

MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
World Trade Centre, Centre No.1, 13th Floor, Cuffe Parade, Mumbai 400 005
Tel. No. 022 22163964/65/69 – Fax 022 22163976

E-mail: mercindia@merc.gov.in

Website: www.merc.gov.in

Ref. No. MERC/FAC/2020-21/E-Letter

Date: 6 December, 2020

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 September 2020.

Reference: 1. FAC submission for September 2020 vide email dated 27 October, 2020.
2. The data gaps were communicated vide email dated 29 October, 2020.
3. AEML-D replied vide email dated 12 November, 2020

Sir,

Upon vetting the FAC calculations for the months of September, 2020 as mentioned in the above reference, the Commission has accorded approval for charging FAC of **Rs. (28.50) Crore** to its consumers as shown in the table below:

Month	FAC Amount (Rs. Crore)
September, 2020	0

The Commission allows the accumulation of FAC amount of **Rs. 154.16 Crore** which shall form part of FAC Fund and shall be carried forward to next FAC billing cycle with holding cost as per the Order dated 30 March, 2020 in Case No. 325 of 2019. Further, as directed in the said Order, AEML-D shall maintain the monthly account of FAC Fund and upload it on its website to maintain transparency of FAC Fund and also for information of all the 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,

Sd/-

(Prafulla Varhade)

Director (EE), MERC

Encl: Annexure A: Detailed Vetting Report for the period of September 2020.



PRIOR APPROVAL FOR FAC CHARGES FOR THE MONTH OF SEPTEMBER 2020

Subject: Prior approval of Fuel Adjustment Charges (FAC) submissions of AEML-D for the month September 2020.

Reference: 1. AEML-D FAC submission for the month of September 2020 vide email dated 27 October, 2020.
2. The data gaps were communicated vide email dated 29 October, 2020.
3. AEML-D replied vide email dated 12 November, 2020

1. FAC submission by AEML-D:

1.1 AEML-D has made FAC submissions for the month of September 2020 as referred above. Upon vetting the FAC calculations, taking cognizance of all the submissions furnished by AEML-D, the Commission has accorded prior approval for the FAC amount to be charged in the billing month of November 2020.

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.

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 27 October, 2020 AEML-D has filed FAC submissions for the month of September 2020 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



Approval of FAC Charges for the month of September, 2020

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 in MUs

Consumer Category	Approved by the Commission (MU)	Monthly Approved (MU)	Actual Sales (September, 2020) (MU)
	(I)	(II=I/12)	(III)
LT Category			
BPL	0.01	0.00	0.00
LT -I Residential	4,506.33	375.53	345.26
LT II Commercial	2,629.50	219.13	121.58
LT III(A) - LT Industrial up to 20 kW TOD Option	182.89	15.24	23.77
LT III(B) - LT Industrial above 20 kW	388.81	32.40	22.80
LT-V : LT- Advertisements and Hoardings	3.04	0.25	-
LT VI: LT -Street Lights	52.30	4.36	-
LT-VII : LT -Temporary Supply	12.25	1.02	-
LT VIII: LT - Crematorium & Burial Grounds	1.41	0.12	-
LT X: LT -Public Service (A)	30.85	2.57	2.40
LT X: LT -Public Service (B)	171.62	14.30	10.48
LT X (A) : LT - Agriculture Pumpsets	0.09	0.01	0.01
LT X (B) : LT - Agriculture Others	0.30	0.03	0.01
LTIV - Public Water Works	12.77	1.06	-
LT IX : LT – EVCS	-	-	0.01
HT Category			
HT 1 (Industrial)	339.76	28.31	24.19
HT 2 (Commercial.)	304.26	25.36	25.34
HT 3 (Group Housing Soc.)	34.70	2.89	3.00
HT 4 (Temporary Supply)	19.30	1.61	-
HT – Railways	30.84	2.57	0.73
HT - Public Services (A)	6.45	0.54	0.39
HT - Public Services (B)	98.67	8.22	6.42
HT - Public Water Works	8.13	0.68	-
Total	8,834.29	736.19	586.39

*- 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 September 2020 is 586.39 MU which is 20% lower than approved energy sales of 736.19 MU per month for the FY 2020-21. AEML-D submitted that for billing its consumers, AEML-D follows a cycle month billing for LT-Residential, LT-Commercial (a) & (b), LT-Industrial (upto 20 kW) from mid of a month to the mid of the next month i.e. for e.g. September 15, 2020 to October 15, 2020. Accordingly, actual sales would have been available by around 20



Approval of FAC Charges for the month of September, 2020 October, 2020. This process would have delayed the FAC filing submission. Hence, AEML-D has worked out energy sales as per the bills given to consumers from 01 September, 2020 to 30 September, 2020, from its SAP system, considering bill posting dates. Same approach was also taken in the FAC Return submissions for the months of April 2020 to August 2020.

- 3.3 AEML-D has gradually commenced meter reading. In the data of September 2020, sales presented (period bill posting dates from 1 September 2020 to 30 September 2020), the consumption of about 97% consumers is as per meter readings, whereas the remaining is still assessed. The remaining consumers generally are premises which are located in containment zones or are sealed buildings. Also, consumption of commercial and industrial premises which have not re-opened continues to be assessed as per the practice directions of the Commission.
- 3.4 **The total sale of 586.39 MU for the month of September 2020 consists of 589.95 MU of actual sale for the month of September and (3.56) MU is adjustment for the past months.** This is still significantly lower than the usual consumption of the month of September. For instance, in September 2019, the energy sales were 715 MU. This lowering of consumption is a result of lower activity in commercial and industrial premises due to low volume of business and under assessment of Consumption, based on winter months as per Supply code, in premises where meter readings could not be taken, etc.
- 3.5 In normal scenario, there is not much variation in the actual sales vis-à-vis approval sale and if there is any variation, then Distribution Licensee provides justification regarding the same. Due to Covid-19 pandemic situation and the practice directions issued by the Commission, the billing for residential category consumer has been done on the basis of the average consumption of previous months for the months of April and May and billing for commercial and industrial consumer has been done on 10% of previous month actual billing, resulting into lower sales being billed by the licensee. This has resulted in a variation between the monthly approved and actual sales of FY 2020-21. 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

