Ref. No. MERC/FAC/2021-22/0132

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 February, 2022.

Reference: 1. MSEDCL's FAC submission dated 30 March, 2022 for prior approval of

FAC for the month of February, 2022.

2. Data gaps communicated to MSEDCL vide email dated 1 April, 2022.

3. MSEDCL's response to data gaps by email dated 3 April, 2022.

Sir,

Upon vetting the FAC calculations for the month of February, 2022 as mentioned in the above reference, the Commission has accorded approval for FAC amount of Rs. 98.49 Crore. However, the said amount is added to the existing amount as on January, 2022 along with carrying cost and total amount of Rs 361.09 Crore is being levied on the consumers as per letter dated 5 April, 2022 issued by the Commission. Accordingly, the FAC chargeable to consumers is as shown in the table below:

Month	FAC Amount (Rs. Crore)
February 2022	361.09

The aforesaid FAC amount is allowed to be recovered equally over next three months from April 22 to June 22.

Yours faithfully,

Date: 5 April, 2022

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

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

ANNEXURE A

Detailed Vetting Report
Date: 5 April, 2022

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

Subject: Prior Approval of Fuel Adjustment Charges (FAC) submission of MSEDCL for

the month of February, 2022.

Reference: MSEDCL's FAC submission dated 30 March, 2022 and 3 April, 2022 for prior

approval of FAC for the month of February, 2022.

1. FAC submission by MSEDCL:

1.1 MSEDCL has submitted FAC submissions for the month of February, 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. 98.49 Crore. However, the said amount is added to the existing FAC amount as on January, 2022 along with carrying cost and total amount of Rs 361.09 Crore is being levied on the consumers equally from April 22 to June 22 as per letter dated 5 April, 2022 issued by the Commission.

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 February, 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:

Consumon Catagony	Yearly Approved by the	Monthly	Actual Sales
Consumer Category	Commission (MU)	Approved (MU)	February 2022 (MU)
HT Category			
Industry (General)	35,183.18	2,819.34	2,827.48
Industry (Seasonal)	102.93	15.15	13.77
Commercial	1,927.21	133.67	109.26
Railways/Metro/Monorail	82.07	5.03	6.20
Public Water Works (PWW)	2,047.87	154.54	164.07
Agricultural - Pumpsets	1,282.89	76.41	70.73
Agricultural - Others	267.54	21.56	20.00
Group Housing Society (Residential)	241.73	16.48	14.55
Public Services - Government	285.74	19.65	19.42
Public Services - Others	863.17	60.79	48.52
Electric Vehicle Charging Stations	0.31	0.03	2.26
MSPGCL Auxiliary	183.74	14.47	25.35
Other Adjustment	4,842.00	403.50	454.65
Sub-total (A)	47,310.39	3,740.61	3,776.27
LT Category			
BPL	47.34	4.13	5.47
Residential	23,983.09	1,406.92	1,445.05
Non-Residential	7,503.43	503.55	375.13
Public Water Works	941.77	78.56	72.29
AG Metered (Pump-sets)	18,084.07	1,657.67	1,642.00
AG Metered (Others)	140.00	10.57	17.23
Industrial	10,084.02	820.87	951.50
Street Lights	2,417.55	178.14	103.77
Public Services	610.03	40.10	42.26
Electric Vehicle Charging Stations	0.23	0.02	0.16
Sub-total (B)	63,811.51	4,700.53	4,654.86
Total - Metered (C = A+B)	1,11,121.91	8,441.13	8,431.13
Unmetered Sale (D)	8,783.32	774.34	808.00
Grand Total(C+D)	1,19,905.23	9,215.47	9,239.13

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

- 3.2 For the month of February, 2022, it is observed that actual sales of 9239.13 MU is marginally higher as compared to the approved energy sales of 9215.47 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 February, 2022. As per the data, the billing of about 97.4% of sales is undertaken as per actual meter readings and balance 2.6% 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 February, 2022.

