



महाराष्ट्र विद्युत नियामक आयोग

Maharashtra Electricity Regulatory Commission

Ref. No. MERC/FAC/2022-23/ 0289

Date: 01 July, 2022

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 April, 2022.


Reference: 1. MSEDCL's FAC submission dated 31 May, 2022 for prior approval of FAC for the month of April, 2022.
2. Data gaps communicated to MSEDCL vide email dated 1 June, 2022.
3. MSEDCL's response to data gaps by email dated 13 June, 2022 and 15 June, 2022.

Sir,

Upon vetting the FAC calculations for the month of April, 2022 as mentioned in the above reference, the Commission has accorded approval for FAC amount of Rs. 6661.89 Crore. However, the said amount is added to the existing amount of March, 2022 along with carrying cost and total amount of Rs 6772.99 Crore is being carried forward and will be accumulated up to the month of May 2022 as per letter dated 5 April, 2022 issued by the Commission and accordingly the FAC chargeable to consumers is as shown in the table below:

Month	FAC Amount (Rs. Crore)
April 2022	0 (Zero)

Yours faithfully,


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

Encl: Annexure A: Detailed Vetting Report for the month of April, 2022.

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ANNEXURE A

Detailed Vetting Report

Date: 01 July, 2022

PRIOR APPROVAL FOR FAC CHARGES FOR THE MONTH OF APRIL, 2022

Subject: Prior Approval of Fuel Adjustment Charges (FAC) submission of MSEDCL for the month of April, 2022.

Reference: MSEDCL's FAC submission dated 31 May, 2022, 13 June, 2021 and 15 June, 2022 for prior approval of FAC for the month of April, 2022.

1. FAC submission by MSEDCL:

1.1 MSEDCL has submitted FAC submissions for the month of April, 2022 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. 6661.89 Crore. However, the said amount is added to the existing fund along with carrying cost and total amount of Rs 6772.99 Crore is being carried forward and will be accumulated up to the month of May 2022 as per letter dated 5 April, 2022 issued by the Commission. While approving FAC for the month of May, 2022, the Commission will allow the recovery of cumulative amount equally over the next three-month period along with carrying cost.

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 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 April, 2022 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
			April 2022 (MU)
HT Category			
Industry (General)	36,590.51	3,022.96	3,519.15
Industry (Seasonal)	102.93	11.92	7.14
Commercial	1,968.12	182.52	169.57
Railways/Metro/Monorail	83.72	9.31	9.52
Public Water Works (PWW)	2,101.00	173.04	177.85
Agricultural – Pumpsets	1,323.16	151.06	140.74
Agricultural – Others	275.94	24.59	26.55
Group Housing Society (Residential)	243.80	23.02	22.19
Public Services - Government	298.91	28.25	29.84
Public Services – Others	902.93	84.58	76.92
Electric Vehicle Charging Stations	0.31	0.03	3.30
MSPGCL Auxiliary	183.74	17.83	25.39
Other Adjustment	4,842.00	403.50	53.48
Sub-total (A)	48,917.06	4,132.60	4,261.65
LT Category			
BPL	49.63	2.73	3.90
Residential	25,151.26	2,521.48	2,241.44
Non-Residential	8,120.69	764.90	537.60
Public Water Works	993.84	82.28	77.77
AG Metered (Pump-sets)	18,612.07	1,706.50	1,492.00
AG Metered (Others)	140.00	13.45	20.51
Industrial	10,571.64	882.48	991.08
Street Lights	2,571.73	221.39	96.20
Public Services	649.79	60.52	61.86
Electric Vehicle Charging Stations	0.23	0.02	0.19
Sub-total (B)	66,860.87	6,255.75	5,522.55
Total – Metered (C = A+B)	1,15,777.93	10,388.35	9,784.20
Unmetered Sale (D)	8,783.32	677.22	779.00
Grand Total(C+D)	1,24,561.25	11,065.57	10,563.20

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



- 3.2 For the month of April, 2022, it is observed that actual sales of 10563.20 MU is lower as compared to the approved energy sales of 11065.57 MU.
- 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 April, 2022. **As per the data, the billing of about 97.7% of sales is undertaken as per actual meter readings and balance 2.3% 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 April, 2022.
- 3.4 The number of actual and estimated meter readings undertaken by MSEDCL for the month of April, 2022 except for agriculture consumers are as given below:

Sr. No.	Particulars	No. of Meters for which <u>actual</u> meter reading is done either manually or through AMR	No. of Meters for which meter reading are <u>estimated</u> .	Total Meters
1	HT	22650	0	22650
2	LT	21809176	2577345	24386521
	Total	21831826	2577345	24409171

- 3.5 Further, comparison of sales for April, 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-22	2241	3281	4262	779	10563

- 3.6 The Commission observes that overall sales in April, 2022 have increased as compared to April, 2021 due to increase in sales across all categories.
- 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 April, 2022 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 connections. 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 sales for the month of April, 2022. 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 22	1492	14972611	100	779	7905313	99	2271	22877924	105
As Approved – April 22	1492	14972611	100	721	7905313	91	2213	22877924	97