Year\ Sales (MU)	Monthly Approved	Actual – April, 2020	Actual – May, 2020	Actual – June, 2020	Actual – July, 2020	Actual – August, 2020	Actual – September, 2020	Approved - Cumulative till September, 2020	Actual - Cumulative till September, 2020
Residential	378.42	305.28	298.91	499.27	494.77	339.46	348.27	2,270.52	2,285.95
Commercial	244.48	233.47	117.82	48.49	98.00	117.69	146.91	1,466.88	762.38
Industrial	75.98	63.70	46.05	46.42	59.76	62.07	70.76	455.88	348.76
Others	37.31	26.30	18.44	20.60	16.70	18.73	20.44	223.86	121.21



Approval of FAC Charges for the month of September, 2020

Total (FY 2020-21)	736.19	628.75	481.22	614.78	669.23	537.94	586.39	4,417.14	3518.30
Total (FY 2019-20)	740.62	796.89	829.93	813.19	739.01	734.12	715.46	4,443.71	4628.60

3.6 Few observations on the sales till September, 2020 are:

- AEML-D has started actual billing from June onwards and till September, 2020, 97% of its consumers have been billed on actual basis.
- Under assessment of residential consumer category in the earlier months is now getting billed and impact of the same is visible in residential sales of June and July month.
- Sale to commercial category is low as compared to approval level due to shut down of commercial establishments during Covid 19 pandemic.
- Difference of around 1110.30 MU between the actual sales in FY 2020-21 (till September, 2020) and those in FY 2019-20 (till September, 2019) is mainly due to lower consumption of commercial and industrial category of consumers.

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 Roof Top Solar.

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 2020-21 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 September, 2020

Sr. No.	Particular	Compliance
1	Purchase from Approved Sources	Yes. AEML-D has procured power from ADTPS, Solar and Non-solar Sources and Bilateral in the month of September 2020, which are approved sources of power purchase.
2	Merit Order Dispatch	Yes. AEML-D had scheduled power as per MoD.
3	Fuel Utilization Plan	Yes. Since there is only one thermal generating station of AEML-G and there is shortage of indigenous coal, hence there is no scope for improvement in optimal fuel utilization.



Approval of FAC Charges for the month of September, 2020

Sr. No.	Particular	Compliance			
4	Pool Imbalance	AEML-D has purchased 42.84 MU from the imbalance pool to meet its power purchase requirement.			
5	Sale of Surplus Power	There was no sale of surplus of power during September 2020.			
6	Power Purchase	Actual Power Purchase is 674.29 MU as against approved 822.47 MU due to lower sales.			
7	Source wise Power Purchase	Source Name	Approved (MU)	Actual (MU)	Proportion of each Source in Actual Purchase
		ADTPS	311.08	185.02	27.44%
		RE Sources	23.36	14.08	2.09%
		Exchange	488.03	430.54	63.85%
		Imbalance Pool & Other	-	44.66	6.62%
		Total	822.47	674.29	100.00%
8	Power Purchase under Section 62 of Electricity Act, 2003	<p>AEML-D is purchasing power from only one source i.e. ADTPS under Section 62 of EA, 2003.</p> <p>As part of verification of fixed cost claimed by AEML-D, the same has been verified from the AEML-G MYT Order in Case No. 325 of 2019.</p> <p>As part of verification of energy charges claimed by AEML-D, verification of operational parameters, fuel cost, GCV etc. vis-à-vis the MYT Order is carried out.</p>			
9	RE Purchase	Monthly power purchase invoices are submitted by AEML-D. Power Purchase rates are verified from the PPA signed by AEML-D with 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 September, 2020 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 power of 674.29 MUs as against approved 822.47 MUs from the sources approved by the Commission.** The lower Power purchase is due to lower Sales of AEML-D in the month of September 2020.
- 4.5 **Power Procurement from ADTPS:** AEML-D has a medium term 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 185.02 MU for the month of September 2020.**



- 4.6 **Power Procurement from Solar and Non-Solar:** AEML-D has an Energy Purchase Agreement (EPA) with Dhursar Solar Power Private Limited (DSPPL). 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 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	40	5.52	4.29
Non-Solar			
Reliance Innoventures	45	6.57	3.29
AAA Sons Enterprise	3.38	0.52	0.15
Vector Green Energy Private Limited	18	2.63	1.71
Vector Green Energy Private Limited	6	0.88	0.42
Tembhu Power Private Limited	4.5	0.99	0.09
Clean Power Private Limited	45	6.26	4.14
Total		23.36	14.08

- 4.7 AEML-D has procured 3.28 MU lower than the approved from Reliance Innoventures, 0.37 MU lower than approved from AAA Sons Enterprise, 1.38 MU lower than the approved from Vector Green Energy Private Limited, 0.90 MU lower than approved from Tembhu Power Private Limited and 2.13 MU lower than approved from Clean Power Private Limited. 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.
- 4.8 **Power Procurement from Exchange:** AEML-D has purchased power from IEX based on day ahead planning on daily basis. **AEML-D has purchased 430.54 MU from all these sources which is within the monthly approved quantum of 488.03 MU.** The purchase of power is through Power Exchange.
- 4.9 **Power Procurement from Imbalance Pool:** AEML-D has purchased **42.84 MU** from the imbalance pool for the month of September 2020.
- 4.10 **Power Procurement from Open Access and Roof Top Solar Consumers:** AEML-D has purchased 1.72 MU from the Open Access and Roof top Solar Consumers for the month of September 2020.



