges

AEML-G's Submission

5.14.1 The Commission has introduced Deviation Settlement Mechanism (DSM) in Maharashtra from 11th October 2021. As part of the DSM procedure, AEML-G provided daily schedule to MSLDC for time block wise generation for the next day as per the requirement of AEML-D. MSLDC considered the same after vetting, for which scheduling charges are levied by MSLDC. These charges are new expenses which were not there in the O&M expense of previous years. AEML-G thus has claimed scheduling charges separately.

5.14.2 AEML submitted that till H1 of FY 2022-23, scheduling charges for December 2021 (Rs. 31,26,690/-) have been paid to MSLDC. The same has been claimed in FY 2022-23. For H2 of FY 2022-23, no scheduling charges have been claimed on provisional basis. The same shall be claimed at the time of truing up of FY 2022-23.

Commission's Analysis and Ruling

5.14.3 The Commission has noted the submission made by AEML-G with respect to the scheduling charges. However, considering the quantum of the amount and the bill settlement only till December 2021 has been undertaken as on September 2022, the Commission feels that such expenses need to be revalidated based on the actual bills to be submitted and paid for the whole year as a whole to assess the actual impact on O&M expenses or considered distinct. Hence, the Commission will reconsider the amount of Scheduling charges on an actual basis during the true-up of the respective years, subject to prudence check.

5.15 Capital Expenditure and Capitalisation for FY 2022-23

AEML-G's Submission

5.15.1 Based on the assets capitalized and put to use during the first half of the year and expected capitalization during the second half of FY 2022-23, AEML-G has estimated a total additional capitalisation of Rs. 43.60 Crore (DPR Schemes- Rs. 27.49 Crore and Non-DPR Schemes- Rs. 16.11 Crore). This estimate is based on the present status of ongoing capital works, orders in execution and likely receipt of material, etc. against the approved additional capitalisation of Rs. 58.59 Crore in the MYT Order.

Table 143: Additional Capitalisation claimed by AEML-G for FY 2022-23 (Rs. Crore)

Particulars	MYT Order	Petition
DPR Schemes		27.49
Non-DPR Schemes		16.11
Total Capitalisation	**58.59**	**43.60**

5.15.2 AEML-G submitted that the capitalization towards Non-DPR schemes though exceed more than 20%, it shall be considered based on cumulative basis over the control period and requested to approve the same as projected. As the asset class wise capitalization estimated for FY 2022-23 cannot be projected at this stage, AEML-G has considered the capitalization in asset classes in FY 2022-23 in the same ratio as that of FY 2021-22.

Commission's Analysis and Ruling

5.15.3 The additional Capitalisation claimed by AEML-G falls under the three (3) categories namely (i) Works approved by the Commission by way of in-principle approval of Detailed Project Reports (DPRs); (ii) DPR Pending for In-principle Approval and (iii) Non-DPR Works.

5.15.4 The Commission has examined the Capitalisation claimed by AEML-G as against the schemes which have been accorded in-principle approval. The Commission's approach for approving the Capitalisation is as follows:

- DPR Schemes: 100% capitalisation is approved for all DPR schemes capitalised in the year in respect of which in-principle approval has been accorded. However, the same is restricted to the extent of cost approved.
- Non-DPR Schemes: Where some DPR schemes have been capitalised during the year, capitalisation of the non-DPR schemes has been considered up to 20% of the

cost of the capitalised DPR schemes.

5.15.5 The Commission while reviewing the DPR schemes has found that following two schemes have exceeded their approval values:

Table 144: Schemes exceeding approval limits

DPR Reference No	Scheme Description	Approved Values	Cumulative Capitalisation	Amount disalowed
RInfra-G/DPR/BP11-16/DPR No 16.9.19	Replacement of AC sheet by Colour Coated Galvalume Sheet at CHP Conveyor gantry, W Tippler, Auto Base etc.	2.94	2.98	0.04
MERC/CAPEX/20162017/01825	Refurbishment of Turbine Valves	3.50	10.00	6.50

5.15.6 The Commission views that since such schemes exceeds their approval limits and AEML-G has not sought any revision of the approved limit, the capitalisation against such schemes has been restricted to their approval limits for the FY 2022-23. However, in case of actual expenditure, the same may be considered at the time of truing up subject to reasoning/justification submitted by AEML-G and prudence check.

5.15.7 The Commission while verifying various Non-DPR schemes executed and planned during the FY 2022-23, find resemblance with sub-activities of DPR schemes which were denied by the Commission being such schemes either of R&M related in nature or in violation with MYT Regulations wherein such schemes were asked to be part of repair and maintenance expenses. The Commission also observed few DPR schemes exceeding their approved values and no revision of cost was sought by the AEML-G, therefore find it pertinent to cap those schemes to their approved values.

5.15.8 The Commission feel it pertinent to direct AEML-G to segregate such schemes in strict compliance which are either in nature of repair and maintenance expenses as per the MYT Regulations or the schemes which were earlier denied by the Commission from either DPR or Non-DPR schemes while presenting the truing up. The Commission accordingly reduced the capitalisation pertaining to following Non-DPR schemes and will include the same as part of actual repair and maintenance expenses for the FY 2022-23:

Table 145: Non-DPR Schemes of R&M in nature for FY 2022-23

Particulars	Rs Crore
Repair work of IP turbine inner casing	0.20
Repair work of HP Turbine Module	2.05
Procurement of Oxidation Blower internals	0.50
Milling System - - Procurement of Liners (2 sets) & Grinding media	2.75
Refurbishment of Conveyor Belt and associated parts	0.80
Refurbishment of structures in CHP	0.60
Refurbishment of apron feeder	0.10

Particulars	Rs Crore
Procurement of Busbar protection system for redundancy	0.58
Cable tray structure strengthening	0.20
Total	**7.78**

5.15.9 Also, as per Regulation 24.7 of the MYT Regulations, 2019, the Non-DPR schemes approved is within the range of 20% of approved DPR schemes of FY 2022-23.

5.15.10 Accordingly, the Commission has approved the additional capitalisation as per table below:

Table 146: Capitalization approved by the Commission for FY 2022-23 (Rs Crore)

Particulars	Petition	Approved
DPR Schemes	27.49	20.91
Non DPR Schemes	16.11	4.18
Total Capitalisation	**43.60**	**25.09**

5.15.11 The Commission approves the additional capitalisation of Rs 25.09 Crore for the FY 2022-23 subject to truing up based on annual audited account.

5.16 Depreciation for FY 2022-23

AEML-G's Submission

5.16.1 For the purpose of depreciation for FY 2022-23, AEML-G has considered the average asset class wise depreciation rates for FY 2021-22 and has applied the rate to the average estimated GFA of FY 2022-23

5.16.2 AEML-G has proposed no retirement of assets and will be submitted at the time of final True-up of FY 2022-23. AEML-G has claimed depreciation of Rs. 38.14 Crore for provisional Truing up of ARR for FY 2022-23.

Table 147: Depreciation for FY 2022-23 as submitted by AEML-G (Rs. Crore)

Particulars	MYT Order	H1 (actual)	H2 (Estimated)	FY 2022-23 (Estimated)
Opening GFA	2,140.87	2,030.85	2,033.35	2,030.85
Asset Addition	58.59	2.50	41.09	43.60
Closing GFA	2,199.46	2,033.35	2,074.45	2,074.45
Average GFA	2,170.17	2,032.10	2,053.90	2,052.65
Depreciation as % of average GFA	1.93%	0.95%	0.92%	1.88%
Depreciation	**41.34**	**19.38**	**18.76**	**38.14**

Commission's Analysis and Ruling

5.16.3 The Commission has considered the approved depreciation on the opening GFA of FY 2021-22, as well as on the assets added during the year i.e., FY 2022-23 considering the actual and projected capitalization approved in this Order.

5.16.4 In accordance with Regulation 28.1 of MYT Regulations 2019 depreciation has been computed annually on the straight-line method at the specified rates.

5.16.5 The Commission has calculated the average rate of depreciation at the rates applicable for various classes of assets as per the MYT Regulations, 2019 on the opening GFA for the full operational period, and on additional capitalisation for half the year. The average rate of depreciation is applied to arrive at the allowable depreciation for FY 2022-23.

5.16.6 The summary of depreciation as submitted by AEML-G and as approved by the Commission is shown in the Table below.

Table 148: Depreciation for FY 2022-23 approved by the Commission (Rs. Crore)

Particulars	MYT Order	MTR Petition	Approved in Order
Opening GFA	2,140.87	2,030.85	2,025.11
Asset Addition	58.59	43.60	25.09
Retirement	-	-	-
Closing GFA	2,199.46	2,074.45	2,050.20
Average GFA	2,170.17	2,052.65	2,037.65
Depreciation as % of average GFA	1.93%	1.88%	1.87%
Depreciation	**41.34**	**38.14**	**37.76**

5.16.7 **The Commission approves the depreciation of Rs 37.76 Crore for the FY 2022-23.** This will be reviewed during the final Truing-up exercise based on audited annual accounts.

5.17 Interest on Loan for FY 2022-23

AEML-G's Submission

5.17.1 AEML-G has considered a normative Debt: Equity ratio of 70:30 for capitalized assets during FY 2019-20, in accordance with the MYT Regulations 2019.

5.17.2 Also, as per Regulation 30.5 of the MYT Regulations, 2019, it shall fund the capex requirement by debt to the extent of 70% only. Hence for the purpose of ARR and tariff for FY 2022-23, AEML-G has considered the debt equity ratio of 70:30 on provisional basis. AEML-G has submitted that, so far, in FY 2022-23, no new loans for undertaking capital expenditure have been undertaken and hence all capital expenditure is being funded through internal accruals.

5.17.3 The estimated interest on loan claimed by AEML-G for FY 2022-23 at the rate of 8.34% is Rs. 13.28 Crore.

5.17.4 With regards to finance charges, AEML-G has submitted that the finance charges will depend on the actual loan borrowed and bank charges incurred based on the business requirement, hence, no estimation is made at this stage and will be claimed at the time of true-up of respective financial years in the future tariff Petitions.

Commission's Analysis and Ruling

5.17.5 For the interest on loans, the Commission has considered the approved closing balance of actual loan for FY 2021-22. The loan repayment has been taken as equal to the depreciation provisionally allowed during FY 2022-23 in this Order, in accordance with Regulation 30.3 of MYT Regulations, 2019. The loan addition during the year has been considered at 70% of the Capitalisation provisionally approved in this Order.

5.17.6 The Regulation 30.5 of the MYT Regulation, 2019 specifies that the rate of interest shall be considered as weighted average rate of interest computed on the basis of the actual loan portfolio at the beginning of each year

5.17.7 In line with Regulation 30.5 of the MYT Regulations, 2019, the Commission has computed the weighted average interest rate for AEML-G by the actual loans availed by it. The weighted average interest rate for FY 2022-23 works out to be 8.34% as outlined in the above table:

Table 149: Weighted Average Interest Rate for FY 2022-23

Sources of Fund	Amount (Rs. Crore)	Interest Rate (%)
US $ Bond (1000 Mn)	7124.58	8.42%
Sub-Debt (US $ 282 Mn)	2009.64	7.68%
GMTN Bonds (US $300 Mn)	2231.99	8.65%
Total	**11,366.21**	**8.34%**

5.17.8 With respect to finance charges, since it has not been claimed by AEML-G, the Commission has not considered the same and will be reviewed at the time of final truing up of FY 2022-23.

5.17.9 The summary of interest on loan as submitted by AEML-G and as approved by the Commission is shown in the Table below:

Table 150: Interest on loan for FY 2022-23 approved by the Commission (Rs. Crore)

Particulars	MYT Order	MTR Petition	Approved in Order
Opening balance of net normative loan (A)	199.22	162.99	159.09
Reduction of Normative Loan due to retirement or replacement of assets (B)	0	0	0.00
Addition of normative loan due to Capitalisation during the year (C)	41.01	30.52	17.56
Repayment of normative loan during the year (D)	40.23	38.14	37.76
Closing balance of net normative loan (E)= (A+B+C+D)	200.00	155.37	138.89
Average Balance of Net Normative Loan	199.61	159.18	148.99
Weighted average rate of interest on actual Loans (%) (F)	9.05%	8.34%	8.34%
Interest on Loan (G) = (E*F)	**18.06**	**13.28**	**12.43**

5.17.10 The Commission approves the interest on loan capital of Rs 12.43 Crore for the FY 2022-23, subject to final Truing-up exercise based on audited annual accounts.

5.18 Foreign Exchange Rate Variation (FERV)

AEML-G's Submission

5.18.1 AEML-G submitted that the actual FERV, if any shall be submitted at the time of final truing up of FY 2022-23.

Commission's Analysis and Ruling

5.18.2 With respect to FERV, since it has not been claimed by AEML-G, the Commission has not considered the same and will be reviewed at the time of final truing up of FY 2022-23.

5.19 Interest on Working Capital for FY 2022-23

AEML-G's Submission

5.19.1 AEML-G has computed Working Capital requirement in line with Regulation 32 of MYT Regulations, 2019 which provides the detailed constituents of working capital and interest thereof.

5.19.2 In view of the MERC MYT Regulations, 2019, the rate of interest on working capital for FY 2022-23 has been considered on normative basis equal to SBI one-year Marginal Cost of Lending Rate (One-year MCLR) as on the date on which the Petition for determination of Tariff is filed, plus 150 basis points which works out to 9.45%.

5.19.3 In case of ADTPS, the storage capacity for both washed coal and imported coal is more than that required for one month's generation at normative availability. Accordingly, cost of coal towards 30 days stock is considered for determining allowable working capital.

5.19.4 The normative cost of coal for thirty days and normative cost of oil for two months has been considered corresponding to the actual PLF, since actual PLF is estimated to be lower than target availability of 85%. Maintenance Spares are considered at 1% of the opening GFA. AEML-G has also considered one month's O&M expenses as per Regulation 32.3 of MYT Regulations, 2019.

5.19.5 Also, Regulation 32.1 (a) (vii) of MYT Regulations 2019 provides that Payables for fuel (including oil and secondary fuel oil) to the extent of thirty days of the cost of fuel computed at target availability, depending on the modalities of payment. AEML- G has submitted that all payments for domestic coal, railway freight and LDO are being made by AEML-G in advance. For imported coal, the weighted average credit period available in FY 2021-22 was 14.04 days. Hence AEML-G has considered 14.04 days of cost of imported coal towards payables for fuel in normative working capital requirement on provisional basis.

5.19.6 AEML-G submitted that it has availed short term loans to fund its working capital requirement in FY 2022-23. Also, AEML-G has employed its internal accruals to fund its working capital requirement and will submit the actual interest on working capital along with net entitlement at the time of truing up of FY 2022-23.

5.19.7 AEML-G has claimed the interest on working capital of Rs. 23.69 Crore for FY 2022-23.

Commission's Analysis and Ruling

5.19.8 Regulation 32.1 of the MYT Regulations, 2019 specifies the normative working capital requirements (cost of coal and oil, O&M Expenses, Maintenance Spares and receivables) at actual Availability or Target Availability of generating station whichever is lower, in true-up.

5.19.9 To estimate the working capital requirement corresponding to O&M expenses, the Commission has considered the normative O&M expenses approved in this Order, including base O&M expenses, water charges and Corporate Expenses allocation.

5.19.10 The cost of coal and oil have been considered for thirty days and two months, respectively, corresponding to the normative Availability of 85% as per MYT Regulations. The Commission accepts AEML-G's submission that the stock storage capacity for coal at ADTPS is much higher than the coal required for one month's generation at normative Availability and accordingly, allows the cost of coal towards stock for thirty days for computing the normative working capital requirement as per Regulation 32.1(a) (i) of MYT Regulations, 2019.

5.19.11 Since ADTPS is a non-pit head Generating Station, the cost of coal and oil has been considered for two months corresponding to the target Availability, while as proposed by AEML-G, payable of 14.04 days has been considered against the imported coal only. However, the Terms of credit may be different on actuals, since at the projection stage it is unable to identify the actual credit received to AEML-G, the same will be considered on actual basis at the final truing up of FY 2022-23.

5.19.12 Therefore, at the time of Truing up the Commission will do the prudence check i.e., it will check the modalities of payment like Letter of Credit (LC) at site or 30 days irrevocable LC, position of stock, etc. Based on the finding the Commission will consider the No. of days of actual credit received for payable for fuel and the period of Fuel stock. The Commission to that extent shall consider deducting the payable of fuels while truing-up exercise.