3.4 The number of actual and estimated meter readings undertaken by MSEDCL for the month of February, 2022 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	22550	0	22550		
2	LT	22142884	2351959	24494843		
	Total	22165434	2351959	24517393		

3.5 Further, comparison of sales for April, 2021 to February, 2022 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
July-21	2032	2879	3716	665	9293
July-20	2294	2366	2967	711	8339
August-21	2037	3084	3876	752	9749
August-20	2003	2408	3090	711	8212
September-21	2041	3101	3818	752	9712
September-20	1890	2990	3287	657	8825
October-21	1830	3121	4528	840	10320
October-20	1857	2766	3583	834	9040
November-21	1801	3060	3720	840	9421
November-20	1646	2765	3367	834	8612
December-21	1621	3109	3965	840	9535
December-20	1507	2870	3732	834	8943

Particulars	LT - Residential (MU)	LT Others (MU)	HT (MU)	Ag- Unmetered	Total (MU)
January-22	1456	3271	3986	808	9521
January-21	1504	3237	3801	863	9405
February-22	1445	3210	3776	808	9239
February-21	1453	3175	3535	863	9026
April 21 to February-22	20324	34283	42179	8338	105124
April 20 to February-21	20690	30272	35293	8928	95183

- 3.6 The Commission observes that overall sales in February, 2022 have increased as compared to February, 2021 due to increase in sales of LT Others and HT Category.
- 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 January, 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 connection based on the reading done in February 22. 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, 2021 to February, 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:

Metered					Unmetered	l	Total			
Particulars	Sale in MU's	Cumulative Load (HP)	Consumpti on / HP – Units	Sale in MU's	Cumulative Load (HP)	Consumpti on / HP - Units	Sale in MU's	Cumulative Load (HP)	Consumpti on / HP - Units	
MSEDCL - April 21 – Feb 22	16999	163615051	104	8338	83612958	100	25337	247228009	102	
As Approved - April 21 - Feb 22	15770	163615051	96	8159	83612958	98	23929	247228009	97	

3.8 The Commission has already restricted the agriculture metered sales for the months of April, 2021 to January, 2022. Accordingly, based on the cumulative agriculture sales approved in the above table, the incremental adjustment of 26.11 MU for metered connections and 5.38 MU for Unmetered connections in agriculture sales is being done in the month of February, 2022 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		Co	mpliance						
1	Sources of	MSEDCL has	purchased p	power from app	proved sources. In					
	approved Power	addition, power	r is procured	on power excha	inge to optimise the					
	Purchase	power purchase	power purchase cost							
2	Merit Order	MSEDCL has f	MSEDCL has followed merit order for scheduling of power and							
	Dispatch	preference was	given to chea	pest power.						
3	Fuel Utilization	Usage of coal	is not as p	er approved Fu	el Utilisation Plan					
	Plan	(Detailed Expla	nation given	below – Para 5.8	8 and Para 5.9)					
4	Deviation Quantum	MSEDCL has u	ınderdrawn (1	26.04 MU) from	the actual schedule					
5	Sale of Surplus	MSEDCL has s	sold 8.32 MU	at Rs. 5.88/kWh	thereby benefitting					
	Power	its consumers.								
6	Power Purchase	Actual Net Pow	er Purchase i	s 12096.41 MU	as against approved					
		10861.78 MU.								
7	Source wise Power Purchase	Source Name	Approved (MU)	Actual (MU)	Proportion of each Source in Actual Purchase					
		MSPGCL	4,012.26	4,487.08	37%					
		NTPC	2,079.92	2,780.31	23%					
		IPP	2,259.06	2,664.31	22%					
		Renewable	2,020.00	1,587.40	13%					
		Must Run	490.53	298.24	2%					
		Short Term	0.00	413.45	3%					
		Sale of Power	0.00	8.32	0%					
		DSM	0.00	-126.04	-1%					
		Total	10,861.78	12,096.41	100%					

Sr. No.	Particular	Compliance
8	Power Purchase:	A. MSPGCL
	a. Section 62 of Electricity Act, 2003	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
	b. Section 63 of Electricity Act, 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 February, 2022 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 February, 2022 submitted by MSEDCL as compared to average power purchase cost approved in Tariff Order:

		er Dated 30. for Februai			r February, ted by MSE		Variation			
Particulars	Quantum	PP Cost	Averag e Power Purcha se Cost	Quantum	PP Cost	Average Power Purchase Cost	Quantum	PP Cost	Average Power Purchase Cost	
	MU	Rs. Crore	Rs/kW h	MU	Rs. Crore	Rs/kWh	MU	Rs. Crore	Rs/kWh	
MSPGCL – Thermal	3,759.38	1,675.25	4.46	4,183.80	1,857.62	4.44	424.42	182.36	(0.02)	
MSPGCL- Hydro (including Lease Rent)	252.89	68.73	2.72	303.28	63.88	2.11	50.40	(4.85)	(0.61)	
NTPC	2,079.92	841.56	4.05	2,780.31	1,079.08	3.88	700.39	237.52	(0.16)	

