



महाराष्ट्र विद्युत नियामक आयोग

Maharashtra Electricity Regulatory Commission

Ref. No. MERC/FAC/2022-23/0349

Date: 29 July, 2022

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 June, 2022.

Reference:

1. FAC submission dated 15 July, 2022 by BEST Undertaking for prior approval of FAC for the month of June, 2022.

Sir,

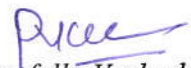
Upon vetting the FAC calculations for the month of June, 2022 as mentioned in the above reference, the Commission has accorded approval for charging FAC of **Rs. 150.37 Crore**. However, the said amount is added to the existing amount as on May, 2022 along with carrying cost, the total amount of **Rs 411.34 Crore** is being levied on the consumers as per letter dated 5 April, 2022 issued by the Commission and accordingly the FAC chargeable to consumers is as shown in the table below:

Month	FAC Amount (Rs. Crore)
June, 2022	411.34

The Commission has decided to allow the recovery of aforesaid FAC amount equally over next five months from August 2022 to December 2022. The total estimated recovery for five months considering the ceiling is **Rs 204.45 Crore**. The balance amount of **Rs 206.89 Crore** shall be carried forward and considered for recovery from January 2023 onwards. BEST undertaking shall maintain the monthly account of FAC Fund and upload it on its website to maintain transparency of FAC Fund and also for information of all the stakeholders.



Yours faithfully,


(Prafulla Varhade)
Director (EE), MERC

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

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ANNEXURE A

Detailed Vetting Report

Date: 29 July, 2022

PRIOR APPROVAL FOR FAC CHARGES FOR THE MONTH OF JUNE 2022

Subject: Prior Approval of Fuel Adjustment Charges (FAC) submission of BEST Undertaking for the month of June, 2022.

Reference:

1. FAC submission dated 15 July, 2022 by BEST Undertaking for prior approval of FAC for the month of June, 2022.

1. FAC submission by BEST Undertaking:

- 1.1 BEST Undertaking ("BEST") has submitted FAC submissions for the months of June, 2022 as referred above. Upon vetting the FAC calculations, taking cognizance of all the submissions furnished by BEST, the Commission has accorded prior approval to BEST for FAC amount of Rs. 150.37 Crore. The approved FAC amount is being added to the FAC Fund and the total amount of Rs. 411.34 Crore is being levied on the consumers equally from August 2022 to December 2022. The Commission has decided to allow the recovery of aforesaid FAC amount equally over next five months from August 2022 to December 2022. The total estimated recovery for five months considering the ceiling is Rs 204.45 Crore. The balance amount of Rs. 206.89 Crore shall be carried forward and considered for recovery from January 2023 onwards.

2. Background

- 2.1 On 30 March, 2020, the Commission has issued Tariff Order for BEST (Case No.324 of 2019) for True-up of FY 2017-18 and FY 2018-19, provisional Truing-up for FY 2019-20, and Aggregate Revenue Requirement and Tariff for FY 2020-21 to FY 2024-25. Revised Tariff has been made applicable from 1 April, 2021.

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

"8.2.15 Stabilising variation in consumer bill on account of FAC

.....

8.2.15.4 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 BEST, such limit shall be Rs. 59 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.

8.2.15.5 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.

8.2.15.6 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”

2.3 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 June, 2022 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 June 2022 (MUs)

Consumer Category	Approved by the Commission (MU)	Monthly Approved* (MU)	Actual Sales
			June, 2022 (MU)
	(I)	(II=I/12)	(III)
HT I- Industry	156.56	13.05	14.76
HT II - Commercial	295.54	24.63	20.55
HT III - Group Housing Society (Residential)	30.61	2.55	3.00
HT IV – Railways/Metro/Monorail	2.14	0.18	0.22
HT V - Public Services			
<i>a) Govt. Edu. Inst. & Hospitals</i>	26.56	2.21	2.52
<i>b) Others</i>	196.45	16.37	17.11
HT-VI EV Charging Stations	-	-	-
Total HT Sales	707.85	58.99	58.17
LT I (A)- Residential (BPL)	0.07	0.01	0.00
LT I (B)- Residential	2,129.66	177.47	195.61
LT II - LT Commercial			
<i>(A)- upto 20 kW</i>	934.60	77.88	73.63
<i>(B) >20 kW and <50 kW</i>	210.90	17.57	16.75
<i>(C) - 50 kW</i>	369.60	30.80	34.34
LT III (A) - Industry < 20 kW	43.19	3.60	8.00
LT III (B) - Industry > 20 kW	90.21	7.52	6.94
LT IV - Public Services			
<i>a) Govt. Edu. Inst. & Hospitals</i>	56.59	4.72	5.57
<i>b) Others</i>	183.84	15.32	16.09
LT V(A) – Agriculture Pumpsets	-	-	-
LT V(B) – Agriculture Others	-	-	0.01
LT VI - EV Charging Stations	0.46	0.04	1.62
Total LT Sales	4,019.14	334.93	358.56
Total	4,726.99	393.92	416.73

*- 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 June 2022 is 416.73 MU which is higher by 5.79% as compared to the approved energy sales of 393.92 MU. With respect to the consumption, HT category consumption is 58.17 MU which is marginally on a lower side by 1.38% compared to approved monthly HT energy sales of 58.99 MU and increase in the sales has been noticed of 7.06% on LT side whereby the actual sales is 358.56 MU as compared to approved monthly LT energy sales of 334.93 MU. The major variation was observed across various categories in view of delay in monsoon and due to rise in temperature coupled with humidity and use of cooling devices was increased.

However, HT Commercial, LT BPL Consumers, LT Commercial (upto 20 kW and between 20 kW and 50 kW) and LT Industrial (above 20 kW) have witnessed sales lower than the approved monthly sales whereas other categories have witnessed higher sales than the approved monthly sales.

- 3.3 BEST has also submitted the data providing actual billing and estimated billing undertaken for the calculation of total energy consumption for the month of June 2022. BEST further submitted the number of actual and estimated meter readings undertaken for the month of June 2022 as shown below:

Table 2: No. of Meters reading on actual and estimated basis for June 2022

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	196	0	196
2	LT	1019718	27655	1047373
	Total	1019914	27655	1047569
	%	97%	3%	100%

- 3.4 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 1% to 2%. Similarly, it was observed that in June 2022, the estimated sales were 1.79% of the total sales.

