



महाराष्ट्र विद्युत नियामक आयोग

Maharashtra Electricity Regulatory Commission

Ref. No. MERC/FAC/2024-25/ 0545

Date: 30 August 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 January 2024.

Reference: 1. AEML-D FAC submission for the month of January 2024 vide email dated 3 April, 2024.
2. The data gaps were communicated vide emails dated 20 April, 2024.
3. AEML-D replied vide emails dated 18 June, 2024.

Sir,

Upon vetting the FAC calculations for the month of January 2024 as mentioned in the above reference, the Commission has accorded approval for charging FAC amount of **Rs. 114.41 Crore**. The recoverable FAC available at the beginning of January 2024 is nil and hence the closing balance of the FAC recoverable at the end of January 2024 is **Rs. 114.41 Crore**.

AEML-D has submitted the FAC proposal for January 2024 on 3 April 2024 instead of filing it in the month of February 2024 as per the prescribed regulatory timelines. This delay in FAC submission has led to a delay in allowing the FAC recovery on a regular basis.

In its FAC submission for the month of May 2024, AEML-D has requested the Commission to allow cumulative recovery of FAC for the period January 2024 to May 2024 and recovery of revised FAC from September 2024 onwards at FAC ceiling rate (20% of category energy charge) to ensure that accumulated revenue gap can be mopped up to the maximum possible and avoiding the impact of carrying cost on the accumulated amount. In this regard, AEML-D has also submitted that the Commission vide letter dated 19 April 2024, has approved the FAC for the period upto December 2023 and also has approved the category wise FAC for recovery for the months from May 2024 to August 2024 at the ceiling rate (20% of category energy charges) and considered the balance FAC amount of Rs. 20.23 crore to be recovered in the month of September 2024. AEML-D has suggested that the amount allowed to be recovered in September 2024 (Rs. 20.23 Crore) should be clubbed with the FAC accumulated for the period January 2024 to May 2024 and allowed for recovery in the months of September 2024 and October 2024. As the billing for the month of September 2024 has not commenced, AEML-D has requested the Commission to revise the FAC allowed for recovery in

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September 2024 to 20% of category energy charge and allow recovery of the total accumulated FAC for the period January 2024 to May 2024 including the recovery allowed earlier in September 2024 (Rs. 20.23 Crore) over the billing period of September 2024 and October 2024. The portion of the accumulated FAC not recovered over the period September 2024 and October 2024 is proposed to be recovered along with the FAC for period June 2024 onwards.

Similar situation was prevailing earlier as well, and 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 data gaps raised by the Commission presently and in the past as well.

As highlighted by the Commission in the past FAC approval reports, variation in FAC amounts over different months lead to variation in Tariff for end consumers on a monthly basis 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. Similar approach was also adopted by the Commission for the period July 2023 to December 2023 wherein the recovery was allowed over the period May 2024 to September 2024 at the ceiling rate (20% of category energy charge). Accordingly, considering the accumulated FAC over the period January 2024 to May 2024, the Commission deems it appropriate to adopt a similar approach of accumulating the FAC for January 2024 to May 2024 and allowing recovery at the ceiling limit of the FAC charge (20% of category energy charge) which would ensure that the accumulated FAC gets passed through via the FAC mechanism to the maximum extent possible in the remaining period and thus avoiding the impact of carrying cost on the accumulated FAC and 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 January 2024 to May 2024 and allow its recovery in the ensuing billing months at ceiling rate. The recovery will start from September 2024 and the overall period of recovery will be decided in the Commission's approval on the FAC submission for May 2024. Accordingly, the FAC amount chargeable to consumers is as shown in the table below:

Month	FAC Amount (Rs. Crore)
January 2024	0

Accordingly, the Commission allows AEML-D to carry forward the FAC amount of Rs. 114.41 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 5 months, under normal circumstances, the accumulated FAC for the period January 2024 to May 2024 would have been recoverable from July 2024 onwards. However, in the present situation, the recovery can only start from September 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 July 2024 to August 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 May 2024 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.

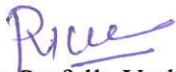
Further, as directed in the Order in Case No. 231 of 2022, in order to maintain transparency in the management and use of such FAC Fund, AEML-D shall maintain a monthly account of such FAC fund and upload it on its website for information of stakeholders.

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

AEML-D is also directed to submit a copy of the monthly Bill after levy of FAC as approved by the Commission.

Yours faithfully,




(Dr. Prafulla Varhade)
Director (Elect. Engg.), MERC

Encl: Annexure A: Detailed Vetting Report for the month of January 2024.

PRIOR APPROVAL FOR FAC CHARGES FOR THE MONTH OF JANUARY 2024

Subject: Prior approval of Fuel Adjustment Charges (FAC) submissions of AEML-D for the month January 2024.

Reference: 1. AEML-D FAC submission for the month of January 2024 vide email dated 3 April, 2024
2. The data gaps were communicated vide emails dated 20 April 2024.
3. AEML-D replied vide emails dated 18 June, 2024.

1. FAC submission by AEML-D:

- 1.1 AEML-D has made FAC submissions for the month of January 2024 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. 114.41 Crore.**
- 1.2 The opening recoverable FAC available at the beginning of January 2024 is **nil** and considering the FAC for the month of January 2024 of **Rs. 114.41 Crore**, the total FAC recoverable at the end of January 2024 is **Rs. 114.41 Crore.**
- 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 January 2024 to May 2024, the Commission, in line with the approach adopted in the past, is allowing accumulation of the FAC amount for the period of January 2024 to May 2024 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 January 2024 to May 2024 was expected to be levied from July 2024 onwards. On account of delay on part of AEML-D, the recovery is possible only from September 2024 onwards. Hence, the carrying cost for delayed period (July 2024 to August 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 to 11.5 of this report, the recovery of FAC for the period January 2024 to May 2024 will start from September 2024 and the overall period for recovery will be discussed in the Commission's approval on the FAC submission for May 2024.

