Ref. No. MERC/FAC/2025-26/ 0942 **Date: 12 December, 2025**

To,
The General Manager
The Brihanmumbai Electric Supply and Transport Undertaking
BEST Bhavan, BEST Marg
Post Box No. 192
Mumbai 400 001.

Subject: Prior Approval of Fuel Adjustment Charges (FAC) submission of BEST Undertaking for the month of July, 2024.

Reference:

1. FAC submission dated 19 August, 2024 by BEST Undertaking for prior approval of FAC for the month of July, 2024.
2. Data gaps communicated to BEST vide email dated 20 August, 2024.
3. BEST's response to data gaps on 22 August, 2024.

Sir,

Upon vetting the FAC calculations for the month of July, 2024 as mentioned in the above reference, the Commission has accorded approval for FAC Amount of **Rs. (9.80) Crore.** As FY 2024-25 is already over and Provisional Truing-up of FY 2024-25 has also been done by the Commission in the recent MYT Order dated 28 March, 2025, the revised power purchase cost resulting in FAC is already adjusted in the said MYT Order. Accordingly, the FAC chargeable to its consumers is as shown in the table below:

Month	FAC Amount (Rs. Crore)
July, 2024	**0 (Zero)**

Yours faithfully,

Rice

(Dr. Prafulla Varhade)
Executive Director, MERC

Encl: Annexure A: Detailed Vetting Report for the month of July, 2024.

१३वा मजला, केंद्र क्र. १, जागतिक व्यापार केंद्र, कफ परेड, मुंबई - ४०० ००५.
13th Floor, Centre No. 1, World Trade Centre, Cuffe Parade, Mumbai - 400 005.
Tel.: 022-2216 3964 / 2216 3965 / 2216 3969 **Fax :** 022-2216 3976
E-mail : mercindia@merc.gov.in / mercindia@mercindia.org.in **Website :** www.merc.gov.in / www.mercindia.org.in

ANNEXURE A

Detailed Vetting Report

Date: 12 December, 2025

PRIOR APPROVAL FOR FAC CHARGES FOR THE MONTH OF JULY 2024

Subject: Prior Approval of Fuel Adjustment Charges (FAC) submission of BEST Undertaking for the month of July, 2024.

Reference:

1. FAC submission dated 19 August, 2024 by BEST Undertaking for prior approval of FAC for the month of July, 2024.
2. Data gaps communicated to BEST vide email dated 20 August, 2024.
3. BEST's response to data gaps on 22 August, 2024.

1. **FAC submission by BEST Undertaking:**

1.1 BEST Undertaking ('BEST') has submitted FAC submissions for the month of July, 2024 as referred above. Upon vetting the FAC calculations, taking cognizance of all the submissions furnished by BEST against the data gaps issued, the Commission has accorded prior approval to BEST for negative FAC amount of Rs. (9.80) Crore for the month of July, 2024. The approved FAC amount is adjusted at the time of Provisional Truing-up of FY 2024-25 in the MYT Order dated 28 March, 2025.

2. **Background**

2.1 On 31 March, 2023, the Commission has issued Tariff Order for BEST (Case No.212 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 In the Tariff Order, the Commission has stipulated methodology of levying FAC as follows:

"8.17 Stabilising variation in consumer bill on account of FAC

………………

8.17.4 Therefore, using its powers for Removal of Difficulties under Regulations 106 of MYT Regulations, 2019, the Commission is making following changes in FAC mechanism stipulated under Regulation 10 of 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 next tariff determination process.

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, upon seeking prior approval from the Commission.

8.17.5 In order to maintain transparency in management and use of such FAC Fund, Distribution Licensee shall maintain monthly account of such FAC fund and upload it on its website for information of stakeholders.

8.17.6 As the Commission has continued concept of FAC fund as stated above to stabilize 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.

8.17.7 The details of the FAC as per the Regulations, shall be submitted by the 15th of every month prior to the month on which the FAC is proposed to be levied and the Commission will endeavour to decide the same within 10 days so that the same can be levied from the 1st of the subsequent month."

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, BEST has filed FAC submissions for the month of July, 2024 for prior approval of the Commission. The Commission has scrutinized the submissions provided by BEST 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 BEST in the FAC submission and as approved by the Commission are as shown in the table below:

Table 1: Energy Sales Approved and Actual for the Month of July 2024 (MUs)

Consumer Category	Approved by the Commission (MU)	Monthly Approved* (MU)	Actual Sales
			July, 2024(MU)
	(I)	(II=I/12)	(III)
HT I- Industry	203.91	16.99	11.15

Consumer Category	Approved by the Commission (MU)	Monthly Approved* (MU)	Actual Sales
			July, 2024(MU)
	(I)	(II=I/12)	(III)
HT II - Commercial	290.25	24.19	19.74
HT III - Group Housing Society (Residential)	32.12	2.68	3.27
HT IV – Railways/Metro/Monorail	2.57	0.21	0.24
HT V - Public Services			
a) Govt. Edu. Inst. & Hospitals	27.78	2.32	2.91
b) Others	199.14	16.60	19.94
HT-VI EV Charging Stations	-	-	0.27
Total HT Sales	**755.77**	**62.98**	**57.53**
LT I (A)- Residential (BPL)	0.04	0.00	0.001
LT I (B)- Residential	2,231.87	185.99	206.64
LT II - LT Commercial			
(A)- upto 20 kW	1,000.05	83.34	76.43
(B) >20 kW and <50 kW	188.26	15.69	16.80
(C) - 50 kW	372.71	31.06	35.46
LT III (A) - Industry < 20 kW	118.81	9.90	8.81
LT III (B) - Industry > 20 kW	87.99	7.33	6.40
LT IV - Public Services		-	
a) Govt. Edu. Inst. & Hospitals	61.40	5.12	6.10
b) Others	197.15	16.43	17.37
LT V(A) – Agriculture Pumpsets	-	-	-
LT V(B) – Agriculture Others	0.05	0.00	0.01
LT VI - EV Charging Stations	24.03	2.00	3.50
Total LT Sales	**4,282.36**	**356.86**	**377.51**
Total	**5,038.13**	**419.84**	**435.04**

**- Monthly approved sales is derived based on average of annual sales for comparison purpose.*

3.2 With respect to sales submitted by BEST as per Guidelines dated 19 May 2021, it is observed that the actual sales for the month of July 2024 is 435.04 MU which is higher by 3.62% as compared to the approved energy sales of 419.84 MU. With respect to the consumption, HT category consumption is 57.53 MU which is on a lower side by 8.65% compared to approved monthly HT energy sales of 62.98 MU and increase in the sales has been noticed of 5.79% on LT side whereby the actual sales is 377.51 MU as compared to approved monthly LT energy sales of 356.86 MU. The variation was observed across few categories due to temperature variation (Seasonal variation).

