



महाराष्ट्र विद्युत नियामक आयोग
Maharashtra Electricity Regulatory Commission

Ref. No. MERC/FAC/2020-2021/E-Letter

Date: 1 April, 2021

To,
The Chief Executive Officer,
Adani Electricity Mumbai Limited,
Near Devidas Telephone Exchange
Borivali (W), Mumbai – 400 092

Subject: Post facto approval of Charges (FAC) for the period of January 2020 to March 2020.

Reference: AEML's FAC submission vide emails dated 18 May and 25 June 2020 for post-facto approval of FAC for the period from January 2020 to March 2020.

Sir,

Upon vetting the FAC calculations for the months of January 2020 to March 2020, as mentioned in the above reference, the Commission has accorded post facto approval to Adani Electricity Mumbai Limited - Distribution (AEML-D) for charging FAC to its consumers as shown in the Table below:

Month	Jan 2020	Feb 2020	Mar 2020
Z _{FAC} allowed for recovery (Rs. Crore)	13.42	13.29	12.81

For the FAC amount levied to the consumer during FY 2019-20:

The total cumulative FAC refund up to December, 2019 is Rs. 42.91 Crore. The FAC refund for the month of January is Rs. 16.99 Crore (*i.e., Rs. 30.41 Cr computed by AEML-D– Rs. 13.42 Cr allowed by the Commission, explained at para. 9.8*). Thus, total cumulative refund of FAC up to January, 2020 is Rs. 59.90 Crore. AEML-D is hereby directed to add the aforesaid amount in the FAC stabilising fund of FY 2020-21.



For the FAC amount computed but not levied to consumers during FY 2019-20:

AEML-D has claimed un-recovered FAC of Rs. 84.40 Crore (inclusive of carry forward) for February and March 2020 against which the Commission has approved Rs. 26.10 Crore (*Rs. 13.29 Cr +Rs. 12.81 Cr.*). Hence, an amount Rs. 58.30 Crore is disallowed (*explained at para. 9.10*). Considering that the aforesaid FAC (for the month of February and March 2020) is not levied to consumers due to prior approval requirement post April 2020, the adjustment of the same shall be carried over in the final True up of FY 2019-20 under MERC MYT Regulations, 2015.

Yours faithfully,



(Prafulla Varhade)
Director (EE)

Encl: Annexure A: Detailed Vetting Report for the period of January 2020 to March 2020.



**POST FACTO APPROVAL FOR FAC CHARGES FOR THE MONTHS OF JANUARY
2020 TO MARCH 2020**

Subject: Post facto approval of AEML's Fuel Adjustment Charges (FAC) for the period of January 2020 to March 2020.

Reference: AEML's FAC submission vide letter dated 18 May and 25 June 2020 for post-facto approval of FAC for the period from January 2020 to March 2020.

1. FAC submission by AEML-D:

1.1 AEML-D (formerly RInfra-D) has submitted FAC submissions for the months of January 2020 to March 2020 as referred above. Upon vetting the FAC calculations, taking cognizance of all the submissions furnished by AEML-D, the Commission has accorded post facto approval for the FAC amount to be charged in the billing months of March 2020 to May 2020.

2. Background

2.1 On 12 September, 2018, the Commission has issued Tariff Order for RInfra-D (now AEML-D), (Case No.200 of 2017) for Mid-Term Review, including Truing-up of FY 2015-16 and FY 2016-17, provisional Truing-up for FY 2017-18, and revised Aggregate Revenue Requirement and Tariff for FY 2018-19 to FY 2019-20. Revised Tariff has been made applicable from 1 September, 2018.

2.2 On 30 March, 2020 the Commission has issued Tariff Order for AEML-D, (Case No.325 of 2019) for True-up of FY 2017-18 and FY 2018-19, provisional True-up for FY 2019-20 and Aggregate Revenue Requirement and Multi-Year Tariff for 4th Control Period from FY 2020-21 to FY 2024-25. Revised Tariff has been made applicable from 1 April, 2020.

2.3 Vide its letter dated 15 November, 2016, the Commission communicated the excel formats for filing of FAC submissions to all Distribution Licensees. 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.

2.4 Vide FAC vetting Report dated 13 January, 2017, the Commission accorded prior approval to the FAC for the month of October, 2016.



- 2.5 In terms of MERC (MYT) Regulations, 2015, a Distribution Licensee is required to obtain post facto approval of the Commission on a quarterly basis for FAC charges. Accordingly, vide its emails dated 18 May and 25 June 2020, AEML-D has filed FAC submissions for the months of January 2020 to March 2020 for post facto approval as per power purchase figures approved in MTR Order.
- 2.6 Further, AEML-D has recently submitted a letter on 19 September, 2020 wherein it has requested the Commission to consider the following:
- To consider the rate of Imbalance Pool as Rs. 3.50/kWh for post facto approval from Q1 to Q4 of FY 2019-20 in order to align it with competitor distribution licensee- TPC-D;
 - To consider cost and quantum of banking transaction for FY 2019-20; and
 - To allow AEML to pass on the surplus accruing after post facto approval of FAC for Q4 of FY 2019-20, if any, with carrying cost over the twelve months of FY 2021-22 through monthly FAC mechanism, so as to provide continuing tariff relief to consumers.
- 2.7 The first two requests of AEML-D have already been dealt with and addressed in previous post facto approval, i.e., in Q3 of FY 2019-20. Also, in the aforesaid approval, the Commission has stated that it shall deal on the third request of AEML-D during the Q4 FAC approval. Accordingly, in the present FAC approval, the Commission has dealt with the third request of AEML-D which has been elaborated in the paras 9.6 to 9.10 of this report.

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 below.

Consumer Category	Approved** by the Commission (MU)	Monthly Approved (MU)	Actual Sales		
			Jan 20	Feb 20	Mar 20
			MU	MU	MU
	(I)	(II=I/12)	(III)	(IV)	(III)
LT Category					
BPL	0.02	0.00	0.00	0.00	0.00
LT -I Residential	3071.56	255.96	278.26	293.58	292.57
LT -II Commercial	3979.90	331.66	194.06	197.23	197.94
LT -III(A): LT Industrial up to 20 kW	186.82	15.57	14.02	13.82	14.58
LT -III(B): LT Industrial above 20 kW	394.49	32.87	29.19	28.62	30.53



Consumer Category	Approved** by the Commission (MU)	Monthly Approved (MU)	Actual Sales		
			Jan 20	Feb 20	Mar 20
	(I)	(II=I/12)	MU	MU	MU
	(I)	(II=I/12)	(III)	(IV)	(III)
LT -IV: Public Water Works	13.81	1.15	1.10	1.04	1.11
LT-V: LT- Advertisements and Hoardings	3.65	0.30	0.23	0.22	0.18
LT -VI: LT -Street Lights	59.47	4.96	4.03	3.39	3.99
LT-VII: LT -Temporary Supply	10.37	0.86	1.10	1.11	0.82
LT -VIII: LT - Crematorium & Burial Grounds	1.40	0.12	0.11	0.11	0.10
LT -X: LT -Public Service (A)	25.80	2.15	1.89	1.89	1.79
LT -X: LT -Public Service (B)	162.50	13.54	8.74	8.64	9.11
LT -X(A) : LT - Agriculture Pumpsets	0.06	0.01	0.00	0.00	0.00
LT -X(B) : LT - Agriculture Others	0.14	0.01	0.01	0.02	0.01
LT -XI: LT-EVCS	0.00	0.00	0.01	0.02	0.02
Subtotal LT Category	7909.98	659.16	532.75	549.67	552.75
HT Category					
HT -I: HT- Industrial	442.14	36.85	22.72	21.36	18.49
HT -II: HT- Commercial	345.26	28.77	39.57	37.53	30.48
HT III: HT- Group Housing Society	40.04	3.34	2.60	2.60	2.96
HT IV: Public Water Works	6.74	0.56	0.73	0.67	0.68
HT V: HT Metro & Monorail	31.56	2.63	2.33	2.20	1.64
HT VI(A): Public Services	8.66	0.72	0.38	0.40	0.41
HT VI(B): Public Services	100.16	8.35	7.07	6.99	6.51
HT VII: Temporary Supply	2.87	0.24	0.05	0.06	0.05
Subtotal HT Category	977.43	81.45	75.46	71.82	61.22
Total	8887.41	740.62	608.21	621.49	613.97

*As per MTR Order dt. 12 September, 2018

**- 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 was observed that the actual sale in the months in the month of January to March 2020 were below the sales approved in the MTR Order. In response to the clarification sought for the monthly variation in sales AEML-D submitted that, the monthly sales depend on



seasonal factors like heat index, humidity, rainfall, etc. Therefore, there will be variation in sales within the months of a financial year. As January to March of a year includes winter as well as onset of summer months, there is variation in sales during the individual months. Thus, the sales during January (608.21 MUs), February (621.49 MUs) and March (613.97 MUs) are lower than the average monthly sales approved for FY 19-20 in the MTR Order, which was 740.61 MUs.

