



# महाराष्ट्र विद्युत नियामक आयोग

## Maharashtra Electricity Regulatory Commission

Ref. No. MERC/FAC/2024-25/ 0426

Date: 22 July, 2024

To,  
**The Managing Director**  
Tata Power Company Ltd.  
Dharavi Receiving Station  
New Shalimar Industrial Estate  
Matunga, Mumbai – 400 019

**Subject:** Prior Approval of Fuel Adjustment Charges (FAC) submission of TPC-D for the month of February, 2024.

**Reference:**

1. TPC-D's FAC submission dated 15 March, 2024 for prior approval of FAC for the month of February, 2024.
2. Data gaps communicated to TPC-D vide email dated 16 April, 2024.
3. TPC-D's response to data gaps on 06 May, 2024 and 15 May, 2024.

Sir,

Upon vetting the FAC calculations for the month of February, 2024 as mentioned in the above reference, the Commission has accorded approval for FAC amount of Rs. 53.78 Crore. As FY 2023-24 is already over and as Provisional Truing-up of FY 2023-24 has also been done by the Commission in the recent Tariff Order dated 06 March, 2024, the revised power purchase cost resulting in FAC is already adjusted in the said Tariff Order. Accordingly, the FAC chargeable to consumers is as shown in the table below:

Month	FAC Amount (Rs. Crore)
February, 2024	Nil

\*FAC already allowed to be recovered as approved in FAC approval dated 29.01.2024 accumulated for the period from April to June 2023 for recovery in three months from January 2024 to March 2024



Yours faithfully,

(Dr. Prafulla Varhade)  
Director (Elect. Engg),  
MERC

Enclosed: Annexure A: Detailed Vetting Report for the month of February, 2024.

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**PRIOR APPROVAL FOR FAC CHARGES FOR THE MONTH OF  
FEBRUARY, 2024**

**Subject:** Prior Approval of Fuel Adjustment Charges (FAC) submission of TPC-D for the month of February, 2024.

**Reference:** TPC-D's FAC submission dated 15 March, 2024, 6 May, 2024 and 15 May, 2024 for prior approval of FAC for the month of February, 2024.

**1. FAC submission by TPC-D:**

TPC-D has submitted FAC submissions for the month of February, 2024 as referred above. Upon vetting the FAC calculations, taking cognizance of all the submissions furnished by TPC-D against the data gaps issued, the Commission has accorded approval for FAC Amount of Rs. 53.78 Crore for the month of February 2024. The approved FAC amount is adjusted at the time of Provisional Truing-up of FY 2023-24 in the MTR Order dated 06 March, 2024.

**2. Background**

2.1 On 31 March, 2023, the Commission has issued Tariff Order for TPC-D in Case No. 225 of 2022 for Truing-up of FY 2019-20, FY 2020-21 and FY 2021-22, provisional Truing-up for FY 2022-23, and Aggregate Revenue Requirement and Tariff for FY 2023-24 and FY 2024-25. Revised Tariff has been made applicable from 1 April, 2023.

2.2 TPC-D had challenged the MTR Order dated 31 March, 2023 before Hon'ble APTEL on the various issues, inter alia, the estimated approval of power purchase cost and Tariff for FY 2023-24. The Hon'ble APTEL in its judgment dated 13 July 2023 in IA No. 732 of 2023 in Appeal No 369 of 2023 had granted stay to the tariff schedule for FY 2023-24 approved in MTR Order and held that during the interim stay, TPC-D's tariff for FY 2023-24 will be governed by the MYT Order dated 30 March, 2020.

2.3 TPC-D on 14 July, 2023 had made FAC submission for June, 2023 as per the MTR Order dated 31 March, 2023 in Case No 225 of 2022. However, in view of the stay granted by the Hon'ble APTEL as mentioned herein above, the said FAC submission for June, 2023 filed on 14 July, 2023 was returned to TPC-D vide letter dated 12 November, 2023 and TPC-D was directed to submit the FAC submission for April 2023 onwards as per MYT Order dated 30 March, 2020 in Case No 326 of 2019 (Tariff Order). Accordingly, TPC-D has filed FAC submissions for the month of February, 2024 for prior approval as per the Tariff Order dated 30 March, 2020 in Case No 326 of 2019.



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

***“6.7.15 Stabilising variation in consumer bill on account of FAC***

.....

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

*a. 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:*

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

*(ii) 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;*

*(iii) 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 TPC-D, such limit shall be Rs. 50 crore. Any accumulated amount above such limit shall be refunded to consumers through FAC mechanism;*

*(iv) 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.*

*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 created a FAC fund as stated above to address 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. This will ensure that the FAC mechanism is implemented with the changes as desired by the Commission, and the consumers are not levied FAC without prior approval.*



The details of the FAC as per the Regulations, shall be submitted by the 15th of the every month prior to the month in 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”

- 2.5 Vide its letter dated 20 April, 2020, the Commission communicated the excel formats along with the checklist to file FAC submissions for prior approval to all Distribution Licensees. The Commission also directed all Distribution Licensees to file FAC submissions by 15<sup>th</sup> of every month prior to the month for which the FAC is proposed to be levied for prior approval.
- 2.6 Accordingly, TPC-D has filed FAC submissions for the month of February, 2024 for prior approval. The Commission has scrutinized the submissions provided by TPC-D 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 TPC-D in the FAC submission and as approved by the Commission are as shown in the table below:

Consumer Category	Approved by the Commission*	Monthly Approved*	Actual Sales*
	(MU)	(MU)	February 2024
	(I)	(II=I/12)	(III)
<b>EHV – Industry</b>	214.59	17.88	60.68
<b>HT I - Industry</b>	984.66	82.06	85.17
<b>EHV- Commercial</b>	106.22	8.85	8.15
<b>HT II - Commercial</b>	394.99	32.92	33.19
<b>HT III - Group Housing Society (Residential)</b>	13.23	1.10	2.87
<b>HT IV – Railways/Metro/Monorail</b>			
22/33 kV	71.50	5.96	12.81
<b>HT V - Public Services</b>			
a) Govt. Edu. Inst. & Hospitals	14.49	1.21	1.54
b) Others	224.45	18.70	11.02
<b>HT VIII – EV Charging Stations</b>	0.00	0.00	1.25
<b>LT I (A)- Residential (BPL)</b>			
<b>LT I (B)- Residential</b>	2123.41	176.95	136.26
<b>LT II - LT Commercial</b>			
(A)- upto 20 kW	281.10	23.43	13.80
(B) >20 kW and <50 kW	156.94	13.08	6.94
(C) - 50 kW	384.20	32.02	27.42
<b>LT III (A) - Industry &lt; 20 kW</b>	25.20	2.10	2.70
<b>LT III (B) - Industry &gt; 20 kW</b>	212.51	17.71	16.22
<b>LT IV - Public Services</b>			



Consumer Category	Approved by the Commission*	Monthly Approved*	Actual Sales*
	(MU)	(MU)	February 2024
	(I)	(II=I/12)	(III)
a) Govt. Edu. Inst. & Hospitals	33.76	2.81	0.51
b) Others	10.23	0.85	2.37
LT V - EV Charging Stations	0.10	0.01	0.62
<b>Total</b>	<b>5251.59</b>	<b>437.63</b>	<b>423.52</b>

\* - Approved and Actual Sales includes the direct sales and changeover sales of TPC-D

\*- In Case of TPC-D, the sales is approved on annual basis. Monthly approved sales derived based on approved annual sales for comparison purpose.

