

महाराष्ट्र विद्युत नियामक आयोग

Maharashtra Electricity Regulatory Commission

Ref. No. MERC/FAC/2022-23/ 0 589

Date: 28 November, 2022

To,

The Chief Executive Officer,

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

Subject:

Prior approval of Fuel Adjustment Charges (FAC) submissions of AEML-D for the month of July 2022.

Reference:

- 1. Commission's letter regarding levy of FAC on consumers dated 5 April, 2022.
- 2. AEML-D FAC submission for the month of July 2022 vide email dated 22 September, 2022.
- 3. The data gaps were communicated vide email dated 25 September, 2022.
- AEML-D replied vide email dated 8 November, 2022.

Sir,

Upon vetting the FAC calculations for the month of July, 2022 as mentioned in the above reference, the Commission has accorded approval for charging FAC amount of **Rs. 163.81 Crore**. However, the said amount is added to the existing FAC fund amount as on June 2022, along with the applicable carrying cost and the total amount of Rs. 637.13 Crore is being levied on the consumers per letter dated 5 April, 2022 issued by the Commission. Accordingly, the FAC chargeable to consumers is as shown in the table below:

Month	FAC Amount (Rs. Crore)
July 2022	637.13

The Commission has decided to allow the recovery of aforesaid FAC amount equally over four months from December 2022 to March 2023, subject to the cap of 20% of variable component of tariff. The total estimated recovery for four months considering the ceiling is Rs 185.61 Crore. The balance amount of Rs. 458.65 Crore is carried forward and will be considered in Mid-Term Review Petition at the time of provisional true-up of FY 2022-23.

Further, as directed in the Order in Case No. 325 of 2019, in order to maintain transparency in the management and use of FAC Fund, AEML-D shall maintain monthly account of such FAC fund and upload it on its website for information of stakeholders.

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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,

(Prafulla Varhade)
Director (EE), MERC

Encl: Annexure A: Detailed Vetting Report for the period of July 2022.



ANNEXURE

Detailed Vetting Report Date: 28 November, 2022

PRIOR APPROVAL FOR FAC CHARGES FOR THE MONTH OF JULY 2022

Subject: Prior approval of Fuel Adjustment Charges (FAC) submissions of AEML-D for the month July 2022.

Reference: 1. Commission's guideline regarding levy of FAC on quarterly basis issued on 5 April, 2022.

- 2. AEML-D FAC submission for the month of July 2022 vide email dated 22 September, 2022.
- 3. The data gaps were communicated vide emails dated 25 September, 2022.
- 4. AEML-D replied vide email dated 8 November, 2022.

1. FAC submission by AEML-D:

- 1.1 AEML-D has made FAC submissions for the month of July 2022 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. 163.81 Crore. However, the said amount is added to the existing FAC fund amount as on June 2022, along with the carrying cost and the total amount of Rs. 637.13 Crore is being levied on the consumers per letter dated 5 April, 2022 issued by the Commission.
- 1.2 The Commission has decided to allow the recovery of aforesaid FAC amount equally over four months from December 2022 to March 2023, subject to the cap of 20% of variable component of tariff. The total estimated recovery for four months considering the ceiling is Rs 185.61 Crore. The balance amount of Rs. 458.65 Crore is carried forward and will be considered in Mid-Term Review Petition at the time of provisional true-up of FY 2022-23.

2. Background

- 2.1 On 30 March, 2020 the Commission has issued Tariff Order in respect of AEML-D (Case No. 325 of 2019) for approval of Aggregate Revenue Requirement and Multi Year Tariff for FY 2020-21 to FY 2024-25. Revised Tariff has been made applicable from 1 April, 2020.
- 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 22 September, 2022, AEML-D has filed FAC submissions for the month of July 2022 for prior approval of the Commission. The Commission has scrutinized the submissions provided by AEML-D and has also verified the power purchase bills and other fuel related invoices provided along with its submissions.

3. Energy Sales of the Licensee

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

Table 1: Energy Sales - Approved and Actual

Consumer Category	Approved by the Commission (MU)	Monthly Approved (MU)	Actual Sales (July 2022) (MU)
	(I)	(II=I/12)	(III)
LT Category		~	
BPL	0.01	0.00	0.00
LT -I: Residential	4,778.68	398.22	392.56
LT II: Commercial	2,690.58	224.22	209.54
LT III(A): LT Industrial up to 20 kW TOD Option	190.52	15.88	26.27
LT III(B): LT Industrial above 20 kW	378.08	31.51	27.58
LT-V: LT- Advertisements and Hoardings	2.87	0.24	0 7 5
LT VI: LT -Street Lights	48.70	4.06	228
LT-VII: LT -Temporary Supply	12.18	1.02	1/2
LT VIII: LT - Crematorium & Burial Grounds	1.61	0.13	9 4
LT IX: LT -Public Service (A)	39.92	3.33	2.36
LT IX: LT -Public Service (B)	248.53	20.71	17.92
LT X (A): LT - Agriculture Pumpsets	0.14	0.01	0.01
LT X (B): LT - Agriculture Others	0.48	0.04	0.03
LT IV: Public Water Works	12.77	1.06	-
LT IX: LT – EVCS	-	-	0.04
HT Category			
HT 1 (Industrial)	411.70	34.31	12.20
HT 2 (Commercial.)	249.75	20.81	39.77
HT 3 (Group Housing Soc.)	29.37	2.45	1.06
HT 4 (Temporary Supply)	30.13	2.51	® ≟
HT – Railways	31.17	2.60	2.40
HT - Public Services (A)	5.96	0.50	0.56
HT - Public Services (B)	95.61	7.97	20.75
HT - Public Water Works	8.13	0.68	72
Total	9,266.90	772.24	753.04

- *- In Case of AEML-D, the sales is approved on annual basis. Monthly approved sales is derived based on approved annual sales for comparison purpose.
- 3.2 It can be observed from above Table 1 that actual sales during July 2022 is 753.04 MU which is 2.49% lower than approved energy sales of 772.24 MU per month for the FY 2022-23. The lower sale is mainly in the HT Industrial category on account of the Open Access credit being provided to the HT consumers based on the GCN credit received. The AEML-D has considered the energy sales for FAC purposes for July 2022 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 July 2022).
 - For cycle consumers (LT cycle billing), consumption data provided is for meter reading from 1 June to 30 July, 2022. These energy sales will pertain to the period which will comprise on an average half of May and half of Julu.
- 3.3 The monthly and cumulative sales for major consumer categories are shown below in the Table 2 below:

Year\ Sales (MU)	Residential	Commercial	Industrial	Others	Total (FY 2022-23)	Total (FY 2021-22)
Monthly Approved	400.67	245.03	81.69	44.85	772.24	754.08
Actual – April 2022	423.12	263.43	80.55	29.16	796.26	697.44
Actual - May 2022	465.58	272.12	99.69	27.87	865.26	702.61
Actual – June 2022	464.27	275.16	97.60	60.71	897.75	662.55
Actual - July 2022	393.62	249.31	66.05	44.07	753.04	656.52
Approved - Cumulative till July 2022	1,602.69	980.11	326.77	179.40	3,088.97	3,016.31
Actual - Cumulative till July 2022	1,746.59	1,060.02	343.89	161.81	3,312.32	2,719.13

Table 2: Monthly and Cumulative Sales for major Consumer Categories

4. Power Purchase Details

- 4.1 The following are 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 and Imbalance pool
 Apart from above, there are incidental purchases from Open Access and Rooftop.
- 4.2 The Commission in its MYT Order dated 30 March, 2020 in Case No. 325 of 2019 had approved the Power Purchase for FY 2022-23 from three major sources i.e. Adani Dahanu Thermal Power Station, Renewable 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 2022

Sr. No.	Particular	Compliance					
1	Purchase from Approved Sources	Yes. AEML-D has properties and Bilateral sources of power pure Innoventures. The Effexpire on 31 March, 20 power purchase from However, AEML-D has EPA under Clause No an agreed rate of Rs. 2	in the month chase except PA with Relia 222 and hence this source as negotiated 4.02 of the	h of July 2022, for the RE Powe ance Innoventur the Commission for FY 2022-23 with the Genera	which are approved er source of Reliance es was scheduled to had not approved any in the MYT Order ator and extended the		
2	Merit Order Dispatch	Yes. AEML-D had scheduled power as per MoD.					
3	Fuel Utilization Plan	Yes. Since there is on there is shortage of improvement in optim	indigenous	coal, hence the			
4	DSM Pool	AEML-D has drawn 3.10 MU from the imbalance pool as per DSM mechanism.					
5	Sale of Surplus Power	AEML has sold 1.91 MU of surplus power during the month of July 2022.					
6	Power Purchase	Actual Power Purchase lower actual sales as co to lower power purcha	ompared to the	approved sales f			
7	Source wise Power Purchase	Source Name	Approved (MU)	Actual (MU)	Proportion of each Source in Actual Purchase		
		ADTPS	311.08	182.82	23.66%		
		RE Sources	269.14	167.80	21.72%		
		Exchange & banking transaction	277.88	419.82	54.34%		
		Imbalance Pool & Other	-	2.12	0.27%		
		Total	858.11	772.56	100.00%		
		*The power purchase q however monthly approv	and Mariana and Mariana and -	n • in the control of the control o			
8	Power Purchase	however monthly approved numbers are derived from comparison purpose. AEML-D is purchasing power from only one source i.e. ADTPS under Section 62 of EA, 2003. As part of verification of fixed cost claimed by AEML-D, the same has been verified from the AEML-G MYT Order in Case No. 325 of 2019.					