4. Cost of Power Purchase

4.1 The following are the list of sources from which AEML-D procures power to meet its demand:

- Purchases from ADTPS (Formerly RInfra-G)
- Renewable energy procurement (RPS)
- Bilateral contracts and decrements to the imbalance pool.

4.2 The following Tables show the variation in average power purchase cost (Rs/kWh) for the months of January to March 2020, as compared to average power purchase cost approved in Tariff Orders dated 12 September, 2018:

Particulars	Approved*			Actual for January 2020			Remark
	Net Purchase	Cost	Average Power Purchase Cost	Net Purchase	Cost	Average Power Purchase Cost	
	MU	Rs. Crore	Rs/kWh	MU	Rs. Crore	Rs/kWh	
ADTPS	314.60	135.06	4.29	169.68	92.90	5.47	Higher APPC mainly due to increase in variable cost and Fixed Cost impact due to lower generation
RE Sources	261.94	83.44	3.19	10.07	7.60	7.54	Higher APPC mainly due to absence of cheaper sources as envisaged in MTR Order
VIPL-G	333.41	146.60	4.40	-	-	-	No Power purchase from VIPL-G
Bilateral/ Traders	-	-	-	408.42	146.25	3.58	Bilateral price as per market
Others	-	-	-	49.69	17.78	3.58	Imbalance Pool +Standby
Surplus Sale	(52.67)	(18.90)	3.59	-	-	-	No surplus sale
Total	857.28	346.21	4.04	637.86	264.52	4.15	Due to above factors



Particulars	Approved*			Actual for February 2020			Remark
	Net Purchase	Cost	Average Power Purchase Cost	Net Purchase	Cost	Average Power Purchase Cost	
	MU	Rs. Crore	Rs/kWh	MU	Rs. Crore	Rs/kWh	
ADTPS	314.60	135.06	4.29	247.89	123.09	4.97	Higher APPC mainly due to increase in variable cost and Fixed Cost impact
RE Sources	261.94	83.44	3.19	11.29	8.59	7.61	Higher APPC mainly due to absence of cheaper sources as envisaged in MTR Order
VIPL-G	333.41	146.60	4.40	-	-	-	No Power purchase from VIPL-G
Bilateral/ Traders	-	-	-	325.24	117.08	3.60	Bilateral price as per market
Others	-	-	-	82.55	29.58	3.58	Imbalance Pool + Standby
Surplus Sale	(52.67)	(18.90)	3.59	-	-	-	No surplus sale
Total	857.28	346.21	4.04	666.96	278.34	4.17	Due to above factors

Particulars	Approved*			Actual for March 2020			Remark
	Net Purchase	Cost	Average Power Purchase Cost	Net Purchase	Cost	Average Power Purchase Cost	
	MU	Rs. Crore	Rs/kWh	MU	Rs. Crore	Rs/kWh	
ADTPS	314.60	135.06	4.29	266.48	131.97	4.95	Higher APPC mainly due to increase in variable cost and Fixed Cost impact
RE Sources	261.94	83.44	3.19	14.85	10.47	7.05	Higher APPC mainly due to absence of cheaper sources as envisaged in MTR Order
VIPL-G	333.41	146.60	4.40	-	-	-	No Power purchase from VIPL-G
Bilateral/ Traders	-	-	-	304.80	104.26	3.42	Bilateral price as per market
Others	-	-	-	81.00	32.75	4.04	Imbalance Pool + Additional transmission charges
Surplus Sale	(52.67)	(18.90)	3.59	-	-	-	No surplus sale
Total	857.28	346.21	4.04	667.14	279.45	4.19	Due to above factors



* The power purchase quantum approved in MTR Order is on yearly basis, however, monthly approved numbers are derived from comparison purpose.

- 4.3 AEML-D has procured power under its long-term arrangement (Order dated 8 February, 2018 in Case No. 5 of 2017) with AEML-G (ADTPS). After accounting for the availability from long-term sources, the shortfall against power requirement was met by purchase from contracted short-term sources and from the Power Exchanges. AEML-D has also contracted Renewable Energy (RE) power from different sources for meeting its Renewable Purchase Obligation (RPO). Further, there was offtake (decrement) from the Imbalance Pool as per real time deviation. AEML-D has also procured standby power from MSEDCL during aforesaid period.
- 4.4 AEML-D confirmed that it has adopted MOD principles within the framework and contractual obligations. AEML-D further clarified that as per the Regulatory framework, under Intra State ABT, the State Level MOD is operated by MSLDC. Hence, final despatch schedules are issued by MSLDC to all the contracted sources of AEML.
- 4.5 The Commission has sought detailed bills/invoices for all of the power purchase sources in order to verify the claim of AEML-D with respect to average power purchase cost for the months of January to March, 2020. The Commission has verified the Net Purchase, Variable Cost, Fixed Charge and the Power Purchase Cost from the relevant bills/invoices received for all purchasing sources.
- 4.6 The paras below provide the detailed source wise analysis of power purchase expenses incurred by AEML-D during Q4 of FY 2019-20.

ADTPS (Own Generation):

- 4.7 **During the month of January, February and March 2020, AEML-D has purchased 169.68 MU, 247.89 MU, and 266.48 MU, respectively from ADTPS.** The quantum of power purchased mainly in the month of January, 2020 is observed lower as compared to other months of Q4 of FY 2019-20. In response to clarification sought, AEML-D clarified that the Unit 2 of ADTPS was under Annual Overhauling from 6 January, 2020 to 4 February, 2020. This has led to lower generation and hence, lower power purchase during the aforesaid period. AEML-D also clarified that there was backing down instruction by SLDC during Q4 period which also resulted in generation/PLF loss from ADTPS. The Table below shows the month wise PLF and availability of ADTPS during Q4 of FY 2019-20:

Particular	January 2020	February 2020	March 2020
------------	--------------	---------------	------------



Availability	58.94*%	92.46%	98.41%
PLF	50.72*%	78.68%	79.16%

**lower due to annual overhaul of Unit 2*

4.8 Further, even though the monthly standalone PLF and availability was lower than the normative level for above specified period, the cumulative availability of ADTPS was higher than the normative Target availability of 85% for all the months of Q4 of FY 2019-20. **ADTPS vide its data gap reply stated that the cumulative availability upto Q4 months, i.e., upto March, 2020 is 91.33%. Hence, ADTPS was entitled to recover full monthly fixed cost in line with the Regulation 48.3 of MYT Regulations, 2015.** Accordingly, the spread of full monthly fixed cost over lower generation has affected the per unit fixed cost and hence, average power purchase cost from ADTPS. Due to above, per unit fixed cost has increased from approved rate of Rs. 0.92/kW for FY 2019-20 to Rs.1.70/kWh in January, Rs. 1.17/kWh in February and Rs. 1.08/kWh in March, 2020.

4.9 The average power purchase cost from ADTPS during the months of January, February and March 2020 is **Rs. 5.47/kWh, Rs. 4.97/kWh and Rs. 4.95/kWh**, respectively, as compared to MTR approved rate of **Rs. 4.29/kWh**. The variation in APPC from MTR approved value is mainly on account of following reasons:

- Variation in actual quantum of power purchase during respective period (PLF variation)
- Impact of monthly fixed charge payment (spread of fixed cost over monthly generation)
- Variation in the price of fuel during the respective period

4.10 The paras below provide the detailed analysis of variation in fuel price during Q4 period:

Fuel Price Analysis:

4.11 DTSPS uses both Domestic (washed) and Imported coal for its generation.

Washed Coal:

4.12 With regards to Domestic coal, ADTPS procures it from the South Eastern Coalfields Limited (SECL) having a GCV range band (G-10 & G-11) exceeding 4000 kCal/kg but not exceeding 4600 kCal/kg. The landed cost (i.e., Basic cost + Freight + Taxes/Duties + Handling charges + Other charges) of domestic washed coal for energy charge computation as claimed by ADTPS for the month of January, February and March 2020 is **Rs. 5608/MT**,



Rs. 5749/MT, and Rs. 5856/MT as compared to MTR approved value of Rs. 4740.41/MT. The aforesaid coal cost is calculated by AEML-G based on Moving 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 form the total of opening inventory and purchases during the respective month.