3.2 It is observed that the total sales for February, 2024 is 423.52 MU which is 3.22 % lower than approved monthly sales of 437.63 MU. With respect to overall consumption of TPC-D, HT category consumption of 216.69 MU is higher by 28.46% as compared to approved monthly HT energy sales of 168.68 MU, and the LT sales of 206.83 MU are lower by 23.10% than approved sales of 268.95 MU. The overall sales are lower due to lower sales across EHV (Commercial), HT V (Public Services) - b. Others, LT I (B) – Residential, LT II Commercial, LT III(A) - Industrial > 20 kW, LT IV (Public Services) - a. a) Govt. Edu. Inst. & Hospitals than approved by the Commission in the Tariff Order.

3.3 The comparison of estimated sales and sales based on actual meter reading for the month of February 2024 is as given below:

Particulars	Actual – MU	Estimated - MU	Total	% sales based on Estimated Reading
Feb-24	423.28	0.24	423.52	0.06%

It is observed that the assessed sales percentage is marginal at 0.06% in February, 24.

3.4 Further, comparison of sales for February, 2024 as compared to last year is as shown below:

Particulars	LT - Residential (MU)	LT Others (MU)	HT (MU)	Total (MU)
April-22	192.93	77.89	221.54	492.36
April-23	174.77	78.31	229.52	482.59
May-22	213.89	82.30	225.12	521.31
May-23	202.43	85.58	239.67	527.69
June-22	212.84	79.26	213.79	505.89
June-23	232.97	86.17	223.88	543.02
July-22	165.02	73.88	209.44	448.34
July-23	181.25	77.32	236.29	494.86
August-22	166.09	73.85	217.86	457.80
August-23	168.17	79.42	225.39	472.98
September-22	167.72	73.65	211.04	452.42
September-23	174.62	77.36	214.47	466.45
October-22	163.16	73.18	210.10	446.45
October-23	185.44	83.17	188.13	456.74



Particulars	LT - Residential (MU)	LT Others (MU)	HT (MU)	Total (MU)
November-22	155.12	70.30	204.06	429.49
November-23	191.35	78.47	199.55	469.37
December-22	146.92	72.37	213.41	432.70
December -23	155.17	72.78	231.03	458.98
January-23	133.66	65.56	200.28	399.49
January-24	145.97	72.74	220.14	438.84
February-23	128.24	65.44	193.20	386.87
February-24	136.26	70.57	216.69	423.52
<b>April-22 to February-23</b>	<b>1845.59</b>	<b>807.68</b>	<b>2319.84</b>	<b>4973.11</b>
<b>April-23 to February-24</b>	<b>1938.71</b>	<b>859.72</b>	<b>2421.75</b>	<b>5220.17</b>

The Commission observes that sales in February, 2024 are higher than February, 2023 for all categories of consumers.

#### 4. Power Purchase Details

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

- Tata Power Company Ltd. (TPC-G)
- Renewable Energy (Solar and Non-Solar)
- Short Term Sources (Bilateral and Power Exchange).

In addition to the aforesaid, there may be some variation in real time which will be settled through Deviation Settlement Mechanism approved by the Commission.

4.2 Summary of Power Purchase for TPC-D is as follows:

Sr. No.	Particular	Compliance
1	Sources of approved Power Purchase	TPC-D has purchased power from approved sources.
2	Merit Order Dispatch	TPC-D has followed merit order for scheduling of power and preference was given to cheapest power.
3	Fuel Utilization Plan	TPC-G has entered into coal contract for 2 MT based on the HBA index for the period 1 August, 2022 to 31 July, 2024. TPC-G has also contracted to procure imported coal at price linked with ICI index till March 2024.  Further, APM Gas Contract with GAIL has been for the period 7 July, 2021 to 6 July, 2026.
4	Deviation Quantum	TPC-D has overdrawn 5.54 MU as compared to the Schedule.
5	Sale of Surplus Power	TPC-D has sold 4.84 MU at Rs. 7.87/kWh thereby benefitting its consumers.
6	Power Purchase	Actual Power Purchase is 433.80 MU as against approved quantum of 454.90 MU.



Sr. No.	Particular	Compliance			
		Source Name	Approved (MU)	Actual (MU)	Proportion of each Source in Actual Purchase
7	Source wise Power Purchase	TPC-G	315.69	218.85	50.45%
		RE Sources	87.06	100.34	23.13%
		Short Term	52.15	113.92	26.26%
		Deviation & Sale	-	0.70	0.16%
		<b>Total</b>	<b>454.90</b>	<b>433.80</b>	<b>100%</b>
8	Power Purchase: Section 62 of Electricity Act, 2003	As part of verification of fixed cost claimed by TPC-D, the same has been verified from the invoice raised by TPC-G.  As part of verification of energy charges claimed by TPC-D, verification of operational parameters, fuel cost, GCV etc. vis-à-vis the MTR Order/Tariff Regulations is carried out.			
9	RE Purchase	Solar Cost and Solar MU verified as per Invoice. Non-Solar MU considered as submitted by TPC-D based on the meter reading data/scheduled energy (bilateral purchase) with a direction to submit invoice in next FAC submission.			
10	Short-Term Power Purchase	Short-term power purchase by TPC-D has been verified from the invoices of February, 2024 submitted by TPC-D.			

4.3 TPC-D has purchased power of 433.80 MU as against approved 454.90 MU from the sources approved by the Commission.

The following table show the variation in average power purchase cost (Rs/kWh) for the month of February, 2024 submitted by TPC-D as compared to average power purchase cost approved in Tariff Order:

Particulars	Tariff Order Dated 30.03.2020			Actual for February, 2024		
	FY 2023-24 Approved			Net Purchase	Cost	Average Power Purchase Cost
	Net Purchase – Monthly*	Cost – Monthly	Average Power Purchase Cost			
	MU	Rs. Crore	Rs/kWh	MU	Rs. Crore	Rs/kWh
TPC-G	315.69	147.06	4.66	218.85	138.18	6.31
RE Sources	87.06	30.16	3.46	100.34	34.61	3.45
Short Term	52.15	18.56	3.56	113.92	69.83	6.13
Deviation Quantum and Cost	-	-	-	5.54	2.52	4.54
Sale of Power	-	-	-	(4.84)	(3.81)	7.87





Particulars	Tariff Order Dated 30.03.2020			Actual for February, 2024		
	FY 2023-24 Approved			Net Purchase	Cost	Average Power Purchase Cost
	Net Purchase – Monthly*	Cost – Monthly	Average Power Purchase Cost			
MU	Rs. Crore	Rs/kWh	MU	Rs. Crore	Rs/kWh	
<b>Total</b>	<b>454.90</b>	<b>195.77</b>	<b>4.30</b>	<b>433.80</b>	<b>241.33</b>	<b>5.56</b>