Table 3: Actual and Estimated Sales of past 6 months

Particulars	Jan-22	Feb-22	Mar-22	Apr-22	May-22	June-22
Actual – MUs	294.06	261.53	331.28	388.97	441.19	409.28
Estimated – MUs	3.52	3.17	2.83	3.29	6.50	7.46
Total	297.58	264.70	334.11	392.25	447.69	416.73
% Sales based on Estimated Reading	1.18%	1.20%	0.85%	0.84%	1.45%	1.79%

- 3.5 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 97.36% is undertaken as per actual meter readings and balance



2.64% is on estimated basis. Also, with respect to consumption, under LT Category, about 97.92% consumption is undertaken as per actual meter readings and balance 2.08% is on estimated basis.

3.6 Further, comparison of sales of June 2022 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-21	180.21	126.59	48.81	355.61
Apr-22	180.93	155.77	55.55	392.25
May-21	199.05	108.25	49.44	356.73
May-22	216.56	171.07	60.05	447.69
Jun-21	187.16	105.33	50.67	343.16
Jun-22	195.61	162.95	58.17	416.73
April 21 – June 21	566.42	340.16	148.92	1,055.50
April 22 – June 22	593.11	489.79	173.77	1,256.67

3.7 The Commission observes that overall sales for the month of June 2022 is higher than June 2021 mainly due to higher sales in all categories as compared to last year. This was mainly due to rise in atmospheric temperature and increase use of cooling devices in June 2022.

4. Power Purchase Details

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

- Tata Power Company Ltd. (TPC-G)
- Manikaran Power Limited
- Renewable Energy (Solar and Non-Solar)

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	Existing coal contracts of TPC-G at the time of issue of tariff order has expired in July 2020. TPC-G has entered into new coal contracts for 2.2 MT for 2 years further extendable by 2 years as per



Sr. No.	Particular	Compliance																												
		directions of the Commission in TPC-G MYT Order through Competitive Bidding.																												
4	Deviation Quantum	BEST has underdrawn 7.37 MU as compared to Schedule under Deviation Settlement Mechanism.																												
5	Sale of Surplus Power	BEST has sold 0.02 MU of surplus power in June 2022 (para 5.40 below).																												
6	Power Purchase	Actual Net Power Purchase is 438.93 MU as against approved 424.60 MU due to lower sales.																												
7	Source wise Power Purchase	<table border="1"> <thead> <tr> <th>Source Name</th> <th>Approved (MU)</th> <th>Actual (MU)</th> <th>Proportion of each Source in Actual Purchase</th> </tr> </thead> <tbody> <tr> <td>TPC-G</td> <td>292.58</td> <td>275.45</td> <td>62.76%</td> </tr> <tr> <td>Manikaran Power</td> <td>62.05</td> <td>65.70</td> <td>14.97%</td> </tr> <tr> <td>RE Sources</td> <td>69.97</td> <td>8.51</td> <td>1.94%</td> </tr> <tr> <td>Net Short Term</td> <td>-</td> <td>96.64</td> <td>22.02%</td> </tr> <tr> <td>DSM Pool</td> <td>-</td> <td>(7.37)</td> <td>(1.68) %</td> </tr> <tr> <td>Total</td> <td>424.60</td> <td>438.93</td> <td>100.00%</td> </tr> </tbody> </table>	Source Name	Approved (MU)	Actual (MU)	Proportion of each Source in Actual Purchase	TPC-G	292.58	275.45	62.76%	Manikaran Power	62.05	65.70	14.97%	RE Sources	69.97	8.51	1.94%	Net Short Term	-	96.64	22.02%	DSM Pool	-	(7.37)	(1.68) %	Total	424.60	438.93	100.00%
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8	Power Purchase: a. Section 62 of Electricity Act, 2003 b. Section 63 of Electricity Act, 2003	<p>BEST is procuring power from only one source i.e., TPC-G under Section 62 of EA, 2003.</p> <p>As part of verification of fixed cost claimed by BEST, the same has been verified from the BEST MYT Order in Case No.324 of 2019.</p> <p>As part of verification of energy charges claimed by BEST, verification of operational parameters, fuel cost, GCV etc. vis-à-vis the MYT Order/Tariff Regulations is carried out</p> <p>The Power procurement from Manikaran Power is through competitive bidding and as approved by Commission.</p> <p>Cost and MUs verified as per Invoice</p>																												
9	RE Purchase	Cost and MUs verified as per Invoice																												
10	Short Term Power Purchase	Short-term power purchase invoices of June, 2022 are submitted by BEST. All the power purchase quantum and rate are verified from the invoices and has been considered for FAC calculation.																												

4.4 **The BEST has purchased 438.93 MU as against approved 424.60 MU from the sources approved by the Commission.** The increase in Power Purchase is due to increase in distribution loss as well as substantial increase in sales of BEST as



compared to approved Sales in the month of June, 2022.

- 4.5 The following table show the variation in average power purchase cost (Rs/kWh) for the month of June, 2022 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 June 2022

Particulars	Tariff Order Dated 30.03.2020			Actual for June 2022 as submitted by BEST		
	FY 2022-23 – 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	292.58	138.41	4.73	275.45	263.55	9.57
Manikaran	62.05	27.67	4.46	65.70	27.52	4.19
RE Power	69.97	21.65	3.09	8.51	4.97	5.84
REC	-	-	-	-	-	-
Short Term	-	-	-	96.66	50.99	5.28
Deviation Quantum			-	(7.37)	(1.74)	2.36
Gross Total	424.60	187.73	4.42	438.95	345.29	7.87
Less: Sale of Power to IEX				(0.02)	(0.02)	12.00
Net Power Procurement	424.60	187.73	4.42	438.93	345.27	7.87

* 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 BEST with regards to average power purchase cost for the month of June, 2022. The Commission has verified the Net Purchase, Variable Cost, Fixed Charge and the Power Purchase Cost from the relevant bills/invoices received for all purchasing sources. BEST has purchased power from approved sources as per the Tariff Order.