- 4.13 The Commission has sought for actual bills and invoices against the purchase during the respective period. ADTPS has submitted the detailed invoice summary of all the raw coal purchased from South Eastern Coalfields Limited (SECL). ADTPS has also submitted the sample invoices for other handling charges such as washing charges, and loading supervision charges, local transportation charges, beneficiation charges, third party sampling charges, etc.
- 4.14 From the invoices submitted, it was inferred that main reason for such an increase in landed cost of domestic coal compared to MTR approved cost is mainly due to revision in the base freight rate by Railway Board (Ministry of Railways) vide its Circular No. 19 of 2018 **w.e.f. 1 November, 2018. The base railway freight was increased by almost Rs. 217/MT.**
- 4.15 In order to ascertain the prudence of landed cost of washed coal claimed, the Commission has worked out the landed cost of domestic coal on sample basis. The Commission has considered the basic Run of Mine price of above specified G-10 grade coal from the price notification notified by CIL (M&S:GM(F)/Pricing 2018/07). The Table below shows the computation of basic cost of raw domestic coal as per invoices and CIL (Coal India Limited) notifications:

Particular	Landed Coal Cost (Rs./MT)	Remark
Basic Amount (Run of Mine)	955.00	Price notified by CIL for G-11 coal
Royalty @ 14% of Base price	133.70	Calculated as per CIL notification
DMFT @30% of Royalty	40.11	Calculated as per CIL notification
NMET @2% of Royalty	2.67	Calculated as per CIL notification
Terminal Tax	1.04	Calculated as per CIL notification
Sizing Charges	87.00	As per CIL notification
CG Vikas Upkar and Pryavaran Upkar	22.50	As per CIL notification
Surface Transportation charges	57.00	As per CIL notification
Evacuation facility charges	50.00	As per CIL notification
Total Taxable Value	1,349.02	
GST @ 5%	67.45	Calculated as per CIL notification



Particular	Landed Coal Cost (Rs./MT)	Remark
Total Cost including GST	1,416.47	
GST Compensation Cess	400.00	As per CIL notification
Total Cost including GST Cess	1,816.47	
TCS @1%	18.16	Calculated as per CIL notification
Grand Total	1,834.63	

4.16 From above the basic raw cost of domestic coal worked out as Rs.1,834.63/MT. This price is the basic cost of raw coal available at the boundary of mine. This raw coal is then transported to Coal washery located within 4-5 km area. The raw coal is being washed at washery and thereafter despatched to ADTPS by first transporting coal from washery to Railway Siding and thereafter transporting the clean coal through Rail to ADTPS station. Accordingly, washery charges, railway freight charges, local transport charges and other handling charges are added to above basic cost of coal to arrive at the landed cost of coal at ADTPS station. As stated above, ADTPS has submitted the invoices for washing charges, railway freight and other charges. The Commission has considered standard per MT charges as specified in sample bills to work out the landed cost of washed coal as shown in Table below:

Particular	Cost (Rs./MT)	GST (Rs./MT)
Basic raw coal cost	1,834.63	
#Railway Freight charges	2,567.60	128.38
*Coal Handling Charges:		
i. Local transportation charges	76.21	13.72
ii. Beneficiation charges	170.00	30.60
iii. Other handling charges	4.20	0.76
*Other Charges:		
i. Liaisoning and loading supervision, Weighment, Maintenance of GCV & Transit loss, Placement of rakes etc.	176.00	31.68
*Third party sampling charges	4.20	0.76
Total Charges	4,832.84	205.90
Grand Total Landed Cost		5,038.74
Grand Total Including normative Transit Loss		5,079.30

#As per Ministry of Railways notification; *As per standard rate specified in sample bills

4.17 From the above, the landed cost of domestic coal from the sample bills has been worked out as around Rs.5,079.30/MT. It is to be noted that the above cost is landed cost of coal purchased during Q4 period as per standard rate and sample bills. However, the cost claimed



by ADTPS mentioned in paras above (i.e., Rs. 5608/MT, Rs. 5749/MT, and Rs. 5856/MT) is the cost of coal actually consumed during Q4 period. This cost has been derived by ADTPS by Moving Average Price Method on the basis of coal inventory stock pertaining to previously purchased coal and recently added coal. Further, in addition to the above the landed cost claimed also include other expenses towards BG Commission, ARC coal rake handling and rail maintenance charges, bank charges, open coal yard insurance, etc.

- 4.18 Also, **AEML-D vide its data gap reply clarified that the grade slippage credit & debit note are settled in reconciliation with SECL during previous quarter.** The impact of net debit balance of above settlement has been considered in coal cost from November, 2019 onwards. This has resulted in increase of actual price of coal as compared to MTR approved price. AEML-D has submitted the detail calculations of debit/ credit settlement showing the debit/ credit note invoice date, invoice number and amount. The same has been verified. Hence, because of the above reasons, the landed cost of coal as computed above based on sample bills and as considered in energy charge computation are not same.
- 4.19 Further, The Commission has verified the total landed cost (Rs. Crore) of coal purchased and cost of inventory of coal from the detailed computation submitted by AEML-D for Q4 period vide its data gap reply and found to be in order.
- 4.20 With regards to GCV verification of washed coal, the Commission sought for third party sampling report for each month of Q4. **ADTPS has submitted the coal sampling report issued by Inspectorate Griffith India Pvt. Ltd. (Bureau Veritas).** The Commission has verified the GCV from the report and found to be in Order. The Table below shows the summary of GCV (as received basis) as per sample report and as considered by ADTPS for energy charge computation:

Particular	January 2020	February 2020	March 2020
Wt. avg GCV as per 3 rd party Sample report (kCal/kg)	3,987 (24 samples)	4,020 (21 samples)	3,981 (35 samples)
Wt. avg GCV as considered by ADTPS (kCal/kg) for energy charge computation	3,987	4,020	3,981

Imported coal

- 4.21 With regards to imported coal, it was observed that ADTPS had procured two vessels (MV Star Lutas and MV SSI Formidable) of imported coal in the month of January, 2020 (total lading quantity 121,000 MT) and two vessels (MV Yuanping Sea and MV Great Pioneer) of imported coal in the month of February, 2020 (total lading quantity 115,797 MT), and



two vessels (MV CD Callao and MV Fast) of imported coal (total lading capacity of 115,950 MT) in the month of March, 2020. The Commission has asked ADTPS to confirm if the imported coal has been procured through competitive bidding. In its response **ADTPS confirmed that it has procured imported coal through competitive bidding only.** AEML-D has stated that it has invited bids through International Competitive Bidding. 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-D has also submitted bid documents, Contract agreement and actual bills/Invoices of the imported coal purchase.

From the invoices submitted, it was observed that the aforesaid quantity of coal has been procured at a FOB price of 46.82 USD/MT and 42.47 USD/MT for the two vessels purchased in the month of January, 2020; FOB price of 49.10 USD/MT and 48.19 USD/MT for the two vessels procured in the month of February, 2020 and FOB price of 50.02 USD/MT and 46.09 USD/MT for the vessels procured in the month of March 2020. This FOB prices were arrived as per FOB formula specified in contract awarded to successful bidder. The formula as per contract is as reproduced below:

$$\text{FOB} = \frac{\{API\ 4\ Index + NEWC\ Index\} \times 0.90 \times 4400}{2 \times 6300}$$

4.22 **As per formula above, it can be seen that the price of imported coal is linked to API 4 (Richards Bay indices) and New Castle indices.** Accordingly, the Commission sought supporting document for coal reference indices along with detailed computation of FOB prices as reflected in the invoices of imported coal purchased during aforesaid period. ADTPS submitted the required details as shown in Table below:

Invoice Rate Calculation	Imported Coal Vessel purchased during Q4 of FY 2019-20					
	MV Star Lutas	SSI Formidable	MV Great Pioneer	MV Yuan-ping Sea	MV CD Callao	MV Fast
	January 2020		February 2020		March 2020	
Richards Bay Index (6300 CV)	84.09	77.37	88.17	88.17	85.51	76.05
New Castle Index (6300 CV)	66.50	64.80	68.67	68.67	69.32	66.77
Average Index (6300 CV)	75.30	71.09	78.42	78.42	77.42	71.41



Invoice Rate Calculation	Imported Coal Vessel purchased during Q4 of FY 2019-20					
	MV Star Lutas	SSI Formidable	MV Great Pioneer	MV Yuan-ping Sea	MV CD Callao	MV Fast
	January 2020		February 2020		March 2020	
FOB adjusted to 4400 CV	52.59	49.65	54.77	54.77	54.07	49.87
Discount on FOB	10%	10%	10%	10%	10%	10%
Resultant FOB Price	47.33	44.68	49.29	49.29	48.66	44.89
Actual GCV-Kcal/kg-ARB (Load Port)	4,353	4,182	4,302	4,383	4,523	4,518
GCV-Kcal/kg-ARB (Contract)	4,400	4,400	4,400	4,400	4,400	4,400
Final adjusted FOB \$	46.82	42.47	48.19	49.10	50.02	46.09
Fixed Ocean Freight (as per Contract)	17.00	22.38	22.42	22.42	19.39	18.29
Total cost as per contract	63.82	64.85	70.61	71.52	69.41	64.38

