

Year-2019					
Particulars	Aug-19	Sept-19	Oct-19	Nov-19	Dec-19
BEST's peak demand in MW at G\leftrightarrowT	826	813	877	818	786
Source-wise availability in MW					
TPC-G (Total Availability)	648	648	648	648	557
TPC-G (Actual generation)	597	409	474	426	545
Manikaran (SWPGL)	0	0	0	0	0
Short-term Bilateral	0	0	210	100	0
RE (Solar/Non-Solar)	21	20	21	19	19
Power Exchange	185	250	20	120	210

Year-2020					
Particulars	Aug-20	Sept-20	Oct-20	Nov-20	Dec-20
BEST's peak demand in MW at G\leftrightarrowT	580	669	697	660	664
Source-wise availability in MW					
TPC-G (Total Availability)	557	557	648	648	648
TPC-G (Actual generation)	424	316	509	519	422
Manikaran (SWPGL)	100	100	100	100	100
Short-term Bilateral	0	0	0	0	0
RE (Solar/Non-Solar)	12	9	9	13	12
Power Exchange	20	120	118	20	40

Year-2021					
Particulars	Aug-21	Sept-21	Oct-21	Nov-21	Dec-21
BEST's peak demand in MW at G\leftrightarrowT	718	712	804	786	674
Source-wise availability in MW					
TPC-G (Total Availability)	558	648	648	648	557
TPC-G (Actual generation)	482	448	441	488	462
Manikaran (SWPGL)	70	68	55	93	100
Short-term Bilateral	0	0	0	0	98
RE (Solar/Non-Solar)	12	14	13	11	11
Power Exchange	155	153	300	164	0

5.4. Query 3: BEST also needs to provide basis on which it has projected outages of contracted generating units. Details of generator outages for the previous 3 years of the same month also needs to be provided along with reasons for such outages.

- a) Projected outages of TPC-G generating units for the period from August, 2022 to December, 2022 is considered as intimated by the generator.
- b) Details of generator outages for the previous 3 years of the same months along with reasons is also submitted.

5.5. Query 4: Considering transmission constraint to bring power into Mumbai from outside, BEST shall clarify whether it envisages any difficulties with proposed power procurement quantum?

- a) Considering transmission constraint to bring power into Mumbai from outside, BEST has not envisaged any difficulties with proposed power procurement quantum. Since, BEST's base transmission capacity right is 823 MW for FY 2022-23. Accordingly, BEST pays Rs 257 Crores towards transmission charges (vide MERC Order No 327 of 2019).

- b) As regards Mumbai tie line, assuming 2400 MW of ATC, BEST can source power up to 551 MW from outside Mumbai. The computation of BEST's share in the ATC is given below.

	AVG CPD/NCPD (MW)	% Share in Mumbai Tie-line	Transmission Charges (Rs Cr)	ATC Share in MW
TPC-D	830	23.15%	259.0	556
BEST	823	22.95%	257.0	551
AEML-D	1545	43.08%	482.0	1034
Railway	388	10.82%	121.0	260
Total	3586	100.00%	1119.0	2400

- c) During the month of April, 2022, the maximum Mumbai demand catered is 3851 MW. Out of this 2260 MW of demand was met through external sources outside Mumbai region.

- d) In view of above submission and for the reasons mentioned in the main Petition, BEST revises its prayers as follows:

- a) *To consider the present submission under the Petition in Case No. 151 of 2022;*
- b) *Hon'ble Commission may accord approval for tariff discovered through competitive bidding process on DEEP Portal undertaken by BEST for short term bilateral power purchase for the period from August, 2022 to December, 2022 mentioned in para 6.0 of the main petition;*
- c) *Hon'ble Commission may adopt and approve the short term power procurement for the month of August, 2022 to December, 2022 at the discovered rate in the range of Rs. 5.85 to Rs. 8.66 per unit and the quantum in the range of 50 MW to 150 MW (the estimated average rate of power purchase cost for total 124.60 MUs for the period from 01st August'2022 to 15th December'2022 will be Rs.7.72/kWh) under competitive bidding process in DEEP portal for the Bid invited by BEST as mentioned in para 6.0 of the main petition;*
- d) *Hon'ble Commission may accord approval for power procurement from short term sources at the rate of Rs 8.00/kWh for FY 2022-23;*

6. During the E-hearing held on 5 August 2022, BEST reiterated their submissions made in the Petition and requested the Commission to approve proposed short term power procurement.

Commission's Analysis and Ruling:

7. Present petition has been filed by the BEST seeking approval for tariff discovered through Competitive Bidding for Short Term Power purchase for the period of August, 2022 to December, 2022.
8. Considering the submissions made in the matter, the Commission frames following issues for its considerations:

- 8.1. Provisions under which Short Term Power procurement of Distribution Licensee

requires approval of the Commission.

