

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case No. 50 of 2021

Case for Verification of compliance of Renewable Purchase Obligation targets by
Brihanmumbai Electric Supply and Transport Undertaking (BEST) for FY 2018-19 and FY
2019-20

Coram

Sanjay Kumar, Chairperson

I.M. Bohari, Member

Mukesh Khullar, Member

Parties

1. Brihanmumbai Electric Supply and Transport Undertaking (**BEST**)
2. Maharashtra Energy Development Agency (**MEDA**)
3. Maharashtra State Load Despatch Centre (**MSLDC**)

Appearance For

- | | |
|----------|-----------------------|
| 1. BEST | : Shri. N. N Chougule |
| 2. MEDA | : Shri. Manoj Pise |
| 3. MSLDC | : Smt. Juelee M. Wagh |

ORDER

Date: 7 September 2021

1. The MERC (Renewable Purchase Obligation, its Compliance and Implementation of Renewable Energy Certificate Framework) Regulations, 2016 (**'RPO-REC Regulations 2016'**) specify the Renewable Purchase Obligation (**RPO**) targets for Obligated Entities, including BEST as Distribution Licensee, for FY 2018-19 and FY 2019-20. The RPO targets specified in Regulation 7.1 are as below:

Year	Quantum of purchase (in %) from Renewable Energy sources (in terms of energy equivalent in kWh)		
	Solar	Non-Solar (other RE)	Total
	(a)	(b)	(c)
2016-17	1.00%	10.00%	11.00%
2017-18	2.00%	10.50%	12.50%
2018-19	2.75%	11.00%	13.75%
2019-20	3.50%	11.50%	15.00%

Provided that each Distribution Licensee shall meet 0.2% per year of its Non-Solar (other RE) RPO target percentage for the period from FY 2016-17 to FY 2019-20 by way of purchase from Mini Hydro or Micro Hydro Power Projects;

2. Regulation 12 of the RPO-REC Regulations, 2016 empowers the Commission to deal with shortfalls in compliance of RPO targets by Obligated Entities as follows:

“12. RPO Regulatory Charges

12.1 If the Obligated Entity fails to comply with the RPO target as provided in these Regulations during any year and fails to purchase the required quantum of RECs, the State Commission may direct the Obligated Entity to deposit into a separate fund, to be created and maintained by such Obligated Entity, such amount as the Commission may determine on the basis of the shortfall in units of RPO, RPO Regulatory Charges and the Forbearance Price decided by the Central Commission; separately in respect of Solar and Non-Solar RPO:

Provided that RPO Regulatory Charges shall be equivalent to the highest applicable preferential tariff during the year for Solar or Non-Solar RE generating sources, as the case may be, or any other rate as may be stipulated by the State Commission:

Provided further that the fund so created shall be utilised, as may be directed by the State Commission.”

3. Through its Order dated 1 July 2010 in Case No. 21 of 2010, the Commission designated MEDA, Pune as the State Agency to undertake the functions envisaged under the Regulations.
4. As per Regulation 10.4 of the RPO-REC Regulations 2016, a Distribution Licensee is required to submit, at the end of each financial year, a detailed statement of energy procured from Renewable Energy (RE) sources, certified by its auditors.
5. Vide its Order dated 31 July 2018 in Case No. 208 of 2017 and Order dated 2 April 2019 in Case No.37 of 2019 regarding compliance of RPO targets by BEST for FY 2016-17 and FY 2017-18, the Commission had stated as follows:
 - a. BEST has standalone Solar RPO surplus of 0.63 MU and shortfall of 65.5718 MU for FY 2016-17 and FY 2017-18, respectively. Cumulative Solar RPO shortfall till FY 2017-18 is 66.887 MU.
 - b. BEST has standalone non-Solar RPO shortfall of 46.79 MU and surplus of 43.90 MU for FY 2016-17 and FY 2017-18, respectively. Cumulative non-Solar RPO shortfall till FY 2017-18 is 4.628 MU.
 - c. BEST has standalone Mini-Micro Hydro RPO surplus of 1.49 MU and shortfall of 0.632 MU for FY 2016-17 and FY 2017-18, respectively. Cumulative Mini-Micro Hydro Solar RPO surplus till FY 2017-18 is 15.36 MU.
 - d. The Commission directed BEST to purchase the Solar and non-Solar power and/or RECs so as to fully meet its cumulative shortfall till FY 2017-18 in FY 2018-19.

