



# महाराष्ट्र विद्युत नियामक आयोग

## Maharashtra Electricity Regulatory Commission

Ref. No. MERC/FAC/2024-25/0259

Date: 19 April, 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 July 2023.

- Reference:**
1. AEML-D FAC submission for the month of July 2023 vide email dated 25 October, 2023.
  2. The data gaps were communicated vide emails dated 02 November, 2023.
  3. AEML-D replied vide emails dated 23 January 2024.
  4. Re-submission of FAC proposal for the month of July 2023 vide email dated 13 March 2023.

Sir,

Upon vetting the FAC calculations for the month of July 2023 as mentioned in the above reference, the Commission has accorded approval for charging FAC amount of **Rs. 31.64 Crore**. The FAC fund available at the beginning of July 2023 is nil and hence there is no adjustment of the FAC amount chargeable for the month of July 2023.

AEML-D has submitted the FAC proposal for July 2023 on 25 October, 2023 and the revised FAC proposal for July 2023 on 13 March, 2024. Further, the datagaps for July 2023 were shared with AEML-D by the Commission in the month of November 2023 itself. However, AEML-D responded to the datagaps in the months of January 2024, i.e., more than two months after the datagaps were raised. Thus, in addition to the delay in FAC submission, AEML-D has also delayed substantially in responding to the data gaps. All these delays have led to a delay in allowing the FAC recovery on a regular basis.

In its FAC submission for the period July 2023 to December 2023, AEML-D has requested the Commission to allow cumulative recovery of FAC for the period July 2023 to December 2023 and recovery of revised FAC from April 2024 onwards at FAC ceiling rate to ensure that accumulated revenue gap can be mopped up to the maximum possible and consumers are shielded from the tariff impact of the same in the next control period. AEML-D has submitted that the additional power purchase of around 19 months (considering the period from July 2023 to January 2025) may be potentially recoverable over the remaining period of 10 months (June 2024 to March 2025) prior to issuance of the new MYT Order. This period of 10 months may very likely be insufficient to recover the additional power purchase cost of at least 19 months even if the FAC hits the 20% ceiling rate for

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each of the remaining 10 months. Considering the same, AEML-D has requested the Commission to reconsider the recovery allowed from April 2024 itself and allow recovery at the ceiling rate. While the concerns raised by AEML-D are valid, this situation could have been envisaged well in advance by AEML-D and they could have ensured time submission of FAC proposals and response to datagaps raised by the Commission.

Having said that it is also observed that if the levy is allowed for the FAC for July 2023 and there is a variation in FAC amounts in the subsequent months, it would lead to variation in Tariff for end consumers thereby defeating the objective of creating FAC stabilization fund. In similar situations in the past, the Commission has taken an approach to accumulate the FAC leviable and allowing the recovery of such accumulated amounts in ensuing billing months. Considering the accumulated FAC over the period July 2023 to December 2023, the Commission deems it appropriate to adopt a similar approach of accumulating the FAC for July 2023 to December 2023. Further, recovery at the ceiling limit of the FAC charge would ensure that the accumulated FAC gets passed through via the FAC mechanism to the maximum extent possible in the remaining period and thus the revenue gap to be carried forward to the new Multi Year Tariff control period will be minimal, thus minimising the carrying cost impact on the consumers to that extent. Accordingly, the Commission considers it appropriate to accumulate the FAC for the period of July 2023 to December 2023 and allow its recovery in the ensuing billing months at ceiling tariff. The recovery will start from May 2024 and the overall period of recovery will be decided in the Commission's approval on the FAC submission for December 2023. Accordingly, the FAC amount chargeable to consumers is as shown in the table below:

Month	FAC Amount (Rs. Crore)
July 2023	0

Accordingly, the Commission allows AEML-D to carry forward the FAC amount of Rs. 31.64 Crore for recovery in the future period along with the applicable carrying cost (excluding the period of delay). The issue related to disallowance of carrying cost for the period of delay in FAC submissions by AEML-D has been discussed in detail by the Commission in its approval on FAC for the month of April 2023. Same reasons are also valid in the present situation as well.

In view of the above, the Commission deems it appropriate to not allow AEML-D to recover the carrying cost on the FAC over the period of delay. Considering the accumulation of the FAC over a period of 6 months, under normal circumstances, the accumulated FAC for the period July 2023 to December 2023 would have been recoverable from February 2024 onwards. However, in the present situation, the recovery can only start from May 2024 onwards at the earliest as the month of April 2024 is almost over and additional billing may not be possible in April 2024. Accordingly, considering that the delay is attributable to AEML-D, the Commission deems it appropriate to disallow the carrying cost for the period of delay from February 2024 to April 2024. AEML-D is accordingly not allowed to recover the same from the consumers.

AEML-D is also directed to streamline the process of timely submission of the FAC filings for the period beyond December 2023 and submit the pending filings at the earliest. **Failure of AEML-D to adhere to the timeline established by the Commission may force the Commission to take**





**appropriate action for the delays including but not limited to disallowance of the interest on working capital during the period of delay, forfeiture of the carrying cost, etc.**

The Commission in its June 2023 FAC approval report has not considered the approach of adjustment of monthly standby charges payable to MSEDCL in the monthly FAC as submitted by AEML-D. Accordingly, AEML-D in the resubmission of FAC proposal for July 2023 has revised the FAC calculations and excluded the standby charges from the FAC computation methodology.

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,

*Ricee .19/4/24*

(Dr. Prafulla Varhade)

Director (Elect. Engg.), MERC

**Encl: Annexure A: Detailed Vetting Report for the month of July 2023.**



**PRIOR APPROVAL FOR FAC CHARGES FOR THE MONTH OF JULY 2023**

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

**Reference:**

1. AEML-D FAC submission for the month of July 2023 vide email dated 25 October 2023.
2. The data gaps were communicated vide emails dated 02 November, 2023.
3. AEML-D replied vide emails dated 23 January, 2023.
4. Re-submission of FAC proposal for the month of July 2023 vide email dated 13 March 2023.