3.3 However, HT III - Group Housing Society (Residential), HT IV – Railways/Metro/Monorail, HT V - Public Services (a) Govt. Edu. Inst. & Hospitals and (b) other, LT I (B)- Residential, LT II - LT Commercial (B) >20 kW and <50 kW and (C) - 50 kW, LT IV - Public Services a) Govt. Edu. Inst. & Hospitals and (b) other and LT-VI Electrical Vehicle Charging have witnessed sales higher than the approved monthly sales whereas other categories have witnessed lower sales than the approved monthly sales.

3.4 BEST has also submitted the data providing actual billing and estimated billing undertaken for the calculation of total energy consumption for the month of July 2024. BEST further submitted the number of actual and estimated meter readings undertaken for the month of July 2024 as shown below:

Table 2: No. of Meters reading on actual and estimated basis for July 2024

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	194	0	194
2	LT	1017127	36588	1053715
	Total	**1017321**	**36588**	**1053909**
	%	**96.53%**	**3.47%**	**100.00%**

In response to data gaps raised by the Commission in respect of increase in estimated reading of LT meters, BEST submitted that estimated reading cases increased due to it has started the drive of replacement of existing electronics meter by smart meter under RDSS project from the month of December 2023 and onwards. Due to replacement process, reading of old meters were not found on site in the various cases. Hence the billing of these meters was done on estimated basis.

3.5 Accordingly, the Commission has also analysed the comparison of estimated sales and sales based on actual meter reading for last 6 months and it was observed that the assessed sales percentage has been constant for past several months and is around 2% to 3% Similarly, it was observed that in July 2024, the estimated sales were 2% of the total sales.

Table 3: Actual and Estimated Sales of past 6 months

Particulars	Feb-24	Mar-24	Apr-24	May-24	June-24	July-24
Actual – MUs	334.76	338.29	386.76	435.26	445.53	426.08
Estimated – MUs	4.72	6.50	11.71	12.33	17.04	8.96
Total	**339.48**	**344.79**	**398.46**	**447.58**	**462.57**	**435.04**
% Sales based on Estimated Reading	1.39%	1.89%	2.94%	2.75%	3.68%	2.06%

3.6 **As per the data, 100% of HT billing is undertaken on actual basis due to Automatic Meter Reading (AMR) in place whereas under LT category, the billing of about 96.53% is undertaken as per actual meter readings and balance 3.47% is on estimated basis. Also, with respect to consumption, under LT Category, about 97.63% consumption is undertaken as per actual meter readings and balance 2.37% is on estimated basis.**

3.7 Further, comparison of sales of July 2024 as compared to last year are as shown below:

Table 4: Monthly Comparison of Sales for Residential, LT (Others) and HT Category

Particulars	LT - Residential (MU)	LT Others (MU)	HT (MU)	Total (MU)
Apr-23	184.04	158.85	55.87	398.76
Apr-24	180.28	160.64	57.55	398.46
May-23	200.25	164.14	61.76	426.16
May-24	209.60	174.90	63.09	447.58
Jun-23	195.78	167.29	60.96	424.02
Jun-24	223.77	181.61	57.20	462.57
Jul-23	195.92	166.11	58.17	420.19
Jul-24	206.64	170.87	57.53	435.04
April 23 – July 23	**775.99**	**656.39**	**236.76**	**1,669.13**
April 24 – July 24	**820.27**	**688.01**	**235.37**	**1,743.66**

3.8 The Commission observes that the overall sales are higher in July 2024 as compared to July 2023 except HT category sales which is marginally lower.

4. **Power Purchase Details**

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

a) Tata Power Company Ltd. (TPC-G)

b) Manikaran Power Limited

c) Renewable Energy (Solar and Non-Solar)

d) Short Term Sources (Bilateral and Power Exchange).

4.2 In addition to the aforesaid, there may be some variation in real time (unscheduled interchange) which will be settled through Deviation Settlement Mechanism as approved by the Commission from 10 October 2021.

4.3 Summary of Power Purchase for BEST is as follows:

Sr. No.	Particular	Compliance
1	Sources of approved Power Purchase	BEST has purchased power from approved sources.
2	Merit Order Dispatch	BEST 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 September 2024. Further, TPC-G has entered into APM Gas Contract with GAIL has been for the period 7 July, 2021 to 6 July, 2026.

MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

<table>
<tr><th>Sr. No.</th><th>Particular</th><th>Compliance</th></tr>
<tr><td>4</td><td>Deviation Quantum</td><td>BEST has Underdrawn 2.96 MU as compared to Schedule under Deviation Settlement Mechanism.</td></tr>
<tr><td>5</td><td>Sale of Surplus Power</td><td>BEST has sold 8.84 MU of surplus power in July 2024 (para 5.42 below).</td></tr>
<tr><td>6</td><td>Power Purchase</td><td>Actual Net Power Purchase is 434.66 MU as against approved 451.21 MU.</td></tr>
<tr><td>7</td><td>Source wise Power Purchase</td><td>
<table>
<tr><th>Source Name</th><th>Approved (MU)</th><th>Actual (MU)</th><th>Proportion of each Source in Actual Purchase</th></tr>
<tr><td>TPC-G</td><td>264.90</td><td>308.95</td><td>71.08%</td></tr>
<tr><td>Manikaran Power</td><td>62.05</td><td>73.05</td><td>16.81%</td></tr>
<tr><td>RE Sources</td><td>97.96</td><td>25.72</td><td>5.92%</td></tr>
<tr><td>Net Short Term</td><td>26.30</td><td>29.90</td><td>6.88%</td></tr>
<tr><td>DSM Pool</td><td>-</td><td>(2.96)</td><td>-0.68%</td></tr>
<tr><td>Total</td><td>451.21</td><td>434.66</td><td>100.00%</td></tr>
</table>
</td></tr>
<tr><td>8</td><td>Power Purchase:
a. Section 62 of Electricity Act, 2003</td><td>BEST is procuring power from only one source i.e., TPC-G under Section 62 of EA, 2003.
As part of verification of fixed cost claimed by BEST, the same has been verified from the BEST MTR Order in Case No. 212 of 2022.
As part of verification of energy charges claimed by BEST, verification of operational parameters, fuel cost, GCV etc. vis-à-vis the MTR Order/Tariff Regulations is carried out</td></tr>
<tr><td></td><td>b. Section 63 of Electricity Act, 2003</td><td>The Power procurement from Manikaran Power is through competitive bidding and as approved by Commission.
Cost and MUs verified as per Invoice</td></tr>
<tr><td>9</td><td>RE Purchase</td><td>Cost and MUs verified as per Invoice</td></tr>
<tr><td>10</td><td>Short Term Power Purchase</td><td>Short-term power purchase invoices of July, 2024 are submitted by BEST. All the power purchase quantum and rate are verified from the invoices and has been considered for FAC calculation.</td></tr>
</table>

4.4 **The BEST has purchased 434.66 MU as against approved 451.21 MU from the sources approved by the Commission.**