6. In accordance with Regulation 9.5, MEDA, vide its letter dated 30 January 2020 and 30 December 2020, submitted the RPO settlement data for FY 2018-19 and FY 2019-20 in respect of BEST which is summarized below:

RPO settlement data for BEST as furnished by MEDA				
Item	FY 2018-19		FY 2019-20	
	%	MU	%	MU
Gross Energy consumption (GEC)	100%	4923.79	100%	4948.73
Solar RPO				
Target	2.75%	135.40	3.50%	173.21
Achievement	0.79%	203.72	0.736%	171.62
Shortfall /(Surplus)	1.958%	(68.32)	2.764%	1.59
Non-Solar RPO				
Target	11.00%	541.62	11.50%	569.10
Achievement	2.29%	548.46	2.34%	571.95
Shortfall /(Surplus)	8.71%	(6.84)	9.16%	(2.85)
Mini-Micro RPO(Within Non-Solar)				
Target	0.20%	1.08	0.20%	1.14
Achievement	0.00%	0.00	0.00%	0.00
Shortfall /(Surplus)	0.20%	1.08	0.20%	1.14
Total RE to be procured as per the Target				
	13.75%	677.02	15.00%	742.31
Total Actual RE Procured				
	3.08%	752.18	3.07%	743.57
Total Shortfall/(Surplus)				
	10.67%	(75.16)	11.93%	(1.26)

7. According to MEDA, the RPO status of BEST for FY 2018-19 and 2019-20 is as below:
- In Solar RPO, for FY 2018-19 and FY 2019-20; BEST has a surplus of 68.32 MU and shortfall of 1.59 MU respectively. Further, BEST has cumulative shortfall of 66.887 MU till FY 2017-18.
 - In Non-Solar RPO, for FY 2018-19 and FY 2019-20; BEST has a surplus of 6.84 MU and 2.85 MU respectively. Further, BEST has cumulative shortfall of 4.628 MU till FY 2017-18.
 - In Mini/Micro Hydro RPO (within Non-Solar RPO), for FY 2018-19 and FY 2019-20; BEST has a shortfall of 1.08 MU and 1.14 MU respectively. Further, BEST has a cumulative surplus of 15.36 MU till FY 2017-18
8. The Commission asked BEST to submit its response to the data furnished by MEDA. Further, the Commission sought replies from BEST on the following points:
- Reconciliation statement along with rationale with regards to Gross Energy Consumption (GEC) data reported by MEDA and audited data of BEST.
 - Status of Solar, Non-Solar RPO compliance including Mini/Micro Hydro RPO compliance, as per the directives given in earlier Orders of the Commission along with detailed statement for project wise energy procurement in MU from all Solar & Non-Solar generating projects including Mini/Micro Hydro projects and project wise

contracted Solar and Non-Solar power capacity in MW during FY 2010-11 to FY 2019- 20.

- c. Detailed list of action and efforts undertaken by it prior to and during FY 2018-19 and FY 2019-20 to ensure compliance of RPO targets in respect of Solar RPO, Non-Solar RPO and Mini/Micro Hydro RPO.
- d. Details of long term RE procurement plan (in MUs and corresponding MW) for meeting the future RPO targets.

9. BEST submitted its responses vide affidavit dated 14 May 2021. After perusal of BEST's submission, it is evident that apart from the responses to data points mentioned in para (8), BEST has highlighted discrepancies in RPO settlement data considered by the Commission in its Order in Case No.37 of 2019 dated 02 April 2019. In present filing, BEST has requested to consider the revised/corrected numbers to arrive at RPO settlement data for years under consideration. BEST submission covers following:

A. RPO settlement data for FY 2017-18:

9.1. RPO settlement data of BEST for FY 2017-18, as approved by the Commission in its Order in Case No.37 of 2019 is depicted in table below:

