



महाराष्ट्र विद्युत नियामक आयोग

Maharashtra Electricity Regulatory Commission

Ref. No. MERC/FAC/2023-24/0162

Date: 6 March, 2024

To,
The Chief Executive Officer,
Adani Electricity Mumbai Limited,
Devidas Lane, Off SVP Road,
Near Devidas Telephone Exchange
Borivali (W), Mumbai – 400 092

Subject: Prior approval of Fuel Adjustment Charges (FAC) submissions of AEML-D for the month of May 2023.

Reference: 1. AEML-D FAC submission for the month of May 2023 vide email dated 14 October, 2023.
2. The data gaps were communicated vide emails dated 20 October, 2023.
3. AEML-D replied vide emails dated 26 December, 2023.

Sir,

Upon vetting the FAC calculations for the month of May 2023 as mentioned in the above reference, the Commission has accorded approval for charging FAC amount of **Rs. 42.92 Crore**. However, the Commission in FAC approval for April 2023 has decided to accumulate the monthly FAC for the period April 2023 to June 2023.. Accordingly, the said amount is added to the existing FAC fund amount as of April 2023, along with the applicable carrying cost (excluding the period of delay on part of AEML-D in filing the FAC submissions and the replies to the data gaps) and the total amount of **Rs. 103.41 Crore** is being carried forward to the future months for recovery. Accordingly, the FAC amount chargeable to consumers is as shown in the table below:

Month	FAC Amount (Rs. Crore)
May 2023	0

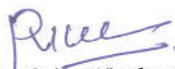
The Commission allows AEML-D to carry forward the FAC amount of **Rs. 103.41 Crore** for recovery in the future period along with the applicable carrying cost (excluding the period of delay).

Further, as directed in the Order in Case No. 231 of 2022, in order to maintain transparency in the management and use of such FAC Fund, AEML-D shall maintain a monthly account of such FAC fund and upload it on its website for information of stakeholders.

AEML-D is directed to file their future FAC submissions taking into consideration data gaps raised in previous months to ensure timely prior approval.



Yours faithfully,


(Dr. Prafulla Varhade)
Director (EE), MERC

Encl: Annexure A: Detailed Vetting Report for the period of May 2023.

PRIOR APPROVAL FOR FAC CHARGES FOR THE MONTH OF MAY 2023

Subject: Prior approval of Fuel Adjustment Charges (FAC) submissions of AEML-D for the month May 2023.

Reference:

1. AEML-D FAC submission for the month of May 2023 vide email dated 14 October, 2023.
2. The data gaps were communicated vide emails dated 20 October, 2023.
3. AEML-D replied vide emails dated 26 December, 2023.

1. FAC submission by AEML-D:

- 1.1 AEML-D has made FAC submissions for the month of May 2023 as referred above. Upon vetting the FAC calculations, taking cognizance of all the submissions furnished by AEML-D, the Commission has accorded prior approval to AEML-D for the **FAC amount of Rs. 42.92 Crore**. However, the said amount is added to the existing FAC fund amount as of end of April 2023, along with the applicable carrying cost and the total amount of **Rs. 103.41 Crore is being carried forward to the future months for recovery**.
- 1.2 As discussed in the FAC approval for April 2023, with the objective of reducing Tariff variations and also considering the delayed FAC submissions on part of AEML-D for the period of April 2023 to August 2023, the Commission in line with the approach adopted in the past, is allowing accumulation of FAC for the three months' period (i.e. from April 2023 to June 2023) and such accumulated FAC is being allowed in three months' period from March 2024 to May 2024.
- 1.3 Further, considering delay in submission of FAC by AEML-D, the Commission has disallowed the carrying cost for the period of delay. The positive FAC for April 2023 to June 2023 was expected to be levied from 1 August 2023 onwards. On account of delay on part of AEML-D, the recovery is possible only from March 2024 onwards. Hence, the carrying cost for delayed period (August 2023 to February 2024) is disallowed and shall not be allowed to be passed through to AEML-D consumers.

2. Background

- 2.1 On 31 March, 2023 the Commission has issued Tariff Order in respect of AEML-D (Case No. 231 of 2022) for approval of Truing-up of FY 2019-20 to FY 2021-22, Provisional Truing-up for FY 2022-23 and Revised Aggregate Revenue Requirement for FY 2023-24 and FY 2024-25. Revised Tariff has been made applicable from 1 April, 2023.



- 2.2 Vide its letter dated 20 April, 2020, the Commission communicated the excel formats for filing of FAC submissions to all Distribution Licensees including SEZs. The Commission also directed all Distribution Licensees to submit FAC computations, including details pertaining to variation in fuel cost of generators for the approval of the Commission. On 19 May, 2021, the Commission has also issued guidelines for considering consumer sales in FAC computation from April, 2021 onwards based on uniform methodology.
- 2.3 As per Prior Approval of FAC Guidelines dated 20 April, 2020, the Commission directed Distribution Licensee to seek prior approval for monthly FAC computations. Accordingly, vide its email dated 14 October 2023, AEML-D has filed FAC submissions for the month of May 2023 for prior approval of the Commission. The Commission has scrutinized the submissions provided by AEML-D and has also verified the power purchase bills and other fuel related invoices provided along with its submissions.

3. Energy Sales of the Licensee

- 3.1 The net energy sales within licence area as submitted by AEML-D in the FAC submission and as approved by the Commission are as shown in the Table 1 below:

Table 1: Energy Sales – Approved and Actual

Consumer Category	Approved by the Commission (MU)	Monthly Approved (MU)	Actual Sales (May 2023) (MU)
	(I)	(II=I/12)	(III)
LT Category			
BPL	0.01	0.00	0.00
LT-I: Residential	4,897.01	408.08	467.36
LT-II: Commercial	3,245.40	270.45	242.16
LT-III(A): LT Industrial upto 20 kW TOD Option	391.95	32.66	27.71
LT-III(B): LT Industrial above 20 kW	446.52	37.21	29.43
LT-IV: LT -Public Service (A)	44.66	3.72	2.30
LT-IV: LT -Public Service (B)	215.84	17.99	15.32
LT-V (A): LT - Agriculture Pumpsets	0.05	0.00	0.01
LT-V (B): LT - Agriculture Others	0.39	0.03	0.03
LT-VI: LT - EVCS	3.73	0.31	0.13
HT Category			
HT I (Industrial)	614.12	51.18	49.47
HT II (Commercial)	426.79	35.57	43.68
HT III (Group Housing Soc.)	10.96	0.91	1.37
EHT I: Industry	180.00	15.00	-
EHT IV: Metro & Monorail	120.00	10.00	5.76
HT VI (A) - Public Services	11.46	0.96	0.65
HT VI (B) - Public Services	306.62	25.55	24.62
HT VIII - EV Charging station	70.00	5.83	-
Total	10,985.51	915.46	910.00

*- In Case of AEML-D, the sales are approved on annual basis. Monthly approved sales are derived based on approved annual sales for comparison purpose.



3.2 It can be observed from above Table 1 that **actual sales during May 2023 is 910.00 MU which is 0.60% lower than approved energy sales of 915.46 MU per month for the FY 2023-24.** The sale considered is after netting off the GCN credit for Open Access consumption. AEML-D has considered the energy sales for FAC purposes for May 2023 as follows:

- Energy sales data for HT consumers (AMR) & LT consumers (load above 20 kW) where meters are read remotely or where monthly reading are downloaded is considered for nth month (i.e., for May 2023).
- For cycle consumers (LT cycle billing), consumption data provided is for bill generation (bill posting date) from 1st May to 31st May. These energy sales will pertain to the period which will comprise on an average half of April and half of May.

3.3 The monthly and cumulative sales for major consumer categories are shown below in the Table 2 below:

Table 2: Monthly and Cumulative Sales for major Consumer Categories (MU)

Year\ Sales (MU)	Residential	Commercial	Industrial	Others	Total (FY 2023-24)	Total (FY 2022-23)
Monthly Approved	409.00	306.02	121.05	79.40	915.46	772.24
Actual – April, 2023	415.29	276.27	104.27	47.02	842.85	796.26
Actual – May, 2023	468.73	285.83	106.62	48.82	910.00	865.26
Approved - Cumulative till May 2023	818.00	612.03	242.10	158.79	1,830.92	1,544.48
Actual - Cumulative till May 2023	884.03	562.10	210.89	95.84	1,752.85	1,661.52

4. Power Purchase Details

4.1 The following are the list of sources from which AEML-D procures power to meet its demand:

- Purchase from Adani Dahanu Thermal Power Station (ADTPS)
 - Renewable energy procurement (RPS) including Solar and Non-solar
 - Bilateral Contracts and Imbalance pool
 - Medium-Term Power Purchase and Short-Term Power Purchase
- Apart from above, there are incidental purchases from Open Access and Rooftop.

4.2 The Commission in its MTR Order dated 31 March, 2023 in Case No. 231 of 2022 had approved the Power Purchase for FY 2023-24 from four major sources i.e., Adani Dahanu Thermal Power Station, Renewable sources, Medium-term sources, and Short-term sources.