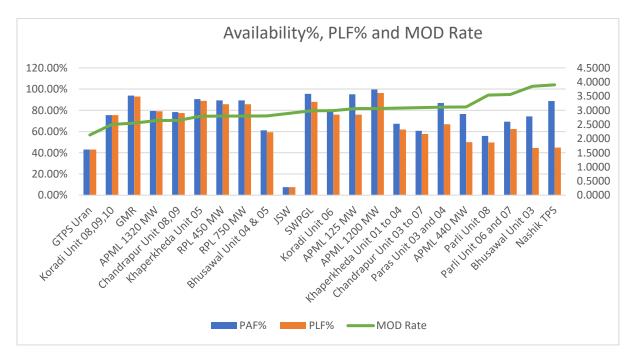
	Tariff Ord	er Dated 30	.03.2020	Actual fo	r February,	2022 as		Variation			
	Approved	for Februai	ry, 2022	submit	ted by MSE	DCL					
Particulars	Quantum	PP Cost	e Power Purcha se Cost	Quantum	PP Cost	Average Power Purchase Cost	Quantum	PP Cost	Average Power Purchase Cost		
	MU	Rs. Crore	Rs/kW h	MU	Rs. Crore	Rs/kWh	MU	Rs. Crore	Rs/kWh		
1.JSW	148.38	57.66	3.89	15.28	5.77	3.78	(133.10)	(51.89)	(0.11)		
2.Mundra UMPP	395.67	123.48	3.12	-	0.02	-	(395.67)	(123.46)	-		
3.Adani Power	1,609.91	629.27	3.91	1,690.65	746.01	4.41	80.74	116.74	0.50		
4.Emco	105.10	52.09	4.96	124.89	46.39	3.71	19.78	(5.70)	(1.24)		
5.Rattan India	0.00	57.71		691.54	247.27	3.58	691.54	189.56	3.58		
6. Sai Wardha	0.00	0.00		141.95	63.97	4.51	141.95	63.97	4.51		
Total IPPs (1 to 6)	2,259.06	920.22	4.07	2,664.31	1,109.44	4.16	405.24	189.22	0.09		
7.Non-Solar	1,132.00	538.91	4.76	1,069.18	624.19	5.84	(62.82)	85.29	1.08		
8.Solar	888.00	312.80	3.52	518.22	198.45	3.83	(369.78)	(114.35)	0.31		
Renewable Energy including REC (7 to 8)	2,020.00	851.70	4.22	1,587.40	822.64	5.18	(432.60)	(29.06)	0.97		
Must Run - KAPP, TAPP, Dodson etc	490.53	133.14	2.71	298.24	85.60	2.87	(192.29)	(47.54)	0.16		
Short Term	0.00	0.00		413.45	170.66	4.13	413.45	170.66	4.13		
Sale of Power	0.00	0.00		8.32	4.89	5.88	8.32	4.89	5.88		
DSM	0.00	0.00		-126.04	-28.64	2.27	(126.04)	(28.64)	2.27		
PGCIL	0.00	290.63		-	275.00		-	(15.63)	-		
Total	10,861.78	4,781.23	4.40	12,096.41	5,430.38	4.49	1,234.64	649.15	0.09		

4.3 Thus, for the month of February, 2022, total variation in power purchase cost is Rs. 649.15 Crore, out of which Rs. 543.47 Crore was on account of higher quantum (1234.64 MU) of power purchase and Rs. 105.68 Crore was on account of higher rate of average power purchase by Rs. 0.09/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 February, 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. 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 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 19 February, 2022 to 28 February, 2022.

It is observed that Nashik Unit having higher MOD rate was kept on bar due to transmission constraints as per direction of MSLDC.

MSPGCL:

- 5.5 The Commission has observed that MSEDCL has purchased 4183.80 MU from MSPGCL Thermal and Gas Stations. It was observed that MSEDCL has purchased energy from Bhusawal 3, Nashik, 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, planned/ 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 February, 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.