**1. FAC submission by AEML-D:**

- 1.1 AEML-D has made FAC submissions for the month of July 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. 31.64 Crore.**
- 1.2 The opening FAC available at the beginning of July 2023 is nil and hence there is no adjustment of the FAC amount chargeable for the month of July 2023.
- 1.3 With the objective of reducing the Tariff variations and also considering the delayed FAC submissions on part of AEML-D for the period of July 2023 to December 2023, the Commission in line with the approach adopted in the past, is allowing accumulation of the FAC amount for the period of July 2023 to December 2023 and such accumulated FAC is being allowed to be recovered in the future billing months.
- 1.4 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 July 2023 to December 2023 was expected to be levied from February 2024 onwards. On account of delay on part of AEML-D, the recovery is possible only from May 2024 onwards. Hence, the carrying cost for delayed period (February 2024 to April 2024) is disallowed and shall not be allowed to be passed through to AEML-D consumers.
- 1.5 Further, as discussed in para 11.3 and 11.4 of this report, the recovery of FAC for the period July 2023 to December 2023 will start from May 2024 and the overall period for recovery will be discussed in the Commission's Order on the FAC submission for December 2023.

**2. Background**

- 2.1 On 31 March, 2023 the Commission has issued the Mid Term Review 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 25 October 2023, AEML-D has filed FAC submissions for the month of July 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 (July 2023) (MU)
	(I)	(II=I/12)	(III)
<b>LT Category</b>			
BPL	0.01	0.00	0.00
LT-I: Residential	4,897.01	408.08	426.22
LT-II: Commercial	3,245.40	270.45	221.31
LT-III(A): LT Industrial up to 20 kW TOD Option	391.95	32.66	26.85
LT-III(B): LT Industrial above 20 kW	446.52	37.21	32.33
LT-V: LT- Advertisements and Hoardings	-	-	-
LT-VI: LT -Street Lights	-	-	-
LT-VII: LT -Temporary Supply	-	-	-
LT-VIII: LT - Crematorium & Burial Grounds	-	-	-
LT-X: LT -Public Service (A)	44.66	3.72	2.40
LT-X: LT -Public Service (B)	215.84	17.99	16.55
LT-X (A): LT - Agriculture Pumpsets	0.05	0.00	0.01
LT-X (B): LT - Agriculture Others	0.39	0.03	0.03
LT-IV: Public Water Works	-	-	-
LT-IX: LT - EVCS	3.73	0.31	0.21
<b>HT Category</b>			
HT 1 (Industrial)	614.12	51.18	37.28
HT 2 (Commercial)	426.79	35.57	39.81





Consumer Category	Approved by the Commission (MU)	Monthly Approved (MU)	Actual Sales (July 2023) (MU)
	(I)	(II=I/12)	(III)
HT 3 (Group Housing Soc.)	10.96	0.91	1.18
EHT Industry	180.00	15.00	-
EHT Metro & Monorail	120.00	10.00	6.76
HT - Public Services (A)	11.46	0.96	0.52
HT - Public Services (B)	306.62	25.55	22.90
HT - EV Charging station	70.00	5.83	-
<b>Total</b>	<b>10,985.51</b>	<b>915.46</b>	<b>834.36</b>

\*In Case of AEML-D, the sales is 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 July 2023 is 834.36 which is 8.86% less than approved energy sales of 915.46 MU per month for the FY 2023-24.** The sales considered is after netting off the GCN credit for Open Access consumption. AEML-D has considered the energy sales for FAC purposes for July 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 n<sup>th</sup> month (i.e., for July 2023).
- For cycle consumers (LT cycle billing), consumption data provided is for bill generation (bill posting date) from 1<sup>st</sup> July to 31<sup>st</sup> July. These energy sales will pertain to the period which will comprise on an average half of June and half of July.

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)
<b>Monthly Approved</b>	<b>409.00</b>	<b>306.02</b>	<b>121.05</b>	<b>79.40</b>	<b>915.46</b>	<b>772.24</b>
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
Actual – June, 2023	514.32	301.24	96.37	50.57	962.51	897.75
Actual – July, 2023	427.39	261.12	96.46	49.39	834.36	753.04
<b>Approved - Cumulative till July 2023</b>	<b>1,635.99</b>	<b>1,224.06</b>	<b>484.20</b>	<b>317.58</b>	<b>3,661.84</b>	<b>3,088.97</b>
<b>Actual - Cumulative till July 2023</b>	<b>1,825.74</b>	<b>1,124.46</b>	<b>403.72</b>	<b>195.79</b>	<b>3,549.72</b>	<b>3,312.31</b>

#### 4. Power Purchase Details

4.1 Following is 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



- c) Bilateral Contracts, Banking of power and Imbalance pool
  - d) 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 July 2023**

Sr. No.	Particular	Compliance
1	Purchase from Approved Sources	<b>Yes.</b> AEML-D has procured power from ADTPS, AEL-MTPP, Solar and Non-solar Sources and Bilateral sources in the month of July 2023, which are approved sources of power purchase.
2	Merit Order Dispatch (MoD)	<b>Yes.</b> AEML-D had scheduled power as per MoD. With regards to the interstate contracts, in view of the constraints in CTU-STU network, Long Term / Medium Term Open Access was not granted for all interstate contracts of AEML such as 700 MW from RE Hybrid and 500 MW from AEL-MTPP. Hence AEML is scheduling this contract under STPP on a month ahead basis. The contracts scheduled by WRLDC under STPP are must absorb in nature on day ahead basis, as the revision can be undertaken only with 3 days advance notice. Hence, SLDC has no control to back down / ramp up such generation. Further, as solar and non-solar sources have must run status, they have been scheduled first and all the remaining sources are scheduled according to SLDC instructions 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 injected 0.62 MU into the DSM pool as per DSM mechanism.
5	Sale of Surplus Power	AEML has made sale of 73.30 MUs of surplus power during the month of July 2023.
6	Power Purchase	Actual Power Purchase is 831.51 MUs as against approved 1044.45 MUs.
7	Source wise Power Purchase	



Sr. No.	Particular	Compliance			
		Source Name	Approved (MU)	Actual (MU)	Proportion of each Source in Actual Purchase
		ADTPS	307.02	236.63	28.46%
		RE Sources	341.30	319.05	38.37%
		AEL-MTPP	366.00	344.30	41.41%
		Bilateral sources (incl. Banking return) <sup>@</sup>	131.38	5.12	0.62%
		Surplus Sale	(101.25)	(73.30)	-8.82%
		DSM Pool & Other	-	(0.28)	-0.03%
		<b>Total</b>	<b>1,044.45</b>	<b>831.51</b>	<b>100.00%</b>
		<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> <p><i>@ Includes 14.87 MU which have been banked with the banking partner and which will be returned from 21 October to 31 December 2023 and from 1 March to 15 April 2024 with the return percentage at 105% of banked energy at delivery point i.e. Regional Periphery.</i></p>			
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-D MTR Order in Case No. 231 of 2022. As part of verification of energy charges claimed by AEML-D, operational parameters, fuel cost, GCV, etc is verified from the AEML-G MTR Order Case No. 229 of 2022.</p>			
9	RE Purchase	<p>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 power. For short-term RE power sourced from exchange, monthly power purchase quantum and rate are verified from the invoices, and it is ensured that same has been considered in the FAC calculation.</p>			
10	Short Term Power Purchase	<p>Short-term power purchase invoices (from exchange and other sources) of July 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.</p>			