Item	Cumulative RPO (Surplus)/ Short fall till end of earlier control period (FY 2010-11 to FY 2015-16)	FY 2016-17		FY 2017-18		Cumulative RPO (Surplus)/ Short fall till end of FY 2017-18
		MU	%	MU	%	
Gross Energy consumption		100%	4830.27	100%	4989.82	
Solar RPO						
Target	110.563	1.00%	48.303	2.00%	99.796	258.662
Achievement	110.510	0.97%	47.040	0.68%	34.225	191.775
Shortfall		0.026%	1.263	1.31%	65.571	66.887
Non-Solar RPO						
Target	2245.538	10.00%	483.03	10.5%	523.931	3252.499
Achievement	2243.805	9.03%	436.232	11.37%	567.832	3247.869
Shortfall		0.97%	46.795	-0.87%	-43.90	4.628
Mini-Micro RPO (Within Non-Solar)						
Target	3.504	0.20%	0.966	0.20%*	1.047	5.517
Achievement	18.005	0.51%	2.458	0.079%	0.415	20.878
Shortfall		-0.31%	-1.491	0.192%	0.632	-15.36

9.2. In this regard, BEST had observed the following discrepancies:

GEC:

As per the Order for FY 2017-18, GEC considered by the Commission is 4989.82 MU, whereas the actual GEC submitted by BEST was 4989.85 MU which was also approved by the Commission in Mid Term Review (MTR) Order for BEST in Case No. 203 of 2017 dated 12 September 2018.

Solar RPO:

The Commission in its Order dated 31 July 2018 in Case No. 208 of 2017, in the matter of verification and compliance of RPO targets of BEST for FY 2016-17 had approved the standalone surplus of 0.627 MU and cumulative surplus of 0.575 MU.

However, in its Order dated 2 April 2019 for verification of RPO target for FY 2017-18, the Commission has inadvertently considered Solar RPO shortfall of 1.263 MU for FY 2016-17.

As per the Order for FY 2017-18, the Commission has considered standalone shortfall for Solar RPO of 65.571 MU for FY 2017-18 and cumulative shortfall of 66.887 MU till FY 2017-18. Considering corrected figures, the cumulative shortfall of Solar RPO till the end of FY 2017-18 should be 64.996 MU instead of 66.887 MU.

9.3. Since the issue did not require immediate rectification & was not of urgent nature, BEST vide its letter dated 28 May 2019 brought the above discrepancies to the notice of the Commission and informed that it intends to take up this matter at the time of RPO verification of BEST for year 2018-19.

B. Reconciliation statement along with rationale with regards to GEC data reported by MEDA and audited data of BEST.

On 30 March 2020 the Commission issued the Order in the matter of MYT Petition filed by BEST Undertaking which includes Truing up of ARR for FY 2017-18 & FY 2018-19 (Case No. 324 of 2019). While approving the Energy Balance for FY 2017-18 and FY 2018-19, the Commission has approved energy requirement at G<>T interface of 4,966.61 MU and 4,924.18 MU for FY 2017-18 and FY 2018-19, respectively.

9.4. The monthly data updated on MEDA RPO Portal is based on monthly Transmission Loss declared by SLDC. Considering monthly Transmission Loss for FY 2017-18 and FY 2018-19, total GEC comes to be 4967.10 MU and 4923.79 MU respectively, which were updated on RPO Portal. However, the Commission in its Order dated 30 March 2020 approved the GEC for the FY 2017-18 and FY 2018-19 as 4966.61 MU and 4,924.18 MU. The said calculation is based on average transmission loss declared by SLDC for FY 2017-18 and FY 2018-19. Therefore, there is a difference between the GEC updated on RPO web portal and GEC approved by the Commission.