4.23 The above computed cost is the basic purchase cost of imported coal (FOB price + Freight charges). In addition to above, the other charges such as stevedoring charges, loading/unloading charges at DTSPS jetty, road transportation charges from ADTSPS jetty to ADTSPS stockyard, insurance, custom duty, analysis charges, taxes/duties etc. are also payable by ADTSPS. Accordingly, the Commission sought for detailed computation of landed cost of imported coal for aforesaid purchase. Based on the invoices submitted, sample landed cost computation of imported coal is provided in Table below:

Sr No.	Particulars	UoM	Imported Coal Purchase costs during Q4 of FY 2019-20			Remark
			MV Star Lutas	SSI Formidable	Total	
1	Vendor		Taurus Commodities			
2	Receipt Month		Jan'20	Jan'20		As per Invoice
3	Bill of Lading	MT	60,500.00	60,500.00	121,000.00	As per Invoice
4	GRN / Receipt Qty.	MT	60,382.37	60,396.95	120,779.32	As per Invoice
5	Transit Loss	MT	117.63	103.05	220.68	As per Invoice



Sr No.	Particulars	UoM	Imported Coal Purchase costs during Q4 of FY 2019-20			Remark
			MV Star Lutas	SSI Formi-dable	Total	
6	Transit Loss	%	0.19%	0.17%	0.20%	As per Invoice
7	Purchase Rate	USD/MT	63.82	64.85		As per Invoice
8	Invoice Value	USD	3,861,110	3,923,425	7,784,535	
9	Exchange Rate	Rs./USD	71.33	71.25		As per Invoice
10	Basic Value	Rs. Crore	27.54	27.95	55.49	As per Invoice
11	Custom Duty	Rs. Crore	3.85	3.88	7.73	As per Invoice
12	Stevedoring Charges	Rs. Crore	2.06	2.00	4.06	As per Invoice
13	Coal Analysis	Rs. Crore	0.02	0.02	0.04	As per Invoice
14	Coal Insurance	Rs. Crore	-	-	-	As per Invoice
15	Total Value	Rs. Crore	33.48	33.86	67.33	
16	Landed Cost	Rs./MT	5,544	5,606		

4.24 It is to be noted that the above price is the landed price of imported coal which was purchased during Q4 period. This price generally varies with the price as claimed for energy charge computation because the price for energy computation is determined by ADPTS as per FIFO method based on the weighted average price of the vessels from which such quantity was consumed. Further, the price of imported coal is linked to International Coal and Shipping Indices. Accordingly, as per CSA, each vessel's Invoice value by supplier depends upon the value of indices at the time of Loading, the GCV of coal loaded into the vessel, the exchange rate fluctuation, etc. Accordingly, each month's cost of coal consumed will be different, depending upon the vessel(s) from which the quantity is consumed.

4.25 **The landed price of imported coal as considered by ADTPS for energy charge computation as Rs. 5,399/MT, Rs. 5,515/MT, and Rs. 5,693/MT, respectively (considering normative transit losses), for the months of January, February and March 2020 as against MTR approved price of Rs. 5,070/MT for FY 2019-20.**

VIPL-G

4.26 With regard to VIPL-G, as already mentioned in previous post facto approval that the Commission has issued the Order in Case No. 247 of 2019 on 16 December, 2019 wherein the termination notice issued by AEML-D has been held valid. Hence, there is **Hence, there is no purchase during Q4 of FY 2019-20 from VIPL-G.**

RE Power:

4.27 The sources of RE for AEML-D are DSPPL, Reliance Innoventure, AAA Sons Enterprise, Vector Green Energy Pvt Ltd., Reliance Clean Power Pvt. Ltd. **AEML-D has purchased 10.07 MUs, 11.29 MUs and 14.85 MUs of RE power during the month of January,**



February and March 2020, respectively. The APPC from RE sources were Rs. 7.54/kWh, Rs. 7.61/kWh and Rs. 7.05/kWh for the respective months of Q4 as compared to MTR approved rate of Rs. 3.19/kWh for FY 2019-20. The Table below shows the source wise summary of RE power purchase during Q4 of FY 2019-20 vis-à-vis monthly approved power purchase:

Sources	Approved		January 2020		February 2020		March 2020	
	MUs	(Rs./kWh)	Actual MUs	Actual Rs./kWh	Actual MUs	Actual Rs./kWh	Actual MUs	Actual Rs./kWh
Solar Sources:								
DSPPL	5.73	10.30	4.43	10.30	5.08	10.30	5.16	10.30
New Solar Sources	36.45	2.72	NA	NA	NA	NA	NA	NA
Non-Solar Sources:								
Reliance Innoventure	6.50	5.00	1.43	5.00	1.27	5.00	3.01	5.00
AAA Sons Enterprise	0.25	5.00	0.03	5.00	0.05	5.00	0.16	5.00
Vector Green Energy Pvt Ltd	2.62	5.00	1.17	5.00	1.34	5.00	1.61	5.00
Vector Green Energy Pvt Ltd	0.92	5.07	0.40	5.07	0.41	5.07	0.50	5.07
Tembhu Power Pvt. Ltd.	0.71	4.26	-	-	-	-	0.35	4.26
Reliance Clean Power Pvt Ltd.	6.07	5.81	2.61	5.81	3.13	5.81	4.07	5.81
Non-Solar New Sources	200.9	2.87	NA	NA	NA	NA	NA	NA
Mini/Micro hydro	1.71	5.64	NA	NA	NA	NA	NA	NA
Total RE Power	261.9	3.19	10.07	7.54	11.29	7.61	14.85	7.05

4.28 It can be seen from above table, that even though **all the RE power has been procured from approved sources at an approved price**, APPC is still higher as compared to MTR approved rate of Rs. 3.19/kWh. It is observed that the Commission in its MTR Order dated 12 September, 2018, while determining the power purchase price for RE sources, the Commission has envisaged that the RPO Obligation (Solar and Non-Solar) of AEML-D would first be met from the existing tied up sources (solar and non-solar) and the remaining RPO requirement would then be fulfilled from new RE sources as such new solar, new non-solar and hydro, instead of any REC purchase. Accordingly, Commission has arrived at APPC from RE sources as Rs. 3.19/kWh considering existing and new generators. While



arriving this APPC, the weighted average purchase cost for existing solar sources was taken as Rs. 10.30/kWh and for existing non-solar it was considered as Rs.5.26/kWh. However, in absence of any identified new RE sources at that time of Order, the Commission has considered the additional requirement of Solar and Non -solar power for FY 2019-20 to be purchased at generic tariff of Rs. 2.72/kWh and Rs. 2.87/kWh, respectively, as determined in the Order in Case No. 204 of 2018. Considering the above mentioned prices, the weighted average power purchase cost from overall RE sources had been worked out as Rs. 3.19/kWh for FY 2019-20.

4.29 As against the above, in the present quarter the solar and non-solar RPO target has been fulfilled by AEML-D through purchase of RE power from existing tied up sources only. There were no new solar or non-solar sources (having cheaper approved rate) identified in Q4 power purchase portfolio. **Hence, in absence of these new cheaper RE power sources has resulted in higher APPC from RE sources in Q4 of FY 2019-20 than MTR approved price.** Further, in response to clarification sought for absence of new cheaper sources as envisaged in MTR Order, AEML-D stated that any RE purchase under competitive guidelines need minimum 18 months lead time, hence AEML could not tie up any new solar or non-solar source for purchase of RE power in FY 2019-20. AEML conducted a competitive bidding for procurement of power from a Wind – solar hybrid source (350 MW + 350 MW) in FY 2019-20. Vide Order dated 8 January, 2020 in Case No. 281 of 2019, the Commission has approved the proposal at the rate of Rs.3.24 per unit. The power procurement from the said new source shall commence from FY 2021-22. Hence in FY 2019-20, AEML has purchased RE power from existing RE sources only.