3.8 Based on the agriculture sales approved in the above table, the Commission has restricted 57.78 MU for unmetered connections in agriculture sales 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:

Sr. No.	Particular	Compliance
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



Sr. No.	Particular	Compliance																																								
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 5.8 and Para 5.9)																																								
4	Deviation Quantum	MSEDCL has underdrawn (23.81 MU) from the actual schedule																																								
5	Sale of Surplus Power	MSEDCL has sold 0.45 MU at Rs. 11.97/kWh thereby benefitting its consumers.																																								
6	Power Purchase	Actual Net Power Purchase is 14625 MU as against approved 12830.78 MU.																																								
7	Source wise Power Purchase	<table border="1"> <thead> <tr> <th>Source Name</th> <th>Approved (MU)</th> <th>Actual (MU)</th> <th>Proportion of each Source in Actual Purchase</th> </tr> </thead> <tbody> <tr> <td>MSPGCL</td> <td>4,587.68</td> <td>5,423.53</td> <td>37%</td> </tr> <tr> <td>NTPC</td> <td>2,633.26</td> <td>3,417.90</td> <td>23%</td> </tr> <tr> <td>IPP</td> <td>3,096.07</td> <td>3,388.54</td> <td>23%</td> </tr> <tr> <td>Renewable</td> <td>1,988.20</td> <td>1,597.49</td> <td>11%</td> </tr> <tr> <td>Must Run</td> <td>525.57</td> <td>428.77</td> <td>3%</td> </tr> <tr> <td>Short Term</td> <td>0.00</td> <td>393.02</td> <td>3%</td> </tr> <tr> <td>Sale of Power</td> <td>0.00</td> <td>0.45</td> <td>0%</td> </tr> <tr> <td>DSM</td> <td>0.00</td> <td>-23.81</td> <td>0%</td> </tr> <tr> <td>Total</td> <td>12,830.78</td> <td>14,625.00</td> <td>100%</td> </tr> </tbody> </table>	Source Name	Approved (MU)	Actual (MU)	Proportion of each Source in Actual Purchase	MSPGCL	4,587.68	5,423.53	37%	NTPC	2,633.26	3,417.90	23%	IPP	3,096.07	3,388.54	23%	Renewable	1,988.20	1,597.49	11%	Must Run	525.57	428.77	3%	Short Term	0.00	393.02	3%	Sale of Power	0.00	0.45	0%	DSM	0.00	-23.81	0%	Total	12,830.78	14,625.00	100%
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8	<p>Power Purchase:</p> <p>a. Section 62 of Electricity Act, 2003</p> <p>b. Section 63 of Electricity Act, 2003 – IPPs</p>	<p>A. MSPGCL</p> <p>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</p> <p>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</p> <p>B. CGS- NTPC etc</p> <p>Cost and MUs are verified as per invoice</p> <p>Cost and MUs verified as per Invoice</p>																																								
9	RE Purchase	Cost and MUs verified as per summary of renewable purchase details submitted by MSEDCL and invoices of power purchased from SECI, NRVN and other IPPs.																																								
10	Short Term Power Purchase	Short-term power purchase invoices of April, 2022 are submitted by MSEDCL. All the power purchase quantum and rate are																																								



Sr. No.	Particular	Compliance
		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 April, 2022 submitted by MSEDCL as compared to average power purchase cost approved in Tariff Order:

Particulars	Tariff Order Dated 30.03.2020 Approved for April, 2022			Actual for April, 2022 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	4,316.73	1,862.48	4.31	4,728.26	2,036.90	4.31	411.53	174.42	(0.01)
MSPGCL- Hydro (including Lease Rent)	270.95	70.19	2.59	695.27	73.18	1.05	424.32	2.99	(1.54)
NTPC	2,633.26	1,036.11	3.93	3,417.90	1,718.22	5.03	784.64	682.11	1.09
1.JSW	158.98	64.34	4.05	-	-16.61	-	(158.98)	(80.95)	-
2.Mundra UMPP	423.94	133.99	3.16	298.29	99.56	3.34	(125.65)	(34.43)	0.18
3.Adani Power	1,724.91	678.25	3.93	1,968.71	864.79	4.39	243.81	186.53	0.46
4.Emco	112.61	56.56	5.02	132.75	47.49	3.58	20.14	(9.07)	(1.45)
5.Rattan India	675.65	306.97	-	841.87	294.84	3.50	166.22	(12.14)	3.50
6. Sai Wardha	0.00	0.00	-	146.92	63.57	4.33	146.92	63.57	4.33
Total IPPs (1 to 6)	3,096.07	1,240.12	4.01	3,388.54	1,353.64	3.99	292.47	113.52	(0.01)
7.Non-Solar	969.18	437.62	4.52	999.20	536.41	5.37	30.02	98.80	0.85
8.Solar	1,019.02	356.15	3.49	598.30	233.79	3.91	(420.72)	(122.36)	0.41
Renewable Energy including REC (7 to 8)	1,988.20	793.76	3.99	1,597.49	770.20	4.82	(390.71)	(23.56)	0.83
Must Run - KAPP, TAPP, Dodson etc	525.57	145.46	2.77	428.77	131.95	3.08	(96.79)	(13.52)	0.31
Short Term	0.00	0.00	-	393.02	338.32	8.61	393.02	338.32	8.61
Sale of Power	0.00	0.00	-	0.45	0.54	11.97	0.45	0.54	11.97