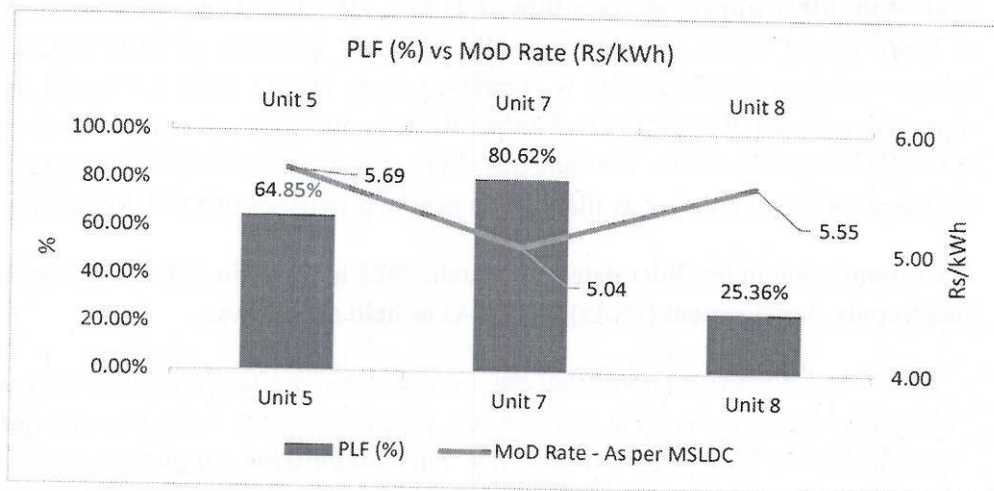
\* Although, power purchase quantum is not approved on monthly basis, the monthly quantum is arrived at based on yearly approved quantum and shown for comparison purpose only

## 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 TPC-D with regards to average power purchase cost for the month of February, 2024. 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. TPC-D has purchased power from approved sources as per the Tariff Order.

### TPC-G

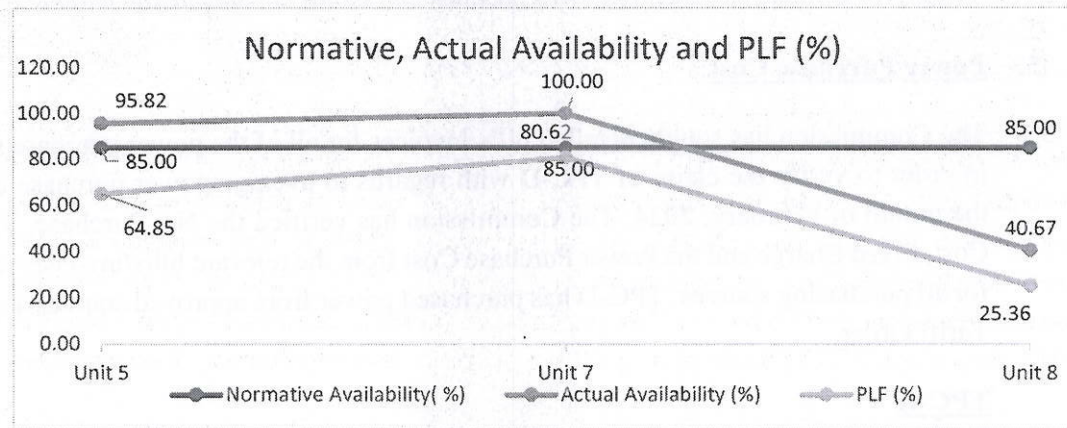
5.2 TPC-G Units 5 and 7 have declared availability of more than 90%, which is higher than the normative availability of 85%. However, the availability of Unit 8 was lower at 40.67% due to planned outage from Planned outage from 21st January 2024 to 17th February 2024 & Lower requisition by beneficiaries.. Further, the PLF of Unit 5, 7 and 8 are lower i.e., 64.85%, 80.62% and 25.36% respectively. In response to data gaps raised by the Commission for lower PLF of Unit 5, 7 and 8, TPC submitted that the PLF of Unit 5 is lower due to lower requisition by beneficiaries, Unit-7 is lower due to lower APM gas availability in addition to lower requisition by beneficiaries and Unit-8 is lower due to planned outage. The graph showing the comparison of Variable Cost in MoD Stack and monthly PLF for TPC-G thermal/gas units is given below:



5.3 The Commission has observed that TPC-D has purchased 173.29 MU from TPC-G



thermal generating units. The total overall generation was lower during the month leading to lower PLF mainly due to schedule from beneficiaries. Units 5 and 7 of TPC-G were available during the above period above normative availability. The graphical comparison of normative availability and actual availability for the month of February, 2024 is as given below:



The entire monthly fixed cost was payable in line with MYT Regulations, 2019 as the cumulative plant availability of Unit 5 and 7 are higher than the normative availability of 85%.

5.4 The Availability of TPC-G units as compared to last year is as given below:

TPC-G Units	Availability – February 2024	Availability – February 2023
Unit 5	95.82	61.19%
Unit 7	100.00	90.28%
Unit 8	40.67	99.96%

5.5 The Commission has observed that TPC-D has purchased 218.85 MU from TPC-G as against monthly approved quantum of 315.69 MU. TPC-D has purchased 45.55 MU of hydro power which is lower than the approved quantum of 59.17 MUs, whereas balance quantum of 173.29MU is purchased from TPC-G Unit 5, 7 and 8 as against approved quantum of 256.51 MU. Further, the Commission has verified that the payment of Fixed Charges for all the Thermal/Gas Units as well as Hydro Units have been worked out based on the cumulative availability as per the provisions of MYT Regulations, 2019.

5.6 The Commission in its Order dated 31 March, 2023 in Case No 221 of 2022 in respect of Fuel Supply Arrangement (FSAs) of TPC-G as held as follows:

*“8.4.2 The Commission notes that the projected Availability of all thermal generating Units and hydro generating stations are greater than the normative Availability as specified in the MYT Regulations, 2019. The Commission sought the details of Fuel Supply Agreements (FSAs) in place for achieving the projected Availability for thermal Units. In reply, TPC-G submitted that the current coal supply agreement is valid upto 31 July, 2026 and the current gas supply agreement is valid upto 31 July, 2026. TPC-G further, submitted that the new agreements would be executed subject to the outcome of the finalisation of new PPAs.*



8.4.3 The Commission sought the details of measures for fulfilling the shortfall in fuel quantum, if any, from the current FSAs. In reply, TPC-G submitted that the current contracts are adequate for meeting the projected Availability of its thermal Units. TPC-G submitted that alternate arrangements have been made based on the type of fuel in case of any non-availability under current contracts due to uncontrollable factors from the existing supplier side. Coal would be arranged through the short-term spot contracts/sourcing distress shipments as and when available on competitive basis from Open Market on need basis. Gas would be arranged through the purchase of RLNG under auction purchase/spot contract, if required. TPC-G submitted that the alternate arrangements would be pursued after due consultation with the beneficiaries as per the prevailing Regulations.

.....  
8.8.9 The Commission sought the current status of imported coal supply agreement for FY 2023-24 and FY 2024-25. The Commission also sought the basis and detailed rationale for reduction in imported coal prices for FY 2023-24 and FY 2024-25 along with supporting documents. In reply, TPC-G submitted that the coal contracts for the period beyond July, 2024, if required, would be executed through tendering process depending on the market scenario. TPC-G submitted that it has procured coal shipments for Q1 of FY 2023-24 on ICI-3/ICI-4 linked prices. TPC-G submitted the copies of coal contracts.

8.8.10 TPC-G further submitted that it has planned to procure coal at the most optimum market price to optimise the cost of generation. TPC-G is closely monitoring the indices on day-to-day basis for procuring the most economic sourcing of coal. Further, the trend of ICI-3/ICI-4 during the period from November 2022 to February 2023 shows a downward trend.