Sr. No.	Particular	Compliance
71		As part of verification of energy charges claimed by AEML-D, verification of operational parameters, fuel cost, GCV etc. vis-à-vis the MYT Order is carried out.
9	RE Purchase	Monthly power purchase invoices are submitted by AEML-D. Power Purchase rates are verified from the PPA signed by AEML-D with each source of power. Monthly power purchase quantum and rate are verified from the invoices, and it is ensured that same has been considered in the FAC calculation.
10	Short Term Power Purchase	Short-term power purchase invoices of July 2022 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 772.56 MUs of power as against approved 858.11 MUs from the sources approved by the Commission. The sales of AEML-D in the month of July 2022 are lower than the approved sales, and this has led to lower power purchase as compared to the approved power purchase quantum.
- 4.5 Power Procurement from ADTPS: AEML-D has a PPA with ADTPS (own generation). The Commission in Case No. 325 of 2019 has approved monthly energy quantum of 311.08 MU. AEML-D has purchased 182.82 MU for the month of July 2022.
- Agreement (EPA) with Dhursar Solar and Non-Solar: AEML-D has an Energy Purchase Agreement (EPA) with Dhursar Solar Power Private Limited (DSPPL). AEML also has PPA with Adani Hybrid Energy Jaisalmer Four Limited for 700 MW. AEML-D also has an EPA with five non-solar sources namely Reliance Innoventures, AAA Sons Enterprise, Vector Green Energy Private Limited, Tembhu Power Private Limited and Reliance Clean Power Private Limited. The EPA with Reliance Innoventures expired on 31 March, 2022, however, AEML-D has negotiated with the Generator and extended the PPA for further period of 6 months at an agreed rate of Rs. 2.62/kWh. No power has been procured from AAA Sons Enterprises in July 2022 as the PPA has expired in April 2022. AEML-D has also purchased 8.83 MU short term RE power through IEX Green Day Ahead Market (GDAM). The Actual energy quantum purchased and approved by the Commission in Case No. 325 of 2019 is as shown in the Table 4 below:

Table 4: Approved and Actual Energy Quantum from Solar and Non-Solar Sources

Source	Contracted Capacity (MW)	Approved (MU)	Actual (MU)
Solar			
DSPPL - Solar	40.00	5.52	3.16
Adani Hybrid Energy Jaisalmer Four Limited – Wind Solar Hybrid (AHEJFL)	700.00	255.50	129.44
Non-Solar			
Reliance Innoventures	45.00#	-	15.97
AAA Sons Enterprise	3.38	0.01@	



Source	Contracted Capacity (MW)	Approved (MU)	Actual (MU)
Vector Green Energy Private Limited	-	-	-
Vector Green Energy Private Limited (April 2009)	6.00	0.88	1.84
Tembhu Power Private Limited	4.50	0.99	0.09
Reliance Clean Power Limited	45.00	6.25	8.46
Short term RE (IEX GDAM)	-	-	8.83
Total	843.88	269.14	167.80

[#] The PPA with Reliance Innoventure expired on 31 March, 2022, however, AEML-D has negotiated and extended the PPA for a period of six months at a rate of Rs. 2.62/kWh.

- 4.7 AEML-D has procured 2.35 MU lower than the approved from DSPPL, 126.06 MU lower than approved from AHEJFL from wind solar hybrid (project partially commissioned with pure solar capacity of 264.64 MW (Solar) and with Hybrid capacity of 391.56 MW, which provided 129.44 MU for July 2022), 0.97 MU higher than the approved from Vector Green Energy Private Limited, 0.89 MU lower than the approved from Tembhu Power Private Limited (small hydro plant affected due to flooding happened (Krishna river) in July 2021 and which was recommissioned on 31 May, 2022) and 2.21 MU higher than approved from Reliance Clean Power Private Limited. The EPA with Reliance Innoventures was scheduled to expire on 31 March, 2022 and hence the Commission had not approved any power purchase from this source for FY 2022-23 in the MYT Order. However, pursuant to the extension of the PPA for a period of 6 months, AEML-D has procured 15.97 MUs from Reliance Innoventures in July 2022. Further, as the approval by the Commission is on yearly energy quantum, this variation is being accepted provided cumulative power procured for majority of the sources is within the approved energy quantum. Also, AEML-D has purchased 8.83 MU short term RE power through IEX Green Day Ahead Market (GDAM).
- 4.8 Power Procurement from Exchange: AEML-D has purchased power from power exchange (IEX, PXIL and HPX) and exchange linked day ahead contracts on day ahead basis. AMEL-D has also purchased power through an Inter-Discom Trade (IDT) Transaction with BEST as per the guiding principles provided in MERC (Deviation Settlement Mechanism and related matters) Regulations, 2019. AEML-D has purchased 419.82 MU from these sources which is higher than the monthly approved quantum of 277.88 MU. This purchase excludes the quantum of power procured under banking arrangement which is also part of the bilateral sources of purchase. No power has been purchased by AEML-D under the banking arrangement in the month of July 2022, however, cost of Rs. 57.63 Crore has been incurred towards the power returned during the month under the banking arrangement.
- 4.9 **Power Procurement from DSM Pool:** AEML-D has submitted that it has drawn 2.99 MU power from the imbalance pool under the DSM mechanism for the month of July 2022. However, on scrutiny of the DSM bills provided by the SLDC for the month of July 2022, it was observed that the total deviation quantum was 3.00 MU at the T◇D interface.

⁽a) The PPA with AAA Sons Enterprises has expired in April 2022. The Commission in the MYT Order in Case No. 325 of 2019 had approved generation equivalent to 8 days in the FY 2022-23.

Based on the same, the quantum of energy injected at the G → T periphery is computed as 3.10 MU. This energy at the G → T interface is arrived by grossing the power injected at T → D interface considering the normative transmission loss of 3.18%. The Commission had earlier directed AEML-D to consider power purchase units of imbalance pool as per SLDC DSM bills and calculate FAC. It is reiterated that AEML-D should consider both the power purchase units of imbalance pool and the associated cost as per SLDC DSM bills for the purpose of FAC computation. This is in line with the approach adopted for other Distribution Licensees in the state as well.

- 4.10 Power Procurement from Open Access and Roof Top Solar Consumers: AEML-D has purchased 0.94 MU from the Open Access and Roof top Solar Consumers for the month of July 2022.
- 4.11 Sale of Power: AEML has sold 1.91 MUs under bilateral sale for the month of July 2022.
- 4.12 The Commission has noted that AEML-D has followed Merit Order Dispatch for scheduling of power. As solar and non-solar sources have must run status, they have been scheduled first and all the other sources are scheduled according to SLDC instructions.