	Gross Energy Consumption (in MU)		
	As per RPO Portal (a)	As approved by the Commission (b)	Difference (c)= (a)-(b)
FY 2017-18	4967.10	4966.61	0.49
FY 2018-19	4923.79	4924.18	(0.39)

9.5. Based on above rationale for GEC considerations, following revised RPO settlement data for FY 2017-18, FY 2018-19 and FY 2019-20 have been provided:

Item	Cumulative RPO (Surplus)/ Short fall till end of earlier control period (FY 2010-11 to FY 2016-17)	FY 2017-18		FY 2018-19		Cumulative RPO (Surplus)/ Short fall till end of FY 2018-19
		MU	%	MU	%	
Gross Energy consumption			100%	4966.61	100%	4924.18
Solar RPO						
Target			2.00%	99.3322	2.75%	135.41
Achievement			0.69%	34.2252	4.14%	203.72
Shortfall/Surplus	(0.575)			65.11		(68.31)
Non-Solar RPO						
Target			10.50%	521.49	11.00%	541.66
Achievement			11.43%	567.83	11.14%	548.46
Shortfall/Surplus	48.53			(46.34)		(6.80)
Mini-Micro RPO(Within Non-Solar)						
Target			0.20%	1.043	0.20%	1.08
Achievement			0.08%	0.415	0%	0.00
Shortfall	(15.992)			0.627		1.08

Item	Cumulative RPO (Surplus)/ Short fall till end of FY 2018-19	FY 2019-20		Cumulative RPO (Surplus)/ Short fall till end of FY 2019-20
		MU	%	
Gross Energy consumption			100%	4948.94
Solar RPO				
Target			3.50%	173.21
Achievement			3.48%	172.36

Shortfall/Surplus	(3.77)		0.85	(2.91)
Non-Solar RPO				
Target		11.50%	569.13	
Achievement		11.56%	571.95	
Shortfall/Surplus	(4.61)		(2.82)	(7.43)
Mini-Micro RPO (Within Non-Solar)				
Target		0.20%	1.14	
Achievement		0.00%	0.00	
Shortfall	(14.28)		1.14	(13.14)

C. Status of Solar, Non-Solar RPO compliance including Mini/Micro Hydro RPO compliance, as per the directives given in earlier Orders of the Commission along with detailed statement for project wise energy procurement in MUs from all Solar & Non-Solar generating projects including Mini/Micro Hydro projects and project wise contracted Solar and Non-Solar power capacity in MW during FY 2010-11 to FY 2019-20.

Status of Solar RPO compliance:

9.6. BEST's standalone Solar RPO target for FY 2017-18 was 99.3322 MU. To fulfill the Solar RPO target of FY 2017-18, BEST had procured total of 34.2252 MU. Out of this, BEST had purchased 33.05 MU on long term basis from M/s Welspun Energy Maharashtra Pvt. Ltd and purchased 1.17 MU of Solar energy from Net Metering consumers. Therefore, BEST's standalone shortfall and cumulative shortfall of Solar RPO was revised to 65.11 MU and 64.54 MU respectively for FY 2017-18.

9.7. Solar RPO settlement data of BEST upto FY 2017-18 is indicated in table below:

FY	Gross Energy in MU	% Solar RPO	RPO Target MU	RPO Achieved (MU)	(Surplus) / Shortfall (MU)	Cumulative (Surplus) / Shortfall in (MU)
2010-11	4847.79	0.25	12.12	0.00	12.12	12.12
2011-12	4849.11	0.25	12.12	0.00	12.12	24.24
2012-13	4914.10	0.25	12.29	0.00	12.29	36.53
2013-14	4830.04	0.5	24.15	24.60	(0.45)	36.08
2014-15	4919.00	0.5	24.60	53.03	(28.44)	7.64
2015-16	5057.81	0.5	25.29	32.88	(7.59)	0.05
2016-17	4830.27	1.0	48.30	48.93	(0.63)	(0.57)
2017-18	4966.61	2.0	99.33	34.22	65.11	64.54

9.8. The details of Solar RPO target achieved by BEST for FY 2018-19 and FY 2019-20 are indicated in tables below:

FY	Gross Energy in MU	% Solar RPO	RPO Target (MU)	RPO Achieved (MU)	Standalone Surplus / Shortfall in (MU)	Cumulative Surplus / Shortfall in (MU)
2018-19	4924.18	2.75	135.41	203.720	(68.31)	(3.77)
2019-20	4948.94	3.50	173.21	172.36	0.85	(2.91)

