



# महाराष्ट्र विद्युत नियामक आयोग

## Maharashtra Electricity Regulatory Commission

Ref. No. MERC/FAC/2020-21/WFH/SBR/ 28

Date: 31 August, 2020

To,

**The Managing Director**

Maharashtra State Electricity Distribution Company Ltd.,  
5<sup>th</sup> Floor, Prakashgad, Plot No. G-9  
Bandra (East), Mumbai 400 051

**Subject:** Prior Approval of Fuel Adjustment Charges (FAC) submission of MSEDCL for the month of June 2020.

**Reference:** 1. MSEDCL's FAC submission dated 29 July, 2020 for prior approval of FAC for the month of June, 2020.  
2. Data gaps communicated to MSEDCL vide email dated 30 July, 2020 and 09 August, 2020  
3. MSEDCL's response to data gaps by email dated 7 August, 2020, 17 August, 2020 and 20 August, 2020

Sir,

Upon vetting the FAC calculations for the month of June, 2020 as mentioned in the above reference, the Commission has accorded approval for charging FAC to its consumers as shown in the table below:

Month	FAC Amount (Rs. Crore)
June, 2020	0 (Zero)

The Commission allows the accumulation of FAC amount of Rs. 377.85 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 322 of 2019. Further, as directed in the said Order, MSEDCL 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.

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

Yours faithfully,

(Dr. Rajendra Ambekar)  
Executive Director

**Encl:** Annexure A: Detailed Vetting Report for the month of June, 2020.

## ANNEXURE A

**Detailed Vetting Report**

**Date: 31 August, 2020**

### **PRIOR APPROVAL FOR FAC CHARGES FOR THE MONTH OF JUNE, 2020**

**Subject:** Prior Approval of Fuel Adjustment Charges (FAC) submission of MSEDCL for the month of June, 2020.

**Reference:** MSEDCL's FAC submission dated 29 July, 2020 for prior approval of FAC for the month of June, 2020.

#### **1. FAC submission by MSEDCL:**

1.1 MSEDCL has submitted FAC submissions for the month of June, 2020 as referred above. Upon vetting the FAC calculations, taking cognizance of all the submissions furnished by MSEDCL against the data gaps issued, the Commission has accorded prior approval to MSEDCL for negative FAC amount of Rs. 15.03 Crore. The approved FAC amount 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 322 of 2019 (herein after referred to as "Tariff Order").

#### **2. Background**

2.1 On 30 March, 2020, the Commission has issued Tariff Order for MSEDCL, (Case No.322 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 Tariff for FY 2020-21 to FY 2024-25. Revised Tariff has been made applicable from 1 April, 2020.

2.2 In the Tariff Order, the Commission has stipulated methodology of levying FAC as follows:

*"8.5.12 Therefore, using its powers for Removing Difficulty under Regulations 106 of the MYT Regulations, 2019, the Commission is making following changes in the FAC mechanism stipulated under Regulation 10 of MYT Regulations, 2019:*

*Distribution Licensee shall undertake computation of monthly FAC as per Regulation 10 of the MYT Regulations, 2019 except for treatment to be given to negative FAC as follows:*

- *Negative FAC amount shall be carried forward to the next FAC billing cycle with holding cost;*

- *Such carried forward negative FAC shall be adjusted against FAC amount for the next month and balance negative amount shall be carried forward to subsequent month with holding cost;*
- *Such carry forward of negative FAC shall be continued till the accumulated negative FAC becomes 20% of monthly tariff revenue approved by the Commission in Tariff Order. In case of MSEDCL, such limit shall be Rs. 1500 crore. Any accumulated amount above such limit shall be refunded to consumers through FAC mechanism;*
- *In case such FAC Fund is yet to be generated or such generated fund is not sufficient to adjust against FAC computed for given month, then Distribution Licensee can levy such amount to the consumers through FAC mechanism.*

*8.5.13 In order to maintain transparency in management and use of such FAC Fund, the Distribution Licensee shall maintain monthly account of such FAC fund and upload it on its website for information of stakeholders. Further, till date, the Distribution Licensees have been levying FAC up to the prescribed limit of 20% of variable component of tariff without prior approval in accordance with the MYT Regulations, 2015, and submitting the FAC computations on a quarterly basis within 60 days of the close of each quarter, for post facto approval. However, as the Commission has now created a FAC fund as stated above to stabilise the increase in fuel prices and power purchase costs, the Commission has modified the FAC mechanism such that the Distribution Licensees shall submit the FAC computations on a monthly basis for prior approval, irrespective of whether FAC is chargeable in a month or whether some amount is accruing to the Fund on account of negative FAC.*

*8.5.14 The details of the FAC as per the Regulations, shall be submitted by the 15th of the every month prior to the month on which the FAC is proposed to be levied and the Commission will endeavour to decide on the same within 10 days so that the same can be levied from the 1st of the subsequent month. This prior approval will facilitate the addressing of any difficulties that may arise in giving effect to this fund. All the details will be submitted by the Distribution Licensee as is being done for approval of FAC on post facto basis. Thus the FAC to the consumers shall now be levied with prior approval of the Commission”*

- 2.3 Vide its letter dated 20 April, 2020, the Commission communicated the excel formats along with the checklist to file FAC submissions for prior approval to all Distribution Licensees. The Commission also directed all Distribution Licensees to file FAC submissions by 15<sup>th</sup> of every month prior to the month for which the FAC is proposed to be levied for prior approval.
- 2.4 Accordingly, MSEDCL has filed FAC submissions for the month of June, 2020 for prior approval. The Commission has scrutinized the submissions provided by MSEDCL and has also verified the fuel and power purchase bills provided along with its submissions.

### 3. Energy Sales of the Licensee

3.1 The net energy sales within licence area as submitted by MSEDCL in the FAC submission and as approved by the Commission are as shown in the table below:

Consumer Category	Yearly Approved by the Commission (MU)	Monthly Approved (MU)	Actual Sales
			June 2020 (MU)
<b>HT Category</b>			
Industry (General)	33,829.98	2,758.40	2,218.70
Industry (Seasonal)	102.93	4.37	11.74
Commercial	1,887.38	166.80	90.87
Railways/Metro/Monorail	80.46	8.90	5.58
Public Water Works (PWW)	1,996.12	165.95	133.35
Agricultural - Pumpsets	1,243.85	102.17	81.90
Agricultural - Others	259.40	21.20	20.07
Group Housing Society (Residential)	239.68	21.03	18.97
Public Services - Government	273.16	23.92	18.15
Public Services - Others	825.16	70.95	54.06
Electric Vehicle Charging Stations	0.31	0.03	0.02
MSPGCL Auxiliary	183.74	19.73	10.18
Other Adjustment	4,842.00	403.50	345.37
<b>Sub-total (A)</b>	<b>45,764.17</b>	<b>3,766.96</b>	<b>3,008.96</b>
<b>LT Category</b>			
BPL	45.14	2.39	6.83
Residential	22,868.98	2,177.52	2,929.15
Non-Residential	6,934.28	616.25	317.57
Public Water Works	892.76	74.55	76.00
AG Metered (Pumpsets)	17,571.05	1,326.00	1,431.27
AG Metered (Others)	140.00	10.33	14.74
Industrial	9,618.89	754.76	412.54
Street Lights	2,272.61	187.37	153.52
Public Services	572.79	49.47	43.09
Electric Vehicle Charging Stations	0.23	0.02	0.04
Prepaid	-	-	-
<b>Sub-total (B)</b>	<b>60,916.73</b>	<b>5,198.65</b>	<b>5,384.75</b>
<b>Total – Metered (C = A+B)</b>	<b>1,06,680.90</b>	<b>8,965.60</b>	<b>8,393.71</b>
Unmetered Sale (D)	8,783.32	677.22	773.15
<b>Grand Total(C+D)</b>	<b>1,15,464.22</b>	<b>9,642.82</b>	<b>9,166.87</b>