5.19.13 Regulation 32.1 (f) of the MYT Regulations 2019, specifies the interest rate on working capital shall be on normative basis. The relevant paragraph is reproduced as herein below:

> *(f) 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:*
>
> *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.*

5.19.14 Accordingly, the Commission has considered the prevailing Base Rate as 7.95% as on date of filing of the petition, plus 150 basis point to arrive the interest rate on working capital as 9.45%.

5.19.15 Accordingly, the Commission has computed the total working capital requirement in accordance with Regulation 32.1 of MYT Regulations, 2019. The following Table shows the IoWC approved by the Commission:

Table 151: Interest on working capital for FY 2022-23 approved by the Commission (Rs. Crore)

Particulars	Unit	MYT Order	MTR Petition	Approved in Order
Total Working Capital Requirement	Rs Crore	256.02	250.66	234.71
Interest Rate	%	9.45%	9.45%	9.45%
Interest on Working Capital	**Rs Crore**	**24.45**	**23.69**	**22.18**

5.19.16 The Commission approves Interest on Working Capital of Rs. 22.18 Crore for Provisional Truing-up of ARR for FY 2022-23.

5.19.17 With regards to the actual IoWC incurred by AEML-G, it shall be considered for computing efficiency gain/ losses at the time of final truing up of FY 2022-23, subject to prudence check of actual IoWC incurred.

5.20 Return on Equity for FY 2022-23

AEML-G's Submission

5.20.1 AEML-G submitted that as per MERC MYT Regulations 2019, Return on Equity (ROE) is to be allowed in two parts i.e., Base RoE and additional RoE linked to actual performance. The additional RoE shall be allowed at the time of truing up for respective years based on actual performance. In the MYT Order dated 30.03.2020, the Commission had allowed the Base RoE only.

5.20.2 AEML-G has calculated the RoE for FY 2022-23 considering the base rate of 14%. AEML-G has submitted that, as per the first proviso to the said Regulations, Effective Rate for Income Tax should be worked out considering the taxable income of regulated segment of Generation business of AEML alone, which is reflected in accordance with regulatory books. However, as per the second proviso quoted above, the effective tax rate for future years is to be estimated based on the actual tax paid as per the latest available Audited Accounts. The Audited Accounts available to AEML-G (or Transmission or Distribution segments) are as per the Company's books and according to the taxable income so derived, the Effective Tax Rate thereon is the MAT rate. Hence, for provisional true-up of FY 2022-23 and for projections thereafter, AEML-G has estimated the effective tax rate for grossing up RoE as the MAT rate of 17.47%.

5.20.3 Accordingly, AEML-G has claimed the ROE for FY 2022-23 as per table herein below:

Table 152: Return on Equity for FY 2022-23 (Rs. Crore)

Particulars	MYT Order	Petition
Regulatory Equity at the beginning of year	673.41	657.92
Capitalization during the year	58.59	43.60
Equity portion of capitalization during the year	17.58	13.08

Particulars	MYT Order	Petition
Regulatory Equity at the end of year	690.99	671.00
Return on Regulatory Equity at beginning of year	94.28	111.61
Return on Regulatory Equity addition during the year	1.23	0.92
Total Return on Regulatory Equity	**95.51**	**112.52**

Commission's Analysis and Ruling

5.20.4 For arriving at the Regulatory Equity at the beginning of the year for FY 2022-23, the Commission has taken the closing equity at the end of FY 2021-22 as approved in this Order.

5.20.5 Equity addition during the year has been computed considering the debt: equity ratio of 70:30, as considered by AEML-G. The Commission has considered equity addition based on the Capitalisation approved in this Order.

5.20.6 The Commission notes that the MYT Regulations 2019 requires the rate of return on pre-tax basis considering the base rate of return on equity as 14%. The regulation further states that the effective tax rate for future year shall be estimated based on actual tax paid as per latest available audited accounts

"*34.4 The effective tax rate shall be considered on the basis of actual tax paid in respect of financial year in line with the provisions of the relevant Finance Acts by the concerned Generating Company or Licensee or MSLDC, as the case may be:*

Provided that, in case of the Generating Company or Licensee or MSLDC has engaged in any other regulated or unregulated Business or Other Business, the actual tax paid on income from any other regulated or unregulated Business or Other Business shall be excluded for the calculation of effective tax rate:

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

5.20.7 Accordingly, the effective tax rate for the FY 2022-23 has been considered as MAT rate i.e., 17.47%, as paid by AEML for the FY 2021-22. The Commission notes that the same would be considered during the Truing up proceedings depending on actual tax paid by AEML under Corporate Tax or MAT regime.

5.20.8 The Commission has not considered the additional RoE of 1.5% in this order as the same would be taken up and allowed at the time of Truing up based on the actual performance in line with Regulation 26.9 of the MYT Regulations, 2019.

5.20.9 Based on the above, RoE approved by the Commission is shown in the Table below:

Table 153:Return on equity for FY 2022-23 approved by the Commission (Rs. Crore)

Particulars	Unit	MYT Order	MTR Petition	Approved in Order

Particulars	Unit	MYT Order	MTR Petition	Approved in Order
Regulatory Equity at beginning of year	Rs Crore	673.41	657.92	656.20
Capitalization during the year	Rs Crore	58.59	43.60	25.09
Equity portion of capitalized expenditure	Rs Crore	17.58	13.08	7.53
Less: Equity portion of Retired Assets	Rs Crore	-	-	-
Regulatory Equity at end of year	Rs Crore	690.99	671.00	663.72
Return on Equity Computation				
Base Rate of Return on Equity	%	14.00%	14.00%	14.00%
Pretax Return on Equity after considering effective Tax rate $$	%		16.96%	16.96%
Return on Regulatory Equity at the beginning of the year	Rs Crore	94.28	111.61	111.31
Return on Regulatory Equity addition during the year	Rs Crore	1.23	0.92	0.53
Total Return on Equity	**Rs Crore**	**95.51**	**112.52**	**111.84**

5.20.10 The Commission approves Return on Equity of Rs. 111.84 Crore for Provisional Truing-up of ARR for FY 2022-23.

5.21 Incentives on higher PLF for FY 2022-23

AEML-G's Submission

5.21.1 AEML-G has not considered PLF Incentive for FY 2022-23.

Commission's Analysis and Ruling

5.21.2 The Commission is undertaking the Provisional Truing-up based on unaudited data, it is not considering any incentive at this stage for PLF as it is below the norms. The same will be reviewed at the time of final Truing-up based on audited data.

5.22 Non-Tariff Income for FY 2022-23

AEML-G's Submission

5.22.1 The NTI for H1of FY 2022-23 is Rs. 6.77 Crore, and for H2, NTI is projected to be of Rs. 8.53 Crore. Accordingly, the NTI for FY 2022-23 is projected to be Rs. 15.30 Crore.

5.22.2 AEML-G has not considered Interest on Staff Loans for NTI. The NTI is to be mainly from sale of scrap, income from investment, income from coal rejects and fly ash, income from commercial training, etc.

Commission's Analysis and Ruling

5.22.3 The Commission observed that Non-Tariff Income as claimed in FY 2022-23 is equal to the actual Non-tariff income of FY 2021-22 excluding the insurance amount and marginal increase is envisaged in Income from Commercial training which was affected due to COVID-19.

5.22.4 The income earned from RoE will not be included in NTI as specified in Regulation 45.2 of the MYT Regulations, 2019. AEML-G has submitted that the interest earned on staff loans and advances is funded from RoE and accordingly same is not considered as NTI by the Commission. Accordingly, the NTI approved is as per table below:

Table 154:Non-Tariff Income for FY 2022-23 approved by the Commission

Particulars	Unit	MYT Order	MTR Petition	Approved in Order
Income from Sale of Scrap	Rs Crore		1.70	1.70
Income from sale of ash/rejected coal	Rs Crore		13.24	13.24
Income from Rental from contractors	Rs Crore		0.20	0.20
Income from commercial training	Rs Crore		0.16	0.16
Total	**Rs Crore**	**19.95**	**15.30**	**15.30**

5.22.5 The Commission approves the NTI of Rs 15.30 Crore for FY 2022-23 and shall review the same during final Truing-up based on audited annual accounts.

5.23 Revenue from Sale of Power for FY 2022-23

AEML-G's Submission

5.23.1 Revenue from sale of electricity generated by ADTPS is at the rate of Energy Charge (plus FAC) and Fixed Charges approved in its MTR Order.

5.23.2 Also, the FAC revenue is considered for six months i.e., from April 2022 to September, 2022. However, that the PLF incentive is presently not being claimed for provisional Truing up.

5.23.3 Subsequently, AEML-G has submitted that the revision in revenue from sale of power is Rs. 1707.86 Crore which comprises of:

- Fixed charges: Rs. 337.11 Crore as approved by the Commission in MYT Order dated 30 March, 2020 in Case No 298 of 2019.
- Energy charges: Rs. 1,222.74 Crore based on revised estimates and estimated to recover the fuel adjustment surcharges of Rs. 148 Crore.

Commission's Analysis and Ruling

5.23.4 The Commission has considered the revenue from Fixed Charges of Rs. 337.11 Crore for FY 2022-23 in line with the Tariff approved in MYT Order dated 30 March, 2020.

5.23.5 With respect to Energy chares, the Commission considered the energy rate as per tariff approved in the in MYT Order dated 30 March, 2020 resulting in revenue of Rs. 1,222,74 Crore.

5.23.6 However, considering the revision in GCV value and landed cost of the fuel (as per actual of November 2022 to January 2023), there is marginal variation in actual energy charges resulting in the amount to be recovered under Fuel Adjustment Surcharges. Accordingly, the Commission approved the Fuel Adjustment Surcharge of Rs. 138.60 Crore.

5.23.7 The Commission approves Revenue of Rs. 1,698.45 Crore, for Provisional Truing-up of ARR for FY 2022-23.

5.23.8 The Commission shall review this at the time of final Truing-up exercise based on audited annual accounts.

5.24 Summary of True-up and Revenue Gap / (Surplus) for FY 2022-23

5.24.1 Considering AEML-G's submissions, the Commission approves the following Revenue Gap/ (Surplus) for FY 2022-23 for Provisional Truing-up.

Table 155: Revenue Gap/ (Surplus) for FY 2022-23 approved by the Commission (Rs. Crore)

Sr. No	Particulars	MYT Order	MTR Petition	Approved in Order
	Expenditure			
1	Total Fuel Related Expenditure	1,487.97	1,370.75	1,361.34
2	O&M Expenses	178.80	201.75	189.19
3	Scheduling Charges	0.00	0.31	0.00
4	Depreciation	40.23	38.14	37.76
5	Interest on Long-term Loan Capital	18.06	13.28	12.43
6	Interest on Working Capital	24.45	23.69	22.18
7	Return on Equity	95.51	112.52	111.84
A	**Total Expenditure - (1+2+3+4+5+6+7)**	**1,845.02**	**1,760.43**	**1,734.74**
	Revenue			
8	Revenue from sale of electricity	**1,825.07**	**1,707.86**	**1,698.45**
a	Revenue from sale of electricity - Fixed charge	337.11	337.11	337.11
b	Revenue from sale of electricity - variable charge	1,487.96	1,370.75	1,361.34
9	Non-Tariff Income	19.95	15.30	15.30
B	**Total Revenue (8+9)**	**1,845.02**	**1,723.16**	**1,713.75**
C	Revenue Gap/ (Surplus) for FY 2022-23 (A-B)	0.00	37.28	20.99

5.24.2 The Commission approves a Revenue Gap of Rs. 20.99 Crore for Provisional Truing up of ARR for FY 2022-23.

5.24.3 The Commission in past used to adjust the revenue surplus/gap in the Tariff in the ensuing years of AEML-G. However, as per principle adopted in MYT Order, to have a more rationale approach, the Commission has considered this surplus amount along with Carrying cost, while approving the ARR of FY 2023-24 for AEML-D.

6 Revised ARR and Tariff Determination for FY 2023-24 and FY 2024-25

6.1 Preamble

In this Section, the Commission has analyzed the ARR elements of for the balance period of the 4th MYT Control Period (i.e. for FY 2023-24 and FY 2024-25) and approved the ARR in accordance with the MYT Regulations, 2019.

AEML-G has presented the revised projections of ARR and likely Tariff for FY 2023-24 and FY 2024-25 of the 4th MYT Control Period as per the projections of MYT Regulations 2019. The projections by AEML-G are based on the following:

1. The actual cost, operational parameters and other technical and financial particulars of previous years;
2. Assumptions for the operational parameters and cost, whereby rationale provided subsequently;
3. Capex plan based on new schemes to be approved by the Commission, status of actual schemes under implementation and changes, if any, in phasing of schemes earlier planned, based on actual progress;
4. The regulatory provisions as per the MYT Regulations, 2019 and the determination of normative cost accordingly.

6.2 Term of the PPA

AEML-G's Submission

6.2.1 AEML-G has stated that its PPA with AEML-D was approved and extended till 23 February 2023, i.e. for the first three years of the 4th MYT Control Period. The Commission in the MYT Order dated 30 March 2020 had directed AEML-G to file the Petition for approval of future generation sale arrangement at least 365 days before the expiry of ongoing PPA. Accordingly, AEML-D had filed a Petition (Case No. 32 of 2022) before the Commission proposing to procure 1000 MW (500 MW + Additional 500 MW under green shoe option) power from grid connected RE power projects complemented with power from coal based thermal power projects in India on RTC basis under Tariff based competitive bidding process wherein all thermal plants located in the country would be allowed to participate. In the said Petition, AEML-D has requested extension of the PPA of AEML-G with AEML-D till 15 October 2024 or actual commissioning date of successful bidder under the RE-RTC competitive bidding.

6.2.2 The Commission vide its Order dated 1 December 2022 in Case No. 32 of 2022, has approved the extension of PPA between AEML-G and AEML-D till 15 October .2024 or actual commissioning date of successful bidder under the RE-RTC competitive bidding, whichever is earlier. The Commission has directed AEML-D to file separate Petition for approval of its plans for future power procurement (i.e. beyond 15 October .2024) by 31 December 2023.

6.2.3 At this stage, no proposal can be provided by AEML-G considering the uncertainty of power purchase by AEML-D from ADTPS post 15 October 2024. However, AEML-G has projected the revised ARR of ADTPS for FY 2023-24 and FY 2024-25 in MTR Petition, considering that AEML-D will continue to procure power from AEML-G till 31 March 2025. In case of a generating company, all that a Tariff Order approves is the Energy Charge and Fixed Charge, both of which are on monthly basis. Hence, the same shall be recovered by the generating company from the beneficiary only till the period it supplies power to it and not beyond. Hence, continuation or discontinuation of PPA is of no consequence to determination of Energy Charges and monthly Fixed Charges for AEML-G for FY 2024-25.

Commission's Analysis and Ruling

6.2.4 The Commission notes that vide the Order dated 1 December 2022 passed by the Commission in Case No. 32 of 2022, the Commission has approved the extension of PPA between AEML-G and AEML-D till 15 October 2024 or actual commissioning date of successful bidder under the RE-RTC competitive bidding, whichever is earlier. However, the Tariff determination for the 4th MYT Control Period i.e. FY 2023-24 to FY 2024-25 is being determined based on the terms of existing PPA and should not be considered as the approval of PPA beyond October 2024. Final view regarding the extension of PPA will be taken by the Commission considering the commissioning of the said RE Power and after following the mandated due process.

6.2.5 The Tariff for Control Period till 31 March 2025 is determined based on existing PPAs considering business as usual and it does not mean approval of PPA. The Fixed Charges as determined for FY 2024-25 in this order, to be allocated on pro-rata basis, if the power from renewable sources gets commissioned and PPA with AEML-G is discontinued in between the FY of 2024-25.