	Approved for February, 2022					Actual for February, 2022				Variations						
Particular s	Quantum	VC	vc	FC	FC	APP C	Quantu m	VC	vc	FC	FC	APPC	Quantum	VC	FC	APP C
	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	3,759.38	2.70	1,015.78	659.47	1.75	4.46	4,183.80	2.90	1,214.11	643.51	1.54	4.44	424.42	0.20	(0.22)	(0.02)

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 Khaperkheda 1-4, Paras and Parli 8. 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. 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 1,4 and 5 and Chandrapur 8-9 in February, 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 February, 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:
 - 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 15 March, 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	4.007	3.856	-0.151	-3.77%
Bhusawal Unit 04 & 05	3.350	2.821	-0.529	-15.79%
Khaperkheda Unit 1 to 4	2.876	2.884	0.008	0.28%
Khaperkheda Unit 05	2.520	2.663	0.143	5.67%
Nashik TPS	3.480	4.023	0.543	15.60%
Chandrapur Unit 03 to 07	2.598	3.171	0.573	22.06%
Chandrapur Unit 08 and 09	2.512	2.698	0.186	7.40%
Paras Unit 03 and 04	3.067	3.248	0.181	5.90%
Parli Unit 06 and 07	4.118	3.634	-0.484	-11.75%
Parli Unit 08	3.943	3.623	-0.320	-8.12%
Koradi Unit 06 and 07	3.225	2.938	-0.287	-8.90%
Koradi Unit 08,09,10	2.340	2.526	0.186	7.95%
GTPS Uran	2.764	2.150	-0.614	-22.21%

5.12 The Commission notes that for the month of February, 2022, energy charge of Khaperkheda 5, Chandrapur, Koradi 8-10, Paras and Nashik 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 1-4 and 5 and

Chandrapur 8-9 in February, 2022. 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 of 8-14 Paise/kWh for the aforesaid stations.

- 5.13 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, the agreement is extended up to March, 2022. Accordingly, for the month of February, 2022, DIL has supplied 108.27 MU at Rs 2.89/kWh. The Commission has accordingly considered the said purchase of 108.27 MU for Rs 31.28 Crore at Rs 2.89/kWh.
- 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. 4.44/kWh as against Rs. 4.46/kWh approved in the Tariff Order. The average power purchase cost is lower mainly due to decrease in fixed cost by Rs 0.22/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:

	Increase in Expenses for 1	Increase in Expenses for power purchase from MSPGCL (Rs. Crore)									
Month	On Account of change	On Account of change									
Wionin	Quantum of Power	in Per Unit rate of	Total								
	Purchase	Power Purchase									
February,	189.13	(6.77)	182.36								
2022											

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 2780.31 MUs of power from NTPC's stations as compared to approved MoD stack of 2079.92 MUs during the month of February, 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 February, 2022.

	Approved for February, 2022							Actua	l for Februa	ry, 2022			Variations				
Particul	Quantum	VC	VC	FC	FC	APP C	Quantu m	VC	VC	FC	FC	AP PC	Quantum	VC	FC	APPC	
ars	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./ kW h	MU	Rs./k Wh	Rs./k Wh	Rs./kW h	
NTPC	2,079.92	1.95	405.47	436.09	2.10	4.05	2,780.31	2.30	639.00	440.08	1.58	3.88	700.39	0.35	(0.51)	(0.16)	

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:

	Increase in Expenses	for power purchase from N	NTPC (Rs. Crore)
Month	On Account of change	On Account of	
Wionth	Quantum of Power	increased Per Unit rate	Total
	Purchase	of Power Purchase	
February,	283.39	(45.87)	237.52
2022			

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
IFF	CIL	Shakti	Total	CIL	Shakti	Total
JSW	0.39	-	0.39	0.36	-	0.36
CGPL	-	-	-	-	-	-
APML 125 MW	3.06	11.37	14.43	2.08	6.23	8.31
APML 1320 MW	28.73	141.60	170.34	20.13	41.50	61.63
APML 1200 MW	29.37	109.19	138.56	25.35	75.86	101.21
APML 440 MW	7.76	28.84	36.60	4.82	14.42	19.24
GMR Warora	5.53	-	5.53	5.09	-	5.09
RIPL 450 MW	13.56	-	13.56	8.93	-	8.93
RIPL 750 MW	22.60	-	22.60	14.88	-	14.88
Sai Wardha	5.58	-	5.58	5.58	-	5.58
Total	116.58	291.01	407.59	87.22	138.00	225.22

- 5.25 Thus, on an overall basis considering the above impact, the average power purchase cost from IPPs stands at Rs. 4.16/kWh as compared to monthly approved rate of Rs. 4.07/kWh for the month of February, 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 February, 2022.