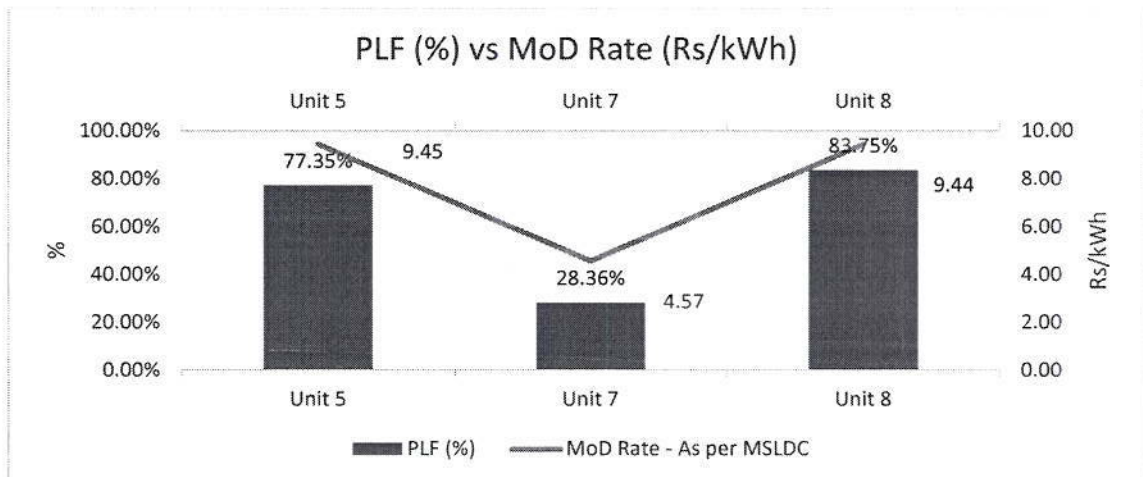
TPC-G

- 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. 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 99% and Unit 5



declared Availability of 94% which is higher than the normative availability. Further, the PLF of Unit 8 is equal to 83.75%, whereas for Unit 5 and 7 are lower at 77.35% and 28.36% respectively. In response to data gaps raised by the Commission for lower PLF of Unit 5 and 7, TPC submitted that Unit 5 PLF is lower due to lower schedule by beneficiaries and Unit 7 PLF is lower due to lower APM gas availability and reserve shutdown from 01 June, 2022 (00:00 Hrs) to 02 June, 2022 (15:00 Hrs), 03 June, 2022 (03:45 Hrs) to 03 June, 2022 (06:09 Hrs), 04 June, 2022 (03:15 Hrs) to 05 June, 2022 (17:48 Hrs) and 18 June, 2022 (04:12 Hrs) to 27 June, 2022 (18:31 Hrs) respectively. TPC further submitted that BEST & TPC-D have taken the decision to avoid RLNG consumption in Unit-7 and to schedule power from Unit-7 on APM only, to protect consumer's interest with a reasonable and competitive tariff. Further, BEST and TPC-D had provided consent to schedule power from Unit-7 only on APM. The Commission notes the submission of TPC. 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

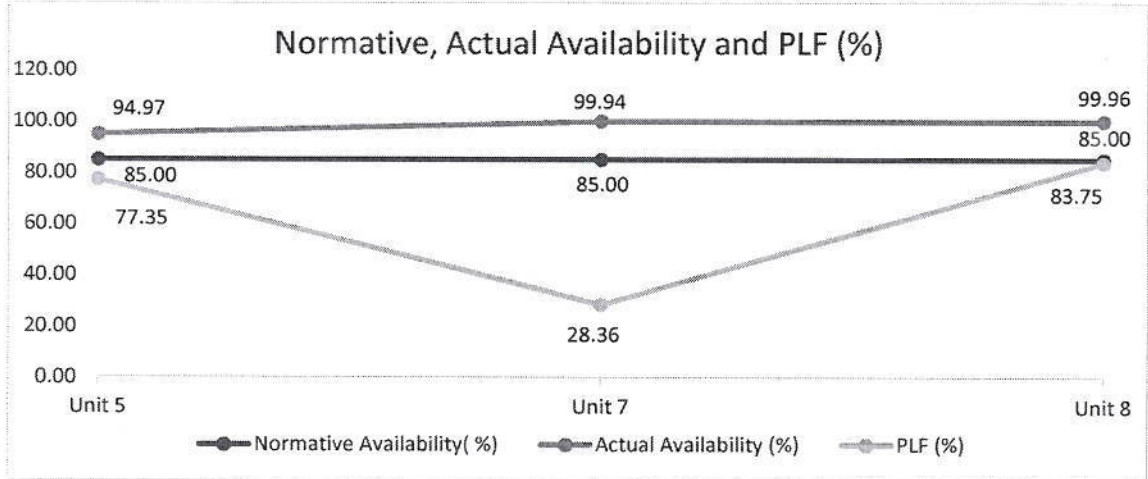


5.5 The graphical comparison of normative availability and actual availability for the month of June, 2022 is as given below:



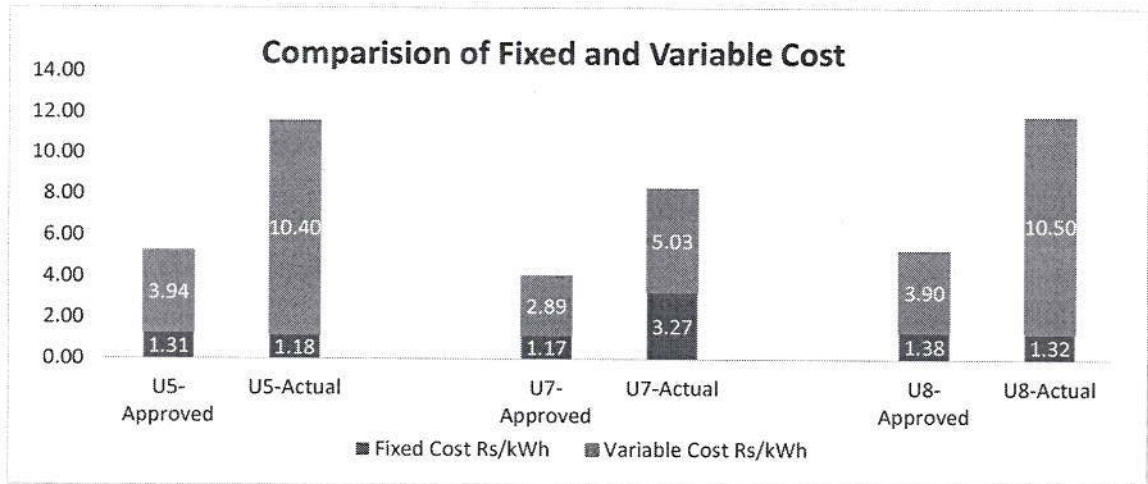
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Figure 2: PAF and PLF of TPC Generating Units



5.6 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%. It is observed that Unit-7 has lower PLF resulting in higher fixed cost per unit than approved by the Commission. Also, the Variable Cost of the Units 5 and 8 was substantially higher than the approved cost mainly due to higher prices of imported coal. Further, Variable Cost of Unit 7 has also increased due to revision in APM gas price from April 22. The comparison of Actual and Approved Fixed and Variable Cost of Units as shown in the graph below shows the impact of fixed cost due to actual generation.