4.30 Further, the variation in APPC of RE source within the months is mainly due to variation in actual quantum of power purchase from these sources during respective period of Q4 of FY 2019-20. The Table below shows the actual source wise RE quantum purchase along with % share of each sources vis-à-vis approved source wise RE quantum and approved % share of each sources during Q4 of FY 2019-20:

Sources	Approved			January 2020		February 2020		March 2020	
	MUs	Share (%)	Rate (Rs./ kWh)	MUs	% Share	MUs	% Share	MUs	% Share
Solar									
DSPPL	5.73	2.19%	10.30	4.43	43.98%	5.08	45.04%	5.16	34.72%
New Solar Sources	36.45	13.92%	2.72	0.00	0.00%	0.00	0.00%	0.00	0.00%
Non-Solar									
Reliance Innoventure	6.50	2.48%	5.00	1.43	14.17%	1.27	11.29%	3.01	20.29%



Sources	Approved			January 2020	February 2020	March 2020			
	MUs	Share (%)	Rate (Rs./kWh)	MUs	% Share	MUs	% Share	MUs	% Share
AAA Sons Enterprise	0.25	0.10%	5.00	0.03	0.35%	0.05	0.44%	0.16	1.07%
Vector Green Energy Pvt Ltd	2.62	1.00%	5.00	1.17	11.61%	1.34	11.84%	1.61	10.81%
Vector Green Energy Pvt Ltd	0.92	0.35%	5.07	0.40	3.98%	0.41	3.61%	0.50	3.37%
Tembhu Power Pvt. Ltd.	0.71	0.27%	4.26	0.00	0.00%	0.00	0.00%	0.35	2.37%
Reliance Clean Power Pvt. Ltd.	6.07	2.32%	5.81	2.61	25.92%	3.13	27.78%	4.07	27.37%
Non-Solar New Sources	200.98	76.73%	2.87	0.00	0.00%	0.00	0.00%	0.00	0.00%
Mini/Micro hydro	1.71	0.65%	5.64	0.00	0.00%	0.00	0.00%	0.00	0.00%
Total RE Power	261.94	100.0%	3.19	10.07	100.0%	11.29	100.0%	14.85	100.0%
APPC	3.19			7.54		7.61		7.05	

4.31 As can be seen from above Table, there is a substantial variation in actual power purchase quantum from various RE sources within the months. The weighted average power purchase cost (Rs./kWh) is arrived by considering the percentage share of each source and its corresponding approved energy charges. Therefore, when the quantum and hence, % share of costlier approved sources in the overall RE portfolio is higher, the weighted average power purchase cost (Rs./kWh) drives towards price of costlier approved sources and vice-versa.

Bilateral Power:

4.32 With regards to bilateral power, **AEML-D has purchased 408.42 MU, 325.24 MU and 304.80 MU during the respective months of Q4 of FY 2019-20. The APPC from bilateral sources were Rs. 3.58/kWh, Rs. 3.60/kWh, and Rs. 3.42/kWh during the above period.**

4.33 The Commission has asked AEML-D to confirm if it has procured the bilateral power through competitive bidding process. In its reply, AEML-D stated that it has purchased short-term/ bilateral power either through competitive bidding via DEEP e-portal or Power Exchange or through day ahead exchange linked contracts. AEML further clarified that power procured through exchange linked contracts on day ahead basis is at a rate lower than the rates discovered in IEX. It further stated that through such contracts, trading margin of



IEX is also saved. AEML-D has also submitted sample exchange linked contracts and sample firm contracts of short-term purchase through DEEP e-portal.

- 4.34 The Commission in its MTR Order has not considered any quantum and amount with regards to short term power purchase, as the entire demand of FY 2019-20 would have been considered to be met through projected sources of power inclusive of new solar and non-solar sources. However, in actual AEML-D has purchase substantial quantum of bilateral power. In this regard, AEML-D, vide its data gap reply for Q1 of FY 2019-20 had clarified that the short term quantum and cost in FY 2019-20 were NIL in MTR Order as the Commission had considered the entire RE shortfall till FY 2017-18, apart from the standalone requirement of FY 2019-20 to be met in FY 2019-20, through new solar and non-solar sources in the MTR Order. However, AEML-D had to procure short term power in order to compensate for the non-availability of power from VIPL-G and the replacement of power that was projected to be purchased from RE sources towards meeting the requirement of FY 2019-20 as well as shortfall of previous years. AEML-D further stated that in any case, even if RE power had been available, purchase of short-term power to meet shortfall in peak is always required. However, AEML-D in its separate Petition had contended before the Commission that for procurement of power from new RE sources through competitive bidding as per guidelines of Central Government, it will take at least 18-20 months for actual realisation of RE power. Till that time, energy which is projected to be procured from RE sources will need to be sourced through other short-term sources. **The Commission vide its Order dated 1 January, 2019 in Case No. 335 of 2019 considered the submissions of AEML-D and allowed them to meet shortfall in energy on account of non-availability of RE sources from other short term sources with the ceiling rate for purchase of short-term power at Rs. 5.00/kWh.**
- 4.35 In addition to above, non-availability of power from VIPL-G as mentioned in paras above, also made AEML-D to procure short term power during Q4 period. Considering that the short-term power has been procured through competitive bidding or through exchange and the price of which is also within the ceiling rate approved by the Commission, same has been considered as submitted by AEML-D.

Standby Power:

- 4.36 AEML-D has a stand-by arrangement with MSEDCL to supply standby power in the event of outage or non-availability of constrained availability of any of their contracted/ scheduled generation regardless if it is planned or forced. During the present quarter, **AEML-D has purchased standby power of 7.72 MU and 13.69 MU in the months of January and February 2020, respectively, due to unplanned outages of ADTPS.** The Table below provides details of standby power purchase during Q4 period:



Month	Standby Power Scheduled (MU)	Clarification for Standby Scheduled	Amount (Rs. Crore)
January 2020	7.72	<ul style="list-style-type: none"> • 6 January to 4 February, 2020: ADTPS U-2 under outage for annual overhaul. • On 22 January, 2020 ADTPS U-1 tripped on busbar protection 	3.09
February 2020	13.69	<ul style="list-style-type: none"> • 2 February to 3, February 2020: Delay in Synchronization of ADTPS U-2 • 04 February to 5, February 2020 : ADTPS U-2 withdrawn to attend Strainer Leakage problem 	5.48

4.37 With regards to invoices, AEML-D stated that, MSEDCL bills the Standby power based on FBSM bills, but since the FBSM bills for the period after March 2018 are not issued, the invoices for supply of standby power for Q4 of FY 2019-20 have not been received from MSEDCL yet. Accordingly, the cost has been considered on provisional basis. The Commission in line with the previous approach as considered the standby charges as submitted by AEML-D.

FBSM/Imbalance Pool:

4.38 The Commission observed that AEML-D has not considered any pool quantum and cost in FAC computation as the same being on provisional basis was disallowed by the Commission in previous post facto approvals (Q1 of FY 2018-19). However, AEML-D in its earlier submission (Q2 of FY 2018-19) has requested to consider these provisional entries as UI power is actually consumed and the rates of which are normally lower as compared to other sources of power. Thus, consideration of the same reduces the average power purchase cost and correspondingly reduce FAC burden on consumers. Accordingly, on request of licensee and also to avoid FAC burdens on consumers, the Commission has considered the power purchase quantum as well as the cost towards imbalance pool on provisional basis in post-facto approval of FY 2018-19.

4.39 **In present approval as well, the Commission has continued with the same approach as adopted in previous post-facto approvals and has considered imbalance power purchase quantum as well as the cost on provisional basis. Also, with regards to FBSM rate the Commission has considered it as Rs. 3.50/kWh in line with the previous quarter post-facto approval.** However, Utility is requested to expedite the FBSM settlement process and submit the actual bills with adjustments, if any, promptly. Further, it



is to clarify that AEML-D should not treat the Imbalance Pool mechanism as a source of procuring power. It is only meant for settling the deviations in the real-time power interchange between various pool participants. Therefore, AEML-D is required to carry out due diligence of its Power procurement plans in such a way to minimise quantum of purchase from Imbalance Pool.

Other Charges:

- 4.40 It was observed that AEML-D has considered an amount of Rs. 4.40 Crore as Additional Transmission Charge in the month of December, 2019. In response to clarification sought, AEML-D stated that the aforesaid amount is as per the bill issued by STU in the monthly bill of December, 2019. There is a provision for Additional Transmission Charges in the MYT Regulations and STU claims to have followed the same. However, AEML stated that it has objected to the conceptual approach of STU for determining Additional Transmission Charges and has communicated to the STU vide letter dated 04 January, 2020 that the said billing is not in accordance with the MYT Regulations and Transmission Open Access Regulations. The approach is also in contradiction with the recommendations of the Grid Coordination Committee (GCC).
- 4.41 AEML-D further stated that there was no response to AEML's letter from the STU till the date of applicability of Prompt Payment Incentive (PPI), i.e., 07 January, 2020. However, it was confirmed by STU over telecon, that, to avail PPI, the entire bill amount is to be paid. Accordingly, the entire bill amount was paid by AEML-D under protest. AEML-D again communicated to STU through our letter dated 07 January, 2020, to follow the methodology approved by GCC or alternatively approach the Commission for clarity.
- 4.42 AEML-D further stated that STU has informed that it shall approach the Commission through a separate petition for guidance on the methodology for levy of Additional Transmission Charges, so till then billing will be undertaken as per methodology proposed by STU. If the Commission directs to revise the methodology, then reconciliation of the charges will be taken at later date. STU approached the Commission through Petition in Case No. 52 of 2020 dated 29 January 2020.
- 4.43 Considering the above background and the various events that took place, AEML-D has stated that in anticipation of direction from the Commission considering the petition filed by STU, it has not accounted the cost in the month of January 2020,. However, as the same has been paid, AEML-D has accounted the same in the month of March, 2020.
- 4.44 STU had filed its Petition in Case No. 52 of 2020 for removal of difficulties in implementation of some of the provisions of the MERC (Multi Year Tariff) Regulations, 2015 and 2019. The Commission has issued its Order in the matter wherein, it has been



ruled that Additional Transmission Charges, if any, shall be lived as per Regulation 66 of the MYT Regulations, 2019, prospectively from 1 April, 2020. However, the amount already paid by the TSUs against the Additional Transmission Charges levied by STU from the month of December, 2019 as per Regulation 63 of MYT Regulations 2015 shall be adjusted in the future bills of the Transmission System Users (i.e., April 2020 onwards) without any carrying cost /holding cost. The relevant extract from the said Order is as reproduced below:

“

5) Issue No. 5: Recovery of additional transmission charges as per Regulation 66 of the MYT Regulations, 2019 shall be levied, if any, prospectively from 1 April, 2020.