		Appı	coved for Fe	bruary, 2022	2			Actual for February, 2022						Variat	ions	
Particul ars	Quantum	VC	vc	FC	FC	APP C	Quantu m	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./kWh	Rs. Crore	Rs. Crore	Rs./k Wh	Rs./k Wh	MU	Rs./k Wh	Rs./k Wh	Rs./kW h
1.JSW	148.38	3.00	44.57	13.09	0.88	3.89	15.28	3.02	4.61	1.16	0.76	3.78	(133.10)	0.01	(0.12)	(0.11)
2.Mundr a UMPP	395.67	2.11	83.49	39.99	1.01	3.12	-	-	-	-	-	-	(395.67)	-	-	-
3.Adani Power	1,609.91	2.49	400.23	229.04	1.42	3.91	1,690.65	3.19	538.59	207.42	1.23	4.41	80.74	0.70	(0.20)	0.50
4.Emco	105.10	3.52	37.04	15.05	1.43	4.96	124.89	2.48	30.92	15.48	1.24	3.71	19.78	(1.05)	(0.19)	(1.24)
5.Rattan India	-	-	-	57.71	-	-	691.54	2.81	194.15	53.12	0.77	3.58	691.54	-	-	-
6. Sai Wardha	-	-	-	-	-	-	141.95	2.98	42.30	21.67	1.53	4.51	141.95	-	-	-
Total IPPs (1																
to 6)	2,259.06	2.50	565.33	354.89	1.57	4.07	2,664.31	3.04	810.58	298.86	1.12	4.16	405.24	0.540	(0.45)	0.09

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:

	Increase in Expenses	s for power purchase from	IPP (Rs. Crore)
Month	On Account of change	On Account of	
Monu	Quantum of Power	increased Per Unit rate	Total
	Purchase	of Power Purchase	
February 2022	165.07	24.15	189.22

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

Short Term Power Purchase

5.28 MSEDCL has purchased 351.05 MU at average rate of Rs. 4.86/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 demand in view of lower availability of contracted thermal plants and to optimise power purchase cost. 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. Further, MSEDCL has also entered into banking transaction with Tata Power Delhi Distribution Ltd (TPDDL) wherein TPDDL will supply to MSEDCL 200 MW RTC in November 2021, February and March 2022 and power will be returned by MSEDCL from June to September 2022 at 101% of banked power. As per the said banking transaction, TPDDL has supplied 62.40 MUs in February, 2022 and the same is considered by the Commission for FAC computation for February, 2022. Accordingly, the total short term power purchased by MSEDCL is 413.45 MUs (IEX + Banking) at Rs 4.13/kWh for February, 2022.

Must-Run Sources

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

	Approved for February 2022							Actu	al for Febru	ary 2022			Variations			
Particular s	Quant um	VC	VC	FC	FC	APP C	Quantu m	VC	VC	FC	FC	APPC	Quantu m	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./k Wh	MU	Rs./k Wh	Rs./k Wh	Rs./kW h
MSPGCL- Hydro*	252.89	-	-	22.41	0.89	0.89	303.28	0.23	6.87	12.93	0.43	0.65	50.40	0.23	(0.46)	(0.23)
MSPGCL- Hydro Lease rent	-	-	-	46.32	-	-	-	-	-	44.08	-	-	-	_	-	-