Particulars	Tariff Order Dated 30.03.2020 Approved for April, 2022			Actual for April, 2022 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
DSM	0.00	0.00	-	-23.81	21.86	-9.18	(23.81)	21.86	(9.18)
PGCIL	0.00	305.16	-	-	228.96		-	(76.20)	-
Total	12,830.78	5,453.28	4.25	14,625.00	6,672.69	4.56	1,794.22	1,219.41	0.31

4.3 Thus, for the month of April, 2022, total variation in power purchase cost is Rs. 1219.41 Crore, out of which Rs. 762.57 Crore was on account of higher quantum (1794.22 MU) of power purchase and Rs. 456.84 Crore was on account of higher rate of average power purchase by Rs. 0.31/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 increase in power purchase without corresponding increase in sales than approved by the Commission has resulted in higher distribution loss than 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

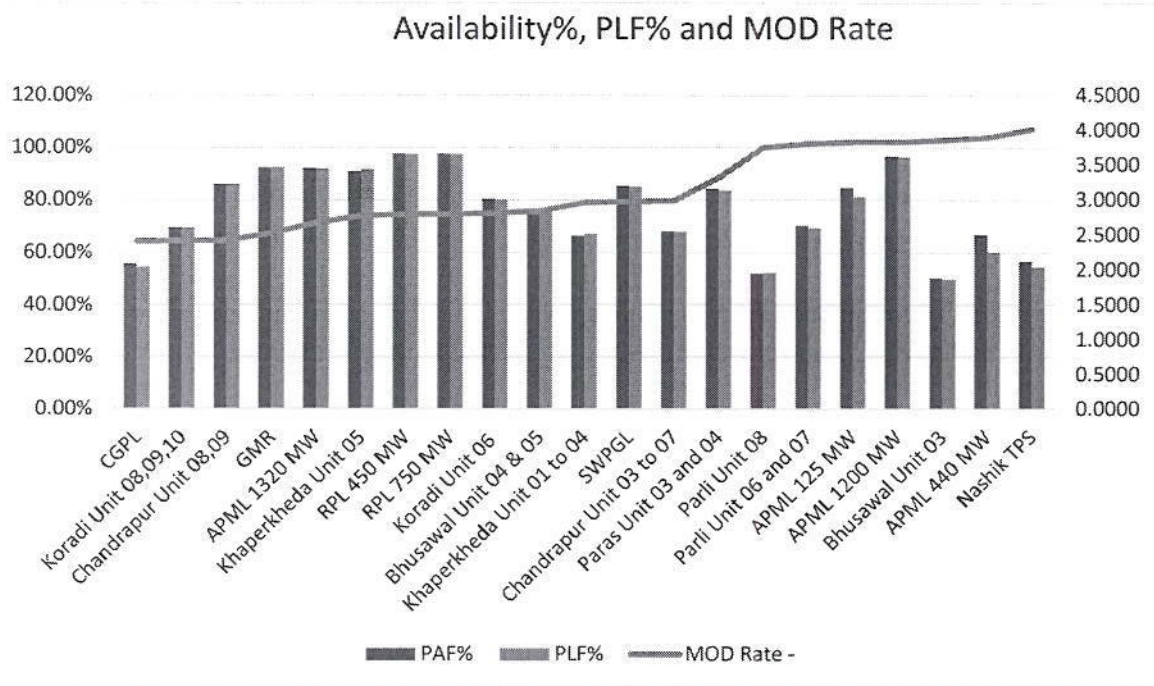
5.1 The Commission has sought detailed bills/invoices for all of the power purchase sources in order to verify the claim of MSEDCL with regards to average power purchase cost for the month of April, 2022. The Commission has verified the Net Purchase, Variable Cost, Fixed Charge and the Power Purchase Cost from the relevant bills/invoices received for all purchasing sources. MSEDCL has purchased power from approved sources as per the Tariff Order.

5.2 It was observed that due to planned/forced outages during the month, the availability of some of the MSPGCL and IPP generating stations was lower than normative availability.

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 April, 2022 to 30 April, 2022.

MSPGCL:

5.5 The Commission has observed that MSEDCL has purchased 4728.26 MU from MSPGCL Thermal and Gas Stations. It was observed that MSEDCL has purchased energy from Bhusawal 3, Parli 6-7 and Parli 8 generating stations of MSPGCL even though not included in MoD stack approved by the Commission in the Tariff Order in view of the fact that actual rates considered for MoD were lower than the approved rate. Further, due to increase in demand and outage of units for various reasons like coal shortage, forced outage, all thermal plants were taken on bar to meet out the demand.