\* Other Adjustment is related to Sales to Open Access Consumer (Conventional and Renewable)

3.2 Due to spread of Covid-19 pandemic, the Commission had issued Practice Directions on 26 March, 2020 providing certain relaxations in the Supply Code to all the Distribution

Licenseses in respect of Meter Reading etc. Accordingly, the billed sales submitted by MSEDCL for the month of April 20 and May 20 were on estimated basis except for the consumers having Automatic Meter Reading (AMR) in place. However, in the month of June, MSEDCL has started actual meter reading and consumers are billed as per meter reading and the said consumers are billed for 3 months by adjusting average units billed in April / May 20. This is reflected in higher sales for LT Residential consumers than approved by the Commission. Further, as input for the quarter upto June 20 is finalised in June 20, Ag metered and un-metered sales considered by MSEDCL are 1,431 MUs and 773 MUs respectively. Accordingly, it is observed that the total sales for June, 2020 is 9,166.87 MUs.

#### **4. Power Purchase Details**

4.1 The Commission has approved following sources in the Tariff Order for power purchase by MSEDCL.

- a) MSPGCL
- b) Central Generating Stations i.e. NTPC, TAPP etc
- c) IPPs i.e. JSW, Adani Power, Mundra UMPP, Emco, Rattan India
- d) Renewable Energy (Solar and Non-Solar)

In addition to the aforesaid, MSEDCL procures power in short term, though the said source is not approved by the Commission, in case of any shortfall of approved sources or to optimize the power purchase cost. Also, there may be some variation in real time (unscheduled interchange) which will be settled through Balancing and Settlement Mechanism approved by the Commission.

4.1 Summary of Power Purchase from MSEDCL is as follows:

<b>Sr. No.</b>	<b>Particular</b>	<b>Compliance</b>
1	Sources of approved Power Purchase	MSEDCL has purchased power from approved sources. In addition, power is procured on power exchange to optimise the power purchase cost
2	Merit Order Dispatch	MSEDCL has followed merit order for scheduling of power and preference was given to cheapest power.
3	Fuel Utilization Plan	Usage of coal is not as per approved Fuel Utilisation Plan (Detailed Explanation given below – Para 5.10 to para 5.15)
4	Pool Imbalance	No Imbalance pool quantum is computed by MSEDCL for June 2020.
5	Sale of Surplus Power	MSEDCL has sold 7.32 MUs at Rs.4.34/kWh thereby benefitting its consumers as sale rate is higher than APPC.
6	Power Purchase	Actual Power Purchase is 9339.03 MUs as against approved 11,659.53 MUs due to lower sales

4.2 The following table show the variation in average power purchase cost (Rs/kWh) for the month of June, 2020 submitted by MSEDCL as compared to average power purchase cost approved in Tariff Order:

Particulars	Tariff Order Dated 30.03.2020 Approved for June 2020			Actual for June 2020 as submitted by MSEDCL			Variation		
	Quantum	PP Cost	Average Power Purchase Cost	Quantum	PP Cost	Average Power Purchase Cost	Quantum	PP Cost	Average Power Purchase Cost
	MU	Rs. Crore	Rs/kWh	MU	Rs. Crore	Rs/kWh	MU	Rs. Crore	Rs/kWh
MSPGCL – Thermal	4,364.76	1,852.32	4.24	2,709.59	1,313.74	4.85	(1,655.17)	(538.58)	0.60
MSPGCL- Hydro (including Lease Rent)	270.95	70.33	2.60	289.62	70.80	2.44	18.67	0.47	(0.15)
NTPC	2,290.83	875.01	3.82	2,163.89	785.88	3.63	(126.94)	(89.13)	(0.19)
1.JSW	158.98	57.59	3.62	191.61	58.59	3.06	32.63	1.00	(0.56)
2.Mundra UMPP	423.94	125.13	2.95	444.28	129.67	2.92	20.34	4.55	(0.03)
3.Adani Power	1,724.91	646.69	3.75	1,014.85	419.42	4.13	(710.05)	(227.27)	0.38
4.Emco	112.61	51.02	4.53	108.35	47.11	4.35	(4.26)	(3.91)	(0.18)
5.Rattan India	0.00	57.71	-	-	60.16	-	-	2.45	-
Total IPPs (1 to 5)	2,420.43	938.13	3.88	1,759.09	714.95	4.06	(661.34)	(223.18)	0.19
6.Non-Solar	1,245.00	614.23	4.93	912.96	427.52	4.68	(332.04)	(186.71)	(0.25)
7.Solar	542.00	196.09	3.62	417.90	172.41	4.13	(124.10)	(23.68)	0.51
Renewable Energy including REC (6 to 7)	1,787.00	821.15	4.60	1,330.87	599.92	4.51	(456.13)	(221.23)	(0.09)
Must Run - KAPP, TAPP, Dodson etc	525.57	139.81	2.66	582.37	91.97	1.58	56.80	(47.84)	(1.08)
Short Term	0.00	0.00	-	510.92	138.81	2.72	510.92	138.81	2.72
Sale of Power	0.00	0.00	-	7.32	3.18	4.34	7.32	3.18	4.34
PGCIL	0.00	276.79	-	-	255.77	-	-	(21.02)	-
<b>Total</b>	<b>11,659.53</b>	<b>4,973.54</b>	<b>4.27</b>	<b>9,339.03</b>	<b>3,968.67</b>	<b>4.25</b>	<b>(2,320.51)</b>	<b>(1,004.88)</b>	<b>(0.02)</b>

4.3 Thus, for the month of June 2020, total variation in power purchase cost is (Rs. 1,004.88 Crore), out of which (Rs. 989.85 Crore) was on account of lower quantum of power

purchase (2320.51 MU) and (Rs. 15.03 Crore) was on account of lower rate of average power purchase (Rs. 0.02/kWh). FAC mechanism allows only impact of variation in power purchase rate to be passed through as FAC rate over and above approved tariff.