4.4 **AEML-D has purchased 831.51 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 July 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), 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 July 2023 is Rs. 388.29 Crore which is lower than the approved Power Purchase cost of Rs. 447.99 Crore by the Commission for the month of July 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 July 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	236.63	30.79	1.30	89.96	3.80	120.75	5.10
Solar and Non-Solar Purchase	Approved	341.30	-	-	122.64	3.59	122.64	3.59
	Actual	319.05	-	-	97.81	3.07	97.81	3.07
AEL MTPP	Approved	366.00	81.51	2.23	110.77	3.03	192.28	5.25
	Actual	344.30	83.64	2.43	102.69	2.98	186.33	5.41
Banking cost / Banking Return <sup>#</sup>	Approved	70.50	-	-	-	-	-	-
	Actual	(14.87)	-	-	-	-	-	-
Bilateral Purchase	Approved	60.88	-	-	31.23	5.13	31.23	5.13
	Actual	19.99	-	-	13.56	6.78	13.56	6.78
Pool/ DSM	Approved	-	-	-	-	-	-	-
	Actual	(0.62)	-	-	0.70	(11.17)	0.70	(11.17)
OA/RTS	Approved	-	-	-	-	-	-	-
	Actual	0.34	-	-	0.08	2.37	0.08	2.37
Sale of Power	Approved	(101.25)	-	-	(51.94)	5.13	(51.94)	5.13
	Actual	(73.30)	-	-	(26.75)	3.65	(26.75)	3.65
Other Charges (Rebate, Banking OA)	Approved	-	-	-	-	-	-	-
	Actual	-	-	-	(4.19)	-	(4.19)	-
<b>Total</b>	<b>Approved</b>	<b>1,044.45</b>	<b>111.95</b>	<b>1.07</b>	<b>336.03</b>	<b>3.22</b>	<b>447.99</b>	<b>4.29</b>
	<b>Actual</b>	<b>831.51</b>	<b>114.43</b>	<b>1.38</b>	<b>273.86</b>	<b>3.29</b>	<b>388.29</b>	<b>4.67</b>

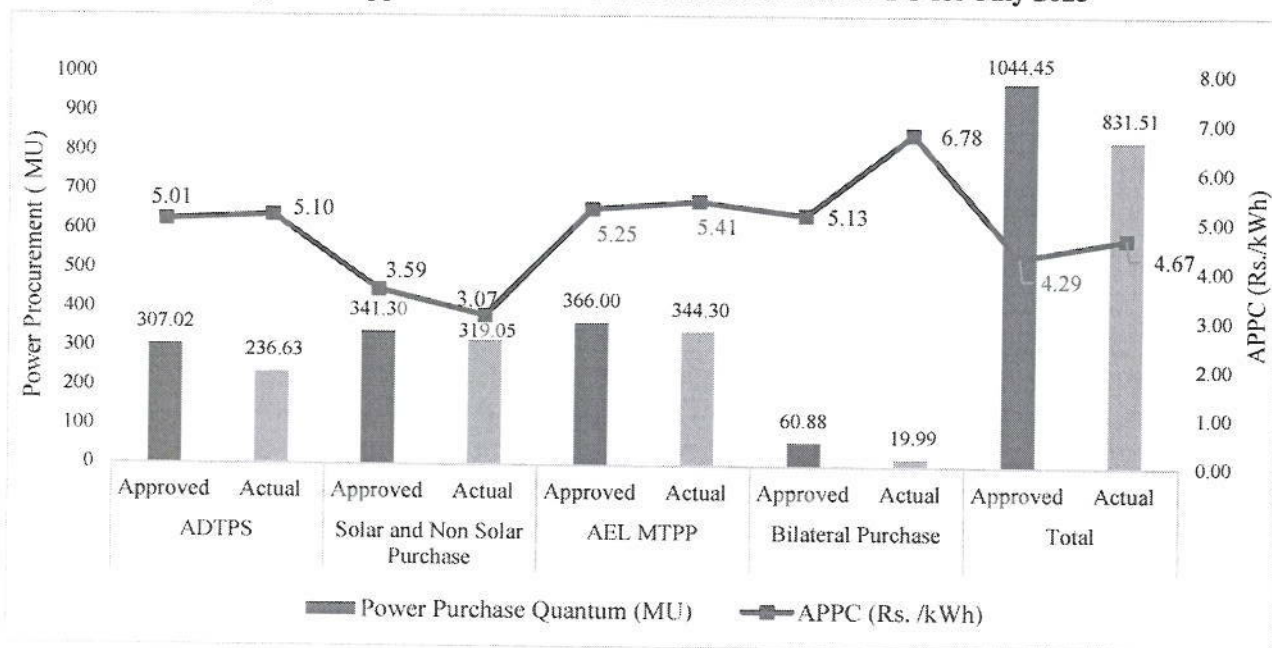
\*In case of AEML-D, there is no monthly approval for purchases. The monthly approved power purchase is arrived based on annual approved power purchase for comparison purpose.

<sup>#</sup>The cost related to the Banking quantum has not been considered separately, since the banking quantum is supplied from the power available from the existing portfolio of AEML.

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 July 2023**



5.4 AEML-D has submitted that Merit Order Despatch has been followed. The Commission had raised a query regarding the reason for AEL-MTPP, which is a contracted source for AEML-D, not appearing in the MoD stack report published by MSLDC. In response to the query raised by the Commission with regards to the interstate contracts, AEML-D stated that in view of the constraints in CTU-STU network, Long Term / Medium Term Open Access was not granted for all interstate contracts of AEML such as 700 MW from RE Hybrid and 500 MW from AEL-MTPP. Hence AEML is scheduling this contract under STPP on a month ahead basis. The contracts scheduled by WRLDC under STPP are must absorb in nature on day ahead basis, as the revision can be undertaken only with 3 days advance notice. Hence, SLDC has no control to back down / ramp up such generation. Further, as solar and non-solar sources have must run status, they have been scheduled first and all the remaining sources are scheduled according to SLDC instructions as per MOD.