8.2. Whether the quantum of additional short term power procurement proposed by BEST is justified?

8.3. Whether the discovered tariff is consistent with the market trend?

The Commission is addressing these issues in following paragraphs.

9. Issue A: - Provisions under which Short Term Power procurement of Distribution Licensee requires approval of the Commission

9.1. The Commission notes that MERC MYT Regulations, 2019 which is applicable for control period of FY 2020-21 to FY 2024-25, has following provisions related to the additional power procurement by Distribution Licensee:

“22.1 The Distribution Licensee may undertake additional power procurement during the year, over and above the power procurement plan for the Control Period approved by the Commission, in accordance with this Regulation.

22.2 Where there has been an unanticipated increase in the demand for electricity or a shortfall or failure in the supply of electricity from any approved source of supply during the Year or when the sourcing of power from existing tied-up sources becomes costlier than other available alternative sources, the Distribution Licensee may enter into additional agreement or arrangement for procurement of power.

22.3 Any variation, during the first or second block of six months of a Year, in the quantum or cost of power procured, including from a source other than a previously approved source, that is expected to be in excess of five per cent of that approved by the Commission, shall require its prior approval:

Provided that the five per cent limit shall not apply to variation in the cost of power procured on account of changes in the price of fuel for own generation or the fixed or variable cost of power purchase that is allowed to be recovered in accordance with Regulation 10.”

Thus, in cases where there is an anticipated shortfall in fulfilling the demand and to optimise the power purchase cost, licensee can procure additional power subject to the variation of excess of five percent in the quantum or cost of power procured during the first or second block of six months of a Year from the sources other than approved by the Commission.

9.2. Further Ministry of Power’s Guidelines dated 30 March 2016 notified under Section 63 of the Electricity Act 2003 for short-term procurement of power by Distribution Licensees through tariff-based bidding process stipulate as follows:

“11.4 If the quantum of power procured and tariff determined are within the blanket approval granted by the Appropriate Commission in Annual Revenue Requirement (ARR) of the respective year, then the same will be considered to have been adopted by the Appropriate Commission.

In all other cases, the Procurer(s) shall submit a petition to the Appropriate Commission for adoption of tariff within 2 days from the date of signing of PPA. Appropriate Commission should communicate the decision within 7 days from the date of submission of petition.”

Thus, if the quantum of power procured and the tariff determined are not within the blanket approval specified by the Commission in ARR/ Tariff Order, Distribution Licensee needs to approach the Commission for approval of the additional power procurement and to adopt the tariff discovered through competitive bidding process.

- 9.3. In present case, the Commission notes that, it has approved following source wise power procurement quantum for FY 2022-23 to BEST under MYT Order dated 30 March 2020:

Source	TPC-G	Walwhan Solar	Manikaran	Solar Energy	Non-Solar Energy	Total
Quantum (MU)	3510.94	31.50	744.60	307.74	500.37	5095.15

Clearly, power procurement from Short Term Sources is not approved in Tariff Order. Hence, proposed short term power procurement needs to be treated as new source. Further, the Commission has indicated tariff for short term power procurement as Rs. 5.12 per unit for FY 2022-23. Tariff for proposed short term power procurement in present Petition is more than said tariff indicated in Tariff Order.

- 9.4. As the source of power is different and the tariff is higher than that has been approved by the Commission in MYT Tariff Order, it fulfils the criteria specified in MYT Regulations, 2019 and in the MoP Guidelines dated 30 March, 2016. Hence, prior approval of the Commission is required for proposed short term power procurement by BEST.

10. Issue B: - Whether the quantum of additional short-term power procurement proposed by BEST is justified?

- 10.1. The Commission notes that BEST has arrived at its demand projection based on average demand for last three years. Comparison of pre-pandemic demand and BEST’s demand projection at T<>D periphery in MW is as below:

Month/ Year	Pre-pandemic				Actual	Projected
	2017	2018	2019	Average	2021	2022
Jan	650.0	706.6	635.6	664.1	628.1	
Feb	731.1	752.5	663.9	715.8	637.6	
March	845.8	832.4	794.4	824.2	722.5	

April	858.4	896.8	862.3	872.5	692.2	
May	916.4	911.5	872.7	900.2	655.0	
June	916.9	938.8	927.4	927.7	684.7	
July	816.9	789.0	812.4	806.1	716.3	
Aug	808.6	785.2	798.6	797.5	695.6	797.0
Sept	878.5	808.6	786.0	824.4	691.7	784.0
Oct	868.8	892.6	851.5	871.0	778.5	861.0
Nov	757.7	808.5	791.3	785.9	760.9	785.0
Dec	713.0	719.9	760.1	731.0	652.3	713.0

The Commission notes that BEST has relied upon average of past three years of 2017 to 2019 rather than actual demand recorded in 2021 for projecting demand for August to December 2022. In the opinion of the Commission as consumers demand has gradually reached pre-pandemic level, considering average demand corresponding to pre-pandemic period of 2017-2019 is appropriate approach to projecting demand for ensuing period.