5. Power Purchase Cost

- 5.1 The Commission has scrutinised the detailed bills/invoices submitted for power purchase during the month of July 2022, 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 MYT Order respectively.
- 5.2 As submitted by AEML-D, the Power Purchase cost incurred in July 2022 is Rs. 473.01 Crore which is significantly higher than the approved Power Purchase cost of Rs. 343.44 Crore by the Commission for the month of July 2022. This is on account of the higher cost of power purchase from ADTPS, bilateral sources and short term RE purchases. The approved and actual Quantum of power purchase (MU), Power Purchase Cost (Rs. Crore) and Average Power Purchase Cost (Rs./kWh) for the month of July 2022 is shown in Table 5 below:

Table 5: Approved and Actual APPC and Power Purchase Quantum & Cost

Particulars	Source	Power Purchase Quantum (MU)	Fixed Cost (Rs. Crore)	Fixed Cost (Rs./k Wh)	Variable Cost (Rs. Crore)	Variable Cost (Rs. /kWh)	Total Cost (Rs. Crore)	APPC (Rs. /kWh)
ADTPS	Approved	311.08	28.16	0.91	125.06	4.02	153.22	4.93
	Actual	182.82	23.13	1.27	99.75	5.46	122.89	6.72
Solar and	Approved	269.14			92.97	3.45	92.97	3.45
Non-Solar Purchase	Actual	167.80	9	i.e.	59.13	3.52	59.13	3.52
Bilateral	Approved	277.88			97.26	3.50	97.26	3.50
Purchase	Actual	419.82	-	-	292.44	6.97	292.44	6.97



Particulars	Source	Power Purchase Quantum (MU)	Fixed Cost (Rs. Crore)	Fixed Cost (Rs./k Wh)	Variable Cost (Rs. Crore)	Variable Cost (Rs. /kWh)	Total Cost (Rs. Crore)	APPC (Rs. /kWh)
Pool/ DSM	Approved		-	-	-	-	-	-
	Actual	3.10	=	-	1.66	5.35	1.66	5.35
OA/RTS	Approved	-	-	-	-	-	-	_
	Actual	0.94	-	-	0.28	2.93	.0.28	2.93
Sale of	Approved	000000	T 1 1/4 = 1	1 3 5			_	<u>-</u>
Power	Actual	(1.91)	-	-	(1.20)	6.27	(1.20)	6.27
Other	Approved			7 .	-	->	-	-
Charges	Actual	-	0.00		(2.18)	-	(2.18)	-
Total	Approved	858.11	28.16	0.33	315.28	3.67	343.44	4.00
	Actual	772.56	23.13	0.30	449.88	5.82	473.01	6.12

^{*-} 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

1,000 8.00 6.97 6.72 858.11 900 7.00 772.56 800 Power Procurement (MU) 6.00 700 6.12 5.00 600 3.50 3.52 500 4.00 419.82 400 3.00 311.08 277.88 269.14 300 2.00 182.82 167.80 200 1.00 100 0 Approved Actual Approved Approved Actual Actual Approved Actual **ADTPS** Solar and Non Solar Bilateral Purchase Total Purchase Power Purchase Quantum (MU) ———APPC (Rs. /kWh)

Figure 1: Approved & Actual Power Purchase and APPC

ADTPS

5.4 The Commission in Case No. 325 of 2019 has approved an energy quantum from ADTPS at the rate of Rs. 4.93/kWh. AEML-D has purchased power at the rate of Rs. 6.72/kWh (including reversal of incentive) for the month of July 2022. The Commission has also worked out the rate for power purchase from AEML-D as Rs. 6.72/kWh for the month of July 2022.

- 5.5 **Fixed Cost:** The Fixed cost approved for FY 2022-23 in Case No. 325 of 2019 (AEML-D) is Rs. 337.97 Crore whereas the Fixed cost approved for FY 2022-23 in Case No. 298 of 2019 (AEML-G) is Rs. 337.11 Crore. The actual payment of Fixed Cost for the month of July 2022 is to be done according to the entitlement under Case No. 298 of 2019 i.e. Rs. 337.11 Crore, as the payment is to be done according to Generator's Tariff Order.
- 5.6 The actual PLF of ADTPS in July 2022 was 54.43% as compared to approved PLF of 94.38%. ADTPS was available for generation during the month, the average Plant Availability Factor for the month (PAFM) for both Units of AEML-G was 62.33%. The actual PAFM for both units of AEML-G in July 2022 was 61.72% during peak hours and 62.45% during off peak hours. The cumulative availability for July 2022 was 77.49% during peak hours and 77.50% during off peak hours. The capacity charge for peak hours works out to Rs. 4.63 Crore and the capacity charge for off peak hours works out to Rs. 18.51 Crore, totalling Rs. 23.13 Crore for the month of July 2022. The capacity charges recoverable in July 2022 is less than the monthly capacity charge approved in the MYT Order because of lower availability in July 2022 due to lower coal availability.
- 5.7 Due to lower generation as compared to approved generation, there is an increase of Rs. 0.360/kWh in the Fixed cost and accordingly the actual Fixed Cost per unit is Rs. 1.265/kWh as compared to the approved Fixed Cost of Rs. 0.91/kWh.
- 5.8 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. 298 of 2019 for the month of July 2022.
- 5.9 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 liaisoning charges incurred for Domestic Coal and Imported Coal, as applicable, for the month of July 2022.
- Washed 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 submitted supporting documents for purchase of 54,587.84 MT raw Coal from SECL in the month of July 2022. AEML-G has also stated that it has received 54,997.25 MT of washed coal at the plant boundary of ADTPS and has consumed 77,326.42 MT of washed coal in July 2022. AEML-D has also submitted the breakup and supporting documents for "Other Charges" of Rs. 31,60,781/-. AEML-D has submitted that in the month of July 2022, Rs. 9,18,580/-, Rs 7,26,269/- and Rs. 2,82,919/- have been included as an adjustment under freight charges for raw and washed coal and for coal loading charges respectively, on account of diesel escalation for June 2022. Further Rs. (1047)/- has been considered under washed coal analysis charges for short quantity



analysis done at unloading end by IGI for June 2022 and Rs. (19952)/- has been considered under washed coal analysis charges for short quantity analysis done at washery end for June 2022. Further washery penalty for ash content being more than 36% in more than 3 rakes in June 2022 amounting to Rs. (26,19,534/-) i.e. (Rs. 22,19,944 plus 18% GST) has been considered under washing charges. The washery had also issued credit note of Rs. 4,49,78,411/- (Rs. 3,81,17,297 + 18% GST) towards ash content more than stipulated level in Q1 of FY 2022-23.

- 5.11 From May 2021 onwards SECL has started supplying coal of size 250 mm to ADTPS, apart from coal of size 100 mm. As per the washery contract, the additional washing charges for washing of coal of size more than 100 mm shall be reimbursed by AEML-G to the washery. The additional washing charges for washing coal of size 250 mm in July 2022 was Rs 19,96,823/- (Rs. 16,92,223/- plus 18% GST), which has been considered under washing charges.
- 5.12 The input tax credit (ITC) due to sale of coal rejects works out to Rs. (5,36,265)/-, which has been included as an adjustment under SECL coal purchase cost.
- 5.13 The ITC available to AEML-D for supply to SEEPZ area is set off against the GST paid on purchase of coal / LDO or against the GST paid for other services such as coal washing, coal analysis, liasoning and supervision etc. ITC on GST paid for July 2022 on Railway freight, liasoning, analysis charges etc. amounting to Rs. (1,62,035)/- has been considered on provisional basis under respective heads. The difference between provisional ITC claimed for June 2022 and final ITC for June 2022 works out to Rs. 48,506/- which has been considered under respective heads. The ITC on GST paid for SECL coal purchase in June 2022 amounting to Rs. (82,815)/- has been considered as an adjustment under SECL charges in July 2022.
- 5.14 AEML-G has paid demurrage charges of Rs. 36,226/- for washed coal in July 2022 to railways. In response to the query raised by the Commission regarding non-recovery of the demurrage charges from contractors, AEML-D has submitted details of the time of arrival of rakes on various dates and the time of release of the rakes after unloading. AEML-D has submitted that in all cases there was near simultaneous arrival of several rakes. AEML-G's contractors could not have arranged sufficient manpower for unloading coal within the timeline permitted by railways in the above cases. Usually AEML-G receives one railway rake per day, for which contractor is required to arrange sufficient manpower for unloading coal within timeline permitted by Railways. Since in the above cases, wherein three to four rakes were received near simultaneously, the contractor could not have arranged extra manpower and hence AEML-G has incurred demurrages. Accordingly, AEML-D requested the Commission to allow the same since demurrage charges have been incurred due to exceptional circumstances and the same could not have been recovered from contractors. The Commission has noted the submissions of AEML-D and considered the charges for recovery.