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 3 April 2024, AEML-D has filed FAC submissions for the month of January 2024 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 (January 2024) (MU)
	(I)	(II=I/12)	(III)
LT Category			
BPL	0.01	0.00	0.00
LT -I Residential	4,897.01	408.08	347.28
LT II Commercial	3,245.40	270.45	213.29
LT III(A) - LT Industrial upto 20 kW TOD Option	391.95	32.66	27.16
LT III(B) - LT Industrial above 20 kW	446.52	37.21	26.59
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	2.28
LT X: LT -Public Service (B)	215.84	17.99	16.90
LT X (A) : LT - Agriculture Pumpsets	0.05	0.00	0.01
LT X (B) : LT - Agriculture Others	0.39	0.03	0.02
LTIV - Public Water Works	-	-	-
LT IX : LT - EVCS	3.73	0.31	0.77
HT 1 (Industrial)	614.12	51.18	35.08
HT 2 (Commercial.)	426.79	35.57	36.27
HT 3 (Group Housing Soc.)	10.96	0.91	0.98
EHT Industry	180.00	15.00	-
EHT Metro & Monorail	120.00	10.00	0.19
HT - Public Services (A)	11.46	0.96	0.19
HT - Public Services (B)	306.62	25.55	18.70



Consumer Category	Approved by the Commission (MU)	Monthly* Approved (MU)	Actual Sales (January 2024) (MU)
	(I)	(II=I/12)	(III)
HT - EV Charging station	70	5.83	-
Total	10,985.51	915.46	725.73

*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 January 2024 is 725.73 MUs which is 20.73% 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 January 2024 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 January 2024).
- For cycle consumers (LT cycle billing), consumption data provided is for bill generation (bill posting date) from 1st January to 31st January. These energy sales will pertain to the period which will comprise on an average half of December 2023 and half of January 2024.

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
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
Actual - August, 2023	398.07	264.11	115.54	51.63	829.35	733.94
Actual - September, 2023	408.96	256.89	103.96	46.72	816.53	749.65
Actual - October, 2023	435.39	282.12	85.01	52.56	855.08	793.39
Actual - November, 2023	457.68	274.32	94.38	47.27	873.65	691.70
Actual - December, 2023	387.12	262.23	88.16	42.22	779.74	703.30
Actual - January, 2024	348.26	249.56	88.83	39.07	725.73	657.87
Approved - Cumulative till January 2024	4,089.98	3,060.16	1,210.49	793.96	9,154.59	7,722.42
Actual - Cumulative till January 2024	4,261.23	2,713.71	979.58	475.28	8,429.79	6,984.29



4. Power Purchase Details

4.1 The Commission in its MTR Order dated 31 March, 2023 in Case No. 231 of 2022 had approved the Power Purchase by AEML-D for FY 2023-24 from the following list of sources to meet its demand:

- a) Purchase from Adani Dahanu Thermal Power Station (ADTPS)
 - b) 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 Summary of power purchase of AEML-D is as shown in Table 3 below:

Table 3: Summary of Power Purchase for January 2024

Sr. No.	Particular	Compliance																																
1	Purchase from Approved Sources	Yes. AEML-D has procured power from ADTPS, AEL-MTPP, Solar and Non-solar Sources and Bilateral sources in the month of January 2024, which are approved sources of power purchase.																																
2	Merit Order Dispatch (MoD)	Yes. AEML-D had scheduled power as per MoD. With regards to the interstate contracts, as mentioned in the preceding month's FAC approvals, all Interstate contracts viz. RE Hybrid (700 MW), DSPPL (40 MW), AEL-MTPP (500 MW) and other short-term transactions are being scheduled under GNA/T-GNA, from October 2023.																																
3	Fuel Utilization Plan	There is only one thermal generating station of AEML-G, and it has sourced raw / washed coal/LDO 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 16.13 MUs from the DSM pool as per DSM mechanism.																																
5	Sale of Surplus Power	AEML has made sale of 48.37 MUs of surplus power during the month of January 2024.																																
6	Power Purchase	Actual Power Purchase is 766.46 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>174.92</td> <td>22.82%</td> </tr> <tr> <td>RE Sources</td> <td>341.30</td> <td>214.85</td> <td>28.03%</td> </tr> <tr> <td>AEL-MTPP[#]</td> <td>366.00</td> <td>348.01</td> <td>45.40%</td> </tr> <tr> <td>Bilateral and Banking[@]</td> <td>131.38</td> <td>60.60</td> <td>7.91%</td> </tr> <tr> <td>Bilateral Sale</td> <td>(101.25)</td> <td>(48.37)</td> <td>-6.31%</td> </tr> <tr> <td>Imbalance Pool & Other</td> <td>-</td> <td>16.45</td> <td>2.15%</td> </tr> <tr> <td>Total</td> <td>1,044.45</td> <td>766.46</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 for the comparison purpose.</i></p>	Source Name	Approved* (MU)	Actual (MU)	Proportion of each Source in Actual Purchase	ADTPS	307.02	174.92	22.82%	RE Sources	341.30	214.85	28.03%	AEL-MTPP [#]	366.00	348.01	45.40%	Bilateral and Banking [@]	131.38	60.60	7.91%	Bilateral Sale	(101.25)	(48.37)	-6.31%	Imbalance Pool & Other	-	16.45	2.15%	Total	1,044.45	766.46	100.00%
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Sr. No.	Particular	Compliance
		<p># 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.</p> <p>@ Includes 76.84 MU of power banked by AEML under the banking arrangement with MPL-RUNVL against the energy. AEML-D has entered into banking arrangement for up to 200 MW wherein MPL (source- RUNVL) will be banking power with AEML-D from 1st November 2023 to 29th February 2024. The return of banked power at 102% to AEML-D will be from 15th March 2024 to 30th June 2024. Accordingly total energy booked under the banking arrangement in January 2024 is 76.84 MUs without any corresponding cost. 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 and its cost is therefore already included in the power purchase cost for the month of Jan 2024.</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 and short-term power purchase contracts, 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 January 2024 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>

