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Ref. No. MERC/FAC/2020-21/E-Letter **Date: 5 December, 2020**

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 August 2020.

Reference: 1. FAC submission dated 23 October 2020 for the month of August 2020.

2. Data gaps communicated vide email dated 30 October 2020

3.BEST Undertaking's submission received on 03 November, 2020

Sir,

Upon vetting the FAC calculations for the month of August, 2020 as mentioned in the above reference, the Commission has accorded approval for FAC of Rs. (16.65) Crore to its consumers as shown in the table below:

Month	FAC Amount (Rs. Crore)
August, 2020	**0 (Zero)**

The Commission allows the accumulation of FAC amount of Rs. (90.38) Crore which shall form part of FAC Fund and shall be carried forward to next FAC billing cycle with holding cost as per the Order dated 30 March, 2020 in Case No 324 of 2019. Further, as directed in the said Order, 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,

Sd/-
(Prafulla Varhade)
Director (EE), MERC

Encl: Annexure A: Detailed Vetting Report for the month of August, 2020.

ANNEXURE A

Detailed Vetting Report
Date: 5 December, 2020

PRIOR APPROVAL FOR FAC CHARGES FOR THE MONTH OF AUGUST, 2020

Subject: Prior Approval of Fuel Adjustment Charges (FAC) submission of BEST Undertaking for the month of August, 2020.

Reference: FAC submission dated 23 October and 3 November, 2020 by BEST Undertaking for prior approval of FAC for the month of August 2020.

1. FAC submission by BEST Undertaking:

1.1 BEST Undertaking ('BEST') has submitted FAC submissions for the months of August, 2020 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. 16.65 Crore. The approved FAC amount shall form part of FAC Fund and shall be carried forward to next FAC billing cycle with holding cost as per the Order dated 30 March, 2020 in Case No 324 of 2019 (herein after referred to as "Tariff Order").

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, 2020.

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 August, 2020 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 August 2020 (MUs)

Consumer Category	Approved by the Commission (MU)	Monthly Approved* (MU)	Actual Sales August 2020 (MU)
	(I)	(II=I/12)	(III)
HT I- Industry	156.73	13.06	12.20
HT II - Commercial	278.98	23.25	12.97
HT III - Group Housing Society (Residential)	30.65	2.55	2.27
HT IV – Railways/Metro/Monorail	2.14	0.18	0.14
HT V - Public Services			
a) Govt. Edu. Inst. & Hospitals	26.59	2.22	2.00
b) Others	196.66	16.39	17.45
HT-VI EV Charging Stations	-	-	-
Total HT Sales	**691.74**	**57.65**	**47.03**
LT I (A)- Residential (BPL)	0.07	0.01	0.00
LT I (B)- Residential	2,075.48	172.96	159.28
LT II - LT Commercial			
(A)- upto 20 kW	919.85	76.65	35.55
(B) >20 kW and <50 kW	211.13	17.59	9.14
(C) - 50 kW	370.00	30.83	18.24
LT III (A) - Industry < 20 kW	43.23	3.60	5.62
LT III (B) - Industry > 20 kW	90.31	7.53	5.03
LT IV - Public Services			
a) Govt. Edu. Inst. & Hospitals	55.68	4.64	4.65
b) Others	185.87	15.49	11.64
LT V(A) – Agriculture Pumpsets	-	-	-
LT V(B) – Agriculture Others	-	-	-
LT VI - EV Charging Stations	0.30	0.03	0.15
Total LT Sales	**3,951.92**	**329.33**	**249.31**
Total	**4,643.66**	**386.97**	**296.34**

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

3.2 Due to spread of Covid-19 pandemic, the Commission had issued Practice Directions on 26 March, 2020 providing certain relaxations in the Supply Code to all the Distribution Licensees in respect of Meter Reading etc. **However, for the month of August 2020, it can be observed that the actual sales for the month of August 2020 is 296.34 MU which is lower by 23.42% as compared to the approved energy sales of 386.97 MU**. With respect to the consumption, HT category consumption is 47.03 MU which is on a lower side by 18.41% compared to approved monthly HT energy sales of 57.65 MU and the reduction has been noticed by 24.30% in LT side whereby the actual sales is 249.31 MU as compared to approved monthly LT energy sales of 329.33 MU. The major variation was observed across all categories in view of lower sales due to Covid-19 pandemic. BEST has also submitted the data providing actual billing and estimated billing undertaken for the calculation of total energy consumption for the month of August 2020.

3.3 BEST further submitted the number of actual and estimated meter readings undertaken for the month of August 2020 as shown below:

Table 2: No. of Meters reading on actual and estimated basis for August 2020

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	999926	40055	1039981
	Total	**1000120**	**40055**	**1040175**
	%	**96%**	**4%**	**100%**

3.4 Accordingly, the Commission has also analysed the comparison of estimated sales and sales based on actual meter reading for the month of April 20 to August 20 and is observed that the assessed sales percentage has been reducing gradually leading upto August 2020.

Table 3: Actual and Estimated Sales from April 2020 to August 2020

Particulars	April-20	May-20	June-20	July - 20	August 20	April-Aug 20
Actual – MUs	39.19	107.16	348.13	289.63	290.56	1,074.67
Estimated - MUs	264.39	192.94	41.79	21.90	5.78	526.80
Total	**303.58**	**300.11**	**389.91**	**311.53**	**296.34**	**1,601.48**
% sales based on Estimated Reading	87%	64%	11%	7%	2%	33%

3.5 **As per the data, the 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% is undertaken as per actual meter readings and balance 4% is still assessed on an estimated basis. Also, with respect to consumption, under LT**

Category, about 98% consumption is undertaken as per actual meter readings and balance 2% is still assessed on an estimated basis.

3.6 It was analysed that the actual sales was lower across all categories of consumers as compared to approved sales by the Commission in the MYT Order. BEST has submitted that the reduction in sales as compared to approved sales in various categories other than residential, LT-III(A)-Industry & LT-VI-Electrical Vehicle Charging is mainly due to lockdown caused by COVID 19 pandemic. Also, lower sales is due to consideration of estimated sales for some of the LT categories and lower activity in commercial and industrial premises. As regards sales of residential category, the sale in this category is highly influenced by weather (Seasonal variation).

