सत्यमेव जयते

महाराष्ट्र विद्युत नियामक आयोग
Maharashtra Electricity Regulatory Commission

Ref. No. MERC/FAC/2021-22/SBR/19 **Date: 09 November, 2021**

To,
The Managing Director
Maharashtra State Electricity Distribution Company Ltd.,
5th 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, 2021.

Reference: 1. MSEDCL's FAC submission dated 4 August, 2021 for prior approval of FAC for the month of June, 2021.

2. Data gaps communicated to MSEDCL vide email dated 11 August, 2021.

3. MSEDCL's response to data gaps by email dated 6 October, 2021.

Sir,

Upon vetting the FAC calculations for the month of June, 2021 as mentioned in the above reference, the Commission has accorded approval for FAC amount of Rs. 137.87 Crore which also includes FBSM amount of (Rs 64.47 Crore). However, the said amount is adjusted from the FAC Fund and accordingly the FAC chargeable to consumers is as shown in the table below:

Month	FAC Amount (Rs. Crore)
June, 2021	**0 (Zero)**

The Commission allows the accumulation of FAC amount of Rs. (1143.04) 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. As per MYT Order, the Commission has directed Discoms to seek prior approval of monthly FAC computations. Accordingly, guidelines were issued by the Commission by its letter dated 20 April, 2021 wherein FAC proposal was to be filed by 15th of the every month prior to the month on which the FAC is proposed to be levied. There is delay in submission by MSEDCL in filing FAC proposal and subsequently reply to data-gaps. To ensure timely submission, MSEDCL is directed to make timely FAC submissions as per guidelines issued by the Commission.

Yours faithfully,

(Dr. Rajendra G. Ambekar)
Executive Director, MERC

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Encl: Annexure A: Detailed Vetting Report for the month of June, 2021.

ANNEXURE A

Detailed Vetting Report
Date: __October, 2021

PRIOR APPROVAL FOR FAC CHARGES FOR THE MONTH OF JUNE, 2021

Subject: Prior Approval of Fuel Adjustment Charges (FAC) submission of MSEDCL for the month of June, 2021.

Reference: MSEDCL's FAC submission dated 4 August, 2021 and 6 October, 2021 for prior approval of FAC for the month of June, 2021.

1. FAC submission by MSEDCL:

1.1 MSEDCL has submitted FAC submissions for the month of June, 2021 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 FAC amount of Rs. 137.87 Crore. The approved FAC amount shall be adjusted from the FAC Fund and balance amount 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 Truing-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 15th 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, 2021 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 2021 (MU)
HT Category			
Industry (General)	35,183.18	2,868.74	2,619.70
Industry (Seasonal)	102.93	4.37	2.13
Commercial	1,927.21	170.33	102.56
Railways/Metro/Monorail	82.07	9.07	7.09
Public Water Works (PWW)	2,047.87	170.25	171.14
Agricultural - Pumpsets	1,282.89	105.38	40.74
Agricultural - Others	267.54	21.87	22.73
Group Housing Society (Residential)	241.73	21.21	18.74
Public Services - Government	285.74	25.02	25.51
Public Services - Others	863.17	74.22	55.34
Electric Vehicle Charging Stations	0.31	0.03	0.47
MSPGCL Auxiliary	183.74	19.73	9.02
Other Adjustment	4,842.00	403.50	477.79
Sub-total (A)	**47,310.39**	**3,893.73**	**3,552.96**
LT Category			
BPL	47.34	2.50	4.13
Residential	23,983.09	2,283.61	2,025.94
Non-Residential	7,503.43	666.76	387.69
Public Water Works	941.77	78.64	74.99
AG Metered (Pump-sets)	18,084.07	1,364.71	1,658.09
AG Metered (Others)	140.00	10.33	15.68
Industrial	10,084.02	791.25	792.41
Street Lights	2,417.55	199.32	145.44
Public Services	610.03	52.68	47.31
Electric Vehicle Charging Stations	0.23	0.02	0.06
Sub-total (B)	**63,811.51**	**5,449.84**	**5,151.74**
Total – Metered (C = A+B)	**1,11,121.91**	**9,343.57**	**8,704.70**
Unmetered Sale (D)	8,783.32	677.22	677.22
Grand Total(C+D)	**1,19,905.23**	**10,020.79**	**9,381.92**

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

3.2 **For the month of June, 2021, it is observed that actual sales of 9381.92 MU is lower by 6% as compared to the approved energy sales of 10020.79 MU.** The lower sales is mainly due to restrictions imposed due to Covid-19 pandemic.

3.3 MSEDCL has submitted the data providing actual billing and estimated billing undertaken for the calculation of total energy consumption for the month of June, 2021.

As per the data, the billing of about 96% of sales is undertaken as per actual meter readings and balance 4% is assessed on an estimated basis. 100% of HT billing is undertaken on actual basis and estimation is only for LT category. The figures do not include the agriculture sales which is on estimated basis for the month of June, 2021.