4.3 Summary of power purchase of AEML-D is as shown in Table 3 below:

Table 3: Summary of Power Purchase for May 2023

Sr. No.	Particular	Compliance



Sr. No.	Particular	Compliance																																				
1	Purchase from Approved Sources	Yes. AEML-D has procured power from ADTPS, Solar and Non-solar Sources, AEL-MTPP and Bilateral in the month of May 2023, which are approved sources of power purchase.																																				
2	Merit Order Dispatch	Yes. AEML-D had scheduled power as per MoD.																																				
3	Fuel Utilization Plan	There is only one thermal generating station of AEML-G, and it has sourced raw/ washed coal during the month based upon the availability. Hence there is no scope for improvement in optimal fuel utilization.																																				
4	DSM Pool	AEML-D has drawn 3.07 MUs from the imbalance pool as per DSM mechanism.																																				
5	Sale of Surplus Power	AEML has made sale of 65.78 MUs of surplus power during the month of May 2023.																																				
6	Power Purchase	Actual Power Purchase is 1017.17 MUs as against approved 1044.45 MUs.																																				
7	Source wise Power Purchase	<table border="1"> <thead> <tr> <th>Source Name</th> <th>Approved (MU)</th> <th>Actual (MU)</th> <th>Proportion of each Source in Actual Purchase</th> </tr> </thead> <tbody> <tr> <td>ADTPS</td> <td>307.02</td> <td>276.97</td> <td>27.23%</td> </tr> <tr> <td>RE Sources</td> <td>341.30</td> <td>330.52</td> <td>32.49%</td> </tr> <tr> <td>AEL-MTPP</td> <td>366.00</td> <td>367.43</td> <td>36.12%</td> </tr> <tr> <td>Bilateral and Banking</td> <td>60.88</td> <td>103.50</td> <td>10.17%</td> </tr> <tr> <td>Bilateral Sale</td> <td>(101.25)</td> <td>(65.78)</td> <td>-6.47%</td> </tr> <tr> <td>Imbalance Pool & Other</td> <td>-</td> <td>4.53</td> <td>0.45%</td> </tr> <tr> <td>Banking</td> <td>70.50</td> <td>-</td> <td>-</td> </tr> <tr> <td>Total</td> <td>1,044.45</td> <td>1,017.17</td> <td>100.00%</td> </tr> </tbody> </table> <p><i>*The power purchase quantum/cost approved in MTR Order on yearly basis, however monthly approved numbers are derived from comparison purpose.</i></p> <p><i>#The Commission has, vide order dated 29-08-2022 in Case No. 149 of 2022 on the petition filed by AEML-D, approved purchase of 500 MW medium term power for the period 1-9-2022 to 14-10-2024. The power flow has accordingly commenced.</i></p>	Source Name	Approved (MU)	Actual (MU)	Proportion of each Source in Actual Purchase	ADTPS	307.02	276.97	27.23%	RE Sources	341.30	330.52	32.49%	AEL-MTPP	366.00	367.43	36.12%	Bilateral and Banking	60.88	103.50	10.17%	Bilateral Sale	(101.25)	(65.78)	-6.47%	Imbalance Pool & Other	-	4.53	0.45%	Banking	70.50	-	-	Total	1,044.45	1,017.17	100.00%
Source Name	Approved (MU)	Actual (MU)	Proportion of each Source in Actual Purchase																																			
ADTPS	307.02	276.97	27.23%																																			
RE Sources	341.30	330.52	32.49%																																			
AEL-MTPP	366.00	367.43	36.12%																																			
Bilateral and Banking	60.88	103.50	10.17%																																			
Bilateral Sale	(101.25)	(65.78)	-6.47%																																			
Imbalance Pool & Other	-	4.53	0.45%																																			
Banking	70.50	-	-																																			
Total	1,044.45	1,017.17	100.00%																																			
8	Power Purchase under Section 62 of Electricity Act, 2003	<p>AEML-D is purchasing power from only one source i.e., ADTPS under Section 62 of EA, 2003.</p> <p>As part of verification of fixed cost claimed by AEML-D, the same has been verified from the AEML-G MTR Order in Case No. 229 of 2022.</p> <p>As part of verification of energy charges claimed by AEML-D, verification of operational parameters, fuel cost, GCV etc. vis-à-vis the MTR Order is carried out.</p>																																				
9	RE Purchase	Monthly power purchase invoices are submitted by AEML-D. Power Purchase rates are verified from the PPA signed by AEML-D with contracted sources of																																				



Sr. No.	Particular	Compliance
		power. For short-term RE sources, monthly power purchase quantum and rate are verified from the invoices, and it is ensured that same has been considered in the FAC calculation.
10	Short Term Power Purchase	Short-term power purchase invoices of May 2023 are submitted by AEML-D. All the power purchase quantum and rate are verified from the invoices, and it is ensured that same has been considered in the FAC calculation.

4.4 **AEML-D has purchased 1017.17 MUs of power as against approved 1044.45 MUs from the sources approved by the Commission.**

5. Power Purchase Cost

5.1 The Commission has scrutinised the detailed bills/invoices submitted for power purchase during the month of May 2023, in order to verify the claim of AEML-D regarding Average Power Purchase Cost (APPC). The Commission has verified the actual as well as approved Net Purchase (MUs), Fixed Cost, Variable Cost (Rs./kWh) and Power Purchase Cost considered in FAC computation from the invoices and applicable MTR Order respectively.

5.2 As submitted by AEML-D, the **Power Purchase cost incurred in May 2023 is Rs. 479.21 Crores** which is significantly higher than the **approved Power Purchase cost of Rs. 447.99 Crores** by the Commission for the month of May 2023. **This is on account of the higher cost of power purchase from AEL-MTPP, and other bilateral sources and sale of surplus power at a higher rate, in May 2023.** As against the submission of AEML-D, the approved and actual Quantum of power purchase (MU), Power Purchase Cost (Rs. Crore) and Average Power Purchase Cost (Rs./kWh) for the month of May 2023 is shown in Table 4 below:

Table 4: Approved and Actual APPC and Power Purchase Quantum & Cost

Particulars	Source	Power Purchase Quantum (MU)	Fixed Cost (Rs. Crore)	Fixed Cost (Rs./kWh)	Variable Cost (Rs. Crore)	Variable Cost (Rs./kWh)	Total Cost (Rs. Crore)	APPC (Rs./kWh)
ADTPS	Approved	307.02	30.45	0.99	123.33	4.02	153.78	5.01
	Actual	276.97	30.45	1.10	105.00	3.79	135.45	4.89
Solar and Non-Solar Purchase	Approved	341.30	-	-	122.64	3.59	122.64	3.59
	Actual	330.52	-	-	100.60	3.04	100.60	3.04
AEL MTPP	Approved	366.00	81.51	2.23	110.77	3.03	192.28	5.25
	Actual	367.43	83.64	2.28	112.30	3.06	195.94	5.33
Bilateral Purchase	Approved	60.88	-	-	31.23	5.13	31.23	5.13
	Actual	103.50	-	-	69.56	6.72	69.56	6.72
Pool/ DSM	Approved	-	-	-	-	-	-	-
	Actual	3.07	-	-	2.06	6.69	2.06	6.69
OA/RTS	Approved	-	-	-	-	-	-	-
	Actual	1.46	-	-	0.47	3.22	0.47	3.22
Sale of Surplus Power	Approved	(101.25)	-	-	(51.94)	5.13	(51.94)	5.13

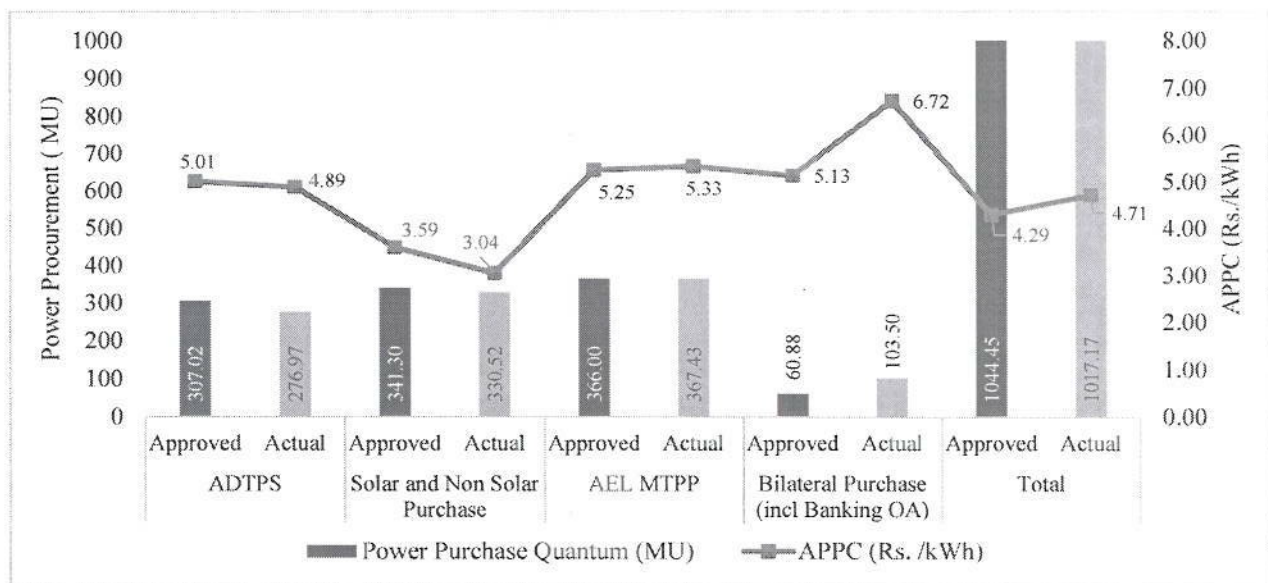


Particulars	Source	Power Purchase Quantum (MU)	Fixed Cost (Rs. Crore)	Fixed Cost (Rs./kWh)	Variable Cost (Rs. Crore)	Variable Cost (Rs./kWh)	Total Cost (Rs. Crore)	APPC (Rs./kWh)
	Actual	(65.78)	-	-	(20.84)	3.17	(20.84)	3.17
Other Charges (Rebate availed)	Approved	-	-	-	-	-	-	-
	Actual	-	-	-	(4.02)	-	(4.02)	-
Banking cost / Banking Return	Approved	70.50	-	-	-	-	-	-
	Actual	-	-	-	-	-	-	-
Total	Approved	1,044.45	111.95	1.07	336.03	3.22	447.99	4.29
	Actual	1,017.17	114.08	1.12	365.12	3.59	479.21	4.71

*- In case of AEML-D, there is no monthly approval for purchases. The monthly approved power purchase is arrived based on annual approved power purchase for comparison purpose.