6.3 Norms of Operation

6.3.1 The parameters for which the norms of operation have been given under the MYT Regulations, 2019 for thermal generating stations are as follows:

(i) Availability;
(ii) Plant Load Factor (PLF);
(iii) Auxiliary Energy Consumption;
(iv) Station Heat Rate (SHR);
(v) Secondary Fuel Oil Consumption (SFOC);
(vi) Transit and handling loss;

6.3.2 The norms of operation proposed by AEML-G and Commission's analysis thereon are as detailed hereunder:

6.4 Operational Performance for the 4th MYT Control Period

AEML-G's Submission

6.4.1 AEML-G has considered the operational norms specified in the MYT Regulations, 2019, except for Availability and PLF for projecting the Generation and Fuel Cost. Considering the planned outage days, the availability of ADTPS works out to 92.90% and 93.01% for FY 2023-24 and FY 2024-25 respectively. AEML-G has considered the PLF at the same level as that of Availability for estimating the generation from ADTPS for FY 2023-24 and FY 2024-25 respectively.

6.4.2 AEML-G in line with First and second Proviso of Regulation 46.13 of the MYT Regulations, 2019 has considered Normative Auxiliary Consumption of 8.50%. Furthermore, in line with third Proviso of Regulation 46.13, AEML-G has considered the additional Auxiliary Consumption of 1.2% for FGD.

Commission's Analysis and Ruling

<u>Availability and PLF</u>

6.4.3 The Commission has noted the planned outage schedule submitted by AEML-G to CEA regarding annual overhaul planned for both the units of ADTPS during FY 2023-24 and FY 2024-25. The projected Availability and PLF for these years are better than the Normative PAF and PLF even with these planned outages.

Table 156: Planned outage proposed for FY 2023-24 and FY 2024-25

FY 2023-24	FY 2024-25
Unit-1: Annual overhauling (20 days) Boiler renewal activity (7 days) Unit-2: Boiler Renewal activity (3 days), Planned maintenance activity (2 days) Average Proposed Outage – 26 days	Unit 1: Boiler license renewal (7 days) planned maintenance activity (2 days) Unit 2: Annual overhauling (20 days), Planned maintenance activity (2 days) Average proposed outage – 25.5 days

6.4.4 The Commission approved the availability of ADTPS to 92.90% and 93.01% for FY 2023-24 and FY 2024-25 respectively considering the planned outage days,.

6.4.5 However, it is observed that past PLF for last 3 years is in the range of 73% to 80%, however AEML-G while projecting has considered the PLF equivalent to calculated availability of the plant i.e. 92.90% and 93.015%. Also, the PAF of the Plant in past 3 years is in the range of 90% and PLF is lower due to back down of the plant.

6.4.6 Accordingly, the Commission has considered the projected PLF equal to Availability, as submitted by AEML-G but with regards to the availability of the fuel to generate the same power, the same is consider in the subsequent section of this order.

<u>Auxiliary Consumption</u>

6.4.7 The Commission has considered the total Normative Auxiliary Energy Consumption of 8.5% in line with the Regulations, 2019 (without FGD). The Commission has noted the AEML-G submission regarding additional auxiliary consumption for tube type coal mill, which is under Appeal at present and matter is subjudice.

6.4.8 Thus, the Commission approves Auxiliary Energy Consumption at the Normative Target of 8.5% (excluding FGD) and an Additional Auxiliary Energy Consumption of 1.2% for FGD as per the MYT Regulation, 2019.

SFOC and SHR

6.4.9 The Commission has considered the SFOC and SHR as per the norms specified in the MYT Regulations, 2019.

6.4.10 The following Table shows the operational parameters as submitted by AEML-G and as approved by the Commission.

Table 157: Operational parameters for FY 2023-24 and FY 2024-25

Particulars	Unit	FY 2023-24		FY 2024-25	
		MTR Petition	Approved in Order	MTR Petition	Approved in Order
Availability	%	92.90	92.90	93.01	93.01
PLF	%	92.90	92.90	93.01	93.01
Gross Generation	MU	4,080.00	4,080.00	4,085.16	4,074.00
Auxiliary Consumption excluding FGD	%	8.50	8.50	8.50	8.50
Auxiliary Consumption of FGD	%	1.20	1.20	1.20	1.20
Net Generation	MU	3,684.24	3,684.24	3,688.90	3,678.82
Station Heat Rate	kcal/kWh	2,430.00	2,430.00	2,430.00	2,430.00
Secondary Oil Consumption	ml/kWh	0.50	0.50	0.50	0.50

6.5 Fuel Expenses for FY 2023-24 and FY 2024-25

AEML-G's Submission

6.5.1 AEML-G has projected the GCV of primary and secondary fuel and the landed cost to estimate the fuel cost considering domestic coal at the ADTPS.

Calculation of GCV of Coal

6.5.2 AEML-G submitted that as per Regulation 50.6 of the MYT Regulations, 2019, the formula for Energy Charge Rate is as under:

$$ECR = \frac{[P_p \times (Q_p)_n + P_s \times (Q_s)_n]}{[1-(AUX_n)]} \quad (Rs/kWh)$$

Where,

Pp = landed cost of primary fuel, namely coal or lignite or gas or liquid fuel and limestone, if applicable, in Rs/kg or Rs/cum or Rs/litre, as the case may be;

(Qp)n = Quantity of primary fuel required for generation of one kWh of electricity at generator terminals in kg or litre or standard cubic metre, as the case may be, and shall be computed on the basis of normative Gross Station Heat Rate (less heat contributed by secondary fuel oil for coal/lignite based Generating Stations) and gross calorific value of coal/lignite or gas or liquid fuel as billed by supplier less:

(1) Actual loss in calorific value of coal between "as billed by supplier" and "as received at generating station", subject to the maximum loss in calorific value of 300 kcal/kg; and

(2) actual stacking loss subject to the maximum stacking loss of 85 kcal/kg for pithead stations and 120 kcal/kg for non-pithead stations;

Ps = landed cost of Secondary fuel oil in Rs./ml,

(Qs)n = Normative Quantity of Secondary fuel oil in ml/kWh as per Regulations 46.11 and 46.12, and

AUXn= Normative Auxiliary Energy Consumption as % of gross generation as per Regulations 46.13 to 46.17.

………………………..

Provided that the landed cost of primary fuel and secondary fuel for tariff determination shall be based on actual weighted average cost of primary fuel and secondary fuel of the three preceding months, and in the absence of landed costs for the three preceding months, latest procurement price of primary fuel and secondary fuel for the generating Station, preceding the first month for which the Tariff is to be determined for existing stations, and immediately preceding three months in case of new generating stations shall be taken into account:

………………………

***Provided also that in case of blending of fuel from different sources, the weighted average Gross Calorific Value of primary fuel shall be arrived in proportion to blending ratio**:*

6.5.3 AEML-G submitted that the regulations allow maximum GCV loss in transit (Difference between As Billed GCV and As Received GCV) of 300 kCal/kg and stacking loss (difference between As Received GCV and As Fired GCV) of 120 kCal/kg for non-pit-head stations. In case of existing stations, the landed cost of primary fuel and secondary fuel for tariff determination shall be based on actual weighted average cost of primary fuel and secondary fuel of the three preceding months. In case of blending of fuel from different sources, the weighted average GCV shall be considered which shall be arrived in proportion to the blending ratio

6.5.4 AEML-G has considered the As Billed GCV and As Received GCV for FY 2023-24 and FY 2024-25 at the same level as considered for second half of FY 2022-23.

Table 158: As Billed and As Received GCV for FY 2023-24 and FY 2024-25 (kcal.kg)

Particulars	FY 2023-24		FY 2024-25	
	MYT Order	MTR Petition	MYT Order	MTR Petition
As Billed GCV:				
Weighted Average GCV	**4,100**	**3,788**	**4,100**	**3,788**
Washed Coal	3,990	3,788	3,990	3,788
Imported Coal	4,411	4,291	4,411	4,291
Raw Coal	0	3,743	0	3,743
As Received GCV:				
Weighted Average GCV	**4,083**	**3,771**	**4,083**	**3,771**
Washed Coal	3,990	3,771	3,990	3,771
Imported Coal	4,346	4,282	4,346	4,282
Raw Coal	0	3,167	0	3,167
GCV loss in transit:				
Weighted Average GCV	**17**	**17**	**17**	**17**
Washed Coal	0	17	0	17
Imported Coal	65	9	65	9
Raw Coal	0	576	0	576

Stacking Loss

6.5.5 ADPTS is a non-pithead station since it is not having captive transportation system for its exclusive use for transportation of coal from the loading point at the mining end up to the unloading point at the generating station. Therefore, the applicable ceiling norm as per the MYT Regulations, 2019 for stacking loss for ADTPS works out to be 120 kCal/kg.

6.5.6 In case of ADTPS, blending of domestic washed coal and imported coal is done and therefore it naturally follows that, as per the MYT Regulations, 2019, stacking loss is required to be determined for the coal blend and not individually for each coal. Similarly, the maximum stacking loss limit of 120 kcal/kg will also apply to the blended coal.

6.5.7 AEML-G has considered the As Received GCV on weighted average basis (for calculation of stacking loss) and As Fired GCV for FY 2023-24 and FY 2024-25 at the same level as considered for second half of FY 2022-23:

Table 159: GCV of fuels FY 2023-24 and FY 2024-25 (kCal/kg)

Particulars	FY 2023-24		FY 2024-25	
	MYT Order	MTR Petition	MYT Order	MTR Petition
As Received GCV (for calculation of Stacking loss):				
Weighted Average GCV		**3803**		**3803**
Washed Coal		3803		3803
Imported Coal		4144		4144
Raw Coal		3431		3431
As Fired GCV:				
Weighted Average GCV	**4000**	**3760**	**4000**	**3760**

Particulars	FY 2023-24		FY 2024-25	
Washed Coal	3990	3760	3990	3760
Imported Coal	4029	4036	4029	4036
Raw Coal	0	3203	0	3203
Stacking loss:				
Weighted Average GCV	**83**	**43**	**83**	**43**
Washed Coal	0	43	0	43
Imported Coal	316	108	316	108
Raw Coal	0	228	0	228

6.5.8 AEML-G has considered the GCV of LDO for FY 2023-24 and FY 2024-25 as 10,814 kCal/kg at the same level as considered for second half of FY 2022-23.

Transit Loss and Landed Fuel cost for FY 2023-24 and FY 2024-25

6.5.9 AEML-G has considered the normative transit loss as per MYT Regulations, 2019 for working out the revised fuel cost for FY 2023-24 and FY 2024-25. AEML-G has been procuring imported coal from Dahej port in FY 2022-23, since Dahanu port is not an all-weather port and imported coal received through Dahej port is transported to ADTPS through Railways. Therefore normative transit loss of 0.8% is applicable to imported coal received through Dahej port but due to uncertainty on the procurement of imported coal through Dahej Port, AEML-G has considered normative transit loss of 0.2% on imported coal. AEML-G submitted it shall claim appropriate transit loss, depending on the amount of coal received through Dahej port (if any) at the time of truing up of FY 2023-24 and FY 2024-25.

6.5.10 As per MYT Regulations, 2019, the landed cost of primary fuel and secondary fuel for tariff determination shall be based on actual weighted average cost of primary fuel and secondary fuel of the three preceding months.

6.5.11 However, AEML-G submitted that it had received washed coal partly in July 2022 and in September 2022 and did not receive any washed coal in August 2022 due to closure of washery operations. Hence AEML-G has considered the average landed rate of washed coal from April 2022 to June 2022 for energy charge calculations. For imported coal, AEML-G has considered the average landed rate from July 2022 to September 2022 as per MYT Regulations, 2019. As regards raw coal, AEML-G has considered the average landed rate from July 2022 to September 2022 as the landed rate. The average rate of LDO (from July 2022 to September 2022) works out to Rs. 65,815/kL.

Table 160: Landed cost of fuel as per AEML-G for FY 2023-24 and FY 2024-25

Particulars	FY 2023-24		FY 2024-25	
	MYT Order	MTR Petition	MYT Order	MTR Petition
Landed Cost				
Washed Coal (Rs./MT)	6036	5324	6217	5324

Particulars	FY 2023-24		FY 2024-25	
	MYT Order	MTR Petition	MYT Order	MTR Petition
Imported Coal (Rs./MT)	6187	17334	6373	17334
Raw Coal (Rs./MT)	0	4850	0	4850
LDO (Rs./KL)	46317	65815	46317	65815

Fuel Utilization Plan

6.5.12 AEML-G has submitted its long terms fuel utilization plan as per the requirement of the Regulation, 40.3 of the MYT Regulations, 2019 which stipulates that the Generating Companies need to make a long-term Fuel Utilization Plan wherein the Generating Companies will plan their long-term generation plan, quantum of different fuels required and the various sourcing options, with a view to optimize/minimise the variable cost of generation so as to benefit the consumers. The same is stated as under:

"40.3 The Fuel Utilisation Plan shall comprise the following:

a) Forecast of fuel requirement for each unit/station;
b) Details of contracted source, annual contracted quantity, estimated availability from contracted sources and resultant shortage of fuel, if any, for each unit/station;
c) Use of optimum mix of fuel;
d) Alternate arrangement for meeting shortage of fuel along with impact on variable cost of unit/station;
e) Plan for swapping of fuel source for optimising the cost, if any, along with detailed justification and cost savings;
f) Net cost savings in variable cost of each unit, if any, after optimum utilisation of Fuel:"

6.5.13 AEML-G has submitted that the Commission, while approving the fuel cost for FY 2023-24 and FY 2024-25 in the MYT Order dated 30.03.2020 in Case No. 298 of 2019, had considered a blending ratio of 74:26 (washed coal and imported coal). AEML-G submitted that since the cost of imported coal has increased significantly in FY 2022-23 as compared to earlier years due to geopolitical reasons, which have had a global impact on fuel prices. AEML-G submitted that there is no certainty as to when the prices of imported coal will reduce, therefore it is prudent to use domestic coal to the maximum extent in order to keep the energy charge lower. In order to optimise the overall power purchase cost for consumers, AEML-D has explored various options and has asked AEML-G to make arrangement for additional quantum of Domestic Coal to generate at full capacity only on Domestic Coal.

6.5.14 Accordingly, AEML-G is exploring the possibility of procuring higher quantity of domestic coal. AEML-G has been receiving raw coal against the fuel supply agreement from South Eastern Coalfields Ltd (SECL). The FSA is for an annual supply of 24.52 Lakh MT of coal. The FSA has a clause of supply restriction at a level of 90% of allocated quantity. This clause is exercised on account of supply restriction by coal company. So, to optimize the coal cost, ADTPS has adopted an approach to receive coal as and when offered by coal company other than FSA.

6.5.15 Further, AEML-G had signed MoUs with SECL and MCL for supply of 1 MTPA of raw coal in FY 2021-22, on best effort basis, in order to avoid use of imported coal. AEML-G submitted that it shall continue to endeavour to optimize coal cost by exercising such options by following up with Ministry of Coal / CIL and operate with 100% domestic coal so as to reduce the fuel cost for consumers. Accordingly, AEML-G has considered 100% of coal availability from washed coal for estimating the fuel cost for FY 2023-24 and FY 2024-25 respectively.

6.5.16 AEML-G stated that as per Regulation 40.3 of the MYT Regulations, 2019 the Fuel Utilization Plan shall comprise of the following:

a) Forecast of fuel requirement for each unit/station;
b) Details of contracted source, annual contracted quantity, estimated availability from contracted sources and resultant shortage of fuel, if any, for each unit/station;
c) Use of optimum mix of fuel;
d) Alternate arrangement for meeting shortage of fuel along with impact on variable cost of unit/station;
e) Plan for swapping of fuel source for optimising the cost, if any, along with detailed justification and cost savings;
f) Net cost savings in variable cost of each unit, if any, after optimum utilisation of Fuel.