3.4 The number of actual and estimated meter readings undertaken by MSEDCL for the month of June, 2021 except for agriculture consumers are as given below:

Sr. No.	Particulars	No. of Meters for which actual meter reading is done either manually or through AMR	No. of Meters for which meter reading are estimated.	Total Meters
1	HT	22594	0	22594
2	LT	21060541	3353494	24414035
	Total	**21082720**	**3353494**	**24436629**

3.5 Further, comparison of sales for April 2021 to June 2021 as compared to last year is as shown below:

Particulars	LT - Residential (MU)	LT Others (MU)	HT (MU)	Ag-Unmetered	Total (MU)
Apr-21	2010	3231	3734	677	9652
Apr-20	1525	2687	2120	921	7254
May-21	2024	3091	3508	677	9300
May-20	2075	2559	2802	925	8361
June-21	2026	3126	3553	677	9382
June-20	2936	2449	3009	773	9167
April 21 to June 21	**6060**	**9447**	**10795**	**2032**	**28334**
April 20 to June 20	**6537**	**7695**	**7931**	**2619**	**24782**

3.6 The Commission observes that overall sales in June, 2021 have increased as compared to June, 2020 due to increase in sales of LT Others and HT Category. It is observed that residential sales in June 20 were higher mainly due to the fact that actual meter readings for residential consumers started in June 2020 and therefore it also included the actual sales for the past period from April 20 and May 20, whereas for June 21, the residential sales are for the said month only.

3.7 MSEDCL has considered agriculture sales are estimated based on consumption norms as per Tariff Order and previous three-year trend is used for estimation of monthly sale.

The Commission while approving the FAC for the month of May, 2021 has restricted the agriculture sales to approved sales (based on the approved norm of Consumption/HP) as specified in MYT Tariff Order. MSEDCL in response to data gaps raised by the Commission has submitted the load (HP) details of agriculture connection based on the reading done in April 21 and May 21. Further, the Commission has approved monthly sales for the agriculture connections. Accordingly, the Commission has computed the norm of consumption/HP based on the monthly approved agriculture sales and considered the norms based on monthly approved sales for allowing the cumulative sales for the month of April, 2021 to June, 2021. Any adjustment in sales due to HP variation will be reconciled while actual data is submitted as per actual billing undertaken by MSEDCL. Based on the norms approved by the Commission in the Tariff Order, the agriculture sales - metered and unmetered approved by the Commission are as given below:

Particulars	Metered			Unmetered			Total		
	Sale in MU's	Cumulative Load (HP)	Consumption / HP – Units	Sale in MU's	Cumulative Load (HP)	Consumption / HP - Units	Sale in MU's	Cumulative Load (HP)	Consumption / HP - Units
MSEDCL - April 21 – June 21	4974	44386263	112	2032	22547418	90	7006	66933681	105
As Approved – April 21 – June 21	4560	44386263	103	2032	22547418	90	6592	66933681	98.5

3.8 The Commission has already restricted the agriculture metered sales in the month of April, 2021 and May, 2021. Accordingly, based on the cumulative agriculture sales approved in the above table, the incremental adjustment of 3.82 MUs for metered connections in agriculture sales is being done in the month of June, 2021 and considered in computation of Distribution Loss so as to restrict the consumption based on actual sales per HP or approved Sales per HP, whichever is lower.

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 and Sai Wardha
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:

<table>
<tr><th>Sr. No.</th><th>Particular</th><th>Compliance</th></tr>
<tr><td>1</td><td>Sources of approved Power Purchase</td><td>MSEDCL has purchased power from approved sources. In addition, power is procured on power exchange to optimise the power purchase cost</td></tr>
<tr><td>2</td><td>Merit Order Dispatch</td><td>MSEDCL has followed merit order for scheduling of power and preference was given to cheapest power.</td></tr>
<tr><td>3</td><td>Fuel Utilization Plan</td><td>Usage of coal is not as per approved Fuel Utilisation Plan (Detailed Explanation given below – Para 5.8 and Para 5.9)</td></tr>
<tr><td>4</td><td>Pool Imbalance</td><td>No Imbalance pool quantum is computed by MSEDCL for June, 2021.</td></tr>
<tr><td>5</td><td>Sale of Surplus Power</td><td>MSEDCL has sold 61.52 MUs at Rs. 5.77/kWh thereby benefitting its consumers.</td></tr>
<tr><td>6</td><td>Power Purchase</td><td>Actual Net Power Purchase is 10608.51 MUs as against approved 11864.41 MUs.</td></tr>
<tr><td>7</td><td>Source wise Power Purchase</td><td>
<table>
<tr><th>Source Name</th><th>Approved (MU)</th><th>Actual (MU)</th><th>Proportion of each Source in Actual Purchase</th></tr>
<tr><td>MSPGCL</td><td>4,571.93</td><td>3,305.52</td><td>31%</td></tr>
<tr><td>NTPC</td><td>2,228.48</td><td>2,549.89</td><td>24%</td></tr>
<tr><td>IPP</td><td>2,420.43</td><td>2,590.35</td><td>24%</td></tr>
<tr><td>Renewable</td><td>2,118.00</td><td>1,374.69</td><td>13%</td></tr>
<tr><td>Must Run</td><td>525.57</td><td>554.09</td><td>5%</td></tr>
<tr><td>Short Term</td><td>0.00</td><td>295.50</td><td>3%</td></tr>
<tr><td>Sale of Power</td><td>0.00</td><td>61.52</td><td>1%</td></tr>
<tr><td>Total</td><td>11,864.41</td><td>10,608.51</td><td>100%</td></tr>
</table>
</td></tr>
<tr><td>8</td><td>Power Purchase:
a. Section 62 of Electricity Act, 2003

b. Section 63 of Electricity Act,</td><td>A. MSPGCL

As part of verification of fixed cost claimed by MSEDCL, the same has been verified from the MYT Order in Case No. 322 of 2019 and invoice submitted by MSEDCL