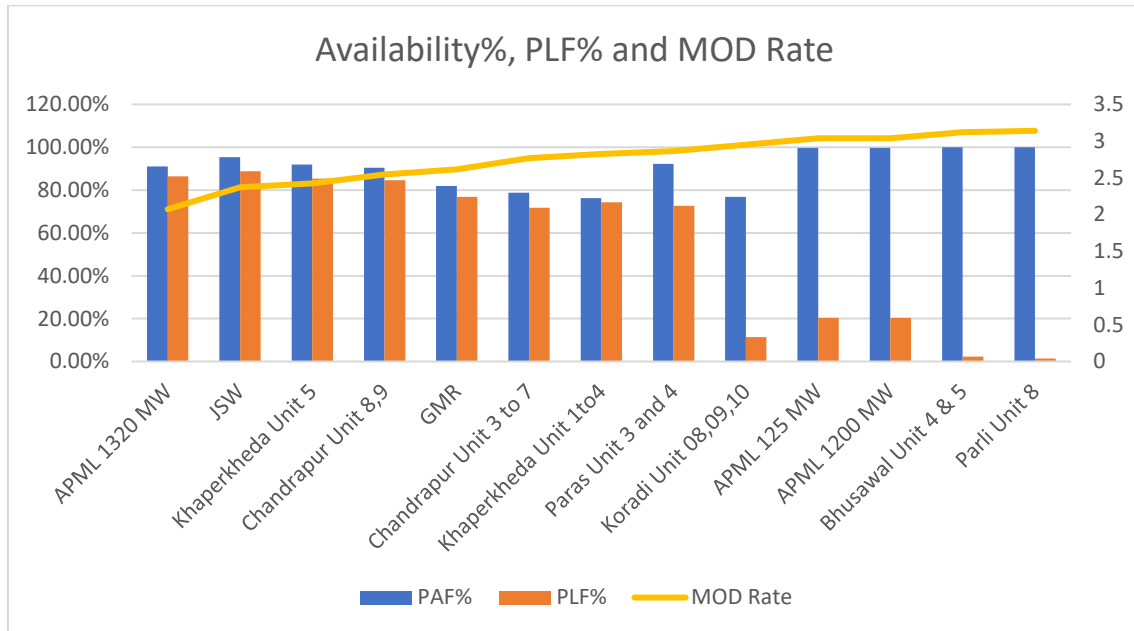
- 4.4 The detailed explanation in respect of approval of cost of power purchase of each of the source mentioned in the above table is given in subsequent paragraphs.

## **5. Power Purchase Cost**

- 5.1 The Commission has sought detailed bills/invoices for all of the power purchase sources in order to verify the claim of MSEDCL with regards to average power purchase cost for the month of June, 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. MSEDCL has purchased power from approved sources as per the Tariff Order. Further, it was observed that MSEDCL has purchased power from Power Exchange to take advantage of the lower prices prevailing in the market by giving zero schedule to generating stations having higher variable cost and have benefitted the consumers by lowering the average power purchase cost.
- 5.2 In view of lower demand due to Covid 19 pandemic and lower prices prevailing on Power Exchange, it was observed that Zero Schedule was given to many State Generating Stations such as Bhusawal, Parli, Koradi 6-7 for the entire month and partially to Koradi 8-10 and Chnadrapur 3-7 and Paras units and IPP (Rattan India and APML ) having variable cost in MOD to optimise the power purchase cost.
- 5.3 The Commission notes that MSEDCL has followed the Merit Order Dispatch (MOD) principle. In response to data gaps raised by the Commission in respect of Chandrapur Unit 3-7 having lower MOD rate (Rs 2.769) was run at lower PLF (71.77%) than Khaparkheda Unit 1-4 (74.24%) having MOD Rate of Rs 2.824, MSEDCL submitted that the MoD is effective from 12<sup>th</sup> day of current month to 11<sup>th</sup> of next month. Hence, for from 1<sup>st</sup> to 11<sup>th</sup> of June 2020, MoD rate of Chandrapur Unit 3-7 was Rs. 2.9907 and for Khaparkheda Unit 1-4 was Rs. 2.9594, therefore, Khaparkheda U-1-4 was having lower Variable cost for first 11 days and infact was having higher PLF than Chandrapur Unit 3-7. It further submitted that for rest of period of June-2020 i.e. from 12<sup>th</sup> to 30<sup>th</sup> of June 2020, MoD rate of Chandrapur Unit 3-7 was Rs 2.769 and for Khaparkheda Unit 1-4 was Rs. 2.824. During the said period of 19 days, Khaparkheda Unit-1-4 was having lower PLF than Chandrapur Unit 3-7.
- 5.4 The Commission notes certain Central Generating Stations (CGS) i.e NTPC Mauda, Solapur, Khargone, and Gadarwara having high variable cost were also under zero schedule whereas other CGS stations having lower variable cost were dispatched almost to the extent of availability declared by the generator.



5.5 The Commission has also verified the PLF% and MOD rates of all the operational State Generating Stations and IPPs and has found that units having lower rates in MOD had higher PLF. The graph showing the comparison of Variable Cost in MoD Stack and monthly Plant Availability Factor and PLF for SGS and IPPs is given below:



Note:

a) SGS/IPP's Stations are considered for comparison and MOD Rate considered is as applicable from 12 June, 2020 to 30 June, 2020.

#### MSPGCL:

5.6 The Commission has observed that MSEDCL has purchased 2,709.59 MUs from MSPGCL Thermal and Gas Stations. It was observed that MSEDCL has not purchased any energy from generating station of MSPGCL not included in MoD stack approved by the Commission in the Tariff Order except for Parli Unit 8, which was run only on 1 June, 2020 for short duration and was thereafter given Zero Schedule for the entire month.

5.7 The total overall generation was lower during the month leading to lower PLF mainly due to lower system demand. Even though the PLF for the thermal generating units was lower for the aforesaid month, the entire monthly fixed cost was payable in line with MYT Regulations, 2019 and the order dated 10 June, 2020 in Case No 97 of 2020. The Commission in the said order had directed MSPGCL to consider availability of Units for the period under Zero Schedule equal to the targeted availability approved by the Commission in MYT Order of MSPGCL. Accordingly, MSEDCL has considered the fixed cost as per the order of the Commission for the units under Zero Schedule. Lower PLF has resulted into fixed cost being spread over lower net generation thereby increasing average power purchase price from these Units and thus impacting the APPC. The comparison of Actual and Approved Fixed and Variable Cost of MSPGCL Thermal/Gas

units as shown in the table below shows the impact of fixed cost due to lower actual generation:

Particulars	Approved for June 2020						Actual for June 2020						Variations			
	Quantum	VC	VC	FC	FC	APP C	Quantum	VC	VC	FC	FC	AP PC	Quantum	VC	FC	APP C
	MU	Rs./k Wh	Rs. Crore	Rs. Crore	Rs./k Wh	Rs./k Wh	MU	Rs./kWh	Rs. Crore	Rs. Crore	Rs./k Wh	Rs./kWh	MU	Rs./k Wh	Rs./k Wh	Rs./k Wh
MSPGCL – Thermal	4,364.76	2.71	1,180.99	671.33	1.54	4.24	2,709.59	2.32	628.24	685.50	2.53	4.85	(1,655.17)	(0.39)	0.99	0.60