5.6 The total overall generation was higher than approved during the month. 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 April, 2022. 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 April, 2022						Actual for April, 2022						Variations			
	Quantum	VC	VC	FC	FC	APPC	Quantum	VC	VC	FC	FC	APPC	Quantum	VC	FC	APPC
	MU	Rs./k Wh	Rs. Crore	Rs. Crore	Rs./k Wh	Rs./k Wh	MU	Rs./k Wh	Rs. Crore	Rs. Crore	Rs./k Wh	Rs./k Wh	MU	Rs./k Wh	Rs./k Wh	Rs./k Wh
MSPGCL – Thermal	4,316.73	2.83	1,222.92	639.56	1.48	4.31	4,728.26	2.97	1,402.28	634.62	1.34	4.31	411.53	0.13	(0.14)	(0.01)

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



- 5.7 Further, in response to data gaps raised by the Commission, MSEDCL submitted that minor mismatch in Fixed Charges claimed in FAC and invoice raised by MSPGCL is due to variation in Average of Cumulative Availability considered by MSEDCL & MSPGCL for Parli 6-7 and Koradi 8-10. Also, the Commission has verified that fixed cost for all the Thermal/Gas Units as well as Hydro Units has been considered as per invoice raised by MSPGCL and as submitted by MSEDCL for the said units.
- 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 8,9,10, Koradi 6, Khaperkheda 5 and Chandrapur 8-9 in April, 2022.
- 5.10 MSEDCL submitted that as the working of the third party coal analysis agency, M/s. CIMFR is severely hampered due the COVID-19, the CIMFR reports for most of the coal samples for coal supplied in April, 2022 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:
- 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.
 - 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 16 April, 2022 considering the aforesaid methodology.

- 5.11 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	4.102	3.876	-0.226	-5.51%
Bhusawal Unit 04 & 05	3.436	2.950	-0.486	-14.14%



Power Station	Approved Energy Charge Rs/kWh	Actual Energy Charge Rs/kWh	Difference Rs/kWh	Difference %
Khaperkheda Unit 1 to 4	2.945	2.799	-0.146	-4.96%
Khaperkheda Unit 05	2.583	2.580	-0.003	-0.12%
Nashik TPS	3.569	3.911	0.342	9.58%
Chandrapur Unit 03 to 07	2.658	3.030	0.372	14.00%
Chandrapur Unit 08 and 09	2.573	2.571	-0.002	-0.08%
Paras Unit 03 and 04	3.146	3.305	0.159	5.05%
Parli Unit 06 and 07	4.240	3.922	-0.318	-7.50%
Parli Unit 08	4.060	3.882	-0.178	-4.38%
Koradi Unit 06 and 07	2.920	2.550	-0.370	-12.67%
Koradi Unit 08,09,10	2.398	2.403	0.005	0.21%
GTPS Uran	2.847	4.430	1.583	55.60%

5.12 The Commission notes that for the month of April, 2022, energy charge of Nashik, Chandrapur 3-7 and Paras Units 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 and such washed coal is being used for Koradi 8-10, Koradi 6, Khaperkheda 5 and Chandrapur 8-9 in April, 2022. Further, actual Energy Charge is being computed considering GCV loss of 600 kCal/kg applicable from April, 2022 as allowed by the Commission in review Order dated 1 March, 2021 of MSPGCL as against 475 kCal/kg considered by the Commission while approving Energy Charge in the Tariff Order. This has also resulted in increase of Energy Charge of 1-13 Paise/kWh for the aforesaid stations.

5.13 It is also observed that Energy Charge of Uran has also increased considerably for April 2022. This is due to the fact that prices of APM Gas have increased due to increase in notified APM gas price from \$2.90/MMBTU to \$6.10/MMBTU from April 2022 by Ministry of Petroleum and Natural Gas, Government of India.

5.14 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.

5.15 Considering the overall cost of MSPGCL thermal/gas stations, the average power purchase cost is Rs. 4.31/kWh as against Rs. 4.31/kWh approved in the Tariff Order. The average power purchase cost is marginally lower due to higher variable cost by Rs 0.13/kWh, which is offset by lower fixed cost/unit (Rs 0.14/kWh) due to higher generation than approved by the Commission.

5.16 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)
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	On Account of change Quantum of Power Purchase	On Account of change in Per Unit rate of Power Purchase	Total
April, 2022	177.56	(3.14)	174.42

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

NTPC:

5.18 MSEDCL has purchased total 3417.90 MUs of power from NTPC's stations as compared to approved MoD stack of 2633.26 MUs during the month of April, 2022.

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 April, 2022.

Particulars	Approved for April 2022						Actual for April, 2022						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	2,633.26	2.26	595.62	440.48	1.67	3.93	3,417.90	3.67	1,255.35	462.87	1.35	5.03	784.64	1.41	(0.32)	1.09

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

5.20 In response to data gaps raised by the Commission in respect of increase in variable cost, NTPC submitted that due to coal shortage scenario and MoP notification, non-pit head NTPC stations (KhSTPS-II, Muada -I and II, Solapur and Khargone) are utilizing imported coal for blending. Imported coal being costly, variable cost of these stations has increased than approved rates. Further, MSEDCL has also claimed Rs 315 Crore towards tariff revision of Korba – I, Sipat – I, Kawas & KhSTPS – II is in accordance with the tariff order of CERC. 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
April, 2022	308.73	373.38	682.11