9.9. Sources of power for meeting RPO for FY 2018-19 and FY 2019-20 are as tabulated below:

FY	RPO Achieved (MU)	Source
2018-19	203.720	M/s Welspun Energy Maharashtra Pvt. Ltd- 32.40 MU; Net Metering Consumers- 3.36 MU Solar RECs- 167. 96 MU
2019-20	172.36	M/s Welspun Energy Maharashtra Pvt. Ltd- 32.40 MU; Net Metering Consumers- 3.43 MU Solar RECs- 136.69 MU

Status of Non-Solar RPO compliance:

9.10. Commission vide Order dated 30 March 2020 in Case No. 324 of 2019, approved the energy requirement at G<>T interface of 4,966.61 MU for FY 2017-18. Accordingly, BEST's standalone Non-Solar RPO target for FY 2017-18 was revised to 521.49 MU. To fulfill the Non-Solar RPO target of FY 2017-18, BEST had procured total 567.83 MU. Out of this, BEST had purchased Non-Solar energy of 191.02 MU on short term basis and purchased 376.81 MU of Non-Solar RECs. Therefore, BEST's standalone surplus and cumulative shortfall of Non-Solar RPO was revised to 46.34 MU and 2.19 MU respectively for FY 2017-18. Non-Solar RPO settlement data of BEST upto FY 2017-18 is indicated in table below:

FY	Gross Energy in MU	% Non-Solar RPO	RPO Target MU	RPO Achieved (MU)	(Surplus) / Shortfall in MU	Cumulative (Surplus) / Shortfall in MU
2010-11	4847.79	5.75	278.75	219.06	59.69	59.69
2011-12	4849.11	6.75	327.31	219.07	108.24	167.93
2012-13	4914.10	7.75	380.84	544.54	(163.70)	4.23
2013-14	4830.04	8.50	410.55	418.82	(8.27)	(4.04)
2014-15	4919.00	8.50	418.17	418.62	(0.44)	(4.48)
2015-16	5057.81	8.50	429.91	423.70	6.21	1.73
2016-17	4830.27	10.00	483.30	436.23	46.79	48.52
2017-18	4966.61	10.50	521.49	567.83	(46.34)	2.19

9.11. The details of Non-Solar RPO target achieved by BEST Undertaking for FY 2018-19 and FY 2019-20 are indicated in tables below:

FY	Gross Energy in MUs (Actual/Projected)	% Solar RPO	RPO Target MUs	RPO Achieved (MUs)	Surplus / Shortfall in MUs	Cumulative Surplus / Shortfall in MUs
2018-19	4924.18	11.00	541.66	548.46	(6.80)	(4.61)
2019-20	4948.94	11.50	569.13	571.95	(2.82)	(7.43)

9.12. Sources of power for meeting RPO for FY 2018-19 and FY 2019-20 are as tabulated below:

FY	RPO Achieved (MU)	Source
2018-19	548.46	Short Term Procurement- 68.22 MU; Non-Solar RECs- 480.24 MU
2019-20	571.95	Short Term Procurement- 58.95 MU; Non-Solar RECs- 513 MU

Status of Min-Micro Hydro RPO compliance:

9.13. BEST has standalone shortfall of Mini/Micro Hydro RPO of 1.08 MU and 1.14MU for FY 2018-19 and FY 2019-20 with a cumulative surplus of 14.2844 MU till FY 2017-18. After adjusting shortfall for FY 2018-19 and FY 2019-20, BEST has a cumulative surplus of 13.144 MU till FY 2019-20.

D. Detailed list of action and efforts undertaken by it prior to and during FY 2018-19 and FY 2019-20 to ensure compliance of RPO targets in respect of Solar RPO, Non-Solar RPO and Mini/Micro Hydro RPO.

9.14. BEST has been procuring RE by duly inviting EoI from RE generators to meet its RPS Obligations. For supplementing the argument, BEST presented the details regarding various EoIs advertised by BEST since FY 2007-08.

9.15. Based on the responses to the EoIs, BEST issued Letter of Intent (LoIs) to all the eligible RE generators/traders by adhering to regulatory mandate and procured RE during FY 2010-11 to FY 2013-14. For meeting RPO target from FY 2014-15 to FY 2019-20, BEST continued the same practice.

