

महाराष्ट्र विद्युत नियामक आयोग

Maharashtra Electricity Regulatory Commission

Ref. No. MERC/FAC/2024-25/0261

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

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

month of December 2023.

1. AEML-D FAC submission for the month of December 2023 vide email dated 13 Reference:

2. The data gaps were communicated vide email dated 29 March, 2024.

3. AEML-D replied vide emails dated 02 April, 2024.

Sir.

Upon vetting the FAC calculations for the month of December 2023 as mentioned in the above reference, the Commission has accorded approval for charging FAC amount of Rs. 54.50 Crore. The opening FAC available at the beginning of December 2023 is Rs. 264.88 Crore and hence the FAC amount chargeable for the month of December 2023 works out to Rs. 319.38 Crore.

AEML-D has submitted the FAC proposal for December 2023 on 13 March, 2024 instead of filing it in the month of January 2024 as per the prescribed regulatory timelines. This delay in FAC submission has led to 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 be likely to be very 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 time submission of FAC proposals and response to datagaps raised by the Commission.

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Date: 19 April, 2024



Having said that it is also observed that if the levy is allowed for the FAC for December 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 had 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 deemed 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, in line with the approach adopted in the FAC approvals for July 2023 to November 2023, 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 Commission had stated that the recovery would 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 total FAC amount chargeable to consumers is as shown in the table below:

| Month | FAC Amount (Rs. Crore) |
|---------------|------------------------|
| December 2023 | 319.38 |

In its approval of FAC for June 2023, the Commission had accorded the recovery of the accumulated FAC between April 2023 and June 2023 in the months of March 2024 to May 2024. Based on the category-wise FAC rate approved by the Commission, the monthly recovery amount was estimated to be Rs. 54.56 Crore for March 2024, April 2024, and May 2024. The recovery allowed in these three months was below the recovery allowable at ceiling tariff i.e. 20% of variable charges. AEML-D, while submitting its revised FAC submission of July 2023 and August 2023 and submissions for September 2023 to December 2023 requested a reconsideration of the recovery timeline for the FAC accrued from July 2023 to December 2023, proposing recovery starting from April 2024 at the capped rate. As mentioned earlier, 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. However, given that the month of April 2024 has almost elapsed, an immediate recovery from April 2024 itself is not feasible and the recovery is possible only from May 2024 onwards. Therefore, an estimated amount of Rs. 89.41 Crores can be recovered per month considering the sales for December 2023 at the ceiling FAC rate (20% cap). The Commission in its FAC approval for June 2024 has allowed an estimated recovery of Rs. 54.56 Crore in the month of May 2024. Thus, considering the recovery at ceiling FAC rate, an additional estimated recovery of Rs. 34.85 Crores for the month of May 2024 is assessed. Accordingly, an additional recovery of Rs. 34.85 Crore is being allowed in addition to the previously approved Rs. 54.56 Crore for May 2024, making the total estimated FAC amount recoverable in May 2024 of Rs. 89.41 Crores (at the ceiling rate. Accordingly, the ceiling rate for FAC will apply in the month of May 2024 as well.



Accordingly, AEML-D is allowed to recover the accumulated FAC amount of Rs. 319.38 Crore for the period July 2023 to December 2023 over the months of May 2024 to September 2024 along with the applicable carrying cost. The FAC will be recoverable at the ceiling FAC rate for the months of May 2024 to August 2024 and the balance amount will be recovered in the month of September 2024 at the FAC rate approved by the Commission in this report and no carry forward FAC amount is envisaged for recovery in the future period. 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 Order 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 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 submission of FAC proposal for December 2023 has excluded the standby charges from the FAC computation methodology without prejudice to AEML-D's contentions that the said charges are not payable since AEML-D has opted out of the stand-by arrangement.

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

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

Yours faithfully,

(Dr. Prafulla Varhade)

Director (Elect. Engg.), MERC

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



PRIOR APPROVAL FOR FAC CHARGES FOR THE MONTH OF DECEMBER 2023

Subject: Prior approval of Fuel Adjustment Charges (FAC) submissions of AEML-D for

the month December 2023.

Reference: 1. AEML-D FAC submission for the month of December 2023 vide email dated 13 March, 2024.

- 2. The data gaps were communicated vide email dated 29 March, 2024.
- 3. AEML-D replied vide emails dated 02 April, 2024.

FAC submission by AEML-D:

- 1.1 AEML-D has made FAC submissions for the month of December 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. 54.50 Crore.
- 1.2 The opening FAC available at the beginning of December 2023 is Rs. 264.88 Crore and hence the FAC amount chargeable for the month of December 2023 works out to Rs. 319.38 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 July 2023 to December 2023, the Commission in line with the approach adopted in the past, has allowed accumulation of the FAC amount in its FAC approval for the period July 2023 to November 2023 and such accumulated FAC is now being allowed to be recovered in the months of May 2024 to September 2024. The FAC will be leviable at the ceiling tariff in the months of May 2024 to August 2024 and the balance recovery will be done in September 2024 at the FAC rate approved by the Commission in this approval. The recovery related details are elaborated in section 11 of this report.
- 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.

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 13 March 2024, AEML-D has filed FAC submissions for the month of December 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 (December 2023) (MU) |
|---|--|------------------------------|---|
| | (I) | (II=I/12) | (III) |
| LT Category | | | |
| BPL | 0.01 | 0.00 | 0.00 |
| LT-I: Residential | 4,897.01 | 408.08 | 386.04 |
| LT-II: Commercial | 3,245.40 | 270.45 | 223.45 |
| LT-III(A): LT Industrial up to 20 kW TOD Option | 391.95 | 32.66 | 26.27 |
| LT-III(B): LT Industrial above 20 kW | 446.52 | 37.21 | 31.66 |
| LT-V: LT- Advertisements and Hoardings | - | - | _ |
| LT-VI: LT -Street Lights | - | - | |
| LT-VII: LT -Temporary Supply | - | <u>-</u> | - |
| LT-VIII: LT - Crematorium & Burial Grounds | - | - | 2 |
| LT-X: LT -Public Service (A) | 44.66 | 3.72 | 2.54 |
| LT-X: LT -Public Service (B) | 215.84 | 17.99 | 18.57 |
| LT-X (A): LT - Agriculture Pumpsets | 0.05 | 0.00 | 0.01 |
| LT-X (B): LT - Agriculture Others | 0.39 | 0.03 | 0.02 |
| LT-IV: Public Water Works | - | - 1 | - |
| LT-IX: LT - EVCS | 3.73 | 0.31 | 0.64 |
| HT Category | | | |
| HT 1 (Industrial) | 614.12 | 51.18 | 30.22 |
| HT 2 (Commercial) | 426.79 | 35.57 | 38.78 |
| HT 3 (Group Housing Soc.) | 10.96 | 0.91 | 1.08 |

| Consumer Category | Approved by the Commission (MU) | Monthly Approved* (MU) | Actual Sales (December 2023) (MU) | |
|--------------------------|---------------------------------|------------------------------|---|--|
| | (1) | (II=I/12) | (III) | |
| EHT Industry | 180.00 | 15.00 | - | |
| EHT Metro & Monorail | 120.00 | 10.00 | 0.20 | |
| HT - Public Services (A) | 11.46 | 0.96 | 0.29 | |
| HT - Public Services (B) | 306.62 | 25.55 | 19.95 | |
| HT - EV Charging station | 70.00 | 5.83 | - | |
| Total | 10,985.51 | 915.46 | 779.74 | |