5.15 The Commission has examined the invoices and the supporting excel working provided by AEML-D and has found it to be appropriate. The working of the washed coal fuel cost considered for July 2022 is as shown in the Table 6 below:

Table 6: Wor	king of Washed	Coal Rate	for July	2022
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Particular	Quantity (MT)	Cost (Rs. Crore)	Price (Rs./MT)	
Inventory				
Opening (as on 1st June)	22,329.21	12.02	5,384.98	
Addition during month	54,997.25	23.65	4,300.42	
Total	77,326.46	35.68	4,613.60	
Consumption				
Actual	77,326.42	35.68	4,613.60	
Other Charges	=	0.31	-	
Total	77,326.42	35.99	4,654.01	

- 5.16 The overall cost approved towards fuel expenses (Washed coal) is Rs. 35.99 Crore for the month of July 2022.
- 5.17 With regards to the washed coal, the landed cost for the month of July 2022 is Rs. 4,654.01 /MT as compared to MYT approved Rs. 5,860.45 /MT, which is 20.59% lower than the approved MYT rate.
- 5.18 AEML-D has considered 'As billed' GCV of 3,254 kCal/kg for washed coal and 'As received' GCV of 3,276 kCal/kg for July 2022.
- 5.19 AEML-D has submitted third party sampling report from Inspectorate Griffith India Pvt Ltd (IGI) for "As received" GCV of the washed coal. The GCV of washed coal used for Energy Charge calculation matches with the GCV 'As received' submitted by AEML-G. 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. The relevant paragraph is produced below:
 - "5.4.29 Based on the above analysis and the fact that AEML-G uses washed coal, it is evident that the GCV of coal is being improved due to washing. Thus, the relaxation of transit loss of 300 kcal/kg allowed as per the MYT Regulations, 2019 between GCV 'as billed' by supplier and GCV 'as received' at generating station" is not applicable in AEML-G's case. Further, AEML-G itself has submitted that loss in calorific value is much less than 300 kcal/kg.
 - 5.4.30 Considering the washery process undertaken by the AEML-G and having a yield loss of 15%, the burden of which is pass on to the consumers, the Commission is not inclined to provide any actual loss in calorific value of coal between 'as billed' and 'as received'. However, in future, the Higher of GCV at Mine end or ADTPS (washed coal) will be considered for computation of energy charges, whereby GCV will be considered on ARB basis post moisture correction based on the formula as provided by MoP and World council.



- 5.4.31 However, while calculating the energy charges for the 4th MYT Control Period AEML-G has submitted GCV 'as billed' as 3,990 kcal/kg and GCV 'as received' as 3,912 kcal/kg. However, based on the data provided by AEML-G specified in Table 80 and as per the rationale provided in Para 5.4.29 of this Order, the Commission approves the GCV 'as billed' of 3,990 kcal/kg for computation of energy charges for the 4th MYT Control Period.
- **5.4.32** However, the Commission shall take a final call on GCV at the time of true-up based on the results of third-party analysis and prudence check by the Commission."
- 5.20 The transit loss claimed by AEML-D for the month of July 2022 is 0.364%. The coal received at ADTPS in July 2022 is the mix of coal dispatched from the washery from the already existing stock at the washery and Raw Coal purchased and washed at washery. Transit loss of washed coal is calculated as the difference between net weight of coal in rakes sent by Indian Railways from washery end and the net weight of coal received at ADTPS railway siding. The net weight of coal sent by Railways is ascertained from Railway Receipts (RR). The net weight of coal at ADTPS railway siding is ascertained by weighment of coal at the time of its unloading through wagon tippler. As per weighment of coal at ADTPS, the washed coal received is 54,997.25 MT and as per weighment of coal at washery end, the washed coal dispatched was 55,197.96 MT. The difference is reported as the transit loss which is 200.71 MT which is 0.364% of the total coal dispatched during the month of July 2022.
- 5.21 The weighted average GCV of opening stock of washed coal in July 2022 was 3,670 kCal/kg. The 'As received' GCV of washed coal received in July 2022 was 3,726 kCal/kg and 'As billed' GCV was 3,254 kCal/kg. As the 'As Received' GCV is higher than the 'As Billed' GCV of washed coal, the Commission has considered the 'As Received' GCV for computing the weighted average GCV of 3,390 kCal/kg for July 2022. The 'As fired' GCV of washed coal considered by AEML-D is 3,193 kCal/kg. Considering the difference between the 'As received' GCV and the 'As Fired' GCV, the stacking loss for washed coal works out to 196.75 kCal/kg which is more than the limit of 120 kCal/kg.
- 5.22 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 80,938.05 MT Raw Coal (at plant boundary) from SECL and has consumed 27,887.687 MT of raw coal in July 2022. As per weighment of coal at ADTPS, the raw coal received is 80,938.05 MT and the weighment of coal dispatched by SECL was 81,136.13 MT. The difference is reported as the transit loss which is 198.08 MT which is 0.24% of the total coal dispatched during the month of July 2022.
- 5.23 ITC on GST paid in railway charges in July 2022 is Rs. (1,50,489)/- which has been considered as an adjustment in Railway freight on provisional basis. Further, SECL has

13.23

4,742.79

issued debit and credit notes amounting to Rs. (82,28,166)/- against grade slippage of raw coal for the months of May 2021 and June 2021, which were received in FY 2022-23. The amount has been considered under SECL coal purchase charges in July 2022.

5.24 The working of the raw coal fuel cost considered for July 2022 is as shown in the Table 7 below:

Cost (Rs. Quantity Price Particular Crore) (Rs./MT) (MT) Inventory Opening (as on 1st June) 38.39 4,742.79 80,938.05 Addition during month 80,938.05 4,742.79 Total 38.39 Consumption 13.23 4,742.79 27,887.69 Actual

Other Charges

Total

Table 7: Working of Raw Coal Rate for July 2022

5.25 The overall cost approved towards raw coal expenses is Rs. 13.23 Crore for the month of July 2022.

27,887.69

- 5.26 With regards to the raw coal, the weighted average landed cost for the month of July 2022 is Rs. 4,742.79/MT. AEML-D has consumed 27,887.69 MT of raw coal during the month of July 2022.
- 5.27 AEML-D has submitted that in July 2022, AEML-G has purchased raw coal from SECL only. AEML-D has considered the 'As billed' GCV of raw coal as per CIMFR certificate is 3,507 kCal/kg, while the 'As Received GCV' of same coal as per M/s IGI certificate (third party appointed by AEML-G for GCV measurement at receiving end) is 3,293 kCal/kg. for July 2022. AEML-D has disputed the GCV results as declared by CIMFR. As per clause 50.6 of MYT Regulations, 2019, actual loss in GCV of coal between "as billed by Supplier" and "as received at generating station" is allowed subject to maximum loss of 300 kcal/kg. The GCV loss calculated by AEML-D (difference between 'As Billed' GCV and 'As Received' GCV) for raw coal for the month of July 2022 is 214 kcal/kg. Hence, GCV loss is within the limit of 300 kcal/kg and 'As received' GCV or 'As billed' GCV minus 300 kCal/kg).
- 5.28 The opening stock of raw coal in July 2022 was nil. Accordingly, the weighted average GCV of 3,293 kCal/kg has been considered as the GCV of raw coal stock in July 2022.
- 5.29 Considering the method explained in the section of raw coal, the stacking loss for raw coal works out to 108.00 kCal/kg.



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- 5.30 Imported Coal: AEML-G has procured 23,791.75 MT of imported coal from Adani Enterprises Ltd (AEL). AEL has procured the imported coal at Dahej port and thereafter the coal has been transported to AEML-G through Railways. Hence AEML-G has incurred railway freight for the imported coal in addition to the cost of coal in the month of July 2022. AEML-D has consumed 29,933.79 MT of imported coal in July 2022. ITC on GST paid on coal cost and railway freight in July 2022 works out to Rs. (2,21,946)/and (13,326)/- on provisional basis which have been considered by AEML-D as adjustments under respective heads. Further, difference of ITC on GST paid in June 2022 on provisional basis and on actual basis works out to Rs. 32,653/- which has been considered as adjustment under respective head. Further, as the imported coal landing at Dahej port is further transported to ADTPS by Railways, AEML-G has paid demurrage charges of Rs. 82,845/- to railways. As discussed in para 5.14 of the report, AEML-D has provided the reasons for non-recovery of the demurrage charges from the contractors which was noted by the Commission and the charges were considered for recovery through FAC.
- 5.31 During the approval of FAC charges for May 2022, the Commission had raised queries regarding the purchase of imported coal by AEML-D from vendors other than those contracted for supplying imported coal earlier. AEML-D had clarified that M/s Adani Enterprises Ltd had emerged as L1 from the Tender process undertaken by AEML-G to source imported coal and the coal supply agreement was entered on 10 May, 2022 with the L1 bidder.
- 5.32 AEML-D also submitted that considering the unavailability of Dahanu port between May to September and also in view of requirement of coal for AEML-G due to shortage of supply of domestic coal by CIL, AEML-G had procured imported coal through competitive bidding route through Dahej Port. Procurement of coal from Dahej Port to AEML involves transportation cost to be paid to Railways. However, the landed cost of coal at AEML G through price discovered in the above said tender process (including the cost of transportation) is lesser than the landed cost of coal discovered through long term coal supply agreement entered with M/s Taurus Commodities General Trading LLC. AEML-D had submitted the comparative statement of landed cost along with the response.
- 5.33 Further, there was a country wide severe shortage of supply of domestic coal by CIL. Hence AEML-G was forced to procure imported coal, even though the prices of imported coal have significantly increased in FY 2022-23 due to geopolitical conditions. However, as submitted above, the landed cost of coal at AEML-G through price discovered in the above said tender process (including the cost of transportation) was lesser than the landed cost of coal discovered through long term coal supply agreement entered with M/s Taurus Commodities General Trading LLC. AEML shall continue to take steps to optimize the fuel sourcing for ADTPS and keep the fuel cost to the minimum.
- 5.34 The Commission had noted the submissions of AEML-D in the matter of procurement of the imported coal from newly contracted vendor and considers the cost variation for recovery through the FAC mechanism However, AEML-D was directed to ensure that