6.5.17 AEML-G submitted the following fuel utilization plan and requested to approve the same:

a) Forecast of fuel requirement for each unit/station:

The forecast of fuel requirement has been made considering the normative SHR as per MYT Regulations, 2019, GCV for different fuels as explained in preceding sections and estimate of gross generation in FY 2023-24 and FY 2024-25 as explained in preceding sections. Based on the above, the coal requirement works out to 26,31,383 MT for FY 2023-24 and for 26,34,712 MT for FY 2024-25 respectively.

b) Details of contracted source, annual contracted quantity, estimated availability from contracted sources and resultant shortage of fuel, if any, for each unit/station:

As stated before, AEML-G has FSA with SECL for supply of 24.52 Lakh MT of domestic coal (ACQ) for both units of ADTPS. As per the current policy of CIL, SECL is committed to supply 90% of the ACQ, which turns out to 22,06,800 MT. The coal received from SECL is washed at washery and then transported to ADTPS. Due to coal washing the GCV of coal increases, however the coal quantity reduces to 85% of the quantity before washing. Hence the coal quantity expected from the FSA with SECL after washing is 18,75,780 MT. As submitted above, AEML-G shall endeavour to tie up additional coal from SECL or other coal companies in order to meet the shortage. AEML-G has adopted this approach in FY 2021-22 by entering into MoUs with SECL and MCL to procure additional raw coal in order to avoid use of imported coal. However, the MoUs were on best effort basis. Nevertheless, AEML-G shall explore all possible options to procure additional domestic coal and use them after washing so as to optimize its fuel cost.

c) Use of optimum mix of fuel:

As submitted above, currently the cost of imported coal is very high due to geopolitical situations and there is no certainty when the rates will come down. Hence use of imported coal will not be prudent as procurement and firing of imported coal will only increase the cost of generation. Use of raw coal is also not be beneficial as the GCV of raw coal is around 500 kCal/kg lower than the GCV of washed coal (on As Fired basis). Hence for the purpose of estimating fuel cost for FY 2023-24 and FY 2024-25, AEML-G has considered use of washed coal only.

d) Alternate arrangement for meeting shortage of fuel along with impact on variable cost of unit/station:

As submitted above, currently AEML-G has not considered the shortage of coal to be met through imported coal or raw coal for estimating the fuel cost for FY 2023-24 and FY 2024-25. However, going forward AEML may have to use imported coal or raw coal depending on the availability of washed coal and also considering the generation schedule provided by MSLDC/ AEML-D as per Deviation Settlement Regulations, 2019. Considering the prevailing prices of Imported Coal and Raw Coal and considering the fuel blending (in case 100% washed coal is not arranged) of 70%:10%:20% (Washed: Imported: Raw), the variable cost of generation from ADTPS will work out to be 4.738 Rs. /kWh. In case such a situation arises, AEML-G shall procure imported coal through competitive tendering as it has been doing in the past. However, as submitted above, AEML-G shall explore all possible options to procure additional domestic coal and use them after washing so as to optimize its fuel cost.

e) Plan for swapping of fuel source for optimising the cost, if any, along with detailed justification and cost savings and Net cost savings in variable cost of each unit, if any, after optimum utilisation of Fuel:

AEML-G operates only one thermal generating station. Therefore, there is no possibility of coal swapping among different generating stations and there is no scope of cost saving due to coal swapping/ optimization.

6.5.18 Based on forecast of operational parameters, GCV and landed cost of fuel as discussed above, the projected fuel cost and the energy charge for FY 2023-24 and FY 2024-25 of the 4th MYT Control Period is as under:

Table 161: Fuel Cost and Energy Charges for FY 2023-24 and FY 2024-25 as submitted by AEML-G

Particulars	UoM	FY 2023-24	FY 2024-25
Fuel Cost	Rs. Crore	1,414.47	1,416.26
Net Energy Generation	MU	3,684.24	3,688.90
Energy Charges	Rs./kWh	3.839	3.839

6.5.19 AEML-G submitted that it had incurred forex loss/gain due to variation in $ to Rupee conversion rates while making payment to coal supplier directly or through LC. In revised ARR of FY 2023-24 and FY 2024-25, AEML-G has not claimed any forex loss/gain at present. However, there shall be forex gain / loss depending upon procurement of imported coal, which shall be presented at the time of truing up of FY 2023-24 and FY 2024-25.

Commission's Analysis and Ruling

6.5.20 The Commission notes that the AEML-G has submitted the operational parameters in line with MYT Regulations 2019, however, the Availability and PLF has been projected higher than historical performance.

Fuel Utilisation plan

6.5.21 AEML-G has FSA with SECL for an annual supply of 2.452 MMT which is sufficient to meet its fuel requirement at normative PLF of 85%.

6.5.22 However, due to short supply of coal from SECL and loss of coal at Washery, the quantum of coal available with AEML-G can allow the plant to run at PLF of 70%. Accordingly, AEML-G has to rely on alternate source to run the plant to achieve the target PLF. Though DTPS being a non-pit head and located on the coast, it used to be cheaper to source the imported coal to meet its balance requirement, but considering the current market situation whereby the price in the imported coal has been increased manifold, it is prudent utility practice and for the optimisation of fuel cost, AEML-G may also explore the other alternate source of procuring coal such as e-auction, spot market, etc. under competitive bidding route considering the price volatility in the imported coal market.

6.5.23 Considering the PLF Target of 93%, the Commission has inquired about the coal availability for meeting the energy generation requirement against the projected PLF with the fact that the ADTPS has signed for 2.452 MT ACQ with SECL. This in addition to the fact that AEML-G has not considered imported coal blending while projecting the coal requirement. However, with the projected PLF the domestic coal requirement will exceed the coal requirement of 2.63 MT and accordingly inquired AEML-G regarding the coal adequacy plan for meeting the PLF. AEML-G responded it shall be meeting the additional coal requirement from available coal supplies through domestic/e-auction or imported coal.

6.5.24 The Commission notes that ADTPS has not considered the Ministry of Power

Notification for mandatory 6% blending of imported coal. However, while computing the coal requirement, the Commission has considered the half year impact of 3% as the notification mandates for coal blending till September 2023.

6.5.25 The Commission accordingly has worked out the washed coal yield (i.e., ~85%) of the coal likely to be received by ADTPS (i.e., 90% of 2.452 MMT) which results in the coal availability of 1.88 MMT. This lead to the requirement of additional coal to the extent of 0.76 MMT to meet the projected PLF.

6.5.26 AEML-G has submitted that to meet this shortfall of 0.76MMT to achieve the projected PLF of FY 2023-24 and FY 2024-25, AEML-G has planned to use its earlier signed MoUs with SECL and MCL to meet the shortfall by supply of 1 MTPA of raw coal. Such use of MoU for domestic coal will avoid the use of imported coal considering the surge in imported coal prices and relatively lessen the burden on the consumers. AEML-G further submitted that it shall continue to endeavour to optimize coal cost by exercising different options by following up with Ministry of Coal / CIL and operate with 100% domestic coal so as to reduce the fuel cost for consumers.

6.5.27 In this context, the Commission is of the view that the fuel cost optimisation is continuous and necessary process whereby the shortfall of coal is met through e-auction route/imported coal/any other alternate source etc. However, considering the fact that the MoU is signed with Subsidiaries of CIL, to meet the shortfall, the Commission considers the submission of AEML-G and accepts the possibility of procurement of Raw coal from SECL and MCL at linkage price under MoU. The Commission thus considers the cost of raw coal as per MoU i.e at linkage price. Further, with regards to the procurement of 6% imported coal for blending and reduce the shortfall of coal to that extent, the Commission notes that MoP, taking into consideration of possible shortfall of domestic coal till September 2023, has issued notification to all generating station mandating to maintain 6% blending imported coal till the said period of September 2023. The Commission is not inclined to consider this request of AEML-G of possibility of replacement of imported coal with raw coal in view of the mandate of Ministry of Power and hence AEML-G will be required to procure the imported coal as mandated for FY 2023-24 till September 2023.

6.5.28 Accordingly, the Commission has considered the incremental coal required to meet the projected PLF to be procured from alternate sources. Also, since AEML-G has stated that use of raw coal is not beneficial as the GCV of raw coal is around 500 kCal/kg lower than the GCV of washed coal (on As Fired basis), the Commission has considered that coal procured from Alternate source will also be considered as washed coal. GCV of the alternate coal will now be considered to be similar to the washed coal procured currently. Hence, the GCV of the Washed coal is considered for the incremental coal procured from alternate source. Further, the Commission has accordingly computed the fuel cost by considering the average landed cost of washed coal considering the proportionate railway freight and other charges in same ratio of average of November 2022 to January 2023. The Commission has accordingly worked out the fuel cost of incremental coal as per table herein below:

Table 162: Landed cost of Incremental Washed coal as on FY 2022-23 (Rs./MT)

Component of Coal Cost	Average – Nov 22 to Jan 23
Basic Cost	2,044.81
Freight	2,776.46
Fuel Handling Charges	203.65
Any other charges	207.64
Total Price excluding Transit Loss	**5,232.56**
Transit Loss	0.8%
Total Price excluding Transit Loss	**5,274.76**

6.5.29 As per Regulation 40.8 of the MYT Regulations, 2019, the Commission may modify the fuel utilization plan for the remainder of the Control Period suo-motu or on a Petition filed by the Generating Company:

> *"The Commission may, as a result of additional information not previously known or available to the Commission at the time of approval of the Fuel Utilisation Plan under Regulation 40.1, if it deems appropriate, suo motu or on a Petition filed by the Generating Company, modify the Fuel Utilisation Plan for the remainder of the Control Period, as part of the Mid-term Review."*

6.5.30 Accordingly, as discussed at Para 6.5.24 regarding the blending of imported coal as per MoP's directives for FY 2023-24 (upto September 2023), the Commission for the purpose of approving tariff, approves the blending ratio of 71.4:3:25.6 for Washed, imported and alternate coal for FY 2023-24. For FY 2024-25, the Commission has considered the blending ratio of 71.2:28.8 for domestic Washed coal and Alternate coal (without imported coal as MoP's directives applicable till September 2023) subject to prudence check at the time of final true-up.

6.5.31 Based on the above approach, GCV (As Billed, As Received and As Fired Basis) alongwith the transit loss and stacking loss, landed price of the coal and the energy charges are determined by the Commission for FY 2023-24 and FY 2024-25.

Calculation of GCV and Stacking loss

6.5.32 Considering the coal mix of Washed coal and Imported coal for FY 2023-24 and Washed coal for FY 2024-25, the Commission has considered and calculated the GCV of coal both on equilibrated basis 'as billed' and 'as received' separately at the mine and also at ADTPS end. GCV ("As Billed Basis", "As Received Basis" and "As Fire Basis") considered for Washed coal and imported coal is equivalent to GCV of coal as considered for H2 of FY 2022-23 and discussed in the chapter related to provisional truing up of FY 2022-23.

6.5.33 As observed in the earlier section of this order, due to washery process undertaken by AEML-G, the GCV of coal has improved due to washing and is better than GCV of coal loaded at Mine End. Also, there is not much difference in GCV at Equilibrated basis at Mine end and ‘as received’ basis at ADTPS as claimed by AEML-G.

6.5.34 Also, it is observed that maximum GCV transit loss is with Raw coal which is not proposed by AEML-G under Fuel Utilization plan. The Commission has considered imported coal for FY 2023-24 only and alternate coal (treated under washery) for FY 2023-24 and FY 2024-25 to meet the shortfall.

6.5.35 Based on the above, the GCV as approved on “As Billed Basis”, “As Received Basis” and “As Fire Basis” is outlined in the following table:

Table 163: GCV of Coal/Oil for FY 2023-24 and FY 2024-25 approved by the Commission

Particulars	FY 2023-24			FY 2024-25		
	MYT Order	MTR Petition	Approved in Order	MYT Order	Petition	Approved
As Billed GCV: (Quantity procured during year)						
Weighted Average GCV	**4,100**	**3788**	**3766**	**4,100**	**3788**	**3747**
Washed Coal / Alternate Coal	3,990	3788	3747	3,990	3788	3747
Imported Coal	4,411	4291	4390	4,411	4291	0
Raw Coal		3743	0		3743	0
Transit Loss - Difference of As Billed and As Received GCV		**17**	**16**		**17**	**17**
Washed Coal / Alternate Coal		17	17		17	17
Imported Coal		9	0		9	0
Raw Coal		576	0		576	0
As Received GCV: (Quantity procured during year)						
Weighted Average GCV	**4,083**	**3771**	**3750**	**4,083**	**3771**	**3730**
Washed Coal / Alternate Coal	3,990	3771	3730	3,990	3771	3730
Imported Coal	4,346	4282	4390	4,346	4282	0
Raw Coal		3167	0		3167	0
As Received GCV:– For calculation of stacking loss						
Weighted Average GCV		**3803**	**3750**		**3803**	**3730**
Washed Coal / Alternate Coal		3803	3730		3803	3730
Imported Coal		4144	4390		4144	0
Raw Coal		3431	0		3431	0
Stacking Loss	**83**	**43**	**-24**	**83**	**43**	**-36**
Washed Coal / Alternate Coal	0	43	-36	0	43	-36
Imported Coal	316	108	354	316	108	0
Raw Coal		228	0		228	0
As Fired GCV:						
Weighted Average GCV	**4000**	**3760**	**3774**	**4000**	**3760**	**3766**
Washed Coal / Alternate Coal	3,990	3760	3766	3,990	3760	3766
Imported Coal	4,029	4036	4036	4,029	4036	

Particulars	FY 2023-24			FY 2024-25		
	MYT Order	MTR Petition	Approved in Order	MYT Order	Petition	Approved
Raw Coal		3203			3203	
GCV of Secondary Fuel (kcal/kl)	10,759	10,814	10,810	10,759	10,814	10,810

6.5.36 Accordingly, while calculating the energy charges for FY 2023-24 and FY 2024-25, based on the data provided and as approved in the above table, **the Commission approves the Weighted average GCV '*as Fired*' of 3,774 kcal/kg and 3,766 kcal/kg for computation of energy charges for FY 2023-24 and FY 2024-25 respectively considering the average of November 2022 to January 2023.**

6.5.37 However, the Commission shall take a final call on GCV at the time of true-up based on the results of third-party analysis and prudence check by the Commission.

6.5.38 With respect to stacking loss, at present AEML-G has considered stacking loss considering the GCV (As Received Basis) computed on an average basis. As discussed in earlier section of this order, its not prudence to have 2 sets of GCV (As Received Basis) for calculation purpose and hence the Commission has considered GCV (As Received basis) for the coal procured during the month / year and accordingly has approved the stacking loss.

6.5.39 The Commission has for approving the tariff for FY 2023-24 and FY 2024-25 has provisionally accepted the GCV (As Fired Basis) as submitted by AEML-G for calculation of stacking loss. The Commission shall compute the stacking loss based on the weighted average stacking loss of the actual fuel mix at the final truing up.

6.5.40 Thus, for the purpose of approving the tariff for FY 2023-24 and FY 2024-25, the Commission provisionally approves the stacking loss of (24) kcal/kg and (36) kcal/kg respectively.

Landed Cost of Fuel

6.5.41 The Commission has sought the prevailing landed cost of domestic and imported coal along with the supporting invoices. AEML-G has submitted the recent bills of domestic coal purchased between April 2022 to January 2023. Since AEML-G procures imported Coal only during a particular period of a year and there has been no consumption of imported coal from October 2022 onwards as submitted by AEML-G. The Commission notes that no imported coal has been procured post September 2022 and the price prevailing during September 2022 may not outline the correct picture of the landed cost of imported coal. Therefore, to maintain uniformity, the Commission has considered the price of imported coal as considered for TPC-G in the MTR Order in Case No. 221 of 2022 and actual freight cost incurred by AEML-G for transportation of coal from port to the generating plant in H1 of FY 2022-23, which is as outlined in the following table:

Table 164: Landed cost of imported coal price projection for FY 2023-24 (Rs./MT)

Particulars	Unit	Rs./MT
Imported Coal price of TPC-G	Rs./MT	12,500.00
Add: Freight Cost (as of H1 of FY 2022-23)	Rs./MT	637.26
Total Landed Cost	Rs./MT	13,137.26
Transit Loss	%	0.20%
Landed cost of Imported Fuel including transit loss	Rs./MT	13,163.59

6.5.42 AEML-G had received washed coal partly in July 2022 and in September 2022 and did not receive any washed coal in August 2022 due to closure of washery operations. However, the washed coal was received from October 2022 onwards on a regular basis. Hence the Commission has considered the average landed rate of washed coal from November 2022 to January 2023 for energy charge calculations as submitted by AEML-G.

6.5.43 It has been observed that AEML-G incurs forex loss/gain due to variation in $ to Rupee conversion rates while making payment to coal supplier directly or through LC. In ARR of FY 2023-24 and FY 2024-25, AEML-G has not claimed any forex loss/gain at present. The Commission may consider the forex gain / loss depending upon procurement of imported coal, at the time of truing up of FY 2023-24 and FY 2024-25, subject to prudence check.

6.5.44 Further, considering the variation in the coal price, while approving the fuel cost for the FY 2023-24 and FY 2024-25, the Commission has considered an escalation of 1.5% on domestic Washed and Alternate coal.