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

Table 5: Approved and Actual Power Procurement source wise for the Month of July 2024

Particulars	Tariff Order Dated 31.03.2022	Actual for July 2024 as submitted by BEST
	FY 2024-25 – Approved	

	Net Purchase	Cost	Average Power Purchase Cost	Net Purchase	Cost	Average Power Purchase Cost
	MU	Rs. Crore	Rs/kWh	MU	Rs. Crore	Rs/kWh
TPC-G	264.90	191.74	7.24	308.95	178.29*	5.77
Manikaran	62.05	27.50	4.43	73.05	30.83	4.22
RE Power	97.96	45.55	4.65	25.72	27.23	10.59
REC			-	-	-	-
Short Term	26.30	13.49	5.13	38.81	16.02*	4.13
Deviation Quantum	-	-	-	(2.96)	14.79*	(50.01)
Gross Total	**451.21**	**278.28**	**6.17**	**443.57**	**267.16**	**6.02**
Less: Sale of Power				(8.84)	(8.50)	9.62
Net Power Procurement	**451.21**	**278.28**	**6.17**	**434.74**	**258.66**	**5.95**

Note - 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.
**Prior period variation cost added in the respective source of power procurement*

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 BEST with regards to average power purchase cost for the month of July 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. BEST has purchased power from approved sources as per the Tariff Order.

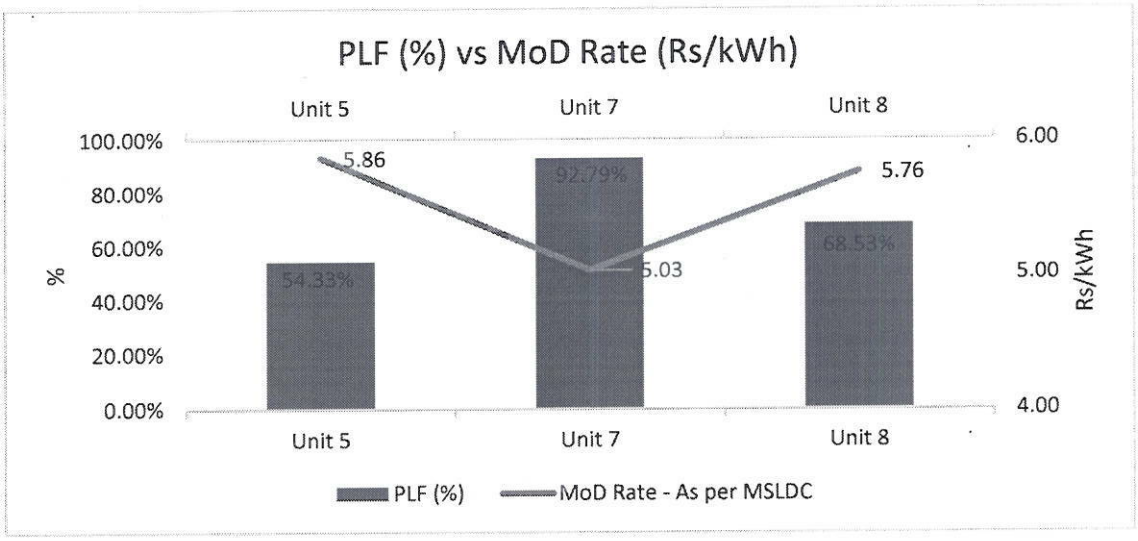
TPC-G

5.2 The Commission in its order dated 2 January, 2019 in Case No 249 of 2018 has allowed BEST to extend its existing PPA for 676.69 MW for a period of five years from 1 April, 2019 to 31 March, 2024. Further, the Commission in its order dated 15 March, 2023 in Case No. 240 of 2022 has allowed BEST to extend existing PPA with TPC-G (Thermal + Hydro) by one more year i.e. till March 2025. In line with the said Order, BEST share is 51.17% of the total capacity of TPC-G Unit 5, 7 and Hydro, whereas its share is 40% in TPC-G Unit 8.

5.3 Since BEST and TPC-D have same generating source i.e., TPC-G, BEST has submitted and relied upon TPC-D's FAC submissions in respect of TPC generating units (TPC-G) to the extent they are relevant to BEST. The Commission has considered the said submissions of TPC-D in respect of TPC-G, while reviewing the power purchase cost for BEST.

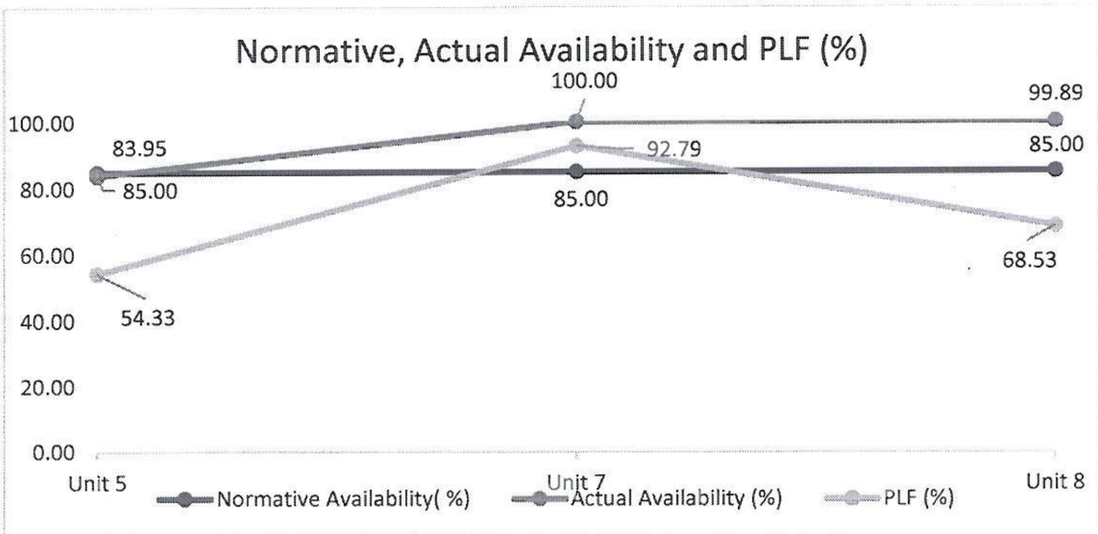
5.4 TPC-G Units 7 and 8 have declared availability of more than 90%, which is higher than the normative availability of 85%. However, the availability of Unit 5 was lower at 83.95% due to forced outage for attending the Turbine Electrohydraulic Controller 'EHC' fault. The Unit 5 was out of service from 28th July, 2024 (01:34 Hrs) and taken online on 4th August 2024. Further, the PLF of Unit 5 and 8 are lower i.e., 54.33% and 68.53%, respectively. In response to data gaps raised by the Commission for lower PLF of Unit 5 was lower due to forced outage taken for attending the EHC fault. Also, TPC submitted that the PLF of Unit 5 and 8 are lower due to lower requisition by beneficiaries. The graph showing the comparison of Variable Cost in MoD Stack and monthly PLF for TPC-G thermal/gas units is given below:

Figure 1: PLF of TPC Generating Units



5.5 The graphical comparison of normative availability and actual availability for the month of July, 2024 is as given below:

Figure 2: PAF and PLF of TPC Generating Units



The entire monthly fixed cost was payable in line with MYT Regulations, 2019 as the cumulative plant availability of Units 5, 7 and 8 were higher than the normative availability of 85%.