#### 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 from ADTPS at the rate of Rs. 5.01/kWh. AEML-D has procured 236.63 MU for the month of July 2023 at an average rate of Rs. 5.10 /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.
- 5.7 The actual PLF of ADTPS in July 2023 was 70.44% 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 99.80%. The actual PAFM for both units of AEML-G in July 2023 was 100% during peak hours and 99.76% 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. 24.70 Crore, totalling Rs. 30.79 Crores for the month of July 2023. AEML-D submitted that there was an under recovery of capacity charges in June 2023 to the tune of Rs. 0.34 Crore. Since the cumulative availability of June 2023 and July 2023 are more than 85%, both in peak and off-peak hours, the under recovery in June 2023 has been recovered in July 2023. The Commission has noted the submission.

- 5.8 **Due to lower generation as compared to approved generation, there is an increase of Rs. 0.31/kWh in the Fixed cost and accordingly the actual Fixed Cost per unit is Rs. 1.30/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 July 2023.
- 5.10 AEML-D has submitted documents to verify the quantity of coal purchased and total cost including breakup of all the cost such as washing charges, Coal handling charges, transportation charges and liaising charges incurred for Domestic Coal and Imported Coal, as applicable, for the month of July 2023.
- 5.11 **Washed Coal:** AEML-D has submitted that AEML-G has received 80,267.92 MT of washed coal at the plant boundary of ADTPS at a rate of Rs. 4,866.70 per MT and has consumed 81,541.42 MT of washed coal in July 2023. "Other Charges" in the closing stock of the last month i.e., June 2023 amounting to Rs. 0.60 Crores have also been considered in the opening stock of the month of July 2023.
- 5.12 In the month of July 2023, AEML-D has considered Rs. 8,05,045/-, Rs 5,64,459/- and Rs. 2,19,886/- 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 June 2023.
- 5.13 In the month of July 2023, AEML has considered Rs. (1040)/- under washed coal analysis charges or short analysis made by CIMFR at SECL loading end for the months of February 2023 and March 2023.
- 5.14 In the month of July 2023, AEML-D has considered Rs. (3,10,21,861)/- (i.e. Rs. (18,28,285)/- & Rs. (2,91,93,576)/- for penalty due to higher ash content during the month and washery penalty due to higher ash content in quarter-1 of FY 2023-24, respectively) as an adjustment under washing charges.
- 5.15 The input tax credit (ITC) due to sale of coal rejects works out to Rs. (9,26,213) /- which has been considered 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.



Provisional ITC on GST paid in July 2023 amounting to Rs. (1,92,205)/- has been considered under respective heads. The differential ITC for June 2023 (difference between ITC on GST for June 2023 considered on provisional basis in June 2023 FAC and ITC on GST for June 2023 as per actuals) amounting to Rs. (20,212)/- has been considered under respective heads for July 2023.

- 5.16 AEML-G has paid railway demurrage charges of Rs. 37,171/- in July 2023. These charges are on account of detention of Railway's rolling stock after the expiry of free time for 04 no. of rakes containing washed coal and the same has been considered in the month of July 2023.
- 5.17 The charges considered in a month for arriving at the cost of received coal are as per the LOA rate, because the actual invoices for the same are not available at month closing. The difference between invoice rate and LOA rate arises on account of diesel escalation/any other reason and such difference is booked in subsequent months' FAC.
- 5.18 The Commission has examined the available 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 July 2023 is as shown in the Table 5 below:

**Table 5: Working of Washed Coal Rate for July 2023**

Particular	Quantity (MT)	Cost (Rs. Crore)	Price (Rs. /MT)
<b>Inventory</b>			
Opening (as on 1 <sup>st</sup> July 2023)	4,336.54	2.94	6,786.64
Addition during month	80,267.92	39.06	4,866.70
Other Charges			
<b>Total</b>	<b>84,604.46</b>	<b>42.01</b>	<b>4,965.11</b>
<b>Consumption</b>			
Actual	81,541.42	39.91	4,894.65
Other Charges		0.37	
<b>Total</b>	<b>81,541.42</b>	<b>40.28</b>	<b>4,939.95</b>

- 5.19 The overall cost approved towards consumption of washed coal is Rs. 40.28 Crore for the month of July 2023.
- 5.20 **With regards to the washed coal, the weighted average landed cost for the month of July 2023 is Rs. 4,939.95/MT as compared to MTR approved Rs. 5,354/MT. AEML-D has consumed 81,541.421 MT of washed coal during the month of July 2023.**
- 5.21 AEML-D has considered the 'As billed' GCV of washed coal as 3422 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 3410 kCal/kg for July 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 in the past 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 onwards, for the month of July 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 (July 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 (June 2023 or earlier, as applicable, in the present case) would be considered. In the present case, the washed coal was purchased in July 2023 and hence the GCV of this coal will be considered. The Commission has adopted this approach while approving the FAC submissions from August 2022 onwards for AEML-D. The Commission would also be following same approach while approving FAC for AEML-D in ensuing months as well.

5.25 In the additional submission done for the month of July 2023, AEML-D has without prejudice to its contentions in the matter, has considered the same approach for determining stacking loss as approved by the Commission. Accordingly, AEML-D has revised the Energy charge calculation for ADTPS for July 2023 in line with the above approach and submitted the same for approval of the Commission.

5.26 Accordingly, the 'As Billed GCV' of 3,422 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 July 2023.

5.27 The transit loss claimed by AEML-D for the month of July 2023 is (175.80) MT which is (0.22%) of the overall quantum of washed coal dispatched in that month.

5.28 The 'As fired' GCV of washed coal considered by AEML-D is 3408 kCal/kg. Considering the difference between the 'As Received' GCV and the 'As Fired' GCV, the stacking loss for washed coal works out to 14 kCal/kg which is within the limit of 120 kCal/kg.

5.29 **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 96,119.16 MT Raw Coal (at plant boundary) from SECL and has consumed 1,06,270.57 MT of raw coal in July 2023. As per weighing of coal at ADTPS, the raw coal received is 96,119.16 MT and the weighing of coal dispatched by SECL was 97,165.71 MT. The difference is reported as the transit loss which is 1,046.55 MT which is 1.08% of the total coal dispatched during the month of July 2023.