- 4.11 **Power Procurement from Standby Sources:** AEML-D has purchased 0.09 MU from MSEDCL as stand-by in the event of outage for the month of September 2020.
- 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 September 2020, 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 September 2020 is Rs. 248.35 Crore which is lower than the approved Power Purchase cost of Rs. 337.64 Crore by the Commission for the month of September 2020. **As mentioned earlier, this is on account of the reduction in power purchase quantum from approved quantum of 822.47 MUs to actual quantum of 674.29 MUs along with the variation in power purchase rates due to fuel prices variation.** The Commission has examined the submissions made by AEML-D and worked out the actual Power Purchase Cost of Rs. 248.31 Crore with APPC of Rs. 3.68 per Unit. The actual purchase for same month in FY 2019-20 i.e. September 2019 was 666.67 MU and power purchase cost was Rs. 346.76 Crore with APPC of Rs. 5.20/Unit. 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 September 2020 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./kWh)	Variable Cost (Rs. Crore)	Variable Cost (Rs./kWh)	Total Cost (Rs. Crore)	APPC (Rs./kWh)
ADTPS	Approved	311.08	26.15	0.84	117.9	3.79	144.05	4.63
	Actual	185.02	26.08	1.41	65.27	3.53	91.35	4.94
Solar and Non Solar Purchase	Approved	23.36	-	-	15.04	6.44	15.04	6.44
	Actual	14.08	-	-	9.69	6.88	9.69	6.88
Bilateral Purchase	Approved	488.03	-	-	170.81	3.50	170.81	3.50
	Actual	430.54	-	-	135.75	3.15	135.75	3.15
Pool/FBS M	Approved	-	-	-	-	-	-	-
	Actual	42.84	-	-	12.25	2.86	12.25	2.86



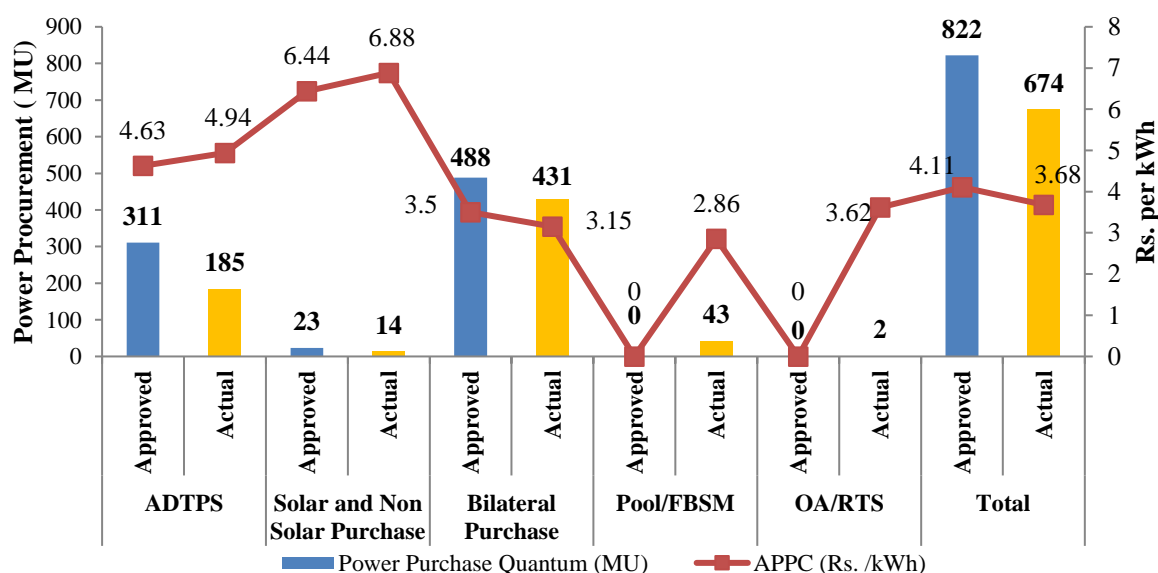
Approval of FAC Charges for the month of September, 2020

OA/RTS	Approved	-	-	-	-	-	-	-
	Actual	1.72	-	-	0.62	3.62	0.62	3.62
Standby Charges	Approved	-	-	-	-	-	-	-
	Actual	0.09			0.04	4.00	0.04	4.00
Other Charges	Approved	-	-	-	7.74	-	7.74	-
	Actual	-	-	-	(1.40)	-	(1.40)	-
Total	Approved	822.47	26.15	0.32	311.49	3.79	337.64	4.11
	Actual	674.29	26.08	0.39	222.22	3.30	248.31	3.68

*- 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



ADTPS

5.4 The Commission in Case No. 325 of 2019 has approved an energy quantum from ADTPS at the rate of Rs. 4.63/kWh. AEML-D has purchased at the rate of Rs. 4.94/kWh for the month of September 2020. The Commission has worked out the rate for purchase from AEML-D as Rs. 4.94/kWh for the month of September 2020.

5.5 **Fixed Cost:** The Fixed cost approved for FY 2020-21 in Case No. 325 of 2019 (AEML-D) is Rs. 313.81 Crore whereas the Fixed cost approved for FY 2020-21 in Case No. 298



Approval of FAC Charges for the month of September, 2020 of 2019 (AEML-G) is Rs. 312.99 Crore. The actual payment of Fixed Cost for the month of September 2020 is to be done according to the entitlement under Case No. 298 of 2019 i.e. Rs. 312.99 Crore, as the payment is to be done according to Generators Tariff Order. **One Unit of AEML-G (250 MW) was under reserve shutdown/zero schedule up to 17 September for the month of September 2020, instruction of which was issued by AEML-D in consultation with MSLDC** in view of low demand in AEML-D licence area due to corona virus pandemic, coupled with monsoon. Zero schedule instruction has been issued by AEML-D in order to optimise power purchase cost of AEML-D in view of lower power purchase rate for procurement of power through short term.

- 5.6 **Due to reserve shut down, actual PLF of ADTPS in September was 56.92% as compared to approved PLF of 94.38%.** ADTPS was available for generation, however, since AEML-D suggested for zero schedule citing low demand, therefore Plant Availability Factor for the month (PAFM) for both Units of AEML-G was considered to be 100%. During the month of September, 2019, availability of ADTPS was 91.80%. Since cumulative PAFM for the period June 2020 to September 2020 (i.e. low demand season) is more than Normative Plant Availability Factor (NPAF) of 85% (i.e. target for low demand season), AEML-D has considered the monthly fixed charges of Rs. 26.08 Crore as the fixed charges payable to AEML-G for September 2020.
- 5.7 **Due to lower generation, per unit impact on Fixed Cost has increased by Rs. 0.57 /kWh and accordingly the Fixed Cost per unit has increased from approved FC rate of Rs. 0.84 /kWh to actual FC rate of Rs. 1.41/kWh.**
- 5.8 **Energy Charges:** AEML-G has met the 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 September 2020.
- 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 for the month of September 2020. Analysis of fuel segregated into Washed Coal, Imported Coal and Raw Coal.
- 5.10 **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 72,315.44 MT Coal from SECL in the month of September 2020. AEML-D has also submitted the breakup and supporting documents for “Other Charges” of Rs. 0.25 Crore. AEML-D has submitted