4.3 **AEML-D has purchased 766.46 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 January 2024, 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 January 2024 is Rs. 443.16 Crore** which is slightly lower than the **approved Power Purchase cost of Rs. 447.99 Crore** by the Commission for the month of January 2024. However, the per unit power purchase cost in January 2024 at Rs. 5.78/kWh is higher than the approved power purchase cost of Rs.



4.29/kWh. This is on account of the higher cost of power purchase from ADTSP, AEL-MTPP, and other bilateral sources (including exchange), in January 2024. 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 January 2024 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)
ADTSP	Approved*	307.02	30.45	0.99	123.33	4.02	153.78	5.01
	Actual	174.92	30.45	0.17	62.85	3.59	93.30	5.33
Solar and Non-Solar Purchase	Approved	341.30	-	-	122.64	3.59	122.64	3.59
	Actual	214.85	-	-	70.62	3.29	70.62	3.29
AEL MTPP	Approved	366.00	81.51	2.23	110.77	3.03	192.28	5.25
	Actual	348.01	83.64	2.40	110.86	3.19	194.49	5.59
Banking cost / Banking Return [#]	Approved	70.50	-	-	-	-	-	-
	Actual	(76.84)	-	-	-	-	-	-
Bilateral Purchase	Approved	60.88	-	-	31.23	5.13	31.23	5.13
	Actual	137.44	-	-	106.31	7.74	106.31	7.74
Pool/ DSM	Approved	-	-	-	-	-	-	-
	Actual	16.13	-	-	8.57	5.31	8.57	5.31
OA/RTS/Banking OA and Trading margin	Approved	-	-	-	-	-	-	-
	Actual	0.33	-	-	0.12	3.80	0.12	3.80
Sale of Power	Approved	(101.25)	-	-	(51.94)	5.13	(51.94)	5.13
	Actual	(48.37)	-	-	(28.05)	5.80	(28.05)	5.80
Other Charges/Rebate/Addl InSTS charges/	Approved	-	-	-	-	-	-	-
	Actual	-	-	-	-	-	(2.21)	-
Total	Approved	1,044.45	111.95	1.07	336.03	3.22	447.99	4.29
	Actual	766.46	114.09	1.49	329.08	4.29	443.16	5.78

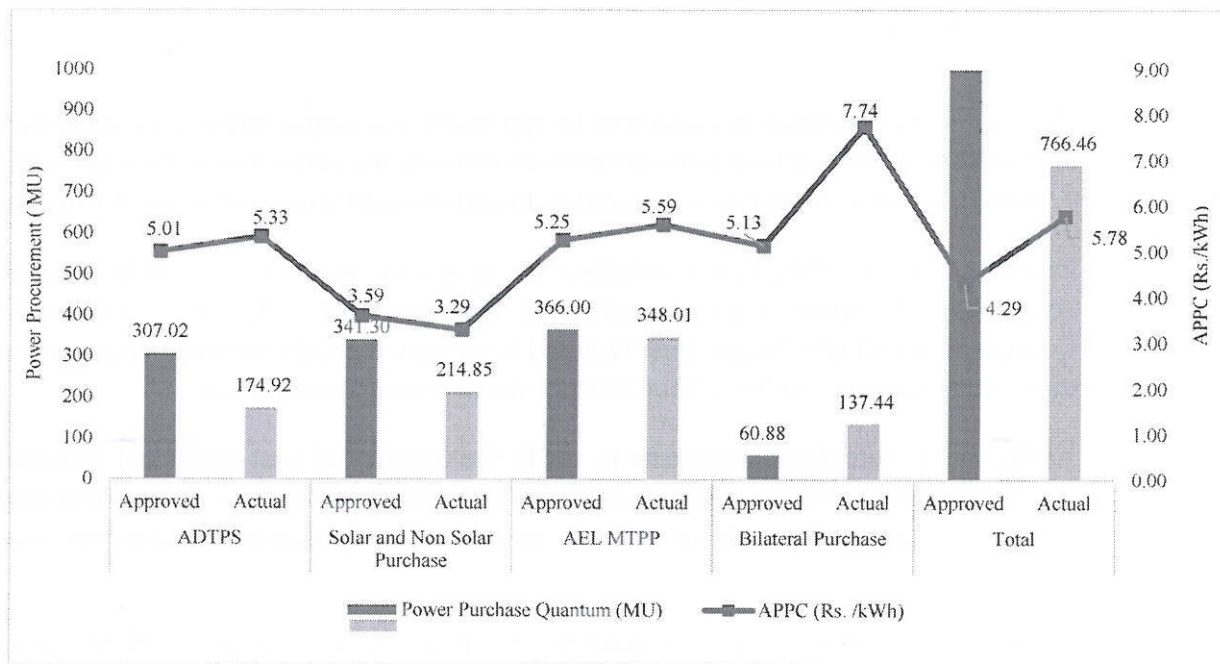
*In case of AEML-D, there is no monthly approval for purchases. The monthly approved power purchase is computed based on annual approved power purchase for comparison purpose.