- 10.2. Above projected demand at T< > D periphery is grossed up by intra-state transmission losses (3%) to arrive at T< > G level demand. The Commission further notes that BEST has submitted 15 minutes block wise demand supply projections for August to December 2022.
- 10.3. On supply side, BEST has considered the proposed plant shutdown as communicated by the generators. Further, BEST has envisaged that due to lower availability of APM gas, power availability from TPC-G's Unit 7 would be lower than its allocated share. Considering all these factors, BEST has worked out following supply shortfall for August to December 2022 and proposed to meet such shortfall through short term power procurement:

Time Slot	Aug,22	Sept,22	Oct,22	Nov,22	Dec,22
Estimated Peak demand (in MW)	823	810	889	811	736
Total availability (in MW)	728	728	728	728	636
Shortfall (in MW)	96	82	161	83	100
Proposed procurement					
00:00 to 24:00 Hrs, RTC (in MW)	-	-	50	-	-
10:00 to 18:00 Hrs (in MW)	50	50	-	-	-
10:00 to 19:00 Hrs (in MW)	-	-	100	80	100
Estimated total energy requirement (in Mus)	12.40	12.00	65.10	21.60	13.50
Total Mus	124.60				

- 10.4. The Commission also notes BEST's submission that even after such additional power procurement, total energy procurement in terms of 'MU' will be within the approved level in MYT Order. Although BEST has not provided specific reasons for the same, the Commission notes that this is due to non-availability of energy from RE sources as approved in tariff order. Such shortfall in renewable energy is required to be fulfilled by other sources. BEST has stated that it has entered into contract with SECI for 400 MW RE Hybrid project and is also envisaging additional RE procurement from SECI, but power

flow from these projects will not be available during FY 2022-23 (up to December 2022) and hence, BEST needs to fulfill this gap from other sources.

10.5. The Commission also notes that BEST has opted for short term bilateral contract only in few months of last three years but was regularly drawing power from power exchanges in almost every month of last three years. However, due to increased demand in power market, even at cap rate, there is no surety of clearing of the bid quantum and hence for ensuring reliable power supply, BEST has proposed to enter short term power procurement contracts for August to December 2022.

10.6. The Commission notes that proposed short term power procurement is within the total power procurement quantum approved in tariff Order. Further, such short-term power procurement (12 to 65 MU per month) will replace some part of power being procured from power exchanges (164 to 300 MU) and hence the issue of transmission constraints will not arise.

10.7. Considering above, the Commission notes that quantum of short-term power proposed by BEST for the month of August to December 2022 is justified.

11. Issue C: - Whether the discovered tariff is consistent with the market trend?

11.1 The Commission notes that BEST has undertaken the short term power procurement as per the competitive guidelines of MoP dated 30 March, 2016 by floating the bid on DEEPportal on 27 June, 2022 for supply of 50 to 150 MW for various time slots for the period from August, 2022 to December, 2022. The weighted average tariff discovered in bidding process is Rs 7.72 per kWh.

11.2 In order to assess the competitiveness of the tariff discovered by BEST in the present bidding the Commission has referred to recent discovered tariff on DEEP Portal by other Distribution Licensees in Maharashtra and same is tabulated below:

Sr No	Particulars	Period	Availability	Quantum of Power in MW	Discovered tariff in Rs/ kWh
1	MSEDCL	1.10.2022 to 15.10.2022	24:00	100	8.82
		16.10.2022 to 31.10.2022	24:00	275	8.68
		1.11.2022 to 15.11.2022	24:00	375	8.68
		1.3.2023 to 15.03.2023	24:00	200	8.82
		16.03.2023 to 31.03.2023	24:00	200	8.82
		1.4.2023 to 15.04.2023	24:00	200	9.03
		16.04.2023 to 30.04.2023	24:00	200	9.03
		1.5.2023 to 15.05.2023	24:00	200	9.34
		16.05.2023 to 31.05.2023	24:00	200	9.34
		1.6.2023 to 15.06.2023	24:00	350	8.75
		1.6.2023 to 15.06.2023	24:00	100	9.34
2	TPC-D	01.08.2022 to 31.08.2022	24:00	45	9.09
		1.9.2022 to 30.09.2022	24:00	70	8.98
		1.10.2022 to 31.10.2022	24:00	50	8.99
		1.10.2022 to 31.10.2022	24:00	25	10.49
		1.10.2022 to 31.10.2022	24:00	25	12

From the above it is observed that the discovered tariff is consistent with the current market

trend.