*Variable charge inclusive of other charges (Fuel adjustment charges, CIL etc.)*

- 5.8 Further, the Commission has verified that the payment of fixed cost for all the Thermal/Gas Units as well as Hydro Units have been worked out based on the cumulative availability as per the provisions of MYT Regulations, 2019 and Order dated 10 June, 2020 in Case No 97 of 2020. Accordingly, the fixed cost is considered as submitted by MSEDCL for FAC computation.
- 5.9 The Commission in its order dated 30 March, 2020 in Case No 296 of 2019 has approved Fuel Utilisation Plan of MSPGCL. The Commission in the said Order has given in principle approval for the various measures proposed by MSPGCL including coal beneficiation and procurement of imported coal to meet the requirement of coal for maintaining normative availability and accordingly approved the variable/energy charges for the MSPGCL Stations.
- 5.10 MSPGCL has subsequently filed Case No 97 of 2020 seeking deviation/relaxation in the Fuel Utilisation Plan (FUP) approved by the Commission and regarding need for seeking prior consent from beneficiary if energy charges as per Fuel Surcharge Adjustment is higher than the approved charge by margin of 5%.
- 5.11 The Commission in its Order in Case No 97 of 2020 has not allowed relaxation as sought for by MSPGCL and infact directed MSPGCL to work on various options to implement the approved FUP and utilise opportunities of sourcing cheaper domestic coal so as to reduce the power purchase cost to least possible level. The relevant extract of the Order is reproduced herein below for ready reference:

*“15. As explained earlier in this Order, the Commission has deliberately incorporated provision of prior consent with specific objective that Distribution Licensee, in the present case MSEDCL, is aware of the energy charge that is likely to be levied by any particular generator so that appropriate decision in respect of power purchase from alternate cheaper sources can be explored so as to reduce its power purchase cost for the ultimate benefit of the consumers. In case the relaxation as sought by MSPGCL is allowed, it may unnecessarily burden MSEDCL’s consumers and the purpose of cost optimization and reduction in FAC for which it was made mandatory will not be realised and relevant Provisions of MYT Regulations, 2019 will be rendered otiose. Hence, the Commission is not inclined to grant relaxation as sought by MSPGCL*

*16. Further, the Commission is of the opinion that FY 2020-21 has just started. Ten months are still available with MSPGCL in FY 2020-21 to abide by the FUP and to take corrective proactive actions. The Commission notes here the specific measures undertaken by NTPC in reducing the Energy Charges for some of its stations and advises MSPGCL to study the same for adoption. Further, as admitted by MSPGCL in its petition that except for few Stations viz. Nashik and Koradi, it will be able to implement FUP and in fact energy charge would be lower than that approved in MYT Order. Therefore, merely, on the experience of two months, seeking revision of FUP is not proper. MSPGCL may work on the various options available to implement the approved FUP and utilize opportunities of sourcing cheaper domestic coal provided by Government of India including the concessions proposed by Ministry of Power (MoP) in view of the pandemic situation, so as to reduce the power purchase cost to least possible level.*

*17. During the hearing, MSPGCL has stated that accumulated coal stock is creating difficulties in sourcing new coal. In the opinion of the Commission with relaxation in lock down, as energy demand increases, accumulated coal stock will be utilized and hence MSPGCL should plan smartly for further coal procurement. MSPGCL should also ensure that cheapest coal is made available to efficient generator so that least possible cost of generation is achieved.”*

5.12 The Commission notes that while approving the FUP, the washed coal and imported coal was required to be used in all the MSPGCL stations except Paras and Parli Stations. However, as mentioned above, MSPGCL is yet to tie up for washed coal as well as imported coal and only domestic coal is being used at the generating stations. This is not in consonance with the FUP approved by the Commission. MSPGCL has submitted in Case No 97 of 2020 that energy charges would be lower for all the stations except for Nashik and Koradi. Based on provisional FAC bill raised by MSPGCL for the month of June 2020, comparison of actual energy charge based on provisional bill and approved by the Commission in the Tariff Order shows that actual energy charge only for Koradi 8-10 exceeds more than 5%. MSEDCL has submitted that as per approved Fuel Utilization Plan, usage of washed coal with GCV higher than raw coal GCV was considered. However, presently no washed coal is being procured by MSPGCL as the finalization of tender for the same is pending. Also, the coal available in stock is of lower GCV. This has resulted in increase in variable cost for units at Koradi. MSPGCL further submitted that efforts are being taken to reduce the energy charge as per directions of the Commission in Case No 97 of 2020.

5.13 MSEDCL in response to data gaps has submitted that as per Regulation 50.7 of MYT Regulations, 2019, MSPGCL has intimated MSEDCL and sought consent for scheduling units at Chandrapur, Koradi and Nashik where energy charge is likely to exceed by 5% than approved by the Commission in the Tariff Order. MSEDCL in its response to the said letter had provided conditional consent for the Koradi and Chandrapur units by taking all possible measures to bring the energy charge within 5% of approved rate. The Commission notes that for the month of June 20, energy charge of only Koradi 8-10 Unit is beyond 5% of the approved charge for the reasons mentioned in the above para 5.12.

5.14 The Commission notes that, MSPGCL has been able to reduce the variable cost of its generating stations at Chandrapur and Khaperkheda in the Month of June 2020 as compared to April/May 2020. The comparison of Approved and Actual Energy Charge (including FAC) is as given below:

Power Station	Approved Energy Charge Rs/kWh	Actual Energy Charge Rs/kWh	Difference Rs/kWh
Bhusawal Unit 03	3.915	-	-
Bhusawal Unit 04 & 05	3.267	2.685	-0.582
Khaperkheda Unit 1 to 4	2.808	2.351	-0.457
Khaperkheda Unit 05	2.458	2.118	-0.340
Nashik TPS	3.394	-	-
Chandrapur Unit 03 to 07	2.539	2.355	-0.184
Chandrapur Unit 08 and 09	2.453	2.163	-0.290
Paras Unit 03 and 04	2.989	2.603	-0.386
Parli Unit 06 and 07	4.000	-	-
Parli Unit 08	3.830	2.951	-0.879
Koradi Unit 06 and 07	3.136	-	-
Koradi Unit 08,09,10	2.284	2.695	0.411
GTPS Uran	2.683	1.784	-0.899

5.15 Further, in response to query raised by the Commission in respect of steps taken to implement the approved FUP, MSEDCL submitted that MSPGCL is planning to undertake alternate coal arrangements like washed coal procurement, more of WCL coal with higher GCV. However, the implementation of such actions will take some more time. The Commission notes that all the generating station except Koradi 8-10 Unit is having rate lower than approved by the Commission in the Tariff Order. It is also noted that MSPGCL has been able to lower the energy charge of Koradi from Rs 2.95/kWh in April 2020 to Rs 2.70/kWh in June 2020. However, it is essential that MSPGCL takes adequate steps, appropriate action and work on various options to implement the approved FUP to reduce the fuel cost.

5.16 MSPGCL has undertaken Case-4 bidding and accordingly entered into contract with Dhariwal Industries Ltd (DIL) for supply of 185 MW net sent out in lieu of power from one unit of at Nashik by transfer of corresponding linkage coal quantity to DIL unit. MSEDCL has purchased 122.00 MUs from DIL at Rs. 2.59/kWh as against approved variable cost of Rs. 3.39 for Nashik Unit. The Commission notes that this has resulted in substantial savings to consumers. For the month of June 2020, DIL has supplied balance quantum of 15.83 MUs at Rs. 2.76/kWh based on reconciliation of previous contract with consent of MSEDCL. Accordingly, the total power purchased from DIL is 137.83 MUs at Rs 2.61/kWh. The same is considered by the Commission for FAC computation.