3.7 Further, comparison of sales from April to August 20 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-19	196.59	168.19	57.38	422.16
Apr-20	149.90	114.49	39.19	303.58
May-19	208.00	175.89	61.48	445.37
May-20	158.43	98.95	42.73	300.11
Jun-19	186.91	163.21	61.03	411.15
Jun-20	191.74	156.65	41.52	389.91
Jul-19	176.73	159.26	62.19	398.17
Jul-20	164.72	100.36	46.45	311.53
Aug-19	178.71	157.18	59.68	395.56
Aug-20	159.28	90.03	47.03	296.34
April – August 19	**946.93**	**823.73**	**301.76**	**2,072.42**
April - August 20	**824.07**	**560.47**	**216.93**	**1,601.47**

3.8 The Commission observes that sales for LT Residential were lower in April/May as compared to last year. This was mainly due to lower estimated readings due to pandemic. However, the LT Residential sales have increased in June 20, as compared to last year and is due to the fact that estimated units billed in the previous months were on lower side and with actual meter reading it has resulted in incremental sales of previous period being billed in the month of June'2020. However, the LT Residential sales has witnessed a decreasing trend in July and August 2020 similar to earlier year for the same month, which is due to onset of monsoon there was dip in temperature resulting in lower consumption by residential consumers and decrease in demand.

3.9 Also, it is further observed that sales of LT others and HT Categories is lower as compared to last year due to Covid-19 pandemic and economic slowdown.

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 Balancing and Settlement Mechanism approved by the Commission.

4.3 Summary of Power Purchase for BEST is as follows:

<table>
<tr><th>Sr. No.</th><th>Particular</th><th>Compliance</th></tr>
<tr><td>1</td><td>Sources of approved Power Purchase</td><td>BEST has purchased power from approved sources.</td></tr>
<tr><td>2</td><td>Merit Order Dispatch</td><td>BEST has followed merit order for scheduling of power and preference was given to cheapest power.</td></tr>
<tr><td>3</td><td>Fuel Utilization Plan</td><td>Existing coal contracts of TPC-G 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 directions of the Commission in TPC-G MYT Order through Competitive Bidding.</td></tr>
<tr><td>4</td><td>Pool Imbalance</td><td>BEST has drawn 3.98 MU from the imbalance pool to meet its demand.</td></tr>
<tr><td>5</td><td>Sale of Surplus Power</td><td>BEST has sold 2.80 MU on IEX at Rs. 2.90/kWh.</td></tr>
<tr><td>6</td><td>Power Purchase</td><td>Actual Power Purchase is 315.81 MU as against approved 417.11 MUs due to lower sales</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>299.04</td><td>240.28</td><td>76.08%</td></tr>
<tr><td>Manikaran Power</td><td>62.05</td><td>67.97</td><td>21.52%</td></tr>
<tr><td>RE Sources</td><td>2.63</td><td>2.23</td><td>0.71%</td></tr>
<tr><td>Net Short Term</td><td>53.40</td><td>1.35</td><td>0.43%</td></tr>
<tr><td>Imbalance Pool & Other</td><td>-</td><td>3.98</td><td>1.26%</td></tr>
<tr><td>Total</td><td>417.11</td><td>315.81</td><td>100.00%</td></tr>
</table>
</td></tr>
</table>

Sr. No.	Particular	Compliance
8	Power Purchase: a. Section 62 of Electricity Act, 2003	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 MYT Order in Case No. 324 of 2019. 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
	b. Section 63 of Electricity Act, 2003	The Power procurement from Manikaran Power is through competitive bidding and as approved by Commission. Cost and MUs verified as per Invoice
9	RE Purchase	Cost and MUs verified as per Invoice
10	Short Term Power Purchase	Short-term power purchase invoices of August, 2020 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 315.81 MUs as against approved 417.11 MUs from the sources approved by the Commission**. The reduction in Power Purchase is due to reduction in sales of BEST in the month of August 2020.

4.5 The following table show the variation in average power purchase cost (Rs/kWh) for the month of August, 2020 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 August 2020

Particulars	Tariff Order Dated 30.03.2020 FY 2020-21 - Approved			Actual for August, 2020 as submitted by BEST		
	Net Purchase – Monthly*	Cost	Average Power Purchase Cost	Net Purchase	Cost	Average Power Purchase Cost
		Rs. Crore	Rs/kWh	MU	Rs. Crore	Rs/kWh
TPC-G	299.04	134.85	4.51	240.28	95.91	3.99
TPC-G (Past Period)[$]		6.98			6.98	
Manikaran	62.05	27.14	4.37	67.97	26.92	3.96

RE Power	2.63	2.25	8.56	2.23	1.91	8.56
REC		5.39	1			
Short Term	53.4	21.36	4	4.14	1.18	2.86
Imbalance Pool				3.98	1.14	2.86
Gross Total	**417.11**	**197.96**	**4.75**	**318.61**	**134.05**	**4.21**
Less: Sale of Power to IEX				-2.8	-0.81	2.9
Net Power Procurement	**417.11**	**197.96**	**4.75**	**315.81**	**133.24**	**4.22**

* - 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

$ Past Period Expenses approved by the Commission in TPC-G's MYT Order are allowed to be recovered from BEST in FY 2020-21 (Explanation in Para 5.26)

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 August, 2020. 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. Analysis of TPC-D's FAC submission for August 2020 in respect of TPC-G's supply has already been undertaken while approving FAC submission of TPC-D for August 2020. Accordingly, the Commission has considered the said submissions of TPC-D in respect of TPC-G.