^{*}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 December 2023 is 779.74 MUs which is 14.83% 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 December 2023 as follows:
 - Energy sales data for HT consumers (AMR) & LT consumers (load above 20 kW) where meters are read remotely or where monthly reading are downloaded is considered for nth month (i.e., for December 2023).
 - For cycle consumers (LT cycle billing), consumption data provided is for bill generation (bill posting date) from 1st December to 31st December. These energy sales will pertain to the period which will comprise on an average half of November and half of December.
- 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 |
| Approved - Cumulative till December 2023 | 3,680.99 | 1,224.06 | 484.20 | 317.58 | 3,661.84 | 3,088.97 |
| Actual - Cumulative till December 2023 | 3,912.97 | 2,464.14 | 890.75 | 436.20 | 7,704.07 | 6,984.29 |



4. Power Purchase Details

- 4.1 Following is the list of sources from which AEML-D procures power 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 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 | Yes. AEML-D has procured power from ADTPS, AEL-MTPP, Solar and Non-solar Sources and Bilateral sources in the month of December 2023, 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, 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. With implementation of CERC (Connectivity and General Network Access to the interstate Transmission System) Regulations, 2022 from October 2023, GNA capacity of 728.33 MW was allotted to AEML by CTU under these Regulations. Accordingly, 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 onwards. 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 drawn 9.91 MU from the DSM pool as per DSM mechanism. |
| 5 | Sale of Surplus Power | AEML has made bilateral sale of 75.80 MUs of surplus power during the month of December 2023. |
| 6 | Power Purchase | Actual Power Purchase is 825.60 MUs as against approved 1044.45 MUs. |
| 7 | Source wise Power Purchase | Arran a |

| Sr. | Particular | Compliance | | | | | |
|-----|------------------------------------|---|--|--|---|--|--|
| | | Source Name | Approved* (MU) | Actual (MU) | Proportion of each Source in Actual Purchase | | |
| | | ADTPS | 307.02 | 192.52 | 23.32% | | |
| | | RE Sources | 341.30 | 244.15 | 29.57% | | |
| | | AEL-MTPP# | 366.00 | 365.46 | 44.27% | | |
| | | Bilateral sources (incl. Banking return)@ | 131.38 | 88.90 | 10.77% | | |
| | | Surplus Sale | (101.25) | (75.80) | -9.18% | | |
| | | DSM Pool & Other | - | 10.37 | 1.26% | | |
| | × | Total | 1,044.45 | 825.60 | 100.00% | | |
| 8 | Power Purchase under Section 62 | power with MPL-PSF 2023 and the return October to 31st Decen MUs received in Dec 2 (ii) Banking arrangement PSPCL) will be bankin 2023 and 1st March 2 105% by AEML-D will MUs received in Dec 2 (iii) Banking arrangement to 18:00 hours with M February 2024. The re March 2024 to 30th M | ML-D, approved 022 to 14-10-202 received under v with MPL-PSPCL over the period for up to 200 M ag power with AEM 1024 to 15th April 1023. Wherein AEML-D wherein AEML-D with a country of banked power une 2024 with the period of the Regional Period 1024 to 15th April 1024 to 15th | purchase of 24. The power arious bank, wherein AEN od 24th July by MPL-PS, a 1st March to 2024. The resure 2024 to 30th will bank 200 the period 1st per by MPL-R return percer iphery—Banka | T 500 MW medium termor flow has according ing arrangements: ML-D had banked 75 Mic 2023 to 30th September 21. I 15th April 2024. – 32.9 MPL (source- BYPL and the story of banked power of the september 2024 – 82.2 MW power during 06:00 in November 2023 to 29th UVNL shall be from 15th thage at 102% of banked in MPL in the september 2024 of banked in the september 2026 of banked 76.84 MUs with MPL | | |
| | of Electricity Act, 2003 | | | | | | |
| 9 | RE Purchase | Monthly power purchase in rates are verified from the F power. For short-term RE | PPA signed by Al | EML-D with | contracted sources o | | |



| Sr. No. | Particular | Compliance |
|------------|------------------------------|--|
| | | purchase quantum and rate are verified from the invoices, and it is ensured that same has been considered in the FAC calculation. |
| 10 | Short Term Power Purchase | Short-term power purchase invoices (from exchange and other sources) of December 2023 are submitted by AEML-D. All the power purchase quantum and rate are verified from the invoices, and it is ensured that same has been considered in the FAC calculation. |

4.4 AEML-D has purchased 825.60 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 December 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.
- As submitted by AEML-D, the Power Purchase cost incurred in December 2023 is Rs. 408.61 Crore which is lower than the approved Power Purchase cost of Rs. 447.99 Crore by the Commission for the month of December 2023. The cost is lower on account of the banking transactions undertaken in December 2023 wherein while the energy was received by AEML-D, there was no cost associated with it presently and the lower cost of power purchase from RE sources. 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 December 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) |
|------------------------|-----------|--------------------------------------|---------------------------------|-------------------------|---------------------------------|--------------------------------|------------------------|-----------------------|
| ADTDO | Approved* | 307.02 | 30.45 | 0.99 | 123.33 | 4.02 | 153.78 | 5.01 |
| ADTPS | Actual | 192.52 | 30.45 | 1.58 | 76.81 | 3.99 | 107.26 | 5.57 |
| Solar and Non-Solar | Approved | 341.30 | 3.55 | 15.1-51. | 122.64 | 3.59 | 122.64 | 3.59 |
| Purchase | Actual | 244.15 | - | - | 81.18 | 3.32 | 81.18 | 3.32 |
| L DV L (MDD | Approved | 366.00 | 81.51 | 2.23 | 110.77 | 3.03 | 192.28 | 5.25 |
| AEL MTPP | Actual | 365.46 | 83.64 | 2.29 | 112.37 | 3.07 | 196.01 | 5.36 |
| Banking cost / Banking | Approved | 70.50 | 2 | | | | - 1 | 0.01-57 |
| Return# | Actual | 38.29 | - | - | - | - | | |
| Dilataral Durahasa | Approved | 60.88 | 4 | 250-32-30 | 31.23 | 5.13 | 31.23 | 5.13 |
| Bilateral Purchase | Actual | 50.61 | | - | 37.29 | 7.37 | 37.29 | 7.37 |
| Deal/DOM | Approved | | - | | i i | 11-300 | - | 13-5- |
| Pool/ DSM | Actual | 9.91 | - | - | 4.66 | 4.70 | 4.66 | 4.70 |
| OA/RTS /Banking OA | Approved | (5 to - to E | 200 | 707>- | | 3-75 | - | - |
| and Trading margin | Actual | 0.46 | 0 | | 0.30 | 6.57 | 0.30 | 6.57 |
| Sale of Power | Approved | (101.25) | A F | man- 1 | (51.94) | 5.13 | (51.94) | 5.13 |

| Particulars | Source | Power Purchase Quantum (MU) | Fixed Cost (Rs. Crore) | Fixed Cost (Rs./kWh) | Variable Cost (Rs. Crore) | Variable Cost (Rs. /kWh) | Total Cost (Rs. Crore) | APPC (Rs. /kWh) |
|---|----------|--------------------------------------|---------------------------------|-------------------------|---------------------------------|--------------------------------|---------------------------------|-----------------------|
| | Actual | (75.80) | 151 | | (26.45) | 3.49 | (26.45) | 3.49 |
| Other | Approved | -77 | | E - 35 M | | 12 13/41 | DE -1 | |
| Charges/Rebate/Addnl InSTS charges (CTU) | Actual | | - | - | 8.37 | - | 8.37 | - |
| Total | Approved | 1,044.45 | 111.95 | 1.07 | 336.03 | 3.22 | 447.99 | 4.29 |
| TULAT | Actual | 825.60 | 114.09 | 1.38 | 294.52 | 3.57 | 408.61 | 4.95 |