As part of verification of energy charges claimed by MSEDCL, verification of operational parameters, fuel cost, GCV etc. vis-à-vis the MYT Order/Tariff Regulations is carried out and invoice submitted by MSEDCL

B. CGS- NTPC etc

Cost and MUs are verified as per invoice</td></tr>
</table>

Sr. No.	Particular	Compliance
	2003 – IPPs	Cost and MUs verified as per Invoice
9	RE Purchase	Cost and MUs verified as per summary of renewable purchase details submitted by MSEDCL and invoices of power purchased from SECI, NVVN and other IPPs.
10	Short Term Power Purchase	Short-term power purchase invoices of June, 2021 are submitted by MSEDCL. All the power purchase quantum and rate are verified from the invoices and has been considered for FAC calculation.

4.2 The following table show the variation in average power purchase cost (Rs/kWh) for the month of June, 2021 submitted by MSEDCL as compared to average power purchase cost approved in Tariff Order:

Particulars	Tariff Order Dated 30.03.2020 Approved for June 2021			Actual for June, 2021 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	4,300.98	1,842.68	4.28	3,025.69	1,455.13	4.81	(1,275.29)	(387.55)	0.52
MSPGCL-Hydro (including Lease Rent)	270.95	68.73	2.54	279.82	68.96	2.46	8.87	0.23	(0.07)
NTPC	2,228.48	870.52	3.91	2,549.89	945.59	3.71	321.40	75.07	(0.20)
1.JSW	158.98	60.84	3.83	206.53	58.69	2.84	47.55	(2.15)	(0.99)
2.Mundra UMPP	423.94	129.45	3.05	125.52	33.85	2.70	(298.42)	(95.60)	(0.36)
3.Adani Power	1,724.91	657.86	3.81	1,395.35	592.18	4.24	(329.56)	(65.68)	0.43
4.Emco	112.61	54.10	4.80	129.54	54.08	4.18	16.93	(0.02)	(0.63)
5.Rattan India	0.00	57.71	-	700.82	255.14	3.64	700.82	197.44	3.64
6. Sai Wardha	0.00	0.00	-	32.60	30.91	9.48	32.60	30.91	9.48
Total IPPs (1 to 6)	**2,420.43**	**959.96**	**3.97**	**2,590.35**	**1,024.86**	**3.96**	**169.92**	**64.91**	**(0.01)**
7.Non-Solar	1,397.00	665.06	4.76	952.33	447.81	4.70	(444.67)	(217.25)	(0.06)
8.Solar	721.00	253.97	3.52	422.36	173.66	4.11	(298.64)	(80.32)	0.59
Renewable Energy including REC (7 to 8)	**2,118.00**	**919.03**	**4.34**	**1,374.69**	**621.47**	**4.52**	**(743.31)**	**(297.57)**	**0.18**

Particulars	Tariff Order Dated 30.03.2020 Approved for June 2021			Actual for June, 2021 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
Must Run - KAPP, TAPP, Dodson etc	525.57	142.59	2.71	554.09	154.35	2.79	28.52	11.76	0.07
Short Term	0.00	0.00		295.50	71.24	2.41	295.50	71.24	2.41
Sale of Power	0.00	0.00		61.52	35.47	5.77	61.52	35.47	5.77
PGCIL	0.00	290.63		-	466.07	-	-	175.44	-
Total	**11,864.41**	**5,094.15**	**4.29**	**10,608.51**	**4,772.20**	**4.50**	**(1,255.90)**	**(321.95)**	**0.20**

4.3 Thus, for the month of June, 2021, total variation in power purchase cost is Rs. (321.95) Crore, out of which Rs. (539.24) Crore was on account of lower quantum (1255.90 MU) of power purchase and Rs. 217.29 Crore was on account of higher rate of average power purchase by Rs. 0.20/kWh. FAC mechanism allows only impact of variation in power purchase rate to be passed through as FAC rate over and above approved tariff. The Commission observes that decrease in power purchase quantum being higher than decrease in sales than approved by the Commission has resulted in lower distribution loss of 13.31% than 16% approved by the Commission in the Tariff Order.