....

8) Further, the amount already paid by the TSUs against the Additional Transmission/Regulatory Charges levied by State Transmission Utility from the month of December, 2019 as per Section 63 of MYT Regulations 2015 shall be adjusted in the future bills of the Transmission System Users (i.e April 2020 onwards) without any carrying cost /holding cost .”

4.45 As AEML-D has actually paid the amount, the same has been considered in present FAC approval. Further, the same shall be adjusted with the future bills of the AEML-D (i.e., April 2020 onwards) without any carrying cost /holding cost in line with the Commission’s Order.

Surplus Sale:

4.46 **There was no surplus power available with AEML-D during Q4 of FY 2019-20, hence, no surplus sale has been done in present quarter.**

Summary:

4.47 Based on above, on an overall basis the key reasons for variation in average power purchase cost is due to increase in washed and imported coal prices as compared to MTR approved prove, impact of full monthly fixed charge payment over lower net generation due to lower PLF, absence of cheaper new sources of RE power in overall RE portfolio, no bilateral sale, consideration of cost and quantum for imbalance pool, standby power purchase and additional transmission cost incurred during respective period.

4.48 The Table below shows the comparison of the power purchase cost claimed by AEML-D-D and as approved by the Commission for Q4 of FY 2019-20:



Source of Power Purchase	January 2020			February 2020			March 2020		
	Net Purchase	Power Purchase Cost	Average power purchase cost	Net Purchase	Power Purchase Cost	Average power purchase cost	Net Purchase	Power Purchase Cost	Average power purchase cost
	MU	Rs. Crore	Rs./kWh	MU	Rs. Crore	Rs./kWh	MU	Rs. Crore	Rs./kWh
Power Purchase Cost claimed by AEML-D									
ADTPS	169.68	92.83	5.47	247.89	123.02	4.96	266.48	131.97	4.95
RE Power	10.07	7.60	10.07	11.29	8.59	7.61	14.85	10.47	7.05
VIPL-G	-	-	-	-	-	-	-	-	-
Bilateral	408.42	146.25	3.58	325.24	117.08	3.60	304.80	104.26	3.42
Other Sources* (FBSM/Standby)	7.72	3.09	4.00	13.69	5.48	4.00	0.00	4.40	0.00
Total power purchase claimed	595.90	249.83	4.19	598.10	254.24	4.25	586.14	251.10	4.28
Power Purchase Cost approved by the Commission for Q4 of FY 2019-20									
ADTPS	169.68	92.83	5.47	247.89	123.02	4.96	266.48	131.97	4.95
RE Power	10.07	7.60	10.07	11.29	8.59	7.61	14.85	10.47	7.05
VIPL-G	-	-	-	-	-	-	-	-	-
Bilateral	408.42	146.25	3.58	325.24	117.08	3.60	304.80	104.26	3.42
Other Sources* (FBSM/Standby)	49.69	17.78	3.58	82.55	29.58	3.58	81.00	32.75	4.04
Total power purchase approved	637.86	264.52	4.15	666.96	278.34	4.17	667.14	279.45	4.19



4.49 The Commission thus allows the APPC of **Rs. 4.15/kWh, Rs. 4.17/kWh, and Rs. 4.19/kWh** for the months of January, February and March, 2020 as shown in the Tables above.



Yearly Power Purchase snapshot (FY 2019-20):

4.50 As the FY 2019-20 is over, the Commission has sought for the detailed comparison of actual overall power purchase during all the quarters of FY 2019-20 vis-à-vis the power purchase as approved in MTR Order for FY 2019-20. AEML-D has provided the details (unaudited) as shown in Table below:

Particular	Approved for FY 2019-20			Actual for FY 2019-20		
	Quantum (MUs)	Power Purchase Cost (Rs Crore)	APPC (Rs./ kWh)	Quantum (MUs)	Power Purchase Cost (Rs Crore)	APPC (Rs./ kWh)
Thermal Sources						
DTPS	3,775.15	1,620.73	4.29	3,026.68	1,469.92	4.86
VIPL	4,000.97	1,759.25	4.40	(3.71)	(3.35)	9.03
RE Sources						
i. Existing Solar ii. Sources	68.70	70.75	10.30	56.33	58.02	10.30
iii. New Solar Sources	437.43	118.98	2.72	-	-	-
iv. Existing Non-Solar Sources	204.83	107.82	5.26	218.92	116.13	5.30
v. New Non- Solar Sources	2,432.34	703.78	2.89	-	-	-
Total RE Source	3,143.30	1,001.33	3.19	275.25	174.15	6.33
Bilateral/ Trade	-	-	-	5,043.00	1,842.93	3.65
Banking purchase	-	-	-	223.56	210.41	9.41
Standby Power	-	-	-	30.17	12.07	4.00
Imbalance Pool	-	-	-	849.82		
WRPC Bill	-	-	-	-	11.16	-
AEC Impact	-	-	-	-	41.92	-
TPC- Take or Pay	-	-	-	-	40.92	-
Additional Transmission Charges	-	-	-	-	4.40	-
Rebate in power Purchase	-	-	-	-	(19.97)	-
Surplus Sale	(632.04)	(226.75)	3.59	-	-	-
Total Power Purchase	10,287.38	4,154.56	4.04	9,444.77	3,784.56	4.01

4.51 It can be seen from the Table above that the total actual average power purchase cost (APPC) for AEML-D is Rs. Rs.4.01/kWh during FY 2019-20 as against Rs.4.04/kWh approved in



MTR Order for FY 2019-20 (Case No. 203 of 2017). The source-wise variations in power purchase is explained briefly in the paras below:

- a) **DTPS:** The cumulative availability of ADTPS up to March, 2020 was over the normative availability, thus, ADTPS has recovered full MTR approved fixed cost (i.e., Rs. 346.62 Crore). However, the actual power generation was lower than the MTR approved quantum, which has resulted in increase in per unit fixed cost by Rs. 0.23/kWh (Rs. 0.92/kWh approved vs Rs. 1.15/kWh actuals). The energy charges per unit has also increased by Rs. 0.34/kWh (Rs. 3.37/kWh approved vs Rs. 3.71/kWh actuals) due to variation in Fuel cost. Due to this the APPC has increased.
- b) **VIPL-G:** As per the Order of the Commission in Case No. 247 of 2019 on 16 December, 2019, the Notice issued by AEML-D for termination of PPA between AEML-D and VIPL-G is held valid. Hence, no power has been purchased from VIPL-G during FY 2019-20. However, VIPL-G has drawn power from grid for its auxiliary consumption. AEML-D has charged VIPL-G at the rate of energy charge for HT – I (Industry) upto October 2019 as approved in the MTR Order dated 12 September, 2018 in Case No. 200 of 2017, for this energy.
- c) **RE Sources:** RE power during FY 2019-20 has been procured from existing sources at a price approved by the Commission in Tariff Order. However, due to absence of power from new cheaper RE sources as envisaged in MTR Order, the APPC has increased as compared to MTR approved price.
- d) **Bilateral/Trader:** No short term power purchase quantum was approved in MTR Order, as the entire demand of FY 2019-20 would have considered to be met through projected sources of power inclusive of new RE sources and VIPL-G. However, due to absence of power from VIPL-G and also from new envisaged RE sources, AEML-D has purchased short term power. The APPC for the short term power purchase during FY 2019-20 was Rs. 3.65/kWh.
- e) **FBSM/UI Power:** AEML-D submitted that it has consumed 849.82 MUs of power from imbalance pool. However, due to absence of actual bills, it has not considered any cost towards UI power.
- f) **Surplus Sale:** No surplus power was available during FY 2019-20. Hence, there was no surplus sale.
- g) **Other Charges:** Other Charges include Standby Charges, WRPC charges, Additional Energy Charges, Take or pay Charges, Additional Transmission charges and Rebate. Standby power was procured due to emergency/forced outages of



ADTPS during FY 2019-20. Additional Energy charges paid to TPC as per Supreme Court Judgment in CA No. 4161 of 2008 and 4423 of 2008. Take or pay charges paid to TPC in line with the Commission's Order dated 22.01.2020 (MA No. 39 of 2020 in Case No. 7 of 200). Additional Transmission Charges were paid by AEML-D to STU during FY 2019-20.