.....  
8.8.15 The Commission is aware that in FY 2021-22 and FY 2022-23 there has been a very large volatility in the prices of imported coal. The volatility and the increase in the price directly affect the end tariff of the consumers. The Imported coal needs to be procured based on international index. The Commission has analysed the month wise ICI-3 and ICI-4 index imported coal price for FY 2022-23 i.e., from April 2022 to March 2023. Based on the analysis and the data available in the Public Domain there looks to be a possibility of softening of imported coal prices. The same is indicated by the imported ICI index as ICI 4 imported coal price for the month of March 2023 has reduced to 72.82 \$/T in March 2023 from 91.39 \$/T in January 2022. (Source www.argusmedia.com). Further, the imported coal price is linked to GCV of coal and hence the imported coal pricing cannot be taken in isolation to GCV of imported coal.

8.8.16 As discussed earlier, the average imported coal price for the latest three months from January 2022 to January 2023 as per the provisions of MYT Regulations, 2019 works out to be around Rs 14072/MT. However, based on the analysis of the ICI 4 index for the past 9 months, the extreme volatility in the imported coal market and in the interest of the consumers, the Commission by exercising its Power to Remove Difficulties under Regulation 106 of MYT Regulations, 2019 has considered the imported coal price of Rs 12500/MT for approving the energy charges for FY 2023-24 and FY 2024-25. This approach of considering imported coal price in deviation to



*approach as per MYT Regulations, 2019 is in very specific/isolated condition due to volatility of imported coal prices and hence cannot be taken as precedence.*

*8.8.17 The Commission in MYT Order has considered escalation of 3% in fuel prices for approving the Energy Charges for ensuing years. In case of TPC-G, the major fuel source is imported coal and as submitted by TPC-G the imported coal prices. As discussed earlier, based on analysis of ICI.4 imported coal prices for the period April 2022 to March 2023, there appears to be a possibility of softening of coal prices. Hence, the Commission, for the purpose of this Order, has not considered any escalation in fuel prices for FY 2023-24 and FY 2024-25. ....”*

- 5.7 The previous coal purchase contract of TPC-G, which was for 2.2 Million MT and valid for two years from August 1, 2020, to July 2022, has expired. It has been further extended for an additional two years through competitive bidding, based on the HBA index, for the period from August 1, 2022, to July 31, 2024. TPC stated that, if extension required post expiry of the contract, it would be executed through tendering process depending on the market scenario and outcome of finalisation of new PPA. The Commission notes that the purchase of coal has been from the contracts entered into by TPC-G. TPC further stated that, in case of any non-availability under current contracts due to uncontrollable factors from the existing supplier side, TPC-G would arrange the coal through open market on competitive basis or short-term spot contract. TPC-G has also signed contract with GAIL for supply of APM Gas for the period 7 July, 2021 to 6 July, 2026.
- 5.8 In MTR Petition, TPC-G submitted that in order to reduce the cost of generation, it is exploring ICI index coal which has less value than HBA index. The Commission in its MTR order dated 31 March, 2023 in Case No. 221 of 2022, held the following regarding the procurement of ICI index linked coal by TPC-G:

*“8.8.14 Based on the actual imported coal price details submitted by TPC-G for the months of October 2022 to January 2023, the Commission finds that the price of imported coal for the said period is lower than that for July-September, 2022. Further, the Commission observes that TPC-G is endeavouring to procure more imported coal at lower prices based on ICI index. Therefore, the Commission has examined the actual coal price for ICI linked procurement during the months of November, 2022 to January, 2024... ..”*

- 5.9 It is observed that TPC-G has entered into contract to procure Indonesian origin coal with coal specifications similar to TPC-G’s long term contracted coal, with price linked to ICI index and the same offers significant cost advantage over HBA pricing.
- 5.10 The net design energy for Bhira, Bhivpuri and Khopoli hydro as envisaged in the MTR order were 736.68 MU, 190.91 MU and 172.58 MU, respectively. It was observed that actual cumulative generation in the month of October 2023 exceeded the net design energy generation. Therefore, net energy generation from November 2023 has been charged at Rs. Rs. 1.20/kWh, as per Regulation 51.8 of MYT Regulations, 2019. TPC-G has billed energy charges at Rs. 1.20/kWh for the energy generation exceeding the

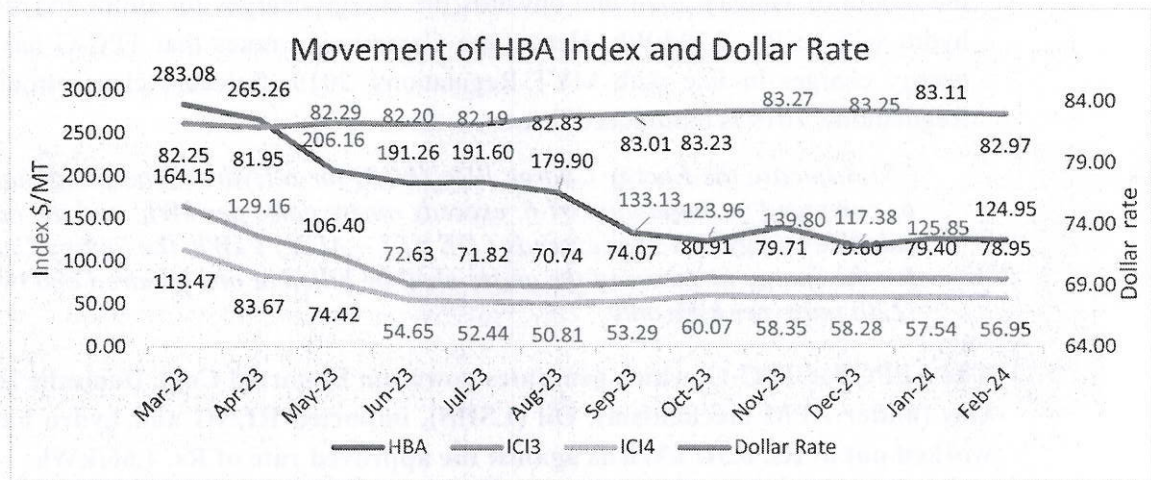


net design energy of Khopoli hydro. Similarly, Bhira and Bhivpuri hydro have exceeded the approved net design energy. Therefore, TPC-G has billed energy charges at Rs. 1.20/kWh for the energy generation exceeding net design energy. Subsequently, from the month of January 2024 and onwards the energy charges for Bhira and Bhivpuri hydro will be Rs. 1.20/kWh. Hence, the Commission notes that TPC-G has levied energy charges in line with MYT Regulations, 2019. Relevant clause from MYT Regulations, 2019 is reproduced below –

*“51.8 In case the Energy Charge Rate (ECR) for a Hydro Generating Station, as computed in Regulation 51.6, exceeds ninety paise per kWh, and the actual saleable energy in a Year exceeds  $\{ DE \times (1 - AUX) \}$  kWh, the Energy Charge for the energy in excess of the above shall be billed at one hundred and twenty (120) paise per kWh only.”*