11.3 The Commission notes that BEST has carried out the process of procurement of Short- Term Power in accordance with Competitive Bidding Guidelines and tariff discovered is reflective of current market situations.

11.4 Section 63 of the EA, 2003 mandates the Commission to adopt the tariff if such tariff has been determined through transparent process of bidding in accordance with the guidelines issued by the Central Government.

11.5 In view of the foregoing, the Commission notes that tariff discovered by BEST fulfils mandates and requirements for adoption as set out in Section 63 of the EA, 2003 and MYT Regulations, 2019. Accordingly, the Commission adopts Power Procurement with weighted average tariff of Rs 7.72 /kWh and quantum for BEST undertaking for the period from August, 2022 to December, 2022 as follows:

Sr No	Contract Period	Slot/Time (Hrs.)	Bid Quantum in MW	Successful Bidder	Source	Rate in Rs./ kWh	Allotted Quantum in MW
	From - To						
1	01-Aug-22 to 31-Aug-22	10:00 to 18:00	50	Tata Power Trading Co. Ltd (TPTCL)	Prayagraj Power Generation Co. Ltd. (PPGCL)	5.85	20
				Adani Enterprises Ltd	Raipur Energen Ltd. (REL)	5.86	30
2	01-Sep-22 to 30-Sept-22	10:00 to 18:00	50	TPTCL	PPGCL	7.50	20
				TPTCL	Jindal Power Ltd (JPL)	7.68	30
3	01-Oct-22 to 31-Oct-22	00:00 to 24:00 (RTC)	50	TPTCL	Jindal India Thermal Power Ltd. (JITPL)	8.66	25
				Manikaran Power Ltd. (MPL)	BLA Power Pvt Ltd.	8.66	25
4	01-Oct-22 to 31-Oct-22	10:00 to 19:00	100	TPTCL	PPGCL	7.50	20
				TPTCL	JPL	7.68	80
5	01-Nov-22 to 30-Nov-22	10:00 to 19:00	80	TPTCL	PPGCL	7.29	20
				MPL	BLA Power Pvt Ltd	7.30	25
				TPTCL	JPL	7.68	35
6	01-Dec-22 to 15-Dec-22	10:00 to 19:00	100	TPTCL	PPGCL	7.29	20
				MPL	BLA Power Pvt. Ltd.	7.30	25
				TPTCL	JPL	7.68	55

11.6 The Commission also notes that LOA initialed with the successful bidders are in line with the Standard Bidding documents issued by MoP. Based on these submissions, the Commission approves the draft PPAs to be signed with above successful bidders at the tariff and for the quantum mentioned in above table in Para 11.5. BEST shall submit copies of final PPAs for records of the Commission.

11.7 BEST has also requested to consider Rs. 8.00/kWh as ceiling tariff for all future short term

power procurement. However, as average tariff of Rs. 7.72/kWh is discovered through competitive bidding in present process, same shall act as ceiling tariff for procurement of short-term power through competitive bidding process for FY 2022-23. Any tariff discovered below such ceiling shall be considered as deemed adopted as per provisions of competitive bidding guidelines notified by the Central Government for short-term power procurement.

11.8 Having approved short-term power procurement as above, it is important to note that such short-term power procurement at average tariff of Rs. 7.72/kWh is against RE power approved in the Tariff Order at the tariff of Rs. 2.87 – 2.90/kWh and hence there would be increase in power purchase expenses which will have to be passed on to consumers as per Fuel Adjustment Charge mechanism stipulated in MYT Regulations and subsequent guidelines issued by the Commission in that respect.

12. Hence, following Order:


ORDER

- 1. Case No. 151 of 2022 is partly allowed.**
- 2. Short Term Power Procurement for the period from August, 2022 to December, 2022 by as Brihanmumbai Electric Supply and Transport Undertaking as stated in para 11.5 above is approved.**
- 3. Brihanmumbai Electric Supply and Transport Undertaking, to submit copies of Final PPAs to the Commission for records.**

**Sd/-
(Mukesh Khullar)
Member**

**Sd/-
(I.M. Bohari)
Member**

**Sd/-
(Sanjay Kumar)
Chairperson**


**(Abhijit Deshpande)
Secretary**