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

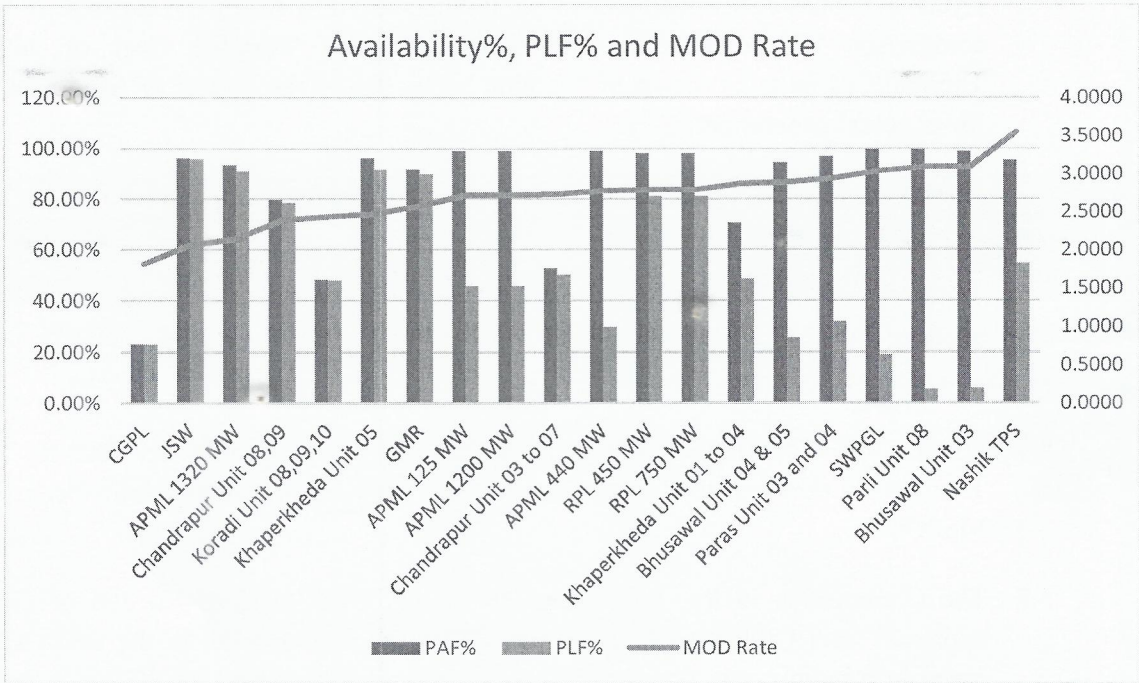
5.1 The Commission has sought detailed bills/invoices for all of the power purchase sources in order to verify the claim of MSEDCL with regards to average power purchase cost for the month of June, 2021. The Commission has verified the Net Purchase, Variable Cost, Fixed Charge and the Power Purchase 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 and lower prices prevailing on Power Exchange, it was observed that Zero Schedule was given to Koradi 6-7, Bhusawal, Nashik, Parli 6-7, Parli 8, Paras, Khaperkheda 1-4, APML 1200MW, 125 MW, 440 MW and Sai Wardha

generating stations during the month due to higher variable cost in MOD to optimise the power purchase cost.

5.3 The Commission notes that CGS stations having lower variable cost were dispatched almost to the extent of availability declared by the generator.

5.4 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:



SGS/IPPs Stations are considered for comparison and MOD Rate considered is as applicable from 16 June, 2021 to 30 June, 2021.

It is observed that Nashik Unit having higher MOD rate is having higher PLF of 54.68% as compared to other stations viz, APML, Parli, Bhusawal -3, Sai Wardha etc. However, MSEDCL submitted that Nashik Unit was kept on bar due to transmission constraints. Also, as seen from the above figure, APML-440 MW, 125 MW and 1200 MW is having lower PLF than units having higher MOD rate, due to APML's MOD Rate being lower for the period 16th June to 30th June, whereas the said units were under Zero Schedule during 1st half of the month.

MSPGCL:

5.5 The Commission has observed that MSEDCL has purchased 3025.69 MUs from MSPGCL Thermal and Gas Stations. It was observed that MSEDCL has purchased energy from Bhusawal-3 and Parli 8 generating station of MSPGCL even though not

included in MoD stack approved by the Commission in the Tariff Order in view of lower variable cost in MOD as compared to approved variable cost.

5.6 The total overall generation was lower than approved during the month due to Zero Schedule given to certain stations as mentioned above. The monthly fixed cost was payable in line with MYT Regulations, 2019 considering the availability of the plant. The Commission has verified that the fixed cost for all the Thermal/Gas Units as well as Hydro Units has been considered as per invoice raised by MSPGCL for June 2021. 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 2021						Actual for June 2021						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	4,300.98	2.75	1,183.21	659.47	1.53	4.28	3,025.69	2.68	810.57	644.56	2.13	4.81	(1,275.29)	(0.07)	0.60	0.52

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

5.7 Further, the Commission has verified that the payment of fixed cost for all the Thermal/Gas Units as well as Hydro Units has been considered as per invoice raised by MSPGCL.

5.8 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.

5.9 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, MSPGCL is yet to tie up for 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. Further, in response to query raised by the Commission in respect of status of Washed coal and imported coal procurement as approved in FUP, MSEDCL submitted that MSPGCL has finalized the washed coal (beneficiated coal) supply contracts with M/s. MSMC for beneficiation of coal and supply of washed coal has started and supplied to Koradi Unit 8,9,10, Chandrapur 8-9 and Khaperkheda-5 in June 2021.

5.10 MSEDCL submitted that as the working of the third party coal analysis agency, M/s. CIMFR is severely hampered during the COVID-19 Second wave (mainly lockdown restrictions and restrictions on Oxygen cylinders for industrial usage), the CIMFR reports for most of the coal samples for coal supplied in June 21 to all the MSPGCL stations are not received. In view of the same, 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.

b. GCV – As Received: GCV is considered based on the results available at each Station from their respective Station Laboratory.

Accordingly, MSPGCL has raised provisional FAC bill dated 30 June, 2021 considering the aforesaid methodology.

5.11 As mentioned above, washed coal was used by MSPGCL at Koradi 8-10, Chandrapur 8-9 and Khaperkheda-5 Unit. During Scrutiny of FAC Model, it was observed that MSPGCL based on the 'As Received' GCV of coal based on the testing done at the plant had computed the "As Billed" GCV of Washed Coal by applying formula for moisture correction. The 300 kcal/kg moisture correction was then applied to such "As Billed" GCV to arrive at "As Received" GCV for computation of normative energy charge computation. The Commission has already given direction in its FAC approval for the month of April, 2021 in respect of GCV consideration for washed coal. Accordingly, the Commission directs MSPGCL to compute the energy charges as per the approved methodology of the Commission for June, 2021 and submit the impact of the same along with next FAC submission or at the time of computation of FAC-Part II bill after receipt of CIMFR reports.