5. FAC on account of fuel and power purchase cost (F)

5.1 The Commission has worked out the average power purchase costs for the months as shown in above Tables. The same has been compared with the average power purchase cost approved by the Commission in Tariff Order (MTR) dated 12 September, 2018 for the months of January to March, 2020 and arrived at differential per unit rate at which Z_{FAC} is to be passed on to the consumers.

5.2 The following Table shows the Z_{FAC} worked out by the Commission on account of difference in fuel and power purchase cost for the months of January to March, 2020.

S. No.	Particulars	Units	Jan 2020	Feb 2020	Mar 2020
1	Average power purchase cost approved by the Commission*	Rs./kWh	4.04	4.04	4.04
2	Actual average power purchase cost	Rs./kWh	4.15	4.17	4.19
3	Change in average power purchase cost (=2 -1)	Rs./kWh	0.11	0.13	0.15
4	Net Power Purchase	MU	637.86	666.96	667.14
5	Change in fuel and power purchase cost (=3 x 4/10)	Rs. Crore	6.92	8.99	10.03

*As per MTR Order dated 12 September, 2018

6. Adjustment for over recovery/under recovery (B)

6.1 The adjustment factor for over recovery/under recovery for Q4 of FY 2019-20 is computed as below:

S. No.	Particulars	Units	Jan 2020	Feb 2020	Mar 2020
1.1	Incremental cost allowed to be recovered in Month n-4	Rs. Crore	29.10*	(2.01)*	13.42



S. No.	Particulars	Units	Jan 2020	Feb 2020	Mar 2020
1.2	Incremental cost in Month n-4 actually recovered in month n-2	Rs. Crore	29.37	30.00	27.67
1.3	Over-recovery/under-recovery (1.2 - 1.1)	Rs. Crore	(0.26)	(32.02)	(14.25)
1.4	FAC amount already accounted for refund	Rs. Crore	6.66	36.25	16.99
2.0	Net Adjustment factor for over-recovery/under-recovery	Rs. Crore	6.40	4.23	2.74

**taken as per previous post facto approval*

6.2 Adjustment factor pertains to difference of FAC amount which was allowed to be recovered by licensee against the FAC amount which has been actually recovered by the licensee. AEML-D while working out the adjustment factor has considered the incremental cost allowed to be recovered as per its own FAC computation of previous quarter. However, the Commission has considered the respective values as per the post facto approval of previous quarter.

6.3 From the Table above, the incremental cost allowed to be recovered for the month of January, 2020 (i.e., ZFAC of November, 2019) is Rs. 29.10 Crore against which AEML-D has recovered Rs. 29.37 Crore, thus a differential of Rs. (0.26) Crore needs to be adjusted in present quarter. Similarly, there is a differential of Rs. (32.02) Crore for the month of February 2020 and a differential of Rs. (14.25) Crore for the month of March, 2020, which are required to be adjustment in present quarter. However, it is be noted that the Commission in previous quarter post factor approval, i.e., Q3 of FY 2019-20 has already accounted FAC of Rs. 42.91 Crore as a refund to consumers. Out of this total refund Rs. 6.66 Crore and Rs. 36.25 Crore were pertained to the month of November and December, 2019. Therefore, to avoid the double counting of refund, the Commission has considered incremental adjustment in the present FAC approvals. Similar approach adopted for the month of March, 2020 also.

7. Carrying Cost for over recovery/under recovery (B)

7.1 Carrying/ Holding cost for under/ over recovery has been granted at approved interest rate for the eligible amount. The following Table shows the month wise interest rate and amount worked out as Carrying/ Holding cost for under/ over recovery for the months of January to March, 2020.

Month	Jan 2020	Feb 2020	Mar 2020
Adjustment Factor (Rs. Crore)	6.40	4.23	2.74



Applicable Interest Rate	9.40%	9.35%	9.25%
Carrying/ Holding cost for under/ over recovery (Rs. Crore)	0.10	0.07	0.04

8. Disallowance due to excess Distribution Loss

8.1 Regulation 10.8 of MYT Regulations, 2015 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 ZFAC 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 ZFAC 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 distribution losses of the Distribution Licensee exceed the level approved by the Commission, the amount of ZFAC corresponding to the excess distribution losses (in kWh terms) shall be deducted from the total ZFAC recoverable”

8.2 The following Table provides the comparison of approved and actual distribution loss and disallowance due to excess distribution loss if any.

S. No.	Particulars	Units	Approved in MTR Tariff Order	Cumulative up to		
				Jan 2020	Feb 2020	Mar 2020
1	Net Energy Input at Distribution Voltages for own sales	MU	9,947.90	8,129.73	8,807.60	9,487.55
2	Own Energy sales at Distribution voltages	MU	8,887.41	7,381.60	8,003.09	8,617.06
3	Distribution Loss (1 - 2)	MU	1,060.49	748.13	804.51	870.49
4	Distribution Loss as % of net energy input (3/1)	%	10.66%	9.20%	9.13%	9.18%
5	Excess Distribution Loss =[Actual Distribution Loss (4) - Distribution loss approved] x Net Energy Input (1)	MU	-	-	-	-



S. No.	Particulars	Units	Approved in MTR Tariff Order	Cumulative up to		
				Jan 2020	Feb 2020	Mar 2020
6	Disallowance of FAC due to excess Distribution Loss	Rs. Crore	-	-	-	-

8.3 As seen from the above Table, cumulative distribution loss for the months of Q4 of 2020 is lower than the approved distribution losses of 10.66%. Accordingly, no deductions have been made on account of excess distribution loss for the month of January to March, 2020.

9. Summary of Allowable Z_{FAC}

9.1 The summary of the FAC amount as approved by the Commission for the month of January to March, 2020 is as shown in the Table below.

S. No.	Particulars	Units	Jan 2020	Feb 2020	Mar 2020
1.0	Calculation of ZFAC				
1.1	Change in cost of generation and power purchase attributable to Sales within the License Area (F)	Rs. Crore	6.92	8.99	10.03
1.2	Carrying cost for over-recovery/under-recovery (C)	Rs. Crore	0.10	0.07	0.04
1.3	Adjustment factor for over-recovery/under-recovery (B)	Rs. Crore	6.40	4.23	2.74
1.4	ZFAC = F+C+B	Rs. Crore	13.42	13.29	12.81
1.5	Amount of instalment as per previous vetting report	Rs. Crore			
2.0	Calculation of FAC Charge				
2.1	Energy Sales within the License Area	MU	608.21	621.49	613.97
2.2	Excess Distribution Loss	MU	0.00	0.00	0.00
2.3	ZFAC per kWh	Rs./kWh	0.22	0.21	0.21
2.4	Cap at 20% of variable component of tariff	Rs./kWh	1.29	1.29	1.29
2.5	FAC Charge allowable (Minimum of 2.3 and 2.4)	Rs./kWh	0.22	0.21	0.21
3.0	Recovery of FAC				
3.1	Allowable FAC [(2.1 x 2.5)/10]	Rs. Crore	13.42	13.29	12.81



S. No.	Particulars	Units	Jan 2020	Feb 2020	Mar 2020
3.2	FAC disallowed corresponding to excess Distribution Loss [(2.2 x 2.5)/10]	Rs. Crore	0.00	0.00	0.00
4.0	Total FAC based on category wise and slab wise allowed to be recovered	Rs. Crore	13.42	13.29	12.81
4.1	Carried forward FAC for recovery during future period (3.1-3.2-4.0)	Rs. Crore	-	-	-

9.2 It can be seen from the above Table that **standalone FAC for the month of January, February and March, 2020 is Rs. 13.42 Crore, Rs. 13.29 crore and Rs. 12.81 crore respectively.** Based on total energy sales, FAC per unit has been worked out as Rs. 0.22/kWh, Rs. 0.21/kWh and Rs. 0.21/kWh for the months of January to March, 2020, respectively as compared to the ceiling of Rs. 1.29/kWh. Further, the Regulation 10.9 of MYT Regulations,2015 specifies as:

Provided that the monthly ZFAC 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:

9.3 The FAC per unit computed for Q4 of FY 2019-20 is lower than the capping of 20% cap specified in Regulation as shown in Table above, hence, there is no restriction triggered with regards to such ceiling for the Q4 months of FY 2019-20.

9.4 As against the above **AEML-D in its initial FAC submission of Q4 of FY 2019-20 has worked out FAC (inclusive of carry-forward) for the months of January, February and March, 2020 as Rs. 59.54 Crore, Rs. 38.10 Crore and Rs 46.30 Crore, respectively.** Based on total energy sales, FAC per unit has been worked out by AEML-D was Rs. 0.98/kWh, Rs. 0.61/kWh and Rs. 0.75/kWh for the months of January, February and March, 2020, respectively. However, AEML-D has voluntarily charged the per unit FAC lower (i.e., Rs. 0.50/kWh) than the FAC allowed to be recovered in line with the approach adopted by AEML-D during previous quarters. The FAC amount which got un-recovered due to application of above ceiling has been considered as carry-forward FAC by AEML-D in its FAC computation.