[#] Includes 76.84 MU of power banked by AEML under the banking arrangement with MPL-RUNVL against the energy. 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 and its cost is therefore already included in the power purchase cost for the month of Jan 2024.

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 January 2024



5.4 AEML-D has submitted that Merit Order Despatch has been followed. As discussed in the FAC approval for previous months, all Interstate contracts viz. RE Hybrid (700 MW), DSPPL (40 MW), AEL-MTPP (500 MW) and other short-term transactions are being scheduled under GNA/ T-GNA, from October 2023. The Commission has noted the submission.

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 174.92 MU for the month of January 2024 at an average rate of Rs. 5.33/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 January 2024 was 52.07% 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 63.11%. The actual PAFM for both units of AEML-G in January 2024 was 62.58% during peak hours and 63.22% during off peak hours. The capacity charges 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 January 2024.



- 5.8 **Due to lower generation as compared to approved generation, there is an increase of Rs. 0.75/kWh in the Fixed Cost per unit and accordingly the actual Fixed Cost per unit is Rs. 1.74/kWh which is higher 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 January 2024.
- 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, as applicable, for the month of January 2024.
- 5.11 **Washed Coal:** AEML-D has submitted that AEML-G has received 88,065.91 MT of washed coal at the plant boundary of ADTPS at a rate of Rs. 5,289.10 per MT and has consumed 47,319.69 MT of washed coal in January 2024. "Other Charges" in the closing stock of the last month i.e., December 2023 amounting to Rs. 0.60 Crores have also been considered in the opening stock of the month of January 2024.
- 5.12 In the month of January 2024, AEML-D has considered Rs. 6,40,293/-, Rs. 3,31,941/- and Rs. 1,29,308/- 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 December 2023.
- 5.13 AEML-D has considered Rs. (82,55,449)/- [i.e. Rs. (69,96,143) plus 18% GST] which has been considered as an adjustment under ACB Washing charges for Q3 penalty.
- 5.14 The input tax credit (ITC) due to sale of coal rejects works out to Rs. (8,95,182)/- for January 2024 and the same has been included as an adjustment under SECL coal purchase cost.
- 5.15 In Dec 2023, Railways has levied charges of Rs. 1,20,172/- pertaining to washed coal on AEML-G. Further, refund of Rs (57,834)/- pertaining to washed coal and corresponding to earlier months has been received from railways in Jan 2024. The same has been included under other charges. As per the railway charges demand letters from Railways, the generating company is required to first make payment of the charges electronically and then seek waiver of charges from Railways within 10 days from the date up to which these charges have accrued. AEML-G accordingly had paid the charges and thereafter had sought waiver of such charges. Railways has waived charges for some of the rakes in previous months and refunded the amounts to AEML-G. The same is passed on to the beneficiary. AEML-G has paid railway net demurrage charges of Rs. 62,338/- in January 2024 for the washed coal received in the month of December 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 January 2024.
- 5.16 AEML-D has considered Rs. 7,95,933/- under SECL coal purchases for Debit Note raised by SECL for difference of STC (Surface Transport charges) against invoices raised for coal



purchases during the period 29.10.2023 to 01.12.2023. Earlier SECL used to charge STC of Rs. 40/MT. The same has been revised to Rs. 50/MT with effect from 28.10.2023. The revised charges stated in the notification issued by the SECL are mentioned below:

Slab	Revised Rate of STC w.e.f. 28-10-2023 (Rs./Tonne)
I (0-3 Km)	50.00
II (>3-10 Km)	87.00
III (>10-20 Km)	116.00
IV (>20 Km)	Actual + 10%

- 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, as "uploading on washed coal inventory".
- 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 January 2024 is as shown in the Table 5 below:

Table 5: Working of Washed Coal Rate for January 2024

Particular	Quantity (MT)	Cost (Rs. Crore)	Price (Rs./MT)
Inventory			
Opening (as on 1st Jan 2024)	24,757.02	13.97	5,641.69
Addition during month	88,065.91	46.58	5,289.10
Other Charges			
Total	1,12,822.93	60.55	5,366.47
Consumption			
Actual	47,319.69	25.14	5,313.63
Other Charges		0.33	
Total	47,319.69	25.47	5,382.92

- 5.19 The overall cost approved towards consumption of washed coal is Rs. 25.47 Crore for the month of January 2024.
- 5.20 With regards to the washed coal, the weighted average landed cost for the month of January 2024 is Rs. 5,382.92/MT as compared to MTR approved Rs. 5,354/MT. AEML-D has consumed 47,319.69 MT of washed coal during the month of January 2024.
- 5.21 AEML-D has considered the 'As billed' GCV of washed coal as 4,163 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 4,177 kCal/kg for January 2024. In MYT Order in Case No. 298 of 2019, the Commission has directed AEML-G 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 January 2024 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 (January 2024 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 (December 2023 or earlier, as applicable, in the present case) would be considered. In the present case, the washed coal was purchased in January 2024 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 submission done for the month of January 2024, AEML-D has considered the same approach for determining stacking loss as approved by the Commission. Accordingly, AEML-D has submitted the Energy charge calculation for ADTPS for January 2024 in line with the above approach for approval of the Commission.
- 5.26 Accordingly, the 'As Received GCV' of 4,177 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 January 2024.
- 5.27 The transit loss claimed by AEML-D for the month of January 2024 is 119.71 MT which is 0.14% 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 4,175 kCal/kg. Considering the difference between the 'As Received' GCV and the 'As Fired' GCV, the stacking loss for washed coal works out to 2 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 1,08,367.80 MT Raw Coal (at plant boundary) from SECL and has consumed 71,202.06 MT of raw coal in January 2024. As per weighment of coal at ADTPS, the raw coal received is 1,08,367.80 MT and the weighment of coal dispatched by SECL was 1,08,928.04 MT. The difference is reported as the transit loss which is 560.24 MT which is 0.51% of the total coal dispatched during the month of January 2024.
- 5.30 In Dec 2023, Railways has levied charges of Rs. 6,84,134/- pertaining to raw coal on AEML-G. Further, refund of Rs (98,089)/- pertaining to raw coal and corresponding to earlier months has been received from railways in Jan 2024. Accordingly, AEML-G has incurred net railway demurrage charges of Rs. 5,86,045/- for the month of December 2023. These charges are on account of detention of Railway's rolling stock after the expiry of free time for 21 no. of rakes containing raw coal and the same has been considered in the month of January 2024.
- 5.31 The working of the raw coal fuel cost considered for January 2024 is as shown in the