	Approved for February 2022							Actu	al for Febru	ary 2022			Variations				
Particular s	Quant um	vc	VC	FC	FC	APP C	Quantu m	VC	VC	FC	FC	APPC	Quantu m	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./k Wh	MU	Rs./k Wh	Rs./k Wh	Rs./kW h	
1.Non- Solar	1,132	4.76	538.91	-	-	4.76	1,069.18	5.81	620.85	3.34	0.03	5.84	(62.82)	1.05	0.03	1.08	
2.Solar	888	3.52	312.80	-	_	3.52	518.22	3.83	198.45	-	-	3.83	(369.78)	0.31	-	0.31	
Renewabl e Energy including REC (1 to 2)	2,020	4.22	851.70	-	_	4.22	1,587.40	5.16	819.30	3.34	0.02	5.18	(432.60)	0.94	0.02	0.97	
Others- KAPP, TAPP, Dodson etc	490.53	2.70	132.37	0.77	0.02	2.71	298.24	2.84	84.82	0.77	0.03	2.87	(192.29)	0.15	0.01	0.16	

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

- 5.31 As seen from the aforesaid table, MSEDCL has purchased 303.28 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 252.89 MU approved by the Commission.
- 5.32 It is observed that Solar and Non-Solar energy purchased in February, 2022 i.e. 1587.40 MU was lower than approved i.e. 2020 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 REC's in the month of February, 2022. The Commission observes that MSEDCL has purchased 7.42 MUs of RE power from G-DAM Market at Rs 5.63/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

5.33 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. 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. 275 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

5.34 MSEDCL has done sale of surplus power to the extent of 8.32 MU during the month at Rs. 5.88/kWh. With such a sale of power MSEDCL has earned revenue of Rs. 4.89 Crore.

5.35 It is observed that entire 8.32 MU was sold on IEX. 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. 5.88/kWh has benefitted the consumers. Hence, the Commission has considered the actual quantum and revenue against surplus sale.

Deviation Quantum and Cost

5.36 MSEDCL has submitted that the deviation quantum (under drawl) as per invoice raised by MSLDC is 126.04 MU and corresponding realisation of Rs (28.64) Crore at Rs 2.27/kWh. Accordingly, the Commission has considered the said Deviation quantum and cost in the FAC computation for the month of February, 2022.

Approved Cost of Power Purchase

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

		App	roved for Fe	bruary 2022				Actı	ıal for Febru	ary 2022				Variat	ions	
Particul	Quantum	vc	vc	FC	FC	APP C	Quanturm	VC	VC	FC	FC	AP PC	Quantum	VC	FC	APPC
ars	MU	Rs./k Wh	Rs. Crore	Rs. Crore	Rs./k Wh	Rs./k Wh	MU	Rs./kW h	Rs. Crore	Rs. Crore	Rs./k Wh	Rs./ kW h	MU	Rs./k Wh	Rs./k Wh	Rs./kW h
MSPGC L – Thermal	3,759.38	2.70	1,015.78	659.47	1.75	4.46	4,183.80	2.90	1,214.11	643.51	1.54	4.44	424.42	0.20	(0.22)	(0.02)
MSPGC L-Hydro	252.89	-	-	22.41	0.89	0.89	303.28	0.23	6.87	12.93	0.43	0.65	50.40	0.23	(0.46)	(0.23)
MSPGC L- Hydro Lease Rent	1	-	-	46.32	-	ı	-	1	-	44.08	ı	_	-	-	-	-
NTPC	2,079.92	1.95	405.47	436.09	2.10	4.05	2,780.31	2.30	639.00	440.08	1.58	3.88	700.39	0.35	(0.51)	(0.16)
IPPs	2,259.06	2.50	565.33	354.89	1.57	4.07	2,664.31	3.04	810.58	298.86	1.12	4.16	405.24	0.54	(0.45)	0.09
RE includin g REC	2,020.00	4.22	851.70	-	-	4.22	1,587.40	5.16	819.30	3.34	0.02	5.18	(432.60)	0.94	0.02	0.97
Must Run - KAPP, TAPP, Dodson etc	490.53	2.70	132.37	0.77	0.02	2.71	298.24	2.84	84.82	0.77	0.03	2.87	(192.29)	0.15	0.01	0.16
Short Term	i	_	-	_	_	-	413.45	4.13	170.66	-	-	4.13	413.45	_	_	_
Sale of Power	-	-	-	-	-	-	8.32	5.88	4.89	-	_	5.88	8.32	-	-	-
DSM	1	-	-	-	-	-	(126.04)	2.27	(28.64)	-	-	2.27	(126.04)	-	-	-
PGCIL	1	-	-	290.63	-	-	-	-	-	275.00	-	-	-	-	-	-
Total	10,861.78	2.73	2,970.65	1,810.58	1.67	4.40	12,096.41	3.07	3,711.82	1,718.56	1.42	4.49	1,234.64	0.33	(0.25)	0.09

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

5.38 The overall power purchase cost is higher mainly due to higher variable cost and under drawl of 126 MUs by MSEDCL with realisation of only Rs 2.27/kWh resulting in higher average power purchase cost.