5.12 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	Difference %
Bhusawal Unit 03 *(Only 6.69 MUs generated)*	4.007	4.504	0.497	12.40%
Bhusawal Unit 04 & 05	3.350	2.860	-0.490	-14.63%
Khaperkheda Unit 1 to 4	2.876	2.961	0.085	2.96%
Khaperkheda Unit 05	2.520	2.648	0.128	5.08%
Nashik TPS	3.480	3.663	0.183	5.26%
Chandrapur Unit 03 to 07	2.598	2.926	0.328	12.63%
Chandrapur Unit 08 and 09	2.512	2.648	0.136	5.41%
Paras Unit 03 and 04	3.067	3.178	0.111	3.62%
Parli Unit 06 and 07	4.118	-	-	-
Parli Unit 08	3.943	2.999	-0.944	-23.94%
Koradi Unit 06 and 07	3.225	-	-	-
Koradi Unit 08,09,10	2.340	2.508	0.168	7.18%
GTPS Uran	2.764	1.312	-1.452	-52.53%

5.13 The Commission notes that for the month of June, 2021, energy charge of Chandrapur 3-7 and Koradi 8-10 is beyond 5% of the approved charge. Hence, 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. As mentioned above, MSPGCL has awarded contract for washing of coal from WCL and such washed coal is being used for Koradi 8-10 and Khaperkheda -5. Further, actual Energy Charge is being computed considering GCV loss of 625 kCal/kg applicable from April, 2021 as allowed by the Commission in review order dated 1 March, 2021 of MSPGCL as against 500 kCal/kg considered by the Commission while approving Energy Charge in the Tariff Order. This has also resulted in increase of Energy Charge by 10 Paise/kWh and 5 Paise/KWh for Chandrapur 3-7 and Koradi 8-10 Units respectively.

5.14 MSPGCL has undertaken Case-4 bidding and accordingly entered into contract with Dhariwal Industries Ltd (DIL) at Rs. 2.889/kWh for supply of 185 MW net sent out in lieu of power from one unit of at Nashik (Rs. 3.394/kWh) by transfer of corresponding linkage coal quantity to DIL unit for the period 1 November 2019 to 31 October 2020. The said arrangement was extended for further three months i.e. up to January 2021 on the same terms and conditions. Thereafter, by a tripartite agreement dated 20 January, 2021, the agreement is now extended up to October, 2021. It was observed that DIL has voluntarily lowered its rate upto Rs 2.57/kWh in June 2021. Accordingly, for the month of June, 2021, DIL has supplied 110.04 MUs at Rs 2.70/kWh. The Commission has accordingly considered the said purchase of 110.04 MUs for Rs 29.72 Crore at Rs 2.70/kWh.

5.15 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.

5.16 Considering the overall cost of MSPGCL thermal/gas stations, the average power purchase cost is Rs. 4.81/kWh as against Rs. 4.28/kWh approved in the Tariff Order. The average power purchase cost is higher mainly due to lower generation from MSPGCL resulting in higher Fixed Cost/kWh (Rs 0.60/kWh), whereas there is reduction in Variable Cost/kWh by 7 paise/kWh.

5.17 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 2021	(546.38)	158.83	(387.55)

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

NTPC:

5.18 MSEDCL has purchased total 2549.89 MUs of power from NTPC's stations as compared to approved MoD stack of 2228.48 MUs during the month of June, 2021.

5.19 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, 2021.

Particulars	Approved for June 2021						Actual for June, 2021						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
NTPC	2,228.48	1.95	434.43	436.09	1.96	3.91	2,549.89	2.00	509.25	436.35	1.71	3.71	321.40	0.05	(0.25)	(0.20)

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

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 and accordingly considered the same in FAC computation.

5.21 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)		
	On Account of change Quantum of Power Purchase	On Account of increased Per Unit rate of Power Purchase	Total
June 2021	125.55	(50.48)	75.07

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

IPPs

5.22 MSEDCL has long term PPA's with IPP's viz: JSW, CGPL Mundra, APML, 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. Further, MSEDCL has signed PPA with Sai Wardha Power Generation Ltd (SWPGL) for 240 MW as per the Order dated 15 June 2020 in Case No 91 of 2020. SWPGL started delivering 240 MW power to MSEDCL from 5 July 2020.

5.23 During scrutiny of the invoices submitted by MSEDCL it was observed that there were differences in the 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.