Table 6 below:

Table 6: Working of Raw Coal Rate for January 2024

Particular	Quantity (MT)	Cost (Rs. Crore)	Price (Rs./MT)
Inventory			
Opening (as on 1st Jan 2024)	51,419.64	24.80	4,822.66
Addition during month	1,08,367.80	52.10	4,807.97
Total	1,59,787.44	76.90	4,812.70
Consumption			
Actual	71,202.06	34.27	4,812.70
Other Charges		0.04	-
Total	71,202.06	34.30	4,817.94

- 5.32 The overall cost approved towards consumption of raw coal is Rs. 34.30 Crore for the month of January 2024.
- 5.33 **With regards to the raw coal, the weighted average landed cost for consumption in the month of January 2024 is Rs. 4,817.94/MT.** AEML-D has consumed 71,202.06 MT of raw coal during the month of January 2024.
- 5.34 It has been observed that in January 2024, AEML-G has purchased raw coal from SECL only. AEML-D has considered the 'As billed' GCV of raw coal as 3,893 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 3,615 kCal/kg for January 2024. 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 January 2024 is 278 kCal/kg.

- 5.35 Hence, as mentioned above, the GCV loss (278 kCal/kg) for raw coal for the month of January 2024 is within the limit of 300 kcal/kg and 'As Received' GCV of 3615 kCal/kg for calculation is considered (i.e., maximum of the 'As Received' GCV or 'As Billed' GCV minus 300 kCal/kg).
- 5.36 In accordance with the methodology mentioned in para 5.23 to para 5.25, the Commission has approved 'As Received' GCV as 3615 kCal/kg for raw coal. The 'As Fired' GCV of raw coal is 3602 kCal/kg. The same has been used to work out the stacking loss of 13.00 kCal/kg for raw coal.
- 5.37 **Imported Coal:** AEML-G has neither purchased nor consumed any imported coal in January 2024. Also, there was nil quantum imported coal reported in opening inventory of the month of January 2024.
- 5.38 **LDO:** AEML-D had opening stock of 424.84 KL of LDO at rate of Rs. 75,279.62/KL at the beginning of January 2024. AEML-D submitted that it has received 145.00 KL, and it has consumed 207.08 KL of Light Diesel Oil in the month of January 2024.
- 5.39 The working of the LDO fuel cost considered for January 2024 is shown in the Table 7 below:

Table 7: Working of LDO Rate for January 2024

Particular	Quantity (KL)	Cost (Rs. Crore)	Price (Rs./KL)
Inventory			
Opening (as on 1st Jan 24)	424.84	3.20	75,279.62
Addition during month	145.00	1.04	71,539.53
Total	569.84	4.24	74,327.92
Consumption			
Actual	207.08	1.54	74,327.92
Other Charges	-	-	
Total	207.08	1.54	74,327.92

- 5.40 The overall cost approved towards LDO expense for the month of January 2024 is **Rs. 1.54 Crore.**
- 5.41 **With regards to the LDO, the weighted average cost for the month of January 2024 is Rs. 74,327.92 /KL.**
- 5.42 The 'As received' GCV of LDO procured month in January 2024 is 10,747 kcal/kg and the 'As fired' GCV of LDO considered by AEML-D is 10,747 kcal/kg. Considering the difference between the weighted average GCV of received LDO and fired LDO, the stacking loss for LDO works out to nil.



5.43 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.”

5.44 In line with MYT Regulations, 2019 and MYT Order in Case No. 298 of 2019, the Commission has considered stacking loss of 9 kcal/kg (minimum of actual weighted average loss considering washed coal, raw coal, and imported coal of 9 kCal/kg or 120 kCal/kg as per Regulation) for calculation of energy charge rate.

5.45 Considering the approved rates for washed coal, raw coal, imported coal and LDO, the fuel cost, GCV and normative operational parameters, the energy charges work out to Rs. 3.593/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).

5.46 **Incentive:** As per Regulation 46.3 of MYT Regulations, 2019 specifies the target PLF of 85%. Since the PLF for January 2024 was less than 85% (both in peak hours and off-peak hours), AEML-G has not claimed any incentive for January 2024.

5.47 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 January 2024

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	174.92	5.33	(66.16)	5.69	(60.47)

5.48 Based on the above, **APPC for ADTPS works out to Rs. 5.33/kWh as against approved Rs. 5.01/kWh. There is an increase of Rs. 0.33/kWh in APPC for the month of January 2024. Fixed cost variation is contributing to increase of Rs. 0.75/kWh and variable cost variation is contributing Rs. 0.42/kWh to the decrease.** The decrease in variable cost is due to use of low cost raw and washed coal in the month of January 2024.

5.49 **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 348.01 MUs and the associated cost of Rs. 194.49 Crore has been considered in the January 2024 month FAC by AEML-D.