5.39 Considering the above, the Commission allows the average power purchase cost of Rs.4.49/kWh for the month of February, 2022 as against Rs. 4.40/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 February, 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 February, 2022.

S. No.	Particulars	Units	February, 2022
1	Average power purchase cost approved by the Commission	Rs./kWh	4.40
2	Actual average power purchase cost	Rs./kWh	4.49
3	Change in average power purchase cost (=2 -1)	Rs./kWh	0.09
4	Net Power Purchase	MU	12,096.42
5	Change in fuel and power purchase cost (=3 x 4/10)	Rs. Crore	105.68

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 October, 2021, there would not be any adjustment factor while computing the allowable FAC.

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

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 February, 2022.

9. <u>Disallowance due to excess Distribution Loss</u>

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 February 2022	Actual - April 2021 to Feb 2022	Annual Sliding Distribution Loss – Mar 21 to Feb 22
1	Net Energy Input at Distribution Voltage	MU	1,25,356.68	11,151.08	1,17,807.66	130300.12
2	MSEDCL Metered Sales (excluding sales at EHV level)	MU	96,520.20	7,489.81	85,308.09	93270.91
3	Estimated Consumption of unmetered Sales	MU	8,783.32	802.62	8,158.84	8865.28
4	Distribution Loss (1-2-3)	MU	20,053.16	2,858.65	24,340.73	28163.92
5	Distribution Loss as % of net energy input (4/1)	%	16.00%	25.64%	20.66%	21.61%
6	Excess Distribution Loss = [Actual Distribution Loss (5) - Distribution loss approved] x Net Energy Input (1)	MU	-	626.44	-	-
7	Disallowance of FAC due to excess Distribution Loss	Rs. Crore	-	7.19	-	-

- 9.3 As seen from the above table, the standalone distribution loss for the month of February, 2022 is higher at 25.64% as against approved loss of 16%. However, the cumulative distribution loss upto February, 2022 is 20.66% which is also higher than approved loss. The standalone loss for February, 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, 2021 to February, 2022 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%
July	16.05%	11.90%
August	19.36%	11.12%
September	13.93%	15.63%
October	9.86%	15.04%
November	20.73%	24.97%
December	22.70%	29.36%
January	23.95%	26.70%
February	25.64%	24.18%
Cumulative upto February	20.66%	20.78%

9.5 As Annual Sliding Distribution Loss of 21.61% is higher than the approved loss of 16%, the Commission has disallowed Rs 7.19 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 February, 2022 is as shown in the Table below:

S. No.	Particulars	Units	February, 2022 -As submitted	February, 2022 - 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	105.68	105.68
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	$\mathbf{ZFAC} = \mathbf{F} + \mathbf{C} + \mathbf{B}$	Rs. Crore	105.68	105.68
2	Calculation of Per Unit FAC			
2.1	Energy Sales within the License Area	MU	9539.13	9207.63*
2.2	Excess Distribution Loss	MU	626.44	626.44
2.3	ZFAC per kWh	Rs./kWh	0.11	0.11
3	Allowable FAC			
3.1	FAC disallowed corresponding to excess Distribution Loss [(2.2 x 2.3)/10]	Rs. Crore	-	7.19
3.2	FAC allowable [1.4-3.1]	Rs. Crore	105.68	98.49
4	Utilization of FAC Fund			
4.1	Opening Balance of FAC Fund	Rs. Crore	-	260.13

S. No.	Particulars	Units	February, 2022 -As submitted	February, 2022 - As Approved
4.2	Carrying Cost/(Holding Cost) on FAC Fund	Rs. Crore	-	2.47
4.3	Z _{FAC} for the month (Sr. N. 3.2)	Rs. Crore	105.68	98.49
4.4	Closing Balance of FAC Fund	Rs. Crore	-	361.09
4.5	Z _{FAC} leviable/(refundable) to consumer	Rs. Crore	105.68	361.09
5	Total FAC based on category wise and slab wise allowed to be recovered in the billing month of April, 2022	Rs. Crore	105.68	361.09

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

10.2 The standalone FAC for the month of February, 2022 is Rs 98.49 Crore which will added to the FAC Fund. Accordingly, the total FAC amount to be recovered is Rs 361.09 Crore. The approved amount is lower than claimed by MSEDCL in view of disallowance due to excess distribution loss which is not considered by MSEDCL.