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

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

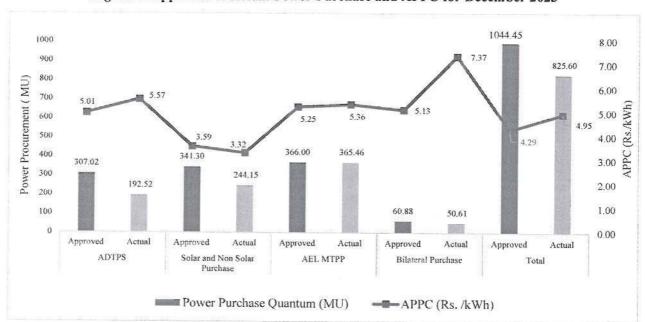


Figure 1: Approved & Actual Power Purchase and APPC for December 2023

AEML-D has submitted that Merit Order Despatch has been followed. The Commission had raised a query while processing the October 2023 FAC submission 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. However, with implementation of CERC (Connectivity and General Network Access to the interstate Transmission System) Regulations, 2022 from October 2023, GNA capacity of 728.33 MW was allotted to AEML by CTU under

^{*}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. In cases where the power has been banked with AEML-D, there is no cost considered against this power presently.

these Regulations. Accordingly, 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 onwards. 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 192.52 MU for the month of December 2023 at an average rate of Rs. 5.57 /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 December 2023 was 57.34% 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 79.23%. The actual PAFM for both units of AEML-G in December 2023 was 79.93% during peak hours and 79.09% during off peak hours. The capacity charge for peak hours works out to Rs. 6.09 Crore and the capacity charge for off peak hours works out to Rs. 24.36 Crore, totalling Rs. 30.45 Crores for the month of December 2023.
- 5.8 Due to lower generation as compared to approved generation, there is an increase of Rs. 0.59/kWh in the Fixed cost and accordingly the actual Fixed Cost per unit is Rs. 1.58/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 December 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 December 2023.
- 5.11 Washed Coal: AEML-D has submitted that AEML-G has received 63,760.95 MT of washed coal at the plant boundary of ADTPS at a rate of Rs. 5,433.43 per MT and has consumed 54,062.39 MT of washed coal in December 2023. "Other Charges" in the closing stock of the last month i.e., November 2023 amounting to Rs. 0.60 Crores have also been considered in the opening stock of the month of December 2023.

- 5.12 In the month of December 2023, AEML-D has considered Rs. 3,41,888/-, Rs. 2,29,375/- and Rs. 89,353/- 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 November 2023.
- 5.13 Further, AEML-D has considered Rs. (657)/- and Rs. (3,57,315)/- as an adjustment (on account of short analysis of coal) under raw coal, analysis charges by IGI at washery end and raw coal analysis charges by QCI at mine end respectively.
- 5.14 The input tax credit (ITC) due to sale of coal rejects works out to Rs. (10,28,831) /- which has been considered as an adjustment under SECL coal purchase cost. The ITC on GST paid through different invoices in November 2023 totalling Rs. (1,06,367)/- has been considered under respective heads in Dec 2023.
- 5.15 AEML-G incurs railway charges in case the unloading of coal is delayed beyond the time allowed by railways. Such railway charges incurred in a month is claimed in FAC in the following month. In November 2023, no railway charges were paid for washed coal and hence no railway charges for washed coal have been claimed in December 2023. However, refund of Rs (3,01,603)/- pertaining to washed coal and corresponding to earlier months has been received from railways in December 2023. 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.
- 5.16 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 December 2023 is as shown in the Table 5 below:

Table 5: Working of Washed Coal Rate for December 2023

| Particular | Quantity (MT) | Cost (Rs. Crore) | Price (Rs. /MT) |
|-----------------------------------|---------------|-------------------|-------------------|
| Inventory | | 2000 (2000 01010) | 11100 (105.71111) |
| Opening (as on 1st December 2023) | 15,058.46 | 8.52 | 5,659.02 |
| Addition during month | 63,760.95 | 34.64 | 5,433.43 |
| Other Charges | | 5 110 1 | 3,433,43 |
| Total | 78,819.41 | 43.17 | 5,476.53 |
| Consumption | | .0.17 | 3,470.33 |
| Actual | 54,062.39 | 29.20 | 5,400.90 |
| Other Charges | | 0.50 | 5,400.90 |
| Total | 54,062.39 | 29.70 | 5,492.85 |

- 5.17 The overall cost approved towards consumption of washed coal is Rs. 29.70 Crore for the month of December 2023.
- 5.18 With regards to the washed coal, the weighted average landed cost of consumption for the month of December 2023 is Rs. 5,492.85/MT as compared to MTR approved Rs.



- **5,354/MT**. AEML-D has consumed 54,062.39 MT of washed coal during the month of December 2023.
- 5.19 AEML-D has considered the 'As billed' GCV of washed coal as 3881 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 3860 kCal/kg for December 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.
- 5.20 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.
- 5.21 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."
- 5.22 Accordingly, in line with the FAC approval for August 2022 onwards, for the month of December 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 (December 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 (November 2023 or earlier, as applicable, in the present case) would be considered. In the present case, the washed coal was purchased in December 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.
- 5.23 In the FAC submission done for the month of December 2023, AEML-D 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 December 2023 in line with the above approach and submitted the same for approval of the Commission.

- 5.24 Accordingly, the 'As Billed GCV' of 3,881 kCal/kg (higher of 3,881 kCal/kg and 3,860 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 December 2023.
- 5.25 The transit loss claimed by AEML-D for the month of December 2023 is 738.03 MT which is (1.14%) of the overall quantum of washed coal dispatched in that month.
- 5.26 The 'As fired' GCV of washed coal considered by AEML-D is 3,812 kCal/kg. Considering the difference between the 'As Received' GCV and the 'As Fired' GCV, the stacking loss for washed coal works out to 69 kCal/kg which is within the limit of 120 kCal/kg.
- 5.27 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 1,26,284.04 MT Raw Coal (at plant boundary) from SECL and has consumed 91,821.48 MT of raw coal in December 2023. As per weighment of coal at ADTPS, the raw coal received is 1,26,284.04 MT and the weighment of coal dispatched by SECL was 1,27,266.44 MT. The difference is reported as the transit loss which is 982.40 MT which is 0.77% of the total coal dispatched during the month of December 2023.
- 5.28 In the month of December 2023, AEML included Rs. (1274)/- as an adjustment under coal analysis charges by IGI for short analysis of coal for November 2023.
- 5.29 AEML has considered the ITC on GST paid through different invoices in November 2023 totalling Rs. (3,17,192)/- under respective heads in December 2023.
- 5.30 In November 2023, AEML-G has paid Rs. 3,71,673/- of railway charges pertaining to raw coal to Railways and the same has been claimed by AEML-D in December 2023. However, AEML-G has received refund of Rs. (9.19,403)/- from Railways pertaining to raw coal in December 2023. The net amount of Rs. (5,47,730)/- has been included under other charges. As stated above, 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.
- 5.31 The working of the raw coal fuel cost considered for December 2023 is as shown in the Table 6 below:

Table 6: Working of Raw Coal Rate for December 2023

| Particular | Quantity (MT) | Cost (Rs. Crore) | Price (Rs./MT) |
|---------------------------------|---------------|---------------------|----------------|
| Inventory | | | |
| Opening (as on 1 December 2023) | 16,957.08 | 8.52 | 5,025.40 |



| Particular | Quantity (MT) | Cost (Rs. Crore) | Price (Rs./MT) |
|-----------------------|---------------|---------------------|----------------|
| Addition during month | 1,26,284.04 | 60.92 | 4,823.71 |
| Total | 1,43,241.12 | 69.44 | 4,847.59 |
| Consumption | | | |
| Actual | 91,821.48 | 44.28 | 4,822.66 |
| Other Charges | - | 0.04 | |
| Total | 91,821.48 | 44.33 | 4,827.33 |

- 5.32 The overall cost approved towards consumption of raw coal is Rs. 44.33 Crore for the month of December 2023.
- 5.33 With regards to the raw coal, the weighted average landed cost for consumption in the month of December 2023 is Rs. 4,827.33/MT. AEML-D has consumed 91,821.48 MT of raw coal during the month of December 2023.
- 5.34 AEML-G has disputed the GCV results as declared by CIMFR for some of the rakes of raw coal received from SECL in December 2023. The financial outcome of this dispute, if any, will be considered in future months after resolution of the dispute.
- 5.35 It has been observed that in December 2023, AEML-G has purchased raw coal from SECL only. AEML-D has considered the 'As billed' GCV of raw coal as 3726 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 3280 kCal/kg for December 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 December 2023 is 446 kCal/kg.
- 5.36 Hence, as mentioned above, the GCV loss (446 kCal/kg) for raw coal for the month of December 2023 is outside the limit of 300 kcal/kg and 'As Billed' GCV of 3426 kCal/kg for calculation is considered (i.e., maximum of the 'As Received' GCV or 'As Billed' GCV minus 300 kCal/kg).
- 5.37 In accordance with the methodology mentioned in para 5.20 to para 5.23, the Commission has approved 'As received' GCV as 3426 kCal/kg for raw coal. The 'As Fired' GCV of raw coal is 3191 kCal/kg. The same has been used to work out the stacking loss of 235.00 kCal/kg for raw coal.
- 5.38 Imported Coal: In December 2023, AEML-G has not procured imported coal and however, it has consumed 2,762.23 MT. The ITC on GST paid through different invoices in November 2023 totalling Rs. (1,266)/- has been considered under respective heads in December 2023. In November 2023, AEML has not paid any railway charges for imported coal and hence no railway charges for imported coal have been claimed in December 2023. However, refund of Rs. (5,481)/- pertaining to imported coal and pertaining to earlier months has been received from railways in December 2023. The same has been included under other charges.



5.39 The working of the imported coal fuel cost considered for December 2023 is as shown in the Table 7 below:

Table 7: Working of Imported Coal Rate for December 2023

| Particular | Quantity (MT) | Cost (Rs. Crore) | Price (Rs./MT) |
|---------------------------------|---------------|---------------------|----------------|
| Inventory | | | |
| Opening (as on 1 December 2023) | 2,762.23 | 2.17 | 7,870.55 |
| Addition during month | _ | - | |
| Total | 2,762.23 | 2.17 | 7,870.55 |
| Consumption | | | |
| Actual | 2,762.23 | 2.17 | 7,870.55 |
| Other Charges | | (0.00) | - |
| Total | 2,762.23 | 2.17 | 7,868.11 |

- 5.40 The overall cost approved towards consumption of imported coal is Rs. 2.17 Crore for the month of December 2023.
- 5.41 With regards to the imported coal, the weighted average landed cost for consumption in the month of December 2023 is Rs. 7,868.11/MT. AEML-D has consumed 2,762.23 MT of imported coal during the month of December 2023.
- In case of imported coal, no coal was purchased during December 2023, however, the coal available from the opening stock was utilised. Accordingly, in case of imported coal, the 'As Billed' GCV of 4,048 kCal/kg (maximum of 'As Billed' GCV of 4,048 kCal/kg and 'As Received' GCV of 4,009 kCal/kg) has been considered based on the coal received in October 2023 (most recent month of purchase), to work out the weighted average GCV of coal and consequently the energy charges. The reason for considering 4048 kCal/kg GCV for the computation of weighted average GCV of coal and consequently the energy charges is already discussed in the Commission's approval of FAC for October 2023.
- 5.43 The 'As Fired' GCV of imported coal in the month of December 2023 was 3968 kCal/kg. Thus, the stacking loss computes to 80 kCal/kg.
- 5.44 The transit loss claimed by AEML-D for the month of December 2023 is Nil, as there was no procurement of imported coal in the month.
- 5.45 LDO: AEML-D had available inventory of 380.12 KL of LDO at rate of Rs.75,486.18/KL (opening stock in December 2023). AEML-D has submitted that AEML-G has received 87 KL of LDO at the plant boundary of ADTPS at a rate of Rs. 74,377.12 per MT and has consumed 42.28 KL of LDO in December 2023.

Table 8: Working of LDO Rate for December 2023

| Particular | Quantity (KL) | Cost (Rs. Crore) | Price (Rs./KL) |
|----------------------------|---------------|------------------|----------------|
| Inventory | | | |
| Opening (as on 1st Dec 23) | 380.12 | 2.87 | 75,486.18 |
| Addition during month | 87.00 | 0.65 | 74,377.12 |



| Particular | Quantity (KL) | Cost (Rs. Crore) | Price (Rs./KL) |
|---------------|---------------|------------------|----------------|
| Total | 467.12 | 3.52 | 75,279.62 |
| Consumption | | | |
| Actual | 42.28 | 0.32 | 75,279.62 |
| Other Charges | | | |
| Total | 42.28 | 0.32 | 75,279.62 |

- 5.46 The overall cost approved towards consumption of LDO is Rs. 0.32 Crore for the month of December 2023.
- 5.47 With regards to the LDO, the weighted average landed cost for consumption in the month of December 2023 is Rs. 75,279.62/KL. AEML-D has consumed 42.28 KL of LDO during the month of December 2023.
- 5.48 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:"

- 5.49 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 172 kCal/kg or 120 kCal/kg as per Regulation) for calculation of energy charge rate.
- 5.50 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. 3.990/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).
- 5.51 Incentive: As per Regulation 46.3 of MYT Regulations, 2019 specifies the target PLF of 85%. Since the PLF for December 2023 was less than 85% (both in peak hours and off-peak hours), AEML-G has not claimed any incentive for December 2023.
- 5.52 Variation in power purchase expenses from ADTPS on account of change in quantum and per unit rate is as shown in Table 9 below:



Table 9: Variation in Power Purchase expenses from ADTPS for December 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 | 192.52 | 5.57 | (57.35) | 10.83 | (46.51) |

- 5.53 Based on the above, APPC for ADTPS works out to Rs. 5.57/kWh as against approved Rs. 5.01/kWh. There is an increase of Rs. 0.56/kWh in APPC for the month of December 2023. Fixed cost variation is contributing to increase of Rs. 0.59/kWh and variable cost variation is contributing Rs. 0.03/kWh to the decrease.
- 5.54 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 365.46 MUs and the associated cost (Rs. 196.01 Crore) has been considered in the December 2023 month's FAC by AEML-D.
- 5.55 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 4.22 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.
- 5.56 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 215.61 MUs in the month of December 2023 from wind solar hybrid source at the same rate of Rs. 3.24/kWh as approved in the MTR Order.
- 5.57 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 10 below:

Table 10: Approved and Actual APPC from Non-Solar Sources

| Source | Approved (Rs./MT) | Actual (Rs./MT) |
|-------------------------------------|-------------------|-----------------|
| Vector Green Energy Private Limited | 5.07 | - 1 |
| Tembhu Power Private Limited | 4.26 | 4.26 |
| Reliance Clean Power Limited | 5.81 | 5.81 |

- 5.58 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 1.59 MUs power from Reliance Clean Power Private Limited sources at the same rate during December 2023. No power has been purchased from Vector Green Energy Private Limited during in December 2023. Further, 0.11 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 December 2023.
- 5.59 Further, AEML-D has also procured 0.26 MUs of short term RE power through IEX Green Day Ahead Market (GDAM) at an average rate of Rs. 4.21/kWh.
- 5.60 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.
- 5.61 AEML-D had submitted in the FAC application that it has contracted up to 352 MW in December 2023 on short term basis. However, since it was 'upto' 352 MW, AEML-D has been able to actually contract 340.35 MW in December 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 195.05 MW has been contracted through day-ahead exchange linked contract.
- 5.62 The quantum of 195.05 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 December 2023. In support of the same, AEML-D has submitted Letter of Intent (LoI) issued to the generators the contracted energy.
- 5.63 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 11: Estimation of STPP RE procured in proportion to capacity

| Particular | Capacity (MW) | (MU) 38.69 | Remark | | | |
|-------------------------------------|---------------|------------|---|--|--|--|
| Total RE Capacity (Contracted + OA) | 619.73 | | Provisional Actual REMC as per SLDC DSM bill data (A) | | | |
| OA (LT+MT+ST) | 234.38 | 14.74 | Provisional Actual REMC in proportion of Capacity (B = 234.38/619.73x38.69) | | | |

| Particular | Capacity (MW) | Energy (MU) | Remark | | |
|------------------------------|---------------|-------------|---|--|--|
| Contracted (LT + ST) | 385.35 | 24.06 | Provisional Actual REMC in proportion of Capacity (C = 385.35/619.73x38.69) | | |
| Contracted RE (LT) | 45.00 | 1.70 | Actual RE Energy as per Bills (D) | | |
| Contracted RE (ST) by AEML-D | 340.35 | 22.36 | Estimated ST RE Energy (C - D) | | |

- 5.64 Further, the cost against the power procurement from 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. Accordingly, some of the invoices pertaining to the transaction from this source in June 2023 to October 2023 were paid in December 2023, amounting to Rs. 5.89 Crore, and the same is considered as part of power purchase cost.
- 5.65 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.
- 5.66 To avoid such situation, AEML-D is directed to consider both (units as well as cost), albeit based on assumption, to minimise the impact of this variation and to adopt this approach appropriately in the future months for which filing has not been done yet.
- 5.67 Further, AEML-D is also directed to submit reconciliation in its future FAC submissions providing the month-wise energy estimated by AEML-D, actual energy as per the bills received and actual cost as per the bills etc.
- 5.68 Accordingly, the Commission approves the power purchase of short term RE (market linked contracts) considered in the month of December 2023. However, AEML-D needs to track the market movements and ensure that the terms of the contract are beneficial for the consumers.
- 5.69 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.
- 5.70 Variation in power purchase expenses from RE sources on account of change in quantum and per unit rate is as shown in Table 12 below:

Table 12: Variation in Power Purchase expenses from Renewable Energy Sources for December 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 variatio n (Rs. Crore) |
|--------|-----------------------------|--------------------------------|---------------------|------------------------|--------------------------------------|-----------------------------------|------------------------------|
| Solar | | | | | tinos et e | 10 10 7E/F | |
| DSPPL | 4.35 | 10.30 | 4.22 | 10.30 | (0.13) | (0.00) | (0.13) |



| 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 variatio n (Rs. Crore) |
|---|-----------------------------|--------------------------------|---------------------|---------------------------------|---|-----------------------------------|---------------------------------------|
| Adani Hybrid Energy Jaisalmer Four Limited – Wind Solar Hybrid (AHEJFL) | 285.85 | 3.24 | 215.61 | 3.24 | (22.76) | 0.00 | (22.76) |
| Non-Solar | | | | | | | |
| Vector Green Energy Pvt Ltd | 0.07 | 5.07 | = | 128 | (0.03) | - | (0.03) |
| Tembhu Power Pvt. Ltd. | 1.00 | 4.26 | 0.11 | 4.26 | (0.38) | - | (0.38) |
| Reliance Power Ltd. | 6.24 | 5.81 | 1.59 | 5.81 | (2.71) | 0.00 | (2.71) |
| Short Term RE (contracted/G- DAM) | 43.80 | 4.90 | 22.62# | 2.65# | (10.38) | (5.08) | (15.46) |
| Total RE Sources | 341.30 | 3.59 | 244.15 | 3.32 | (36.38) | (5.08) | (41.46) |

[#] This includes the provisional quantum (22.36 MUs) of power purchased from short term RE (intrastate non-firm) 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. However, few bills pertaining to the months of June 2023 to October 2023 were paid in the month of December amounting to Rs. 5.89 crore and the same are considered as part of power purchase cost in the month of December 2023.

- 5.71 APPC for renewable sources for the month of December 2023 works out to Rs. 3.32/kWh which is lower than the MTR approved level of Rs. 3.59/kWh.
- 5.72 Bilateral Purchase: AEML-D has undertaken bilateral purchase of power from power exchange (IEX, HPX and PXIL), through exchange price linked bilateral contracts and interdiscom trade (with BEST) at the average rate of Rs. 7.37/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 December 2023 as compared to the prices observed during July 2023, August 2023, September 2023, and October 2023 which is also broadly reflected (July being the exception) in the average price of power purchase from bilateral contracts in July 2023 (Rs. 6.78/kWh), August 2023 (Rs. 9.57/kWh), September 2023 (Rs. 7.64/kWh), and October 2023 (Rs. 8.76/kWh). The price in Nov 2023 was Rs. 5.74/kWh which is lower than that observed in December 2023 and is also reflective of the price trends in the market. The trend of the average rates discovered on IEX (at regional periphery) are shown below for reference:

Table 13: Power Prices in short term market (Rs./kWh)

| Month | July-23 | Aug-23 | Sep-23 | Oct-23 | Nov-23 | Dec-23 |
|------------------------|---------|--------|--------|--------|--------|--------|
| RTC | 4.59 | 6.51 | 5.52 | 6.10 | 3.99 | 4.55 |
| Evening (17-23 Hrs) | 6.59 | 8.06 | 7.41 | 7.52 | 5.07 | 5.83 |
| Day (10-17 Hrs) | 3.11 | 5.14 | 4.07 | 5.41 | 3.83 | 4.07 |
| Night (0-6, 23-34 Hrs) | 4.74 | 6.73 | 5.64 | 5.79 | 3.12 | 2.85 |
| Morning (6-10 Hrs) | 3.89 | 6.19 | 5.01 | 5.72 | 4.17 | 6.42 |



5.73 AEML-D has purchased 50.61 MUs through bilateral purchase (IEX, HPX, PXIL, exchange linked contracts and Inter Discom Trade) which is 6.13% of its total power purchase for December 2023. The summary of the power procured from the various short-term sources is reproduced in the table below:

Table 14: 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) |
|---------|---------------------------|-------------------------|------------------------------------|---|
| | Bi | ateral Sources | | F |
| 1 | IEX | 27.95 | 15.82 | 5.66 |
| 3 | HPX | 8.10 | 8.47 | 10.46 |
| 2 | PXIL | 1.26 | 1.31 | 10.42 |
| 4 | STPP (Inter-Discom Trade) | 0.42 | 0.42 | 9.91 |
| 5 | STPP | 12.87 | 10.97 | 8.52 |
| 6 | Exchange sale cost | - | 0.18 | - |
| 7 | SLDC schedule charges | - | 0.12 | |
| | Total | 50.61 | 37.29 | 7.37 |

- 5.74 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. 7.37/kWh.
- 5.75 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 December 2023 towards fees paid for January 2023.
- 5.76 Further, in the month of December 2023, AEML-D received past bills from MSLDC for scheduling and rescheduling charges as per clause no. 6.2.8 of the Commission's Order in Case No. 219 of 2019 dated 30 March, 2020 amounting to Rs. 6,21,000 for September 2023 and Rs. 5,71,000 for October 2023. AEML-D has requested this to be considered as part of bilateral power purchase cost, in the FAC for December 2023. The Commission has noted the submissions.
- 5.77 Variation in power purchase expenses from bilateral sources on account of change in quantum and per unit rate is as shown in Table 15 below:



Table 15: Variation in Power Purchase expenses from bilateral sources for December 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 | 50.61 | 7.37 | (5.27) | 11.33 | 6.06 |

- 5.78 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, 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. Under this contract, for the month of December 2023, AEML-D has received 32.92 MU and accordingly has considered the same in December 2023 month's FAC.
- 5.79 Further, in accordance with the LOI, at the time of receipt of the banking power, the trading margin is being charged by the trader. Accordingly, AEML-D has claimed the trading margin incurred during the month of December 2023 as part of Banking OA charges cost.
- 5.80 Further, AEML-D has also entered into banking arrangement for up to 200 MW wherein MPL (source- BYPL and PSPCL) will be banking power with AEML-D from October 2023 to December 2023 and 1 March, 2024 to 15 April, 2024. The return of banked power at 105% by AEML-D will be from 20 June, 2024 to 30 September, 2024. Hence, AEML-D has accounted the inward energy banked by MPL under power purchase cost, while the cost for the same shall be considered at the time of return of power. Under this contract, for the month of December 2023, quantum of 82.21 MU has been banked with AEML-D.
- 5.81 In addition to the above, AEML-D has also entered into a banking arrangement wherein AEML-D will bank 200 MW power during 06:00 to 18:00 hours with MPL-RUVNL over the period 1 November, 2023 to 29 February, 2024. Under the 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 December 2023, AEML-D has banked 76.84 MU and accordingly has considered the same in December 2023 month's FAC.
- 5.82 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 and its cost is therefore already included in the power purchase cost for the month of December 2023. The Commission has noted the submission.
- 5.83 The breakup of the total of 38.29 MUs of banked quantum is shown below in

| Particular | Banking (MU) |
|-----------------------------------|--------------|
| Banking Return power (MPL- PSPCL) | 32.92 |

| Particular | Banking (MU) | | |
|--------------------------------------|--------------|--|--|
| Banking arrangement (BYPL and PSPCL) | 82.21 | | |
| Forward Banking (MPL-RUVNL) | (76.84) | | |
| Total | 38.29 | | |

- 5.84 **DSM Pool:** AEML-D has submitted that for the month of December 2023, it has drawn 9.91 MUs from the pool under the DSM mechanism and has incurred cost of Rs. 4.66 Crore.
- 5.85 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."
- 5.86 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:"
- 5.87 The surplus energy of RE Open Access consumers (Firm and Non-firm) purchased by AEML-D as per the aforementioned regulations is 0.46 MU at a cost of Rs. 0.11 Crore and is considered in the FAC for the month of December 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.
- 5.88 Sale of Power: AEML has sold 75.80 MUs under bilateral transaction and received Rs. 26.45 Crore for the month of December 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. 3.49/kWh) is way below actual bilateral purchase rate of Rs. 7.37/kWh for December 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.
- 5.89 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 December 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. 3.86 Crore as rebate to be considered as part of power purchase cost for the month of December 2023. There is no standby previous year adjustment for the month of December 2023.
- 5.90 Charges to CTU: AEML-D submitted that it has received a bill amounting to Rs. 12.23 Crore from Central Transmission Utility (CTU) for Regional Transmission Account as per the CERC (Sharing of Inter-State Transmission Charges and Losses), Regulations, 2020. Since the bill pertains to the power sourced during December 2023, AEML-D has considered the amount in the FAC for the month of December 2023. The Commission has noted the submission.
- 5.91 Summarised reasons for the rate variation for various sources are given in Table 16 below:

Table 16: Reasons for the rate variation for various sources for December 2023

| Sr. No. | Source | Approved Rate (Rs. /kWh) | Actual Rate (Rs. /kWh) | Reason for rate variation |
|------------|------------|--------------------------|---------------------------|--|
| 1 | ADTPS | 5.01 | 5.57 | There is an increase of Rs. 0.56 /kWh in APPC for the month of December 2023. Fixed cost variation is contributing to increase of Rs. 0.59/kWh and variable cost variation is contributing Rs. 0.03/kWh to the decrease. The fixed charges are higher due to lower generation as compared to the approved generation. |
| 2 | RE Sources | 3.59 | 3.32 | RE power procurement from contracted sources Very less quantum of RE power procured through exchange platform AEML-D contracted Intrastate Wind capacity with AEL in December 2023. However, due to the non-receipt of invoices, it has considered only the estimated quantum on a provisional basis and has not considered any cost regarding this power transaction. This has led to a reduced rate. |
| 3 | AEL-MTPP | 5.25 | 5.36 | 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 |

| Sr. No. | Source | Approved Rate (Rs. /kWh) | Actual Rate (Rs. /kWh) | Reason for rate variation |
|------------|--|--------------------------------|------------------------------|--|
| | | | | 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 impact of Banking of Power | 5.13 | 7.37 | 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. Purchase is done at an average rate of Rs. 7.37/kWh excluding the impact of banking of power. |
| 5 | Surplus Sale | 5.13 | 3.49 | Market discovered rate; Lower cost of sale of excess power in Power Exchange (IEX, HPX and PXIL) |
| | Total | 4.29 | 4.95* | Variation due to above reasons |

^{*} Total actual rate of power purchase of Rs. 4.95/kWh has been worked out by considering the (-38.29 MUs) of the banked power.

5.92 Considering the above, the Commission allows the actual average power purchase cost of Rs. 4.95/kWh for the month of December 2023 as shown in Table 16 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 December 2023 as shown in Table 16 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 approved Power Purchase Cost hence the Z_{FAC} worked out by the Commission on account of difference in power purchase cost for the month of December 2023 is positive as shown in the Table 17 below.

Table 17: FAC on account of Power Purchase Cost

| Sr. No. | Particulars | Units | December 2023 |
|----------------------|--|-----------|---------------|
| 1 | 1 Average power purchase cost approved by the Commission | | 4.29 |
| 2 | 2 Actual average power purchase cost | | 4.95 |
| 3 | 3 Change in average power purchase cost (= 2-1) | | 0.66 |
| 4 Net Power Purchase | | MU | 825.60 |
| 5 | Change in power purchase cost (=3 x 4/10) | Rs. Crore | 54.50 |



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 2024 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 November 2023 to be adjusted in December 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 SBI MCLR + 150 basis points. The opening balance of FAC fund in month of December 2023 is Rs. 264.88 Crore. Hence, there is no carrying cost worked out for December 2023 as there is no over/under-recovery considered is para 7.2 above.