5.4 In view of lower demand due to Covid 19 pandemic, TPC-G Unit-8 was under Zero Schedule, whereas Unit-5 was running at technical minimum. Based on MOD rates submitted, it was observed that Unit-8 having lower MOD rate of Rs 3.19/kWh than Unit-

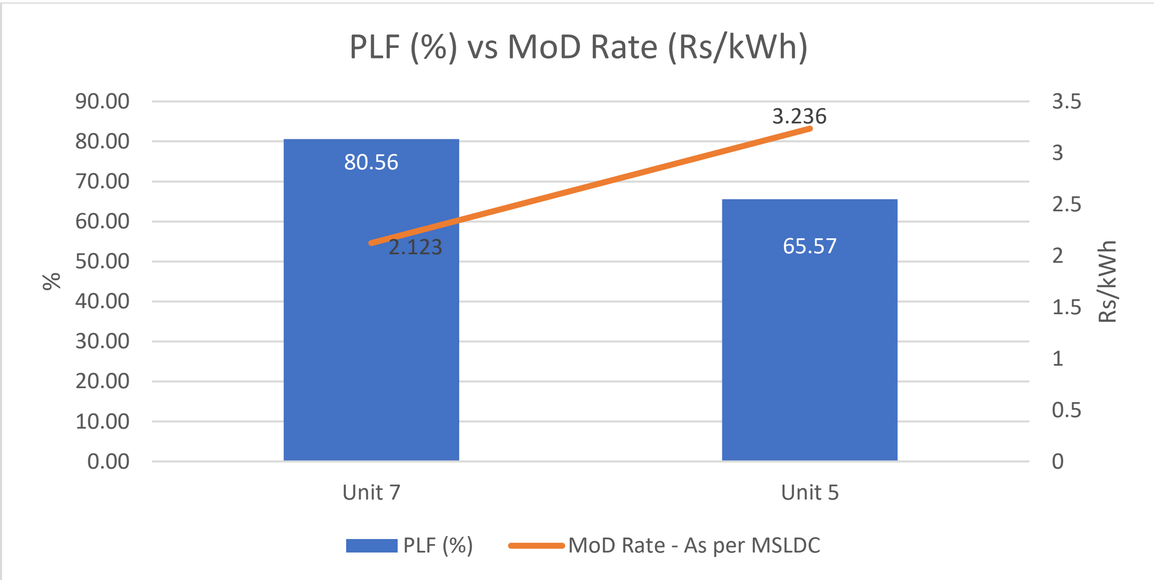
5 (Rs 3.236/kWh) was kept under Zero schedule. In response to data gaps, TPC-D has submitted that Unit-5 was in service in view of operational reasons as mentioned below:

- Available capacity of Unit-5 is more to meet any emergency demand as compared to Unit-8.
- In case of excess availability of APM Gas from supplier, it's utilization in Unit-5 is possible.
- Unit-5 helps in voltage control by absorbing @ 100 MVAR more reactive power as compared to Unit-8, in high voltage condition due to reduction in load.

5.5 The Commission notes the submission of TPC-D. It is also observed that TPC-G has been using excess APM gas available during lockdown in Unit-5 in the previous months thereby reducing the cost of Unit-5.

Under MERC (State Grid Code) Regulations, 2020 (which is effective from 2 September 2020), Guidelines for Zero Schedule of Intra-State Generating Stations have been specified wherein for zero scheduling of the Generating Units, consultation with MSLDC is necessary. Though, TPC-G has cited operational reasons to justify the zero scheduling of Unit 8 instead of Unit 5 (which is costlier than Unit 8 by about Rs. 0.04 per Unit), TPC-G is directed to adhere to the MERC (Grid Code) Regulations, 2020 for future zero scheduling decisions.

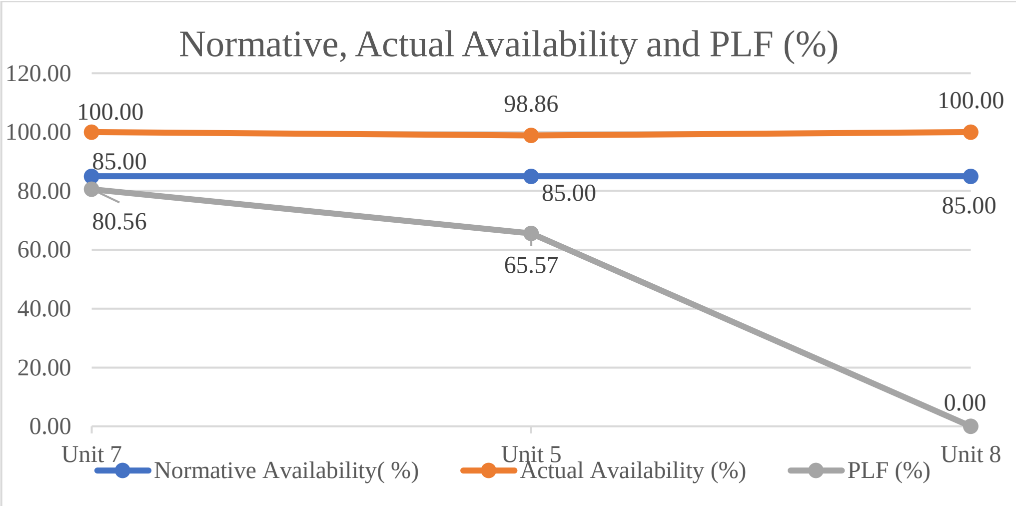
5.6 It was further observed that Unit-7 having lowest rate in MOD has highest PLF. The graph showing the comparison of Variable Cost in MoD Stack and monthly PLF for TPC-G thermal/gas units is given below:



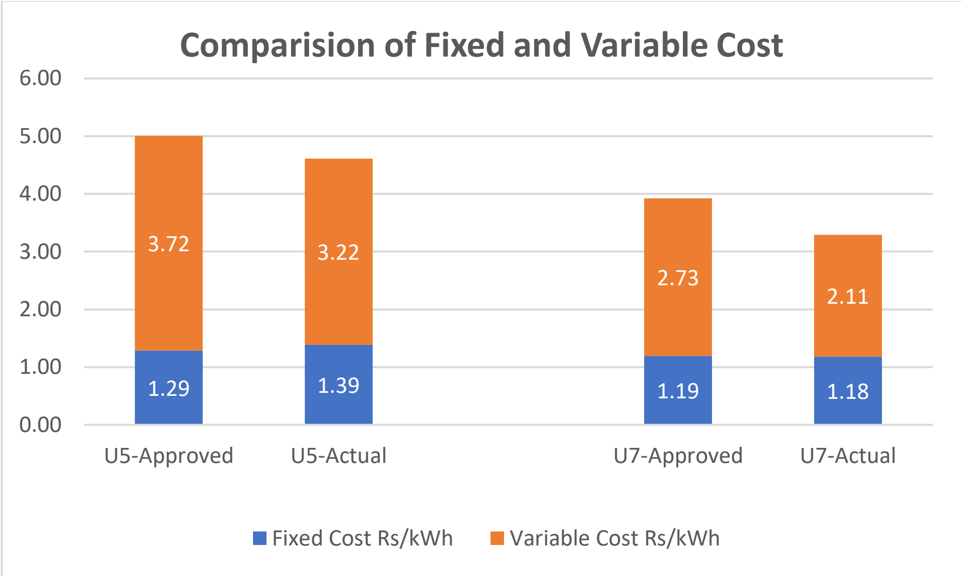
Note: Unit 8 is not considered in aforesaid graph as it was under Zero Schedule for entire month.