- 5.11 **The APPC for TPC-G, which generates power on Imported Coal, Domestic Natural Gas (under APM mechanism), Oil (LSHS), imported RLNG and hydro has been worked out at Rs. 6.31/ kWh as against the approved rate of Rs. 4.66/kWh.**
- 5.12 **The landed cost of coal for energy charge computation as claimed by TPC-G is Rs 8,209.29/MT as compared to approved rate of Rs. 12,500/MT. It can be seen that the actual landed price is lower as compared to approved rate in the Tariff Order.** TPC-G’s thermal power plant at Trombay is operated with 100% Indonesian coal. As mentioned above, TPC-G has purchased Indonesian origin coal linked to ICI4 index in February 2024, which is cheaper, to optimise the cost. The Commission observes that there has been a decreasing trend in the imported coal price primarily attributed to demand supply position of the global coal market which is reflected in the HBA and ICI index for the last few months. The Commission notes that MYT Regulations, 2019 permit use of alternate source of fuel for optimization of economical operation through blending. It is also observed that the price of APM Gas was Rs. 31,488.30/SCM in February, 24 which is also lower than the approved rate of Rs. 41,279/SCM in MTR Order. However, the Commission notes that prices of APM Gas as per notification by Ministry of Petroleum and Natural Gas, Government of India in February 2024 was \$6.50/MMBTU.
- 5.13 TPC-G mainly procures imported coal from Indonesian market. As per the Contract, the coal reference price is HBA index i.e., Harga Batubara Acuan and ICI index i.e., Indonesian Coal Index for Indonesian coal which is set by Ministry of Energy and Mineral Resources (Indonesia). The Commission sought for prevailing HBA/ICI index during the aforesaid period along with the detailed computation of FOB price at which the coal has been procured by TPC-G. The graph below shows the trend of HBA, ICI3 and ICI4 index which is considered by TPC-G for energy charge calculations. It can be observed that the HBA and ICI index has witnessed decrease in trend from June, 2023 onwards with slight increase from September, 2023. Also, the Dollar Exchange rate has marginally decreased in February 2024 as compared to January 2024.





\* - HBA index at 6,322 kcal/kg GAR coal with 8% total moisture, 15% ash as received and 0.8% sulphur  
 #-ICI3 index at 4,800 kcal/kg GAR and ICI- 4 index at 4,200kcal/kg GAR.  
 @ - For the ICI 3 and 4 index, the average rate for the month is considered  
 \$ - Dollar Rate source - [www.x-rates.com](http://www.x-rates.com) (Average rate for the month for representation purpose and may not be a reference rate at which Coal is procured)

5.14 The Commission has also sought coal purchase bills considered for February, 2024. The Commission has scrutinised the bills submitted and computed the purchase price of coal for the month of February, 2024 as shown in Table below:

Date	Invoice QTY	GCV	Invoice Rate	Coal Cost	Freight Rate	BF Correction	Freight Payable	Total Coal Cost	S/MT
	MT	kcal/kg	S/MT	\$	S/MT	S/MT	\$	\$	
21-Jan-24	64,342.00	3970	58.22	3745991	14.65	1.16	1017247	4763238	74.03
31-Jan-24	62,101.00	4152	60.48	3755868	14.65	1.07	976228	4732096	76.20
<b>Total</b>	<b>1,26,443</b>	<b>4059</b>	<b>59.33</b>	<b>7501860</b>	<b>14.65</b>	<b>1.12</b>	<b>1993475</b>	<b>9495334</b>	<b>75.10</b>

5.15 TPC-G has submitted the detailed coal computation for the coal purchase considered in February, 2024 and also the reconciliation of coal cost considered in Form F12 along with each coal invoice. The coal cost is arrived on the basis of Goods Receipt Note (GRN) in the SAP system which is dependent on the rate of coal purchase (in Rs./MT or USD/MT) considered at the time of coal order (PO) booking. However, the coal cost mentioned in the coal invoice is as per the base price of coal purchase (in Rs./MT or USD/MT) arrived on the basis of actual Gross Calorific Value, Moisture content, Ash content, Sulphur content, HBA indices, etc. Once the invoice is booked in the SAP system after GRN of full coal quantity of a shipment, the cost as per coal invoice gets booked against each shipment in the SAP system in order to make payment to the supplier. To facilitate this, the difference between coal cost in Goods Receipt Note (GRN) and coal cost in the invoice is booked as adjustment entry in the SAP. Hence, the coal inventory gets valued ultimately at the invoice values and at the coal purchase rate (in Rs./MT or USD/MT) prevailing on the date of billing.

5.16 Further, as the coal purchase during a month is generally not utilised in the same month, hence, there is a variation in above computed coal price vis-à-vis coal price as considered by TPC-G for energy charge calculations. The cost of coal for energy charge computation



pertains to coal consumed during the respective months which is arrived based on the actual cost of coal inventory as well as the purchased coal cost received in the coal yard.

- 5.17 From the Table above, the basic purchase cost of imported coal including freight during the month of February, 2024 is \$75.10/MT. TPC has booked Rs. 6,948.25/MT (i.e. Rs. 5,573.43 /MT for Coal and Rs. 1,374.81 /MT for freight). Also, other coal handling charges such as insurance, handling and wharfage charges, taxes and duties, clean energy cess and other miscellaneous charges considered by TPC are in line with the average prices approved in the previous quarters. Accordingly, the total landed cost of coal arrived is Rs. 8,331.68/MT. Accordingly, the break-up of the cost as submitted by TPC-D and as considered by the Commission against the procurement of coal for the month of February, 2024 is as given below:

Sr. No	Particular	Source / Formula	units	As Submitted – Coal Cost	As Approved – Coal Cost
1	Basic Coal cost + Freight in Rs.	As submitted	Rs./MT	6,948.25	6,948.25
2	Excise + Custom Duty + CE Cess+ Insurance	As submitted	Rs./MT	390.49	390.49
3	Handling and Wharfage	As submitted	Rs./MT	666.42	666.42
4	Other Fuel Handling Charges	As submitted	Rs./MT	592.50	592.50
5	Other Adjustment	As submitted	Rs./MT	(265.98)	(265.98)
6	<b>Total as per Form 12</b>	<b>Sum (1:5)</b>	<b>Rs./MT</b>	<b>8,331.68</b>	<b>8,331.68</b>

- 5.18 Apart from above, the Commission has also sought for third party sampling report for GCV verifications. TPC has submitted the third-party sampling certificate for the respective period. The Commission has verified the document submitted and found to be in order. Further, the 'As received' GCV of imported coal received in February 2024 was 4027 kCal/kg and 'As billed' GCV was 4059 kCal/kg. The 'As fired' GCV of imported coal considered by TPC-G is 3930 kCal/kg. Considering the difference between the 'As received' GCV and the 'As Fired' GCV, the stacking loss works out to 97 kCal/kg which is within limit of 120 kCal/kg as specified in the MYT Regulations, 2019. Therefore, TPC-G has considered the stacking loss as per norms approved by the Commission while computing the Energy Charges. The transit loss claimed by TPC-D for the month of February 2024 is Nil.
- 5.19 The Commission notes that TPC in Form 12 had considered coal consumption cost during the month based on usage of coal and not on weighted average of opening inventory and coal purchased during the month. The Commission in its FAC approval for the month of December, 2022 has already directed TPC-G that weighted average rate of computing coal cost should be followed by TPC-G as similar methodology is also being followed by other generators within the State and accordingly raise the FAC bill from April 2023 onwards as per the weighted average method of computation of coal cost. Accordingly, the Commission has recomputed the cost of coal from December 2022 onwards and considered the coal cost for February 2024 as given below:



Month	Opening inventory actual			Purchase during the month			Consumption during the month			Closing inventory actual		
	Qty	Cost	Price	Qty	Cost	Price	Qty	Cost	Price	Qty	Cost	Price
	MT	Rs.	Rs./MT	MT	Rs.	Rs./MT	MT	Rs.	Rs./MT	MT	Rs.	Rs./MT
<b>As Submitted by TPC</b>												
Feb-24	2,04,971	1,67,09,53,858	8,152	1,26,443	1,05,34,82,441	8,332	1,71,293	1,40,81,36,518	8,221	1,60,122	1,31,62,99,781	8,221
<b>As approved by the Commission</b>												
Dec-22	2,65,358	3,93,58,62,379	14,832	1,11,805	1,74,33,02,416	15,592	1,83,607	2,76,46,76,986	15,058	1,93,556	2,91,44,87,810	15,058
Jan-23	1,93,556	2,91,44,87,810	15,058	1,26,944	1,95,38,39,169	15,391	1,31,388	1,99,57,48,819	15,190	1,89,112	2,87,25,78,160	15,190
Feb-23	1,89,112	2,87,25,78,160	15,190	52,082	59,38,07,523	11,401	1,31,526	1,89,02,57,219	14,372	1,09,669	1,57,61,28,464	14,372
Mar-23	1,09,669	1,57,61,28,464	14,372	2,02,747	2,08,16,24,286	10,267	1,93,459	2,26,50,11,203	11,708	1,18,957	1,39,27,41,547	11,708
Apr-23	1,18,957	1,39,27,41,547	11,708	3,11,014	3,01,76,21,158	9,703	2,09,575	2,14,96,88,999	10,257	2,20,395	2,26,06,73,706	10,257
May-23	2,20,395	2,26,06,73,706	10,257	2,19,752	1,99,36,16,399	9,072	2,31,854	2,24,10,10,973	9,666	2,08,293	2,01,32,79,132	9,666
Jun-23	2,08,293	2,01,32,79,132	9,666	2,26,456	2,32,04,79,126	10,247	2,20,999	2,20,30,09,194	9,968	2,13,750	2,13,07,49,064	9,968
Jul-23	2,13,750	2,13,07,49,064	9,968	1,50,897	1,28,17,53,768	8,494	1,43,818	1,34,59,01,843	9,358	2,20,829	2,06,66,00,990	9,358
Aug-23	2,20,829	2,06,66,00,990	9,358	2,11,625	1,66,27,49,163	7,857	2,12,793	1,83,50,59,204	8,624	2,19,661	1,89,42,90,948	8,624
Sep-23	2,19,661	1,89,42,90,948	8,624	1,76,174	1,39,05,45,265	7,893	2,28,690	1,89,77,82,869	8,298	1,67,145	1,38,70,53,344	8,298
Oct-23	1,67,145	1,38,70,53,344	8,298	1,64,693	1,31,88,70,114	8,008	2,49,604	2,03,53,57,252	8,154	82,234	67,05,66,206	8,154
Nov-23	82,234	67,05,66,206	8,154	3,04,978	2,48,77,08,205	8,157	2,19,152	1,78,75,02,196	8,156	1,68,060	1,37,07,72,215	8,156
Dec-23	1,68,060	1,37,07,72,215	8,156	2,29,635	1,90,82,09,359	8,310	2,28,051	1,88,02,74,373	8,245	1,69,644	1,39,87,07,141	8,245
Jan-24	1,69,644	1,39,87,07,141	8,245	2,64,243	2,12,73,40,959	8,051	2,28,915	1,86,03,14,457	8,127	2,04,971	1,66,57,33,643	8,127
Feb-24	2,04,971	1,66,57,33,643	8,127	1,26,443	1,05,34,82,441	8,332	1,71,293	1,40,54,38,512	8,205	1,60,121	1,31,37,77,572	8,205

5.20 As seen from above table, there is marginal difference of Rs. (15.75)/MT between TPC's approach vis a vis weighted average methodology of opening inventory and coal purchased during the month. Accordingly, the Commission has recomputed the energy charges which decreased to Rs. 5.72/kWh and Rs. 5.56/kWh from Rs. 5.73/kWh and Rs. 5.57/kWh for Unit-5 and Unit-8, respectively and considered the same in FAC approval. Also, the Commission directs TPC-G to refund the differential in cost in the next monthly bill to TPC-D and BEST.

5.21 It is observed that there is difference in coal cost considered in Form 11 and Form 12. TPC-D submitted that the difference in the cost is due to Foreign exchange variation due to difference in dollar rate at the time of booking of Purchase Order and the actual payment made to vendor and the employee cost. Accordingly, the coal consumption cost considered by the Commission as per Form 11 is as given below:

Particulars	Units	TPC Submission	As Approved
Form F12 - Coal Consumption Cost	Rs/MT	8,220.63	8,204.88
Foreign Exchange Rate Variation	Rs/MT	(44.35)	(44.35)
Employee Cost	Rs/MT	33.00	33.00
Form F11 - Coal Consumption Cost	Rs/MT	8,209.29	8,193.54

5.22 In view of the above, the Commission has considered APPC of Rs. 6.31/kWh as against approved rate of Rs. 4.66/kWh for power purchased from TPC-G for the month of February, 2024.

5.23 Variation in power purchase expenses from TPC-G can be divided on account of change in quantum and per unit rate as follows:





Month	Increase in Expenses for power purchase from TPC-G (Rs. Crore)		
	On Account of change Quantum of Power Purchase	On Account of change in Per Unit rate of Power Purchase	Total
February 2024	(45.11)	36.10	(9.01)

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

### Renewable Sources

- 5.24 TPC-D has tied up non-solar generation (Wind) of 87.50 MW, 178.06 MW of solar and 225 MW Wind-Solar Hybrid to meet its Renewable Purchase Obligation.
- 5.25 TPC-D had purchased Solar RE (70.88 MU) and non-Solar RE (29.46 MU) power during the month of February, 2024. Of the total Solar RE Purchase, TPC-D has purchased 70.74 MU of solar energy from its long-term contracts at weighted average rate of Rs. 3.18/kWh and this also includes solar power from 225 MW wind-solar hybrid project. The said solar purchase is considered as per the invoice submitted by TPC-D. In respect of non-solar, TPC-D has submitted that it is yet to receive credit notes (invoices) for the wind power procured from various generators during February, 2024 and accordingly wind power purchase has been considered based on the monthly meter reading data as 12.98 MU at rate of Rs. 3.70/kWh, this purchase includes wind power from 225 MW wind-solar hybrid project. Additionally, TPC-D has purchased 16.48 MU of wind power at Rs. 4.43/kWh respectively in the bilateral short-term market. The Commission has considered the total energy of 29.46 MU at the rate of Rs. 4.11/kWh as submitted by TPC-D. However, TPC-D is directed to submit the invoices of non-solar wind energy purchase during the FAC submission of next month for verification.
- 5.26 TPC-D has also purchased Solar (0.14 MU), Non-Solar power (2.96 MU), and Hydro (0.27 MU) from IEX through G-DAM at Rs. 7.93/kWh. The Commission has considered total Solar, non-Solar and Hydro energy of 3.37 MU at the rate of Rs. 7.93/kWh as submitted by TPC-D.
- 5.27 The Commission observes that TPC-D has purchased total 100.34 MU of RE power during the month of February, 2024. **The average power purchase cost from RE sources is Rs. 3.45/kWh as compared to approved rate of Rs. 3.46/kWh. Accordingly, the Commission has considered RE purchase as submitted by TPC-D.**
- 5.28 Variation in power purchase expenses from RE Sources can be divided on account of change in quantum and per unit rate as follows:



Month	Increase in Expenses for power purchase from RE Sources (Rs. Crore)		
	On Account of change Quantum of Power Purchase	On Account of change in Per Unit rate of Power Purchase	Total
February 2024	4.60	(0.14)	4.46

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

### Short Term Purchase

5.29 With regards to short term purchase, TPC-D has purchased 113.92 MU at average rate of Rs. 6.07 /kWh as compared to approved rate of Rs. 3.56/kWh to meet its demand.