- 5.30 AEML-D has considered provisional ITC on GST paid for July 2023 on Liasoning, analysis charges etc. amounting to Rs. (2,37,347)/-under respective heads. Further, differential ITC on GST for June 2023 (difference between ITC on GST for June 2023 considered on provisional basis in July 2023 FAC and ITC on GST for July 2023 as per actuals) amounting to. Rs. 3,101/- has also been considered under respective heads in July 2023.
- 5.31 AEML-G has paid railway demurrage charges of Rs. 2,23,430 for the month of June 2023. These charges are on account of detention of Railway's rolling stock after the expiry of free time for 06 no. of rakes containing washed coal and the same has been considered in the month of July 2023.
- 5.32 In July 23, AEML-D has been considered Rs. (99,469)/- under SECL coal purchases for difference of provisional and actual invoice for the month of June 2023. The working of the raw coal fuel cost considered for July 2023 is as shown in the
- 5.33 Table 6 below:

**Table 6: Working of Raw Coal Rate for July 2023**

Particular	Quantity (MT)	Cost (Rs. Crore)	Price (Rs./MT)
<b>Inventory</b>			
Opening (as on 1 July 2023)	10,576.45	5.25	4,965.57
Addition during month	96,119.16	46.63	4,851.69
<b>Total</b>	<b>1,06,695.61</b>	<b>51.89</b>	<b>4,862.98</b>
<b>Consumption</b>			
Actual	1,06,270.57	51.68	4,862.98
Other Charges			
<b>Total</b>	<b>1,06,270.57</b>	<b>51.68</b>	<b>4,862.98</b>

- 5.34 The overall cost approved towards consumption of raw coal is Rs. 51.68 Crore for the month of July 2023.
- 5.35 **With regards to the raw coal, the weighted average landed cost for consumption in the month of July 2023 is Rs. 4,862.98/MT.** AEML-D has consumed 1,06,270.57 MT of raw coal during the month of July 2023.



- 5.36 AEML-G has disputed the GCV results as declared by CIMFR for some of the rakes of raw coal received from SECL in July 2023. The financial outcome of this dispute, if any, will be considered in future months after resolution of the dispute.
- 5.37 It has been observed that in July 2023, AEML-G has purchased raw coal from SECL only. AEML-D has considered the 'As billed' GCV of raw coal as 4083 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 3292 kCal/kg for July 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 July 2023 is 791 kCal/kg.
- 5.38 Hence, as mentioned above, the GCV loss (791 kCal/kg) for raw coal for the month of July 2023 is outside the limit of 300 kcal/kg and 'As Billed' GCV of 3752 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 5.23 to para 5.26, the Commission has approved 'As Received' GCV as 3783 kCal/kg for raw coal. The 'As Fired' GCV of raw coal is 3217 kCal/kg. The same has been used to work out the stacking loss of 566.00 kCal/kg for raw coal.
- 5.40 **Imported Coal:** AEML-G has neither purchased nor consumed any imported coal in July 2023. Also, there was nil quantum imported coal reported in opening inventory of the month of July 2023.
- 5.41 **LDO:** AEML-D has neither procured nor consumed any quantity of Light Diesel Oil (LDO) in the month of July 2023. However, AEML-D has available inventory of 428,97 KL of LDO at rate of Rs.72,430.02/KL (opening stock in July 2023).
- 5.42 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.”*
- 5.43 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 326 kCal/kg or 120 kCal/kg as per Regulation) for calculation of energy charge rate.



- 5.44 Considering the approved rates for washed coal, raw coal, imported coal and LDO, the fuel cost, GCV and normative operational parameters, the revised energy charges work out to Rs. 3.802/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) . 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.
- 5.45 **Incentive:** As per Regulation 46.3 of MYT Regulations, 2019 specifies the target PLF of 85%. Since the PLF for July 2023 was less than 85% (both in peak hours and off-peak hours), AEML-G has not claimed any incentive for July 2023.
- 5.46 Variation in power purchase expenses from ADTPS on account of change in quantum and per unit rate is as shown in Table 7 below:

**Table 7: Variation in Power Purchase expenses from ADTPS for July 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	236.63	5.10	(35.26)	2.23	(33.03)

- 5.47 Based on the above, **APPC for ADTPS works out to Rs. 5.10/kWh as against approved Rs. 5.01/kWh. There is an increase of Rs. 0.09 /kWh in APPC for the month of July 2023. Fixed cost variation is contributing to increase of Rs. 0.31/kWh and variable cost variation is contributing Rs. 0.22/kWh to the decrease.** The decrease in variable cost is due to non-consumption of imported coal in the month of July 2023.
- 5.48 **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 the 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 344.30 MUs and the associated cost (Rs. 186.33 Crore) has been considered in the July 2023 month FAC by AEML-D.
- 5.49 **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 4.66 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.
- 5.50 **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 242.59 MUs in the**



month of July 2023 from wind solar hybrid source at the same rate of Rs. 3.24/kWh as approved in the MTR Order.

- 5.51 **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 these non-solar sources in its MTR Order. The actual APPC and approved APPC from all the sources is as shown in the Table 8 below:

**Table 8: Approved and Actual APPC from Non-Solar Sources**

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

- 5.52 The Commission has approved power purchase rate for Vector Green Energy Limited, and Reliance Clean Power Private Limited in the MTR Order in Case No. 231 of 2022 and AEML-D has procured 11.64 MUs power from Reliance Clean Power Private Limited sources at the same rate during July 2023. No power has been purchased from Vector Green Energy Private Limited during in July 2023. Further, 0.05 MU of power has been procured from Tembhu Power Pvt. Ltd. (small hydro plant affected due to flooding of Krishna River in July 2021 and which was re-commissioned on 31 May, 2022) during July 2023.
- 5.53 Further, AEML-D has also procured 1.09 MUs of short term RE power through IEX Green Day Ahead Market (GDAM) at an average rate of Rs. 6.97/kWh.
- 5.54 **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.
- 5.55 AEML-D had submitted in the FAC application that it has contracted up to 241 MW in July 2023 on short term basis. However, since it was 'upto' 241 MW, AEML-D has been able to actually contract 240.9 MW in July 2023. Though 156.95 MW of this overall capacity is contracted at the rate of Rs. 2.94 per kWh (through competitive bidding), the remaining 83.9 MW has been contracted through day-ahead exchange linked contract.
- 5.56 In response to the datagaps raised by the Commission, AEML-D submitted the quantum of 83.9 MW has been contracted from intra state renewable energy sources, through day ahead exchange linked contract. Through such a contract, the trading margin of IEX is also saved. Also, this is an exchange linked contract where the contracted rate is lower than the rate discovered in IEX Day Ahead Market (DAM) for July 2023. In support of the same, AEML-D has submitted Letter of Intent (LoI) issued to the generators the contracted energy.