5.3 The Figure 1 below shows the variation in Approved & Actual Power Purchased Quantum and Approved & Actual APPC for all the power purchase sources of AEML-D:

Figure 1: Approved & Actual Power Purchase and APPC for May 2023



5.4 The Commission has noted that AEML-D has followed Merit Order Dispatch for scheduling of power. As solar and non-solar sources have must-run status, they have been scheduled first and all the other sources are scheduled according to SLDC instructions.

ADTPS

5.5 AEML-D has a PPA with ADTPS (own generation). The Commission in Case No. 231 of 2022 has approved monthly energy quantum of 307.02 MUs ADTPS at the rate of Rs. 5.01/kWh. AEML-D has purchased 276.97 MU for the month of May 2023 at an average rate of Rs. 4.89/kWh.

5.6 **Fixed Cost:** The Fixed cost approved for FY 2023-24 in Case No. 229 of 2022 (AEML-G) is Rs. 365.35 Crore. The same has also been considered in the AEML-D Order in Case No. 231



of 2022. The actual payment of Fixed Cost for the month of May 2023 is to be done according to the entitlement under Case No. 229 of 2022 i.e., Rs. 365.35 Crore, as the payment is to be done according to Generator's Tariff Order.

- 5.7 **The actual PLF of ADTPS in May 2023 was 82.45% as compared to approved PLF of 92.90%.** ADTPS was available for generation during the month, the average Plant Availability Factor for the month (PAFM) for both Units of AEML-G was 99.64%. The actual PAFM for both units of AEML-G in May 2023 was 99.77% during peak hours and 99.61% during off peak hours. The cumulative availability for the months of April 2023 and May 2023 was 94.26% during peak hours and 94.96% during off peak hours. The capacity charge for peak hours works out to Rs. 6.09 Crore and the capacity charge for off peak hours works out to Rs. 24.36 Crore, totalling Rs. 30.45 Crores for the month of May 2023.
- 5.8 **Due to lower generation as compared to approved generation, there is an increase of Rs. 0.11/kWh in the Fixed cost and accordingly the actual Fixed Cost per unit is Rs. 1.10/kWh as compared to the approved Fixed Cost of Rs. 0.99/kWh.**
- 5.9 **Energy Charges:** AEML-G has considered the normative operational parameters such as PLF, Availability, Auxiliary Energy Consumption (without FGD), Additional Auxiliary Energy Consumption for FGD, Station Heat Rate and Secondary fuel Oil Consumption as approved by the Commission in Case No. 229 of 2022 for the month of May 2023.
- 5.10 AEML-D has submitted documents to verify the quantity of coal purchased and total cost including breakup of all the costs such as washing charges, Coal handling charges, transportation charges and liaising charges incurred for Domestic Coal and Washed Coal, as applicable, for the month of May 2023.
- 5.11 **Washed Coal:** AEML-D has submitted that AEML-G has received 89,346.20 MT of washed coal at the plant boundary of ADTPS at a rate of Rs. 5071.89 per MT and has consumed 99,310.60 MT of washed coal in May 2023. "Other Charges" in the closing stock of the last month i.e., April 2023 amounting to Rs. 0.60 Crores have also been considered in the opening stock of the month of May 2023.
- 5.12 In the month of May 2023, AEML-D has considered Rs. (635)/- as washed coal analysis charges done by IGI at mine end for short analysis at unloading end for the month of April 2023. Further, AEML-D has considered Rs. (2917)/- as raw coal analysis charges for short analysis of coal done by CIMFR at mine end for the month of November 2023. From May 2021 onwards SECL has started supplying coal of size 250 mm to ADTPS, apart from coal of size 100 mm. As per the washery contract, the additional washing charges for washing of coal of size more than 100 mm shall be reimbursed by AEML-G to the washery.
- 5.13 In the month of May 2023, AEML has included Rs. 5,48,238/-, Rs. 4,40,446/- and Rs. 1,71,577/- as an adjustment under freight charges for raw coal, freight charges for washed coal and coal loading charges respectively, on account of diesel escalation for April 2023.



- 5.14 In month of May 2023, AEML has included Rs. (16,29,493)/- (Rs. 13,80,926 plus 18% GST of Rs. 2,48,567/-) as an adjustment under washing charges for penalty on ash content pertaining to April 2023.
- 5.15 The input tax credit (ITC) due to sale of coal rejects works out to Rs. (10,85,840)/- which has been included as an adjustment under SECL coal purchase cost. The ITC available to AEML-D for supply to SEEPZ area is set off against the GST paid on purchase of coal / LDO or against the GST paid for other services such as Railway freight, Liaison and supervision, analysis etc. ITC on GST paid for May 2023 on Liasoning, railway freight, analysis charges etc. amounting to Rs. (2,10,555)/- has been considered on provisional basis under respective heads. Further differential ITC on GST for April 2023 (difference between ITC on GST for April 2023 considered on provisional basis in April 2023 FAC and ITC on GST for April 2023 as per actuals) amounting to Rs. (2,27,999)/- has been considered under respective heads in May 2023.
- 5.16 AEML-G has incurred railway charges of Rs. 1,11,510/- in April 2023. These charges have been considered in May 2023.
- 5.17 In month of May 2023, AEML-G has included Rs. (2,63,97,638)/- as an adjustment under the net credit notes which pertains to period from the April 2022 to November 2022.
- 5.18 The Commission has examined the invoices and the supporting excel working provided by AEML-D and has found it to be appropriate. The working of the washed coal fuel cost considered for May 2023 is as shown in the Table 5 below:

Table 5: Working of Washed Coal Rate for May 2023

Particular	Quantity (MT)	Cost (Rs. Crore)	Price (Rs. /MT)
Inventory			
Opening (as on 1st May 2023)	13,226.14	7.61	5,750.17
Addition during month	89,346.20	45.32	5,071.89
Other Charges			
Total	1,02,572.34	52.92	5,159.35
Consumption			
Actual	99,310.60	50.66	5,101.23
Other Charges		0.33	
Total	99,310.60	50.99	5,134.17

- 5.19 The overall cost approved towards consumption of washed coal is Rs. 50.99 Crores for the month of May 2023.
- 5.20 **With regards to the washed coal, the weighted average landed cost for the month of May 2023 is Rs. 5,134.17/MT as compared to Rs. 5,354/MT as approved in the MTR Order. AEML-D has consumed 99,310.60 MT of washed coal during the month of May 2023.**



- 5.21 AEML-D has considered the 'As billed' GCV of washed coal as 3644 kCal/kg, while the 'As Received GCV' of same coal as per M/s IGI certificate (third party appointed by AEML-G for GCV measurement at receiving end) is 3658 kCal/kg for May 2023. In MYT Order in Case No. 298 of 2019, the Commission has directed to consider the GCV 'As Received' or 'As Billed', whichever is higher.
- 5.22 AEML-D has been considering the "As received" GCV of the opening stock of the washed coal and the "As Received" GCV of the washed coal received during the month for working out the weighted average "As received" GCV of the coal for the month. The same was used to work out the stacking loss during the month. The Commission has also been approving the computation of GCV based on the same methodology. However, the Commission has adopted a different approach in the MTR Order for AEML-G in Case No. 229 of 2022.
- 5.23 The Commission in MTR Order in Case no. 229 of 2022 for AEML-G, has stated the following:
- "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."*
- 5.24 Accordingly, in line with the FAC approval for August 2022 to March 2023, for the month of May 2023 the Commission has considered "As Received" GCV of the coal received during the month and has not considered the impact of Opening stock for computing the weighted average "As Received" GCV for a particular type of coal. Also, if a particular type of coal is not purchased in the month of reference (May 2023 in the present situation) but is consumed in that month from an older stock, then in such case "As Received" GCV of that coal purchased in the most recent month (April 2023 or earlier, as applicable, in the present case) would be considered. The Commission has adopted this approach while approving the FAC submissions for the month of August 2022 to March 2023 for AEML-D. The Commission would also be following same approach while approving FAC for AEML-D in ensuing months as well.
- 5.25 Accordingly, the 'As Received GCV' of 3,658 kCal/kg for washed coal has been considered by the Commission for computing the weighted average GCV and further calculating the energy charge for the month of May 2023.
- 5.26 The transit loss claimed by AEML-D for the month of May 2023 is 219.71 MT which is 0.25% of the overall quantum of washed coal dispatched in that month.
- 5.27 The 'As fired' GCV of washed coal considered by AEML-D is 3,634 kCal/kg. Considering the difference between the 'As Received' GCV and the 'As Fired' GCV, the stacking loss for washed coal works out to 24 kCal/kg which within the limit of 120 kCal/kg.