Approval of FAC Charges for the month of September, 2020 that the booking of cost under the head “Uploading on washed coal inventory” is due to adjustment of the difference in lag in invoices with the provisional booking of cost in previous months. AEML-D has considered the booking of “Input credit of IGST on Sale of Rejected Coal” of Rs. 0.12 Crore as part of the coal cost in the month of September 2020. **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 September 2020 is as shown in the Table 6 below:

Table 6: Working of Washed Coal Rate for September, 2020

Particular	Quantity (MT)	Cost (Rs. Crore)	Price (Rs./MT)
Inventory			
Opening (as on 1 st September)	211,583.93	116.22	5,492.94
Addition during month	54,401.25	29.63	5,447.20
Total	265,985.18	145.86	5,483.58
Consumption			
Actual	91,273.55	50.05	5,483.58
Other Charges	0.00	0.25	0.00
Total	91,273.55	50.30	5,510.60

- 5.11 The overall cost approved towards fuel expenses is Rs. 50.30 Crore for the month of September 2020.
- 5.12 **With regards to the washed coal, the landed cost for the month of September 2020 is Rs. 5,510.60/MT as compared to MYT approved Rs. 5,524.04 /MT, which is 0.24% lesser than the approved MYT rate.**
- 5.13 In absence of CIMFR results for month of September, 2020, AEML-D has considered ‘As billed’ GCV of 3,951 kcal/kg for washed coal and ‘As received’ GCV of 3,965 kcal/kg for September 2020. AEML-D has submitted third party sampling report from Inspectorate Griffith India Pvt Ltd (IGI) for 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.



Approval of FAC Charges for the month of September, 2020

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.”

- 5.14 The transit loss claimed by AEML-D for the month of September 2020 is 1.34%. AEML-D has submitted that raw coal was lifted from SECL during September 2020. However, no analysis is done by CIMFR and no dispute pertaining to grade slippage has been raised in the month of September 2020. The coal received at ADTPS in September 2020 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. The difference is reported as the transit loss which is **738.58 MT which is 1.34%** of the total coal received during the month of September 2020.
- 5.15 As submitted by AEML-D, actual stacking loss of washed coal is -188 kcal/kg for month of September 2020.
- 5.16 **Imported Coal: AEML-G had invited bids through International Competitive Bidding in two stages.** Based on evaluation of the lowest evaluated base CIF price per tonne, M/S Taurus Commodities General Trading LLC was selected as the vendor. AEML-G has purchased imported coal during September 2020. AEML-G has submitted provisional Cost and GCV for arriving at the imported coal consumption as part of submission. As part of response to the data gaps, AEML-G has submitted actual bills/Invoices and coal indices proof of MV Kaley vessel from which imported coal has been consumed during the month of September 2020. The Commission has considered the actual cost and actual GCV instead of the provisional values submitted by AEML-D in its FAC submission for further computation.



- 5.17 **For the purpose of computation of cost of coal consumption, AEML-G adopts FIFO method for computation of imported coal cost.** AEML-G has provided imported coal inventory and its consumption detail which is as shown in Table 7 below:

Table 7: Imported Coal Inventory

Sr. No.	Date of Purchase	Vessel Name	Cost (Rs./MT)	Opening Quantity (as on 1 st September, 2020) (MT)	Purchase (after Transit Loss) during Month of September (MT)	Consumption during Month of September (MT)	Closing Quantity (as on 31 st September, 2020) (MT)
1		MV Kaley	4,383.66	0.00	17799.07	11,073.55	6725.52
2		Total		0.00	17865.42	11,073.55	6725.52

- 5.18 The Coal Cost and GCV of imported coal is as shown in Table 8 below:

Table 8: Cost and GCV of Imported Coal

S. No.	Vessel Name	Cost (Rs./MT)	Consumption (MT)	Coal Cost (Rs. Crore)	GCV (kcal/kg)
1	MV Kaley	4,383.66	11,073.55	4.85	4,049
2	Total	4,383.66	11,073.55	4.85	4,049

- 5.19 With regards to the imported coal, the landed cost considered by ADTPS for the month of September 2020 is Rs. 4,383.66/MT as compared to MYT approved Rs. 5,661.98/MT. The Commission has also observed that AEML-G has entered into new coal supply agreement with Taurus Commodities General Trading LLC on 13 November, 2019 for a period of five years. As per new agreement, the ocean freight price applicable for MV Kaley is \$16.97/MT.
- 5.20 AEML-D had provisionally considered 4,112 kcal/kg as the GCV for the FAC calculation; however, the Commission has considered the 'As received' GCV of 4,049 kcal/kg based on the Certificate of Sampling & Analysis Report provided by AEML-D for FAC calculation.
- 5.21 It is observed that ADTPS has consumed imported coal from MV Kaley in September 2020. It is also observed that imported coal was purchased and consumed during September 2020. The actual landed cost of coal from the above vessel would account for the actual transit loss. However, for FAC, normative landed cost is to be computed by considering normative transit losses of 0.2% for imported coal, as Transit loss is a performance parameter. Therefore, in order to arrive at the normative cost of imported



Approval of FAC Charges for the month of September, 2020 coal consumed, the landed rate from the above vessel is adjusted for actual and normative transit losses.

- 5.22 **Raw Coal:** AEML-D has purchased 11,480.38 MT of Raw Coal from SECL in the month of August 2020. The transit loss of 1.10% was booked and hence the raw coal received at ADTPS plant was 11,354.50 MT. AEML-D has raised dispute with SECL regarding the computation of GCV and the scanned copy of correspondence has been submitted. AEML-D has consumed 11,354.50 MT of Raw Coal in the month of September 2020 and has booked Rs. 5.53 Crore as cost towards it.
- 5.23 As part of data gap the Commission sought reason for consumption of Raw Coal and sanctity of fuel utilization plan. In its reply, AEML has submitted that the consumption of Raw Coal is on trial basis to explore other alternatives to optimize the fuel cost in line with the directive of the Commission in MYT Order dated 30 March, 2020. AEML has also submitted that the Commission has approved two sources of coal i.e Domestic and Imported. The consumption of Raw Coal falls under Domestic source and is procured through same FSA with SECL and maintains the sanctity of fuel utilization plan. The Commission allows the consumption of Raw Coal.
- 5.24 As submitted by AEML-D, actual stacking loss for raw coal is -37 kcal/kg for month of September 2020. The Commission has noted that the stacking loss in case of raw coal is lower than the approved stacking loss of 120 kcal/kg.
- 5.25 **LDO:** AEML-D has purchased Light Diesel Oil for the month of September 2020. The bills and detailed working has been provided by AEML-D and verified by the Commission. The working of the LDO fuel cost considered for September 2020 is as shown in the Table 9 below:

Table 9: Working of LDO Rate for September, 2020

Particular	Quantity (MT)	Cost (Rs. Crore)	Price (Rs./MT)
Inventory			
Opening (as on 1 st September)	352.25	1.73	49,241.98
Addition during month	150.00	0.56	37,012.20
Total	502.25	2.29	45,589.48
Consumption	86.09	0.39	45,589.48
Total	86.09	0.39	45,589.48

- 5.26 As submitted by AEML-D in the data gaps, actual stacking loss for imported coal is -12 kcal/kg for month of September 2020. The Commission has noted that the stacking loss in case of imported coal is lower than the approved stacking loss of 120 kcal/kg.



5.27 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:”

5.28 AEML-D in line with MYT Regulations, 2019 and MYT Order in Case no. 298 of 2019 has considered stacking loss of -155.78 kcal/kg (minimum of actual weighted average stacking loss considering washed coal, raw coal and imported coal of -155.78 kcal/kg or 120 kcal/kg as per Regulation) for calculation of energy charge rate.

5.29 AEML-D has submitted that the Stacking loss is the difference between ‘as Received GCV’ and ‘as Fired GCV’, the reporting of “as Received GCV” is based on the coal receipt during the month and “as Fired GCV” is based on Coal fired during the month. As the consumption of coal is from the previous stock available and partial feeding from received rakes the comparison of ‘as Received GCV’ and ‘as Fired GCV’ on monthly basis would always provide a varied result. The stacking loss for the month of September is negative implying that there is a gain in GCV instead of loss which is to be expected as there is no direct one on one relation between the heat value of received coal and that fired as explained in this para.

5.30 Considering the approved rates for Washed Coal and Imported Coal fuel cost, GCV and normative operational parameters, the revised energy charges works out to Rs. 3.53/kWh which is lower than the approved variable cost of Rs. 3.79/kWh.

5.31 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 September, 2020

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	311.08	4.63	185.02	4.94	(58.37)	5.69	(52.68)

5.32 Based on the above, **APPC for ADTPS works out to Rs. 4.94/kWh as against approved Rs. 4.63/kWh. Overall variation in APPC for month of September 2020 is Rs. 0.31**



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- 5.33 **Solar Purchase:** The Commission has approved power purchase at the rate of Rs. 10.30/kWh from DSPPL. **AEML-D has purchased 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.
- 5.34 **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	5.00	5.15
AAA Sons Enterprise	5.00	5.15
Vector Green Energy Private Limited	5.00	5.15
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

- 5.35 The Commission has approved power purchase rate at Rs.5.00/kWh for Reliance Innoventures, AAA Sons Enterprise and Vector Green Energy Limited based on the PPA signed by AEML-D with the sources. AEML-D in its MYT Petition had projected the rate of Rs. 5.15 per Unit for these purchases with escalation as per EPA. The Commission in MYT Order of Case No. 325 of 2019 has not considered the annual escalation as specified in PPA on these sources and approved the base rate of FY 2019-20 for FY 2020-21. Therefore, considering the annual escalation as specified in PPA, per unit rate works out to Rs. 5.15/kWh for September 2020. This rate is being considered as approved rate for calculation of FAC as the payments done to the generator is based on PPA.
- 5.36 The Commission has also approved power purchase rate for Vector Green Energy Limited, Tembhu Power Private Limited and Reliance Clean Power Private Limited and AEML-D has procured power from these sources at the same rate during September 2020 except Tembhu Power Private Limited.
- 5.37 The Commission has scrutinized the bills/invoice submitted for RE sources and found that AAA Sons Enterprise invoices are not available. AEML-D has submitted that invoices are yet to be raised by AAA Sons and hence rate is considered based on the agreement. It is observed that historically AAA Sons has been delaying the raising of bill and as a result provisional numbers are being used. The Commission notes that this delay is not observed with any other sources.



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- 5.38 AEML-D has submitted bills of July 2020 and August 2020 of AAA Sons Enterprise and sought for adjustment in power purchase of September 2020 according to actual consumption. In July 2020, a provisional quantum of 0.2393 MU was considered whereas the actual quantum purchased is 0.2396 MU therefore at the rate of Rs 5.00/kWh an adjustment of Rs. 0.0001 Crore for the month of July is sought. Similarly, for the month of August 2020, provisional quantum of 0.49 MU was considered whereas the actual quantum purchased is 0.43 MU therefore at the rate of Rs 5.00/kWh an adjustment of Rs. 0.03 Crore for the month of August is sought.
- 5.39 The Commission has verified the bills of AAA Sons Enterprise for the month of July, 2020 and August, 2020 and has approved the total adjustment of Rs 0.03 Crore in the month of September 2020.
- 5.40 Variation in power purchase expenses from ADTPS 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 September, 2020

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)
DSPPL	5.52	10.30	4.29	10.30	(1.27)	(0.00)	(1.27)
Reliance Innoventure	6.57	5.00	3.29	5.15	(1.64)	0.05	(1.59)
AAA Sons Enterprise	0.52	5.00	0.15	5.15	(0.19)	0.00	(0.19)
Vector Green Energy Pvt Ltd	2.63	5.00	1.71	5.07	(0.46)	0.01	(0.45)
Vector Green Energy Pvt Ltd	0.88	5.07	0.42	5.07	(0.23)	-	(0.23)
Tembhu Power Pvt. Ltd.	0.99	4.26	0.09	4.26	(0.38)	0.00	(0.38)
Reliance Power Ltd.	6.26	5.81	4.14	5.81	(1.23)	0.00	(1.23)
Total RE Sources	23.36	6.44	14.08	6.88	(5.98)	0.62	(5.35)

- 5.41 **APPC for renewable sources for the month September 2020 works out to Rs. 6.88/kWh as against approved level of Rs. 6.44/kWh. The increase is on account of lower power purchase from non-solar sources (which are cheaper in cost as compared to solar source) and escalations provided in EPA to the approved cost which is not reflected in the present approved rates.**
- 5.42 **Bilateral Purchase:** AEML-D has purchased power from IEX at the average rate of Rs. 3.15/ kWh from all these sources which is well within the approved rate of Rs. 3.50/ kWh



Approval of FAC Charges for the month of September, 2020 **which has the major impact in reduction of weighted APPC for September-2020.** AEML-D has also 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 considered the STOA fees paid to SLDC towards IEX standing clearance as Rs. 7,500 per application. The Commission approves both the charges as part of bilateral purchase for the month of September 2020.