6.5.45 Based on the submission, the Commission has considered the fuel cost in the ratio of blending as approved in this order for arriving at the weighted average of fuel cost for domestic and imported coal as per Regulation 50.6 of the MYT Regulations, 2019 as under:

Table 165: Fuel Cost for FY 2023-24 and FY 2024-25 as approved by the Commission

Particulars	Unit	FY 2023-24		FY 2024-25	
		MTR Petition	Approved in Order	MTR Petition	Approved in Order
GCV-Washed / Alternate Coal (As Fired)	kcal/kg	3,760	3,766	3,760	3,766
GCV-Imported Coal (As Fired)	kcal/kg	4,036	4,036	4,036	4,036
GCV- Raw Coal (As Fired)	kcal/kg	3,203	3,294	3,203	3,294
GCV-Secondary Fuel Oil	kcal/kl	10,814	10,810	10,814	10,810
Price- Washed / Alternate Coal*	Rs./MT	5324	5,354	5324	5,434
Price- Imported Coal*	Rs./MT	17334	13,164	17,334	13,164
Price- Raw Coal*	Rs./MT	4850	4,803	4,850	4,875
Price- Secondary Fuel Oil	Rs./kl	65815	73,185	65,815	73.185
Transit Loss-Washed / Alternate Coal	%	0.80	0.80	0.80	0.80
Transit Loss-Imported Coal	%	0.20	0.20	0.20	0.20

Particulars	Unit	FY 2023-24		FY 2024-25	
		MTR Petition	Approved in Order	MTR Petition	Approved in Order
Transit Loss-Raw Coal	%	0.80	0.80	0.80	0.80
Total Fuel Cost	**Rs. Crore**	**1,414.47**	**1,479.91**	**1,416.26**	**1,440.48**
Energy cost per unit	**Rs./kWh**	**3.839**	**4.017**	**3.839**	**3.916**

* - Including transit loss

6.6 Operation & Maintenance Expenses for FY 2023-24 and FY 2024-25

AEML-G's Submission

6.6.1 AEML-G has submitted that it has projected the O&M expenses for FY 2023-24 and FY 2024-25 considering the base O&M expenses of FY 2019-20 as per the following provision of the MERC MYT Regulations 2019:

"The Operation and Maintenance expenses for each subsequent year shall be determined by escalating these Base Year expenses of FY 2019-20 by an inflation factor with 50% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the respective past five financial years as per the Office of Economic Advisor of Government of India and 50% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the past five financial years as per the Labour Bureau, Government of India, as reduced by an efficiency factor of 1% or as may be stipulated by the Commission from time to time, to arrive at the permissible Operation and Maintenance expenses for each year of the Control Period:

……………………….

Provided further that the efficiency factor shall be considered as zero, in case the Availability Factor of all Generating Units/Stations of the Generating Company is higher than NAPAF, or there is an improvement in the Availability Factor of all Generating Units/Stations of the Generating Company of at least 2 percent annually over the last 3 years, in case the Availability Factor of all Generating Units/Stations of the Generating Company is lower than NAPAF."

6.6.2 The Escalation rate of 4.87% considered by AEML-G has been arrived considering 50% CPI and 50% WPI of last five years in line with Regulations 47.1(b) of MYT Regulations, 2019.

6.6.3 However, AEML-G while computing the Base O&M for the 4th MYT Control Period has not considered the reduction in Escalation Factor by efficiency factor of 1% as per Regulations 47.1 (c) of MYT Regulations 2019, stating that AEML-G Availability has always been well above NAPAF.

6.6.4 AEML-G has considered the actual water charges and cost recovery charges paid as per audited annual accounts of FY 2021-22 in line with Regulations 47.1(d) of MYT Regulations 2019. These water charges have been considered as the base for projections of water charges for FY 2023-24 and FY 2024-25 of the 4th MYT Control Period as per MYT Regulations, 2019.

6.6.5 Accordingly, the Total O&M expenses projected for FY 2023-24 and FY 2024-25 of the 4th MYT Control Period by AEML-G are as shown in the Table below:

Table 166: O&M expenses for FY 2023-24 and FY 2024-25 (Rs. Crore)

Particulars	FY 2023-24	FY 2024-25
O&M Expenses	207.93	218.06
Water Charges	2.50	2.50
Cost recovery charges	0.98	0.98
Total O&M Expenses	**211.41**	**221.54**

6.6.6 AEML-G requested to approve the projected O&M cost for FY 2023-24 and FY 2024-25 of the 4th MYT Control Period as submitted.

Commission's Analysis and Ruling

6.6.7 The Commission notes that the AEML-G while determining the projected average O&M Expenses, considered the Corporate Allocation to Base O&M. AEML-G has separately projected water charges and cost recovery charges as it continues to be allowed separately for FY 2023-24 and FY 2024-25 as per actual bills.

6.6.8 The Commission while projecting the O&M expenses has considered the separate impact of corporate expense allocation rather than merging the same with base O&M expenses as discussed in the relevant section of O&M expenses approved while truing up of FY 2020-21 and FY 2021-22 in this order. The Commission feels this ensures a check on corporate expenses allocations to regulated business and thus shall not be subsumed under the base O&M expenses which will be entitled for sharing of efficiency gains/loss as per MYT Regulations 2019.

6.6.9 As submitted by the AEML-G, since the availability factor of the plant is higher than the target availability for several years in the past, the Commission is not considering the efficiency factor of 1% at present in line with Regulations 47.1 (c) of MYT Regulations 2019. However, the same will be reviewed at the time of final true-up of the respective years of the 4th MYT Control Period. The Commission has calculated the escalation rate as specified in Table 81 of this order.

Table 167: WPI-CPI Escalation Rate based on 2011-12 series

Year	WPI	WPI Inflation	CPI	CPI Inflation
FY 2017-18	114.88	2.92%	284.42	3.08%
FY 2018-19	119.79	4.28%	299.92	5.45%
FY 2019-20	121.79	1.67%	322.50	7.53%
FY 2020-21	123.38	1.30%	338.69	5.02%
FY 2021-22	139.39	12.98%	356.06	5.13%
Average of last 5 years		4.63%		5.24%
Weight		50%		50%
Escalation Factor		**4.94%**		

6.6.10 The Commission has considered the base O&M expenses of FY 2021-22 and considered the escalation factor to project the O&M expenses for the FY 2023-24 and FY 2024-25 as per table herein below:

Table 168: O&M expenses for FY 2023-24 and FY 2024-25 approved by the Commission

Particulars	Unit	FY 2023-24		FY 2024-25	
		MTR Petition	Approved in Order	MTR Petition	Approved in Order
Base O&M expenses	Rs Crore	207.93	175.97	218.06	184.65
Corporate expense allocation	Rs Crore		18.91		19.84
Water recovery charges	Rs Crore	2.50	2.50	1.97	2.50
Cost recovery charges	Rs Crore	0.98	0.98	1.00	0.98
Total O&M expenses	**Rs Crore**	**211.41**	**198.36**	**221.03**	**207.98**

6.6.11 The Commission while allowing the O&M expenses has considered the escalation on the approved corporate expenses separately rather than subsuming the same within the base O&M expenses.

6.6.12 The actual water charges and Cost recovery charges as per the last available audited data for FY 2021-22 have been considered and added to the normative O&M expenses.

6.6.13 The Commission approves O&M Expenses of Rs. 198.36 Crore FY 2023-24 and Rs. 207.98 Crore for FY 2024-25.

6.7 Capital Expenditure and Capitalization for FY 2023-24 and FY 2024-25

AEML-G's Submission

6.7.1 AEML-G projected a capitalization of Rs. 39.53 Crore in FY 2023-24 and Rs. 39.93 Crore for FY 2023-24 and FY 2024-25 respectively. The projected capitalization includes IDC which has been estimated on provisional basis.

6.7.2 AEML-G submitted that a part of the capitalization projected is against new DPRs to be submitted to the Commission for approval. AEML-G submitted that it would approach the Commission for approval of the DPRs in accordance with MERC (Approval of Capital Investment) Regulations, 2022.

6.7.3 Thus, based on the above outlined schemes AEML-G has projected the total capitalisation for FY 2023-24 and FY 2024-25 as follows:

Table 169: Capitalisation for FY 2023-24 and FY 2024-25 (Rs. Crore)

Particulars	FY 2023-24		FY 2024-25	
	MYT Order	Petition	MYT Order	Petition
Capitalisation	69.51	57.17	64.51	39.93

Commission's Analysis and Ruling

6.7.4 The Capitalisation claimed by AEML-G falls under the three (3) categories namely (i) Works approved by the Commission by way of in-principle approval of DPRs; (ii) DPR Pending for In-principle Approval and (iii) Non-DPR Works.

6.7.5 The Commission has examined the Capitalisation claimed by AEML-G as against the schemes which have been accorded in-principle approval. The Commission sought the details from AEML-G to provide the break-up of Capital expenditure Critical and non-critical in nature, proposed to be undertaken post September 2022 along with proper justification. Accordingly, AEML-G submitted that all capital expenditure proposed by AEML-G is critical and represents bare minimum requirement for continuous operation of the plant and requested Commission to approve the capex on provisional basis for FY 2023-24 and FY 2024-25.

6.7.6 The Commission while examining the schemes identified certain schemes with cumulative capitalization exceeding their approval resulting in cost over run and therefore has restricted such capitalization upto approved capitalization.

6.7.7 The Commission while issuing the MYT Order has adopted the following approach:

- Considering the projected additional capitalization as 50% of the average of total capitalisation approved for past five year.
- 100% capitalization against the approved DPR schemes.

6.7.8 The Commission accordingly worked out the average capitalization for previous five years i.e., FY 2017-18 to FY 2021-22 as per table below:

Table 170: Average capitalization for past five years (Rs. Crore)

Particulars	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	Average
DPR	65.31	24.51	47.87	23.26	47.65	41.72
Non-DPR	3.73	3.37	9.57	4.39	2.53	4.72
Total	**69.04**	**27.88**	**57.44**	**27.65**	**50.18**	**46.44**

6.7.9 Accordingly, the 50% of the average of total capitalisation approved for past 5 years is Rs. 23.22 Crore considered as threshold limit for approval of DPR Schemes yet to be approved.

6.7.10 The Commission following a consistent approach accordingly has approved the capitalisation as per table below:

Table 171: Capitalisation approved for FY 2023-24 and FY 2024-25

Particulars	Unit	FY 2023-24		FY 2024-25	
		MTR Petition	Approved in Order	MTR Petition	Approved in Order
Approved DPR Schemes	Rs Crore	3.97	3.71	16.30	16.30
DPR Schemes Pending for Approval	Rs Crore	53.20	23.22	23.63	23.22
Total Capitalisation	**Rs Crore**	**57.17**	**26.93**	**39.93**	**39.52**

6.7.11 The Commission accordingly approves the additional capitalization of Rs 26.93 Crore for FY 2023-24 and Rs 39.52 Crore for FY 2024-25.

6.8 Depreciation for FY 2023-24 and FY 2024-25

AEML-G's Submission

6.8.1 For the purpose of depreciation for FY 2023-24 and FY 2024-25, AEML-G has considered the average asset class wise depreciation rates for FY 2021-22 and has applied the rate to the average estimated GFA of FY 2023-24 and FY 2024-25.

6.8.2 AEML-G has not estimated any retirement of assets for the calculation purpose of depreciation during the 4th MYT Control Period.

6.8.3 AEML-G has projected depreciation for FY 2023-24 and FY 2024-25 is as under:

Table 172: Depreciation for FY 2023-24 and FY 2024-25

Particulars	FY 2023-24		FY 2024-25	
	Petition	Approved	Petition	Approved
Depreciation (Rs Crore)	34.02	39.17	34.80	40.20

Commission's Analysis and Ruling

6.8.4 The Commission has considered the closing GFA of FY 2022-23 approved in this Order as the opening GFA for FY 2023-24. Regulation 28.1 of MYT Regulations, 2019 stipulates that a Generating Company may recover depreciation on the value of fixed assets, computed annually based on the straight-line method at the specified rates.

6.8.5 The addition to GFA is considered in line with the capitalisation approved in the previous Section.

6.8.6 In accordance with Regulation 28.4 of MYT Regulations, 2019, for the projected capitalisation of the assets for part of the year, depreciation has been calculated on the average of opening and closing value of assets approved by the Commission.

6.8.7 The depreciation rate FY 2023-24 and FY 2024-25 has been calculated based on the Weighted Average Rate of various components of GFA.

Table 173: Depreciation approved by the Commission for FY 2023-24 and FY 2024-25

Particulars	Unit	FY 2023-24		FY 2024-25	
		MTR Petition	Approved in Order	MTR Petition	Approved in Order
Opening GFA	Rs Crore	2,074.45	2,050.20	2,131.62	2,077.13
Additions during year	Rs Crore	57.17	26.93	39.93	39.52
Closing GFA	**Rs Crore**	**2,131.62**	**2,077.13**	**2,171.55**	**2,116.64**
Depreciation Rate	%	1.89%	1.87%	1.89%	1.88%
Depreciation	**Rs Crore**	**39.17**	**38.29**	**40.20**	**38.99**

6.8.8 The Commission accordingly approves the depreciation of Rs 38.29 Crore for FY 2023-24 and Rs 38.99 Crore for FY 2024-25.

6.9 Interest on Loan and Other Finance Charges for FY 2023-24 and FY 2024-25

AEML-G's Submission

6.9.1 AEML-G has considered a normative debt: equity ratio of 70:30 for capitalised assets during FY 2023-24 and FY 2024-25 of the 4th MYT Control Period, in accordance with the MYT Regulations, 2019.

6.9.2 AEML-G has submitted that no loans have been taken for the proposed capitalization during each year of the 4th MYT Control Period. However, AEML-G shall endeavour to restrict actual loan drawl to 70% of the total capitalization during the year

6.9.3 AEML-G has considered the weighted average rate of interest of 8.34% as the the rate of interest shall be the weighted average rate of interest computed on the basis of actual long term loan portfolio at the beginning of each year.

6.9.4 AEML-G has submitted that there could be variation in interest rate of individual loans in the overall loan portfolio of AEML in FY 2023-24 and FY 2024-25, which cannot be predicted now. Hence AEML-G has considered the interest rate of 8.34% on provisional basis for calculation of interest expense for FY 2023-24 and FY 2024-25.

6.9.5 Also, it is submitted that currently no retirement of assets has been considered as that cannot be anticipated at this stage. Hence, no repayment / write-off of existing loan due to retirement has been considered.

6.9.6 With respect to Finance Charges, AEML-G submitted that since charges will depend on the actual loan borrowed and bank charges incurred based on the business requirement, hence, no estimation is made at this stage and will be claimed at the time of true-up of respective financial years in the future tariff Petitions. Accordingly, AEML-G has projected the interest on loans for FY 2023-24 and FY 2024-25 as per table herein below:

Table 174: Interest on Loan for FY 2023-24 and FY 2024-25

Particulars / (Rs. Crore)	FY 2023-24		FY 2024-25	
	MYT Order	Petition	MYT Order	Petition
Opening Balance	200.00	155.37	214.64	156.22
Addition of new loans	48.66	40.02	45.16	27.95
Repayment	34.02	39.17	34.80	40.20
Closing Balance	214.64	156.22	219.82	143.97
Interest Rate (%)	9.05%	8.34%	9.05%	8.34%
Interest on Loans	**18.76**	**12.99**	**19.89**	**12.52**

Commission's Analysis and Ruling

6.9.7 For interest on loans, the Commission has considered the approved closing balance of loans for FY 2022-23 considered in this Order as the opening balance of FY 2023-24. The loan repayment has been considered equal to the depreciation allowed for the respective years in the MYT Control Period, in accordance with Regulation 30.3 of the MYT Regulations, 2019. The loan addition during the year has been considered at 70% of the Capitalisation approved in this Order, based on the debt: equity ratio of 70:30.

6.9.8 The Commission has computed interest on loan on the normative average loan of the year by applying the weighted average rate of interest of 8.34%

6.9.9 Also, based on the submission made by AEML-G, the finance charges have not been approved in the present order and will be considered at the time of true-up of respective years.