45.07

45.07

15,055.19

15,055.19

- appropriate and timely steps are taken to optimise the fuel sourcing so as to ensure that the undue burden of higher cost of power procurement does not adversely impact the consumers.
- 5.35 The Commission has examined the invoices and the supporting excel working provided by AEML-D and has found it to be appropriate. The working of the imported coal fuel cost considered for July 2022 is as shown in the Table 8 below:

Quantity Cost (Rs. Price Particular Crore) (MT) (Rs./MT) Inventory Opening (as on 1st June) 6,142.04 8.57 13,947.58 Addition during month 23,791.75 36.50 15,341.12 Total 29,933.79 45.07 15,055.19

Consumption

Other Charges

Actual

Total

Table 8: Working of Imported Coal Rate for July 2022

5.36 The overall cost approved towards imported coal expenses is Rs. 45.07 Crore for the month of July 2022.

29,933.79

29,933.79

- 5.37 With regards to the imported coal, the weighted average landed cost for the month of July 2022 is Rs. 15,055,19/MT. AEML-D has consumed 29,933.79 MT of imported coal during the month of July 2022.
- 5.38 The transit loss claimed by AEML-D for the month of July 2022 is 0.76%. As per weighment of coal at ADTPS, the imported coal received is 23,791.75 MT and as per weighment of coal despatched was 23,975.00 MT. The difference is reported as the transit loss which is 183.25 MT which is 0.76% of the total coal despatched during the month of July 2022.
- 5.39 The "As Received" GCV for opening stock of imported coal for July 2022 was 4,391 kCal/kg and the "As Received" GCV of imported coal received in July 2022 is 4,287 kCal/kg. Hence the weighted average GCV of 4,308 kCal/kg has been considered as the "As Received" GCV of imported coal for July 2022. The "As fired" GCV of imported coal is 4,175 kCal/kg. The same has been used to work out the stacking loss of 133.39 kCal/kg for imported coal.
- 5.40 **LDO:** AEML-D has not procured any LDO during July 2022 and it has consumed 27.15 KL of Light Diesel Oil in the month of July 2022.



5.41 The Commission has examined the invoices and the supporting excel working provided by AEML-D and has found it to be appropriate. The working of the LDO fuel cost considered for July 2022 is as shown in the Table 9 below:

Particular	Quantity (KL)	Cost (Rs. Crore)	Price (Rs./KL)
Inventory			
Opening (as on 1st June)	441.54	2.91	65,807.52
Addition during month	(2)	0.00	=
Total	441.54	2.91	65,817.85
Consumption			
Actual	27.15	0.18	65,817.85
Other Charges	-		
Total	27.15	0.18	65.817.85

Table 9: Working of LDO Rate for July 2022

- 5.42 The overall cost approved towards LDO expenses for the month of July 2022 is Rs. 0.18 Crore. With regards to the LDO, the weighted average landed cost for the month of July 2022 is Rs. 65,817.85 /KL.
- 5.43 The weighted average GCV of opening stock of LDO in July 2022 was 10,810 kCal/kg. The 'As fired' GCV of LDO considered by AEML-D is 10,810 kCal/kg. Considering the difference between the weighted average GCV of opening stock and the 'As Fired' GCV, the stacking loss for LDO works out to nil.
- 5.44 As per MYT Regulations, 2019 for calculation of Energy Charge Rate, the Commission has notified the maximum stacking loss allowed in Clause 50.7 as reproduced below:
 - "Any variation in Price and Gross Calorific Value of coal/lignite or gas or liquid fuel as billed by supplier less actual stacking loss subject to the maximum stacking loss of 85 kcal/kg or 120 kcal/kg, as the case may be, vis-a-vis approved values shall be adjusted on month to month basis on the basis of average Gross Calorific Value of coal/lignite or gas or liquid fuel in stock received and weighted average landed cost incurred by the Generating Company for procurement of coal/lignite, oil, or gas or liquid fuel, as the case may be for a power Station:"
- 5.45 In line with MYT Regulations, 2019 and MYT Order in Case No. 298 of 2019, the Commission has considered stacking loss of 120 kcal/kg (minimum of actual weighted average loss considering washed coal, raw coal and imported coal of 164 kcal/kg or 120 kcal/kg as per Regulation) for calculation of energy charge rate.
- 5.46 Considering the approved rates for Washed Coal, Imported Coal and LDO, the fuel cost, GCV and normative operational parameters, the revised energy charges works out to Rs. 5.461/kWh which is higher than the approved variable cost of Rs. 3.986/kWh as per the MYT Order for AEML-G (Case No. 298 of 2019).



- 5.47 **Incentive:** As per Regulation 46.3 of MYT Regulations, 2019, the target PLF for earning incentive is 85%. Since the cumulative PLF for June 2022 and July 2022, both for peak and off-peak hours, was less than 85%, AEML-G has reversed the PLF incentive of Rs. 0.08 Crore claimed in June 2022 in July 2022.
- 5.48 Variation in power purchase expenses from ADTPS on account of change in quantum and per unit rate is as shown in Table 10 below:

Table 10: Variation in Power Purchase expenses from ADTPS for July 2022

Source		Approved rate (Rs./kWh)	quantum	Actual rate (Rs./kWh)	Variation due to quantum (Rs. Crore)	Variation due to rate (Rs. Crore)	Total variation (Rs. Crore)
ADTPS	311.08	4.93	182.82	6.72	(63.17)	32.84	(30.33)

- 5.49 Based on the above, APPC for ADTPS works out to Rs. 6.72/kWh (including reversal of incentive) as against approved Rs. 4.93/kWh. There is Rs. 1.80/kWh increase in APPC for month of July 2022. Fixed cost variation is contributing to increase of Rs. 0.36/kWh and variable cost variation is contributing to Rs. 1.44/kWh increase. The increase in variable cost is due to higher price of imported coal which was procured in July 2022. AEML-G had to resort to procurement of imported coal due to continued shortage of availability of domestic coal from SECL.
- 5.50 Solar Purchase: The Commission has approved power purchase at the rate of Rs. 10.30/kWh from DSPPL. AEML-D has purchased 3.16 MUs at the same rate of Rs. 10.30/kWh as approved in the MYT Order. The Commission has verified the bills/invoices submitted and found them to be correct.
- 5.51 Wind Solar Hybrid: The Commission has approved 94.93% of renewable power purchase quantum (255.50 MU) at the rate of Rs. 3.24/kWh from wind solar hybrid for FY 2022-23. AEML-D has purchased 129.44 MU from wind solar hybrid source for month of July 2022. The Commission has raised as query with regards to the present status of commissioning of the project and the schedule for commissioning of the remaining capacity including the reasons for delay in commissioning. In response, AEML-D submitted that AEML has made a detailed submission of the recent status of the Hybrid Plant to the Commission on 27 September 2022 as part of additional submission in Case No. 4 of 2022 which may be referred to. Further, as mentioned in the additional submission, time extension in SCOD from time to time is in line with the various Office Memorandum (OM) issued by MNRE; considering the stay imposed by the High Court of Rajasthan on the project land; difficulties faced by developer and delay in operationalization of LTOA. AEML-T further submitted that as on 2 October 2022, the Hybrid capacity commissioned stands at 700 MW against the awarded capacity of 700 MW of Hybrid project. The Commission has noted the submissions of AEML-D in this regard.