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

Table 6: Availability of TPC-G plant for the month of July 2024

TPC-G Units	Availability – July 2024	Availability – July 2023
Unit 5	83.95%	70.14%

Unit 7	100.00%	100.00%
Unit 8	99.89%	99.44%

5.7 The Commission has observed that **BEST has purchased 308.95 MU from TPC-G as against monthly approved quantum of 264.90 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.

5.8 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*

** - HBA indices at 6,322 kcal/kg G[illegible] with 8% [illegible] moisture, 15% ash as received and 0.8% sulphur* *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 December 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 December 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. ...."

5.9 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-G has 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-G has stated that in case of any non-availability under current contracts due to uncontrollable factors from the existing supplier side, it 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.

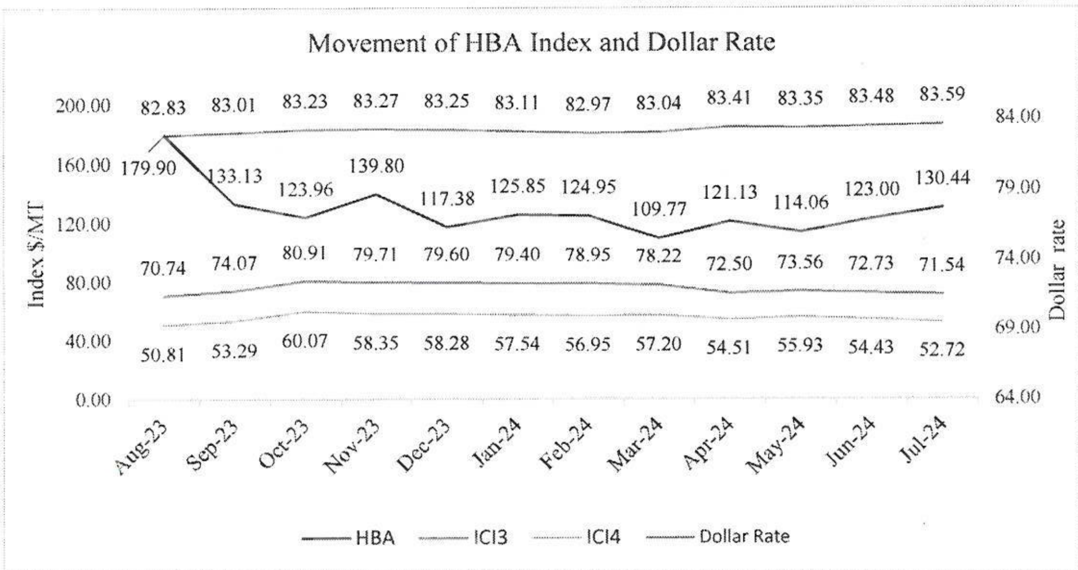
5.10 It is observed that TPC-G has entered into contract to procure Indonesian origin coal with coal specifications similar to TPC-G's long term contracted coal, with price linked to ICI index and the same offers significant cost advantage over HBA pricing. The said contract has been done up to September 2024.

5.11 **The APPC for power procured from 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. 5.76/kWh as against the approved rate of Rs. 7.24/kWh.**

5.12 **The landed cost of coal for energy charge computation as claimed by TPC-G is Rs. 8,472.21/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 July 24 which is cheaper to optimise the cost. The Commission observes that there has been 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. 31,736.23/SCM in July, 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 July 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 has 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.

Figure 3: Movement of HBA indices and Dollar Rate



** - HBA indices 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 (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 July, 2024. The Commission has scrutinised the bills submitted and computed the purchase price of coal for the month of July, 2024 as shown in Table below:

Table 7: Computation of Purchase price of Coal by TPC-G for the month of July 2024

Date	Invoice QTY	GCV	Invoice Rate	Coal Cost	Freight Rate	BF Correction	Freight Payable	Total Coal Cost	$/MT
	MT	kcal/kg	$/MT	$	$/MT	$/MT	$	$	
13-Jun-24	39260	4136	58.22	2285717	16.15	0.39	649360	2935078	74.76
14-Jun-24	37559	4011	58.05	2180300	16.15	0.43	624933	2805233	74.69
24-Jun-24	51800	4678	73.91	3828538	16.15	0.61	868168	4696706	90.67
28-Jun-24	51550	4111	58.33	3006912	16.15	0.75	871195	3878107	75.23
06-Jul-24	53202	4187	57.45	3056455	16.15	0.8	901774	3958229	74.40
09-Jul-24	15577	4011	55.89	870599	16.15	0.74	263096	1133694	72.78
Total	**248948**	**25134**	**61.17**	**15228520**	**16.15**	**0.63**	**4178526**	**19407046**	**77.96**

5.15 TPC-G has submitted the detailed coal computation for the coal purchase considered in July, 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 July, 2024 is $77.96/MT. TPC has booked Rs. 7,163.17/MT (i.e. Rs. 5,763.16/MT for Coal and Rs. 1,400.01/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 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 July, 2024 is as given below:

Table 8: Computation of Coal cost for the month of July 2024

Sr. No	Particular	Source / Formula	Units	As Submitted – Coal Cost	As Approved – Coal Cost
1	Basic Coal cost + Freight in Rs.	1 X 2	Rs./MT	7,163.17	7,163.17
2	Excise + Custom Duty + CE Cess+ Insurance	As submitted	Rs./MT	773.60	773.60
3	Handling and Wharfage	As submitted	Rs./MT	632.08	632.08
4	Other Fuel Handling Charges	As submitted	Rs./MT	292.38	292.38
5	Other Adjustment	As submitted	Rs./MT	(576.96)	(576.96)
6	Total as per Form 12	Sum (3:7)	Rs./MT	**8,284.26**	**8,284.26**

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 July 2024 was 4120 kCal/kg and 'As billed' GCV was 4228 kCal/kg. The 'As fired' GCV of imported coal considered by TPC-G is 3900kCal/kg. Considering the difference between the 'As received' GCV and the 'As Fired' GCV, the stacking loss works out to 220 kCal/kg which is above limit of 120 kCal/kg as specified in the MYT Regulations, 2019. The Commission has sought justification from TPC-G for higher stacking loss, wherein TPC-G submitted that reduction in GCV occurs due to various reason such as initial moisture content/quality of the coal, environment factors like monsoon/summer and it also depends on the proportion of receipt and usage of different types of coals during the month. In view of the above, weighted average 'As fired' GCV was lower than the weighted average 'As received' GCV leading to higher stacking loss for the month of July 2024. Therefore, TPC-G has considered the stacking loss as per norms approved by the Commission while computing the Energy Charges i.e. 120kCal/kg. The transit loss claimed by TPC for the month of July 2024 is Nil.