Table 175: Interest on Loan and Other Finance Charges approved by the Commission

Particulars	Unit	FY 2023-24	FY 2024-25

		MTR Petition	Approved in Order	MTR Petition	Approved in Order
Opening balance of net normative loan (A)	Rs Crore	155.37	138.89	156.22	119.45
Reduction of Normative Loan due to retirement or replacement of assets (B)	Rs Crore	0.00	0.00	0.00	0.00
Addition of normative loan due to Capitalisation during the year (C)	Rs Crore	40.02	18.85	27.95	27.66
Repayment of normative loan during the year (D)	Rs Crore	39.17	38.29	40.20	38.99
Closing balance of net normative loan (E)= (A+B+C+D)	Rs Crore	156.22	119.45	143.97	108.12
Average Balance of Net Normative Loan	Rs Crore	155.79	129.17	150.10	113.79
Weighted average rate of interest on actual Loans (%) (F)	%	8.34%	8.34%	8.34%	8.34%
Interest on Loan (G) = (E*F)	Rs Crore	**12.99**	**10.77**	**12.52**	**9.49**

6.9.10 The Commission approves Interest on Loan and Other Finance Charges of Rs. 10.77 Crore for FY 2023-24 and Rs. 9.49 Crore for FY 2024-25.

6.10 Interest on Working Capital for FY 2023-24 and FY 2024-25

AEML-G's Submission

6.10.1 Regulation 32.1 of the MYT Regulations, 2019 outlines the components of the working capital recoverable by a Generating Company. AEML-G has worked out the working capital requirements accordingly.

6.10.2 AEML-G in its submissions of truing-up has mentioned that the stock storage capacity for both washed coal and imported coal at ADTPS is much higher than the coal quantity required for one months' generation at normative Availability. Hence the cost of coal towards stock for one month is considered while computing the normative working capital requirement as per Regulation 32.1(a) (i). Further, the cost of coal for thirty days of generation corresponding to target Availability and two months equivalent cost of secondary oil corresponding to the normative consumption at target Availability have been taken for computing the working capital requirement for each year, as per Regulation 32.1(a) (ii) and 32.1(a) (iii) respectively.

6.10.3 Further, the Fuel Supply Agreement of ADTPS with SECL provides for advance payment for the supply of coal. Hence, no credit period is available for payables of coal as payment to SECL is to be made in advance, and payment for imported coal considered weighted average credit period of 14.04 days. Accordingly, AEML-G has worked out the normative working capital requirements without considering the normative one-month payables for fuel.

6.10.4 AEML-G in line with Regulation 32.1(f) of MYT Regulations, 2019 has considered the rate of interest on working capital equal to SBI one-year Marginal Cost of Lending Rate (MCLR) on the date of filing the petition plus 150 basis points which works out to 9.45%.

Commission's Analysis and Ruling

6.10.5 The Commission has computed the total working capital requirement in accordance with Regulation 32.1 of MYT Regulations, 2019. In order to estimate the working capital requirement corresponding to O&M expenses, the Commission has considered the normative O&M expenses approved in this Order.

6.10.6 To estimate the working capital requirement corresponding to O&M expenses, the Commission has considered the normative O&M expenses approved in this Order, including base O&M expenses, water charges and Cost recovery charges.

6.10.7 The Commission note that the AEML-G has considered the Working capital requirement as per the projected PLF of 93%, whereas as per MYT Regulations, the same needs to be calculated considering generation corresponding to target availability i.e. 85% and the same has been considered by the Commission. AEML-G has not considered the payables for fuel for computation of working capital requirement considering the advance payment made to SECL and alternate coal. However, considering the direction from Ministry of Power, the Commission has considered imported coal of 6% upto September 2023 and equivalent payable for fuel has been considered for normative 30 days period. The cost of coal and oil have been considered for thirty days and two months, respectively, corresponding to the normative Availability of 85% as per MYT Regulations. The Commission accepts AEML-G's submission that the stock storage capacity for coal at ADTPS is much higher than the coal required for one month's generation at normative Availability and accordingly, allows the cost of coal towards stock for thirty days for computing the normative working capital requirement as per Regulation 32.1(a) (i) of MYT Regulations, 2019.

6.10.8 The Commission has considered the interest rate on working capital based on the Base Rate (i.e., MCLR) as on the date on which the Petition for determination of Tariff is filed (i.e., 1 November, 2022) plus 150 basis points as per Regulation 32.1 (b) of MYT Regulations, 2019.

6.10.9 Accordingly, the Commission has computed the total working capital requirement in accordance with Regulation 32.1 of MYT Regulations, 2019. The following Table shows the IoWC approved by the Commission:

Table 176: Interest on Working Capital approved by the Commission

Particulars	Unit	FY 2023-24		FY 2024-25	
		MTR Petition	Approved in Order	MTR Petition	Approved in Order
Total Working Capital Requirement	Rs Crore	270.91	251.89	272.62	254.52
Interest Rate	%	9.45%	9.55%	9.45%	9.45%
Interest on Working Capital	**Rs Crore**	**25.60**	**23.80**	**25.76**	**24.05**

6.10.10 The Commission approves IoWC of Rs. 23.80 Crore for FY 2023-24 and Rs. 24.05 Crore for FY 2024-25.

6.11 Return on Equity for FY 2023-24 and FY 2024-25

AEML-G's Submission

6.11.1 The first Proviso of the Regulation 29.1 of the MYT Regulations, 2019 specifies that RoE shall be allowed in 2 parts viz. Base RoE and Additional RoE inked to actual performance.

6.11.2 AEML-G further submitted that Regulation 29.2 of the MYT Regulations, 2019 specifies the provision of Base RoE capital @ 14% per annum. Regulation 29.3.a specifies that RoE shall be allowed at 14% on the equity capital at the commencement of the year. Regulation 29.3.b specifies that RoE shall also be allowed on 50% of the equity capital portion of the allowable capital cost, for the investment put to use in Generation Business for such year. Hence, AEML-G has considered the Base RoE as 14% for each year of the 4th MYT Control Period.

6.11.3 Also, Regulations 34.2 of the MERC MYT Regulations, 2019 specifies that the rate of RoE, including additional rate of RoE as allowed by the Commission, at the time of true-up, shall be grossed up with the effective tax rate of respective financial year.

6.11.4 AEML-G has submitted that, as per the first proviso to the said Regulations, Effective Rate for Income Tax should be worked out considering the taxable income of regulated segment of Generation business of AEML alone, which is reflected in accordance with regulatory books. However, as per the second proviso quoted above, the effective tax rate for future years is to be estimated based on the actual tax paid as per the latest available Audited Accounts. The Audited Accounts available to AEML-G (or Transmission or Distribution segments) are as per the Company's books and according to the taxable income so derived, the Effective Tax Rate thereon is the MAT rate. AEML-G has adopted the MAT rate of 17.47% as used for provisional truing up of FY 2022-23 to gross up the ROE for FY 2023-24 and FY 2024-25 as per table herein below:

Table 177: Return on Equity for FY 2023-24 and FY 2024-25 (Rs. Crore)

Particulars	FY 2023-24		FY 2024-25	
	MYT Order	MTR Petition	MYT Order	MTR Petition
Regulatory Equity at the beginning of year	690.98	671.00	711.84	688.15
Capitalization during the year	69.51	57.17	64.51	39.93
Equity portion of capitalization during the year	20.85	17.15	19.35	11.98
Regulatory Equity at the end of year	711.84	688.15	731.19	700.13
Return on Regulatory Equity at beginning of year	96.74	113.83	99.66	116.73
Return on Regulatory Equity addition during the year	1.46	1.45	1.35	1.02
Total RoE	**98.20**	**115.28**	**101.01**	**117.75**

Commission's Analysis and Ruling

6.11.5 The Commission has computed RoE at the base rate of 14% on the opening equity of each year, in accordance with Regulation 29.2 of the MYT Regulations, 2019.

6.11.6 For arriving at the Regulatory Equity at the beginning of the year for FY 2023-24, the Commission has taken the closing equity at the end of FY 2022-23 as approved in this Order.

6.11.7 Equity addition during the year has been computed considering the debt: equity ratio of 70:30, as considered by AEML-G. The Commission has considered equity addition based on the Capitalisation approved in this Order.

6.11.8 The Commission notes that the MYT Regulations 2019 requires the rate of return on pre-tax basis considering the base rate of return on equity as 14%. The regulation further states that the effective tax rate for future year shall be estimated based on actual tax paid as per latest available audited accounts

"34.4 The effective tax rate shall be considered on the basis of actual tax paid in respect of financial year in line with the provisions of the relevant Finance Acts by the concerned Generating Company or Licensee or MSLDC, as the case may be:

Provided that, in case of the Generating Company or Licensee or MSLDC has engaged in any other regulated or unregulated Business or Other Business, the actual tax paid on income from any other regulated or unregulated Business or Other Business shall be excluded for the calculation of effective tax rate:

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

6.11.9 Accordingly, the effective tax rate for the FY 2023-24 and FY 2024-25 has been considered as MAT rate i.e., 16.96%, as paid by AEML for the FY 2021-22. The Commission notes that the same would be reviewed during the Truing up proceedings depending on actual tax paid by AEML under Corporate Tax or MAT regime.

6.11.10 The Commission has not considered the additional RoE of 1.5% in this order as the same would be taken up and allowed at the time of Truing up based on the actual performance in line with Regulation 26.9 of the MYT Regulations, 2019.

6.11.11 Based on the above, RoE approved by the Commission is shown in the Table below:

Table 178:Return on equity for FY 2023-24 and FY 2024-25 approved by the Commission

Particulars	Unit	FY 2023-24		FY 2024-25	
		MTR Petition	Approved in Order	MTR Petition	Approved in Order
Regulatory Equity at beginning of year	Rs Crore	671.00	663.72	688.15	671.80
Capitalization during the year	Rs Crore	57.17	26.93	39.93	39.52
Equity portion of capitalized expenditure	Rs Crore	17.15	8.08	11.98	11.86
Less: Equity portion of Retired Assets	Rs Crore	-	-	-	-
Regulatory Equity at end of year	Rs Crore	688.15	671.80	700.13	683.66
Return on Equity Computation					
Base Rate of Return on Equity	%	14.00%	14.00%	14.00%	14.00%
Pretax Return on Equity after considering effective Tax rate	%	16.96%	16.96%	16.96%	16.96%
Return on Regulatory Equity at the beginning of the year	Rs Crore	113.83	112.59	116.73	113.98
Return on Regulatory Equity addition during the year	Rs Crore	1.45	0.69	1.02	1.01

Particulars	Unit	FY 2023-24		FY 2024-25	
		MTR Petition	Approved in Order	MTR Petition	Approved in Order
Total Return on Equity	**Rs Crore**	**115.28**	**113.28**	**117.75**	**114.97**

6.11.12 The Commission approves Return on Equity of Rs. 113.28 for FY 2023-24 and Rs. 114.97 Crore for FY 2024-25.

6.12 Non-Tariff Income for FY 2023-24 and FY 2024-25

AEML-G's Submission

6.12.1 AEML-G has been using washed coal and imported coal. The raw coal procured from SECL is washed in the nearby coal beneficiation unit to remove impurities and coal rejects. Revenue is realized by selling such coal rejects, which is considered as NTI. AEML-G generates income from sale of ash as well, which is a major component of NTI.

6.12.2 AEML-G has considered NTI as Rs. 15.30 Crore for FY 2023-24 and FY 2024-25, same as per its claim as part of provisional truing up for FY 2022-23.

Commission's Analysis and Ruling

6.12.3 The Commission has considered the NTI of Rs. 19.15 Crore wherein increase in income from the sale of fly ash on account of higher projected PLF has been taken into account. While projecting the income from sale of fly ash, the Commission has considered the similar PLF achieved in FY 2019-20. The Commission views that during FY 2023-24 and FY 2024-25, since the additional domestic coal has been projected with higher PLF, it will lead to additional fly ash and thus there is likely to be higher revenue from sale of fly ash.

6.12.4 The income earned from RoE will not be included in NTI as specified in Regulation 45.2 of the MYT Regulations, 2019. AEML-G has submitted that the interest earned on staff loans and advances is funded from RoE and accordingly same is not considered as NTI by the Commission.

6.12.5 The Commission approves the NTI for FY 2023-24 and FY 2024-25 and shall review the same during final Truing-up based on audited annual accounts.

6.12.6 The following Table shows the NTI as approved by the Commission for 4th MYT Control Period.

Table 179:Non-Tariff Income for FY 2023-24 and FY 2024-25 approved by the Commission

Particulars	FY 2023-24		FY 2024-25	
	Petition	Approved	Petition	Approved
Income from Sale of Scrap	1.70	1.70	1.70	1.70
Income from investments				
Income from sale of ash/rejected coal	13.24	17.09	13.24	17.09
Income from Rental from contractors	0.20	0.20	0.20	0.20
Insurance Claim received				
Income from commercial training	0.16	0.16	0.16	0.16
Other/Miscellaneous receipts	0.00	0.00	0.00	0.00

Particulars	FY 2023-24		FY 2024-25	
	Petition	Approved	Petition	Approved
Total	**15.30**	**19.15**	**15.30**	**19.15**

6.12.7 The Commission approves Non-Tariff income of Rs. 19.15 for FY 2023-24 and FY 2024-25.

6.13 Other Expenses

AEML-G's Submission

Scheduling Charges

6.13.1 The Commission has introduced Deviation Settlement Mechanism (DSM) in Maharashtra from 11th October 2021. As part of the DSM procedure, AEML-G provides daily schedule to MSLDC for time block wise generation for the next day as per the requirement of AEML-D. MSLDC considers the same after vetting, for which scheduling charges are levied by MSLDC. These charges are new expenses which were not there in the O&M expense of previous years. Hence Scheduling charges is required to be separately allowable. AEML-G has not projected any Scheduling charges for FY 2023-24 and FY 2024-25 at this stage. The actual Scheduling charges that will be incurred in future shall be claimed separately at the time of truing up of FY 2023-24 and FY 2024-25.

Foreign Exchange Rate Variation (FERV)

6.13.2 FERV, if any, shall be claimed at the time of truing up of FY 2023-24 and FY 2024-25.

Commission's Analysis and Ruling

6.13.3 The Commission noted the submission made by AEML-G. As specified in the earlier sub-section of this order, the expenses such as scheduling charges and FERV will be considered at the time of truing up of FY 2023-24 and FY 2024-25.

6.14 Holding/ Carrying Cost on Revenue Surplus of Previous Years

AEML-G's Submission

6.14.1 AEML-G has calculated the Carrying/Holding Cost as per the MYT Regulations, 2015 and has computed the carrying cost on Revenue Gaps/(Surplus) at SBI Base Rate/ one-year MCLR Rate plus 150 basis points.

6.14.2 AEML-G has calculated the carrying /holding cost considering that for correct reflection of revenue gap at the close of the year, the interest cost incurred for financing the revenue deficit/surplus during the year should also be accounted for.

6.14.3 AEML-G has calculated carrying /holding cost on the incremental revenue gap / surplus for FY 2019-20 as per table herein below:

Table 180: Carrying / (Holding) Cost claimed on Revenue Gap/(Surplus) for FY 19-20 (Rs. Crore)

Particulars	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24

Particulars	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24
Opening balance	0	(36.90)	(1.59)	(1.59)	(1.59)
Addition	(36.90)				
Recovery		(35.32)			(1.59)
Closing balance	(36.90)	(1.59)	(1.59)	(1.59)	0.00
Average balance	(18.45)	(19.25)	(1.59)	(1.59)	(0.79)
Carrying / Holding cost (%)	9.66%	8.57%	8.50%	9.45%	9.45%
Carrying / Holding cost	(1.78)	(1.65)	(0.13)	(0.15)	(0.07)
Total Carrying / holding cost					**(3.79)**

6.14.4 AEML-G has calculated the carrying / holding cost on the standalone revenue gap / surplus for FY 2020-21 as per table below:

Table 181:Carrying/ (Holding) Cost claimed on Revenue Gap/(Surplus) for FY 20-21 (Rs. Crore)

Particulars	FY 20-21	FY 21-22	FY 22-23	FY 23-24
Opening balance	0	39.06	39.06	39.06
Addition	39.06			
Recovery				39.06
Closing balance	39.06	39.06	39.06	0.00
Average balance	19.53	39.06	39.06	19.53
Carrying / Holding cost (%)	8.57%	8.50%	9.45%	9.45%
Carrying / Holding cost	1.67	3.32	3.69	1.85
Total Carrying / holding cost				**10.53**

6.14.5 AEML-G has calculated carrying /holding cost on the incremental revenue gap / surplus for FY 2021-22 as per table below:

Table 182:Carrying/ (Holding) Cost claimed on Revenue Gap/(Surplus) for FY 21-22 (Rs. Crore)

Particulars/ (Rs Cr)	FY 21-22	FY 22-23	FY 23-24
Opening balance	0	19.65	19.65
Addition	19.65		
Recovery			19.65
Closing balance	19.65	19.65	0.00
Average balance	9.83	19.65	9.83
Carrying / Holding cost (%)	0.09	0.09	0.09
Carrying / Holding cost	0.84	1.86	0.93
Total Carrying / holding cost			**3.62**

6.14.6 AEML-G submitted that it had not computed any carrying cost on provisional truing up gap for FY 2022-23 in line with earlier approved methodology by the Commission.