5.52 Non-Solar Purchase: The Commission has approved power purchase from non-solar sources. The actual APPC and approved APPC from all the sources is as shown in the Table 11 below:

Table 11: Approved and Actual APPC from Non-Solar Sources

Source	Approved (Rs/kWh)	Actual (Rs./kWh)
Reliance Innoventures) S#3	2.62
AAA Sons Enterprise	5.00	-
Vector Green Energy Private Limited	5.07	5.07
Tembhu Power Private Limited	4.26	4.26
Clean Power Private Limited	5.81	5.81

- 5.53 No power has been procured from AAA Sons Enterprises in May 2022 as the PPA has expired in April 2022. The Commission in the MYT Order in Case No. 325 of 2019 had approved generation equivalent to 8 days in the FY 2022-23.
- 5.54 The Commission has approved power purchase rate for Vector Green Energy Limited, Tembhu Power Private Limited and Reliance Clean Power Private Limited in the MYT Order in Case No. 325 of 2019 and AEML-D has procured power from Vector Green Energy Limited, Tembhu Power Private Limited and Reliance Clean Power Private Limited sources at the same rate during July 2022.
- 5.55 As regards the power purchase from Reliance Innoventures Ltd., AEML-D submitted that the EPA with Reliance Innoventures Ltd. expired on 31 March 2022. However, AEML-D has negotiated with the Generator and extended the PPA for further period of 6 months at an agreed rate which has been linked with Competitive Day Ahead Market (DAM) of IEX subject to ceiling rate of Rs 2.62 per kWh. The tariff for procurement will therefore be monthly average RTC market clearing price of IEX or Rs. 2.62 per unit, whichever is lower.
- 5.56 AEML-D has also purchased short term RE power based on IEX Day Ahead Market (DAM) tariff minus discount of Rs 0.04/kWh. AEML-D submitted that power procured through exchange linked contracts is at a rate lower than the rate discovered in IEX DAM tariff for corresponding time block. Through such contract, trading margin of Rs 0.02/kWh of IEX is also saved. However, AEML-D has submitted that the bill/ invoice against the said contract/LOI is not received, as GCN is not received by seller from MSEDCL. Since, the quantum is not known, the same is automatically included as part of imbalance pool. Once AEML receives the bill, the cost shall be claimed in the month in which the bill is received/ paid. However, at the time of truing-up, this quantum will also be considered as part of RPO obligation. AEML-D has requested the Commission to consider such sourcing of RE power towards meeting its RPO obligation.
- 5.57 The Commission in the past has approved such purchase of RE power through exchange linked contracts. During the approval of FAC charges for January 2022, the Commission had observed that AEML-D had changed the tariff linkage of the exchange linked RE

contracts from IEX GDAM to IEX DAM. AEML-D had not clarified the reason for the change in the contractual arrangement for procuring short term RE power through market linked contracts. However, the Commission had observed that the average rate of Short Term RE power procurement for the month of January 2022 is Rs. 4.27/kWh as against Rs. 4.34/kWh observed in December 2021. Further, from the data available on the IEX website, it has been observed that the rates in the G-DAM segment were higher than that observed in DAM for most of the period in the month of January 2022. This would be beneficial to the consumers and accordingly, the Commission had approved the procurement of short term RE power through market linked contracts. However, the Commission had directed that AEML-D should ensure that the changes in contract terms should not adversely impact the consumers. However, these rates are linked to the power markets and will vary according to the market trends. As regards the comparison between the rates in the GDAM and DAM segments in the month of July 2022, it is observed that the average DAM rates were higher than GDAM on most of the days and lower on remaining days. The market in July 2022 was operating at relatively lower rates than previous months with the maximum weighted average market clearing prices reaching Rs. 7.61/kWh. Accordingly, the Commission approves the power purchase of short term RE (market linked contracts) for the month of July 2022. However, AEML-D needs to track the market movements and ensure that the terms of the contract are beneficial for the consumers.

- 5.58 Further, AEML-D has also procured short term RE power through IEX Green Day Ahead Market (GDAM) at an average rate of Rs. 4.37/kWh. Considering the same, the average rate of power purchase from short term RE sources is Rs. 4.37/kWh. The cost of the power procured through the IEX DAM linked contracts will be considered in the month in which the bill is received and claimed by AEML-D in its submissions. However, AEML-D should follow-up with the seller to ensure that the bills are raised on time.
- 5.59 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 July 2022

Source	Approved Quantum (MU)	Approved rate (Rs./ kWh)	Actual quantu m (MU)	Actual rate (Rs./ kWh)	Variation due to quantum (Rs. Crore)	Variation due to rate (Rs. Crore)	Total variati on (Rs. Crore)
DSPPL	5.52	10.30	3.16	10.30	(2.42)	0.00	(2.42)
Wind Solar Hybrid	255.50	3.24	129.44	3.24	(40.84)	0.00	(40.84)
Reliance Innoventure	=	-	15.97	2.62	.54	4.18	4.18
AAA Sons Enterprise	0.01	5.00		-	(0.01)	-	(0.01)
Vector Green Energy Pvt Ltd	0.88	5.07	1.84	5.07	0.49	(0.00)	0.49
Tembhu Power Pvt. Ltd.	0.99	4.26	0.09	4.26	(0.38)	-	-
Reliance Clean Power Ltd.	6.25	5.81	8.46	5.81	1.28	(0.00)	1.28
Short Term RE	-	-	8.83	4.37	-	3.86	3.86



Source	Approved Quantum (MU)	Approved rate (Rs./ kWh)	Actual quantu m (MU)	Actual rate (Rs./ kWh)	Variation due to quantum (Rs. Crore)	Variation due to rate (Rs. Crore)	Total variati on (Rs. Crore)
Total RE Sources	269.14	3.45	167.80	3.52	(41.88)	8.04	(33.84)

- APPC for renewable sources for the month July 2022 works out to Rs. 3.52 /kWh as against approved level of Rs. 3.45/kWh. The increase is on account of lower power purchase from wind solar hybrid source which is the cheapest source as the Commission has approved 94.93% of total quantum from wind solar hybrid at the rate of 3.24/kWh. The purchase from short term RE sources is also at a rate higher than that approved for wind solar hybrid source.
- 5.61 Bilateral Purchase: AEML-D has undertaken bilateral purchase of power from power exchange (PXIL, IEX and HPX), through exchange price linked bilateral contracts and inter discom trade at the average rate of Rs. 5.59/kWh which is significantly higher than the approved rate of Rs. 3.50/kWh. It is observed that the power prices in the short-term market are higher in the month of July 2022 as compared to the prices in the month of February 2022, which is also seen in the average price of power purchase from bilateral contracts seen in February 2022 (Rs. 5.19/kWh). However, the rate observed in July 2022 is lower as compared to the prices observed during March 2022 to June 2022 which is also reflected in the average price of power purchase from bilateral contracts in March 2022 (Rs. 9.27/kWh), April 2022 (Rs. 11.10 kWh), May 2022 (Rs. 9.24/kWh) and June 2022 (Rs. 7.12/kWh). 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	Feb-22	Mar-22	Apr-22	May-22	June-22	July-22
RTC	4.35	8.17	9.55	5.88	6.56	4.73
Evening (17-23 Hrs)	5.00	10.70	10.56	7.39	8.15	6.72
Day (10-17 Hrs)	4.11	6.11	7.75	4.63	4.73	3.20
Night (0-6, 23-34 Hrs)	2.82	7.83	10.90	7.10	8.19	4.84
Morning (6-10 Hrs)	6.44	8.55	8.85	3.63	4.57	4.22

5.62 Due to limited long-term tie-up, AEML-D relies significantly on the short-term purchase. AEML-D has purchased 419.82 MUs through bilateral purchase (PXIL, IEX, HPX, exchange linked contracts and Inter Discom Trade) which is 54.34% of its total power purchase for July 2022. 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)
		Bilateral	Sources	
1	IEX	160.15	82.08	5.13

Sr. No.	Source	Net Purchase (MU)	Power Purchase Cost (Rs. Crore)	Average Power Purchase Cost (Rs./kWh)
2	PXIL	19.94	13.89	6.97
3	HPX	140.63	88.51	6.29
4	STPP (including inter discom purchase)	99.09	50.31	5.08
	TOTAL	419.82	234.79	5.59

- 5.63 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 considering. AEML-D has also submitted the sample LOAs for day ahead exchange linked contract. Accordingly, the Commission approves the aforesaid bilateral purchase with APPC of Rs. 5.59/kWh.
- 5.64 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 and the same is considered as part of Bilateral purchase cost in FAC for July 2022 towards fees paid for August 2022. Further, AEML-D has also paid Rs. 1,53,400 towards subscription fees for PXIL and the same is claimed in FAC for July 2022. The Commission has noted the submissions.
- 5.65 AEML-D had made banking transaction for which power was availed in the months of February, March and April 2022. This was approved by the Commission for consideration in the FAC approval. The power is to be returned from July 2022 onwards. For the month of July 2022 for the power returned, the banking return cost of Rs. 57.63 crore has been considered. For this purpose, corridor has been booked for the month of September 2022 for which charges have been paid in July 2022. The same (Rs. 0.02 Crore) is proposed to be considered as part of Bilateral purchase cost, in FAC for July 2022. Accordingly, the consolidated cost of power purchase from bilateral sources is Rs. 6.97/kWh.
- 5.66 As regards bilateral purchases, it is observed that AEML has been purchasing short term power on a regular basis from power exchange or exchange linked bilateral contracts. Considering the variation in prices on exchange, AEML should explore the option of tying up partial quantum for slightly longer duration contracts after assessing the market conditions through competitive bidding to avoid variation in short term prices on a daily/monthly basis. Such longer period may be up till 100% availability of hybrid contracted power, as the availability of cheaper source of Hybrid power will take some time.
- 5.67 Variation in power purchase expenses from Bilateral on account of change in quantum and per unit rate is as shown in Table 15 below:



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)
Bilateral Purchase	277.88	3.50	419.82	6.97	49.68	145.53	195.20

DSM Pool: AEML-D has submitted that for the month of July 2022, it has drawn 2.99

5.68

Table 15: Variation in Power Purchase expenses from Bilateral for July 2022

- MU under the DSM mechanism and has incurred cost of Rs. 1.66 Crore. As discussed in para 4.9 of this report, based on the scrutiny of the DSM bills provided by the SLDC for the month of July 2022, it was observed that the total deviation quantum was 3.00 MU at the T⋄D interface. Based on the same, the quantum of energy injected at the G⋄T periphery is computed as 3.10 MU. This energy at the G⋄T interface is arrived by grossing the power injected at T⋄D interface considering the normative transmission loss of 3.18%. AEML-D is directed to consider both the power purchase units of imbalance pool and the associated cost as per SLDC DSM bills for the purpose of FAC computation. This is in line with the approach adopted for other Distribution Licensees in the state as well.
- 5.69 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."

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:"
- 5.70 The surplus energy of RE Open Access consumers (Firm and Non-firm) purchased by AEML-D as per the aforementioned regulations is 0.94 MU at a cost of Rs. 0.25 Crore and is considered in the FAC for the month of July 2022. 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.

- 5.71 **Sale of Power:** AEML has sold 1.91 MUs under bilateral sale and received Rs. 1.20 Crore for the month of July 2022.
- 5.72 Additional InSTS charges: STU, in accordance with the Commission's order dated 18 October, 2020 in Case No. 52 of 2020, has levied Rs. 11,015 as additional transmission charges. The same is has been considered in the month of FAC for July 2022. AEML-D has provided the supporting bill raised by STU which has been verified by the Commission.
- 5.73 Other Charges: AEML-D has considered rebate pertaining to payments made towards power purchase from contracted generators of Renewable energy, traders from short term power purchase, payment made for InSTS charges, SLDC charges etc. in the month of July 2022. The Commission has scrutinized the details and has approved Rs. 2.18 Crore as rebate to be considered as part of Power purchase cost for the month of July 2022. There is no standby previous year adjustment for the month of July 2022.
- 5.74 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 July 2022

Sr. No.	Source	Approved Rate (Rs. /kWh)	Actual Rate (Rs./kWh)	Reason for rate variation
1	ADTPS	4.93	6.72	 The fixed charges are higher by Rs. 0.36/kWh due to lower generation as compared to the approved generation. The variable cost variation has increased by Rs. 1.44/kWh due to higher price of imported coal procured in July 2022. The imported coal was procured due to shortage of availability of domestic coal from SECL.
2	RE Sources	3.45	3.52	 The main reason for cost increase is the lower purchase of power from wind solar hybrid source which is the cheapest source approved by the Commission in the MYT Order and it contributes to around 94.93% of total approved renewable quantum. The rate of purchase is Rs. 3.24/kWh which is lower than the other sources. Rest of the RE power is purchased at approved rate. Purchase of RE from short term sources like IEX GDAM at an average power purchase rate of Rs. 4.37/kWh which is higher than the hybrid power source. The EPA with Reliance Innoventure which expired on 31 March, 2022 was extended for a period of 6 months at a negotiated price



Sr. No.	Source	Approved Rate (Rs./kWh)	Actual Rate (Rs. /kWh)	Reason for rate variation
				linked with Competitive Day Ahead Market (DAM) of IEX subject to ceiling rate of Rs 2.62 /kWh. This has helped in slightly reducing the average rate of power purchase from RE sources in July 2022.
3	Power Exchange / Banking power	3.50	6.97	 Market discovered rate; Short term power purchase from Power Exchange (IEX, PXIL and HPX), through day ahead exchange linked bilateral contracts and inter discom trade is done at an average rate of Rs. 5.59/kWh. Additionally cost of power returned in July 2022 under the banking arrangement and the open access charges related to banking have been considered. This has led to a consolidated average rate of Rs. 6.97/kWh for power purchased through bilateral sources.
	Total	4.00	6.12	Variation due to above reasons

- 5.75 Considering the above, the Commission allows the actual average power purchase cost of Rs. 6.12/kWh for the month of July 2022 as shown in Table 16 above as compared to approved average power purchase cost of Rs. 4.00/kWh.
- 6. FAC on account of fuel and power purchase cost (F)
- 6.1 The Commission has worked out the average power purchase costs for the month of July 2022 as shown in Table 16 above. The same has been compared with the average power purchase cost approved by the Commission in MYT Order dated 30 March, 2020 to arrive at the differential per unit rate at which Z_{FAC} is to be passed on to the consumers.
- 6.2 It is noted that AEML-D has incurred the per unit Power Purchase cost higher than the Approved per unit Power Purchase Cost hence the Z_{FAC} worked out by the Commission on account of difference in power purchase cost for the month of July 2022 is positive as shown in the Table 17 below.

Table 17: FAC on account of Power Purchase Cost

Sr. No.	Particulars	Units	July 2022
1	Average power purchase cost approved by the Commission	Rs./ kWh	4.00
2	Actual average power purchase cost	Rs. /kWh	6.12
3	Change in average power purchase cost (= 2-1)	Rs./ kWh	2.12
4	Net Power Purchase	MU	772.56
5	Change in power purchase cost (=3 x 4/10)	Rs. Crore	163.81



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. As the prior approval of FAC has started from April 2020 and no FAC recovery has been done till now, there would not be any adjustment for over recovery/ under recovery.
- 7.2 AEML-D has submitted that for the first month of recovery (July 2022 billing month), AEML-D has recovered FAC of Rs. 71.32 crore. However, the adjustments for over/ under recovery will be computed once the recovery for the five-month billing period is completed and the actual recovery is ascertained.
- 7.3 As FAC levied for individually March, 2022 was nil, there would not be any adjustment factor for the month of July, 2022 while computing the allowable FAC. Any adjustment towards under-recovery/over-recovery for the amount recovered during the month of July 22 has to be done in the month of November 2022, as applicable.

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, 7.1 above, there is no carrying cost on account of such adjustment.
- 8.2 The carrying/holding cost is computed considering the MCLR + 150 basis points. This turns out to be 8.95% for July 2022, however, there is no carrying cost worked out for July 2022 as there is no over/under-recovery mentioned is para 7.1 above.

9. Disallowance due to excess Distribution Loss

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

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

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

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

9.2 The following Table 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 July 2022	Cumulative up to July 2022	Annual Sliding Distribution Loss up to July 2022
1	Net Energy input at Distribution Voltages	MU	830.82	773.93	3,517.51	9,162.15
2	Energy sales at Distribution voltages	MU	772.24	753.04	3,312.32	8,555.51
3	Distribution Loss (1 - 2)	MU	58.58	20.89	205.19	606.64
4	Distribution Loss as % (3/1)	%	7.05%	2.70%	5.83%	6.62%
5	Excess Distribution Loss = [Annual Sliding Distribution Loss (4) - Distribution loss approved] x Net Energy Input (1)	MU	-	-	-	-
6	Disallowance of FAC due to excess Distribution Loss	Rs. Crore	-		-	

- 9.3 As seen from the above Table 18, distribution loss for the month of July 2022 is 2.70% which is lower than the MYT approved distribution loss of 7.05%. The cumulative distribution loss upto July 2022 is 5.83% which is also lower than the distribution losses approved in the MYT Order. 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 Further, the Annual Sliding Distribution Loss up to July 2022 is 6.62% which is lower than the approved distribution loss of 7.05% as approved in MYT Order.
- 9.5 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

Period	FY 2022-23	FY 2021-22	
Approved	7.05%	7.30%	
Actual – April	12.47%	7.46%	
Actual – May	11.48%	7.93%	
Actual – June	-4.83%	1.48%	
Actual - July	2.70%	9.45%	
Actual - Cumulative till July	5.83%	6.70%	

9.6 As seen from the above Table 18, disallowance of FAC due to excess distribution loss for the month of July 2022 is nil since though the standalone FAC for the month of July 2022



is positive, the annual sliding distribution loss is lower than approved distribution loss by the Commission.