- 5.57 AEML-D has stated 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 9: Estimation of STPP RE procured in proportion to capacity**

Particular	Capacity (MW)	Energy (MU)	Remark
Total RE Capacity (Contracted + OA)	469.0	120.40	Provisional Actual REMC as per SLDC DSM bill data (A)
OA (LT+MT+ST)	193.6	49.69	Provisional Actual REMC in proportion of Capacity (B = 193.6/469.0x120.40)
Contracted (LT + ST)	275.5	70.71	Provisional Actual REMC in proportion of Capacity (C = 275.5/469.0x120.40)
Contracted RE (LT)	45.0	11.68	Actual RE Energy as per Bills (D)
<b>Contracted RE (ST) by AEML-D</b>	<b>230.5</b>	<b>59.02</b>	<b>Estimated ST RE Energy (C – D)</b>

- 5.58 Further, the cost against the power procurement these sources 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. However, some of the invoices pertaining to the transaction from this source in April 2023 and May 2023 were paid in July 2023, amounting to Rs. 6.87 Crore, and the same is considered as part of power purchase cost.
- 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, AEML-D has contracted capacity of up to 240.9 MW in July 2023 and hence 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 noted the submission and considered the approach adopted by AEML-D for computation of the FAC for the month of July 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 Additionally, AEML-D has also received invoices amounting to Rs. 6.87 Crores pertaining to the supply of energy in the period April 2023 to May 2023. This has been considered as a part of power purchase cost for July 2023.
- 5.62 Accordingly, the Commission approves the power purchase of short term RE (market linked contracts) considered in the month of July 2023. However, AEML-D needs to track the market movements and ensure that the terms of the contract are beneficial for the consumers.
- 5.63 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.
- 5.64 Variation in power purchase expenses from RE sources on account of change in quantum and per unit rate is as shown in Table 10 below:

**Table 10: Variation in Power Purchase expenses from Renewable Energy Sources for July 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)
<b>Solar</b>							
DSPPL	4.35	10.30	4.66	10.30	0.31	0.00	0.31
Adani Hybrid Energy Jaisalmer Four Limited – Wind Solar Hybrid (AHEJFL)	285.85	3.24	242.59	3.24	(14.01)	0.00	(14.01)
<b>Non-Solar</b>					-	-	-
Vector Green Energy Pvt Ltd	0.07	5.07			(0.03)	-	(0.03)



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)
Tembhu Power Pvt. Ltd.	1.00	4.26	0.05	4.26	(0.40)	-	(0.40)
Reliance Power Ltd.	6.24	5.81	11.64	5.81	3.14	0.00	3.14
Short Term RE (contracted/G-DAM)	43.80	4.90	60.12 <sup>#</sup>	1.27 <sup>#</sup>	7.99	(21.82)	(13.83)
<b>Total RE Sources</b>	<b>341.30</b>	<b>3.59</b>	<b>319.05</b>	<b>3.07</b>	<b>(3.01)</b>	<b>(21.82)</b>	<b>(24.83)</b>

<sup>#</sup> 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.

5.65 **APPC for renewable sources for the month of July 2023 works out to Rs. 3.07/kWh which is lower than the MTR approved level of Rs. 3.59/kWh.**

5.66 **Bilateral Purchase:** AEML-D has undertaken bilateral purchase of power from power exchange (IEX, HPX and PXIL), through exchange price linked bilateral contracts and inter-discom trade (with BEST) at the average rate of Rs. 6.78/kWh which is significantly higher than the approved rate of Rs. 5.13/kWh. It is observed that the average power prices in short term market are lower in July 2023 as compared to the prices observed during February 2023, March 2023, and April 2023 and June 2023 which is also reflected in the average price of power purchase from bilateral contracts in February 2023 (Rs. 9.99/kWh), March 2023 (Rs. 6.50/kWh), April 2023 (7.32/kWh), May 2023 (6.72/kWh) and June 2023 (7.50/kWh). The trend of the average rates discovered on IEX (at regional periphery) are shown below for reference:

**Table 11: Power Prices in short term market (Rs./kWh)**

Month	Feb-23	Mar-23	Apr-23	May-23	June-23	July-23
<b>RTC</b>	<b>6.91</b>	<b>4.95</b>	<b>4.97</b>	<b>4.87</b>	<b>4.89</b>	<b>4.58</b>
Evening (17-23 Hrs)	7.91	5.68	6.28	6.36	6.11	6.59
Day (10-17 Hrs)	6.09	4.08	3.53	3.80	3.68	3.10
Night (0-6, 23-34 Hrs)	5.42	4.74	5.81	5.62	5.96	4.74
Morning (6-10 Hrs)	9.45	5.74	4.11	3.20	3.31	3.89

5.67 Due to limited long-term tie-up, AEML-D relies on the short-term purchase. AEML-D has purchased 19.99 MUs through bilateral purchase (IEX, HPX, PXIL, exchange linked contracts and Inter Discom Trade) which is 2.40% of its total power purchase for July 2023. The summary of the power procured from the various short-term sources is reproduced in the table below:



**Table 12: 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)
<b>Bilateral Sources</b>				
1	IEX	12.48	6.80	5.44
2	PXIL	0.44	0.42	9.52
3	HPX	6.66	5.68	8.53
4	STPP (Inter-Discom Trade)	0.41	0.41	9.96
5	Exchange sale cost		0.19	-
6	SLDC schedule charges		0.06	-
7	<b>Total</b>	<b>19.99</b>	<b>13.56</b>	<b>6.78</b>

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. 6.78/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 July 2023 towards fees paid for August 2023. Further, in the month of July 2023, IEX standing clearance was sought from MSLDC, for which an amount of Rs.7,500 was paid to MSLDC. 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 13 below:

**Table 13: Variation in Power Purchase expenses from bilateral sources for July 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	19.99	6.78	(20.97)	3.30	(17.67)

5.71 **Banking Return:** AEML-D has executed a banking transaction for the period from 24 July to 30 September 2023 with M/s Manikaran Power Limited (MPL)- PSPCL for supply of up to 75 MW power. Under this contract, for the month of July 2023, AEML-D has banked 14.87 MU with the banking partner. The return of banked power by MPL-PSPCL shall be from 21 October 2023 to 31 December 2023 and from 1 March 2024 to 15 April 2024 with the return percentage at 105% of banked energy at delivery point i.e. Regional Periphery. AEML-D has considered the aforesaid quantum of Banking as part of FAC for the month of July 2023.