5.17 As mentioned herein above, MSPGCL has used domestic raw coal for its generation. MSPGCL had also raised issue in respect of consideration of GCV of Coal (As Billed

and As Received) in absence of timely availability of CIMFR reports. The Commission in its Order in Case No 97 of 2020 has held that MSPGCL may consider provisional GCV which can be either based on mid-point of declared grade GCV or GCV measured by MSPGCL's Testing Team or adopt any other better approach in consultation with MSEDCL for provisional billing. Accordingly, MSPGCL has raised provisional FAC bill considering GCV as per the methodology submitted by MSPGCL in Case No 97 of 2020 as given below:

- a. GCV- As Billed: Consideration of certified loading end GCV data wherever available and where certified data is not available, use mid-point of declared grade GCV. Also, consider actual data for opening stock wherever available and where the actual data is not available consider the average of Jan'2020 to March'2020 period
- b. GCV – As Received: GCV is considered based on the results available at each Station from their respective Station Laboratory

5.18 It was observed that methodology for computation of cost of consumption of coal considered by MSPGCL varies for each station. MSPGCL has also submitted that it is taking an initiative to streamline the coal inventory data management at all the stations so that all the stations will utilize same methodology. The Commission has already issued directions on this issue while approving the FAC for the month of April 2020 on 4 August, 2020. The Commission expects that uniform methodology of considering coal cost will be adopted by MSPGCL from August 2020.

5.19 During scrutiny of FAC submissions, it was observed that Opening Inventory Details of Coal of Chandrapur 3-7, Chandrapur 8-9 and Koradi 8-10 units did not match with Closing Inventory Details of May 2020. In response to data gaps raised by the Commission, MSEDCL submitted that in case of Chandrapur, the opening inventory cost for June'20 is lower than the closing inventory cost for May 2020, as the coal mine specific costs are reduced by the station considering the decision by MSPGCL for not paying the costs. The Commission notes this has resulted in lowering the variable cost of Chandrapur units thereby benefitting the consumers. For Koradi, it was in view of inadvertent error of not considering the one wagon entry of 67.35 MT in May 2020. The said error has been corrected in the month of June 2020. The Commission notes the submissions of MSEDCL.

5.20 The Commission has verified that actual quantum of power purchase and cost from the detailed summary bills/invoices submitted by MSEDCL and found to be in order.

5.21 Considering the overall cost of MSPGCL thermal/gas stations, the average power purchase cost is Rs. 4.85/kWh as against Rs. 4.24/kWh approved in the Tariff Order. The higher average power purchase cost is mainly due to fixed cost being distributed over lower generating units.

5.22 Variation in power purchase expenses from MSPGCL can be divided on account of change in quantum and per unit rate as follows:

Month	Increase in Expenses for power purchase from MSPGCL (Rs. Crore)		
	On Account of change Quantum of Power Purchase	On Account of change in Per Unit rate of Power Purchase	Total
June 2020	(702.42)	163.84	(538.58)

Out of above, variation on account of increased per unit rate is only considered for FAC computation.

#### NTPC:

5.23 MSEDCL has purchased total 2163.89 MUs of power from NTPC's stations as compared to approved MoD stack of 2290.83 MUs during the month of June 2020. It was observed that certain stations of NTPC viz: Mauda, Solapur, Gadawara and Khargone including generating units not approved by the Commission in MoD stack were under Zero Schedule due to lower demand.

5.24 The Table below shows the variation in power purchase in terms of per unit variable charge, per unit fixed charge and average power purchase cost for NTPC's generating stations for June 2020.

Particulars	Approved for June 2020						Actual for June 2020						Variations			
	Quantum	VC	VC	FC	FC	APP C	Quantum	VC	VC	FC	FC	AP PC	Quantum	VC	FC	APPC
	MU	Rs./kWh	Rs. Crore	Rs. Crore	Rs./kWh	Rs./kWh	MU	Rs./kWh	Rs. Crore	Rs. Crore	Rs./kWh	Rs./kWh	MU	Rs./kWh	Rs./kWh	Rs./kWh
NTPC	2,290.83	1.93	443.19	431.82	1.88	3.82	2,163.89	1.74	375.66	410.22	1.90	3.63	(126.94)	(0.20)	0.01	(0.19)

*Variable charge inclusive of other charges (Fuel adjustment charges, CIL etc.)*

5.25 It is observed that there has been increase in fixed cost due to zero schedule of few stations as mentioned above and consequently fixed cost getting distributed over remaining units. However, due to lower variable cost, the overall average power purchase cost is lower than approved by the Commission in the Tariff Order.

5.26 The Commission has verified that actual quantum of power purchase and cost from the detailed summary bills/invoices submitted by MSEDCL and found to be in order and accordingly considered the same in FAC computation.

5.27 Variation in power purchase expenses from NTPC can be divided into on account of change in quantum and per unit rate as follows:

Month	Increase in Expenses for power purchase from NTPC (Rs. Crore)
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	On Account of change Quantum of Power Purchase	On Account of increased Per Unit rate of Power Purchase	Total
June 2020	(48.49)	(40.65)	(89.13)

Out of above, variation on account of increased per unit rate is only considered for FAC computation.

### **IPPs**

- 5.28 MSEDCL has long term PPA's with IPP's viz: JSW, CGPL Mundra, APMML, Emco and Rattan India. The said PPAs are approved by the Commission and power availability from the said sources is considered as per Tariff Order issued by the Commission.
- 5.29 The Commission notes that in view of lower demand and high variable charge of Rattan India and APMML, MSEDCL has issued Zero Schedule during the month and purchased power from Power Exchange to optimize the power purchase cost.
- 5.30 During scrutiny of the invoices submitted by MSEDCL it was observed that, while the power purchase quantum (MUs) and capacity charges with respect to IPPs were matching with the bills, there were differences in the energy charges and other charges related to Change in Law as considered in FAC computations. The Commission sought clarifications on the same along with reconciliation and additional bills, if any. MSEDCL submitted the reconciliation and clarified that the aforesaid differences are mainly on account of Change in Law (CIL) claim by IPPs in addition to monthly energy bills during the respective period.
- 5.31 MSEDCL submitted that in respect of discrepancy of energy charge of APMML is due to the fact that APMML has not considered the revised Escalation Index given by CERC on 8 December 2017 (applicable for the period 01.10.2012 to 31.03.2013) for calculation of Energy Charge.
- 5.32 Change in Law (CIL) events in respect of IPPs are related to imposition of GST compensation cess, change in royalty, custom duty, change in NCDP, shortfall in domestic coal etc. These Change in Law events have been approved by the respective Commission's Order, as the case may be, under the provisions of respective PPAs. MSEDCL has submitted the CIL invoices for the concerned period. Further, while scrutinizing the CIL bills it was observed that the amount shown in CIL bills/invoices were not matching against the respective amount considered in FAC computation. In fact, the amounts considered in FAC calculations were observed to be lesser than that of CIL bills/invoices. In response to query sought, MSEDCL clarified the Change in Law claims raised by the generators are according to their technical parameters, whereas MSEDCL works out the CIL claim amount based on normative / bid parameters. These parameters include SHR of power plant, GCV of coal, etc. which have impact of coal consumption. Therefore, there is difference in CIL amount claimed by generator and that worked out

by MSEDCL. MSEDCL has submitted the detailed reconciliation of CIL, as summarised in Table below:

IPP	As per IPP - Rs Cr	As per MSEDCL -Rs Cr
JSW	4.97	4.48
CGPL	7.84	7.73
APML 125 MW	0.63	0.65
APML 1320 MW	27.63	26.45
APML 1200 MW	6.06	6.21
APML 440 MW	-	-
EMCO Power	5.31	5.32
RIPL 450 MW	-	-
RIPL 750 MW	-	-
<b>Total</b>	<b>52.45</b>	<b>50.84</b>

5.33 The Commission also notes that MSEDCL has considered adjustment of Rs (15.91) Crore towards excess amount considered in May 2020 in respect of Change in Law.