10. Summary of Allowable ZFAC

10.1 The summary of the FAC amount as approved by the Commission for the month of July 2022 as shown in the Table 20 below.

Table 20: Summary of Allowable ZFAC for July 2022

Sr. No.	Particulars	Units	As Claimed July 2022	As Approved July 2022
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	163.85	163.81
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	163.85	163.81
2	Calculation of FAC Charge			
2.1	Energy Sales within the License Area	MU	753.04	753.04
2.2	Excess Distribution Loss	MU	-	-
2.3	Z _{FAC} per kWh	Rs./kWh	2.18	2.18
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	163.85	163.81
4	Utilization of FAC Fund			11.7
4.1	Opening Balance of FAC Fund	Rs. Crore	459.35	456.11
4.2	Carrying Cost on FAC	Rs. Crore	3.41	3.39
4.3	Z _{FAC} for the month (Sr. No. 3.2)	Rs. Crore	163.85	163.81
4.4	Cumulative refund of FAC upto April, 2021	Rs. Crore	_	:=
4.5	Holding Cost on Cumulative refund of FAC	Rs. Crore	-	7.
4.6	Closing Balance of FAC Fund	Rs. Crore	626.61	623.30
4.7	Z _{FAC} leviable/refundable to consumer	Rs. Crore	626.61	623.30
5	Total FAC based on category wise and slab wise allowed to be recovered in future billing months	Rs. Crore	626.61	623.30
6	Carried forward FAC for recovery during future period (4.7-5)	Rs. Crore	-	-

- The difference in the FAC amount to be carried leviable to the consumer as estimated by AEML-D and that approved by the Commission is on account of variation in the approval of the power purchase from DSM pool.
- The difference in the FAC amount carried forwards is due to carrying cost Rs. 0.02 Crore.



- 10.2 It can be seen from the above Table 20 that opening FAC fund for month of July 2022 is Rs. 456.11 Crore and standalone FAC for the month of July 2022 approved by the Commission is Rs. 163.81 Crore. Accordingly, the FAC amount leviable on the consumer for the month of July 2022 is Rs. 623.30 Crore.
- 10.3 The recovery of FAC amount from the consumers will be allowed in line with the provisions of the letter dated 5 April, 2022 issued by the Commission and based on the decision of the Commission elaborated in para 1.2 of this Report.

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} $C_{at} = Z_{FAC}$ 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/subcategory/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. 163.81 Crore for the month of July 2022 to be added to the FAC fund.



- 11.3 The Commission in its approval for the month of June, 2022 has directed AEML-D to carry forward the approved FAC amount of Rs. 456.11 Crore to be accumulated as FAC Fund to be carried forward to the next billing cycle with carrying cost of Rs. 3.39 Crore. Hence, the opening balance of FAC fund is Rs. 459.50 Crore.
- 11.4 Accordingly, considering the approved FAC amount of Rs. 163.81 Crore for the month of July, 2022 and the same after being added to the FAC fund of Rs. 459.50 Crore, the total amount to be recovered is Rs. 623.30 Crore.
- 11.5 AEML-D has requested the Commission to permit accumulated FAC recovery from May-22 onwards for recovery from Dec-22 billing month.
- 11.6 The Commission in its letter dated 5 April 2022 has indicated that positive FAC amount for the period of three months will be accumulated and allowed to be recovered equally in next three months. The Commission, in its FAC approval for April 2022 has allowed FAC recovery in five months (July 2022 to November 2022). Since there is positive FAC for three months from May 2022 to July 2022, the same has to allowed to be recovered in three equal months from September 22 to December 22. However, since FAC recovery allowed upto November 2022 had almost reached (17.73%) the ceiling limit with very little scope for additional recovery, the Commission has held that future recovery will be allowed from December 2022 onwards. Accordingly, if the accumulated FAC amount of Rs 637.12 Crore (623.30 + carrying cost for 3 months from Sept 2022 to Nov 2022) is allowed to be recovered in three months equally i.e. from December 22 to February 23, the said recovery of Rs 213.96 Crore per month (which includes the carrying cost for the period Dec 2022 to February 2023) will exceed the 20% ceiling of variable component of tariff (Rs 46.40 Crore considering the sales for July 2022) as specified in the MYT Regulations. In addition, there would also be unrecovered amount of Rs. 502.67 Crore. With such unrecovered amount, there would be ceiling limit applicable for March 2023 also. Also, there would still be unrecovered amount for FY 2022-23 at the end of March 2023. The Commission notes that during the MTR Petition to be filed by AEML-D, there would be provisional true-up of FY 2022-23 wherein the Commission will approve the revised power purchase cost as per actuals of H1 (Apr to Sept) and revised estimates of H2 (Oct to Mar). Thus, the revised total power purchase cost will be approved in the MTR Order. Accordingly, the Commission is of the view that any unrecovered FAC at the end of March 2023 will get subsumed in the provisional true-up of FY 2022-23 and any gap arising thereof will be allowed to be recovered in tariff of FY 2023-24.
- In view of the above, the Commission is allowing the recovery of FAC Fund at the end of July 2022 over four months from December 2022 to March 2023 and any unrecovered amount at the end of March 2023 will get adjusted in provisional true-up of FY 2022-23. Thus, the total amount to be allowed to be recovered is as given below:



Particulars	Amount (Rs Crore)
Closing Balance as on July 2022	623.30
Carrying cost from September 2022 to November 2022 (since recovery allowed from December 2022 instead of September 2022)	13.83
Total Closing Balance as on July 2022	637.13

- 11.8 If the aforesaid amount of Rs 637.13 Crore is allowed to be recovered in four months from December 2022 to March 2023, it would exceed ceiling limit of 20%. Further, the Commission has also allowed carrying cost on this amount for the period December 2022 to March 2022 considering monthly equated recovery over the period. Accordingly, the Commission has allowed estimated recovery of Rs 46.40 Crore considering the ceiling at 20% of the variable component of tariff. The Commission has allowed the equal recovery to avoid tariff variation every month to the Consumers. The total estimated recovery for four months considering the ceiling is Rs 185.61 Crore. The balance amount of Rs 458.65 Crore along with carrying cost will get subsumed in the provisional true-up of FY 2022-23 and any gap arising thereof will be allowed to be recovered in tariff of FY 2023-24.
- In view of the above, per unit Z_{FAC} for the month of July 2022 to be levied on consumer of AEML-D in the billing months of December 2022, January 2023, February 2023 and March 2023 is given below.

Table 21: Per unit Z_{FAC} for the month of July 2022 to be levied on consumers of AEML-D in the billing months of December 2022 to March 2023

Consumer Categories	Per unit Z _{FAC} for the month of July 2022 to be levied on consumers of AEML-D in the billing months of December 2022 to March 2023				
LT Category (Rs./kWh)					
LT I - Below Poverty Line	0.20				
LT -I Residential (Single Phase)					
0-100	0.60				
101-300	1.00				
301-500	1.35				
500 and above	1.55				
LT -I Residential (Three Phase)					
0-100	0.60				
101-300	1.00				
301-500	1-500 1.35				
500and above	1.55				
LT II: LT - Non - Residential or Comme	rcial				
LT II (a) - 0-20 kW	1.10				
LT II (b) - 20-50 kW	1.20				

Consumer Categories	Per unit Z _{FAC} for the month of July 2022 to be levied on consumers of AEML-D in the billing months of December 2022 to March 2023		
LT II (c) - above 50 kW	1.	.30	
LT - Industrial			
LT III (A) - LT Industrial upto 20 kW	1.	.10	
LT III (B) - LT Industrial above 20 kW	1.	.20	
LT - Others			
LT IX (A): LT -PS - Govt. Hospitals & EI	1.10		
LT IX (B): LT -PS - Others	1.20		
LT X (A): LT - Agriculture Pumpsets	0.75		
LT X (B): LT - Agriculture Others	1.05		
LT IX : LT - EVCS	0.80		
HT Category	Rs./kWh	Rs/kVAh#	
HT I: HT-Industry	1.20	1.15	
HT II: HT- Commercial	1.25	1.20	
HT III: HT-Group Housing Society	1.20	1.20	
HT V - HT Metro & Monorail	1.20	1.10	
HT VI (A): HT - PS - Govt. Hospitals & EI	1.20	1.10	
HT VI (B): HT - PS - Others	1.25	1.20	
HT VIII - HT - EVCS	0.95	0.90	

^{# -} The conversion from Rs./kWh to Rs./kVAh has been done using the PF considered by the Commission in its MYT Order in Case No. 325 of 2019.



Pour