9. <u>Disallowance due to excess Distribution Loss</u>

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



Table 18: Disallowance of FAC due to excess Distribution Loss

| Sr. No. | Particulars | Units | Approved in Tariff Order | Actual for December 2023 | Cumulative up to December 2023 | Annual Sliding Distribution Loss up to December 2023 |
|------------|---|--------------|--------------------------------|--------------------------------|---|--|
| 1 | Net Energy input at Distribution Voltages | MU | 848.41 | 784.26 | 8,090.65 | 10,302.93 |
| 2 | Energy sales at Distribution voltages | MU | 790.72 | 779.74 | 7,704.07 | 9,770.45 |
| 3 | Distribution Loss (1 - 2) | MU | 57.70 | 4.52 | 386.59 | 532.47 |
| 4 | Distribution Loss as % (3/1) | % | 6.80% | 0.58% | 4.78% | 5.17% |
| 5 | Excess Distribution Loss = [Annual Sliding Distribution Loss (4) - Distribution loss approved] x Net Energy Input (1) | MU | - | | -1 | - |
| 6 | Disallowance of FAC due to excess Distribution Loss | Rs. Crore | | | | |

- 9.3 As seen from the above Table 18, distribution loss for the month of December 2023 is 0.58% 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 December 2023 is 5.17% 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 19 below:



Table 19: 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 - Cumulative till December | 4.78% | 5.71% |

9.5 As seen from above Table 18, disallowance of FAC due to excess distribution loss for the month of December 2023 is nil. Though the standalone FAC for the month of December 2023 is positive, as the annual sliding distribution loss (5.17%) is lower than approved distribution loss (6.80%) by the Commission, there is no disallowance of FAC due to excessive distribution loss.

10. Summary of Allowable ZFAC

10.1 The summary of the FAC amount as approved by the Commission for the month of December 2023 as shown in the Table 20 below.

Table 20: Summary of Allowable Z_{FAC} for December 2023

| Sr. No. | Particulars | Units | As Claimed December 2023 | As Approved December 2023 |
|------------|---|-----------|-----------------------------------|---------------------------------|
| 1 | Calculation of Z _{FAC} | | | |
| 1.1 | Change in cost of generation and power purchase attributable to Sales within the License Area (F) | Rs. Crore | 54.51 | 54.50 |
| 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 | 54.51 | 54.50 |
| 2 | Calculation of FAC Charge | | | |
| 2.1 | Energy Sales within the License Area | MU | 779.74 | 779.74 |
| 2.2 | Excess Distribution Loss | MU | - | 1=3 |
| 2.3 | Z _{FAC} per kWh | Rs./kWh | 0.70 | 0.70 |
| 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 | 0.70 | 0.70 |
| 3 | Recovery of FAC | | | |
| 3.1 | FAC disallowed corresponding to excess Distribution Loss [(2.2 x 2.3)/10] | Rs. Crore | _ | |
| 3.2 | Allowable FAC | Rs. Crore | 54.51 | 54.50 |

| Sr. No. | Particulars | Units | As Claimed December 2023 | As Approved December 2023 |
|------------|---|-----------|-----------------------------------|---------------------------------|
| 4 | Utilization of FAC Fund | | | |
| 4.1 | Opening Balance of FAC Fund | Rs. Crore | 269.99 | 264.88 |
| 4.2 | Carrying cost on FAC Fund | Rs. Crore | 2.27 | 17= |
| 4.3 | Z _{FAC} for the month (Sr. No. 3.2) | Rs. Crore | 54.51 | 54.50 |
| 4.6 | Closing Balance of FAC Fund | Rs. Crore | 326.77 | 319.38 |
| 4.7 | Z _{FAC} leviable/refundable to consumer | Rs. Crore | 54.51 | 54.50 |
| 5 | Total FAC based on category wise and slab wise allowed to be recovered in future billing months | Rs. Crore | 326.77 | 319.38 |
| 6 | Carried forward FAC for recovery during future period (4.7-5) | Rs. Crore | | |

It can be seen from the above Table 20 that opening FAC fund for month of December 2023 is Rs. 264.88 Crore and standalone FAC for the month of December 2023 approved by the Commission is Rs. 54.50 Crore. Accordingly, the FAC amount leviable on the consumer from July 2023 upto December 2023 is Rs. 319.38 Crore. However, due to the reasons discussed earlier, the Commission has decided to carry forward and accumulate the FAC for a six-month period i.e., July 2023 to December 2023, along with the applicable carrying cost (excluding the period of delay). The accumulated FAC amount shall be recovered in the months starting May 2024 till September 2024. Further, the variation in the allowable FAC as approved by the Commission and that proposed by AEML-D is on account of variation in the GCV considered for imported coal (discussed in para 5.42).

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: —

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

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. 54.50 Crore for the month of December 2023.
- In its FAC submission for the period July 2023 to December 2023, AEML-D has requested the 11.3 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 time 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 December 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 had 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 deemed 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, in line with the approach adopted in the FAC approvals for July 2023 to November 2023, 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 Commission had stated that the recovery would 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 its approval of FAC for June 2023, the Commission had accorded the recovery of the accumulated FAC between April 2023 and June 2023 in the months of March 2024 to May 2024. Based on the category-wise FAC rate approved by the Commission, the monthly recovery amount was estimated to be Rs. 54.56 Crore for March 2024, April 2024, and May 2024. The recovery allowed in these three months was well below the recovery allowable at ceiling tariff i.e. 20% of variable charges. AEML-D, while submitting its revised FAC submission of July 2023 and August 2023 and submissions for September 2023 to December 2023 requested a reconsideration of the recovery timeline for the FAC accrued from July 2023 to December 2023, proposing recovery starting from April 2024 at the capped rate.
- 12. As mentioned earlier, 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. However, given that the month of April 2024 has almost elapsed, an immediate recovery from April 2024 itself is not feasible and the recovery is possible only from May 2024 onwards. Therefore, an estimated amount of Rs. 89.41 Crores can be recovered per month considering the sales for December 2023 at the ceiling FAC rate (20% cap). The Commission in its FAC approval for June 2024 has allowed an estimated recovery of Rs. 54.56 Crore in the month of May 2024. Thus, considering the recovery at ceiling FAC rate, an additional estimated recovery of Rs. 34.85 Crores for the month of May 2024 is assessed. Accordingly, an additional recovery of Rs. 34.85 Crore is being allowed in addition to the previously approved Rs. 54.56 Crore for May 2024, making the total estimated FAC amount recoverable in May 2024 of Rs. 89.41 Crores (at the ceiling rate. Accordingly, the ceiling rate for FAC will apply in the month of May 2024 as well.
- 12.1 Accordingly, AEML-D is allowed to recover the accumulated FAC amount of Rs. 319.38 Crore for the period July 2023 to December 2023 over the months of May 2024 to September 2024 along with the applicable carrying cost. The FAC will be recoverable at the ceiling FAC rate for the months of May 2024 to August 2024 and the balance amount will be recovered in the month of September 2024 at the FAC rate approved by the Commission in this report and no carry forward FAC amount is envisaged for recovery in the future period. 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 Order on FAC for the month of April 2023. Same reasons are also valid in the present situation as well.
- 12.2 The working of the recovery of the FAC accumulated for the period July 2023 to December 2023 during the months of May 2024 to September 2024 is presented below:



Table 21: Working of recovery for the billing month of May 2024

| Total Recovery due at the end of December 2023 | 319.38 | Rs. Crore |
|---|--------|-----------|
| Per month recovery with 20% Cap | 89.41 | Rs. Crore |
| Recovery period | 3.57 | Months |
| Recovery earlier allowed in May 2024 based on cap | 54.56 | Rs. Crore |
| Additional recovery possible in May 2024 | | Rs. Crore |
| Total estimated recovery in May 2024 | 89.41 | Rs. Crore |
| Closing balance as on December 2023 | 319.38 | Rs. Crore |
| Less: Additional Recovery allowed in May 2024 | 34.85 | Rs. Crore |
| Balance FAC to be recovered in the period June 2024 to September 2024 | 284.53 | Rs. Crore |

Table 22: Recovery plan for the billing months of June 2024 to September 2024

| Sr. No. | Recovery Months | June 2024 | July 2024 | August 2024 | September 2024 |
|---------|---|-----------|-----------|-------------|------------------------|
| (a) | Opening Balance (Rs. Crore) | 284.53 | 195.12 | 105.71 | 20.23 (16.30+3.94)* |
| (b) | Estimated recovery during month (Rs. Crore) | 89.41 | 89.41 | 89.41 | 20.23* |
| (c) | Closing Balance (Rs. Crore) | 195.12 | 105.71 | 16.30 | = |
| (d) | Rate of Interest (%) | 10.10% | 10.10% | 10.10% | 10.10% |
| (e) | Carrying cost (Rs. Crore) | 2.02 | 1.27 | 0.51 | 0.14 |

^{*}Includes carrying cost (e)

- 12.3 Since the accumulated FAC fund along with the carrying cost is allowed for recovery during the months of May 2024 to September 2024, the FAC amount to be carried forward at the end of December 2023 for recovery in the future billing months works out to nil.
- 12.4 In view of the above, part of the accumulated FAC for the period July 2023 to December 2023 is to be recovered at the ceiling rate (20% of variable charges) in the months of May 2024 to August 2024. Accordingly, the per unit Z_{FAC} for the months of July 2023 to December 2023 to be levied on consumer of AEML-D in the months of May 2024 to August 2024 is given below.

Table 23: Per unit Z_{FAC} for the months of July 2023 to December 2023 be levied on the consumers of AEML-D in the billing months of May 2024 to August 2024

| Consumer Categories | Per unit Z _{FAC} for the month of July 2023 to December 2023 to be levied on consumers of AEML-D in the billing months of May 2024 to August 2024 | | |
|-----------------------------------|--|--|--|
| | Rs./kWh | | |
| LT Categ | ory | | |
| LT I - Below Poverty Line | 0.45 | | |
| LT I - Residential (Single Phase) | | | |

| Consumer Categories | Per unit Z _{FAC} for the month of July 2023 to December 2023 to be levied on consumers of AEML-D in the billing months of May 2024 to August 2024 | |
|---|---|----------|
| | Rs./kWh | |
| 0-100 | 0.70 | |
| 101-300 | 1.10 | |
| 301-500 | 1.50 | |
| 500 and above | 1.70 | |
| LT I - Residential (Three Phase) | | |
| 0-100 | 0.70 | |
| 101-300 | 1.10 | |
| 301-500 | 1.50 | |
| 500 and above | 1.70 | |
| LT II: LT - Non - Residential or Commercial | | |
| LT II (a) - 0-20 kW | 1.20 | |
| LT II (a) TOD Option | 1.20 | |
| LT II (b) - 20-50 kW | 1.25 | |
| LT II (c) - above 50 kW | 1.30 | |
| LT III – Industrial | | |
| LT III (A) - LT Industrial upto 20 kW | 1.15 | |
| LT III (B) - LT Industrial above 20 kW | 1.25 | |
| LT IV – Public Services | | |
| LT IV (A): LT -PS - Government Hospitals & Educational Institutions | 1.25 | |
| LT IV (B): LT -PS - Others | 1.30 | |
| LT V - Agriculture | | |
| LT V (A): LT - Agriculture Pumpsets | 0.85 | |
| LT V (B): LT - Agriculture Others | 1.20 | |
| LT VI : LT - EVCS | 1.00 | |
| HT Category | Rs./kWh | Rs/kVAh# |
| HT I: HT-Industry | 1.30 | 1.25 |
| HT II: HT- Commercial | 1.35 | 1.30 |
| HT III: HT-Group Housing Society | 1.20 | 1.15 |
| EHT I: Industry | | - |
| EHT IV: Railways, Metro & Monorail | 1.25 | 1.15 |
| HT V (a) - Public Services - Govt. EI and Hospitals | 1.35 | 1.25 |
| HT V (b) - Public Services - Others | 1.45 | 1.35 |
| HT VI – HT EVCS | 1.30 | 1.20 |

^{*} The conversion from Rs./kWh to Rs./kVAh has been done using the PF considered by the Commission in its MTR Order in Case No. 231 of 2022

12.5 Further, the Commission allowed the balance FAC of **Rs. 20.23** Crore (including carrying cost) to be recovered in the month of September 2024. Accordingly, the per unit Z_{FAC} for the month of July 2023 to December 2023 (balance FAC) to be levied on consumer of AEML-D in the months of September 2024 is given below:



Table 24: Per unit Z_{FAC} for the months of July 2023 to December 2023 be levied on the consumers of AEML-D in the billing months of September 2024

| Consumer Categories | Per unit Z _{FAC} for the month of July 2023 to December 2023 to be levied on consumers of AEML-D in the billing months of September 2024 | |
|---|---|--|
| LT Categ | Rs./kWh | |
| LT I - Below Poverty Line | 0.20 | |
| LT I - Residential (Single Phase) | 0.20 | |
| 0-100 | 0.20 | |
| 101-300 | 0.25 | |
| 301-500 | 0.30 | |
| 500 and above | 0.35 | |
| LT I - Residential (Three Phase) | | 22.7/0-32 |
| 0-100 | 0.20 | |
| 101-300 | 0.25 | |
| 301-500 | 0.30 | |
| 500 and above | 0.35 | |
| LT II: LT - Non - Residential or Commercial | | |
| LT II (a) - 0-20 kW | 0.30 | |
| LT II (a) TOD Option | 0.30 | |
| LT II (b) - 20-50 kW | 0.30 | |
| LT II (c) - above 50 kW | 0.30 | |
| LT III – Industrial | | |
| LT III (A) - LT Industrial upto 20 kW | 0.25 | |
| LT III (B) - LT Industrial above 20 kW | 0.30 | |
| LT IV - Public Services | | |
| LT IV (A): LT -PS - Government Hospitals & Educational Institutions | 0.25 | |
| LT IV (B): LT -PS - Others | 0.25 | |
| LT V - Agriculture | | |
| LT V (A): LT - Agriculture Pumpsets | 0.20 | |
| LT V (B): LT - Agriculture Others | 0.25 | |
| LT VI : LT - EVCS | 0.25 | The state of the s |
| HT Category | Rs./kWh | Rs/kVAh# |
| HT I: HT-Industry | 0.25 | 0.25 |
| HT II: HT- Commercial | 0.30 | 0.30 |
| HT III: HT-Group Housing Society | 0.30 | 0.30 |
| EHT I: Industry | 0.20 | - 0.20 |
| EHT IV: Railways, Metro & Monorail | 0.20 | 0.20 |
| HT V (a) - Public Services - Govt. EI and Hospitals | 0.25 | 0.25 |
| HT V (b) - Public Services - Others | 0.30 | 0.30 |
| HT VI – HT EVCS | 0.25 | 0.25 |

* The conversion from Rs./kWh to Rs./kVAh has been done using the PF considered by the Commission in its MTR Order in Case No. 231 of 2022.