- 5.43 Variation in power purchase expenses from ADTPS on account of change in quantum and per unit rate is as shown in Table 13 below:

Table 13: Variation in Power Purchase expenses from Bilateral for September, 2020

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	488.03	3.50	430.54	3.15	(20.12)	(14.94)	(35.06)

- 5.44 **FBSM/ Imbalance Pool:** The Commission observes that **AEML-D has purchased 42.84 MU and considered associated charges with regards to imbalance pool for the month September 2020 on provisional basis at the rate of Rs. 2.86/kWh as per the rate considered by the Commission in MYT Order**
- 5.45 AEML-D has drawn 42.84 MU from the imbalance pool for the month of September 2020. The said drawl from the pool may be on account of either increase in demand of consumers than estimated by the Licensee or due to lower generation than scheduled by the generator. In both the scenarios, power has been drawn by the Licensee and supplied to its consumers. The said power supplied to the consumers is already billed as per Tariff approved by the Commission. The Energy Charge approved also includes the element of power purchase. It is therefore pertinent that such cost of such power drawn from the pool is considered while computing FAC.
- 5.46 Due to historical issues of delay in computing imbalance pool quantum and cost of power, for which appropriate orders are already passed by the Commission, the imbalance pool quantum and cost is required to be considered on provisional basis to avoid any adverse impact in future. If the said cost and quantum is not considered, it will not only result in recovering the cost from the consumers as billing has already been done, but also increase the overall power purchase cost for the particular month having positive impact on FAC and burdening the consumers. Also, as and when the final bills are issued by MSLDC, the power purchase cost of the imbalance pool quantum will be levied in future months, thereby burdening the consumers in future in that month when such cost will be levied. Accordingly, to balance the overall interest of consumers and licensee, the Commission



Approval of FAC Charges for the month of September, 2020 has considered imbalance pool quantum as submitted by the AEML-D at provisional rate of Rs. 2.86/kWh as considered in the MYT Order. This provisional consideration of cost for FAC computation will get adjusted during truing-up of the respective year.

- 5.47 **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:”

- 5.48 The surplus energy of RE Open Access consumers (Non-firm) purchased by AEML-D as per the aforementioned regulations is 1.72 MU at a cost of Rs. 0.62 Crore and is considered in the FAC for the month of September 2020. 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 Licence.

- 5.49 **Standby Purchase:** AEML-D has submitted that it has stand-by arrangement with MSEDCL to supply standby power in the event of outage or non-availability or constrained availability of any of their contracted / scheduled generation, irrespective of whether it is planned or forced outage. AEML-D has submitted that MSEDCL bills the standby power based on FBSM bills which have not been raised after March 2018, therefore the cost of Rs 0.04 Crore at Rs. 4/kWh has been provisionally booked for the month of September 2020. The Commission has considered as submitted by AEML.

- 5.50 **Other Charges:** In the FAC return submission for ‘Prior approval for August, 2020’, AEML-D had submitted provisional quantum of purchase from imbalance pool at 27.16 MU. The Pool imbalance continues to vary due to factors such as variation in InSTS Losses between that provisionally considered by AEML-D vis-a-vis the figure determined by SLDC and uploaded on its website later, Generation Credit Note from Open Access



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- 5.51 The transmission loss considered by AEML-D for August 2020 was 3.18% as approved by the Commission in its InSTS order. Subsequently, MSLDC declared InSTS loss of 2.89% for the month of August 2020. The implication of Cost due to variation in imbalance pool quantum is shown in Table 14 below:

Table 14: Imbalance Pool Quantum for September, 2020

Month	Original Submission	Revised Value	Difference	Rs. Crore
August 2020	27.16	25.31	(1.85)	(0.53)
Total				(0.53)

- 5.52 AEML-D has also sought adjustment of Rs. 0.016 Crore on account of consequential impact of AAA Sons adjustment for the month of July 2020 and August 2020. The detailed working has been submitted and verified by the Commission.
- 5.53 The Commission has also approved the adjustment of Rs. (0.51) Crore for the month of September 2020.
- 5.54 AEML-D has claimed rebate pertaining to payments made to 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 September 2020. The Commission has scrutinized the bills and has approved Rs. (0.88) Crore as rebate to be considered as part of Power purchase cost for the month of September 2020.
- 5.55 Summarised reasons for the rate variation for various sources are given in Table 15 below:

Table 15: Reasons for the rate variation for various sources for September, 2020

Sr. No.	Source	Approved Rate (Rs. /kWh)	Actual Rate (Rs. /kWh)	Reason for rate variation
1	ADTPS	4.63	4.94	Due to lower PLF, fixed cost burden has increased the actual rate as compared to approved rate;
2	RE Sources	6.44	6.88	The sources are purchased at approved rate but due lower power purchase from non-solar sources which are cheaper in cost in comparison to solar source and non-consideration of escalation in EPA the approved rate is lesser than actual rate;
3	Power Exchange	3.50	3.15	Due to pandemic situation, power purchase rate in the market has come down and hence



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Sr. No.	Source	Approved Rate (Rs. /kWh)	Actual Rate (Rs. /kWh)	Reason for rate variation
				actual rate is lower as compared to approved rate;
	Total	4.11	3.68	

5.56 Considering the above, the Commission allows the actual average power purchase cost of Rs. 3.68/kWh for the month of September 2020 as shown in Table 5 above as compared to approved average power purchase cost of Rs. 4.11/kWh. The main reason for lower actual average power purchase cost as compared to approved average power purchase cost is purchase of cheaper power from exchange at rate of Rs. 3.15/ kWh as compared to approved rate of Rs. 3.50/ 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 September 2020 as shown in Table 5 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 within the limits of 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 September 2020 is negative as shown in the Table 16 below.