5.24 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 through various 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 except for claim related to SHAKTI. 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 / actual parameters. These parameters include SHR of power plant, Auxiliary consumption, 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 Vendor – Rs Cr			As per MSEDCL – Rs Cr		
	CIL	Shakti	Total	CIL	Shakti	Total
JSW	5.31	-	5.31	4.79	-	4.79
CGPL	2.97	-	2.97	2.97	-	2.97
APML 125 MW	1.56	0.95	2.51	1.36	-	1.36
APML 1320 MW	35.60	85.16	120.76	26.06	51.25	77.31
APML 1200 MW	14.98	9.14	24.12	13.06	-	13.06
APML 440 MW	3.57	1.98	5.54	3.11	-	3.11
EMCO Power	5.63	-	5.63	5.23	-	5.23
RIPL 450 MW	13.12	-	13.12	9.13	-	9.13
RIPL 750 MW	21.87	-	21.87	15.22	-	15.22
Sai Wardha	1.21	-	1.21	1.21	-	1.21
Total	**105.83**	**97.23**	**203.06**	**82.14**	**51.25**	**133.39**

5.25 Thus, on an overall basis considering the above impact, the average power purchase cost from IPPs stands at Rs. 3.96/kWh as compared to monthly approved rate of Rs. 3.96/kWh for the month of June, 2021. The said cost is being considered for the FAC computation based on the scrutiny of invoices submitted by MSEDCL. The actual cost is lower mainly due to fixed cost spread over higher generation from the IPPs i.e Rattan India and Sai Wardha during the month of June 21. 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, 2021.

Particulars	Approved for June 2021						Actual for June 2021						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*	*3.00*	*47.75*	*13.09*	*0.82*	*3.83*	*206.53*	*2.09*	*43.15*	*15.55*	*0.75*	*2.84*	*47.55*	*(0.91)*	*(0.07)*	*(0.99)*
2.Mundra UMPP	*423.94*	*2.11*	*89.45*	*39.99*	*0.94*	*3.05*	*125.52*	*1.79*	*22.50*	*11.35*	*0.90*	*2.70*	*(298.42)*	*(0.32)*	*(0.04)*	*(0.36)*

Particulars	Approved for June 2021						Actual for June 2021						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
3.Adani Power	*1,724.91*	*2.49*	*428.82*	*229.04*	*1.33*	*3.81*	*1,395.35*	*2.57*	*358.34*	*233.84*	*1.68*	*4.24*	*(329.56)*	*0.08*	*0.35*	*0.43*
4.Emco	*112.61*	*3.47*	*39.05*	*15.05*	*1.34*	*4.80*	*129.54*	*2.94*	*38.06*	*16.02*	*1.24*	*4.18*	*16.93*	*(0.53)*	*(0.10)*	*(0.63)*
5.Rattan India	-	-	-	*57.71*	-	-	*700.82*	*2.83*	*198.23*	*56.92*	*0.81*	*3.64*	*700.82*	-	-	-
6. Sai Wardha	-	-	-	-	-	-	*32.60*	*3.15*	*10.26*	*20.65*	*6.34*	*9.48*	*32.60*	-	-	-
Total IPPs (1 to 6)	**2,420.43**	**2.50**	**605.07**	**354.89**	**1.47**	**3.97**	**2,590.35**	**2.59**	**670.54**	**354.33**	**1.37**	**3.96**	**169.92**	**0.089**	**(0.10)**	**(0.01)**

Variable charge inclusive of other charges, CIL etc.

5.26 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 2021	67.39	(2.48)	64.91

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

Short Term Power Purchase

5.27 MSEDCL has purchased 295.50 MUs at average rate of Rs. 2.41/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 from IEX to meet the demand and optimise the power purchase cost by giving zero schedule to generating stations having higher MOD rate. 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

5.28 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.

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

Particulars	Approved for June 2021						Actual for June 2021						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-			-					0.23								

Particulars	Approved for June 2021						Actual for June 2021						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
Hydro*	270.95	-		22.41	0.83	0.83	279.82		6.50	16.32	0.58	0.82	8.87	0.23	(0.24)	(0.01)
MSPGCL-Hydro Lease rent	-	-	-	46.32	-	-	-	-	-	46.14	-	-	-	-	-	-
1.Non-Solar	*1,397.0*	*4.76*	*665.06*	-	-	*4.76*	*952.33*	*4.70*	*447.81*	-	-	*4.70*	*(444.67)*	*(0.06)*	-	*(0.06)*
2.Solar	*721.00*	*3.52*	*253.97*	-	-	*3.52*	*422.36*	*4.11*	*173.66*	-	-	*4.11*	*(298.64)*	*0.59*	-	*0.59*
Renewable Energy including REC (1 to 2)	**2,118**	**4.34**	**919.03**	-	-	**4.34**	**1,374.69**	**4.52**	**621.47**	-	-	**4.52**	**(743.31)**	**0.18**	-	**0.18**
Others-KAPP, TAPP, Dodson etc	525.57	2.70	141.82	0.77	0.01	2.71	554.09	2.77	153.58	0.77	0.01	2.79	28.52	0.07	(0.00)	0.07

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

5.30 As seen from the aforesaid table, MSEDCL has purchased 279.82 MUs of Hydro Power as per variable cost approved by the Commission. This being the cheapest source of power helps 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 based on the requirement of MSEDCL. It is observed that hydro purchase is marginally higher than 270.95 MUs approved by the Commission.

5.31 It is observed that Solar and Non-Solar energy purchased in June, 2021 i.e. 1374.69 MUs was lower than approved i.e. 2118 MUs by the Commission in the Tariff order. MSEDCL submitted that there is lower generation due to low wind and lower solar capacity addition due to pandemic in FY 2020-21 than considered by the Commission in the Tariff Order. MSEDCL has not purchased any REC's in the month of June, 2021. The Commission has considered the renewable purchase as per details submitted by MSEDCL and invoices of power purchased from SECI, NVVN and other IPPs.