6.14.7 The total revenue gap / surplus till FY 2022-23 along with carrying / holding cost is as under:

Table 183:Revenue Gap/ Surplus till FY 2022-23 along with carrying cost (Rs. Crore)

Particulars	Amount
Incremental Gap/ (Surplus) for FY 2019-20	(1.59)
Holding cost on Gap/ (Surplus) for FY 2019-20	(3.79)
Gap / (Surplus) for FY 2020-21	39.06
Holding cost on Gap/ (Surplus) for FY 2020-21	10.53
Gap / (Surplus) for FY 2021-22	19.65
Holding cost on Gap/ (Surplus) for FY 2021-22	3.62
Prov. Gap / (Surplus) for FY 2021-22	37.28
Total	**104.77**

Commission's Analysis and Ruling

6.14.8 While issuing the MYT Order in Case No 298 of 2019, the Commission has adopted the approach to allow carrying cost on the revenue gap in line with Hon'ble APTEL judgment in Appeal No. 160 of 2012 and Appeal Nos. 211, 215, 3, 4, 57, 274, 164, 166, 121 of 2013 dated 8th April 2015. In the said Judgment, Hon'ble APTEL stated as herein below:

"42…

The interest should be calculated for the period from the middle of the financial year in which the revenue gap had occurred upto the middle of the financial year in which the recovery has been proposed. Thus, for the revenue gap of FY 2010-11, the Commission has to consider interest from middle of FY 2010-11 to middle of FY 2013-14 in which the recovery is proposed. This is because the expenditure is incurred throughout the year and its recovery is also spread out throughout the year. Admittedly, the revenue gap will be determined at the end of the financial year in which the expenditure is incurred. However, the under or over recovery is the resultant of the cost and revenue spread out throughout the year. Similarly, the revenue gap of the past year will be recovered throughout the year in which its recovery is allowed. Therefore, the interest on revenue gap as a result of true up for a financial year should be calculated from the mid of that year till the middle of the year in which such revenue gap is allowed to be recovered."

6.14.9 The Commission in line with Regulation 33 of MYT Regulation, 2019 has calculated carrying/(holding) cost considering simple interest on the gap/ (surplus) using the interest rate equivalent to the Base Rate plus 150 basis points from FY 2019-20 as per the MYT Regulations, 2015 and weighted average rate considering base rate and MCLR rate plus 150 basis points from FY 2020-21 onwards till FY 2023-24 (the year in which the recovery is proposed).

6.14.10 Further, since the Revenue Surplus of Rs. 35.32 Crore for FY 2019-20 has been allowed by the Commission to recover in FY 2020-21, an incremental surplus has been considered for calculation of the Holding Cost from FY 2020-21 onwards for the standalone gap of FY 2019-20. Also, the Carrying cost / (Holding) cost on standalone gap of FY 2020-21 and FY 2021-22 has been calculated separately.

Table 184: Carrying / Holding Cost on Revenue Surplus approved by the Commission (Rs. Crore)

Carrying Cost on Revenue Gap/(Surplus) for FY 2019-20					
Particulars	**FY 19-20**	**FY 20-21**	**FY 21-22**	**FY 22-23**	**FY 23-24**
Opening balance	0.00	(47.20)	(11.88)	(11.88)	(11.88)
Addition	(47.20)				
Recovery		(35.32)			(11.88)
Closing balance	(47.20)	(11.88)	(11.88)	(11.88)	0.00
Average balance	(23.60)	(29.54)	(11.88)	(11.88)	(5.94)
Carrying cost (%)	9.66%	8.57%	8.50%	9.45%	9.45%
Carrying cost	(2.28)	(2.53)	(1.01)	(1.12)	(0.56)
Total Carrying cost					**(7.50)**
Carrying Cost on Revenue Gap/(Surplus) for FY 2020-21					
Particulars		**FY 20-21**	**FY 21-22**	**FY 22-23**	**FY 23-24**
Opening balance		0	(14.83)	(14.83)	(14.83)
Addition		(14.83)			
Recovery					(14.83)
Closing balance		(14.83)	(14.83)	(14.83)	0.00
Average balance		(7.41)	(14.83)	(14.83)	(7.41)
Carrying cost (%)		8.57%	8.50%	9.45%	9.45%
Carrying cost		(0.64)	(1.26)	(1.40)	(0.70)
Total Carrying cost					**(4.00)**
Carrying Cost on Revenue Gap/(Surplus) for FY 2021-22					
Particulars			**FY 21-22**	**FY 22-23**	**FY 23-24**
Opening balance			0	(25.56)	(25.56)
Addition			(25.56)		
Recovery					(25.56)
Closing balance			(25.56)	(25.56)	0.00
Average balance			(12.78)	(25.56)	(12.78)
Carrying cost (%)			8.50%	9.45%	9.45%
Carrying cost			(1.09)	(2.42)	(1.21)
Total Carrying cost					(4.71)

6.14.11 Accordingly, the Commission has calculated and approves the holding cost and cumulative revenue gap/ surplus to be recovered in FY 2023-24 as under:

Table 185: Holding Cost on Revenue Surplus of Previous Years & Revenue Gap/(Surplus) (Rs. Crore)

Particulars	**Petition**	**Approved**
Incremental Gap/ (Surplus) for FY 2019-20	(1.59)	(11.88)
Holding cost on Gap/ (Surplus) for FY 2019-20	(3.79)	(7.50)
Gap / (Surplus) for FY 2020-21	39.06	(14.83)

Particulars	Petition	Approved
Holding cost on Gap/ (Surplus) for FY 2020-21	10.53	(4.00)
Gap / (Surplus) for FY 2021-22	19.65	(25.56)
Holding cost on Gap/ (Surplus) for FY 2021-22	3.62	(4.71)
Prov. Gap / (Surplus) for FY 2022-23	37.28	20.99
Total	**104.76**	**(47.48)**

6.14.12 The Commission approves the cumulative Revenue Surplus of Rs. 47.48 Crore.

6.15 Revised ARR for FY 2023-24 and FY 2024-25

AEML-G's Submission

6.15.1 Based on the cost components as discussed above, the ARR for the period from FY 2023-24 and FY 2024-25 is being submitted in the Table below:

Table 186:ARR for FY 2023-24 and FY 2024-25 as submitted by AEML-G (Rs. Crore)

Particulars	FY 2023-24		FY 2024-25	
	MYT Order	MTR Petition	MYT Order	MTR Petition
Fuel Related Expenses	1536.77	1414.47	1578.00	1416.26
Operation & Maintenance Expenses	184.27	211.41	189.92	221.54
Depreciation	34.02	39.17	34.80	40.20
Interest on Loan Capital	18.76	12.99	19.89	12.52
Interest on Working Capital	25.18	25.60	25.93	25.76
Total Revenue Expenditure	**1799.00**	**1703.64**	**1848.54**	**1716.27**
Add: Return on Equity Capital	98.20	115.28	101.01	117.75
Less: Non-Tariff Income	19.95	15.30	19.95	15.30
Aggregate Revenue Requirement	**1877.25**	**1803.63**	**1929.61**	**1818.73**
Past Gap till FY 2022-23 with carrying cost till FY 23-24		104.77		
Total ARR	**1877.25**	**1908.39**	**1929.61**	**1818.73**

Commission's Analysis and Ruling

6.15.2 The following table summarizes the expense as submitted by the AEML-G and as approved by the Commission:

Table 187:ARR for FY 2023-24 and FY 2024-25 approved by the Commission (Rs Crore)

Particulars	FY 2023-24		FY 2024-25	
	MTR Petition	Approved in Order	MTR Petition	Approved in Order
Fuel Related Expenses	1,414.47	1,479.91	1,416.26	1,440.48
Operation & Maintenance Expenses	211.41	198.36	221.54	207.98

Depreciation	39.17	38.29	40.20	38.99
Interest on Loan Capital	12.99	10.77	12.52	9.49
Interest on Working Capital	25.60	23.80	25.76	24.05
Add: Return on Equity Capital	115.28	113.28	117.75	114.97
Less: Non-Tariff Income	(15.30)	(19.15)	(15.30)	(19.15)
Revenue Gap/Surplus of previous Years	104.77			
Aggregate Revenue Requirement	**1,908.39**	**1,845.26**	**1,818.73**	**1,816.81**

6.15.3 The Commission approves Aggregate Revenue Requirement of Rs. 1,845.26 Crore for FY 2023-24 and Rs. 1,816.81 Crore for FY 2024-25.

6.15.4 The Commission has computed a Net Revenue Surplus of Rs. (47.48) Crore of Past period which shall be adjusted in the ARR of AEML-D along with the holding cost and to be ultimately passed on to the consumers of AEML-D. Accordingly, AEML-G would be allowed to recover the AFC as approved on a standalone basis for FY 2023-24 from AEML-D without adjustment of any past Gap / Surplus with carrying / holding cost.

7 Tariff for FY 2023-24 and FY 2024-25

7.1 Annual Fixed Charges for AEML-G

7.1.1 Regulation 41.1 of the MYT Regulations, 2019 states that the Tariff for sale of electricity shall consist of the Annual Fixed Charge (AFC) and Energy Charges.

7.1.2 The AFC approved by the Commission in the previous section is as follows:

Table 188:Approved AFC for FY 2023-24 and FY 2024-25 (Rs. Crore)

Particulars	FY 2023-24		FY 2024-25	
	MTR Petition	Approved in Order	MTR Petition	Approved in Order
Operation & Maintenance Expenses	211.41	198.36	221.54	207.98
Depreciation	39.17	38.29	40.20	38.99
Interest on Loan Capital	12.99	10.77	12.52	9.49
Interest on Working Capital	25.60	23.80	25.76	24.05
Add: Return on Equity Capital	115.28	113.28	117.75	114.97
Less: Non-Tariff Income	(15.30)	(19.15)	(15.30)	(19.15)
Revenue Gap/Surplus of previous Years	104.77	0.00	0.00	0.00
Annual Fixed Charge	**493.93**	**365.35**	**402.47**	**376.33**

7.1.3 The Commission approves AFC of Rs. 365.35 Crore for FY 2023-24 and Rs. 376.33 Crore for FY 2024-25.

7.1.4 MYT Regulations, 2019 stipulates that the target Availability for full recovery of Annual Fixed Charges shall be 85% (normative Availability). The Availability approved by the Commission for ADTPS's Thermal Station Units is more than 85%. **Hence, the Commission approves the full recovery of AFC for ADTPS**. However, the recovery of the fixed charges to be considered as per Regulations 50 of MYT Regulations 2019.

7.1.5 Further, as regards the recovery of Annual Fixed Cost, Regulation 50 (A) of MYT Regulations, 2019, stipulates as follows:

> *"The fixed cost of a thermal generating station shall be computed on annual basis based on the norms specified under these Regulations and recovered on monthly basis under Capacity Charge. The total Capacity Charge payable for a generating station shall be shared by its beneficiaries as per their respective percentage share or allocation in the capacity of the generating station. The Capacity Charge shall be recovered under two segments of the year, i.e., High Demand Season (period of three months) and Low Demand Season (period of remaining nine months), and within each season in two parts, viz., Capacity Charge for Peak Hours of the month and Capacity Charge for Off-Peak Hours of the month"*

7.1.6 As regards declaration of High Demand Season and Low Demand Season and Peak Hours and Off-Peak Hours of the month, Regulation 50.3 stipulates as follows:

> *"The hours of Peak and Off-Peak periods during a day shall be declared by the*

SLDC at least a week in advance. The High Demand Season (period of three months, consecutive or otherwise) and Low Demand Season (period of remaining nine months, consecutive or otherwise) in the State shall be declared by the SLDC, at least six months in advance:

Provided that the SLDC, after duly considering the comments of the concerned stakeholders, shall declare Peak Hours and High Demand Season in such a way as to coincide with the Peak Hours and High Demand Season of the State."

7.1.7 The SLDC in consultation with the concerned stakeholder has declared the High and Low Demand Season as follows:

- High Demand Season/Months – April, May and October
- Low Demand Season/Months – June, July, August, September, November, December, January, February and March

7.1.8 Further, as per provisions of MYT Regulations, 2019, SLDC shall declare the hours of Peak and Off-Peak periods during a day for each month hall be declared by the SLDC at least a week in advance after consultation with the comments of concerned stakeholders.

7.1.9 Accordingly, the billing of Capacity Charges for ADTPS shall be done as per Regulation 50 (A) of MYT Regulations, 2019, wherein Capacity Charges shall be recovered under two segments of year viz. High demand season and Low Demand Season as declared by SLDC, and within each season in two parts i.e., Capacity Charges for Peak hours of the month and Off-peak hours of the month as per the Peak and Off-Peak hours declared by SLDC.

7.2 Energy Charges for AEML-G

7.2.1 The Energy Charge comprises the cost of both the primary and the secondary fuel. The total cost of fuel approved, the net generation and the approved Energy Charge as approved by the Commission are as shown below.

Table 189:Approved Energy Charges for FY 2023-24 and FY 2024-25

Particulars	Unit	FY 2023-24		FY 2024-25	
		MTR Petition	Approved in Order	MTR Petition	Approved in Order
Fuel Related Expenses	Rs Crore	1,414.47	1,479.91	1,416.26	1,440.48
Net Generation	MU	3,684.24	3,684.24	3,688.90	3678.82
Energy Charge	Rs/kWh	3.839	4.017	3.839	3.916

7.2.2 The Commission approves energy charges of Rs. 4.017/kWh for FY 2023-24 and Rs. 3.916/kWh for FY 2024-25 respectively.

8 COMPLIANCE OF DIRECTIVES AND ADDITIONAL DIRECTIVES

8.1 Compliance of Directives

In the MYT Order in Case No 298 of 2019 dated 30 March 2020, the Commission had given certain directives to AEML-G. The directives, status of compliance submitted by AEML-G and the Commission's ruling are set out below.

8.2 Expiry of Power Purchase Agreement

8.2.1 AEML-G has entered into PPA with AEML-D, which is expiring midway of the 4th MYT Control Period, i.e., on 22 February 2022. The Commission had directed AEML-G to submit its Petition for approval of its future generation sale arrangements at least 365 days before the expiry of this ongoing PPA as per directions given by the Commission in Case No. 5 of 2017.

AEML-G Submission

8.2.2 AEML has filed a Petition (Case No. 32 of 2022) before the Commission proposing to procure 1000 MW (500 MW + Additional 500 MW under green shoe option) power from grid connected RE power projects complemented with power from coal based thermal power projects in India on RTC basis under Tariff based competitive bidding process wherein all thermal plants located in the country will be allowed to participate. In the said Petition, AEML had requested extension of the PPA of AEML-G with AEML-D till 15 October 2024 or actual commissioning date of successful bidder under the RE-RTC competitive bidding, whichever is later.