5.19 The Commission notes that TPC-G in Form 12 had considered coal consumption cost during the month based on weighted average of opening inventory and coal purchased during the month, TPC-G has considered the closing of June 2024 as per FAC approval of June 2024 which is matching with closing amount determined based on weighted average rate of computing coal by the Commission. Hence, the Commission has considered the same for computing the energy charge which is in line with TPC-G submission.

5.20 It is observed that the coal cost considered by TPC-G in Form 12 is Rs. 2,06,23;53,393.66. for the purchase of coal during the month, which does not match with the Annexure giving details of the coal cost of Rs. 2,07,09,15,857.45. The Commission notes a discrepancy of Rs. 85,62,463.79 and has, therefore, raised a query regarding the difference. In response, TPC-G submitted that dispatch/demurrage charges were inadvertently included as part of the coal purchase cost. Accordingly, TPC-G revised the coal cost for the month to Rs. 2,06,23,53,393.66, which led to a revision of the energy charges for Unit 5 and Unit 8, from Rs. 5.83/kWh and Rs. 5.64/kWh to Rs. 5.81/kWh and Rs. 5.62/kWh, respectively. The Commission has taken into account the revised coal cost and energy charges as submitted by TPC-G.

5.21 It is observed that there is difference in coal cost considered in Form 11 and Form 12. TPC-G 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:

Table 9: Coal Consumption Cost for the month of July 2024 of TPC-G

Particulars	Units	TPC Submission	As Approved
Form F12 - Coal Consumption Cost	Rs/MT	8305.54	8305.54
Foreign Exchange Rate Variation	Rs/MT	102.05	102.05
Employee Cost	Rs/MT	33.87	33.87
Form F11 - Coal Consumption Cost	Rs/MT	**8,441.46**	**8,441.46**

5.22 The Commission notes that TPC-G has claimed compensation on account of degradation of heat rate and auxiliary consumption due to part load operation for the month of July 2024 of Rs. 1.05 Crore. TPC-G has claimed the compensation based on Regulation 34.3 of the MERC (State Grid Code), Regulations 2020. The said amount is considered as per Invoice raised by TPC-G.

5.23 The Commission also notes that TPC-G has passed on gains of Rs. 0.69 Crore from sale of un-requisitioned power in power exchange as per Electricity (Late Payment Surcharge) Rules, 2022 dated 03 June 2022 and its amendment dated 28 February 2024.

5.24 **In view of the above, the Commission has considered APPC of Rs. 5.76/kWh as against approved rate of Rs. 7.24/kWh for power purchased from TPC-G.**

5.25 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
July 2024	25.37	(39.16)	(13.79)

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

Manikaran Power Limited (Medium Term PPA)

5.26 The Commission in its Order in Case No. 249 of 2018 dated 2 January, 2019, allowed BEST to tie up 100 MW Power with M/s. Manikaran Power Ltd. through M/s. Sai

Wardha Power Generation Ltd for 5 years from 1 April, 2019 to 31 March, 2024 and accordingly Medium Term PPA was signed on 24 May 2019. Further, as per the Tariff order dated dated 31 March, 2023, allowed extension of PPA for 1 year i.e., up to March 2025.

5.27 As submitted by BEST, it has purchased 73.05 MU at average rate of Rs. 4.22 /kWh as against approved rate of Rs. 4.43/kWh. The reduction in rate is due to higher Availability and PLF of the said plant which has resulted in higher quantum above 85% PLF being available at only Variable Charge and Incentive as per terms of the PPA. The incentive is payable at the rate of 50% of the Fixed Charge for Availability in excess of Normative Availability and shall be payable only to the extent of despatch of the power station above Normative Availability.

5.28 Accordingly, the Commission has considered the said purchase from Manikaran Power Limited for the month of July 2024 as per invoice submitted by BEST. The details of approved v/s actual are as shown in the table below:

Table 10: Power Procurement from Manikaran Power Limited for the month of July 2024

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)
Approved	62.05	12.97	2.09	14.54	2.34	27.50	4.43
Actual	73.05	13.22	1.81	17.61	2.41	30.83	4.22

5.29 Variation in power purchase expenses from Manikaran Power Limited (MPL) can be divided on account of change in quantum and per unit rate as follows:

Month	Increase in Expenses for power purchase from MPL (Rs. Crore)		
	On Account of change Quantum of Power Purchase	On Account of change in Per Unit rate of Power Purchase	Total
July 2024	4.64	(1.32)	3.33

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

Renewable Sources

5.30 BEST has entered into Long term PPA for 20 MW with M/s Walwahn Solar MH Ltd (earlier Welspun) to meet its Solar RPO. The Commission in the Tariff Order has approved the purchase of solar power from the said PPA at Rs. 8.56/kWh.

5.31 **BEST has purchased 1.76 MU of Solar Power at Rs. 8.56/kWh for July 2024 from M/s. Walwahn Solar MH Ltd.** The Commission has verified the said purchase from the invoice submitted by BEST and has accordingly considered the said solar purchase for FAC.

5.32 In addition to the above, BEST has procured Solar, Non-solar and Hydro Power under Green Day ahead (GDAM) launched by IEX at its power trading platform, so as to meet part of its Solar and Non-Solar RPO. Accordingly, for the month of July 2024, BEST has procured 13.31 MU, 9.84 MU and 0.81 MU at Rs. 3.58/kWh, Rs. 3.51/kWh and Rs. 3.56/kWh of Solar, Non-Solar, Hydro Power respectively. The overall power procured through GDAM is 23.96 MU at Rs. 3.55/kWh.

5.33 Apart from the above approved power procurement source from Walwahn Solar MH Ltd., no additional Long term Solar and Non-Solar power has been procured under bidding route for the month of July 2024. Also, the Commission notes that BEST has purchased 591900 RECs from IEX for Rs. 8.61 Crore and 590600 RECs from PXIL for Rs. 8.59 Crore, in order to fulfil the Renewable Purchase Obligation. In response to the query raised pertaining to the purchase of RECs instead of Renewable Energy (RE) power, BEST submitted that various efforts were made to meet its cumulative RPO. These efforts included the procurement of Renewable Energy from the Power Exchange, the invitation of short-term tenders, and long-term tie-ups with SECI. BEST further submitted that the existing power procurement agreements are insufficient to meet its RPO requirements. The RE power tied up with SECI, comprising 400 MW from the Solar Wind Hybrid Project and 234 MW from the Solar Project, will only be available after March 2025. Additionally, RE developers have not responded to the tenders floated for short-term procurement, and the power available through the Power Exchange (via GDAM) is both insufficient to meet the cumulative RPO and is priced higher than the approved rate. Therefore, the Commission has considered the purchase of REC as submitted by BEST of Rs. 17.21 Crore in July 2024.