AEML-D has not considered the cost related to the Banking quantum separately, since the banking quantum is supplied from the power available from the existing portfolio of AEML. For the purpose of banking, AEML-D has considered only the open access charges up to regional periphery which were incurred for supply of power to MPL-PSPCL under the banking contract. The Commission has noted the submission.

5.72 **DSM Pool:** AEML-D has submitted that for the month of July 2023, it has injected 0.62 MUs into the pool under the DSM mechanism and has incurred cost of Rs. 0.70 Crore.

5.73 **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.”*

5.74 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:”*

5.75 The surplus energy of RE Open Access consumers (Firm and Non-firm) purchased by AEML-D as per the aforementioned regulations is 0.34 MU at a cost of Rs. 0.08 Crore and is considered in the FAC for the month of July 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.

5.76 **Sale of Power:** AEML has sold 73.30 MUs under bilateral transaction and received Rs. 26.75 Crore for the month of July 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. 3.65/kWh) is way below actual bilateral purchase rate of Rs. 6.78/kWh for July 2023 and the approved rate of sale of power (Rs. 5.13/kWh). 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.

5.77 **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 July 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. 4.20 Crore as rebate to be considered as part of power purchase cost for the month of July 2023. There is no standby previous year adjustment for the month of July 2023.

5.78 Summarised reasons for the rate variation for various sources are given in Table 14 below:

**Table 14: Reasons for the rate variation for various sources for July 2023**

Sr. No.	Source	Approved Rate (Rs. /kWh)	Actual Rate (Rs. /kWh)	Reason for rate variation
1	ADTPS	5.01	5.10	<ul style="list-style-type: none"> <li>• There is an increase of Rs. 0.09 /kWh in APPC for the month of July 2023. Fixed cost variation is contributing to increase of Rs. 0.31/kWh and variable cost variation is contributing Rs. 0.22/kWh to the decrease.</li> <li>• The fixed charges are higher due to lower generation as compared to the approved generation.</li> </ul>
2	RE Sources	3.59	3.07	<ul style="list-style-type: none"> <li>• RE power procurement from contracted sources</li> <li>• Very less quantum of RE power procured through exchange platform</li> <li>• AEML-D contracted Intrastate Wind capacity with AEL in July 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.</li> </ul>
3	AEL-MTPP	5.25	5.41	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> </ul>
4	Bilateral purchase excluding the	5.13	6.78	<ul style="list-style-type: none"> <li>• Market discovered rate;</li> </ul>



Sr. No.	Source	Approved Rate (Rs./kWh)	Actual Rate (Rs./kWh)	Reason for rate variation
	impact of Banking of power			<ul style="list-style-type: none"> <li>Higher cost purchase of short-term power from Power Exchange (IEX, HPX and PXIL), through day ahead exchange linked bilateral contracts and inter discom trade. The rate of power purchase without considering banking of power is Rs. 6.78/kWh.</li> </ul>
5	Power Exchange (Sale)	5.13	3.65	<ul style="list-style-type: none"> <li>Market discovered rate;</li> <li>Lower cost of sale of excess power in Power Exchange (IEX, HPX and PXIL)</li> </ul>
	<b>Total</b>	<b>4.29</b>	<b>4.67</b>	<b>Variation due to above reasons</b>

\* The quantum of 14.87 MUs has been banked with MPL-PSPCL. The return of banked power by MPL-PSPCL shall be from 21 October 2023 to 31 December 2023 and from 1 March 2024 to 15 April 2024. AEML-D has not considered the cost related to the Banking quantum separately, since the banking quantum is supplied from the power available from the existing portfolio of AEML. Total actual rate of power purchase of Rs. 4.67/kWh has been worked out by considering the (-14.87 Mus) of the banked power.

5.79 Considering the above, the Commission allows the actual average power purchase cost of Rs. 4.67/kWh for the month of July 2023 as shown in Table 14 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 July 2023 as shown in Table 14 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<sub>FAC</sub> 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<sub>FAC</sub> worked out by the Commission on account of difference in power purchase cost for the month of July 2023 is positive as shown in the Table 15 below.

**Table 15: FAC on account of Power Purchase Cost**

Sr. No.	Particulars	Units	July 2023
1	Average power purchase cost approved by the Commission	Rs./ kWh	4.29
2	Actual average power purchase cost	Rs./ kWh	4.67
3	Change in average power purchase cost (= 2-1)	Rs./ kWh	0.38
4	Net Power Purchase	MU	831.51
5	Change in power purchase cost (=3 x 4/10)	Rs. Crore	31.64

#### 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 The Commission has allowed recovery of FAC leviable from April 2023 to June 2023 from March 2024 to May 2024 in its June 2023 FAC approval report. Details of the actual recovery will be available once the actual recovery is done. Hence, the deferred over-recovery/under-recovery at the end of June 2023 to be adjusted in July 2023 is 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 one-year SBIMCLR + 150 basis points. The opening balance of FAC fund in month of July 2023 is nil. Hence, there is no carrying cost worked out for July 2023 as there is no over/under-recovery considered in para 7.2 above.

**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 16 provides the comparison of approved and actual distribution loss and disallowance due to excess distribution loss, if any:

**Table 16: Disallowance of FAC due to excess Distribution Loss**

Sr. No.	Particulars	Units	Approved in Tariff Order	Actual for July 2023	Cumulative up to July 2023	Annual Sliding Distribution Loss up to July 2023
1	Net Energy input at Distribution Voltages	MU	848.41	812.83	3740.22	9,842.55



Sr. No.	Particulars	Units	Approved in Tariff Order	Actual for July 2023	Cumulative up to July 2023	Annual Sliding Distribution Loss up to July 2023
2	Energy sales at Distribution voltages	MU	790.72	834.36	3549.72	9,288.08
3	Distribution Loss (1 - 2)	MU	57.70	(21.53)	190.50	554.47
4	Distribution Loss as % (3/1)	%	6.80%	-2.65%	5.09%	5.63%
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 16, distribution loss for the month of July 2023 is (2.65)% which is lower than the MTR Order dated 31 March, 2023 approved distribution loss of 6.80%. Further, the annual sliding distribution loss up-to July 2023 is 5.63% 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 17 below:

**Table 17: Monthly and Cumulative Distribution Loss trend of AEML-D**

Year	FY 2023-24	FY 2022-23
<b>Approved</b>	<b>6.80%</b>	<b>7.05%</b>
Actual – April	9.72%	12.47%
Actual – May	10.80%	11.48%
Actual – June	1.14%	-4.83%
Actual – July	-2.65%	2.70%
<b>Actual – Cumulative till July</b>	<b>5.09%</b>	<b>5.83%</b>

- 9.5 As seen from above Table 16, disallowance of FAC due to excess distribution loss for the month of July 2023 is nil. Though the standalone FAC for the month of July 2023 is positive, as the annual sliding distribution loss is lower than approved distribution loss by the Commission, there is no disallowance of FAC due to excessive distribution loss.