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, APM, 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	-	-	-	-	-	-
CGPL	-	-	-	-	-	-
APML 125 MW	3.17	20.11	23.28	2.39	6.91	9.30
APML 1320 MW	32.86	263.21	296.07	25.26	72.60	97.85
APML 1200 MW	30.47	193.04	223.51	27.19	78.57	105.76
APML 440 MW	10.32	65.38	75.70	6.23	18.01	24.25
GMR Warora	5.67	-	5.67	5.41	-	5.41
RIPL 450 MW	15.57	-	15.57	10.79	-	10.79
RIPL 750 MW	25.95	-	25.95	17.99	-	17.99
Sai Wardha	-	-	-	5.62	-	5.62
Total	124.00	541.74	665.74	100.87	176.08	276.96



5.25 Thus, on an overall basis considering the above impact, the average power purchase cost from IPPs stands at Rs. 3.99/kWh as compared to monthly approved rate of Rs. 4.01/kWh for the month of April, 2022. The said cost is being considered for the FAC computation based on the scrutiny of invoices submitted by MSEDCL.

5.26 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 April, 2022.

Particulars	Approved for April, 2022						Actual for April, 2022						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	3.23	51.32	13.01	0.82	4.05	-	-	(16.61)	-	-	-	(158.98)	-	-	-	-
2.Mundra UMPP	423.94	2.22	94.03	39.96	0.94	3.16	298.29	2.62	78.19	21.37	0.72	3.34	(125.65)	0.40	(0.23)	0.18	
3.Adani Power	1,724.91	2.62	451.40	226.85	1.32	3.93	1,968.71	3.30	649.98	214.81	1.09	4.39	243.81	0.68	(0.22)	0.46	
4.Emco	112.61	3.70	41.67	14.90	1.32	5.02	132.75	2.46	32.68	14.81	1.12	3.58	20.14	(1.24)	(0.21)	(1.45)	
5.Rattan India	675.65	3.69	249.27	57.71	0.85	4.54	841.87	2.83	237.92	56.92	0.68	3.50	166.22	(0.86)	(0.18)	(1.04)	
6. Sai Wardha	-	-	-	-	-	-	146.92	2.94	43.22	20.36	1.39	4.33	146.92	-	-	-	
Total IPPs (1 to 6)	3,096.07	2.87	887.69	352.43	1.14	4.01	3,388.54	3.03	1,025.38	328.26	0.97	3.99	292.47	0.159	(0.17)	(0.01)	

Variable charge inclusive of other charges, CIL etc.

5.27 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
April 2022	117.15	-3.63	113.52

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

5.28 In response to data gaps raised by the Commission in respect of purchase of power from CGPL Mundra at Rs 5.1531/kWh as per consent letter dated 10 April 2022, MSEDCL submitted that CGPL vide letter dated 30 March, 2022 has informed that CGPL has supplied power to Gujarat from January 2022 onwards at actual variable cost (@ ₹4.90/kWh for March 2022) subject to variation in the prices of international coal being procured every month plus fixed cost of ₹0.70/kWh based on the Supplementary PPA (SPPA). CGPL had also shown its readiness to supply power to Maharashtra in line with proposed SPPA being finalized with Gujarat. Considering power shortage scenario and high Exchange rate, and after taking approval from Cabinet, MSEDCL is purchasing power from CGPL purely on short term up basis from April 2022 till 15 June, 2022 at the rate in line with the proposed supplementary PPA (SPPA) terms as being finalized with



Gujarat. MSEDCL has also filed Case No 87 of 2022 which is pending before the Commission.

5.29 MSEDCL has claimed additional Rs 6253.43 Crore towards Change in Law in relation to coal shortfall of APML in the FAC for April, 2022. The Commission has allowed Change in Law claim in the original orders dated 07.03.2018 (Case No 189 of 2013), 07.02.2019 (Case No 290 of 2018) and 06.09.2019 (Case No 68 of 2012) in NCDP, SHAKTI and Lohara Coal block matter respectively ('MERC Orders'). As per APTEL Judgment in the appeal filed against the aforesaid orders, the Commission has issued consequential orders dated 05.12.2020 in M.A No. 53 of 2020 and M.A 54 of 2020. MSEDCL has filed Civil Appeal challenging the said APTEL Judgments mainly on issues related to consideration of Auxiliary Consumption, unit wise allocation of FSA Coal, computation of cost and quantum of IPT coal etc. The Commission in its FAC approval for November 2021 has allowed Rs 1,232 Crore in respect of coal short fall as against Rs 1,421.61 Crore claimed by MSEDCL (50% of the outstanding principal amount) based on its computation of principal amount (Rs 9,556 Crore as per its own computation as against Rs 16,544 Crore claimed by APML) as per the Order of the Hon'ble Supreme Court dated 31 January, 2022 reproduced herein below:

... Respondent no.1-Applicant is entitled to the sum equivalent to 50% of the outstanding claimed amount..."