5.7 **The Commission has observed that BEST has purchased 240.28 MU from TPC-G as against monthly approved quantum of 299.04 MU.** The total overall generation was lower during the month leading to low overall PLF mainly due to lower system demand. **It was observed that Unit-7 having lowest rate in MOD has run at PLF of 80.56% thereby benefitting the consumers.**

5.8 All the Units of TPC-G were available during the given period, above normative availability. However, on account of COVID-19 pandemic, demand of BEST has reduced drastically in its distribution licence area. **Therefore, to optimize power purchase cost and balance the reduced demand vis-a-vis supply, TPC Unit-8 is kept under "Zero Schedule" from 17:00 hrs of 11 April, 2020 and the same was continued in the month of August 2020**.The graphical comparison of normative availability and actual availability for the month of August 2020 is as given below:



5.9 Even though the PLF for the Unit-5 was lower and Unit-8 was under Zero Schedule for the aforesaid month, the entire monthly fixed cost was payable in line with MYT Regulations, 2019 as the cumulative plant availability was higher than the normative availability of 85%. This has resulted into fixed cost being spread over lower net generation. **However, the impact of increase in fixed cost for Unit-5 is offset by lowering variable cost due to reduced purchases.** Further, in view of better PLF for Unit-7, the fixed cost per unit has decreased. The comparison of Actual and Approved Fixed and Variable Cost of Units 5 and 7 as shown in the graph below shows the impact of fixed cost due to actual generation.



Note: Unit 8 is not considered in aforesaid graph as it was under Zero Schedule for entire month. Fixed Cost payable was Rs. 7.83 Crore

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

TPC-G Units	Availability - August 2020	Availability – August 2019
Unit 5	98.86%	80.73%
Unit 7	100%	99.18%
Unit 8	100%	90.05%

5.11 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.

5.12 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."

5.13 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. TPC-D in response to data gaps for submission of copy of Fuel Supply Agreement (FSA) entered into by TPC-G, submitted that as per the requirement of contractual agreement of TPC_G with coal suppliers, these contractual documents are not to be made available in public domain. It further submitted that post improvement in the Covid-19 pandemic situation and normalization of services, the copies of FSA will be produced to the Commission in person. However, TPC-D has submitted the non-confidential summary of FSA with PT Adaro, PT Kideko and Avra Commodities giving details of pricing of coal.

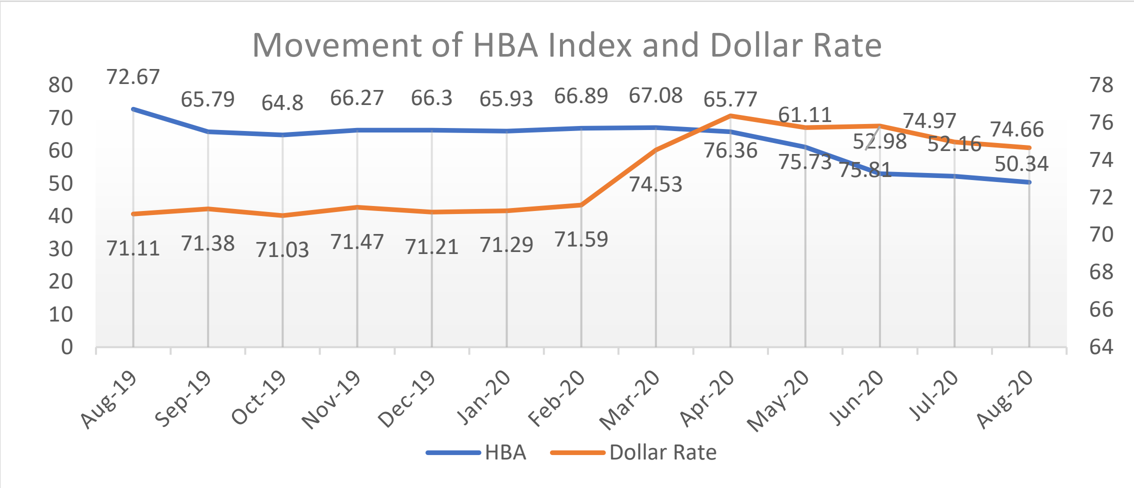
5.14 The Commission notes that the purchase of coal has been from the contracts entered into by TPC-G. The existing contracts which were approved by the Commission in the MYT Order as part of Fuel Utilisation Plan have expired and new contract have been entered through Competitive Bidding. Accordingly, the new contracts for purchase of imported coal will now be considered as part of Fuel Utilisation Plan.

5.15 The APPC for BEST for procurement of Power 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. 3.99/ kWh as against the approved rate of Rs. 4.51/kWh.

5.16 **The variation in APPC is mainly on account of fixed charge payment as explained in paragraph above and also due to lower price of fuel for August 2020. The landed cost of coal for energy charge computation as claimed by TPC-G is Rs. 5762.49/MT as compared to approved rate of Rs. 6705.91/MT.** It can be seen that the actual landed price is lower as compared to approved rate in the Tariff Order and the same is due to decrease in the imported coal price primarily attributed to demand supply position of the global coal market. It is also observed that there is reduction in price of APM Gas to Rs.

13,226.79/SCM as compared to approved rate of Rs.17,139.56/SCM.

5.17 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 a downward trend from August 2019 to August 2020 and in the range of around 50.34 to 72.67 which has resulted in lower imported coal price procured in July/August 2020. However, the Dollar Exchange rate has witnessed a sharp surge from February 2020.