- 5.50 **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 4.19 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.
- 5.51 **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 188.55 MUs in the month of January 2024 from wind solar hybrid source at the same rate of Rs. 3.24/kWh as approved in the MTR Order.**
- 5.52 **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 9 below:

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

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

- 5.53 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 1.78 MUs power from Reliance Clean Power Private Limited sources at the same rate during January 2024. No power has been purchased from Vector Green Energy Private Limited during in January 2024. Further, 0.12 MU of power has been procured from Tembhu Power Pvt. Ltd. during January 2024 at the same rate of Rs. 4.26/kWh as approved in the MTR Order.
- 5.54 Further, AEML-D has not procured any power through IEX Green Day Ahead Market (GDAM).
- 5.55 **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.
- 5.56 AEML-D had submitted in the FAC application that it has contracted up to 324 MW in January 2024 on short term basis and has been contracted through day-ahead exchange linked contract.



Through such a contract, the trading margin of IEX is also saved. 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 10: Estimation of STPP RE procured in proportion to capacity

Particular	Capacity (MW)	Energy (MU)	Remark
Total RE Capacity (Contracted + OA)	600.73	35.88	Provisional Actual REMC as per SLDC DSM bill data (A)
OA (LT+MT+ST)	230.48	13.77	Provisional Actual REMC in proportion of Capacity (B = 230.48/600.73x35.88)
Contracted (LT + ST)	370.25	22.11	Provisional Actual REMC in proportion of Capacity (C = 370.25/600.73 x 35.88)
Contracted RE (LT)	45.0	1.90	Actual RE Energy as per Bills (D)
Contracted RE (ST) by AEML-D	325.25	20.21	Estimated ST RE Energy (C – D)

- 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 July 2023 to November 2023 were paid in the month of January 2024, amounting to Rs. 4.08 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, in the earlier months, had sought clarification from AEML-D for the proposed change in its approach towards treatment of energy quantum and power purchase cost under the present situation. AEML-D had submitted its response justifying the need to change over to the new approach.
- 5.60 Considering the justification submitted by AEML-D, the Commission has considered the approach adopted by AEML-D for computation of the FAC for the month of January 2024. 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. The Commission in its approval for the FAC vetting for December 2023 had directed that this approach should be adopted by AEML-D appropriately in the future months for which filing has not been done yet. Accordingly, AEML-D is required to adopt this approach from March 2024 onwards. The Commission will examine the status of compliance with this direction in its approval report for the FAC Vetting for March 2024.

- 5.61 Accordingly, the Commission approves the power purchase of short term RE (market linked contracts) considered in the month of January 2024. 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 January 2024

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	4.19	10.30	(0.16)	(0.00)	(0.16)
Adani Hybrid Energy Jaisalmer Four Limited - Wind Solar Hybrid (AHEJFL)	285.85	3.24	188.55	3.24	(31.53)	(0.00)	(31.53)
Non-Solar					-	-	-
Vector Green Energy Pvt Ltd	0.07	5.07	-	-	(0.03)	-	(0.03)
Tembhu Power Pvt. Ltd.	1.00	4.26	0.12	4.26	(0.37)	-	(0.37)
Reliance Power Ltd.	6.24	5.81	1.78	5.81	(2.59)	0.00	(2.59)
Short Term RE #	43.80	4.90	20.21	2.04	(11.56)	(5.77)	(17.33)
Total RE Sources	341.30	3.59	214.85	3.29	(46.24)	(5.77)	(52.02)

This includes the provisional quantum (20.21 MUs) of power purchased from short term RE sources for which the invoices are not available. No cost has been considered against this energy, However, few bills pertaining to the months of July 2023 to Noveber2023 were paid in the month of January 2024 amounting to Rs. 4.08 crore have been included in the cost.

- 5.64 **APPC for renewable sources for the month of January 2024 works out to Rs. 3.29/kWh which is lower than the MTR approved level of Rs. 3.59/kWh.**



5.65 **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 and ASL) at the average rate of Rs. 7.74/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 higher in January 2024 as compared to the prices observed during September 2023, November 2023 and December 2023 which is also reflected in the average price of power purchase from bilateral contracts in September 2023 (Rs. 7.64/kWh), November 2023 (Rs. 5.74/kWh), and December 2023 (7.37/kWh). However, the average power prices in short term market are lower in January 2024 as compared to the prices observed in month of August 2023 and October 2023 which is also reflected in the average price of power purchase from bilateral contracts in August 2023 (9.57/kWh) and October 2023 (8.76/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	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24
RTC	6.51	5.52	6.10	3.99	4.70	5.91
Evening (17-23 Hrs)	8.06	7.41	7.52	5.07	5.83	7.24
Day (10-17 Hrs)	5.14	4.07	5.41	3.83	4.69	6.27
Night (0-6, 23-34 Hrs)	6.73	5.64	5.79	3.12	2.79	2.94
Morning (6-10 Hrs)	6.19	5.01	5.72	4.17	6.37	8.47

5.66 AEML-D has purchased 137.44 MUs through bilateral purchase (IEX, HPX, PXIL, exchange linked contracts and Inter Discom Trade) which is 17.93% of its total power purchase for January 2024. 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	58.38	36.56	6.26
2	PXIL	0.07	0.08	10.46
3	HPX	73.54	65.53	8.91
4	STPP BEST	2.47	2.29	9.26
5	STPP ASL	0.13	0.08	5.95
6	STPP Others	2.85	1.85	6.50
7	Exchange sale cost	-	(0.11)	-
8	MSLDC fees, SLDC schedule charges and OA charges for STPP	-	0.05	-
	TOTAL	137.44	106.31	7.74

5.67 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.