5.30 However, APML has further filed IA No 32931 of 2022 in CA NO 684 of 2021 on 4 March, 2022 seeking direction to release the payment of Rs 10,135 Crore i.e., 50% of the outstanding claim as on 31 December, 2021 as per Order of the Hon'ble Supreme Court dated 31 January, 2022. The Hon'ble Supreme Court in its Order dated 14 June 2022 has directed MSEDCL to pay the balance amount of Rs 1408 Crore which is after taking into consideration all the payments made by the MSEDCL and amount outstanding as on December, 2021. Accordingly, as per the judgment of Hon'ble Supreme Court dated 14 June 2022, MSEDCL has submitted that the total outstanding claim which is yet to be considered by the Commission is Rs 6253.43 Crore. The Commission notes that in its earlier submission in November, 2021, MSEDCL has claimed Change in Law amount based on its own computation of principal amount and the same has been allowed by the Commission in the FAC approval of November, 2021. Subsequently, based on the submission of APML in its IA NO 32931 of 2022 and judgment of Hon'ble Supreme Court dated 14 June, 2022, it is clear that MSEDCL has to pay 50% of the outstanding claim of APML and not only the principal amount as per computation MSEDCL. Accordingly, based on the reconciliation provided by MSEDCL in response to data gaps, the Commission has considered Rs 6253.43 Crore towards 50% of the outstanding claim amount as per the order of the Hon'ble Supreme Court. The said amount is being added to the standalone FAC amount for April 2022. However, the amount in relation to Change in Law will attain finality based on the judgment of the Hon'ble Supreme Court in the pending appeals. Accordingly, the final claim in respect of Change in Law amount will be approved by the Commission based on the prudence check at the time of tariff



proceedings. The computation of outstanding claim amount submitted by MSEDCL and considered by the Commission in FAC approval is as given below:

Particulars	Formula	NCDP -Rs Cr	Shakti -Rs Cr	Lohara - Rs Cr	Total - Rs Cr
APML Claim - Principal	A	3,838	5,037	7,446	16,321
APML Claim - Carrying Cost	B	2,333	510	3,210	6,053
Total Amount - APML Claim	C=A+B	6,171	5,547	10,656	22,374
Amount Paid by MSEDCL (allowed by Commission in MYT Order and FAC approval upto August 21)	D	1,785	1,680	3,493	6,958
Balance Outstanding Amount to be Paid	E=C-D	4,386	3,867	7,163	15,416
50% of the Outstanding Amount	F=50% of E	2,193	1,934	3,582	7,708
Amount allowed by the Commission in FAC Approvals -September 21 to Dec 21 (G)					1,454.57
Balance Outstanding Amount to be allowed in FAC of April 22 corresponding to claims upto December 21 (F-G)					6,253.43

Short Term Power Purchase

5.31 MSEDCL has purchased 393.02 MU at average rate of Rs. 8.61/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 to meet the increased demand in view of lower availability of contracted thermal Plants. The Commission has verified the details of power purchase cost from the Daily Obligation Summary Report issued by Power Exchange and accordingly considered the said purchase in FAC computation of April 2022.

Must-Run Sources

5.32 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.

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



Particulars	Approved for April 2022						Actual for April 2022						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	-	-	23.87	0.88	0.88	695.27	0.23	16.09	14.10	0.20	0.43	424.32	0.23	(0.68)	(0.45)
MSPGCL-Hydro Lease rent	-	-	-	46.32	-	-	-	-	-	42.99	-	-	-	-	-	-
1.Non-Solar	969.18	4.52	437.62	-	-	4.52	999.20	5.33	532.85	3.56	0.04	5.37	30.02	0.82	0.04	0.85
2.Solar	1,019.02	3.49	356.15	-	-	3.49	598.30	3.91	233.79	-	-	3.91	(420.72)	0.41	-	0.41
Renewable Energy including REC (1 to 2)	1,988.20	3.99	793.76	-	-	3.99	1,597.49	4.80	766.64	3.56	0.02	4.82	(390.71)	0.81	0.02	0.83
Others-KAPP, TAPP, Dodson etc	525.57	2.75	144.67	0.79	0.02	2.77	428.77	3.06	131.16	0.79	0.02	3.08	(96.79)	0.31	0.00	0.31

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

5.34 As seen from the aforesaid table, MSEDCL has purchased 695.27 MU 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 higher than 270.95 MU approved by the Commission to optimise the power purchase cost in view prevailing higher rates prevailing in short term market considering coal shortage scenario.

5.35 It is observed that Solar and Non-Solar energy purchased in April, 2022 i.e., 1597.49 MU was lower than approved i.e., 1988.20 MU by the Commission in the Tariff Order. The generation is lower due to low wind and lower solar capacity addition due to pandemic than considered by the Commission in the Tariff Order. MSEDCL has not purchased any RECs in the month of April, 2022. The Commission observes that MSEDCL has purchased 22.75 MUs of RE power from G-DAM Market at Rs 9.22/kWh. 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

5.36 As per Regulation 10 of the 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. The ISTS charges paid by MSEDCL to Central Transmission Utility of India Ltd (CTU) are considered under FAC computation. Accordingly, the Commission has considered the amount of Rs. 228.96 Crore towards ISTS charges payable to payable to CTU as against Rs. 305.16 Crore approved in the Tariff Order towards FAC computation as per invoice raised by CTU.