9.5 Further, as per the present billing cycle, AEML-D levied the FAC so computed for the month of January 2020, in the billing month of March, 2020. However, the FAC amount pertaining to the month of February and March, 2020 which was to be levied in their respective billing months, i.e., April and May, 2020, has not been levied by AEML-D. This is mainly because, the Commission vide its MYT Order dated 30 March, 2020 for AEML-D (applicable w.e.f. 1 April 2020) and also vide Letter dated 20 April, 2020 (prior approval of FAC- guidelines to be adopted) at para 13, has given the directives that no FAC should



be levied for consumption from 1 April 2020 onwards without prior approval of the Commission. Hence, in compliance to the aforesaid directives, AEML-D has not levied the FAC computed for the month of February and March, 2020. Therefore, the same got unrecovered.

- 9.6 Thus, during FY 2019-20, AEML-D has computed and levied the FAC upto January, 2020. It has also computed the FAC for the month of February and March, 2020 however, the same did not get levied on consumers because of prior-approval requirement and hence, remained un-recovered. Considering the above, the Commission has dealt separately for the FAC amount which was levied on consumers during FY 2019-20 and FAC amount of FY 2019-20 which although computed but not levied, as under.

Treatment of the FAC amount which got levied to the consumers, i.e., FAC amount up to January, 2020:

- 9.7 It is to be noted that the Commission has already awarded post facto approval up to Q3 of FY 2019-20 (i.e., up to December, 2019), wherein the treatment for FAC levied up to December, 2019 is already given. As per the said post facto approval, the Commission has already accounted Rs. 42.91 Crore as a refund to the consumers. Accordingly, the treatment of levied FAC pertaining to the month of January, 2020 is left, which is given in present FAC approval.
- 9.8 For the month of January 2020, it can be seen from the Table above that the FAC allowed to be recovered is Rs. 13.42 Crore. As against it, AEML-D in its FAC submission has worked out FAC allowed to be recovered as Rs. 30.41 Crore (excluding carry-forward). Hence, there is an over-recovery of Rs. 16.99 Crore (i.e., Rs. 30.41 Cr – Rs. 13.42 Cr) by AEML-D. AEML-D is therefore required to refund the foresaid amount to the consumers.
- 9.9 Based on the above, the total refund up to January, 2020 is **Rs. 59.90 Crore** (i.e., Rs. 42.91 Cr + Rs. 16.99 Cr). AEML-D is hereby directed to add the aforesaid amount in the FAC stabilising fund of FY 2020-21.

Treatment of the FAC amount which although computed but did not levied on consumers, i.e., FAC for the month of February and March, 2020:

- 9.10 As per the Table above, it can be seen that the FAC allowed to be recovered for the month of February and March, 2020 is Rs. 13.29 Crore and Rs. 12.81 Crore (Rs. 26.10 Cr.) respectively. However, as against this the AEML-D has claimed un-recovered FAC for the month of February and March, 2020 as Rs. 38.10 Crore and Rs. 46.30 Crore (Rs. 84.40 Cr.) inclusive of carry-forward). Hence, an **amount of Rs. 58.30 Crore** (i.e., Rs. 84.40 Cr. - Rs. 26.10 Cr.) is disallowed. Considering that **the aforesaid standalone FAC amount (for**



February and March 2020) is not actually levied to consumers, hence, the adjustment of aforesaid disallowance and unrecovered FAC of Rs. 26.10 Cr. shall be undertaken at the time of final truing up of FY 2019-20 under the MERC MYT Regulations, 2015.

10. Recovery from Consumers:

10.1 Regulation 10.9 of MERC MYT Regulations, 2015 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:—

*ZFAC Cat (Rs/kWh) = [ZFAC / (Metered sales + Unmetered consumption estimates + Excess distribution losses)] * k * 10,*

Where:

ZFAC Cat = ZFAC 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 ZFAC 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 ZFAC 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....”



10.2 The following Table shows per unit ZFAC to be charged to the consumers of BEST Undertaking for the billing month of March, 2020.

FAC for Billing Month of March, 2020

S.No.	Consumer Categories	Slabs	ZFAC to be levied in billing month of
			March, 20
			Rs./kWh
(A)	LT Category		
1	LT I - Below Poverty Line	0-30	0.2750
2	LT -I Residential (Single Phase)		
		0-100	0.2915
		101-300	0.5144
		301-500	0.5749
		500 and above	0.6723
3	LT -I Residential (Three Phase)		
		0-100	0.2903
		101-300	0.4730
		301-500	0.5478
		500 and above	0.6423
4	LT II : LT - Non - Residential or Commercial		
		0-20 kW	0.5650
		20-50 kW	0.6000
		above 50 kW	0.6150
5	LT III (A) - LT Industrial	upto 20 kW	0.5150
6	LT III (B) - LT Industrial	above 20 kW	0.5600
7	LT IV : LT- Public Water Works	all units	0.5150
8	LT V : LT- Advertisements and Hoardings	all units	0.6500
9	LT VI: LT -Street Lights	all units	0.5250
10	LT VII (A): LT -Temporary Supply Religious	all units	0.4600
11	LT VII (B): LT -Temporary Supply Others	all units	0.6450
12	LT VIII: LT - Crematorium & Burial Grounds	all units	0.4000
13	LT IX (A) : LT -PS - Govt. Hospitals & EI	all units	0.4700
14	LT IX (B) : LT -PS – Others	all units	0.4900



S.No.	Consumer Categories	Slabs	ZFAC to be levied in billing month of
			March, 20
			Rs./kWh
15	LT X (A) : LT - Agriculture Pumpsets	all units	0.3350
16	LT X (B) : LT - Agriculture Others	all units	0.4250
17	LT IX : LT – EVCS	all units	0.3503
(B)	High Tension – HT		
18	HT I: HT-Industry	all units	0.5700
19	HT II : HT- Commercial	all units	0.6200
20	HT III: HT-Group Housing Society	all units	0.5550
21	HT IV : HT - Public Water Works	all units	0.5150
22	HT V (A) - HT Metro & Monorail	all units	0.4211
23	HT V (B) - HT Metro & Monorail	all units	0.5100
24	HT VI (A) : HT - PS - Govt. Hospitals & EI	all units	0.5300
25	HT VI (B) : HT - PS – Others	all units	0.5850
26	HT VII - Temporary Supply	all units	0.5800
27	HT VIII - HT – EVCS	all units	0.3531

11. Summary:

11.1 The Table below shows the summary of FAC claimed by AEML-D vis-à-vis approved by the Commission for Q4 of FY 2019-20:

Particular	Month	Claimed	Approved	Remarks
FAC (Rs. Cr.)	January, 2020	30.41	13.42	For the FAC levied upto January, 2020, the net cumulative refund is Rs. 59.90 Crore.
	February, 2020	31.07	13.29	
	March, 2020	30.70	12.81	
Carried forward FAC (Rs. Cr.)	January, 2020	29.13	-	
	February, 2020	7.02	-	
	March, 2020	15.60	-	
Total FAC (Rs Cr.)	January, 2020	59.54	13.42	
	February, 2020	38.10	13.29	
	March, 2020	46.30	12.81	
FAC per Unit	January, 2020	0.50	0.22	
	February, 2020	0.50	0.21	
	March, 2020	0.50	0.21	

For the FAC amount levied to the consumer during FY 2019-20:



11.2 The total cumulative FAC refund up to December, 2019 is Rs. 42.91 Crore. The FAC refund for the month of January is Rs. 16.99 Crore. Thus, total cumulative refund of FAC up to January, 2020 is Rs. 59.90 Crore. AEML-D is hereby directed to add the aforesaid amount in the FAC stabilising fund of FY 2020-21.

For the FAC amount computed but not levied to consumers during FY 2019-20:

11.3 FAC allowed to be recovered for the month of February and March, 2020 is Rs. 13.29 Crore and Rs. 12.81 Crore (Rs. 26.10 Cr.) respectively. However, as against this the AEML-D has claimed un-recovered FAC for the month of February and March, 2020 as Rs. 38.10 Crore and Rs. 46.30 Crore (Rs. 84.40 Cr.) inclusive of carry-forward). Hence, an amount of Rs. 58.30 Crore (i.e., Rs. 84.40 Cr. - Rs. 26.10 Cr.) is disallowed. Considering that the aforesaid standalone FAC amount is not actually levied to consumers, hence, the adjustment of aforesaid disallowance and unrecovered FAC shall be undertaken at the time of final truing up of FY 2019-20 under the MERC MYT Regulations, 2015.