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. 98.49 Crore for the month of February 2022 to be added to the FAC Fund.
- 11.3 The Commission in its approval for the month of January, 2022 has directed MSEDCL to carry forward the approved FAC amount of Rs. 260.13 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 holding cost is Rs. 262.61 Crore.
- 11.4 Accordingly, considering the approved FAC amount of Rs. 98.49 Crore for the month of February, 2022 and the same after being added to the FAC fund of Rs. 262.61 Crore, the total balance amount to be recovered is Rs. 361.10 Crore. The said amount of Rs 361.60 is being allowed to be recovered equally in three months from April 2022 to June 2022. The amount allowed to be recovered for each month along with carrying cost is Rs 121.74 Crore. The Commission has allowed the equal recovery so as to avoid tariff variation every month to the Consumers.
- 11.5 In view of the above, the per unit Z_{FAC} for the month of February 2022 to be levied on consumers of MSEDCL in the billing month of April, 2022, May 2022 and June 2022 is as given below. The rate of FAC is rounded for Rs.0.05. Therefore, same may be reconciled in the next approvals on under/over recovery:

Category	Z _{FAC} for the month of February, 2022 to be levied in April 2022, May 2022 and June 2022 (Rs/kWh, Rs/kVAh, Rs/HP – as Applicable)
LT Category	
Residential (LT-I)	
BPL (0-30 Units)	0.05
Consumption > 30 Units per month	
1-100 Units	0.10
101-300 Units	0.20
301-500 Units	0.25
Above 500 Units	0.25
Non-Residential (LT-II)	
0-20 kW	0.20
>20-50 kW	0.25

Category	Z _{FAC} for the month of February, 2022 to be levied in April 2022, May 2022 and June 2022 (Rs/kWh, Rs/kVAh, Rs/HP – as Applicable)
>50 kW	0.30
Public Water Works (LT-III)	
0-20 kW	0.05
20-40 kW	0.10
Above 40 kW	0.15
Agriculture (LT-IV)	
AG unmetered Pump set	
Zone 1	
A) 0-5 HP	10
B) 5HP -7.5 HP	10
C) Above 7.5 HP	10
Zone 2	
A) 0-5 HP	5
B) 5HP -7.5 HP	5
C) Above 7.5 HP	5
AG Metered Pump Set	0.05
AG Metered Other	0.15
LT Industries (LT-V)	
0-20 KW	0.15
Above 20 KW	0.15
Street Light (LT-VI)	
Grampanchayat A, B & C Class	0.10
Municipal Council	0.10
Municipal corporation Area	0.15
Public Services (LT VII)	
Government Educational Institutions	
and Hospitals	2.15
0-20 kW	0.15
>20-50 kW	0.15
>50 kW	0.15
Others	2.15
0-20 kW	0.15
>20-50 kW	0.20
>50 kW	0.20
Electric Vehicle Charging Stations (LT VIII)	0.10
HT Category	
HT	
Industry (General)	0.15
Industry (Seasonal)	0.15
Commercial	0.25
Commercial	U.43

Category	ZFAC for the month of February, 2022 to be levied in April 2022, May 2022 and June 2022 (Rs/kWh, Rs/kVAh, Rs/HP – as Applicable)
Railways/Metro/Monorail	0.15
Public Water Works (PWW) and Sewage Treatment Plants	0.15
Agricultural - Pumpsets	0.10
Agricultural - Others	0.10
Group Housing Society (Residential)	0.15
Public Services – Government Educations Institutions and Hospitals	0.15
Public Services - Others	0.20
Electric Vehicle Charging Stations	0.15
EHV	
Industry (General)	0.15
Industry (Seasonal)	0.20
Commercial	0.25
Railways/Metro/Monorail	0.10
Public Water Works (PWW) and Sewage Treatment Plants	0.10
Agricultural - Pumpsets	0.05
Group Housing Society (Residential)	0.10
Public Services - Others	0.20