** - 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)

5.18 The Commission has also sought for coal purchase bills considered for August 2020. The Commission has scrutinised the bills submitted and computed the purchase price of coal for the month of August 2020 as shown in Table below:

Table 6: Computation of Purchase price of Coal by TPC-G for the month of August 2020

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
06-07-2020	51750	4856	52.16	13.03	39.13	2024978	12.07	2.15	513360	2538338	49.05
22-07-2020	48568	4955	52.16	11.02	41.14	1998088	12.07	2.00	489080	2487167	51.21
29-07-2020	49080	5096	52.16	11.84	40.32	1978906	12.07	2.05	491782	2470687	50.34
13-08-2020	51457	4920	50.34	10.51	39.83	2049532	12.07	2.04	516114	2565646	49.86
Total	**200855**	**4955**	**51.69**	**11.61**	**40.09**	**8051503**	**12.07**	**2.06**	**2010335**	**10061838**	**50.10**

5.19 TPC has submitted the detailed coal computation for the coal purchased in August 2020 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.

5.20 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.

5.21 Apart from above, the Commission has also sought for third party sampling report for GCV verifications. TPC-G 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-G has also considered the stacking loss as per norms approved by the Commission while computing the Energy Charges.

5.22 From the Table above, the basic purchase cost of imported coal including freight during the month of August 2020 as per sample bills submitted worked out at USD 50.10/MT. TPC has booked Rs. 3796.52/MT (i.e. Rs. 3012.23/MT for Coal and Rs. 784.29/MT for freight) resulting in conversion rate of Rs. 75.79 per dollar. 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 and accordingly, the total landed cost of coal arrived is Rs. 5,499.45/MT. Accordingly, the break-up of the cost as submitted by TPC and as considered by the Commission against the procurement of coal for the month of August 2020 is as given below:

Table 7: Break-up of Coal Cost for the month of August 2020 for TPC-G

Sr. No	Particular	Source / Formula	units	As Submitted – Coal Cost	As Approved – Coal Cost
1	Coal cost including Freight	As computed above	USD $/MT	50.10	50.10
2	Dollar exchange rate	As an average	USD/Rs.	75.79	75.79

Sr. No	Particular	Source / Formula	units	As Submitted – Coal Cost	As Approved – Coal Cost
3	Basic Coal cost + Freight in Rs.	1 X 2	Rs./MT	3,796.52	3,796.52
4	Excise + Custom Duty + CE Cess+ Insurance	As submitted	Rs./MT	627.97	627.97
5	Handling and Wharfage	As submitted	Rs./MT	613.50	613.50
6	Other Fuel Handling Charges	As submitted	Rs./MT	471.28	471.28
7	Other Adjustment	As submitted	Rs./MT	(9.81)	(9.81)
8	**Total as per Form 12**	**Sum(3:7)**	**Rs./MT**	**5,499.45**	**5,499.45**

5.23 It is observed that there is difference in coal cost considered in Form 11 and Form 12. It was 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, considering the revised coal cost approved by the Commission, the coal consumption cost to be considered as per Form 11 is as given below:

Table 8: Coal Consumption Cost for the month of August 2020 of TPC-G

Particulars	Units	TPC Submission	As Approved
Form F12 - Coal Consumption Cost	Rs/MT	5,712.02	5,712.02
Foreign Exchange Rate Variation	Rs/MT	-2.64	-2.64
Employee Cost	Rs/MT	53.11	53.11
Form F11 - Coal Consumption Cost	Rs/MT	5,762.49	5,762.49

5.24 **In view of the above, the Commission has considered APPC of Rs 3.99/kWh as against approved rate of Rs. 4.51/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
August 2020	(26.50)	(12.44)	(38.94)

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

5.26 The Commission in the MYT Order dated 30 March, 2020 in Case No 300 of 2019 in respect of TPC-G has allowed TPC-G to recover the past recoveries approved in the said order from the three Distribution Licensees i.e. BEST, TPC-D and AEML-D in 12 equal instalments in FY 2020-21. As per the ruling given in the TPC-G's MYT Order, the Commission in the Tariff Order of BEST has approved the said past recovery of TPC-G in the Power Purchase Cost of BEST of Rs. 6.98 Crore. Accordingly, the Commission has considered the said amount paid towards past recovery of TPC-G in FAC computation.

5.27 The Commission in the previous months from April to July 2020 while approving the FAC has disallowed certain costs as the same were claimed by TPC-D on provisional basis. However, the same were subsequently allowed based on the invoice submitted by TPC-D. This has resulted in mismatch of opening/closing inventory cost of coal in respect of TPC-D's submission and approved by the Commission. Accordingly, the Commission in its FAC approval for the month of July 2020 had directed TPC-D to comply with the earlier approvals of the Commission and also communicate to TPC-G to consider the coal cost as approved by the Commission and also raise appropriate credit/debit note to the beneficiaries as per prior FAC approvals given by the Commission from April 2020 to June 2020 and report the compliance of the same in the FAC submission for the month of August 2020. TPC has made following submissions in the month of August 2020 in respect of the said direction:

a. The coal consumption cost for the month and closing inventory of coal is automated in SAP system of Tata Power-G with no manual intervention and it leads to the computation of the Moving Average Price (MAP) and the closing inventory

b. The approved coal closing inventory value occasionally becomes available through FAC approval after the next month has started. By this time the accounts for the month for which changes may be required are closed.

c. Further, it is pertinent to note the following regarding the past period from April:

- Tata Power-G has closed books of Accounts for the Period from April, 2020 to September, 2020
- MAP cannot be re-worked as Financial Results for Q1 FY 2020-21 have already been published
- For September, 2020 consumption is also booked and soon Q2 FY2020-21 results too would be published.

d. The difference in power purchase cost of every month (as submitted of TPC-G Vs as approved by the Commission) would be reconciled and corresponding supplementary bills for this difference will be raised by TPC-G to its beneficiaries (TPC-D and BEST) along with next FAC bills to be issued in the subsequent month.

e. Once such supplementary bills are issued to the beneficiaries, there would be no need for changing the opening inventory in the subsequent month to match with the FAC approved by the Commission, hence, going forward, the opening / closing inventory as per TPC-G books/System would continue as per TPC-D submissions

5.28 The Commission notes the difficulty expressed by TPC in respect of post facto changes required to be done in coal cost approved by the Commission in the FAC approval after the closure of books of accounts. The intent of FAC approval is that any variation in cost approved by the Commission shall be passed onto consumers. **As TPC in its submission has suggested that any difference will be passed on by TPC-G to TPC-D and BEST by raising corresponding supplementary bills in the next FAC bill, the Commission has directed TPC-G in FAC approval for the TPC-D to implement the same and pass on the differential cost, if any as per previous approvals of the Commission by raising appropriate supplementary bills and report the compliance in the next FAC submission.**

5.29 As the differential cost, if any approved by the Commission will be passed on to by TPC-G by raising appropriate supplementary bills, there is no need for adjustment in opening/closing inventory in the month of August 2020 and the same is considered as submitted in FAC submission .