- 5.68 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 January 2024 towards fees paid for February 2024. The Commission has noted the submissions.
- 5.69 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 January 2024

	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	137.44	7.74	39.28	35.81	75.08

- 5.70 **Banking Return:** AEML-D has executed a banking transaction for the period from 1 November 2023 to 29 February 2024 with M/s Manikaran Power Limited (MPL) - RUVNL for supply of up to 200 MW power. Under this arrangement, the return of banked power by MPL-RUVNL shall be from 15 March 2024 to 30 June 2024 with the return percentage at 102% of banked energy at delivery point i.e. Regional Periphery. Under this contract, for the month of January 2024, AEML-D has banked 76.84 MUs of energy with the banking partner. In accordance with the LOI, at the time of receipt of the banking power, trading margin is being charged by the trader. Accordingly, the trading margin incurred during the month of January 2024 is being claimed as part of Banking OA charges cost.
- 5.71 Thus, the total quantum considered is 76.84 MU is considered under the banking arrangement in January 2024. The Commission has noted the submission.
- 5.72 **DSM Pool:** AEML-D has submitted that for the month of January 2024, it has drawn 16.13 MUs from the pool under the DSM mechanism and has incurred cost of Rs. 8.57 Crores.
- 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 0.33 MU at a cost of Rs. 0.08 Crore and is considered in the FAC for the month of January 2024. 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 48.37 MUs under bilateral transaction and received Rs. 28.05 Crore for the month of January 2024 at the average rate of 5.80/kWh which is higher than the approved rate of 5.13/kWh. This includes the sale made to BEST under IDT of 0.02 MU at Rs. 0.01 crore and sale made to AEML SEEPZ Limited (ASL) under IDT of 1.07 MU at Rs. 0.66 crore.

5.77 **Charges to CTU:** AEML-D has received a bill amounting to Rs. 1,76,09,488 from Central Transmission Utility (CTU) for Regional Transmission Account as per the CERC (Sharing of Inter-State Transmission Charges and Losses), Regulations, 2020. The actual bill for the month of January 2024 is Rs. 14,76,65,892/-. However, CTU has carried out a reversal of Rs. 13,00,56,404/- from the earlier bill raised for October 2023 and hence only a net amount of Rs. 1,76,09,488/- is payable for the month of January 2024, which is included in the present FAC. Commission has noted the submission.

5.78 **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 January 2024. 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. 3.97 Crore as rebate to be considered as part of power purchase cost for the month of January 2024. There is no standby previous year adjustment for the month of January 2024.

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 January 2024

Sr. No.	Source	Approved Rate (Rs. /kWh)	Actual Rate (Rs. /kWh)	Reason for rate variation
1	ADTPS	5.01	5.33	<ul style="list-style-type: none"> There is a decrease of Rs. 0.33/kWh in APPC for the month of January 2024. Fixed cost variation is contributing to increase of Rs. 0.75/kWh and



Sr. No.	Source	Approved Rate (Rs. /kWh)	Actual Rate (Rs. /kWh)	Reason for rate variation
				variable cost variation is contributing Rs. 0.42/kWh to the decrease. <ul style="list-style-type: none"> The fixed charges are higher due to lower generation as compared to the approved generation.
2	RE Sources	3.59	3.29	<ul style="list-style-type: none"> RE power procurement from contracted sources RE power not been procured through the exchange platform. AEML-D contracted Intrastate Wind capacity with AEL in January 2024. As GCNs for January 2024 are not issued by MSEDCL, energy bills are not yet submitted by the generators and hence cost against this purchase is not considered. Further, certain invoices were received in January 2024 for power procured from July 2023 to November 2023 and the same cost has been considered in the FAC of January 2024. This has led to decreased rate.
3	AEL-MTPP	5.25	5.59	<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. 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	Bilateral purchase excluding the impact of Banking of power	5.13	7.74	<ul style="list-style-type: none"> Market discovered rate. 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 the impact of banking of power is Rs. 7.74/kWh.
5	Sale of surplus power	5.13	5.80	<ul style="list-style-type: none"> Market discovered rate;
	Total	4.29	5.78*	Variation due to above reasons

* Includes 76.84 MU of power banked under the banking arrangement with MPL-RUNVL against the energy. AEML-D has entered into banking arrangement for up to 200 MW wherein MPL (source- RUNVL) will be banking power with AEML-D from 1st November 2023 to 29th February 2024. The return of banked power at 102% by AEML-D will be from 15th March 2024 to 30th June 2024. Accordingly total energy booked under the banking arrangement in January 2024 is 76.84 MUs without any corresponding cost. 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 and its cost is therefore already included in the power purchase cost for the month of Jan 2024



5.80 Considering the above, the Commission allows the actual average power purchase cost of Rs. 5.78/kWh for the month of January 2024 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 January 2024 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 May, 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 January 2024 is positive as shown in the Table 16 below.

Table 16: FAC on account of Power Purchase Cost

Sr. No.	Particulars	Units	January 2024
1	Average power purchase cost approved by the Commission	Rs./ kWh	4.29
2	Actual average power purchase cost	Rs./ kWh	5.78
3	Change in average power purchase cost (= 2-1)	Rs./ kWh	1.49
4	Net Power Purchase	MU	766.46
5	Change in power purchase cost (=3 x 4/10)	Rs. Crore	114.41

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 for the period April 2023 to June 2023 from March 2024 to May 2024 in its June 2023 FAC approval. Further, in its December 2023 FAC approval, the Commission has allowed recovery of FAC leviable for the period July 2023 to December 2023 from May 2024 to September 2024. 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 December 2023 to be adjusted in January 2024 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.