Sale of Power

- 5.37 MSEDCL has done sale of surplus power to the extent of 0.45 MU during the month of April, 2022 at Rs. 11.97/kWh. With such a sale of power MSEDCL has earned revenue of Rs. 0.54 Crore.
- 5.38 It is observed that entire 0.45 MU was sold on IEX. The sales 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. 11.93/kWh has benefitted the consumers. Hence, the Commission has considered the actual quantum and revenue against surplus sale.

Deviation Quantum and Cost

- 5.39 MSEDCL has submitted that the deviation quantum (underdrawl) as per invoice raised by MSLDC is 23.81 MU and corresponding cost of Rs 21.86 Crore. In response to data gaps raised by the Commission in respect of payment made towards deviation cost whereas there is under drawl for the month, MSEDCL submitted that DSM rates during overdrawl time blocks were higher than DSM rate for underdrawl time blocks. Hence, even though net deviation for MSEDCL during April 2022 is under drawl, net amount is payable. Accordingly, the Commission has considered the said Deviation quantum and cost in the FAC computation for the month of April, 2022.

Approved Cost of Power Purchase

- 5.40 In view of the above, the overall cost approved in the Tariff Order and actual for the month of April, 2022 considered by the Commission is as shown below:

Particulars	Approved for April 2022						Actual for April 2022						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	4,316.73	2.83	1,222.92	639.56	1.48	4.31	4,728.26	2.97	1,402.28	634.62	1.34	4.31	411.53	0.13	(0.14)	(0.01)
MSPGCL-Hydro	270.95	-	-	23.87	0.88	0.88	695.27	0.23	16.09	14.10	0.20	0.43	424.32	0.23	(0.68)	(0.45)
MSPGCL-Hydro Lease Rent	-	-	-	46.32	-	-	-	-	-	42.99	-	-	-	-	-	-
NTPC	2,633.26	2.26	595.62	440.48	1.67	3.93	3,417.90	3.67	1,255.35	462.87	1.35	5.03	784.64	1.41	(0.32)	1.09
IPPs	3,096.07	2.87	887.69	352.43	1.14	4.01	3,388.54	3.03	1,025.38	328.26	0.97	3.99	292.47	0.16	(0.17)	(0.01)
RE including REC	1,988.20	3.99	793.76	-	-	3.99	1,597.49	4.80	766.64	3.56	0.02	4.82	(390.71)	0.81	0.02	0.83
Must Run - KAPP, TAPP, Dodson etc	525.57	2.75	144.67	0.79	0.02	2.77	428.77	3.06	131.16	0.79	0.02	3.08	(96.79)	0.31	0.00	0.31
Short Term	-	-	-	-	-	-	393.02	8.61	338.32	-	-	8.61	393.02	-	-	-



Particulars	Approved for April 2022						Actual for April 2022						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	-	-	-	-	-	-	0.45	11.97	0.54	-	-	11.97	0.45	-	-	-
DSM	-	-	-	-	-	-	(23.81)	(9.18)	21.86	-	-	(9.18)	(23.81)	-	-	-
PGCIL	-	-	-	305.16	-	-	-	-	-	228.96	-	-	-	-	-	-
Total	12,830.78	2.84	3,644.68	1,808.61	1.41	4.25	14,625.00	3.39	4,956.54	1,716.15	1.17	4.56	1,794.22	0.55	(0.24)	0.31

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

5.41 The overall power purchase cost is higher mainly due to higher short term rate and higher variable cost of power supplied by MSPGCL, NTPC and IPPs. However, the higher variable cost is offset by lower fixed cost/unit due to higher despatch from MSPGCL, NTPC and IPPs than approved by the Commission.

5.42 Considering the above, the Commission allows the average power purchase cost of Rs.4.56/kWh for the month of April, 2022 as against Rs. 4.25/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 April, 2022 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 April, 2022.

S. No.	Particulars	Units	April, 2022
1	Average power purchase cost approved by the Commission	Rs./kWh	4.25
2	Actual average power purchase cost	Rs./kWh	4.56
3	Change in average power purchase cost (=2 -1)	Rs./kWh	0.31
4	Net Power Purchase	MU	14,625.00
5	Change in fuel and power purchase cost (=3 x 4/10)	Rs. Crore	456.84

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. FAC for the month of December, 2021 was levied in April 2021 as per letter dated 5 April, 2022 considering uniform levy of FAC.



Since any over recovery/under recovery for MSEDCL is spilt into Ag and Non-Ag and has to be adjusted towards levy of FAC for Ag and Non-Ag, the Commission has not considered any adjustment towards the same for April 2022 as there is no FAC to be levied in April 2022.

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

- 8.1 As explained in the above paragraph in absence of any levy for April, 2022 as per letter dated 5 April, 2022, the Commission will consider any over recovery/under recovery along with carrying cost while approving FAC for the month of May, 2022.