5.34 Thus, on an overall basis considering the above impact the average power purchase cost from IPPs stands at Rs. 4.06/kWh as compared to monthly approved rate of Rs. 3.88/kWh for the month of June 2020. The variation is mainly due to fixed cost paid to Rattan India and APML without any considerable generation. The Table below shows the variation in power purchase in terms of per unit variable charge, per unit fixed charge and average power purchase cost for IPPs for June 2020.

Particulars	Approved for June 2020						Actual for June 2020						Variations			
	Quantum	VC	VC	FC	FC	APPC	Quantum	VC	VC	FC	FC	APPC	Quantum	VC	FC	APPC
	MU	Rs./kWh	Rs. Crore	Rs. Crore	Rs./kWh	Rs./kWh	MU	Rs./kWh	Rs. Crore	Rs. Crore	Rs./kWh	Rs./kWh	MU	Rs./kWh	Rs./kWh	Rs./kWh
1.JSW	158.98	2.79	44.43	13.17	0.83	3.62	191.61	2.38	45.63	12.97	0.68	3.06	32.63	(0.41)	(0.15)	(0.56)
2.Mundra UMPP	423.94	2.01	85.09	40.03	0.94	2.95	444.28	1.95	86.62	43.05	0.97	2.92	20.34	(0.06)	0.02	(0.03)
3.Adani Power	1,724.91	2.41	415.46	231.23	1.34	3.75	1,014.85	1.90	192.65	226.77	2.23	4.13	(710.05)	(0.51)	0.89	0.38
4.Emco	112.61	3.25	36.60	14.41	1.28	4.53	108.35	3.09	33.45	13.65	1.26	4.35	(4.26)	(0.16)	(0.02)	(0.18)
5.Rattan India	-	-	-	57.71	-	-	-	-	3.24	56.92	-	-	-	-	-	-
<b>Total IPPs (1 to 5)</b>	<b>2,420.43</b>	<b>2.40</b>	<b>581.58</b>	<b>356.55</b>	<b>1.47</b>	<b>3.88</b>	<b>1,759.09</b>	<b>2.06</b>	<b>361.59</b>	<b>353.36</b>	<b>2.01</b>	<b>4.06</b>	<b>(661.34)</b>	<b>(0.35)</b>	<b>0.54</b>	<b>0.19</b>

*Variable charge inclusive of other charges, CIL etc.*

5.35 Variation in power purchase expenses from IPPs can be divided into increased on account of change in quantum and per unit rate as follows:



Month	Increase in Expenses for power purchase from IPP (Rs. Crore)		
	On Account of change Quantum of Power Purchase	On Account of increased Per Unit rate of Power Purchase	Total
June 2020	(256.33)	33.14	(223.18)

Out of above, variation on account of increased per unit rate is only considered for FAC computation.

### Short Term Power Purchase

5.36 MSEDCL has purchased 510.92 MUs at average rate of Rs. 2.72/kWh from Power Exchange. The Commission notes that it has not approved any short-term purchase in the Tariff Order. However, MSEDCL has purchased short term power as the said rate is lower than the generating units which were under Zero Schedule thereby benefitting the consumers. The Commission has verified the details of power purchase and cost of power from the Daily Obligation Summary Report issued by Power Exchange and accordingly considered the said purchase in FAC computation.

### Must-Run Sources

5.37 The sources of Must Run Stations include KAPP, TAPP 1&2, TAPP 3&4, SSP, Pench, Dodson I and Dodson II, Renewable Energy and MSPGCL Hydro (including Ghatghar) etc.

5.38 A detailed comparison of approved against actual purchase from Must Run Stations is shown in Table below:

Particulars	Approved for June 2020						Actual for June 2020						Variations			
	Quantum	VC	VC	FC	FC	APPC	Quantum	VC	VC	FC	FC	APPC	Quantum	VC	FC	APPC
	MU	Rs./kWh	Rs. Crore	Rs. Crore	Rs./kWh	Rs./kWh	MU	Rs./kWh	Rs. Crore	Rs. Crore	Rs./kWh	Rs./kWh	MU	Rs./kWh	Rs./kWh	Rs./kWh
MSPGCL-Hydro*	270.95	-	-	23.05	0.85	0.85	289.62	0.25	7.24	16.47	0.57	0.82	18.67	0.25	(0.28)	(0.03)
MSPGCL-Hydro Lease rent	-	-	-	47.28	-	-	-	-	-	47.09	-	-	-	-	-	-
1.Non-Solar	1,245.00	4.93	614.23	-	-	4.93	912.96	4.68	427.52	-	-	4.68	(332.04)	(0.25)	-	(0.25)
2.Solar	542.00	3.62	196.09	-	-	3.62	417.90	4.13	172.41	-	-	4.13	(124.10)	0.51	-	0.51
<b>Renewable Energy including REC (1 to 2)</b>	<b>1,787.00</b>	<b>4.60</b>	<b>821.15</b>	-	-	<b>4.60</b>	<b>1,330.87</b>	<b>4.51</b>	<b>599.92</b>	-	-	<b>4.51</b>	<b>(456.13)</b>	<b>(0.09)</b>	-	<b>(0.09)</b>
Others-KAPP, TAPP, Dodson etc	525.57	2.65	139.05	0.76	0.01	2.66	582.37	1.57	91.21	0.76	0.01	1.58	56.80	(1.08)	(0.00)	(1.08)

*\*Variable Cost for Hydro Power is approved in MSPGCL Order whereas total cost is considered under Fixed Cost in the Tariff Order of MSEDCL.*