**10. Summary of Allowable Z<sub>FAC</sub>**



- 10.1 The summary of the FAC amount as approved by the Commission for the month of July 2023 as shown in the Table 18 below.

**Table 18: Summary of Allowable Z<sub>FAC</sub> for July 2023**

Sr. No.	Particulars	Units	As Claimed July 2023	As Approved July 2023 2023
<b>1</b>	<b>Calculation of Z<sub>FAC</sub></b>			
1.1	Change in cost of generation and power purchase attributable to Sales within the License Area (F)	Rs. Crore	31.64	31.64
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 <sub>FAC</sub> = F+C+B	Rs. Crore	31.64	31.64
<b>2</b>	<b>Calculation of FAC Charge</b>			
2.1	Energy Sales within the License Area	MU	834.36	834.36
2.2	Excess Distribution Loss	MU	-	-
2.3	Z <sub>FAC</sub> per kWh	Rs./kWh	0.38	0.38
2.4	Cap at 20% of variable component of tariff	Rs./kWh	1.16	1.16
2.5	FAC Charge allowable (Minimum of 2.3 and 2.4)	Rs./kWh	0.38	0.38
<b>3</b>	<b>Recovery of FAC</b>			
3.1	FAC disallowed corresponding to excess Distribution Loss [(2.2 x 2.3)/10]	Rs. Crore	-	-
3.2	Allowable FAC	Rs. Crore	31.64	31.64
<b>4</b>	<b>Utilization of FAC Fund</b>			
4.1	Opening Balance of FAC Fund	Rs. Crore	-	-
4.2	Carrying cost on FAC Fund	Rs. Crore	-	-
4.3	Z <sub>FAC</sub> for the month (Sr. No. 3.2)	Rs. Crore	31.64	31.64
4.6	Closing Balance of FAC Fund	Rs. Crore	31.64	31.64
4.7	Z <sub>FAC</sub> leviable/refundable to consumer	Rs. Crore	31.64	31.64
<b>5</b>	<b>Total FAC based on category wise and slab wise allowed to be recovered in future billing months</b>	Rs. Crore	-	-
<b>6</b>	<b>Carried forward FAC for recovery during future period (4.7-5)</b>	Rs. Crore	31.64	31.64

- 10.2 It can be seen from the above Table 18 that opening FAC fund for month of July 2023 is nil and standalone FAC for the month of July 2023 approved by the Commission is Rs. 31.64 Crore. Accordingly, the FAC amount leviable on the consumer for the month of July 2023 is Rs. 31.64 Crore. However, due to the reasons discussed earlier, the Commission has decided to carry forward and accumulate the FAC, along with the applicable carrying cost (excluding the period of delay). The accumulated FAC amount shall be recovered in the future billing months.

**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 ZFAC per kWh for a particular Tariff category/sub-category/consumption slab shall be computed as per the following formula: —*

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

*Where:*

*Z<sub>FAC Cat</sub> = Z<sub>FAC</sub> 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<sub>FAC</sub> 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<sub>FAC</sub> 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. 31.64 Crore for the month of July 2023.
- 11.3 In its FAC submission for the period July 2023 to December 2023, AEML-D has requested the Commission to allow cumulative recovery of FAC for the period July 2023 to December 2023 and recovery of revised FAC from April 2024 onwards at FAC ceiling rate to ensure that accumulated revenue gap can be mopped up to the maximum possible and consumers are shielded from the tariff impact of the same in the next control period. AEML-D has submitted that the additional power purchase of around 19 months (considering the period from July 2023 to January 2025) may be potentially recoverable over the remaining period of 10 months (June 2024 to March 2025) prior to issuance of the new MYT Order. This period of 10 months may very likely be insufficient to recover the additional power purchase cost of at least 19 months even if the FAC hits the 20% ceiling rate for each of the remaining 10 months. Considering the same, AEML-D has requested the Commission to reconsider the recovery allowed from April 2024 itself and allow recovery at the ceiling rate. While the concerns raised by AEML-D are valid, this situation could have been envisaged well in advance by AEML-D and they could



have ensured timely submission of FAC proposals and response to datagaps raised by the Commission.

- 11.4 Having said that it is also observed that if the levy is allowed for the FAC for July 2023 and there is a variation in in FAC amounts in the subsequent months, it would lead to variation in Tariff for end consumers thereby defeating the objective of creating FAC stabilization fund. In similar situations in the past, the Commission has taken an approach to accumulate the FAC leviable and allowing the recovery of such accumulated amounts in ensuing billing months. Considering the accumulated FAC over the period July 2023 to December 2023, the Commission deems it appropriate to adopt a similar approach of accumulating the FAC for July 2023 to December 2023. Further, recovery at the ceiling limit of the FAC charge would ensure that accumulated FAC gets passed through the FAC mechanism to the maximum extent possible in the remaining period and thus the revenue gap to be carried forward to the new Multi Year Tariff control period will be minimal, thus minimising the carrying cost impact on the consumers to that extent. Accordingly, the Commission considers it appropriate to accumulate the FAC for the period of July 2023 to December 2023 and allow its recovery in the ensuing billing months at ceiling tariff. The recovery will start from May 2024 and the overall period of recovery will be decided in the Commission's approval on the FAC submission for December 2023. In view of the above, per unit  $Z_{FAC}$  for the month of July 2023 will be levied on the consumers of AEML-D starting from the billing month of May 2024 along with the FAC for the period August 2023 to December 2023. The details will be provided in the Commission's approval on the FAC submission for December 2023.