Manikaran Power Limited (Medium Term PPA)

5.30 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.

5.31 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.

5.32 **As submitted by BEST, it has purchased 67.97 MU at average rate of Rs. 3.96/kWh as against approved rate of Rs. 4.37/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. Accordingly, the Commission has considered the said purchase from Manikaran Power Limited for the month of August 2020 as per invoice submitted by BEST. The details of approved v/s actual are as shown in the table below:

Table 9: Power Procurement from Manikaran Power Limited for the month of August 2020

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	14.54	2.34	12.60	2.03	27.14	4.37
Actual	67.97	12.65	1.86	14.27	2.10	26.92	3.96

5.33 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
August 2020	2.59	(2.81)	(0.22)

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

<u>Renewable Sources</u>

5.34 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.

5.35 Further, the Commission has also approved purchase of non-solar and solar REC's at Floor Price of Rs.1.00/kWh for approximately 646 MUs towards shortfall in meeting RPO.

5.36 **BEST has purchased 2.23 MU of Solar Power at Rs 8.56/kWh for August 2020 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.

5.37 The Commission notes that BEST has not purchased any solar/non-solar REC in the month of August 2020.

5.38 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
August 2020	(0.34)	-	(0.34)

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

<u>Short Term Purchase</u>

5.39 **With regards to short term purchase, BEST has purchased 4.14 MU at average rate of Rs. 2.86/kWh as compared to approved rate of Rs. 4.00/kWh**. It was observed that inspite of availability of contracted sources, BEST purchased power from Power Exchange at lower rate to optimise its overall power purchase cost. Accordingly, the Commission has considered the power purchased from Power Exchange by BEST

5.40 Variation in power purchase expenses from Short Term Purchase can be divided on account of change in quantum and per unit rate as follows:

Month	Increase in Expenses for power purchase from Short Term (Rs. Crore)		
	On Account of change Quantum of Power Purchase	On Account of change in Per Unit rate of Power Purchase	Total
August 2020	(19.70)	(0.47)	(20.18)

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

5.41 **To summarise, BEST has optimised its overall power purchase cost by taking following actions:**

(a) Zero Schedule to Unit 8 for entire month and running Unit 5 at PLF of 65.57% for entire month.

(b) Unit 7 is run at highest PLF among all the thermal/gas generators under Section 62 of the Act (2nd in MoD)

(c) Entire power purchased from Manikaran Power Ltd to the extent of its Availability having the least Variable Cost in MOD.

(d) Purchasing cheaper power from Power Exchange at Rs 2.86/kWh which is lower than Variable Cost of Unit 5.

Imbalance Pool

5.42 BEST has submitted that it has considered the actual transmission loss of 2.89% for the month of August 2020 and accordingly has computed the quantum of imbalance pool. **Accordingly, it has computed the estimated drawal of 3.98 MU from the imbalance pool during the month of August 2020.** This drawal contributes to around 1.26% of the total power procurement in the month of August 2020. Accordingly, BEST has considered the rate of Rs. 2.86 per unit for drawal of such power from the grid and has included in the power procurement cost.

5.43 The said drawl from the pool may be on account of either increase in demand of consumers than estimated by the Licensee or due to lower generation than scheduled by the generator. In both the scenarios, power has been drawn by the Licensee and supplied to its consumers. The said power supplied to the consumers is already billed as per Tariff approved by the Commission. The Energy Charge approved also includes the element of power purchase. It is therefore pertinent that such cost of such power drawn from the pool is considered while computing FAC.

5.44 Due to historical issues of delay in computing imbalance pool quantum and cost of power, for which appropriate orders are already passed by the Commission, the imbalance pool quantum and cost is required to be considered on provisional basis to avoid any adverse impact in future. If the said cost and quantum is not considered, it will not only result in recovering the cost from the consumers as billing has already been done, but also increase the overall power purchase cost for the particular month having positive impact on FAC and burdening the consumers.

5.45 Also, as and when the final bills are issued by MSDLC, the power purchase cost of the imbalance pool quantum will be levied in future months, thereby burdening the consumers in future in that month when such cost will be levied. Accordingly, to balance the overall interest of consumers and licensee, the Commission has considered imbalance pool quantum as submitted by the BEST at provisional rate of Rs. 2.86/kWh as considered in the MYT Order. This provisional consideration of cost for FAC computation will get adjusted during truing-up of the respective year.

Sale of Power

5.46 **BEST has done sale of surplus power to the extent of 2.80 MU during the month at Rs. 2.90/kWh**. As per PPA with TPC, BEST is having allocation of 51.17% from Unit 5 & 7 and Hydro generation and 40% from Unit 8. TPC-G schedule its thermal/hydro plant availability after considering total demand of BEST and TPC-D as a whole and availability from all other contracted sources of both discoms. The surplus power was sold only in some of the 15-min time blocks, when there was surplus power due to higher availability of scheduled Hydro generation over the BEST's demand; particularly in the evening period. TPC Unit 5, which is placed on higher stack in State MOD due to its higher variable charge, was running at its technical minimum level in most of the time blocks due to surplus power situation in the grid. In the event of surplus power arising out of demand falling below the technical minimum level of contracted generator (i.e. TPC Unit 5) if injected into the grid, it would have fetched at the rate of Least Variable Charge (LVC) of Intra-state generator under State MoD as per Intra-state FBSM settlement. In the month of August'2020, rate of LVC under State MOD stack was Rs. 1.97/kWh. Further, injection of surplus power in the grid would have attracted Unscheduled Interchange (UI) charges depending on grid scenario. **To avoid this and to optimize power purchase cost, the surplus power of 2.80 MU was sold through power exchange (IEX) from which BEST has earned revenue of Rs. 0.81 Crore**. In view of the aforesaid, the Commission has considered the actual quantum and revenue against surplus sale.