- 5.39 As seen from the aforesaid table, MSEDCL has purchased 289.62 MUs of Hydro Power as per variable cost approved by the Commission as against 270.95 MUs approved in the Tariff Order. This being the cheapest source of power has helped in reduction of overall average cost of power purchase. The Koyna generation works on the principle of water year (1st June to 30 May) and hence the available water is used for the peak requirement in summer which has happened in this month also.
- 5.40 MSEDCL had considered other charges of Rs (69.81) Cr as other charges for KAPP. In response to query raised by the Commission, MSEDCL submitted that Kakrapar 1 & 2, NPCIL vide Credit Note dated 23.05.2020 has informed that as per revised fuel rate notified by DAE w.e.f. 2009-10 onwards, Tariff component-Fuel Adjustment Charge is reduced and credit for the same is Rs. 106.39 Cr. Out of Rs. 106.39 Cr, KAPS 1 & 2 has adjusted Rs. 70.26 Cr against outstanding amount of MSEDCL and balance amount of Rs. 36.14 Cr. will be adjusted in next bills. However, while passing the credit, NPCIL has one sided adjusted disputed amount of Rs. 44.04 lakhs against outstanding bill without resolving the dispute. Thus, MSEDCL has informed NPCIL that the adjustment of dispute amount of Rs. 44.04 lakhs are not to be considered. Accordingly, MSEDCL has considered the credit of Rs (69.81) Cr in the month of June 2020.
- 5.41 It is observed that Solar and Non-Solar energy purchased in June 2020 i.e. 1330.87 MUs was lower than approved i.e. 1787 MUs by the Commission in the Tariff order. The Commission in its data gaps has sought clarification in respect of higher average power purchase rate for solar purchase by MSEDCL than approved by the Commission. MSEDCL submitted that rates are higher due to the higher share of solar generation having higher tariff i.e. 43.17% purchase is from SECI having average power purchase cost of Rs. 4.56/kWh. and 10.86% purchase is as per old EPA having average power purchase cost of Rs. 7.88/kWh. MSEDCL has not purchased any REC's in the month of June 2020.

#### **ISTS Charges - PGCIL**

- 5.42 As per Regulation 10 of MYT Regulations, 2019, any variation in Inter-State Transmission Charges shall be pass through under FAC component of Z-factor charge as an adjustment in Tariff on monthly basis. Accordingly, the ISTS charges paid by MSEDCL to PGCIL are considered under FAC computation. The Commission has considered the amount of Rs. 255.77 Crore towards ISTS charges payable to payable to PGCIL as against Rs. 276.79 Crore approved in the Tariff Order towards FAC computation.

#### **Sale of Power**

5.43 MSEDCL has done sale of surplus power to the extent of 7.32 MUs during the month at Rs. 4.34/kWh. With such a sale of power MSEDCL has earned revenue of Rs. 3.18 Crore.

5.44 It is observed that the out of total sale of 7.32 MUs, 5.92 MUs were sold at Rs 4.89/kWh whereas 1.40 MUs were sold on IEX at Rs 2.02/kWh. The Commission asked justification from MSEDCL for selling at such a low rate instead of backing down the generating unit having higher variable cost. MSEDCL in its reply has submitted that power was sold in Real Time Market, wherein power can be sold purchased one hour prior to delivery to manage deviations of UI and avoid any DSM charges. It further submitted that on 3 June, 2020 & 4 June, 2020 due to cyclone effect the demand dropped drastically and was in the range of 8000 MW to 12000 MW. To maintain the load generation balance, MSEDCL withdraw some generating units in zero schedules & back down all on bar thermal generations to its technical minimum. Even after this, the continuous drop in demand lead to heavy under drawl in the tune of 700 to 800 MW during some of the time slots of 3 June, 2020 & 4 June, 2020 threatening the grid security & stability due to high frequency. Thus, to manage the under-drawl and mainly to maintain the grid security MSEDCL sold power in RTM at available rates in some time blocks on 3 June, 2020 & 4 June, 2020. The overall realisation in respect of sale of power is Rs. 4.34/kWh has aided in lowering the APPC and benefitting the consumers. Hence, based on this the Commission has considered the actual quantum and revenue against surplus sale.

### Approved Cost of Power Purchase

5.45 In view of the above, the overall cost approved in the Tariff Order and actual for the month of June, 2020 considered by the Commission is as shown below:

Particulars	Approved for June 2020						Actual for June 2020						Variations			
	Quantum	VC	VC	FC	FC	APPC	Quantum	VC	VC	FC	FC	APPC	Quantum	VC	FC	APPC
	MU	Rs./kWh	Rs. Crore	Rs. Crore	Rs./kWh	Rs./kWh	MU	Rs./kWh	Rs. Crore	Rs. Crore	Rs./kWh	Rs./kWh	MU	Rs./kWh	Rs./kWh	Rs./kWh
MSPGCL - Thermal	4,364.76	2.71	1,180.99	671.33	1.54	4.24	2,709.59	2.32	628.24	685.50	2.53	4.85	(1,655.17)	(0.39)	0.99	0.60
MSPGCL-Hydro	270.95	-	-	23.05	0.85	0.85	289.62	0.25	7.24	16.47	0.57	0.82	18.67	0.25	(0.28)	(0.03)
MSPGCL-Hydro Lease Rent			47.28							47.09						
NTPC	2,290.83	1.93	443.19	431.82	1.88	3.82	2,163.89	1.74	375.66	410.22	1.90	3.63	(126.94)	(0.20)	0.01	(0.19)
IPPs	2,420.43	2.40	581.58	356.55	1.47	3.88	1,759.09	2.06	361.59	353.36	2.01	4.06	(661.34)	(0.35)	0.54	0.19
RE including REC	1,787.00	4.60	821.15	-	-	4.60	1,330.87	4.51	599.92	-	-	4.51	(456.13)	(0.09)	-	(0.09)
Must Run - KAPP, TAPP, Dodson etc	525.57	2.65	139.05	0.76	0.01	2.66	582.37	1.57	91.21	0.76	0.01	1.58	56.80	(1.08)	(0.00)	(1.08)
Short Term	-	-	-	-	-	-	510.92	2.72	138.81	-	-	2.72	510.92	-	-	-

Particulars	Approved for June 2020						Actual for June 2020						Variations			
	Quantum	VC	VC	FC	FC	APP C	Quantum	VC	VC	FC	FC	AP PC	Quantum	VC	FC	APPC
	MU	Rs./k Wh	Rs. Crore	Rs. Crore	Rs./k Wh	Rs./k Wh	MU	Rs./kWh	Rs. Crore	Rs. Crore	Rs./k Wh	Rs./kWh	MU	Rs./k Wh	Rs./k Wh	Rs./kWh
Sale of Power	-	-	-	-	-	-	7.32	4.34	3.18	-	-	4.34	7.32	-	-	-
PGCIL	-	-	-	276.79	-	-	-	-	-	255.77	-	-	-	-	-	-
<b>Total</b>	<b>11,659.53</b>	<b>2.76</b>	<b>3,213.24</b>	<b>1,760.30</b>	<b>1.51</b>	<b>4.27</b>	<b>9,339.03</b>	<b>2.36</b>	<b>2,199.49</b>	<b>1,769.17</b>	<b>1.89</b>	<b>4.25</b>	<b>(2,320.51)</b>	<b>(0.40)</b>	<b>0.38</b>	<b>(0.02)</b>

Variable charge inclusive of other charges (Fuel adjustment charges, CIL etc.)

5.46 To summarise, MSEDCL has optimised its overall power purchase cost by taking following actions:

- Zero Schedule to MSPGCL stations having high variable cost from 01 June, 2020 to 30 June, 2020
- Lowest Cost Generators in MoD being run at higher PLF.
- Purchasing cheaper power from Power Exchange at Rs 2.72/kWh which is lower than Variable Cost of Units under shutdown.

5.47 The credit note of Rs 69 Cr received from KAPP, NPCIL has also aided in lowering the average power purchase cost for the month of June 2020. However, in view of Zero Schedule given to multiple units of contracted generation, fixed cost payable to such generators being spread over lesser units being purchased has impacted the overall average power purchase cost.