5.30 TPC-D purchased 106.33 MU from Power Exchanges at rate of Rs. 4.23/kWh. TPC-D has purchased 4.99 MU at average rate of Rs. 3.71/kWh from M/s Kreate Energy (I) Pvt. Ltd. (M/s. KEIPL) at rate linked to IEX day ahead market with discount of Rs. 0.10/kWh. In response to the query raised by the Commission regarding whether the power procured from M/s. KEIPL is under competitive bidding, TPC-D submitted that the power was procured through a power exchange-linked rate with a discount of Rs. 0.10/kWh, which itself is a competitively discovered price. Further, TPC-D has not undertaken bilateral power purchase under competitive bidding process on short term basis in the month of February, 2024. TPC-D has also claimed ISTS charges raised by Central Transmission Utility India Limited Rs. 22.00 Crore for the month of October 2023 and November 2023 as per Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) (First Amendment) Regulations, 2023.

5.31 TPC-D has claimed Rs. 0.88 Crore as standby charge, which is the differential amount between invoice raised by MSEDCL and standby energy charges claimed in past FAC submissions i.e., in the month of June 2018, November 2018, August 2019, December 2019, October 2020, November 2020, January 2021 and February 2021. In response to the query raised by the Commission in respect of claim of the said amount in final Truing-up of the respective years, TPC-D submitted the data of standby charges as approved in truing up of respective years vis a vis invoice raised by MSEDCL. The details are as follows:

Months	Invoice raised by MSEDCL (Rs. Cr.)	Standby charges as approved in Truing up of respective months (Rs. Cr.)	Differential Adjustment
Jun-18	0.49	0.63	(0.15)
Nov-18	0.41	1	(0.60)
May-19	0.8	4.12	(0.32)
Aug-19	1.79		



Months	Invoice raised by MSEDCL (Rs. Cr.)	Standby charges as approved in Truing up of respective months (Rs. Cr.)	Differential Adjustment
Dec-19	1.21		
Oct-20	0.25	0.22	0.03
Nov-20	0.07	0.06	0.01
Jan-21	5.46	5.14	0.32
Feb-21	0.06	0.03	0.03
Mar-21	0.03	0.08	(0.05)
<b>Total in Rs. Crore</b>	<b>10.57</b>	<b>11.28</b>	<b>(0.72)</b>

It has been observed that TPC-D has previously claimed the standby charges amount in the truing up of the respective years. Upon receipt of the actual invoices and ascertainment of the amounts allowed to pass through, it is observed that an excess amount of Rs. 0.72 crore was claimed during the truing up process. Accordingly, this excess amount is to be adjusted in February 2024. Therefore, the Commission has considered this adjustment in February 2024.

- 5.32 The Commission has observed that BEST and TPC-D have executed the agreement of Inter-Discom trade of Power under MERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2019 read with Scheduling and Dispatch code, which inter alia provides guiding principles for exchange of power between utilities on Day-ahead and Intra-day basis. In view of the above, TPC-D has purchased 0.09 MU at Rs. 8.54/kWh.
- 5.33 Also, it has been observed that TPC-D has done banking arrangement with Punjab state Power corporation Limited (PSPCL), wherein PSPCL has supplied the power for banking of energy of 25 MW and 100 MW from 22nd February 2024 to 29th February 2024 and 01st March 2024 to 31st March 2024, respectively, during the time block 00:00 Hrs to 06:00 Hrs and 17:00 Hrs to 24:00 Hrs. Further, TPC-D will return the energy to PSPCL for the period from 1st August 2024 to 30th September 2024 (00:00 to 24:00 Hrs on RTC basis). In February 2024, PSPCL has banked 2.51 MU of energy to TPC-D amounted to Rs. 0.006 Crore which consist of trading margin and open access charges, the costs related to the same are considered in February 2024. It is noted that there is no cost of banking involved in the aforementioned transaction except open access charges and trading margin fees of Rs. 0.02 /kWh. Since this banking arrangement have helped to optimise power purchase cost, the Commission has considered the same in February 2024. In view of the above, the Commission has considered the short-term purchase by TPC-D for the month of February, 2024.
- 5.34 Variation in power purchase expenses from Short Term Sources can be divided on account of change in quantum and per unit rate as follows:



Month	Increase in Expenses for power purchase from Bilateral Short Term (Rs. Crore)		
	On Account of change Quantum of Power Purchase	On Account of change in Per Unit rate of Power Purchase	Total
February 2024	21.98	28.57	50.55

### Deviation Quantum and Cost

5.35 It was observed that TPC-D has overdrawn 5.54 MU during the month of February, 2024. The said deviation quantum is arrived after grossing up T<math>\diamond</math>D periphery quantum to G<math>\diamond</math>T periphery by considering the normative transmission loss of 3.18%. Accordingly, the deviation quantum (5.54 MU) and cost (Rs. 2.52 Crore) has been considered as per provisional weekly invoice raised by MSLDC for the period 1 February, 2024 to 29 February, 2024. Further, it is observed that TPC-G has not considered DSM and ADSM charges for calculation of energy charges as well as fixed charges. Also, TPC-D has considered only DSM charges and not considered ADSM charges for calculation of cost towards deviation quantum.

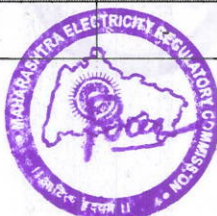
### Sale of Power

5.36 TPC-D has done sale of surplus power to the extent of 4.84 MU during the month at Rs. 7.87/kWh. With such a sale of power TPC-D has earned revenue of Rs. 3.81 Crore. TPC-D has managed to sale the surplus power at a higher rate, thus lowering the APPC and benefitting the consumers. Hence, the Commission has considered the actual quantum and revenue against surplus sale.

### 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, 2024 considered by the Commission is as shown below:

Particulars	Source	Power Purchase Quantum (MU)	Fixed Cost (Rs. Crore)	Fixed Cost (Rs./kWh)	Variable Cost (Rs. Crore)	Variable Cost (Rs./kWh)	Total Cost (Rs. Crore)	APPC (Rs./kWh)
TPC-G	Approved	315.69	39.77	1.26	107.29	3.40	147.06	4.66
	Actual	218.85	37.32	1.71	100.88	4.61	138.04	6.31
RE and Additional RE Sources	Approved	87.06	-	-	30.16	3.46	30.16	3.46
	Actual	100.34	-	-	34.61	3.45	34.61	3.45
Bilateral (Short Term)	Approved	52.15	-	-	18.56	3.56	18.56	3.56
	Actual	113.92	-	-	69.11	6.07	69.11	6.07
Deviation Quantum	Approved	-	-	-	-	-	-	-
	Actual	5.54	-	-	2.52	4.54	2.52	4.54
Sale of Surplus Power	Approved	-	-	-	-	-	-	-
	Actual	(4.84)	-	-	(3.81)	7.87	(3.81)	7.87



Particulars	Source	Power Purchase Quantum (MU)	Fixed Cost (Rs. Crore)	Fixed Cost (Rs./kWh)	Variable Cost (Rs. Crore)	Variable Cost (Rs./kWh)	Total Cost (Rs. Crore)	APPC (Rs./kWh)
Total	Approved	454.90	39.77	0.87	156.00	3.43	195.77	4.30
	Actual	433.80	37.32	0.86	203.31	4.69	240.48	5.54

5.38 Considering the above, the Commission allows the average power purchase cost of Rs. 5.54/kWh for the month of February, 2024 as shown in Table above. The actual purchase for same month in FY 2022-23 i.e., February, 2023 was 388.14 MU and power purchase cost was Rs. 255.24 Crore with APPC of Rs. 6.58/kWh.