<u>Approved Cost of Power Purchase</u>

5.47 In view of the above, the overall cost approved in the Tariff Order and actual for the month of August, 2020 considered by the Commission is as shown below:

Table 10: Approved Power Purchase Cost for the month of August 2020

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	299.04	36.66	1.23	98.19	3.28	134.85	4.51
	Actual	240.28	36.66	1.53	59.25	2.47	95.91	3.99
TPC-G - Past Recovery	Approved	-	6.98	-	-	-	6.98	-
	Actual	-	6.98	-	-	-	6.98	-
Manikaran Power*	Approved	62.05	14.54	2.34	12.60	2.03	27.14	4.37
	Actual	67.97	12.65	1.86	14.27	2.10	26.92	3.96
Renewable Power	Approved	2.63	-	-	2.25	8.56	2.25	8.56
	Actual	2.23			1.91	8.56	1.91	8.56
REC	Approved	-	-	-	5.39	1.00	5.39	1.00
	Actual	-	-	-	-	-	-	-
Short Term Purchase	Approved	53.40	-	-	21.36	4.00	21.36	4.00
	Actual	4.14			1.18	2.86	1.18	2.86
Sale of Power	Approved	-	-	-	-	-	-	-
	Actual	-2.80			-0.81	2.90	-0.81	2.90
Imbalance Pool	Approved	-	-	-	-	-	-	-
	Actual	3.98	-	-	1.14	2.86	1.14	2.86
Total	**Approved**	**417.11**	**58.18**	**1.39**	**139.78**	**3.35**	**197.96**	**4.75**
	Actual	**315.81**	**56.29**	**1.78**	**76.95**	**2.44**	**133.24**	**4.22**

5.48 **Considering the above submission, the Commission allows the power purchase quantum of 315.81 MU for total cost of Rs. 133.24 Crore at average power purchase**

cost of Rs. 4.22/kWh for the month of August, 2020 as shown in Table above. The variation in power purchase cost is mainly on account of lower cost of power purchase from TPC-G, Manikaran Power and power purchased in short term from Power Exchange, as already explained in para above. The actual purchase for same month in FY 2019-20 i.e. August 2019 was 481.00 MU and power purchase cost was Rs. 199.79 Crs with APPC of Rs. 4.15/kWh.

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

6.1 The Commission has worked out the average power purchase cost for the month of August, 2020 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 lower than the limits Approved per unit Power Purchase Cost hence the Z_{FAC} worked out by the Commission on account of difference in power purchase cost for the month of August, 2020 is negative as shown in the Table 11 below.

Table 11: Computed Z_{FAC} for the month of August 2020

S. No.	Particulars	Units	August 2020
1	Average power purchase cost approved by the Commission	Rs./kWh	4.75
2	Actual average power purchase cost	Rs./kWh	4.22
3	Change in average power purchase cost (=2 -1)	Rs./kWh	(0.53)
4	Net Power Purchase	MU	315.81
5	**Change in fuel and power purchase cost (=3 x 4/10)**	**Rs. Crore**	**(16.65)**

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 April 2020 was nil, there would not be any adjustment factor for the month of August 2020 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 August, 2020.

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 12: Distribution Loss for the month of August 2020

S. N	Particulars	Units	Approved in Tariff Order	August 2020 - Actual	Actual upto August 2020
1	Net Energy Input at Distribution Voltage	MU	4,846.23	306.67	1,597.73
2	BEST Retail Sales	MU	4,643.66	296.34	1,601.47
3	Distribution Loss (1 - 2)	MU	202.57	10.33	-3.74
4	Distribution Loss as % of net energy input (3/1)	%	4.18%	3.37%	-0.23%
5	Excess Distribution Loss = [Actual Distribution Loss (4) - Distribution loss approved] x Net Energy Input (1)	MU	-	-	-
6	**Disallowance of FAC due to excess Distribution Loss**	**Rs. Crore**	-	-	-

9.3 As seen from the above table, **for the month of August 2020, the standalone distribution loss is 3.37% and cumulative negative distribution loss of 0.23% till the month of August, 2020**. BEST has submitted that cumulative marginal negative distribution loss upto August 2020 is due to accounting of incremented sale units of prior period in August'2020 due to lockdown. BEST further submitted that that the negative distribution loss is in decreasing trend (i.e -1.98 % in June'2020, -1.09% in July'2020 and is now -0.23% in August'2020) and it is expected to move from negative to positive side in ensuing months, as bill adjustments are being carried out based on actual meter reading. Hence, over the period of time once all adjustments get accounted, the correct figure of distribution loss will be reflected. Accordingly, till the time normalcy in billing is restored, the figures of distribution loss are likely to be distorted. The Commission notes the submission of BEST and observes that with normalisation of meter reading activity the standalone loss for the month of August 2020 is nearer to the loss approved by the Commission.

9.4 BEST has submitted the details of energy consumption calculated on actual basis and on estimated basis for each category of consumers as is shown in the table below:

Table 13: Energy Consumption status for the month of August 2020

S. No.	Consumer Category	Units	Sales in the month of August 2020		
			Actual	Estimated	Total
(A)	HT Category				
1	HT - I Industry	MU	12.20	-	12.20
2	HT - II Commercial	MU	12.97	-	12.97
3	HT - III Group Housing	MU	2.27	-	2.27
4	HT - IV Railways, Metro, Monorail	MU	0.14	-	0.14
5	HT-V (A) Public Services (Govt. Hospitals and Educational Institutions)	MU	2.00	-	2.00
6	HT-V (B) Public Services (Others)	MU	17.45	-	17.45
7	HT-VI Electrical Vehicle Charging	MU	-	-	-
	Sub Total (HT Category)		**47.03**	**-**	**47.03**
(B)	LT Category				
1	LT - I (A) Residential (BPL)	MU	0.00	0.00	0.00
2	LT - I (B) Residential	MU	153.93	5.35	159.28
3	LT - II (a) Commercial	MU	35.33	0.22	35.55
4	LT - II (b) Commercial >20kW & <=50kW	MU	9.14	0.00	9.14
5	LT - II (c) Commercial >50kW	MU	18.24	0.00	18.24
6	LT - III (A) Industry (upto 20kW)	MU	5.60	0.02	5.62
7	LT - III (b) Industrial	MU	5.03	0.00	5.03
8	LT-IV (A) Public Services (Govt. Hospitals and Educational Institutions)	MU	4.62	0.03	4.65
9	LT-IV (B) Public Services (Others)	MU	11.49	0.15	11.64

S. No.	Consumer Category	Units	Sales in the month of August 2020		
			Actual	Estimated	Total
10	LT-V (A) Agriculture-Pumpsets	MU	-	-	-
11	LT-V (B) Agriculture-Others	MU	-	-	-
12	LT-VI Electrical Vehicle Charging	MU	0.15	-	0.15
	Sub Total (LT Category)	***MU***	**243.53**	**5.78**	**249.31**
	Total (HT + LT Category)	**MU**	**290.56**	**5.78**	**296.34**

9.5 **The Commission has observed that still about 2% of the consumption and 4% of the billing under LT category, are assessed on an estimated basis which has resulted in the abnormality in the distribution loss**.