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 annual sliding 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 January 2024	Cumulative up to January 2024	Annual Sliding Distribution Loss up to January 2024
1	Net Energy input at Distribution Voltages	MU	848.41	731.89	8,822.54	10,390.24
2	Energy sales at Distribution voltages	MU	790.72	725.73	8,429.79	9,838.30
3	Distribution Loss (1 - 2)	MU	57.70	6.17	392.75	551.94
4	Distribution Loss as % (3/1)	%	6.80%	0.84%	4.45%	5.31%
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 January 2024 is 0.84% which is lower than the approved distribution loss of 6.80% in the MTR Order dated 31 March, 2023. Further, the annual sliding distribution loss up-to January 2024 is 5.31% which is also 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 – June	1.14%	-4.83%
Actual – July	-2.65%	2.70%
Actual - August	7.11%	7.14%
Actual - September	4.30%	6.10%
Actual – October	12.47%	7.40%
Actual – November	-3.61%	0.06%
Actual – December	0.58%	6.52%
Actual – January	0.84%	-2.06%
Actual - Cumulative till January	4.45%	5.09%

- 9.5 As seen from above Table 18, disallowance of FAC due to excess distribution loss for the month of January 2024 is nil. Though the standalone FAC for the month of January 2024 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_{FAC}

- 10.1 The summary of the FAC amount as approved by the Commission for the month of January 2024 as shown in the Table 19 below.

Table 19: Summary of Allowable Z_{FAC} for January 2024

Sr. No.	Particulars	Units	As Claimed January 2024	As Approved January 2024
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	114.41	114.41
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	114.41	114.41
2	Calculation of FAC Charge			
2.1	Energy Sales within the License Area	MU	725.73	725.73
2.2	Excess Distribution Loss	MU		
2.3	Z _{FAC} per kWh	Rs./kWh	1.58	1.58
3	Recovery of FAC			
3.1	FAC disallowed corresponding to excess Distribution Loss [(2.2 x 2.3)/10]	Rs. Crore	-	-



Sr. No.	Particulars	Units	As Claimed January 2024	As Approved January 2024
3.2	Allowable FAC	Rs. Crore	114.41	114.41
4	Utilization of FAC Fund			
4.1	Opening Balance of FAC Fund	Rs. Crore	326.77	-
4.2	Carrying cost on FAC Fund	Rs. Crore	2.76	-
4.3	Z _{FAC} for the month (Sr. No. 3.2)	Rs. Crore	114.41	114.41
4.4	Closing Balance of FAC Fund	Rs. Crore	443.95	114.41
4.5	Z _{FAC} leviable/refundable to consumer	Rs. Crore	443.95	114.41
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	443.95	114.41

10.2 It can be seen from the above Table 19 that opening FAC fund for month of January 2024 is nil and standalone FAC for the month of January 2024 approved by the Commission is Rs. 114.41 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 Z_{FAC} 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_{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. 114.41 Crore for the month of January 2024.
- 11.3 In its FAC submission for the month of May 2024, AEML-D has requested the Commission to allow cumulative recovery of FAC for the period January 2024 to May 2024 and recovery of revised FAC from September 2024 onwards at FAC ceiling rate (20% of category energy charge) to ensure that accumulated revenue gap can be mopped up to the maximum possible and avoiding the impact of carrying cost on the accumulated amount. In this regard, AEML-D has also submitted that the Commission vide letter dated 19 April 2024, has approved the FAC for the period upto December 2023 and also has approved the category wise FAC for recovery for the billing months from May 2024 to August 2024 at the ceiling rate (20% of category energy charges) and considered the balance FAC amount of Rs. 20.23 crore to be recovered in the month of September 2024. AEML-D has suggested that the amount allowed to be recovered in September 2024 (Rs. 20.23 Crore) should be clubbed with the FAC accumulated for the period January 2024 to May 2024 and allowed for recovery in the months of September 2024 and October 2024. As the billing for the month of September 2024 has not commenced, AEML-D has requested the Commission to revise the FAC allowed for recovery in September 2024 to 20% of category energy charge and allow recovery of the total accumulated FAC for the period January 2024 to May 2024 including the recovery allowed earlier in September 2024 (Rs. 20.23 Crore) over the billing period of September 2024 and October 2024. The portion of the accumulated FAC not recovered over the period September 2024 and October 2024 is proposed to be recovered along with the FAC for period June 2024 onwards.
- 11.4 Similar situation was prevailing earlier as well, and 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 data gaps raised by the Commission presently and in the past as well.
- 11.5 As highlighted by the Commission in the past FAC approval reports, variation in FAC amounts over different months lead to variation in Tariff for end consumers on a monthly basis 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. Similar approach was also adopted by the Commission for the period July 2023 to December 2023 wherein the recovery was allowed over the period May 2024 to September 2024 at the ceiling rate (20% of category energy charge). Accordingly, considering the accumulated FAC over the period January 2024 to May 2024, the Commission deems it appropriate to adopt a similar approach of accumulating the FAC for January 2024 to May 2024 and allowing recovery at the ceiling limit of the FAC charge (20% of category energy charge) which would ensure that the accumulated FAC gets passed



through via the FAC mechanism to the maximum extent possible in the remaining period and thus avoiding the impact of carrying cost on the accumulated FAC and 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 January 2024 to May 2024 and allow its recovery in the ensuing billing months at ceiling tariff. The recovery will start from September 2024 and the overall period of recovery will be decided in the Commission's approval on the FAC submission for May 2024.

- 11.6 In view of the above, per unit Z_{FAC} for the month of January 2024 will be levied on the consumers of AEML-D starting from the billing month of September 2024 along with the FAC for the period February 2023 to May 2024. The details will be provided in the Commission's approval on the FAC submission for May 2024.