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 April 2022	Actual – cumulative up to April 2022	Annual Sliding Distribution Loss – May 21 to Apr 22
1	Net Energy Input at Distribution Voltage	MU	1,27,414.02	13,531.56	13,531.56	132457.20
2	MSEDCL Metered Sales (excluding sales at EHV level)	MU	1,00,813.73	8,706.08	8,706.08	94033.41
3	Estimated Consumption of unmetered Sales	MU	8,783.32	721.22	721.22	9010.84
4	Distribution Loss (1-2-3)	MU	17,816.97	4,104.26	4,104.26	29412.95



S. N	Particulars	Units	Approved in Tariff Order	Actual for April 2022	Actual – cumulative up to April 2022	Annual Sliding Distribution Loss – May 21 to Apr 22
5	Distribution Loss as % of net energy input (4/1)	%	14%	30.33%	30.33%	22.21%
6	Excess Distribution Loss = [Actual Distribution Loss (5) - Distribution loss approved] x Net Energy Input (1)	MU	-	1112.58	-	-
7	Disallowance of FAC due to excess Distribution Loss	Rs. Crore	-	48.38	-	-

9.3 As seen from the above table, the standalone distribution loss for the month of April, 2022 is higher at 30.33% as against approved loss of 14%. The standalone loss for April, 2022 is higher 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, 2022 as compared to last year is as given below:

Particulars	FY 2022-23	FY 2021-22
<i>Approved Loss</i>	<i>14%</i>	<i>16%</i>
April	30.33%	30.44%

9.5 As Annual Sliding Distribution Loss of 22.21% is higher than the approved loss of 14%, the Commission has disallowed Rs 48.38 Crore towards the same.

10. Summary of Allowable Z_{FAC}

10.1 The summary of the FAC amount as approved by the Commission for the month of April, 2022 is as shown in the Table below:

S. No.	Particulars	Units	April, 2022 -As submitted	April, 2022 - As Approved
1	Calculation of Z_{FAC}			
1.1	Change in cost of generation and power purchase attributable to Sales within the License Area (F)	Rs. Crore	6710.27	456.84
1.2	Carrying cost for over-recovery/under-recovery (C)	Rs. Crore	0.10	0
1.3	Adjustment factor for over-recovery/under-recovery (B)	Rs. Crore	13.45	0
1.4	Z_{FAC} = F+C+B	Rs. Crore	6723.81	456.84
2	Calculation of Per Unit FAC			



S. No.	Particulars	Units	April, 2022 -As submitted	April, 2022 - As Approved
2.1	Energy Sales within the License Area	MU	10537.81	10505.42*
2.2	Excess Distribution Loss	MU	833.54	1112.58
2.3	ZFAC per kWh	Rs./kWh	3.24	0.43
3	Allowable FAC			
3.1	FAC disallowed corresponding to excess Distribution Loss [(2.2 x 2.3)/10]	Rs. Crore	270.36	48.38
3.2	FAC allowable [1.4-3.1]	Rs. Crore	3147.58	408.45
4	Utilization of FAC Fund			
4.1	Opening Balance of FAC Fund	Rs. Crore	-	110.32
4.2	Carrying Cost/(Holding Cost) on FAC Fund	Rs. Crore	-	0.78
4.3	Z _{FAC} for the month (Sr. N. 3.2)	Rs. Crore	3147.58	408.45
4.4	Closing Balance of FAC Fund	Rs. Crore	6565.53	519.56
4.5	Z _{FAC} leviable/(refundable) to consumer	Rs. Crore	-	-
5	Total FAC based on category wise and slab wise allowed to be recovered in the billing month of June, 2022	Rs. Crore	-	-

*Ag Sales allowed as per norms approved by the Commission in the Tariff Order.

10.2 The standalone FAC for the month of April, 2022 is Rs 408.45 Crore which will added to the existing FAC Fund of Rs 110.32 Crore. The approved amount is lower than claimed by MSEDCL in view of higher disallowance due to excess distribution loss after allowing Ag Sales as per norms approved by the Commission in the Tariff Order and also due to fact that MSEDCL has considered recovery of FAC by averaging the FAC amount for March and April contrary to the letter dated 5 April, 2022 issued by the Commission.

10.3 Also, the Commission has considered past change in law claim of Rs 6253.43 Crore in April 2022. Accordingly, the total FAC amount considered for April, 2022 is Rs 6661.88 Crore and the FAC fund at the end of April 2022 is Rs 6772.99 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;



$k = \text{Average Billing Rate} / \text{ACOS};$

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. 6661.88 Crore for the month of April 2022 to be added to the FAC Fund.
- 11.3 The Commission in its approval for the month of March, 2022 has directed MSEDCL to 2021 has directed MSEDCL to carry forward the approved FAC amount of Rs. 110.32 Crore to be accumulated as FAC Fund to be carried forward to the next billing cycle with carrying cost. The opening balance of FAC fund along with carrying cost is Rs. 111.10 Crore
- 11.4 Accordingly, considering the approved FAC amount of Rs. 6661.88 Crore for the month of April, 2022 and same after being added to the FAC fund of 111.10 Crore, the total balance amount to be recovered is Rs. 6772.99 Crore. The said amount of Rs 6772.99 Crore is being carried forward and will be accumulated up to the month of May, 2022 as per letter dated 5 April, 2022 issued by the Commission. While approving FAC for the month of May, 2022, the Commission will allow the recovery of cumulative amount equally over the next three-month period along with carrying cost
- 11.5 In view of the above, the per unit Z_{FAC} for the month of April, 2022 to be levied on consumers of MSEDCL in the billing month of June 2022 is Nil.