5.34 Accordingly, as submitted by BEST, it has purchased overall renewable power of 25.72 MU at average rate of Rs. 10.59/kWh as against approved rate of Rs. 4.65 /kWh.

5.35 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
July 2024	(76.49)	58.17	(18.32)

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

Short Term Purchase

5.36 **With regards to short term purchase, BEST has purchased 38.73 MU at average rate of Rs. 4.14/kWh**. The Commission in the Tariff Order has approved the purchase from short term source at Rs. 5.13/kWh. The overall power purchased short term source was about 8.91% of net power procured during the month of July, 2024 mainly to meet the shortfall during day-time.

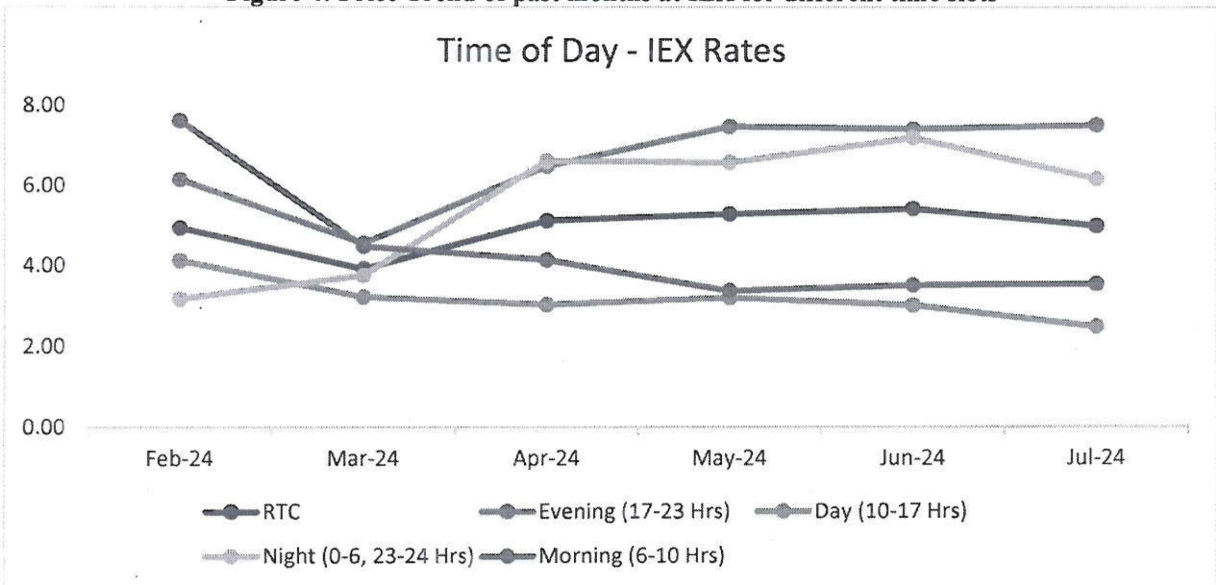
5.3[illegible] Overall, BEST has purchased 38.73 MU at Rs. 4.11/kWh from DAM and RTM respectively through IEX in the month of July, 2024.

5.38 BEST has claimed prior period variation against standby charges bill raised by MSEDCL for the following months i.e., June 2024 of Rs. 0.04 Crore. Therefore, the Commission considered the standby energy charges bill submitted by BEST of Rs. 0.04 Crore in July 2024. Further, TPC-D has raised supplementary invoice related to surplus sale to BEST in the month of April 2024 and May 2024 of Rs. 0.0003 Crore and invoice bill of June 2024 of Rs. 0.06 Crore under IDT agreement. Similarly, AEML-D has raised invoice related to surplus sale to BEST in the month of June 2024 of Rs. 0.002 Crore. The same is being considered by the Commission in the month of July 2024.

5.39 In view of the above, the overall short term purchase of 38.73 MU at average rate of Rs. 4.14/kWh as against approved rate of Rs. 5.13/kWh considering prior period variation.

5.40 The market trend of past six months has been provided in the following graph with different time slot whereby it can be witnessed that power exchange rates where in range of Rs. 5.00/kWh in July 2024, the price has witnessed a relatively higher in evening peak hours and is above Rs. 7.50/kWh.

Figure 4: Price Trend of past months at IEX for different time slots



5.41 Considering the relatively higher trend of prices in the short-term market, the Commission has approved the short-term purchase by BEST for July, 2024.

<u>**Sale of Power**</u>

5.42 The Commission has observed that BEST and AEML-D has executed the agreement of Inter-Discom Sale of Power under MERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2019 read with Scheduling and Dispatch code, which interalia provides guiding principles for exchange of power between utilities on Day-ahead and Intra-day basis.

*" **Para 6.3 of Statement of Reasons of DSM Regulations, 2019***

6. 3. ..... Accordingly, the Commission has modified the provisions such that, such inter-se or bilateral sale / purchase of power on day to day basis may be undertaken by respective licensee entirely at the discretion and time block wise rate for settlement of such inter-se exchange of unrequisitioned surplus power for load generation balance during day ahead scheduling may be mutually agreed.

It is expected that these decisions shall be taken by the distribution licensees on the commercial principles."

Para 8.4.10 and 8.4.11 of Scheduling and Despatch Code:

8.4.10 As the sellers have contracted their generation capacity through long term / medium term contract with buyers, such exchange of available surplus capacity shall be effected inter-se amongst buyers without need to amend existing PPAs with their respective sellers.

8.4.11 MSLDC shall maintain and publish separate account of exchange of surplus power capacity if any amongst the buyers / distribution licensees."

5.43 **Accordingly, BEST has done sale of surplus power to the extent of 6.42 MU during the month at Rs. 9.58/kWh under the same arrangement and 2.42 MU was sold on power exchange (IEX) at Rs. 9.71/kWh**. Therefore, to optimize power purchase cost, the surplus power of 8.84 MU was sold to AEML-D and TPC-D under Inter-Discoms Sale of Power Agreement and on power exchange from which BEST has earned Revenue of Rs. 8.50 Crore at Rs. 9.62/kWh. In view of the aforesaid, the Commission has considered the actual quantum and revenue against surplus sale.

Deviation Quantum and Cost

5.44 It was observed that BEST has underdrawn 2.96 MU during the month of July, 2024. **The said deviation quantum is arrived after grossing up T<>D periphery quantum to G<>T periphery by considering the normative transmission loss of 3.18%.** Accordingly, the deviation quantum of 2.96 MU at Rs. 0.23 Crore (receivable) has been considered as per provisional weekly invoice raised by MSLDC for the period 1 July, 2024 to 31 July, 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, BEST has considered only DSM charges and not considered ADSM charges for calculation of power purchase cost for deviation quantum.