Figure 3: Comparison of Fixed and Variable Cost of TPC Generating Units



5.7 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 June 2022

TPC-G Units	Availability – June 2022	Availability – June 2021
Unit 5	94.97%	92.67%
Unit 7	99.94%	100%
Unit 8	99.96%	91.12%



5.8 The Commission has observed that **BEST has purchased 275.45 MU from TPC-G as against monthly approved quantum of 292.58 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.

5.9 The Commission in its Order dated 30 March, 2020 in Case No 300 of 2019 in respect of Fuel Utilisation Plan of TPC-G as held as follows:

“7.17.7 Regarding the imported coal, it is submitted that Thermal Generating Station at Trombay needs ultra-low sulphur, low ash and Mid GCV coal to adhere with the stringent environment norms. Since, PPAs were not finalised during the year 2019 and there was uncertainty with respect to future tie-ups, the coal tie-ups were done only for a period of one year. The long term contract with Adaro is valid till 2020. Also, annual contract with Kideco and with Avra are valid upto July 31, 2020.

7.17.8 Regarding further fuel arrangement, the Commission notes the TPC-G’s submission that, existing PPAs are valid till March 31, 2024 and hence, it is exploring the options to tie up Coal on annual basis or on term basis, to get competitive prices for the required quantity in the best interest of consumers.

7.17.9 As regards Gas Contract, the Commission notes that existing APM gas Contract with GAIL is valid upto December 31, 2020. TPC-G submitted that it will be approaching GAIL for renewal of the contracts for further period as per usual practice.

7.17.10 It is the primary responsibility of Generating Companies to ensure supply of fuel for operation of the plant. However, the Commission, in the present Order, has reviewed the fuel arrangement to ensure the availability of plant. Further, TPC-G has tied up its capacity with BEST and TPC-D, which are supplying power to Consumers in Mumbai city. The Commission notes that TPC-G has entered into Fuel Supply arrangement for shorter period in view of uncertainty of PPAs. The existing Coal contracts are valid upto July & August 2020 and Gas Contract upto December 2020. There is limited time available for entering into Fuel Supply contract. Hence, the Commission directs TPC-G to enter into fuel supply contracts or arrangement so as to ensure the supply of fuel till the validity of PPA, i.e., upto March 31, 2024 through transparent process of Competitive Bidding. Further, TPC-G is directed to submit its Status report, on arrangement of Fuel Supply for future period, to the Commission within three (3) months from the date of this Order.”

5.10 TPC-G’s existing contracts for coal purchase expired in July 2020. Vide its letter dated 8 July, 2020, TPC-G informed that it has entered into coal contracts for 2.2 Million MT for two years from 1 August, 2020 onwards and further extendable by two years through competitive bidding. The Commission notes that the purchase of coal has been from the contracts entered into by TPC-G. The existing contracts which were approved by the Commission in the MYT Order as part of Fuel Utilisation Plan

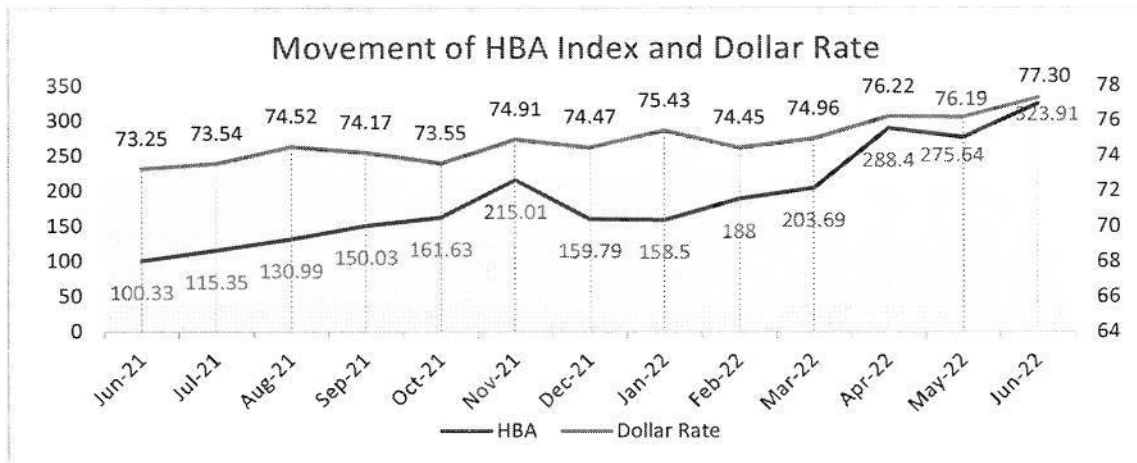


have expired and new contract have been entered through Competitive Bidding. Accordingly, the new contracts for purchase of imported coal will now be considered as part of Fuel Utilisation Plan. TPC-D has also signed contract with GAIL for supply of APM Gas for the period 7 July, 2021 to 6 July, 2026.

- 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. 9.57/ kWh as against the approved rate of Rs. 4.73/kWh.**
- 5.12 **The variation in APPC is mainly on account of increase in imported coal price for June, 2022 and also due to higher fixed charge payment per unit due to lower generation (PLF) from Units 7.**
- 5.13 **The landed cost of coal for energy charge computation as claimed by TPC-G is Rs. 18,372.65/MT as compared to approved rate of Rs. 7,114.30/MT. It can be seen that the actual landed price is higher as compared to approved rate in the Tariff Order.** In response to query raised by the Commission in respect of higher rate of TPC-G, TPC-D submitted that TPC-G's thermal power plant at Trombay is operated with 100% Indonesian coal. The price of this coal is based on HBA Index, which is internationally accepted and since few months, HBA Index has gone up substantially (e.g. HBA Index for March'22 – 203.69\$/MT, April'22 – 288.40\$/MT, May'22 – 275.64\$/MT and June'22 – 323.91\$/MT) and as an effect imported coal prices have gone up, owing to which Trombay Cost of Generation has increased in month of June, 22. BEST has made effort to purchase cheaper power from Manikaran Power Limited to the extent of its Availability having the least Variable Cost in MOD so as to compensate the costly power from TPC-G Unit-5 & Unit-8. The Commission observes that there has been increasing trend in the imported coal price primarily attributed to demand supply position of the global coal market which is reflected in the HBA index for the last few months. It is seen that HBA index is more than 3 times as compared to June, 21. It is also observed that the price of APM Gas was Rs 29,099.44/SCM in April, 22 which is also higher than the approved rate of Rs. 18,183.36/SCM in MYT Order. The Commission notes that prices of APM Gas have increased due to increase in notified APM gas price from \$2.90/MMBTU to \$6.10/MMBTU from April, 22 by Ministry of Petroleum and Natural Gas, Government of India.
- 5.14 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 for Indonesian coal which is set by Ministry of Energy and Mineral Resources (Indonesia). The Commission has sought for prevailing HBA 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 index which is considered by TPC-G for energy charge calculations. It can be observed that the HBA index has witnessed substantial increase from June, 2021. HBA Index has decreased to 275.64 \$/MT in May 22 and again peaks in June 22 at 323.91\$/MT.