Table 16: FAC on account of Power Purchase Cost

Sr. No.	Particulars	Units	September 2020
1	Average power purchase cost approved by the Commission	Rs./kWh	4.11
2	Actual average power purchase cost	Rs./kWh	3.68
3	Change in average power purchase cost (= 2-1)	Rs./kWh	(0.42)
4	Net Power Purchase	MU	674.29
5	Change in power purchase cost (=3 x 4/10)	Rs. Crore	(28.50)

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. As the prior approval of FAC has started from April 2020 and no FAC recovery is till now, there would not be any adjustment for over recovery/ under recovery.

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



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- 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. However, the Commission has determined a negative FAC of Rs. 19.87 Crore, Rs. 24.76 Crore, Rs. 27.75 Crore, Rs. 27.49 Crore and Rs. 23.23 Crore for the month of April, May, June, July and August 2020 which is contributed to the FAC Pool. Also, in May, June, July and August 2020, the Commission has approved the total carrying cost of Rs. 1.68 Crore. Thus, the opening balance for FAC fund for September, 2020 is Rs. 124.78 Crore. The Commission has taken into consideration the submission made by AEML-D towards holding cost of Rs. 0.87 Crore to be contributed to the FAC Pool.
- 8.2 AEML-D has computed the holding cost considering the MCLR + 150 basis points. This turns out to be 8.50% for September 2020 and holding cost worked out is Rs. 0.87 Crore.
- 8.3 The Commission has considered MCLR rate of September month plus 150 basis points which works out to 8.50%. Accordingly, the Commission has calculated holding cost of Rs. 0.87 Crore to be contributed to the FAC Pool.

9. Disallowance due to excess Distribution Loss

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

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

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

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

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

Table 17: Disallowance of FAC due to excess Distribution Loss



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Sr. No.	Particulars	Units	Approved in Tariff Order	Actual for September, 2020	Actual up to September, 2020
1	Net Energy input at Distribution Voltages	MU	796.32	649.92	3,799.36
2	Energy sales at Distribution voltages	MU	736.19	586.39	3,489.93
3	Distribution Loss (1 - 2)	MU	60.13	63.54	309.43
4	Distribution Loss as % (3/1)	%	7.55	9.78	8.14
5	Excess Distribution Loss = [Cumulative Distribution Loss (4) - Distribution loss approved] x Net Energy Input (1)	MU	-	-	-
6	Disallowance of FAC due to excess Distribution Loss	Rs. Crore	-	-	-

9.3 As seen from the above Table 17, distribution loss for the month of September 2020 is 9.78% which is higher than the MYT approved distribution loss of 7.55%. AEML-D submitted that in the present times, while estimated readings continue to play a role in influencing the reported distribution losses, the difference in the periods of energy purchase and energy sold also plays a role – energy purchase being that of the calendar month, while energy sold is considered based on bill posting dates as described earlier. However, the cumulative Distribution Loss up to September, 2020 is 8.14% which is higher than approved distribution loss of 7.55% as approved in MYT Order. AEML-D has further submitted that consumption mix is also playing a role in influencing distribution losses – consumption mix being unfavorably impacted as a result of slowdown in consumption of industrial and commercial activity, which is impacting the proportion of energy flows on HT and LT network, thereby influencing losses. The Commission has not worked out any disallowance on account of Distribution Loss since the standalone FAC for the month of September 2020 is negative.

9.4 AEML-D has requested the Commission to temporarily suspend application of the provision of assessing distribution losses on the basis of energy sales at Distribution level, till the time normalcy is restored and the billed energy starts reflecting the actual consumption of the consumer, instead of some theoretically assessed amount.

9.5 AEML-D has submitted the details of all adjustments undertaken in the month of September 2020 as is shown in Table 18 below.

Table 18: Sales adjustment summary for September 2020 (MU)

Category	September Sales	Adjustment	Total Sale
LT- Residential	345.82	(0.56)	345.26
LT- Commercial	123.67	(2.09)	121.58



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Category	September Sales	Adjustment	Total Sale
LT-Industrial	47.28	(0.71)	46.57
LT Others	13.10	(0.20)	12.90
LT Total (A)	529.87	(3.56)	526.31
HT-Industrial	24.19	-	24.19
HT Commercial	25.34	-	25.34
HT Group Housing	3.00	-	3.00
HT Others	7.54	-	7.54
HT Total (B)	60.08	-	60.08
Total (A) + (B)	589.95	(3.56)	586.39

- 9.6 AEML-D submits that the lowering of consumption in September 2020 is a result of several variables such as lower activity in commercial and industrial premises due to low volume of business, under-assessment of consumption, based on winter months, as per Supply Code, in residential premises where meter readings could not be taken (as only about 97% of consumption is based on actual reading), etc.
- 9.7 As part of the analysis, monthly as well as cumulative distribution losses trend is 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	Approved	Actual – April	Actual – May	Actual – June	Actual - July	Actual - August	Actual - September	Actual - Cumulative till September
FY 2020-21	7.55%	4.90%	34.41%	(1.78)%	(11.22)%	6.74%	9.78%	8.14%
FY 2019-20	10.66%	8.39%	8.79%	8.98%	10.53%	9.68%	5.48%	8.69%

- 9.8 It is observed that AEML-D has **reached actual billing level of 97% by end of September, 2020** and impact of the same is visible in the cumulative distribution losses. **Cumulative distribution loss till September, 2020 is 8.14% which is close to the approved level of 7.55% and it is expected that it will further come down once 100% actual billing is completed.**
- 9.9 As seen from the above Table 17, **disallowance of FAC due to excess distribution loss for the month of September 2020 is nil since the standalone FAC for the month of September 2020 is negative.**
- 10. Summary of Allowable Z_{FAC}**
- 10.1 The summary of the FAC amount as approved by the Commission for the month of September 2020 as shown in the Table 20 below.