ISTS Charges - CTU

5.32 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 Central Transmission Utility of India Ltd (CTU) are considered under FAC computation. The Commission notes that second bill of ISTS Charges for Rs 211.36 Crore for October, 2020 to December, 2020 has been raised by CTU as per CERC Regulations along with the monthly bill for June 2021 of Rs 254.71 Crore. Accordingly, the Commission has considered the amount of Rs. 466.07 Crore towards ISTS charges payable to payable to CTU as against Rs. 290.63 Crore approved in the Tariff Order towards FAC computation as per invoice raised by CTU.

Sale of Power

5.33 MSEDCL has done sale of surplus power to the extent of 61.52 MUs during the month at Rs. 5.77/kWh. With such a sale of power MSEDCL has earned revenue of Rs. 35.47 Crore.

5.34 It is observed that the out of total sale of 61.52 MUs, 6.20 MUs were sold at Rs 5.25/kWh to MADC, whereas 55.32 MUs were sold on IEX at Rs 5.83/kWh. The sale realisation was more than that of variable cost of generator running above technical minimum operating in MOD. Accordingly, the overall realisation in respect of sale of power is Rs.5.77/kWh has benefitted the consumers. Hence, the Commission has considered the actual quantum and revenue against surplus sale.

Approved Cost of Power Purchase

5.35 In view of the above, the overall cost approved in the Tariff Order and actual for the month of June, 2021 considered by the Commission is as shown below:

Particulars	Approved for June 2021						Actual for June 2021*						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	4,300.98	2.75	1,183.21	659.47	1.53	4.28	3,025.69	2.68	810.57	644.56	2.13	4.81	(1,275.29)	(0.07)	0.60	0.52
MSPGCL-Hydro	270.95	-	-	22.41	0.83	0.83	279.82	0.23	6.50	16.32	0.58	0.82	8.87	0.23	(0.24)	(0.01)
MSPGCL-Hydro Lease Rent	-	-	-	46.32	-	-	-	-	-	46.14	-	-	-	-	-	-
NTPC	2,228.48	1.95	434.43	436.09	1.96	3.91	2,549.89	2.00	509.25	436.35	1.71	3.71	321.40	0.05	(0.25)	(0.20)
IPPs	2,420.43	2.50	605.07	354.89	1.47	3.97	2,590.35	2.59	670.54	354.33	1.37	3.96	169.92	0.09	(0.10)	(0.01)
RE including REC	2,118.00	4.34	919.03	-	-	4.34	1,374.69	4.52	621.47	-	-	4.52	(743.31)	0.18	-	0.18
Must Run - KAPP, TAPP, Dodson etc	525.57	2.70	141.82	0.77	0.01	2.71	554.09	2.77	153.58	0.77	0.01	2.79	28.52	0.07	(0.00)	0.07
Short Term	-	-	-	-	-	-	295.50	2.41	71.24	-	-	2.41	295.50	-	-	-
Sale of Power	-	-	-	-	-	-	61.52	5.77	35.47	-	-	5.77	61.52	-	-	-
PGCIL	-	-	-	290.63	-	-	-	-	211.36	254.71	-	-	-	-	-	-
Total	**11,864.41**	**2.77**	**3,283.56**	**1,810.58**	**1.53**	**4.29**	**10,608.51**	**2.85**	**3,019.02**	**1,753.18**	**1.65**	**4.50**	**(1,255.90)**	**0.08**	**0.13**	**0.20**

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

5.36 The overall power purchase cost is higher mainly due to higher MSPGCL cost due to lower generation in view of Zero Schedule given to multiple units due to lower demand and ISTS charges of Rs 211.36 Crore for the past period as per second bill raised by

CTU whereas lower cost of power purchase from NTPC, IPPs and Short Term has resulted in lowering the impact of overall power purchase cost.

5.37 Considering the above, the Commission allows the average power purchase cost of Rs.4.50/kWh for the month of June, 2021 as against Rs. 4.29/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, 2021 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, 2021.

S. No.	Particulars	Units	June 2021
1	Average power purchase cost approved by the Commission	Rs./kWh	4.29
2	Actual average power purchase cost	Rs./kWh	4.50
3	Change in average power purchase cost (=2 -1)	Rs./kWh	(0.20)
4	Net Power Purchase	MU	10608.51
5	**Change in fuel and power purchase cost (=3 x 4/10)**	**Rs. Crore**	217.29

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 'Nil' FAC levied for the month of February, 2021, there would not be any adjustment factor 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, 2021.

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	Actual for June 2021	Actual - April 2021 to June 2021	Annual Sliding Distribution Loss – July 20 to June 21
1	Net Energy Input at Distribution Voltage	MU	1,25,356.68	9,829.95	33,353.86	125083.13
2	MSEDCL Metered Sales (excluding sales at EHV level)	MU	96,520.20	7,844.68	23,223.24	89023.63
3	Estimated Consumption of unmetered Sales	MU	8,783.32	677.22	2,031.66	7840.88
4	Distribution Loss (1-2-3)	MU	20,053.16	1,308.05	8,098.97	28218.62
5	Distribution Loss as % of net energy input (4/1)	%	16.00%	13.31%	24.28%	22.56%
6	Excess Distribution Loss = [Actual Distribution Loss (5) - Distribution loss approved] x Net Energy Input (1)	MU	-	-	-	644.91
7	**Disallowance of FAC due to excess Distribution Loss**	**Rs. Crore**	-	-	-	**14.94**

Estimated Consumption of Agriculture Sales for April 2021 to June 2021 adjusted as per norms approved in Tariff Order and accordingly 3.82 MUs are disallowed for metered Ag connections.