Figure 4: 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
 \$ - 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)

5.15 The Commission has also sought coal purchase bills considered for June, 2022. The Commission has scrutinised the bills submitted and computed the purchase price of coal for the month of June, 2022 as shown in Table below:

Table 7: Computation of Purchase price of Coal by TPC-G for the month of June 2022

Date	Invoice QTY	GCV	HBA	Correction as per FSA	Invoice Rate*	Coal Cost	Freight Rate	BF Correction	Freight Payable	Total Coal Cost	
	MT	kcal/kg	\$/MT	\$/MT	\$/MT	\$	\$/MT	\$/MT	\$	\$	\$/MT
A	B	c	d	e	f	g	H	i	j	k	l
11-May-22	61371	4851	275.64	102.76	172.88	10609818	14.65	2.80	1070924	11680742	190.33
13-May-22	49150	4875	275.64	102.33	173.31	8518187	16.15	3.18	950070	9468256	192.64
20-May-22	47300	4886	275.64	102.62	173.02	8183846	16.15	3.80	943635	9127481	192.97
23-May-22	57250	4862	275.64	102.40	173.24	9917990	16.15	4.00	1153588	11071578	193.39
27-May-22	51680	4880	275.64	95.70	179.94	9299299	16.15	5.10	1098200	10397499	201.19
04-Jun-22	49598	4830	323.91	124.27	199.64	9901745	16.15	5.80	1088676	10990421	221.59
13-Jun-22	48907	4835	323.91	124.89	199.02	9733471	16.15	5.45	1056391	10789862	220.62
Total	365256	4860	288.66	107.51	181.15	66164356	15.90	4.26	7361483	73525839	201.30

5.16 TPC-G has submitted the detailed coal computation for the coal purchase considered in June, 2022 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.

- 5.17 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.
- 5.18 From the Table above, the basic purchase cost of imported coal including freight during the month of June, 2022 as per bills submitted worked out at USD 201.30/MT. TPC-D has booked Rs. 16,012.23/MT (i.e., Rs. 14,318.55/MT for Coal and Rs. 1,693.69/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-D are in line with the average prices approved in the previous quarters and accordingly, the total landed cost of coal arrived is Rs. 18,398.13/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 June, 2022 is as given below:

Table 8: Computation of Coal cost for the month of June 2022

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	16,012.23	16,012.23
2	Excise + Custom Duty + CE Cess+ Insurance	As submitted	Rs./MT	1,259.44	1,259.44
3	Handling and Wharfage	As submitted	Rs./MT	677.04	677.04
4	Other Fuel Handling Charges	As submitted	Rs./MT	492.38	492.38
5	Other Adjustment	As submitted	Rs./MT	(42.97)	(42.97)
6	Total as per Form 12	Sum (3:7)	Rs./MT	18,398.13	18,398.13

- 5.19 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. TPC has also considered the stacking loss as per norms approved by the Commission while computing the Energy Charges.
- 5.20 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:

Table 9: Coal Consumption Cost for the month of June 2022 of TPC-G

Particulars	Units	TPC Submission	As Approved
Form F12 - Coal Consumption Cost	Rs/MT	17,428.71	17,428.71



Particulars	Units	TPC Submission	As Approved
Foreign Exchange Rate Variation	Rs/MT	911.71	911.71
Employee Cost	Rs/MT	32.23	32.23
Form F11 - Coal Consumption Cost	Rs/MT	18,372.65	18,372.65

- 5.21 In view of the above, the Commission has considered APPC of Rs 9.57/kWh as against approved rate of Rs. 4.73/kWh for power purchased from TPC-G. The APPC varies due to increase in imported fuel price resulting in higher variable cost of Unit-5 & 8, and higher Fixed Cost/unit of power purchased from Unit-7 due to lower generation.
- 5.22 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
June 2022	(16.38)	141.52	125.13

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

Manikaran Power Limited (Medium Term PPA)

- 5.23 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.
- 5.24 The Commission has noted that there was delay in signing of agreement along with subsequent events as stated by BEST in its MYT Order which has led to the power supply not commencing on 1 April, 2019. However, the power supply has started from April 2020 which was envisaged at the time of issue of Tariff Order.
- 5.25 As submitted by BEST, it has purchased 65.70 MU at average rate of Rs. 4.19/kWh as against approved rate of Rs. 4.46/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.
- 5.26 Accordingly, the Commission has considered the said purchase from Manikaran Power Limited for the month of June 2022 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 June 2022

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	14.70	2.37	12.97	2.09	27.67	4.46
Actual	65.70	12.61	1.92	14.92	2.27	27.52	4.19

5.27 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
June 2022	1.53	(1.67)	(0.14)

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

Renewable Sources

- 5.28 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.
- 5.29 **BEST has purchased 2.66 MU of Solar Power at Rs 8.56/kWh for June 2022 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.
- 5.30 In addition to the above, BEST has procured Solar and Non-Solar Power under Green Day- Ahead Market (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 June 2022, BEST has procured 4.99 MU and 0.86 MU at Rs. 4.60/kWh and Rs. 4.60/kWh of Solar and Non-Solar respectively. The overall power procured through GDAM is 5.85 MU at Rs. 4.60/kWh.
- 5.31 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 June 2022. Also, the Commission notes that BEST has not purchased any solar/non-solar REC in the month of June 2022.
- 5.32 As per the Tariff order dated 30 March 2019, the Commission has approved the purchase of solar energy at generic tariff of Rs. 2.90 per kWh and non-solar energy at generic tariff of Rs. 2.87 per kWh from FY 2022-23 onwards. However, it was



observed that no additional quantum of Solar and Non-Solar Power has been procured by BEST. However, BEST has initiated the process of renewable power procurement through SECI Bid of 400 MW Hybrid RE project, whereby in Case No. 16 of 2021, the Commission has adopted tariff at Rs. 2.41/kWh plus trading margin of Rs. 0.07/kWh. With respect to 400 MW Hybrid RE project, BEST in Case No. 46 of 2022 has submitted that anticipated flow of power shall be from February 2023 onwards, and hence no additional RE power has been sourced.