9.6 The comparison of Distribution Loss for the April to August 20 as compared to last year is as given below:

Particulars	Approved Loss	April	May	June	July	Aug	Cumulative upto Aug
FY 2020-21	4.18%	2.79%	13.92%	-24.42%	1.64%	3.37%	**-0.23%**
FY 2019-20	5.60%	2.25 %	3.77 %	9.26%	6.18%	4.69%	**5.25%**

The Commission notes that there has been significant variation in Distribution Loss. It is expected that as actual meter reading is done for all the consumers, there would be normalcy in distribution loss % and cumulative losses would converge near to approved losses. As mentioned herein above, 2% of sales and 4% of billing are still on estimated basis. Therefore, as 100% actual meter reading will be undertaken, the actual Distribution Loss figure is likely to reach near approved loss.

9.7 As seen from the above table, cumulative Distribution Loss upto the month of August, 2020 of negative 0.23% being lower than the approved Distribution Loss.**, the Commission has not worked out any treatment on account of Distribution Loss.**

10. Summary of Allowable ZFAC

10.1 The summary of the FAC amount as approved by the Commission for the month of August, 2020 is as shown in the Table below.

Table 14: Summary of Allowable Z_{FAC} for August, 2020

S. No.	Particulars	Units	August 2020 - As per BEST	August 2020 – As Approved
1	**Calculation of ZFAC**			

S. No.	Particulars	Units	August 2020 - As per BEST	August 2020 – As Approved
1.1	Change in cost of generation and power purchase attributable to Sales within the License Area (F)	Rs. Crore	-16.65	-16.65
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	-16.65	-16.65
2	**Calculation of Per Unit FAC**			
2.1	Energy Sales within the License Area	MU	296.34	296.34
2.2	Excess Distribution Loss	MU	-	-
2.3	ZFAC per kWh	Rs./kWh	-0.56	-0.56
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	-16.65	-16.65
4	**Utilization of FAC Fund**			
4.1	Opening Balance of FAC Fund	Rs. Crore	-73.22	-73.22
4.2	Holding Cost on FAC Fund	Rs. Crore	-0.51	-0.51
4.3	Z_{FAC} for the month (Sr. N. 3.2)	Rs. Crore	-16.65	-16.65
4.4	Closing Balance of FAC Fund	Rs. Crore	-90.38	-90.38
4.5	Z_{FAC} leviable/refundable to consumer	Rs. Crore	-	-
5.0	Energy Sales within the License Area	MU	296.34	296.34
6.0	ZFAC per kWh [(4.5/5.0)*10]	Rs./kWh	-	-
7.0	**Total FAC based on category wise and slab wise allowed to be recovered in the billing month of September 2020**	**Rs. Crore**	-	-
8.0	**Carried forward FAC for recovery during future period (4.5-7.0)**	**Rs. Crore**	-	-

10.2 **BEST has considered the holding cost considering the MCLR + 150 basis points. This turns out to be 8.50% for August 2020 and holding cost worked out is Rs. 0.51 Crore which is also approved by the Commission. The holding cost as calculated will be contributed to the FAC fund and is outlined as below:**

Table 15: Calculation of Holding Cost for the month of August 2020

Calculation of Carrying Cost					
Month	**Apr-20**	**May-20**	**Jun-20**	**Jul-20**	**Aug-20**
Op. Balance	-	-17.43	-41.80	-59.05	-72.38
FAC fund of the Month	-17.43	-24.37	-17.25	-13.33	-16.65
Cl. Balance	**-17.43**	**-41.80**	**-59.05**	**-72.38**	**-89.02**
Interest Rate		8.79%	8.58%	8.50%	8.50%
Interest for the month		-0.13	-0.30	-0.42	-0.51
Cumulative Interest		-0.13	-0.43	-0.84	-1.36
Total	-17.43	-41.93	-59.48	-73.22	-90.38

10.3 It can be seen from the above table that standalone FAC for the month of August, 2020 is Rs. (16.65) Crore. As the FAC is negative, the said amount will be accumulated in FAC Fund for stabilisation of FAC rate over the period.

11. Recovery from Consumers:

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

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

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

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

k = Average Billing Rate / ACOS;

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

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

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

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

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

11.2 The Commission 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. (16.65) Crore for the month of August, 2020 to be accumulated as FAC Fund and shall be carried forward to the next billing cycle with holding cost.

11.4 The Commission in its approval for the month of July, 2020 has directed BEST to carry forward the approved FAC amount of Rs. (73.22) Crore to be accumulated as FAC Fund to be carried forward to the next billing cycle with holding cost. The opening balance of

FAC fund along with holding cost is Rs. (73.74) Crore.

11.5 **Accordingly, considering the approved standalone FAC amount of Rs. (16.65) Crore for the month of August, 2020 and opening balance FAC Fund of Rs. (73.74) Crore, the total amount of Rs. (90.38) Crore is accumulated in the FAC Fund.**

11.6 **The Commission in its FAC approval dated 21 September, 2020 for the month of June 2020 has decided to accumulate the FAC fund arising out of negative monthly FAC up to March 2021 along with the holding cost. Accordingly, the Commission allows the BEST to carry forward the accumulated FAC fund of Rs. (90.38) Crore to the next billing cycle with holding cost.**

11.7 **In view of the above, the per unit Z_{FAC} for the month of August, 2020 to be levied on the consumers of BEST in the billing month of October 2020 is Nil.**

MAHARASHTRA ELECTRICITY REGULATORY COMMISSION