- 5.28 **Raw Coal:** AEML-D has submitted detailed computation and methodology for booking the coal consumption cost. AEML-D has calculated the total coal consumption cost on the basis of Weighted Average Price Method by adding the purchases during the month in the opening inventory stock. The closing inventory is then obtained by deducting the coal consumed from the total of opening inventory and purchases during the respective month. AEML-D has purchased 85,221.80 MT Raw Coal (at plant boundary) from SECL and has consumed 1,19,348.40 MT of raw coal in May 2023. As per weighment of coal at ADTPS, the raw coal received is 85,221.80 MT and the weighment of coal dispatched by SECL was 87,280.87 MT. The difference is reported as the transit loss which is 2059.07 MT which is 2.36% of the total coal dispatched during the month of May 2023.
- 5.29 AEML-D has considered an amount of Rs. (412)/- under raw coal analysis charges done by IGI at ADTPS for short analysis at unloading end for the month of April 2023.
- 5.30 ITC on GST paid for May 2023 on Liasoning, railway freight, analysis charges etc. amounting to Rs. (2,26,749)/- has been considered on provisional basis under respective heads. Differential ITC on GST for April 2023 (difference between ITC on GST for April 2023 considered on provisional basis in April 2023 FAC and ITC on GST for April 2023 as per actuals) amounting to Rs. (1,97,666)/- has also been considered under respective heads in May 2023.
- 5.31 In April 2023, AEML-G had incurred railway charges (demurrage charges) of Rs. 2,90,746/-. The same has been considered in the month of May 2023.
- 5.32 The working of the raw coal fuel cost considered for May 2023 is as shown in the Table below:

Table 6: Working of Raw Coal Rate for May 2023

Particular	Quantity (MT)	Cost (Rs. Crore)	Price (Rs. /MT)
Inventory			
Opening (as on 1st May)	34,499.16	17.41	5,047.35
Addition during month	85,221.80	41.99	4,926.58
Total	1,19,720.96	59.40	4,961.38
Consumption			
Actual	1,19,348.40	59.21	4,961.38
Other Charges		-	-
Total	1,19,348.40	59.21	4,961.38

- 5.33 The overall cost approved towards consumption of raw coal is Rs. 59.21 Crore for the month of May 2023.
- 5.34 **With regards to the raw coal, the weighted average landed cost for consumption in the month of May 2023 is Rs. 4961.38 /MT.** AEML-D has consumed 1,19,348.40 MT of raw coal during the month of May 2023.



- 5.35 AEML-G has disputed the GCV results as declared by CIMFR for some of the rakes of raw coal received from SECL in May 2023. The financial outcome of this dispute, if any, will be considered in future months after resolution of the dispute.
- 5.36 AEML-D has submitted that in May 2023, AEML-G has purchased raw coal from SECL only. AEML-D has considered the 'As billed' GCV of raw coal as 4050 kCal/kg, while the 'As Received GCV' of same coal as per M/s IGI certificate (third party appointed by AEML-G for GCV measurement at receiving end) is 2871 kCal/kg for May 2023. As per clause 50.6 of MYT Regulations, 2019, actual loss in GCV of coal between "As Billed by Supplier" and "As Received at generating station" is allowed subject to maximum loss of 300 kcal/kg. The GCV loss calculated by AEML- D (difference between 'As Billed' GCV and 'As Received' GCV) for raw coal for the month of May 2023 is 1179 kCal/kg.
- 5.37 AEML submitted that GCV loss in transit varies from month to month. Usually during monsoon months, the GCV loss in transit is more as compared to other months. However, the maximum GCV loss in transit allowable as per Regulations is constant i.e., 300 kCal/kg. Hence the actual GCV loss in transit for a thermal power station should be calculated on annual basis instead of monthly basis. The same will be carried out at the time of truing up of FY 2023-24.
- 5.38 Hence, as mentioned above, the GCV loss (1179 kCal/kg) for raw coal for the month of May 2023 is outside the limit of 300 kcal/kg and 'As Billed" GCV of 3750 kCal/kg for calculation is considered (i.e., maximum of the 'As Received' GCV or 'As Billed' GCV minus 300 kCal/kg).
- 5.39 In accordance with the methodology mentioned in para 5.21 to para 5.24, the Commission has approved "As Received" GCV as 3750 kCal/kg for raw coal. The "As Fired" GCV of raw coal is 2875 kCal/kg. The same has been used to work out the stacking loss of 875 kCal/kg for raw coal.
- 5.40 **Imported Coal:** AEML-G has neither purchased nor consumed any imported coal in May 2023. Also, there was nil quantum imported coal available in opening inventory of the month of May 2023.
- 5.41 **LDO:** AEML-D has not procured any Light Diesel Oil during May 2023 and not consumed Light Diesel Oil in the month of May 2023.
- 5.42 The working of the LDO fuel cost considered for May 2023 is as shown as in the Table 7 below:

Table 7 : Working of LDO Rate for May 2023

Particular	Quantity (KL)	Cost (Rs. Crore)	Price (Rs./KL)
Inventory			
Opening (as on 1st March)	401.92	2.96	73,609.67
Addition during month	-	-	-



Particular	Quantity (KL)	Cost (Rs. Crore)	Price (Rs./KL)
Total	401.92	2.96	73,609.67
Consumption			
Actual	-	-	-
Other Charges		-	-
Total	-	-	-

5.43 The overall cost approved towards LDO expense for the month of May 2023 is nil. **With regards to the LDO, the Weighted average cost for the month of May 2023 is nil.**

5.44 As per MYT Regulations, 2019 for calculation of Energy Charge Rate, the Commission has notified the maximum stacking loss allowed in Clause 50.7 as reproduced below:

“Any variation in Price and Gross Calorific Value of coal/lignite or gas or liquid fuel as billed by supplier less actual stacking loss subject to the maximum stacking loss of 85 kcal/kg or 120 kcal/kg, as the case may be, vis-a-vis approved values shall be adjusted on month to month basis on the basis of average Gross Calorific Value of coal/lignite or gas or liquid fuel in stock received and weighted average landed cost incurred by the Generating Company for procurement of coal/lignite, oil, or gas or liquid fuel, as the case may be for a power Station.”

5.45 In line with MYT Regulations, 2019 and MYT Order in Case No. 298 of 2019, the Commission has considered stacking loss of 120 kcal/kg (minimum of actual weighted average loss considering washed coal, raw coal and imported coal of 488 kcal/kg or 120 kcal/kg as per Regulation) for calculation of energy charge rate.

5.46 Considering the approved rates for washed coal, raw coal, the fuel cost, GCV and normative operational parameters, the revised energy charges work out to Rs. 3.791/kWh which is lower than the approved variable cost of Rs. 4.017/kWh as per the MTR Order for AEML-G (Case No. 229 of 2022) and as against Rs. 3.795/kWh claimed by AEML-D. The variation between approved and the claimed energy charges is on account in the variation in the approach for considering the GCV of coal during the month as adopted by the Commission and as proposed by AEML-D. This decrease is also due to non-consumption of imported coal in the month of May 2023.

5.47 **Incentive:** As per Regulation 46.3 of MYT Regulations, 2019 specifies the target PLF of 85%. Since the PLF for May 2023 was less than 85% (both in peak hours and off-peak hours), AEML-G has not claimed any incentive for May 2023.

5.48 Variation in power purchase expenses from ADTPS on account of change in quantum and per unit rate is as shown in Table 8 below:



Table 8: Variation in Power Purchase expenses from ADTPS for May 2023

Source	Approved Quantum (MU)	Approved rate (Rs./kWh)	Actual quantum (MU)	Actual rate (Rs./kWh)	Variation due to quantum (Rs. Crore)	Variation due to rate (Rs. Crore)	Total variation (Rs. Crore)
ADTPS	307.02	5.01	276.97	4.89	(15.05)	(3.28)	(18.33)

- 5.49 Based on the above, APPC for ADTPS works out to Rs. 4.89/kWh as against approved Rs. 5.01/kWh. There is a decrease of Rs. 0.12/kWh in APPC for the month of May 2023. Fixed cost variation is contributing to an increase of Rs. 0.11/kWh and variable cost variation is contributing Rs. 0.23/kWh to the decrease. The decrease in variable cost is due to consumption of raw coal and washed coal which was procured at low rates in May 2023.
- 5.50 **Power from other generator (AEL- MTPP):** AEML-D has submitted that the Commission has, vide order dated 29 August, 2022 in Case No. 149 of 2022 on the petition filed by AEML-D, approved purchase of 500 MW medium term power for the period 1 September, 2022 to 14 October, 2024. Power flow has commenced and accordingly power purchase of 367.43 MUs and the associated cost has been considered in the May 2023 month FAC by AEML-D.
- 5.51 **Solar Purchase:** AEML-D has an Energy Purchase Agreement (EPA) with Dhursar Solar Power Private Limited (DSPPL). The Commission has approved power purchase at the rate of Rs. 10.30/kWh from DSPPL. **AEML-D has purchased 5.56 MUs from DSPPL at the same rate of Rs. 10.30/kWh as approved in the MTR Order.** The Commission has verified the bills/invoices submitted and found them to be correct.
- 5.52 **Wind Solar Hybrid:** AEML also has PPA with Adani Hybrid Energy Jaisalmer Four Limited for 700 MW. The Commission has approved renewable power purchase quantum of 285.85 MU at the rate of Rs. 3.24/kWh from wind solar hybrid for FY 2023-24. The project has fully commissioned with Hybrid capacity of 700 MW. **AEML-D has purchased 284.34 MU in the month of May 2023 from wind solar hybrid source at the same rate of Rs. 3.24/kWh as approved in the MTR Order.**
- 5.53 **Non-Solar Purchase:** AEML-D also has an EPA with three non-solar sources namely Vector Green Energy Private Limited, Tembhu Power Private Limited, and Reliance Clean Power Private Limited. The Commission has approved power purchase from non-solar sources. The actual APPC and approved APPC from all the sources is as shown in the Table 9 below:

Table 9: Approved and Actual APPC from Non-Solar Sources

Source	Approved (Rs./MT)	Actual (Rs./MT)
Vector Green Energy Private Limited (April 2009)	5.07	-
Tembhu Power Private Limited	4.26	-
Reliance Clean Power Limited	5.81	5.81



- 5.54 The Commission has approved power purchase rate for Vector Green Energy Limited, Tembhu Power Private Limited and Reliance Clean Power Private Limited in the MTR Order in Case No. 231 of 2022 and AEML-D has procured power from Reliance Clean Power Private Limited sources at the same rate during May 2023. No power has been purchased from Vector Green Energy Private Limited and Tembhu Power Pvt. Ltd. (small hydro plant affected due to flooding happened (Krishna River) in July 2021 and which was re-commissioned on 31 May 2022) during May 2023.
- 5.55 Further, AEML-D has also procured 1.98 MUs of short term RE power through IEX Green Day Ahead Market (GDAM) at an average rate of Rs. 4.42/kWh.
- 5.56 **Short Term market linked contracts:** AEML-D in the MTR Petition in Case No. 231 of 2022 had submitted that it is exploring tie up of Short-Term Wind power from generators located in Maharashtra and had estimated quantum of approximately 526 MU at the purchase rate of Rs. 2.94/kWh. The Commission, in its Order, approved the quantum as estimated by AEML-D, however the rate approved was Rs. 4.90/kWh, considering the average GDAM rate from July 2022 to December 2022.
- 5.57 Accordingly, AEML-D has contracted Intrastate Wind capacity of 167 MW with AEL in May 2023 on short term basis. 156.95 MW of this overall capacity is contracted at the rate of Rs. 2.94 per kWh while the remaining 10 MW of this contracted capacity is linked with the exchange market on a day-ahead basis at a rate which is Rs. 0.04 per kWh lower than the rate prevailing in the applicable 15-minute time block for W2 region. AEML-D has submitted that the bill/ invoice against the said contract/LOI was not received, as GCN has not been received by the seller from MSEDCL. Thus, since the quantum is not known at this point of time, AEML-D has estimated it in proportion to the generation capacity of sources. A working of this estimation as submitted by AEML-D is provided below:

Table 10: Estimation of STPP RE procured in proportion to capacity

Particular	Capacity (MW)	Energy (MU)	Remark
Total RE Capacity (Contracted + OA)	440	66.74	Provisional Actual REMC as per SLDC DSM bill data (A)
OA (LT+MT+ST)	185	28.10	Provisional Actual REMC in proportion of Capacity (B = 185/440 x 66.74)
Contracted (LT + ST)	255	38.64	Provisional Actual REMC in proportion of Capacity (C = 255/440 x 66.74)
Contracted RE (LT)	45	3.21	Actual RE Energy as per Bills (D)
Contracted RE (ST) by AEML-D	211	35.43	Estimated ST RE Energy (C – D)



- 5.58 Further, the cost against the power procurement from this source is not claimed in this month since invoices are not received. AEML-D has submitted that once the invoices are received, the cost will be claimed in the month in which payment is made.
- 5.59 AEML-D in the earlier submission under similar circumstances had considered the quantum under OA and had not considered the cost in that month. Further, for determining the weighted average power purchase cost (WAPPC), AEML-D excluded the OA quantum from the total purchase to further compute FAC charges. However, subsequently in the month of receipt of such invoice, to not give retrospective effect, all of this quantum and cost was now considered in the month of receipt of invoices and also as a part of WAPPC for the purpose of FAC computation. Further, the said quantum was also reduced from the OA quantum in the month of receipt of the invoices to give contra effect to the transaction. Considering the approach adopted in the past, the Commission sought clarification from AEML-D for the proposed change in its approach towards treatment of energy quantum and PP cost under the present situation.
- 5.60 In response to the clarification sought by the Commission, AEML-D submitted that during the period of 8 months prior to April 2023 when it adopted the principle of adjusting the quantum and cost basis the actual invoice received, the quantum of such power purchased by AEML-D was only 14.24 MU. However, from the month of April 2023, AEML-D has contracted capacity of 157 MW, the resultant monthly quantum of power is huge as compared to earlier. AEML-D has already submitted the monthly FAC till August 2023 and has estimated the quantum to the tune of approximately 232 MU. The corresponding bills for purchase in a given month are later being received over the course of several months and therefore, if the quantum of power purchase was also to be deferred, similar to cost, it would again not be possible to consider it in any single month in future, as invoices are not received in one go. Accordingly, it would not be correct to not consider such a huge quantum of power in the month of consumption, as it would make the purchase quantum understated compared to consumed power and hence fictitious. In case of minor quantum as in earlier months, this approach was possible. Considering the same, AEML-D requested the Commission to consider its revised approach. The Commission has noted the submission and considered the approach adopted by AEML-D for computation of the FAC for the month of May 2023. However, as discussed in the approval of FAC for the month of April 2023, the approach adopted presently by AEML-D leads to a situation where in the month in which the units are considered without any corresponding cost, the power purchase cost (Rs./kWh) is understated and vice-versa in the month in which the cost is reported without any corresponding units. To avoid such situation, AEML-D is required to consider both (units as well as cost), albeit based on assumption, to minimise the impact of this variation. This approach should be adopted by AEML-D appropriately in the future months for which filing has not been done yet.
- 5.61 Accordingly, the Commission approves the power purchase of short term RE (market linked contracts) considered in the month of May 2023. However, AEML-D needs to track the market movements and ensure that the terms of the contract are beneficial for the consumers.



- 5.62 As the approval by the Commission is on yearly energy quantum, the monthly variation in power purchase from various sources of power is being accepted provided cumulative power procured from majority of the sources is within the approved energy quantum.
- 5.63 Variation in power purchase expenses from RE sources on account of change in quantum and per unit rate is as shown in Table 11 below:

Table 11: Variation in Power Purchase expenses from Renewable Energy Sources for May 2023

Source	Approved Quantum (MU)	Approved rate (Rs./ kWh)	Actual quantum (MU)	Actual rate (Rs./ kWh)	Variation due to quantum (Rs. Crore)	Variation due to rate (Rs. Crore)	Total variation (Rs. Crore)
Solar							
DSPPL	4.35	10.30	5.56	10.30	1.25	0.00	1.25
Adani Hybrid Energy Jaisalmer Four Limited - Wind Solar Hybrid (AHEJFL)	285.85	3.24	284.34	3.24	(0.49)	0.00	(0.49)
Non-Solar							
Vector Green Energy Pvt Ltd	0.07	5.07	-	-	(0.03)	-	(0.03)
Tembhu Power Pvt. Ltd.	1.00	4.26	-	-	(0.42)	-	(0.42)
Reliance Power Ltd.	6.24	5.81	3.21	5.81	(1.76)	(0.00)	(1.76)
Short Term RE / Exchange (G-DAM)	43.80	4.90	37.40 [#]	0.23 [#]	(3.14)	(17.45)	(20.59)
Total RE Sources	341.30	3.59	330.52	3.04	(4.59)	(17.45)	(22.04)

[#] This includes the provisional quantum of power purchased from short term RE sources for which the invoices are not available. No cost has been considered against this energy and hence the actual rate appears to be lower.

- 5.64 **APPC for renewable sources for the month May 2023 works out to Rs. 3.04/kWh which is lower than the MTR approved level of Rs. 3.59/kWh. One of the reasons is consideration of the quantum of power procured from short term RE sources without considering the associated cost.**
- 5.65 **Power from other generator (AEL- MTPP):** AEML-D has submitted that the Commission has, vide order dated 29 August, 2022 in Case No. 149 of 2022 on the petition filed by AEML-D, approved purchase of 500 MW medium term power for the period 1 September, 2022 to 14 October, 2024. Power flow has commenced and accordingly power purchase of 367.43 MUs and the associated cost (@ Rs. 5.33/kWh) has been considered in the May 2023 month FAC by AEML-D.
- 5.66 **Bilateral Purchase:** AEML-D has undertaken bilateral purchase of power from power exchange (IEX, HPX and PXIL) and through exchange price linked bilateral contracts at the average rate of Rs. 6.72/kWh which is significantly higher than the approved rate of Rs. 5.13/kWh. It is observed that the average power prices in the short-term market during May 2023 is lower as compared to the prices observed during December 2022, January 2023, February 2023, March 2023, and April 2023 which is also reflected in the average price of power purchase from bilateral contracts in January 2023 (Rs. 9.55/kWh), and February 2023 (Rs.