- 5.33 Accordingly, as submitted by BEST, it has purchased overall renewable power of 8.51 MU at average rate of Rs. 5.84/kWh as against approved rate of Rs. 3.09/kWh.
- 5.34 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
June 2022	(35.88)	19.20	(16.68)

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

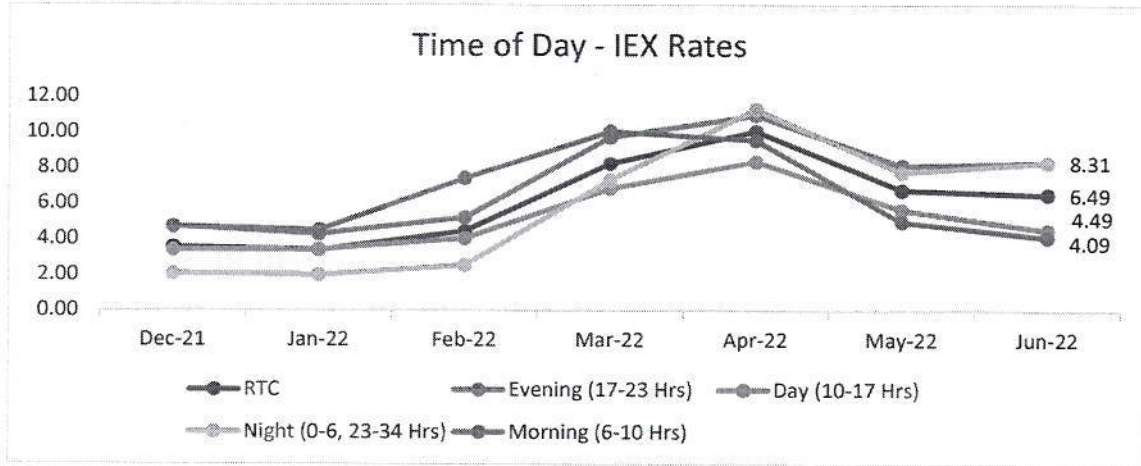
Short Term Purchase

- 5.35 **With regards to short term purchase, BEST has purchased 96.66 MU at an average rate of Rs. 5.28/kWh.** The overall power purchased from Power Exchange was about 22.02%% of Net power procured during the month of June, 2022 mainly to meet the shortfall during day-time.
- 5.36 The Commission has approved the power purchase cost from the said source, vide order dated 06 April, 2022 in case No. 46 of 2022, wherein the approved weighted average cost of power procurement on short term basis for the period from April, 2022 to June, 2022 is Rs. 5.12/kWh. BEST has purchased 7.95 MU and 12.37 MU in bilateral market through competitive bidding from Tata Power Trading Company Limited - TPTCL and Dhariwal Industries Limited at rate of Rs. 5.16/kWh and Rs. 4.75/kWh respectively, resulting in the weighted price of Rs. 4.91/kWh. Further, in addition to the same, BEST has also purchased 76.33 MU from Power Exchange at rate of Rs 5.37/kWh.
- 5.37 The Commission, vide BEST MYT order dated 30 March.,2020 in case No. 324 of 2019 has approved 'zero' quantum for power purchase from short term sources in FY 2022-23. However, in Case No. 46 of 2022, the Commission has provided approval for additional procurement of power as the approved RE power would not be available in FY 2022-23.
- 5.38 The market trend of past six months has been provided in the following graph with



different time slot whereby it can be witnessed that from March 2022 onwards, the price has witnessed an upward trend in peak hours and is above Rs. 5.50 per unit.

Figure 5: Price Trend of past months at IEX for different time slots



- 5.39 Considering the upward trend of prices in the short term market, the Commission has approved the short-term purchase by BEST for June, 2022.

Sale of Power

- 5.40 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 unrequisioned 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.”

- 5.41 Accordingly, BEST has done sale of surplus power to the extent of 0.02 MU during the month at Rs. 12.00/kWh under the same arrangement. Therefore, to



optimize power purchase cost, the surplus power of 0.02 MU was sold to AEML-D under Inter-Discoms Sale of Power Agreement from which BEST has earned Revenue of Rs. 0.02 Crore (i.e., Rs. 12.00/kWh). In view of the aforesaid, the Commission has considered the actual quantum and revenue against surplus sale.

Deviation Quantum and Cost

- 5.42 It was observed that BEST has underdrawn 7.37 MU during the month of June, 2022. **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 7.37 MU at Rs 1.74 Crore has been considered as per provisional weekly invoice raised by MSLDC for the period 1 June, 2022 to 30 June, 2022. 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.
- 5.43 **In view of the same, the Commission has considered total deviation quantum of 7.37 MU (Underdrawn), which contributes to around 1.68% of the total power procurement, for Rs 1.74 Crore.**

Approved Cost of Power Purchase

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

Table 11: Approved Power Purchase Cost for the month June 2022

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	292.58	36.93	1.26	101.48	3.47	138.41	4.73
	Actual	275.45	36.93	1.34	226.62	8.23	263.55	9.57
Manikaran Power	Approved	62.05	14.70	2.37	12.97	2.09	27.67	4.46
	Actual	65.70	12.61	1.92	14.92	2.27	27.52	4.19
Renewable Power	Approved	69.97	-	-	21.65	3.09	21.65	3.09
	Actual	8.51	-	-	4.97	5.84	4.97	5.84
REC	Approved	-	-	-	-	-	-	-
	Actual	-	-	-	-	-	-	-
Short Term Purchase	Approved	-	-	-	-	-	-	4.00
	Actual	96.66	-	-	50.99	5.28	50.99	5.28
Sale of Power	Approved	-	-	-	-	-	-	-
	Actual	(0.02)	-	-	(0.02)	12.00	(0.02)	12.00
Deviation Quantum	Approved	-	-	-	-	-	-	-
	Actual	(7.37)	-	-	(1.74)	2.36	(1.74)	2.36
Total	Approved	424.60	51.63	1.22	136.10	3.21	187.73	4.42
	Actual	438.93	49.54	1.13	295.73	6.74	345.27	7.87



- 5.45 Considering the above submission, the Commission allows the power purchase quantum of 438.93 MU for total cost of Rs. 345.27 Crore at average power purchase cost of Rs. 7.87/kWh for the month of June, 2022 as shown in Table above. The actual purchase for same month in FY 2021-22 i.e., June, 2021 was 379.08 MU and power purchase cost was Rs. 171.53 Crore with APPC of Rs. 4.52/kWh.