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Table 20: Summary of Allowable Z_{FAC} for September, 2020

Sr. No.	Particulars	Units	As Claimed September 2020	As Approved September 2020
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	(28.46)	(28.50)
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	(28.46)	(28.50)
2	Calculation of FAC Charge			
2.1	Energy Sales within the License Area	MU	586.39	586.39
2.2	Excess Distribution Loss	MU		
2.3	Z _{FAC} per kWh	Rs./kWh	(0.49)	(0.49)
3	Recovery of FAC			
3.1	FAC disallowed corresponding to excess Distribution Loss $(((2.1+2.2) \times 2.3)/10)$	Rs. Crore	-	-
3.2	Allowable FAC	Rs. Crore	(28.46)	(28.50)*
4	Utilization of FAC Fund			
4.1	Opening Balance of FAC Fund	Rs. Crore	(124.78)	(124.78)
4.2	Holding Cost on FAC Fund	Rs. Crore	(0.87)	(0.87)
4.3	Z _{FAC} for the month (Sr. No. 3.2)	Rs. Crore	(28.46)	(28.50)
4.4	Closing Balance of FAC Fund	Rs. Crore	(154.12)	(154.16)
4.5	Z _{FAC} leviable/refundable to consumer	Rs. Crore	(154.12)	(154.16)
5	Total FAC based on category wise and slab wise allowed to be recovered	Rs. Crore	-	-
6	Carried forward FAC for recovery during future period (3.1-3.2-4)	Rs. Crore	(154.12)	(154.16)

* AEML-G had submitted provisional cost and GCV for arriving at the imported coal consumption as part of FAC submission. However, the Commission has considered the actual bills/Invoices and coal indices proof of MV Kaley vessel as a part of data gap replies. Hence, the difference is there in approval vis-à-vis the FAC submission.

10.2 It can be seen from the above Table 20 that opening FAC fund for month of September 2020 is Rs. (124.78) Crore and standalone FAC for the month of September 2020 approved by the Commission is Rs. (28.50) Crore as against Rs. (28.46) Cr. as claimed by AEML-D. The Commission has also approved a holding cost of Rs. (0.87) Crore for the negative FAC accrued during the month of April, May, June, July and August 2020. The overall FAC amount for the month till September 2020 is Rs. (154.16) Crore. As the FAC is negative, the said amount will be accumulated in FAC Fund for stabilisation of FAC in future and the benefit will not be passed to consumers.



11. Recovery from Consumers:

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

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

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

Where:

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

k = Average Billing Rate / ACOS;

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

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

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

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

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

- 11.2 The Commission allows the FAC amount of Rs. (28.50) Crore for the month of September, 2020 to be accumulated as FAC Fund and shall be carried forward to the next billing cycle with holding cost.



Approval of FAC Charges for the month of September, 2020

- 11.3 The Commission in its approval for the month of August, 2020 has directed AEML-D to carry forward the approved FAC amount of Rs. (124.78) Crore to be accumulated as FAC Fund to be carried forward to the next billing cycle with holding cost.
- 11.4 Accordingly, considering the approved standalone FAC amount of Rs. (28.50) Crore for the month of September, 2020, opening balance FAC Fund of Rs. (124.78) Crore and holding cost of Rs. (0.87) Crore, the total amount of Rs. (154.16) Crore is accumulated in the FAC Fund.
- 11.5 The Commission in the Tariff Order has approved FAC Stabilisation Fund of Rs 110 Crore. The amount of the FAC fund was decided by the Commission considering that normal circumstances would prevail during the year. In view of an extraordinary situation due to Covid-19 pandemic, there has been significant reduction in demand and consequently drop in power prices in the short-term market resulting in substantial reduction in actual power purchase cost leading to negative FAC. This has led to accumulation of the FAC fund not only up to the limit specified in the Tariff Order but exceeded the same in the present month. However, as the Covid-19 situation is beginning to normalise, there is an upward trend in demand which will result in an increase in power prices. This may result in positive FAC going forward. In such a scenario, if the excess amount over and above the FAC Fund is refunded and Zero/Positive FAC is applicable in future months, consumers may face variation in its tariff. This would defeat the entire objective of creating a FAC Fund. It is therefore necessary to monitor the movement of power prices and its impact on FAC going forward as we move towards normalcy to avoid any variation in tariff being levied on consumers.
- 11.6 The Commission in the FAC Guidelines dated 20 April, 2020 had already indicated that it may increase the limit of the fund to reduce the impact of positive FAC due to unexpected increase in power prices. The relevant extract of the said guidelines is reproduced herein below for ready reference:

"12.The Commission may at its discretion increase the limit of the fund so as to reduce the impact of positive FAC in case of an unexpected increase in the power purchase cost."

- 11.7 In view of the aforesaid, the Commission has decided to accumulate the FAC fund arising out of negative monthly FAC up to March 2021 along with the holding cost. The Commission will continuously monitor the situation as it unfolds along with its impact on power prices and pass appropriate directions in future regarding utilisation of FAC fund.
- 11.8 Accordingly, the Commission allows the AEML-D to carry forward the accumulated FAC fund of Rs. 154.16 Crore to the next billing cycle with holding cost.



Approval of FAC Charges for the month of September, 2020

- 11.9 AEML-D has submitted an application dated 18 May, 2020 pertaining to post facto approval of FAC for the 4th Quarter of FY 2019-20 and revised submission of chargeable FAC for Q1 to Q3 of FY 2019-20. AEML-D submitted that it has already accumulated negative FAC of Rs. 160.89 Crore at the end of FY 2019-20. AEML-D has requested to considered Rs. 50.89 Crore FAC to be passed on to the consumers after netting off Rs. 110 Crore as FAC Fund as per MYT Order. The Commission has already replied to the query in its letter MERC/Tech/FAC/E-Letter dated 10 May, 2020 regarding Levy/ Refund of FAC for balance consumption months of FY 2019-20 to Consumers in FY 2020-21. The relevant part of the same is reproduced here below:

“3. The Commission has in the interim received one request for prior approval of FAC for the month of February 2020 to be levied to the Consumers in the billing month of May 2020.

4. In light of the aforesaid request, I am directed to clarify that while according the approval to the FAC quarterly proposals of FY 2019-20, Commission will appropriately direct as to the treatment that is required to be given to the amount that gets computed based on the scrutiny of FAC proposals of January-March, 2020.”

- 11.10 Hence, treatment to negative FAC of Rs. 160.89 Crore as submitted by AEML-D at the end of FY 2019-20 will be given separately based on scrutiny of FAC proposals of January - March, 2020. No impact of the same has been considered as part of FAC approval for September 2020.
- 11.11 **In view of the above, per unit Z_{FAC} for the month of September 2020 to be levied on consumer of AEML-D in the billing month of November 2020 is Nil.**