9.99/kWh). The trend of the average rates discovered on IEX (at regional periphery) are shown below for reference:

Table 12: Power Prices in short term market (Rs./kWh)

Month	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23
RTC	5.18	5.75	6.91	4.95	4.97	4.87
Evening (17-23 Hrs)	6.04	6.87	7.91	5.68	6.28	6.36
Day (10-17 Hrs)	5.79	6.39	6.09	4.08	3.53	3.80
Night (0-6, 23-34 Hrs)	3.06	3.04	5.42	4.74	5.81	5.62
Morning (6-10 Hrs)	6.51	7.66	9.45	5.74	4.11	3.20

5.67 AEML-D relies on the short-term purchase to meet the shortfall beyond long term tie-up and has purchased 103.50 MUs through bilateral purchase (IEX, HPX, PXIL, exchange linked contracts) which is 10.17% of its total power purchase for May 2023. The summary of the power procured from the various short-term sources is reproduced in the table below:

Table 13: Summary of power procured from short term sources

Sr. No.	Source	Net Purchase (MU)	Power Purchase Cost (Rs. Crore)	Average Power Purchase Cost (Rs./kWh)
Bilateral Sources				
1	IEX	33.60	15.77	4.69
2	PXIL	0.91	0.91	10.07
3	HPX	55.25	40.75	7.38
4	STPP	13.74	11.72	8.53
5	Exchange sale cost	-	0.18	-
6	SLDC schedule charges and OA charges for STPP	-	0.22	-
	TOTAL	103.50	69.56	6.72

5.68 AEML-D has submitted the bill/invoices regarding the purchase of power from exchange and the Commission has verified the energy quantum and power purchase cost and found it to be appropriate. AEML-D has also submitted the sample LOIs for day ahead exchange linked contract. Accordingly, the Commission approves the aforesaid bilateral purchase with APPC of Rs. 6.72/kWh.

5.69 AEML-D has to pay fees of Rs. 7,500 per month to MSLDC towards IEX standing clearance in advance, for next month. The said amount is as per the amount approved by the Commission in SLDC Order in Case No. 291 of 2019 (same as that approved by the Commission in the SLDC's MTR Order in Case No. 233 of 2022) and the same is considered as part of Bilateral purchase cost in FAC for May 2023 towards fees paid for June 2023. Further, in the month of May 2023, IEX standing clearance was sought from MSLDC, for which an amount of Rs.7,500 was paid to MSLDC. Further, AEML-D has included Rs. 19,86,250/- which pertains to the scheduling and rescheduling charges for the months from April 2023 to May 2023 in the month of May 2023. The same is also considered as part of power purchase cost. The Commission has noted the submissions.



- 5.70 Variation in power purchase expenses from bilateral sources on account of change in quantum and per unit rate is as shown in Table 14 below:

Table 14: Variation in Power Purchase expenses from bilateral sources for May 2023

	Approved Quantum (MU)	Approved rate (Rs./kWh)	Actual quantum (MU)	Actual rate (Rs./kWh)	Variation due to quantum (Rs. Crore)	Variation due to rate (Rs. Crore)	Total variation (Rs. Crore)
Bilateral Purchase	60.88	5.13	103.50	6.72	21.86	16.46	38.33

- 5.71 **DSM Pool:** AEML-D has submitted that for the month of May 2023, it has drawn 3.07 MUs under the DSM mechanism and has incurred cost of Rs. 2.06 Crore.

- 5.72 **Power Procurement from Open Access and Roof Top Solar Consumers:** As per MERC (Distribution Open Access) (First Amendment) Regulations, 2019:

“20.5. The unutilised banked energy at the end of the month, limited to 10% of the actual total generation by such Renewable Energy generator in such month, shall be considered as deemed purchase by the Distribution Licensee at a rate equivalent to that stipulated under yearly Generic RE Tariff Order applicable for respective technology...

...Provided further that provision relating to Banking of the Principal Regulations shall continue to apply for existing Open Access Agreements or contracts as on date of notification of the first amendment of the Principal Regulations, till the expiry of the approved period for such OA transactions, beyond which provision relating to Banking under Regulation 20 of the first amendment of the Principal Regulations shall apply.”

- 5.73 Further, as per MERC (Net Metering for Roof-top Solar Photo Voltaic Systems) Regulations, 2015:

“10.3. The unadjusted net credited Units of electricity as at the end of each financial year shall be purchased by the Distribution Licensee at its Average Cost of Power Purchase as approved by the Commission for that year, within the first month of the following year:”

- 5.74 The surplus energy of RE Open Access consumers (Firm and Non-firm) purchased by AEML-D as per the aforementioned regulations is 1.46 MU at a cost of Rs. 0.47 Crore and is considered in the FAC for the month of May 2023. AEML-D has submitted the details of the power procured as a part of the submission which has been verified based on consumer wise detail provided by AEML-D.

- 5.75 **Sale of Surplus Power:** AEML has sold 65.78 MUs under bilateral sale through power exchange and under the Inter Discom Trade arrangement and received Rs. 20.84 Crore for the month of May 2023. The Commission, vide MTR Order for AEML-D, has approved the sale of surplus power at Rs. 5.13/kWh (at the same rate of bilateral short term power purchase rate), however, the actual rate realised for sale of power (Rs. 3.17/kWh) is way below actual bilateral purchase rate of Rs. 6.72/kWh for May 2023). While the purchase and sale may be in



different time blocks during the day, AEML-D has to ensure that power available from contracted sources is optimally utilised before resorting to purchases from the costlier bilateral sources. Also, the sale of excess power should not lead to undue burden on the consumers on account of the difference in the cost of purchase and sale. With commencement of power flow from medium term PPA source, AEML-D appears to be in surplus and has been selling a significant amount of surplus power. **Therefore AEML-D should take a review of purchase of costlier exchange power and costlier power through exchange linked contracts as now it has sufficient capacity on account of new medium term PPA.**

5.76 **Other Charges:** AEML-D has considered rebate pertaining to payments made towards power purchase from contracted generators of Renewable energy, traders from short term power purchase, payment made for InSTS charges, SLDC charges etc. in the month of May 2023. Though AEML submitted that there are no specific supporting bills showing the rebate. The rebate being claimed is considering the billed amount as per the invoices and the rebate available as per contracts/ invoice. The Commission has scrutinized the details and has approved Rs. 4.02 Crore as rebate to be considered as part of power purchase cost for the month of May 2023. There is no standby previous year adjustment for the month of May 2023.

5.77 **Monthly Standby charges payable to MSEDCL:**

5.77.1 The Commission in the MTR order has approved standby charges as a part of the power purchase cost for the years FY 2021-22 (6 months) and FY 2022-23 to FY 2024-25. In this context, AEML-D had filed an IA before the Hon'ble Appellate Tribunal for Electricity (Hon'ble APTEL) (IA No. 844 of 2023 in Appeal No. 516 of 2023) in the matter of payment of standby charges to MSEDCL against the MTR Order of the Hon'ble Commission for AEML-D in Case No. 231 of 2022.

5.77.2 In the hearing held before the Hon'ble APTEL on 26-09-2023, the Hon'ble APTEL set aside the direction issued to AEML-D to the extent it related to payment of standby charges. The relevant extract from the Daily Order is as follows:

"The directions issued to the Appellant in the impugned Order, to the extent it related to payment of stand by charges, is set aside."

5.77.3 Taking into cognizance the Order of the Hon'ble Tribunal, AEML-D has excess cost recovered from the consumers (as part of the tariff). AEML-D has now proposed considering this surplus as an adjustment to the FAC, so as to shield the consumers from FAC shock as it would not be fair to subject consumers to FAC on the one hand, while also charging a higher tariff to consumers due to in-built stand-by charges without a corresponding cost. AEML-D has considered an opening balance of Rs. 254.51 Crore as the standby charges available at the beginning of May 2023. Additionally, AEML-D has also considered holding cost of Rs. 1.95 and Rs. 15.41 Crore as Standby charges for the month of May 2023 as additional cost considered in the MTR Order (difference between approved



vs claimed). This amount has been considered for adjustment against the FAC for the month of May 2023 (Rs. 43.03 Crore).

5.77.4 Thus, to avoid double imposition of these surplus standby charges on the consumers AEML-D has proposed to make monthly adjustments to offset the surplus of standby charges through the FAC. Accordingly, AEML-D has submitted to not recover the FAC from the consumers in May 2023 even though the FAC for the month is positive.

5.77.5 The Commission has noted AEML-D's submission. With regard to the consideration of Standby charges, the Commission's ruling for the years FY 2023-24 and FY 2024-25 in its MTR Order in Case no. 231 of 2022 is as below:

"The Commission has clarified in the earlier Section that any review of the Standby arrangement can be done by the Commission only after hearing all the Parties concerned, and mere written communication regarding discontinuation of the Standby facility is not sufficient. The Commission has hence, considered AEML-D's share of the Standby Charges payable to MSEDCL, based on its share of Non-Coincident Peak Demand (NCPD) and Coincident Peak Demand (CPD), as determined in the MTR Order of MSEDCL dated 31st March 2023 in Case No. 226 of 2022."

5.77.6 Further, the Hon'ble APTEL in the daily order (APL No. 516 OF 2023 & IA No. 844 of 2023 dated 26.09.2023) has stated the following:

"This issue of the Appellant's liability to pay standby charges to MSEDCL cannot be adjudicated independently, in a separate petition, after the tariff order has been passed, and ought to have been considered as part of the Appellant's tariff determination exercise. We see no reason, in such circumstances, to examine the rival submissions on merits, and are of the view that the MERC should be directed to consider this issue, relating to payment of stand by charges by the Appellant to MSEDCL, in this petition itself after giving the parties involved an opportunity of being heard. We make it clear that the order now passed by us shall not disable MERC, if it so chooses, to hear the other Distribution Licensees in the city of Mumbai; and to then pass a detailed order assigning reasons on the issue of the Appellant's liability to pay standby charges."