Summary

- 5.46 To summarise, BEST has optimised its overall power purchase cost by procuring power from Manikaran Power Limited to the extent of its Availability having the least Variable Cost in MOD.
- 5.47 However, the overall average power procurement cost has increased due to increase in variable cost for power procurement from TPC Unit 5 & 8 cause of increase in imported coal price coupled with higher dollar rate fluctuations and higher per unit fixed charges for power procured from TPC-G purchase due to lower PLF of Unit 5, 7 and 8, short term power procurement at the rate of Rs. 5.28/kWh and no additional renewable power procurement through competitive bidding as envisage in the tariff order.

6. FAC on account of fuel and power purchase cost (F)

- 6.1 The Commission has worked out the average power purchase cost for the month of June, 2022 as shown in above table. The same has been compared with the average power purchase cost approved by the Commission in Tariff Order dated 30 March, 2020 and accordingly arrived at differential per unit rate at which Z_{FAC} is to be passed on to the consumers.
- 6.2 It is noted that BEST has incurred the per unit Power Purchase cost which is higher than the limits Approved per unit Power Purchase Cost hence the Z_{FAC} June, 2022 is positive as shown in the Table below.

Table 12: Computed Z_{FAC} for the month of June 2022

S. No.	Particulars	Units	June 2022
1	Average power purchase cost approved by the Commission	Rs./kWh	4.42
2	Actual average power purchase cost	Rs./kWh	7.87
3	Change in average power purchase cost (=2 -1)	Rs./kWh	3.44
4	Net Power Purchase	MU	438.93
5	Change in fuel and power purchase cost (=3 x 4/10)	Rs. Crore	151.19

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 FAC levied for the month of February 2022 was nil, there would not be any adjustment factor for the month of June, 2022 while computing the allowable FAC.

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

8.1 As explained in the above paragraph in absence of any adjustment factor for previous month, there is no carrying cost which is to be allowed in FAC for the month of June, 2022.

9. Disallowance due to excess Distribution Loss

9.1 Regulation 10.8 of MYT Regulations, 2015 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 June 2022

S. N	Particulars	Units	Approved in Tariff Order	June – 2022 Actual	Cumulative Actual April - 2022 to June - 2022	Annual Sliding Loss – July - 2021 to June - 2022
1	Net Energy Input at Distribution Voltage	MU	4,933.20	424.51	1,328.46	4,500.44
2	BEST Retail Sales	MU	4,726.99	416.73	1,256.67	4,288.18
3	Distribution Loss (1 - 2)	MU	206.21	7.78	71.79	212.26
4	Distribution Loss as % of net energy input (3/1)	%	4.18%	1.83%	5.40%	4.72%
5	Excess Distribution Loss = [Actual Distribution Loss (4) - Distribution loss approved (4)] x Net Energy Input (1)	MU	-	-	-	2.28
6	Disallowance of FAC due	Rs.	0	0	0	0.83



S. N	Particulars	Units	Approved in Tariff Order	June – 2022 Actual	Cumulative Actual April - 2022 to June - 2022	Annual Sliding Loss – July - 2021 to June - 2022
	to excess Distribution Loss	Crore				

- 9.3 As seen from the above table, for the month of June, 2022 the standalone distribution loss is positive and lower than the approved distribution loss. By considering net energy input at distribution voltage of 424.51 MU for the month of June, 2022 and actual energy sales of 416.73 MU for the month of June, 2022, the Standalone Actual Distribution Loss works out to 1.83%, however annual sliding distribution loss (from July, 2021 to June, 2022) works out to 4.72%, which is higher 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. However, the cumulative sliding distribution loss of last 12 months may give figure near to target distribution loss. 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 cumulative loss of 5.40% up to June, 2022 as per the related financial year and annual sliding distribution loss of 4.72% for the period July, 21 to June, 22 is higher than approved loss.
- 9.4 Further, the comparison of Distribution Loss for the June, 2022 as compared to last year is as given below:

Table 14: Monthly Distribution Loss of FY 2021-22 and FY 2022-23

Particulars	FY 2022-23	FY 2021-22
Approved Loss	4.18%	4.18%
April	11.09%	2.65%
May	3.26%	4.30%
June	1.83%	3.15%
Cumulative upto June	5.40%	3.37%

- 9.5 It is observed that annual sliding Distribution Loss of 4.72% is higher than the approved loss of 4.18%. Accordingly, the Commission has worked out disallowance of 2.28 MU resulting in Rs. 0.83 Crore on account of Distribution Loss for the month of June, 2022.

10. Summary of Allowable ZFAC

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

Table 15: Summary of Allowable Z_{FAC} for June, 2022

S. No.	Particulars	Units	June 2022 - As per BEST	June 2022 - As Approved
1	Calculation of ZFAC			



S. No.	Particulars	Units	June 2022 - As per BEST	June 2022 - As Approved
1.1	Change in cost of generation and power purchase attributable to Sales within the License Area (F)	Rs. Crore	151.19	151.19
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	151.19	151.19
2	Calculation of Per Unit FAC			
2.1	Energy Sales within the License Area	MU	416.73	416.73
2.2	Excess Distribution Loss	MU	7.13	2.28
2.3	ZFAC per kWh	Rs./kWh	3.57	3.63
3	Allowable FAC			
3.1	FAC disallowed corresponding to excess Distribution Loss [(2.2 x 2.3)/10]	Rs. Crore	2.54	0.83
3.2	FAC allowable [1.4-3.1]	Rs. Crore	148.65	150.37
4	Utilization of FAC Fund			
4.1	Opening Balance of FAC Fund	Rs. Crore	258.04	258.88
4.2	Holding Cost on FAC Fund	Rs. Crore	2.11	2.09
4.3	Z _{FAC} for the month (Sr. N. 3.2)	Rs. Crore	148.65	150.37
4.4	Closing Balance of FAC Fund	Rs. Crore	408.80	411.34
4.5	Z _{FAC} leivable/refundable to consumer	Rs. Crore	408.80	411.34
5.0	Energy Sales within the License Area	MU	416.73	416.73
6.0	ZFAC per kWh [(4.5/5.0)*10/5]*	Rs./kWh	3.27	1.97
7.0	Total FAC based on category wise and slab wise allowed to be recovered in the billing month of August-2022, September-2022, October-2022, November-2022 and December-2022**	Rs. Crore	122.67	204.45
8.0	Carried forward FAC for recovery during future period (4.5-7.0)	Rs. Crore	286.13	206.89