5.45 Further, BEST has claimed differential amount for the revised DSM bill raised by SLDC, amounting to Rs. 15.02 Crore. The additional amount of Rs. 15.02 Crore claimed for the prior period is being adjusted in the month of July 2024. The detailed breakup of revised DSM bill raised by SLDC is provided below:

Particulars	Rs. Crore
Difference of DSM Bill Week No.41 (03 to 09 Jan'2022) Received on 18.01.2022 and the revised DSM Bill for the same period Received on 30.07.2024.	(0.14)
Difference of DSM Bill Week No.44 (24 to 30 Jan'2022) Received on 18.02.2022 and the	(0.05)

Particulars	Rs. Crore
revised DSM Bill for the same period Received on 08.08.2024.	
Difference of DSM Bill Week No.45 (31.1.22 to 06 Feb'2022) Received on 15.02.2022 and the revised DSM Bill for the same period Received on 31.07.2024.	0.81
Difference of DSM Bill Week No.47 (14 to 20 Feb'2022) Received on 01.03.2022 and the revised DSM Bill for the same period Received on 23.07.2024.	(0.08)
Difference of DSM Bill Week No.10 (30.5.22 to 05 Jun'2022) Received on 14.06.2022 and the revised DSM Bill for the same period Received on 25.07.2024.	(0.08)
Difference of DSM Bill Week No.11 (06.6.22 to 12 Jun'2022) Received on 21.06.2022 and the revised DSM Bill for the same period Received on 22.07.2024.	(0.04)
Difference of DSM Bill Week No.17 (18 to 24 July'2022) Received on 02.08.2022 and the revised DSM Bill for the same period Received on 29.07.2024.	0.04
Difference of DSM Bill Week No.18 (25 to 31 July'2022) Received on 09.08.2022 and the revised DSM Bill for the same period Received on 30.07.2024.	0.10
Difference of DSM Bill Week No.19 (01 to 07 Aug'2022) Received on 16.08.2022 and the revised DSM Bill for the same period Received on 23.07.2024.	1.22
Difference of DSM Bill Week No.20(08 to 14 Aug'2022) Received on 23.08.2022 and the revised DSM Bill for the same period Received on 31.07.2024.	0.03
Difference of DSM Bill Week No.21 (15 to 21 Aug'2022) Received on 30.08.2022 and the revised DSM Bill for the same period Received on 31.07.2024.	0.94
Difference of DSM Bill Week No.22 (22 to 28 Aug'2022) Received on 06.09.2022 and the revised DSM Bill for the same period Received on 07.08.2024.	1.29
Difference of DSM Bill Week No.24 (05 to 11 Sept'2022) Received on 20.09.2022 and the revised DSM Bill for the same period Received on 01.08.2024.	1.68
Difference of DSM Bill Week No.31 (24 to 30 Oct'2022) Received on 08.11.2022 and the revised DSM Bill for the same period Received on 16.07.2024.	0.91
Difference of DSM Bill Week No.35 (21 to 27 Nov'2022) Received on 06.12.2022 and the revised DSM Bill for the same period Received on 02.08.2024.	1.17
Difference of DSM Bill Week No.09 (23 to 29 May'2022) Received on 07.06.2022 and the revised DSM Bill for the same period Received on 26.07.2024.	(0.05)
Difference of DSM Bill Week No.27 (26.09.22 to 02 Oct'2022) Received on 11.10.2022 and the revised DSM Bill for the same period Received on 07.08.2024.	1.22
Difference of DSM Bill Week No.34 (14 to 20 Nov'2022) Received on 29.11.2022 and the revised DSM Bill for the same period Received on 07.08.2024.	0.99
Difference of DSM Bill Week No.39 (19 to 25 Dec'2022) Received on 03.01.2023 and the revised DSM Bill for the same period Received on 08.08.2024.	0.97
Difference of DSM Bill Week No.40 (26.12.22 to 01 Jan'2023) Received on 10.01.2023 and the revised DSM Bill for the same period Received on 09.08.2024.	1.03
Difference of DSM Bill Week No.03 (10 to 16 Apr'2023) Received on 26.04.2023 and the revised DSM Bill for the same period Received on 06.08.2024.	0.88
Difference of DSM Bill Week No.50 (06 to 12 Mar'2023) Received on 21.03.2023 and the revised DSM Bill for the same period Received on 24.07.2024.	1.61
Difference of DSM Bill Week No.02 (03 to 09 Apr'2023) Received on 18.04.2023 and the revised DSM Bill for the same period Received on 13.08.2024.	0.56
Total	**15.02**

5.46 **In view of the same, the Commission has considered total deviation quantum of 2.96 MU (Underdrawal), which contributes to around -0.68% of the total power procurement.**

Approved Cost of Power Purchase

5.47 In view of the above, the overall cost approved in the Tariff Order and actual for the month of July, 2024 considered by the Commission is as shown below:

MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

Table 11: Approved Power Purchase Cost for the month July 2024

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	264.90	35.30	1.33	156.43	5.91	191.74	7.24
	Actual	308.95	36.45	1.18	141.50	4.58	177.95	5.76
Manikaran Power	Approved	62.05	12.97	2.09	14.54	2.34	27.50	4.43
	Actual	73.05	13.22	1.81	17.61	2.41	30.83	4.22
Renewable Power	Approved	97.96	-	-	45.55	4.65	45.55	4.65
	Actual	25.72			27.23	10.59	27.23	10.59
Short Term Purchase	Approved	26.30	-	-	13.49	5.13	13.49	5.13
	Actual	38.73			16.02	4.14	16.02	4.14
Sale of Power	Approved	-	-	-	-	-	-	-
	Actual	(8.84)			(8.50)	9.62	(8.50)	9.62
Deviation Quantum	Approved	-	-	-	-	-	-	-
	Actual	(2.96)	-	-	14.79	(50.01)	14.79	(50.01)
Total	**Approved**	**451.21**	**48.27**	**1.07**	**230.01**	**5.10**	**278.28**	**6.17**
	Actual	**434.66**	**49.66**	**1.14**	**208.65**	**4.80**	**258.32**	**5.94**

5.48 **Considering the above submission, the Commission allows the power purchase quantum of 434.66 MU for total cost of Rs. 258.32 Crore at average power purchase cost of Rs. 5.94/kWh for the month of July, 2024 as shown in Table above. The actual purchase for same month in FY 2023-24 i.e., July, 2023 was 413.75 MU and power purchase cost was Rs. 229.13 Crore with APPC of Rs. 5.54/kWh.**

<u>**Summary**</u>

5.49 **To summarise, BEST has optimised its overall power purchase cost by selling surplus power of quantum 8.84 MU at Rs. 9.62/kWh on IEX and to AEML-D and TPC-D through Inter Discom sale of power and procuring 73.05 MU at Rs. 4.22/kWh from Manikaran Power Limited.**

5.50 **Entire power purchased from Manikaran Power Ltd to the extent of its Availability having the least Variable Cost is in MOD.**

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 July, 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 31 March, 2023 and accordingly arrived at differential per unit rate at which Z_{FAC} is to be passed on to the consumers.