The directions issued to the Appellant in the impugned order, to the extent it related to payment of stand by charges, is set aside. We make it clear that we have not expressed any opinion on the merits of the rival contentions; and it is open to the parties involved to raise all such contentions, as are available to them in law, before the MERC. The IA stands disposed of."

5.77.7 As can be seen from the above extract, the Hon'ble APTEL order does not restrict the Commission from hearing the other Distribution Licensees in the city of Mumbai and then issuing a detailed order towards the consideration of Standby charges. Further, the Hon'ble



APTEL has clearly stated that they have not expressed any opinion on the merits of the rival contentions, and it is open to the parties involved to raise all such contentions, as are available to them in law before the Commission. AEML-D has not approached the Commission in this matter with its contention as suggested by the Hon'ble APTEL in its Order.

5.77.8 Accordingly, AEML-D was asked to justify the reason for seeking to refund the stand-by amount when the Hon'ble APTEL has still left it open for the Commission to listen to AEML-D and other licensees in the city of Mumbai and pass a detailed Order.

5.77.9 In the response to data gaps dated 26 December, 2023 for the month of May 2023, AEML-D stated that it has already elaborated the rationale for adjusting the positive FAC against the payable standby charges in its FAC monthly submission for April 2023. AEML-D further submitted that:

“Taking into account the above-mentioned judgment of the Hon'ble APTEL, no standby charges are being paid to MSEDCL, but the same is being recovered through tariffs from consumers. This fact remains regardless of the Hon'ble Commission's future ruling on AEML-D's petition regarding stand-by charges as directed by the Hon'ble APTEL. As a result, it would not be appropriate at this moment to accrue a surplus of stand-by costs while also seeking additional power purchase costs as FAC from consumers as per AEML-D. As a result, in order to reduce the burden on consumers, AEML-D has requested that stand-by prices be adjusted in FAC.

If the case is decided against AEML-D, the AEML-D's future course of action will depend upon the available legal options. As a result, what occurs in the future and whether or not AEML-D pays stand-by charges to MSEDCL is dependent on how the matter is resolved before the Hon'ble Commission and subsequent legal remedies by all stakeholders. As a result, it is preferable by AEML-D that the current situation - one of not paying stand-by charges to MSEDCL but recovering the same from consumers - be corrected in order to lessen the burden of additional power purchase costs on consumers.”

5.77.10 It is evident from the Hon'ble APTEL's judgement that while the directions issued to the AEML-D in the impugned Order, to the extent it related to payment of stand by charges, is set aside, no opinion on the merits of the rival contentions has been recorded by the Hon'ble APTEL and it has been left open to the parties involved to raise all such contentions, as are available to them in law, before the Commission. Accordingly, the parties involved which also includes AEML-D should have approached the Commission seeking resolution of the issue. While AEML-D and other stakeholders have subsequent legal remedies available post the order issued by the Commission in this matter, it would not be appropriate to speculate the outcome in the matter and consider refunding back the standby charges recovered from the consumers. In case the Commission upholds its decision in the matter, then it will be an undue burden on the consumers to pay back the charges to AEML-D. Further, the FAC



process is based on allowing the variation in weighted average power purchase cost (WAPPC) as approved in the relevant Tariff Order vis-à-vis the actual WAPPC. It is a matter of fact the WAPPC approved in the MTR Order of Rs. 4.29/kWh (against which AEML-D has submitted actual WAPPC of Rs. 4.71/kWh) does not include the standby charges considered in the MTR Order. **Accordingly, the Commission does not deem it appropriate to consider allowing AEML-D to adjust the FAC for the month of May 2023 against the standby charges collected by it from the consumers as part of the retail tariff.**

- 5.77.11 Further, on the point of standby charges not being part of the approved APPC, AEML-D submitted that in the past monthly FAC submissions, it has claimed additional transmission charges paid to STU as part of FAC when such transmission charges are also not part of the approved APPC, and the Commission has approved the same. Thus, drawing an analogy, AEML-D has adjusted the standby charges.
- 5.77.12 An extract from the Commission's July 2022 FAC Order for AEML-D regarding consideration of additional InSTS charges as a part of the FAC is presented below:

“Additional InSTS charges: STU, in accordance with the Commission's order dated 18 October, 2020 in Case No. 52 of 2020, has levied Rs. 11,015 as additional transmission charges. The same is has been considered in the month of FAC for July 2022. AEML-D has provided the supporting bill raised by STU which has been verified by the Commission.”

- 5.77.13 In this context, it is to be noted that the STU had filed a petition in Case No. 52 of 2020 with the Commission seeking removal of difficulties in implementation of certain provisions of the applicable MYT Regulations. This included seeking approval of the methodology for applying additional transmission charges [as per clause 64.3 (c) of MYT Regulations, 2015] in cases where maximum recorded demand exceeds the base TCR and Contracted Capacity. The Commission clarified the matter and allowed recovery of the additional transmission charges prospectively on 15 min block basis. The additional transmission charges are payable where the recorded demand of long-term TSU is greater than Contracted Capacity and accordingly the charges are payable by the TSUs over and above the transmission charges payable to the transmission licensees under the InSTS Charges framework. These charges are not part of the approved retail tariff of the distribution licensee as these are chargeable only in case where maximum recorded demand exceeds the base TCR and Contracted Capacity. Considering this fact, the Commission, on request of AEML-D, considered allowing recovery of the additional transmission charges through FAC mechanism though they are not part of the WAPCC as these charges are not recovered through the retail tariff. Allowing recovery through the truing up process would lead to the incidence of carrying cost on this amount which is a burden on consumers. However, stand-by charges cannot be considered akin to these charges and cannot be considered for adjustment through the FAC mechanism as their recovery is allowed through the retail consumer tariff.



- 5.77.14 Further, in case of Additional Transmission Charges, there was a specific Order of the Commission to STU to recover Additional Transmission Charges from the Distribution Licensees. However, in present case, though the directions regarding payment of Standby Charges to MSEDCL has been set aside, the Commission has been directed to consider this issue, relating to payment of stand by charges by AEML-D to MSEDCL, in this petition itself after giving the parties involved an opportunity of being heard. Thus, the issue is still open and yet to be decided by the Commission.
- 5.77.15 The Commission also notes that the standby charges may be a part of the Tariff being recovered from the consumers, however, there is no Order of the Commission directing revision in Tariff payable by the consumers of AEML-D on account of non-applicability of Standby Charges.
- 5.77.16 Notwithstanding the above, the Commission in earlier paragraphs has not considered AEML-D's request to adjust the stand-by charges with the FAC recoverable for the month of May 2023 and hence the comparison of the same with additional transmission charges is infructuous.
- 5.78 Accordingly, the Commission has not accepted AEML-D's request to adjust the standby charges with the FAC recoverable from the consumers for the month of May 2023. AEML-D will be required to recover the positive FAC for May 2023 as approved by the Commission in this Order.
- 5.79 Summarised reasons for the rate variation for various sources are given in Table 15 below:

Table 15: Reasons for the rate variation for various sources for May 2023

Sr. No.	Source	Approved Rate (Rs. /kWh)	Actual Rate (Rs. /kWh)	Reason for rate variation
1	ADTPS	5.01	4.89	<ul style="list-style-type: none"> The fixed charges are higher by Rs. 0.11 /kWh due to lower generation as compared to the approved generation and the variable cost variation is contributing Rs. 0.23/kWh to the decrease.
2	RE Sources	3.59	3.04	<ul style="list-style-type: none"> RE power procurement from contracted sources. Very less quantum procured through exchange platform. AEML-D contracted Intrastate Wind capacity with AEL in May 2023. However, due to the non-receipt of invoices, it has considered only the estimated quantum on a provisional basis and has not considered any cost regarding this power transaction. This has led to a reduced rate.
3	AEL-MTPP	5.25	5.33	<ul style="list-style-type: none"> The rate of Rs. 5.25/kWh approved in the MTR Order was based on the actual effective rate obtained in the H1 of FY 2022-23 and the same rate was adopted for FY 2023-24 and FY 2024-25 as well.



Sr. No.	Source	Approved Rate (Rs. /kWh)	Actual Rate (Rs. /kWh)	Reason for rate variation
				<ul style="list-style-type: none"> The PPA provides for change in the base fixed charges and variable charges linked to WPI. This also impacts the rate of purchase of energy.
4	Power Exchange (Purchase)	5.13	6.72	<ul style="list-style-type: none"> Market discovered rate. Higher cost purchase of short-term power from Power Exchange (IEX, PXIL, and HPX) and through day ahead exchange linked bilateral contracts. Purchase is done at an average rate of Rs. 6.72/kWh
5	Power Exchange and IDT (Sale)	5.13	3.17	<ul style="list-style-type: none"> Market discovered rate. Sale of excess power in Power Exchange (IEX, HPX and PXIL) through power exchange based real time / day ahead markets at lower rate. Power is also sold through Inter Discom Trade arrangement to BEST.
	Total	4.29	4.71	Variation due to above reasons

5.80 Considering the above, the Commission allows the actual average power purchase cost of Rs. 4.71/kWh for the month of May 2023 as shown in Table 15 above as compared to approved average power purchase cost of Rs. 4.29/kWh.

6. FAC on account of fuel and power purchase cost (F)

6.1 The Commission has worked out the average power purchase costs for the month of May 2023 as shown in Table 15 above. The same has been compared with the average power purchase cost approved by the Commission in MTR Order dated 31 March 2023 to arrive at the differential per unit rate at which Z_{FAC} is to be passed on to the consumers.