* - FAC to be recovered in 5 months period

** - calculated considering the FAC Cap at 20% of variable component of tariff

10.2 BEST has considered the carrying cost of 8.81% considering the MCLR + 150 basis points. However, BEST has claimed the carrying cost of Rs. 2.11 Crore. According to the Multi Year Tariff Regulations, 2019 the Commission considers base rate prevailing at the beginning of the month plus 150 basis points. Accordingly, the carrying cost of 8.70% considered by the Commission. The carrying cost as calculated will be contributed to the FAC fund and is outlined as below:

Table 16: Calculation of Carrying Cost for the month of June 2022

Calculation of Carrying Cost	
Month	June-22
Op. Balance	287.94
FAC amount for the Month after	150.37



Calculation of Carrying Cost	
Month	June-22
disallowance of distribution loss	
Cl. Balance	438.31
Interest Rate	8.70%
Interest for the month	2.09
Cumulative Interest till previous month	(29.06)
Cumulative Interest till Current Month	(26.97)
Total	411.34

10.3 It can be seen from the above table that standalone FAC for the month of June, 2022 is Rs. 150.37 Crore. As the FAC is positive, the said amount is added to the existing FAC Fund. Accordingly, the total FAC Amount to be recovered is Rs 411.34 Crore.

11. **Recovery from Consumers:**

11.1 Regulation 10.9 of MYT Regulations, 2019 provides for methodology of recovery of FAC charge from each category of consumers. The relevant extract is reproduced as below.

“10.9 The ZFAC per kWh for a particular Tariff category/sub-category/consumption slab shall be computed as per the following formula: —

$$Z_{FAC\ Cat} (Rs/kWh) = [Z_{FAC} / (\text{Metered sales} + \text{Unmetered consumption estimates} + \text{Excess distribution losses})] * k * 10,$$

Where:

Z_{FAC Cat} = Z_{FAC} component for a particular Tariff category/sub-category/consumption slab in ‘Rupees per kWh’ terms;

k = Average Billing Rate / ACOS;

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

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

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



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

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

11.2 The Commission had invoked power of removing difficulties under MYT Regulation, 2019 and made following changes for computation of FAC.

8.2.15.4 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 the accumulated negative FAC becomes 20% of monthly tariff revenue approved by the Commission in Tariff Order. In case of BEST such limit shall be Rs. 59 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.*

11.3 Accordingly, the Commission allows the FAC amount of Rs. 150.37 Crore for the month of June, 2022 to be added to the FAC fund.

11.4 The Commission in its approval for the month of May, 2022, has directed BEST to carry forward the approved FAC amount of Rs. 258.88 Crore to be accumulated as FAC Fund to be carried forward to the next billing cycle.

11.5 **Accordingly, considering the approved FAC amount of Rs. 150.37 Crore for the month of June, 2022 and the same after being added to the existing FAC fund of Rs.**



258.88 Crore, the total balance amount alongwith the carrying cost to be recovered is Rs. 411.34 Crore. The Commission in its letter dated 5 April, 2022 has indicated recovery of FAC amount in three months. The recovery of FAC amount in three months will hit the ceiling limit of 20% and there would be recovery of Rs 122.67 Crore and unrecovered amount would still be Rs 288.67 Crore. With such unrecovered amount, there would be ceiling limit applicable for further two months. Considering the fact that ceiling limit will be applicable for next five months, the FAC amount of Rs 411.34 Crore is being allowed to be recovered equally in five months from August 2022 to December 2022. The amount to be recovered for each month along with carrying cost is Rs 83.87 Crore. However, the said recovery also exceeds the 20% ceiling of variable component of tariff as specified in the MYT Regulations. Accordingly, the Commission has allowed recovery of Rs 40.89 Crore considering the ceiling at 20% of the variable component of tariff. The Commission has allowed the equal recovery so as to avoid tariff variation every month to the Consumers. The total estimated recovery for five months considering the ceiling is Rs 204.45 Crore. The balance amount of Rs 206.89 Crore is carried forward and will be considered for recovery from January 2023 onwards.

11.6 In view of the above, the per unit Z_{FAC} for the month of June, 2022 to be levied on the consumers of BEST in the billing month of August, 2022, September 2022, October 2022, November 2022 and December 2022 are as given below. The rate of FAC is rounded for Rs.0.05 as per letter dated 5 April, 2022. Therefore, same may be reconciled in the next approvals on under/ over recovery:

Category	Z_{FAC} for the month of June, 2022 to be levied in August 2022, September 2022, October 2022, November 2022 and December 2022
	(Rs/kWh, Rs/kVAh – as Applicable)
HT CUSTOMERS	
HT - I Industry	0.95
HT - II Commercial	1.10
HT - III Group Housing	0.95
HT - IV Railways, Metro, Monorail	1.05
HT-V (A) Public Services (Govt. Hospitals and Educational Institutions)	1.00
HT-V (B) Public Services (Others)	1.05
HT-VI Electrical Vehicle Charging	0.00
LT CUSTOMERS	
LT - I (A) Residential (BPL)	0.25
LT - I (B) Residential	
- S1 0-100 units	0.35



Category	Z _{FAC} for the month of June, 2022 to be levied in August 2022, September 2022, October 2022, November 2022 and December 2022
- S2 101-300 units	0.85
- S3 301-500 units	1.20
- S4 > 500 units	1.40
LT - II (a) Commercial	1.00
LT - II (b) Commercial >20kW & <=50kW	1.00
LT - II (c) Commercial >50kW	1.05
LT - III (A) Industry (upto 20kW)	0.90
LT - III (b) Industrial (above 20kW)	1.00
LT-IV (A) Public Services (Govt. Hospitals and Educational Institutions)	0.85
LT-IV (B) Public Services (Others)	0.90
LT-V (A) Agriculture-Pumpsets	0.00
LT-V (B) Agriculture-Others	0.75
LT-VI Electrical Vehicle Charging	0.75



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