6.2 It is noted that BEST has incurred the per unit Power Purchase cost which is lower than the limits Approved per unit Power Purchase Cost hence the Z_{FAC} July, 2024 is

MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

negative as shown in the Table below.

Table 12: Computed Z_{FAC} for the month of July 2024

S. No.	Particulars	Units	July 2024
1	Average power purchase cost approved by the Commission	Rs./kWh	6.17
2	Actual average power purchase cost	Rs./kWh	5.94
3	Change in average power purchase cost (=2 -1)	Rs./kWh	(0.23)
4	Net Power Purchase	MU	434.66
5	**Change in fuel and power purchase cost (=3 x 4/10)**	**Rs. Crore**	(9.80)

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 no FAC has been levied, there would not be any adjustment factor for the month of July 2024 while computing the allowable FAC.

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

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 July 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_{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.

Table 13: Distribution Loss for the month of July 2024

S. N	Particulars	Units	Approved in Tariff Order	July 2024- Actual	Actual Cumulative (July 2024)	Annual Sliding Distribution Loss (August 2023 to July 2024)
1	Net Energy Input at Distribution Voltage	MU	5,242.33	425.16	1,838.94	5,012.23
2	BEST Retail Sales	MU	5,023.20	435.04	1,743.66	4,804.46
3	Distribution Loss (1 - 2)	MU	219.13	(9.88)	95.28	207.77
4	Distribution Loss as % of net energy input (3/1)	%	4.18%	-2.32%	5.18%	4.15%
5	Excess Distribution Loss = [Actual Distribution Loss (4) - Distribution loss approved (4)] x Net Energy Input (1)	MU	-	-	18.42	-
6	**Disallowance of FAC due to excess Distribution Loss**	**Rs. Crore**	**0.00**	0.00	0.00	0.00

9.3 As seen from the above table, for the month of July, 2024 the standalone distribution loss is lower and negative than the approved distribution loss. BEST stated that by considering net energy input at distribution voltage of 425.16 MU for the month of July, 2024 and actual energy sales of 435.04 MU for the month of July, 2024, the Standalone Actual Distribution Loss works out to -2.32%, however annual sliding distribution loss (from August, 2023 to July, 2024) works out to 4.15%, which is lower than the approved distribution loss. The standalone distribution loss for the month may give erratic figure due to consideration of energy sales with different bill generation period. Hence, to determine the actual distribution loss for a month, sum of purchase and sales for a period of 12 months is required to be considered. It is observed that the annual sliding distribution loss of 4.15% for the period August, 2023 to July, 2024 is lower than the approved loss.

9.4 Further, the comparison of standalone Distribution Loss for the July, 2024 as compared to last year is as given below:

Table 14: Monthly Distribution Loss of FY 2023-24 and FY 2024-25

Particulars	FY 2024-25	FY 2023-24
Approved Loss	**4.18%**	**4.18%**
April	11.13%	6.43%
May	10.28%	9.52%
June	0.85%	9.26%
July	-2.32%	-5.25%
Cumulative Distribution Loss	**5.18%**	**5.36%**

9.5 **It is observed that annual sliding Distribution Loss of 4.15% is lower that the approved loss of 4.18% and the standalone FAC for the month is negative. Hence, the Commission has not worked out any disallowance on account of**

Distribution Loss for the month of July, 2024.

10. Summary of Allowable ZFAC

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

Table 15: Summary of Allowable Z_{FAC} for July, 2024

S. No.	Particulars	Units	July 2024 - As per BEST	July 2024 - 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	(9.47)	(9.80)
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	**ZFAC = F+C+B**	Rs. Crore	(9.47)	(9.80)
2	**Calculation of Per Unit FAC**			
2.1	Energy Sales within the License Area	MU	435.04	435.04
2.2	Excess Distribution Loss	MU	-	-
2.3	ZFAC per kWh	Rs./kWh	(0.22)	(0.23)
3	**Allowable FAC**			
3.1	FAC disallowed corresponding to excess Distribution Loss [(2.2 x 2.3)/10]	Rs. Crore	-	-
3.2	FAC allowable [1.4-3.1]	Rs. Crore	(9.47)	(9.80)
4	**Utilization of FAC Fund**			
4.1	Opening Balance of FAC Fund	Rs. Crore	(276.04)	0.00
4.2	Holding Cost on FAC Fund	Rs. Crore	(13.80)	0.00
4.3	Z_{FAC} for the month (Sr. N. 3.2)	Rs. Crore	(9.47)	(9.80)
4.4	Closing Balance of FAC Fund	Rs. Crore	(299.31)	(9.80)
4.5	Z_{FAC} leviable/refundable to consumer	Rs. Crore	-	0.00
5.0	Energy Sales within the License Area	MU	435.04	435.04
6.0	ZFAC per kWh [(4.5/5.0)*10/5]	Rs./kWh	-	0.00
7.0	**Total FAC based on category wise and slab wise allowed to be recovered**	**Rs. Crore**	-	0.00
8.0	**Carried forward FAC for recovery during future period (4.5-7.0)**	**Rs. Crore**	(299.31)	0.00

10.2 It can be seen from the above table that standalone FAC for the month of July 2024 is Rs. (9.80) Crore. The approved FAC for the month is lower due to the revision in coal cost computation submitted by TPC-G, which consequently led to a reduction in energy charges.

10.3 The Commission notes that BEST has considered the opening FAC Fund and added the standalone monthly FAC amount to the said fund and deducted FAC recovery amount in the month of July 2024 to arrive at the closing fund. The Commission, thereafter, has issued MYT Order on 28 March, 2025 and approved the revised power purchase cost in the Provisional Truing-up of FY 2024-25 and accordingly determined tariff for FY 2025-26 to FY 2029-30. Thus, the Commission is approving the monthly FAC for standalone month along with any under recovery / over recovery as per provisions of MYT Regulations, 2019 and has not considered any adjustment towards FAC fund as the said amount is subsumed and already adjusted in provisional truing-up of FY 2024-25.

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 **Accordingly, the Commission allows the FAC amount of Rs. (9.80) Crore for the**

month of July, 2024. As FY 2024-25 is already over and Provisional Truing-up of FY 2024-25 has also been done by the Commission in the recent MYT Order dated 28 March, 2025, the revised power purchase cost resulting in FAC is already adjusted in the said MYT Order.

11.3 **In a view of above, the per unit ZFAC for the month of July, 2024 to be levied on consumers of BEST is Nil.**