Commission's Analysis and Ruling

8.2.3 The Commission notes the response of the AEML-G. On 1 November 2022, the Commission has passed the Order in Case No. 32 of 2022 allowing the extension of the PPA between AEML-G and AEML-D till 15 October 2024 or actual commissioning date of the successful bidder's project, whichever is earlier. The relevant extract of the Order reads as follows:

*" **ORDER***

4. *Continuation of Power Purchase Agreement with Dahanu Thermal Power Station shall not be deemed continuation even if the Tariff discovered under the proposed procurement process is higher than the Tariff of Dahanu Thermal Power Station. Adani Electricity Mumbai Ltd.-Distribution would have to approach the Commission separately for approval of its plans for future power procurement, after exploring all available options of sources at that point in time and modes of procurement and considering the then market conditions and then transmission availability, sufficiently in advance. In case such situation arises, Adani Electricity Mumbai Ltd.-Distribution shall file its separate Petition by 31 December 2023.*
5. *The prayer of Adani Electricity Mumbai Ltd.-Distribution seeking extension of present* ***Power Purchase Agreement between Adani Electricity Mumbai***

***Ltd.- Distribution and Dahanu Thermal Power Station, being the embedded generation, till 15 October 2024 or actual commissioning date of the successful bidder's project** under the future competitive bidding process, **whichever is earlier**, is hereby granted.*

8.3 Coal Quantity and Coal Grade Slippage:

8.3.1 The FSA provides for the period of settlement for credit notes. Hence AEML-G was directed to ensure the settlement of credit note within the period of settlement mentioned in the FSA. AEML-G and SECL, both being the obligated parties in accordance with FSA, were directed to see that the provisions in the FSA gets complied time to time so that the burden on account of variation in grade of coal dispatched and received at AEML-G's end does not get passed on to the consumer.

8.3.2 The Commission also directed AEML-G to resolve all the pending credit/ debit settlement issues within three months from the issue of the MYT Order.

8.3.3 The Commission had directed AEML-G in its MTR Order dated 12 September 2018 to appoint third party agency for analysis of GCV of coal at various ends which AEML-G had complied for. AEML-G was directed to come up with an analysis report resulting in arrest of GCV losses, better management and utilization of coal in its next petition.

AEML-G Submission

8.3.4 Continuous follow up is being done with SECL for early settlement of credit notes from AEML-G end. AEML-G in support to its effort has submitted the documentary evidence as well. AEML-G shall continue its efforts of pursuing / following up with SECL for settlement of credit notes for grade slippage. With regard to the directions given in MYT Order, a meeting (virtual) was conducted by the office of the Commission with AEML-G on 9 November 2021. The status of this directive was discussed in the said meeting and the Commission had taken note of the delay caused by SECL for settlement of credit notes.

8.3.5 The Commission in AEML-G MTR Order dated 12 September 2018 (Case No. 202 of 2017) had directed AEML-G to appoint a third-party agency to analyse washed coal quality at different points. In accordance with the direction, AEML-G had appointed M/s IGI for coal analysis at ADTPS end from December 2018 onwards and at washery end (post washing) from July 2019 onwards. In this regard, the Commission in the MYT Order had directed AEML-G to come up with an analysis report resulting in arrest of GCV losses, better management and utilization of coal in next Petition.

Commission's Analysis and Ruling

8.3.6 The Commission has noted the submission of AEML-G in regard to credit settlement with SECL. The Commission, however, is displeased with the delay in resolution and therefore directs the AEML-G to appoint a nodal person with timebound plan to resolve this settlement and report the Commission within 3 months of the issuance of this Order. The Commission further directs the AEML-G to assess the credit settlement of other counterpart generating stations and submit to the Commission. Also, AEML-G may explore the option of availing the appropriate remedy available under the FSA for timely resolution of the conflict related to treatment of Debit / Credit Note.

8.3.7 The Commission notes the submissions of AEML-G in the revised Petition with respect to analysis report resulting in arrest of GCV losses, better management and utilization of coal. The Commission observes that there is marginal deviation between GCV of washed coal at washery and at ADTPS end.

8.4 Additional Capitalisation

8.4.1 The Commission has observed that many of the schemes which were approved by the Commission in FY 2010-11 and were supposed to be completed by FY 2015-16 got delayed and have been claimed for capitalisation under this Petition. Such delay has cost implications resulting in extra burden on the consumers. Thus, the Commission directs AEML-G to complete all such delayed schemes approved between FY 2010-11 to FY 2013-14 by the end of FY 2020-21 whose actual completion period have passed. Confirming the same, AEML-G shall submit its project completion report at the time of filing MTR Petition.

AEML-G Submission

8.4.2 AEML-G submitted that due to covid restrictions in FY 20-21 and also due to nature of capex (which could be carried out only at the time of annual overhaul), AEML-G had requested the Commission to allow extension for some of the schemes approved prior to FY 2013-14, vide its letter dated 23.02.2021.

8.4.3 With regard to the directions given in MYT Order, a meeting (virtual) was conducted by the office of the Commission with AEML-G on 09.11.2021. This status of this directive was discussed in the said meeting. AEML-G has submitted the updated completion schedule for the schemes approved prior to FY 2013-14 on 15.11.2021. Hence AEML-G had been intimating the Commission about the difficulties in completing the schemes approved prior to FY 2013-14.

8.4.4 AEML submitted that execution of schemes has been affected by covid pandemic – both in FY 2020-21 and FY 2021-22. Many of the schemes which was scheduled for completion in FY 2020-21/ FY 2021-22 could not be completed due to delay in procurement of materials / equipment by the vendors due to covid pandemic. The nature of capex for many schemes is such that the scheme could be carried out at the time of annual overhaul of units. In FY 2020-21, no annual outage for any unit was availed as per the direction of MSLDC. Hence the schemes scheduled for completion in FY 2020-21 got delayed and were completed in FY 2021-22. Similarly, the schemes scheduled for completion in FY 2021-22 were also delayed to FY 2022-23. AEML-G requested the Commission to consider the above submissions and allow the capex made against the schemes approved prior to FY 2013-14 in FY 2021-22 and FY 2022-23. The status of the schemes expected to remain in progress at the end of FY 2023-24, along with reasons for its non-completion by 2023-24 and further schedule of completion is provided with the revised petition.

Commission's Analysis and Ruling

8.4.5 The Commission has observed in the last tariff Order as well as in this MTR petition, that many of the schemes which were approved by the Commission in FY 2010-11 and were supposed to be completed by FY 2015-16 got delayed and are still ongoing. In the last MYT Order, the Commission had directed AEML-G to complete all such delayed schemes approved between FY 2010-11 to FY 2013-14 by the end of FY 2020-21 whose actual completion period have passed and submit its project completion report at the time of filing MTR Petition. AEML-G has not yet completed the said schemes and the same are examined to be still ongoing.

8.4.6 The Commission noted the submissions of the AEML-G for the delay, however, is of the view that such schemes cannot be allowed to remain open for implementation endlessly. However, considering the COVID situation and the other issues as raised by AEML-G, the Commission is allowing the extension to complete such schemes by FY 2023-24 and no further delay will be awarded. The Commission feel it pertinent to deny granting further relief for extension of schemes other than already communicated so that the schemes may be implemented in time-bound manner with no scope of cost and time overrun.

8.4.7 The Commission also feels that there are numerous schemes which AEML-G has implemented as part of NDPR schemes, which appear to be of repair and maintenance in nature and thus should be executed as part of R&M expenses along with justification.

8.5 Hedging of Foreign Currency

8.5.1 AEML-G uses imported coal in its plant for generation of electricity. The main reason for using a blending of domestic and imported coal is better GCV, better SHR, low ash content and more importantly to meet the shortfall of domestic coal requirement at normative PLF.

8.5.2 However, payments for imported coal are done in foreign currencies, mainly in USD. It has been observed that the global geopolitical and macroeconomic events have led to a huge volatility in the USD/ INR exchange rate. The Commission understands that AEML-G would be hedging this forex risk as part of its overall Corporate Policy. The Commission directs AEML-G to share the same along with an explanatory note at the time of next MTR Petition as to how the same would benefit the end consumers.

AEML-G Submission

8.5.3 AEML-G submitted that there is no general policy for hedging available in AEML. AEML-G has started hedging for payments of imported coal from December 2020 onwards as part of prudent utility practice in order to reduce the risk of currency fluctuations. The movement of currency cannot be foreseen and hence hedging does not always result in benefit. However, it is always prudent to hedge the foreign currency liability since macroeconomic conditions may drive the domestic currency upwards with respect to US Dollar. The Banking Regulator, Reserve Bank of India has also advised the Banks to monitor and evolve a suitable framework for monitoring the market risks, especially the forex risk exposure of the corporates who have no natural hedges on a regular basis. As per RBI Circular No. DBOD. No. BP. BC. 85 /21.06.200/2013-14 dated January 15, 2014, unhedged Foreign Currency Exposure of the entities are an area of concern not only for an individual entity but also to the entire financial system, since entities who do not hedge their foreign currency exposures can incur significant losses due to exchange rate movements and accordingly affect the health of the banking industry. Banks are also advised for incremental provisioning and capital requirements and to factor the unhedged exposure in their pricing.

8.5.4 In view of RBI circular regarding the risks of forex currency exposure, AEML-G has started hedging for imported coal payments from December 2020 onwards for the transactions where payment is made through LC.

Commission's Analysis and Ruling

8.5.5 The Commission noted the submission of AEML-G with respect to currency risk and the LC discounting practice that lead to effectively benefit the AEML-G. However, the Commission feel it pertinent to direct AEML-G to consider such exercise as a positive business case while exercising so that unwarranted risk exposure may either be eliminated or marginalised.

8.6 Asset Mortgage

8.6.1 In pre-AEML era, from the accounts of RInfra it has been found that assets of ADTPS were mortgaged to raise funds from market for some other businesses other than GTD businesses operating in Mumbai. The Commission directs AEML-G to submit a status report in the next MTR Petition clearly detailing if ADTPS has been mortgaged / any charge has been created for this asset for availing any loans at the Company / Corporate level.

AEML-G Submission

8.6.2 AEML-G has submitted that, for refinancing its earlier loans and further utilisation of capital in regulated business, AEML-G raised finance through bonds for which it has signed Indenture of Mortgage (IOM) with SBI CAP Trustee. All of generation assets have been mortgaged for raising bonds.

8.6.3 AEML-G has also submitted the copy of IOM along with executable version of deed of Undertaking.

Commission's Analysis and Ruling

8.6.4 The Commission has noted the submission made by AEML-G.

Directives given in this Order

8.7 Credit note settlement with SECL

8.7.1 The Commission in its MYT Order had directed AEML-G to expedite the settlement process of credit note by taking up the issue with SECL at the earliest and submit the efforts undertaken by AEML-G on this issue and future instance (if any) during the submission of MTR Petition. From the Compliance of Direction as submitted by the AEML-G, it was noted that a credit note of Rs. 1.08 Crore for FY 2017-18, Rs. 1.21 Crore for FY 2018-19 and Rs. 4.22 Crore for FY 2019-20 were yet to be issued as on September 2020. It is observed that for certain claims, the delay in issue of credit note ranges from 6 months to 3 years.

8.7.2 The Commission notes that such delay in settlement of credit/debit note between AEML-G and SECL results in financial burden and AEML-G shall ensure that delay in settlement of such debit/credit should be minimized as per the provisions of the FSA.

8.7.3 The Commission feels that though the efforts have been made by AEML-G, however, there has not been any fruitful resolution of the early settlement. In wake of this, the Commission feel it pertinent to direct AEML-G to make a time-bound plan for resolution of the settlement issue with SECL and provide the Quarterly submission of status of Credit note pending to be settled to the Commission office under FAC Format.

8.7.4 The Commission directs the AEML-G to appoint a nodal person with timebound plan to resolve this settlement and report the Commission within 3 months of the issuance of this Order. The Commission further direct the AEML-G to assess the credit settlement of other counterpart generating stations and submit to the Commission.

8.7.5 Also, AEML-G may explore the option of availing the appropriate remedy available under the FSA for timely resolution of the conflict related to treatment of Debit / Credit Note.

8.8 Delayed Scheme approved between FY 2010-11 to FY 2013-14

8.8.1 The Commission directs AEML-G to complete all delayed DPR schemes approved between FY 2010-11 to FY 2013-14 by the end of FY 2023-24 whose actual completion period have passed without any extension to be sought for delay. Confirming the same, AEML-G shall submit its project completion report at the time of filing next tariff Petition. No capitalisation of such schemes would be allowed post the completion of FY 2023-24.

8.9 Drop in GCV of Washed coal below 4000 kcal/kg

8.9.1 It was observed that in H1 of FY 2022-23, the GCV of the coal has been deteriorated and is in the range of 3700kcal/kg. Accordingly, the Commission directs AEML-G to provide the detail analysis of the drop in GCV of Washed coal below 4000 kcal/kg, the contractual provision in FSA, efforts made by AEML-G for improvement in the GCV and any penalty provided for offloading of the lower GCV under FSA / Washery contract at the time of true-up of FY 2022-23.

8.10 Fuel Utilisation Plan

8.10.1 AEML-G is directed to provide the detail justification, cost benefit analysis for deviation in the actual Fuel Utilisation Plan vis-à-vis approved plan in MYT Order at the time of truing up of FY 2022-23 to FY 2024-25.

8.11 Coal Procurement from Dahej Port

8.11.1 AEML-G is directed to provide the detailed justification with cost benefit analysis for the imported coal to be procured from Dahej port rather than from Dahanu Port and any contractual liability, if any, in case the same is not procured from the contracted party i.e. M/S Taurus Commodities General Trading LLC.

8.12 Segregation of CAPEX and R&M Expenses

8.12.1 AEML-G is directed to segregate schemes in strict compliance which are either in nature of repair and maintenance expenses as per the MYT Regulations or the schemes which were earlier denied by the Commission from either DPR or Non-DPR schemes while presenting the truing up.

9 APPLICABILITY OF ORDER

This Order on approval for Truing-up of Aggregate Revenue Requirement (ARR) FY 2019-20, FY 2020-21 and FY 2021-22, Provisional Truing-up of ARR FY 2022-23 and determination of ARR for FY 2023-24 and FY 2024-25 shall come into force from 1 April, 2023.

The Petition of M/s. Adani Electricity Mumbai Limited - Generation (AEML-G) in Case No. 229 of 2022 stands disposed of accordingly.

Sd/-	**Sd/-**	**Sd/-**
(Mukesh Khullar)	**(I. M. Bohari)**	**(Sanjay Kumar)**
Member	**Member**	**Chairperson**

(Abhijit Deshpande)
Secretary

Appendix – I

List of persons who attended the TVS on 12 December, 2022

Sr. No.	Name of the Participant	Organization
1	Mr. Kapil Sharma	Adani Electricity Mumbai Ltd.
2	Mr. Kishor Patil	Adani Electricity Mumbai Ltd.
3	Mr. Vivek Mishra	Adani Electricity Mumbai Ltd.
4	Mr. Anupam Patra	Adani Electricity Mumbai Ltd.
5	Mr. Ganesh Balasubramanian	Adani Electricity Mumbai Ltd.
6	Mr. Aditya Sharma	Adani Electricity Mumbai Ltd.
7	Mr. Sivanarayanan Menon	Adani Electricity Mumbai Ltd.
8	Mr. Kirti Thakker	Adani Electricity Mumbai Ltd.
9	Mr. Mohit G Mahajan	Adani Electricity Mumbai Ltd.
10	Mr. Pandurang Jalkote	Adani Electricity Mumbai Ltd.
11	Mr. Bhaven Sheth	Adani Electricity Mumbai Ltd.
12	Ms. Supriya Zadbuke	Adani Electricity Mumbai Ltd.
13	Mr. Ghanshyam Thakkar	Energyoptimaa Consultant Private Limited
14	Mr. Jitendra Bhanushali	Energyoptimaa Consultant Private Limited

Appendix – II

List of persons who attended the E-Public Hearing on 25 January, 2023

Sr. No.	Name of the Participant	Organization
1	Mr. Kishor Patil	Adani Electricity Mumbai Ltd.
2	Mr. Vivek Mishra	Adani Electricity Mumbai Ltd.
3	Mr. Anupam Patra	Adani Electricity Mumbai Ltd.
4	Mr. Ganesh Balasubramanian	Adani Electricity Mumbai Ltd.
5	Mr. Aditya Sharma	Adani Electricity Mumbai Ltd.
6	Mr. Sivanarayanan Menon	Adani Electricity Mumbai Ltd.
7	Mr. Kirti Thakker	Adani Electricity Mumbai Ltd.
8	Mr. Mohit G Mahajan	Adani Electricity Mumbai Ltd.
9	Mr. Pandurang Jalkote	Adani Electricity Mumbai Ltd.
10	Mr. Bhaven Sheth	Adani Electricity Mumbai Ltd.
11	Ms. Supriya Zadbuke	Adani Electricity Mumbai Ltd.
12	Mr. Ghanshyam Thakkar	Energyoptimaa Consultant Private Limited
13	Mr. Jitendra Bhanushali	Energyoptimaa Consultant Private Limited