5.48 Considering the above, the Commission allows the average power purchase cost of Rs.4.25/kWh for the month of June, 2020 as against Rs. 4.27/kWh approved in the Tariff Order.

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

6.1 The Commission has worked out the average power purchase cost for the month of June, 2020 as shown in above table. The same has been compared with the average power purchase cost approved by the Commission in Tariff Order dated 30 March, 2020 and accordingly arrived at differential per unit rate at which  $Z_{FAC}$  is to be passed on to the consumers.

6.2 The following table shows the  $Z_{FAC}$  worked out by the Commission on account of difference in fuel and power purchase cost for the month of June, 2020.

S. No.	Particulars	Units	June 2020
1	Average power purchase cost approved by the Commission	Rs./kWh	4.27

S. No.	Particulars	Units	June 2020
2	Actual average power purchase cost	Rs./kWh	4.25
3	Change in average power purchase cost (=2 -1)	Rs./kWh	(0.02)
4	Net Power Purchase	MU	9,339.03
<b>5</b>	<b>Change in fuel and power purchase cost (=3 x 4/10)</b>	<b>Rs. Crore</b>	<b>(15.03)</b>

**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, there would not be any adjustment factor for months prior to April 2020 while computing the allowable FAC.

**8. Carrying Cost for over recovery/under recovery (B)**

8.1 As explained in the above paragraph in absence of any adjustment factor for previous month, there is no carrying cost which is to be allowed in FAC for the month of June, 2020.

**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 provides the comparison of approved and actual distribution loss and disallowance due to excess distribution loss if any.

S. N	Particulars	Units	Approved in Tariff Order	Standalone for June 2020	Actual upto June 2020
1	Net Energy Input at Distribution Voltage	MU	123451.49	8,424.45	28,349.44
2	MSEDCL Metered Sales (excluding sales at EHV level)	MU	92427.90	7,413.68	19,674.76
3	Estimated Consumption of unmetered Sales	MU	8783.32	773.15	2,623.03
4	Distribution Loss (1-2-3)	MU	22240.27	237.62	6,051.65
5	Distribution Loss as % of net energy input (4/1)	%	18%	2.82%	21.35%
6	Excess Distribution Loss = [Actual Distribution Loss (5) - Distribution loss approved] x Net Energy Input (1)	MU	-	-	944.39
7	<b>Disallowance of FAC due to excess Distribution Loss</b>	<b>Rs. Crore</b>	-	-	-

9.3 As seen from the above table, Distribution Loss upto June, 2020 is 21.35% which is higher than the approved Distribution Loss of 18% due to lower estimated sales considered since the meter reading has not been done due to Covid-19 pandemic. However, in the month of June 2020, MSEDCL has started actual meter reading and consumers are billed as per meter reading and the said consumers are billed for 3 months by adjusting average units billed in April / May 20. This is reflected in higher sales without any corresponding input energy leading to lower standalone for the month of June 2020. As mentioned above, the cumulative losses upto the month of June, 2020 are 21.35%. The Commission has not worked out any disallowance on account of excess Distribution Loss since the standalone FAC for the month of June, 2020 is negative.

## 10. Summary of Allowable Z<sub>FAC</sub>

10.1 The summary of the FAC amount as approved by the Commission for the month of June, 2020 is as shown in the Table below.

S. No.	Particulars	Units	June-2020 As submitted	June 2020- As Approved
<b>1.0</b>	<b>Calculation of Z<sub>FAC</sub></b>			
1.1	Change in cost of generation and power purchase attributable to Sales within the License Area (F)	Rs. Crore	(15.03)	(15.03)
1.2	Carrying cost for over-recovery/under-recovery (C)	Rs. Crore	0.00	0.00
1.3	Adjustment factor for over-recovery/under-recovery (B)	Rs. Crore	0.00	0.00
<b>1.4</b>	<b>Z<sub>FAC</sub> = F+C+B</b>	Rs. Crore	(15.03)	(15.03)
<b>2.0</b>	<b>Calculation of Per Unit FAC</b>			
2.1	Energy Sales within the License Area	MU	9104.98	9104.98
2.2	Excess Distribution Loss	MU	0.00	0.00
2.3	Z <sub>FAC</sub> per kWh	Rs./kWh	(0.01)	(0.04)
<b>3.0</b>	<b>Allowable FAC</b>			
3.1	FAC disallowed corresponding to excess Distribution Loss [(2.2 x 2.3)/10]	Rs. Crore	0.00	0.00
3.2	FAC allowable [1.4-3.1]	Rs. Crore	(15.03)	(15.03)
<b>4.0</b>	<b>Utilization of FAC Fund</b>			
4.1	Opening Balance of FAC Fund	Rs. Crore	(359.82)	(359.82)
4.2	Holding Cost on FAC Fund	Rs. Crore	3.05	3.00*
4.3	Z <sub>FAC</sub> for the month (Sr. N. 3.2)	Rs. Crore	(15.03)	(15.03)
4.4	Closing Balance of FAC Fund	Rs. Crore	(377.90)	(377.85)
4.5	Z <sub>FAC</sub> leviable/refundable to consumer	Rs. Crore	0.00	0.00
<b>5.0</b>	<b>Total FAC based on category wise and slab wise allowed to be recovered in the billing month of Jun-20</b>	<b>Rs. Crore</b>	0.00	0.00
<b>6.0</b>	<b>Carried forward FAC for recovery during future period (4.5-5.0)</b>	<b>Rs. Crore</b>	0.00	0.00

\*Holding Cost considered at 8.58% as against 8.75% considered by MSEDCL

10.2 It can be seen from the above table that standalone FAC for the month of June, 2020 is Rs. (15.03) Crore. As the FAC is negative, the said amount will be accumulated in FAC Fund for stabilisation of FAC rate over the period.

## 11. Recovery from Consumers:

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

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

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

*Where:*

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

$k = Average\ Billing\ Rate / ACOS;$

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

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

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

*Provided that the monthly Z<sub>FAC</sub> 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<sub>FAC</sub> 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. (15.03) Crore for the month of June, 2020 to be accumulated as FAC Fund and shall be carried forward to the next billing cycle with holding cost.
- 11.3 The Commission in its approval for the month of May, 2020 has directed MSEDCL to carry forward the approved FAC amount of Rs. (359.82) Crore to be accumulated as FAC Fund to be carried forward to the next billing cycle with holding cost. The opening balance of FAC fund along with holding cost is Rs. (362.82) Crore.
- 11.4 Accordingly, considering the approved standalone FAC amount of Rs. (15.03) Crore for the month of June, 2020 and opening balance FAC Fund of Rs. (362.82) Crore, the total amount of Rs. (377.85) Crore is being allowed to be accumulated in the FAC Fund and shall be carried forward to the next billing cycle with holding cost.



- 11.5 The Commission in the Tariff Order had held that negative FAC amount shall be carried forward to the next FAC billing cycle with holding cost till the accumulated negative FAC reaches the limit of Rs. 1500 Crore.
- 11.6 In view of the above, the per unit  $Z_{FAC}$  for the month of June, 2020 to be levied on consumers of MSEDCL in the billing month of August 2020 is **Nil**.