9.3 As seen from the above table, against the standalone distribution loss for the month of June submitted by MSEDCL of 13.27%, the Commission has approved distribution loss of 13.31% due to restriction of agriculture sales up to the approved level as specified in Tariff Order. Also, the Distribution Loss up to June, 2021 is 24.28%, against 24.27% submitted by MSEDCL, which is higher than the approved Distribution Loss of 16%.

The standalone loss for June, 2021 is lower. This is mainly due to estimated Ag sales and sales considered as per billing cycle whereas power purchase is considered for the standalone month.

9.4 The comparison of Distribution Loss for the April, 2021 to June, 2021 as compared to last year is as given below:

Particulars	FY 2021-22	FY 2020-21
Approved Loss	*16%*	*18%*
April	30.44%	30%
May	27.15%	28.47%
June	13.31%	24.28%
Cumulative upto June	**24.28%**	**28.87%**

9.5 As Annual Sliding Distribution Loss of 22.56% is higher than the approved loss of 16%, the Commission has disallowed Rs 14.94 Crore in respect of higher Distribution Loss for the month of June 2021.

10. Summary of Allowable Z_{FAC}

10.1 The summary of the FAC amount as approved by the Commission for the month of June, 2021 is as shown in the Table below:

S. No.	Particulars	Units	June-2021-As submitted	June 2021-As Approved
1	**Calculation of ZFAC**			
1.1	Change in cost of generation and power purchase attributable to Sales within the License Area (F)	Rs. Crore	217.29	217.29
1.2	Carrying cost for over-recovery/under-recovery (C)	Rs. Crore	0	0
1.3	Adjustment factor for over-recovery/under-recovery (B)	Rs. Crore	0	0
1.4	**ZFAC = F+C+B**	Rs. Crore	217.29	217.29
2	**Calculation of Per Unit FAC**			
2.1	Energy Sales within the License Area	MU	9381.92	9378.10#
2.2	Excess Distribution Loss	MU	-	-
2.3	ZFAC per kWh	Rs./kWh	0.23	0.23
3	**Allowable FAC**			
3.1	FAC disallowed corresponding to excess Distribution Loss [(2.2 x 2.3)/10]	Rs. Crore	-	14.94
3.2	FAC allowable [1.4-3.1]	Rs. Crore	217.29	202.35
4	**Utilization of FAC Fund**			
4.1	Opening Balance of FAC Fund	Rs. Crore	(1272.13)	(1272.13)
4.2	Holding Cost on FAC Fund	Rs. Crore	(8.78)	(8.78)

S. No.	Particulars	Units	June-2021- As submitted	June 2021- As Approved
4.3	Z_{FAC} for the month (Sr. N. 3.2)	Rs. Crore	217.29	202.35
4.4	Closing Balance of FAC Fund	Rs. Crore	(1063.63)	(1078.57)
4.5	Z_{FAC} leviable/(refundable) to consumer	Rs. Crore	0	0
5	**Total FAC based on category wise and slab wise allowed to be recovered in the billing month of July, 2021**	**Rs. Crore**	0	0
6	**Carried forward FAC for recovery during future period (4.5-5.0)**	**Rs. Crore**	0	0

 # Adjusted for excess Agriculture Sales not considered for the Period April 21 to June 21

10.2 The standalone FAC for the month of June, 2021 is Rs 202.35 Crore which will adjusted from the FAC Fund.

10.3 MSEDCL has submitted that it has received Rs 64.48 Crore towards FBSM amount. In response to data gaps raised by the Commission, MSEDCL submitted that it has received the said amount as per various FBSM related invoices raised by MSLDC as per the Order of the Commission in Case No 225 of 2020 for the Period April 20 to April 21. MSEDCL further submitted that it has not received any invoice wise bifurcation from MSLDC in respect of amount received towards FBSM. The Commission notes that total amount of invoices raised by MSLDC are for Rs 240 Crore where as MSEDCL has received only Rs 64.48 Crore. The Commission directs MSEDCL to submit the all the details include invoice wise bifurcation of the amount received by MSLDC and also the status of balance amount which is yet to be received by MSEDCL.

10.4 The Commission has considered the amount of (Rs 64.48) Crore towards FBSM payment and accordingly the net monthly FAC amount to be adjusted in FAC Fund will be Rs 137.87 Crore.

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

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

11.2 The Commission allows the FAC amount of Rs. 202.35 Crore for the month of June, 2021 and (Rs 64.47 Crore) related to FBSM payment received by MSEDCL and accordingly the net amount of Rs 137.87 Crore is being adjusted from the FAC Fund.

11.3 The Commission in its approval for the month of May, 2021 has directed MSEDCL to carry forward the approved FAC amount of Rs. (1272.13) 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. (1280.92) Crore.

11.4 Accordingly, considering the approved standalone FAC amount of Rs. 137.87 Crore for the month of June, 2021 and the same after being adjusted from the FAC fund of Rs. (1280.92) Crore, the total balance amount in FAC fund is Rs. (1143.05) Crore. Accordingly, the total FAC Fund of Rs. (1143.05) 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, 2021 to be levied on consumers of MSEDCL in the billing month of August, 2021 is **Nil**.