**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, 2024 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<sub>FAC</sub> is to be passed on to the consumers.

6.2 The following table shows the Z<sub>FAC</sub> worked out by the Commission on account of difference in fuel and power purchase cost for the month of February, 2024.

S. No.	Particulars	Units	February 2024
1	Average power purchase cost approved by the Commission	Rs./kWh	4.30
2	Actual average power purchase cost	Rs./kWh	5.54
3	Change in average power purchase cost (=2 -1)	Rs./kWh	1.24
4	Net Power Purchase	MU	433.80
5	Change in fuel and power purchase cost (=3 x 4/10)	Rs. Crore	53.78

**7. Adjustment for over recovery/under recovery (B)**

7.1 The Commission is of the view that any adjustment for over recovery/under recovery has to be done for the (n-4)<sup>th</sup> month as per provisions of MYT Regulations, 2019. However, since the Commission has already done Provisional Truing-up in the recent Tariff order for FY 2023-24, there is no requirement of any adjustment for over recovery/ under recovery of cost for FY 2023-24.

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

8.1 As explained in the above paragraph in absence of any adjustment factor for previous month, there is no carrying cost which is to be allowed in FAC for the month of February, 2024.



**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<sub>FAC</sub> 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<sub>FAC</sub> 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<sub>FAC</sub> corresponding to the excess distribution losses (in kWh terms) shall be deducted from the total Z<sub>FAC</sub> recoverable”*

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	February 2024 - Actual	Actual Cumulative (up to February 2024)	Annual Sliding Distribution Loss (March 2023 to February 2024)
1	Net Energy Input at Distribution Voltage	MU	3472.72	261.23	3193.74	3473.59
2	TPC-D Retail Sales (excluding sales at 110/132 kV level)	MU	3437.30	259.81	3167.74	3439.43
3	Distribution Loss (1 - 2)	MU	35.420	1.42	26.00	34.16
4	Distribution Loss as % of net energy input (3/1)	%	1.02%	0.54%	0.81%	0.98%
5	Excess Distribution Loss = [Actual Distribution Loss (4) - Distribution loss approved] x Net Energy Input (1)	MU		0.00	0.00	0.00
6	Disallowance of FAC due to excess Distribution Loss	Rs. Crore	-	-	-	-

It is seen that standalone distribution loss for the month of February, 2024 is 0.54%, which is lower than the approved loss. The cumulative loss up to February 2024 of 0.81% is lower than approved loss i.e., 1.02%. In response to the query raised by the Commission, TPC-D submitted that in its monthly distribution loss computation, input



energy is considered for calendar month and energy billed in the month (output energy) does not correspond to exact calendar month on account of billing cycle spread across consecutive months. However, such variations normalise when cumulative losses are considered for the year. It is observed that annual sliding distribution loss of 0.98% for March 2023 to February 2024 is lower than approved loss of 1.02%.

- 9.2 The Commission notes that estimated sales for the month of February, 2024 is only 0.06% of the total sales i.e., 0.24 MU. The comparison of Distribution Loss for February, 2024 as compared to previous years is as given below:

Particulars	FY2023-24	FY2022-23
<b>Approved Loss</b>	<b>1.02%</b>	<b>1.02%</b>
April	3.18%	2.22%
May	2.17%	2.08%
June	-0.28%	-1.20%
July	-0.19%	1.11%
August	1.49%	0.94%
September	0.38%	0.36%
October	2.57%	0.37%
November	-1.15%	1.34%
December	0.99%	1.39%
January	0.63%	-0.93%
February	0.54%	1.82%
Cumulative up to February	<b>0.81%</b>	<b>0.89%</b>

- 9.3 As Annual Sliding Loss for the month of February, 2024 is lower than approved loss, the Commission has not worked out any disallowance account of lower annual sliding Distribution Loss.

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

- 10.1 The summary of the FAC amount as approved by the Commission for the month of February, 2024 is as shown in the Table below:



S. No.	Particulars	Units	February 2024 - As per TPC	February 2024- As Approved
<b>1.0</b>	<b>Calculation of ZFAC</b>			
1.1	Change in cost of generation and power purchase attributable to Sales within the License Area (F)	Rs. Crore	54.64	53.78
1.2	Carrying cost for over-recovery/under-recovery (C)	Rs. Crore	-	-
1.3	Adjustment factor for over-recovery/under-recovery (B)	Rs. Crore	-	-
1.4	<b>ZFAC = F+C+B</b>	Rs. Crore	54.64	53.78
<b>2.0</b>	<b>Calculation of Per Unit FAC</b>			
2.1	Energy Sales within the License Area	MU	423.52	423.52
2.2	Excess Distribution Loss	MU	0.37	-
2.3	ZFAC per kWh	Rs./kWh	1.29	1.27
<b>3.0</b>	<b>Allowable FAC</b>			
3.1	FAC disallowed corresponding to excess Distribution Loss [(2.2 x 2.3)/10]	Rs. Crore	0.05	-
3.2	FAC allowable [1.4-3.1]	Rs. Crore	54.59	53.78
<b>4.0</b>	<b>Utilization of FAC Fund</b>			
4.1	Opening Balance of FAC Fund	Rs. Crore	458.85	-
4.2	Carrying Cost on FAC Fund	Rs. Crore	3.72	-
4.3	Z <sub>FAC</sub> for the month (Sr. N. 3.2)	Rs. Crore	54.59	53.78
4.4	Closing Balance of FAC Fund	Rs. Crore	517.16	53.78
4.5	Z <sub>FAC</sub> leviable/refundable to consumer	Rs. Crore	517.16	-
<b>5.0</b>	<b>Total FAC based on category wise and slab wise allowed to be recovered</b>	Rs. Crore	517.16	-
<b>6.0</b>	<b>Carried forward FAC for recovery during future period (4.5-5.0)</b>	Rs. Crore	-	0.00

10.2 It can be seen from the above table that standalone FAC for the month of February, 2024 is Rs. 53.78 Crore and is slightly lower than claimed by TPC-D in view of coal computation cost considered by the Commission as per weighted average cost of coal and credit towards standby charges claimed already approved in truing up of respective past years.





**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<sub>FAC Cat</sub> = Z<sub>FAC</sub> component for a particular Tariff category/sub-category/consumption slab in ‘Rupees per kWh’ terms;*

*k = Average Billing Rate / ACOS;*

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

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

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

*Provided that the monthly Z<sub>FAC</sub> shall not exceed 20% of the variable component of Tariff or such other ceiling as may be stipulated by the Commission from time to time:*

*Provided further that any under-recovery in the Z<sub>FAC</sub> on account of such ceiling shall be carried forward and shall be recovered by the Distribution Licensee over such future period as may be directed by the Commission....”*

11.2 Accordingly, the Commission allows the FAC amount of Rs. 53.78 Crore for the month of February, 2024. As FY 2023-24 is already over and Provisional Truing-up of FY 2023-24 has also been done by the Commission in the Tariff Order dated 06 March, 2024, the revised power purchase cost resulting in FAC is already adjusted in the said Tariff Order.

11.3 In a view of above, the per unit Z<sub>FAC</sub> for the month of February, 2024 to be levied on consumers of TPC-D is Nil.