6.2 It is noted that AEML-D has incurred the per unit Power Purchase Cost higher than the approved per unit Power Purchase Cost hence the Z_{FAC} worked out by the Commission on account of difference in power purchase cost for the month of May 2023 is positive as shown in the Table 16 below.

Table 16: FAC on account of Power Purchase Cost

Sr. No.	Particulars	Units	May 2023
1	Average power purchase cost approved by the Commission	Rs./ kWh	4.29
2	Actual average power purchase cost	Rs. /kWh	4.71
3	Change in average power purchase cost (= 2-1)	Rs./ kWh	0.42
4	Net Power Purchase	MU	1017.17
5	Change in power purchase cost (=3 x 4/10)	Rs. Crore	42.92



7. Adjustment for over recovery/under recovery (B)

7.1 The adjustment for over recovery/under recovery has to be done for the (n-4) month as per provisions of MYT Regulations, 2019.

7.2 As stated in the approval of FAC for April 2023, any under-recovery/over-recovery at the end of March 2023 would be adjusted during final truing up of FY 2022-23. Further, the Commission has not allowed recovery of FAC for April 2023. Hence, the deferred over-recovery/under-recovery at the end of April 2023 to be adjusted in May 2023 is considered to be nil.

8. Carrying Cost for over recovery/under recovery (C)

8.1 As there is no adjustment for over recovery/under recovery as mentioned in para 7.2 above, there is no carrying cost on account of such adjustment.

8.2 The carrying/holding cost is computed considering the MCLR + 150 basis points. However, as discussed para 7.2 above, the deferred over-recovery/under-recovery at the end of April 2023 to be adjusted in May 2023 is nil. Hence there is no carrying cost for over recovery/under recovery worked out for May 2023.

9. Disallowance due to excess Distribution Loss

9.1 Regulation 10.8 of MYT Regulations, 2019 provides for FAC amount to be reduced in case the actual distribution loss for the month exceeds the approved distribution loss. The relevant extract is reproduced as follows.

“10.8 The total Z_{FAC} recoverable as per the formula specified above shall be recovered from the actual sales in terms of “Rupees per kilowatt-hour”:

Provided that, in case of unmetered consumers, the Z_{FAC} shall be recoverable based on estimated sales to such consumers, computed in accordance with such methodology as may be stipulated by the Commission:

Provided further that, where the actual annual sliding distribution losses of the Distribution Licensee exceed the level approved by the Commission, the amount of Z_{FAC} corresponding to the excess distribution losses (in kWh terms) shall be deducted from the total Z_{FAC} recoverable.”

9.2 The following Table 17 provides the comparison of approved and actual distribution loss and disallowance due to excess distribution loss, if any:



Table 17: Disallowance of FAC due to excess Distribution Loss

Sr. No.	Particulars	Units	Approved in Tariff Order	Actual for May 2023	Cumulative up to May 2023	Annual Sliding Distribution Loss up to May 2023
1	Net Energy input at Distribution Voltages	MU	848.41	1020.19	1953.81	9,686.43
2	Energy sales at Distribution voltages	MU	790.72	910.00	1752.85	9,142.01
3	Distribution Loss (1 - 2)	MU	57.70	110.20	200.95	544.43
4	Distribution Loss as % (3/1)	%	6.80%	10.80%	10.29%	5.62%
5	Excess Distribution Loss = [Annual Sliding Distribution Loss (4) - Distribution loss approved] x Net Energy Input (1)	MU	-	-	-	-
6	Disallowance of FAC due to excess Distribution Loss	Rs. Crore	-	-	-	-

9.3 As seen from the above Table 17, distribution loss for the month of May 2023 is 10.80% which is higher than the MTR Order dated 31 March, 2023 approved distribution loss of 6.80%. However, the annual cumulative sliding distribution loss up-to May 2023 is 5.62% which is lower than the distribution losses approved in the MTR Order dated 31 March, 2023. AEML-D submitted that the distribution losses are being reported considering the difference between the input and sales attributable to AEML-D's own consumers. Further, the sales being reported for LT cycle billing is as per bill posting date, whereas the input will be pertaining to the concerned month itself and thus there will be variation in losses on account of the differing period of purchase and sales.

9.4 As part of the analysis, monthly as well as cumulative distribution losses trend is also examined with reference to approved by the Commission and similar period of last financial year as shown in Table 18 below:

Table 18: Monthly and Cumulative Distribution Loss trend of AEML-D

Year	FY 2023-24	FY 2022-23
Approved	6.80%	7.05%
Actual – April	9.72%	12.47%
Actual – May	10.80%	11.48%
Actual - Cumulative till May	10.29%	11.96%

9.5 As seen from Table 17 above, disallowance of FAC due to excess distribution loss for the month of May 2023 is nil. Though the standalone FAC for the month of May 2023 is positive, the annual sliding distribution loss is lower than approved distribution loss by the Commission.



10. Summary of Allowable Z_{FAC}

10.1 The summary of the FAC amount as approved by the Commission for the month of May 2023 as shown in the Table 19 below.

Table 19: Summary of Allowable Z_{FAC} for May 2023

Sr. No.	Particulars	Units	As Claimed May 2023	As Approved May 2023
1	Calculation of Z_{FAC}			
1.1	Change in cost of generation and power purchase attributable to Sales within the License Area (F)	Rs. Crore	43.03	42.92
1.2	Carrying cost for over-recovery/under-recovery (C)	Rs. Crore	-	-
1.3	Adjustment factor for over-recovery/under-recovery (B)	Rs. Crore	-	-
1.4	Z_{FAC} = F+C+B	Rs. Crore	43.03	42.92
2	Calculation of FAC Charge			
2.1	Energy Sales within the License Area	MU	1,017.17	910.00
2.2	Excess Distribution Loss	MU	-	-
2.3	Z _{FAC} per kWh	Rs./kWh	0.42	0.47
3	Recovery of FAC			
3.1	FAC disallowed corresponding to excess Distribution Loss [(2.2 x 2.3)/10]	Rs. Crore	-	-
3.2	Allowable FAC	Rs. Crore	43.03	42.92
4	Utilization of FAC Fund			
4.1	Opening Balance of FAC Fund	Rs. Crore	58.75	59.99
4.2	Carrying cost on FAC Fund	Rs. Crore	-	0.50
4.3	Z _{FAC} for the month (Sr. No. 3.2)	Rs. Crore	43.03	42.92
4.6	Closing Balance of FAC Fund	Rs. Crore	101.77	103.41
4.7	Z _{FAC} leviable/refundable to consumer	Rs. Crore	-	103.41
5	Total FAC based on category wise and slab wise allowed to be recovered in future billing months	Rs. Crore	-	-
6	Carried forward FAC for recovery during future period (4.7-5)	Rs. Crore	-	103.41

10.2 It can be seen from the above Table 19 that opening FAC fund for month of May 2023 is Rs. 59.99 Crores and standalone FAC for the month of May 2023 approved by the Commission is Rs. 42.92 Crore. Accordingly, the FAC amount leviable on the consumer for the month of May 2023 is Rs. 103.41 Crore including the carrying cost for the month. However, as stated in the FAC approval for April 2023 and the reasons discussed earlier, the Commission has decided to carry forward and accumulate the FAC for a three-



month period i.e., April 2023 to June 2023, along with the applicable carrying cost (excluding the period of delay). The accumulated FAC amount shall be recovered in the billing months of March 2024 to May 2024 in equal monthly instalments.

11. Recovery from Consumers:

11.1 Regulation 10.9 of MERC MYT Regulations, 2019 provides for methodology of recovery of FAC charge from each category of consumers. The relevant extract is reproduced as below.

“10.9 The Z_{FAC} per kWh for a particular Tariff category/sub-category/consumption slab shall be computed as per the following formula: —

$$Z_{FAC \text{ Cat}} (\text{Rs/kWh}) = [Z_{FAC} / (\text{Metered sales} + \text{Unmetered consumption estimates} + \text{Excess distribution losses})] * k * 10,$$

Where:

Z_{FAC Cat} = Z_{FAC} component for a particular Tariff category/sub-category/consumption slab in ‘Rupees per kWh’ terms;

k = Average Billing Rate / ACOS;

Average Billing Rate = Average Billing Rate for a particular Tariff category/sub-category/consumption slab under consideration in ‘Rupees per kWh’ as approved by the Commission in the Tariff Order:

Provided that the Average Billing Rate for the unmetered consumers shall be based on the estimated sales to such consumers, computed in accordance with such methodology as may be stipulated by the Commission:

ACOS = Average Cost of Supply in ‘Rupees per kWh’ as approved for recovery by the Commission in the Tariff Order:

Provided that the monthly Z_{FAC} shall not exceed 20% of the variable component of Tariff or such other ceiling as may be stipulated by the Commission from time to time:

Provided further that any under-recovery in the Z_{FAC} on account of such ceiling shall be carried forward and shall be recovered by the Distribution Licensee over such future period as may be directed by the Commission....”

11.2 The Commission allows the standalone FAC amount of Rs. 42.92 Crore for the month of May 2023.

11.3 As discussed earlier, the FAC amount accumulated during April 2023 to June 2023 shall be recovered in the billing months of March 2024 to May 2024 in equal monthly instalments.

11.4 In a view of above, the per unit Z_{FAC} for the month of May 2023 to be levied on consumers of AEML-D in the billing month of July 2023 is nil.