9.16. As per the Commission's directive, BEST has opted REC route for RPO fulfillment. Following table summarizes BEST's REC procurement during the period from FY 2010-11 to FY 2019-20:

FY	No of Non-Solar RECs procured	Non-Solar RECs in MUs
2010-11	148	0.148
2011-12	1,000	1.00
2012-13	439,884	439.884
2013-14	220,000	220
2014-15	176000	176
2015-16	125000	125
2016-17	201520	201.52
2017-18	376810	376.81
2018-19	480240	480.24
2019-20	513000	513

E. Details of long term RE procurement plan (in MU and corresponding MW) for meeting the future RPO targets.

9.17. BEST has entered into long term PPA with M/s Welspun Energy Maharashtra Pvt. Ltd. in the year 2013 to procure 20 MW Solar energy on long term basis. The project has been commissioned in October 2013 and is supplying 31.5 MU of Solar energy per annum.

9.18. SECI has offered 600 MW to BEST for 25 years from the proposed 1110 MW Wind Solar Hybrid project. The projects are likely to commission in FY 2023-24. The Effective tariff for signing of PSA is Rs 2.48 per unit including SECI's Trading Margin of Rs 0.07 per unit. In this regard, BEST filed the Petition on 25 February 2021 for approval of the Commission for procurement of 400 MW Solar Wind Hybrid power at rate of Rs 2.48 per unit for a period of 25 years. The Commission vide its Order dated 26 April 2021 in Case No. 16 of 2021 accorded its approval for said power procurement.

9.19. By tying up 400 MW Wind Solar Hybrid power, BEST will receive 948.73MU of Solar energy and 420.58 MU of wind energy from FY 2023-24 onwards considering generation at declared CUF from the projects. Wind Solar Hybrid power of 400 MW will be sufficient to meet the Solar and Non-Solar RPO of BEST from FY 2023-24 up to FY 2028-29.

9.20. As directed by the Commission in its Order dated 30 March 2020 in Case No. 324 of 2019, BEST proposed to meet its Solar and Non-Solar RPO for FY 2020-21 and FY 2021-22 by procuring Solar and Non-Solar RECs.

Regulatory Process

10. Through a Public Notice dated 16 June 2021 published in the Loksatta and Maharashtra Times (Marathi) and Times of India and Indian Express (English) daily newspapers, the Commission invited suggestions and objections considering the submissions of MEDA and

BEST. The Commission also impleaded MEDA and MSLDC as Parties. An online Public e-Hearing was held on 9 July 2021.

11. The summary of RPO compliance of BEST for FY 2018-19 & FY 2019-20, based on details provided by MEDA and BEST, is at Annexure-1 of this Order. The list of persons who gave their comments in writing or made oral submissions during the Public Hearing is at Annexure-2 (A). The list of persons present at the Public Hearing is at Annexure-2(B). (These lists include persons/organizations concerned with the RPO compliance verification hearings held on the same day in respect of the other Distribution Licensees also.)
12. At the Public e-Hearing, BEST reiterated the points regarding its compliance of RPO targets made in its written submissions.

Suggestions/Objections received

13. Shri Kiran Chaudhari vide email dated 30 June 2021 shared paper cuttings and objected levying of Green Tariff for supply of green energy by Distribution Licensee.

Commission's Analysis and Ruling

14. The Commission by its earlier Order dated 2 April 2019 in Case No. 37 of 2019 has verified the compliance of RPO targets of BEST for FY 2017-18. The RPO settlement details for BEST till FY 2017-18, as approved by the Commission in its Order dated 2 April 2019 is reproduced below:

Table No 7: RPO Settlement Details of BEST as approved by the Commission

Item	Cumulative RPO (Surplus)/ Short fall till end of earlier control period (FY 2010-11 to FY 2015-16)	RPO Settlement data of BEST as approved by the Commission				
		FY 2016-17		FY 2017-18		Cumulative RPO (Surplus)/ Short fall till end of FY 2017-18
		MU	%	MU	%	MU
Gross Energy consumption		100%	4830.27	100%	4989.82	
Solar RPO						
Target	110.563	1.00%	48.303	2.00%	99.796	258.662
Achievement	110.510	0.97%	47.040	0.68%	34.225	191.775
Shortfall / (Surplus)	0.053	0.026%	1.263	1.31%	65.571	66.887
Non-Solar RPO						
Target	2245.538	10.00%	483.03	10.5%	523.931	3252.499
Achievement	2243.805	9.03%	436.232	11.37%	567.832	3247.869
Shortfall / (Surplus)	1.733	0.97%	46.795	-0.87%	-43.90	4.628
Mini-Micro RPO (Within Non-Solar)						
Target	3.504	0.20%	0.966	0.20%*	1.047	5.517

		RPO Settlement data of BEST as approved by the Commission				
Item	<i>Cumulative RPO (Surplus)/ Short fall till end of earlier control period (FY 2010-11 to FY 2015-16)</i>	<i>FY 2016-17</i>		<i>FY 2017-18</i>		<i>Cumulative RPO (Surplus)/ Short fall till end of FY 2017-18</i>
	<i>MU</i>	<i>%</i>	<i>MU</i>	<i>%</i>	<i>MU</i>	<i>MU</i>
<i>Achievement</i>	18.005	0.51%	2.458	0.079%	0.415	20.878
<i>Shortfall / (Surplus)</i>	-14.501	-0.31%	-1.491	0.192%	0.632	-15.36

'-' or () indicates surplus

15. The Commission notes that during truing up exercise for the FY 2017-18 in MYT proceedings of BEST in Case No. 324 of 2019, the Commission vide its Order dated 30 March 2020 has approved GEC for FY 2017-18 as 4966.61 MU which is lower than that considered in above table. Further, BEST has pointed out a discrepancy in figure considered for fulfilment of standalone Solar RPO for FY 2016-17 in above table. Further, there was error in RPO figures for FY 2016-17 as pointed out by BEST. Taking into consideration revised GEC and corrected numbers for Solar RPO settlement for FY 2016-17, the cumulative shortfall of Solar RPO and Non-Solar RPO at the end of FY 2017-18 is now revised downward to 64.99 MU and 2.19 MU, respectively.
16. The Commission notes the RPO settlement data for FY 2018-19 furnished by MEDA to the Commission was based on the data available prior to the MYT Order dated 30 March 2020. During the truing up of FY 2018-19, GEC approved was 4924.18 MU which is higher than 4923.79 MU submitted to MEDA by letter dated 11 June 2019. Due to such change in GEC, the Commission has revised RPO targets reported by MEDA.
17. For FY 2019-20, BEST has submitted that the GEC as submitted by MEDA has been revised after considering annual InSTS Loss as 3.17% for FY 2019-20. The energy requirement of BEST at G<>T interface for FY 2019-20 works out to be 4948.94 MU. The Commission notes that such GEC would be finally approved during true-up of FY 2019-20 which will be undertaken during Mid Term Review under MYT Regulations 2019. Therefore, in the mean time, the Commission has considered GEC submitted by BEST for arriving at RPO targets for FY 2019-20. Impact of any variation in GEC post truing up process will be factored in during next RPO verification process.
18. Based on the above, the status of achievement of RPO targets by BEST at the end of Control Period of RPO Regulations 2016, as approved by the Commission, is as shown below:

RPO Settlement data of BEST as approved by the Commission						
Item	Cumulative RPO (Surplus)/ Short fall till end of FY 2017-18	FY 2018-19		FY 2019-20		Cumulative RPO (Surplus)/ Short fall till end of FY 2019-20
	MU	%	MU	%	MU	MU
Gross Energy consumption		100%	4924.18	100%	4948.94	
Solar RPO						
Target	258.2	2.75%	135.41	3.50%	173.21	566.83
Achievement	193.67	4.14%	203.72	3.48%	172.36	569.75
Shortfall /(Surplus)	64.53	-1.39%	-68.31	0.02%	0.85	-2.92
Non-Solar RPO						
Target	3250.06	11.00%	541.66	11.50%	569.13	4360.85
Achievement	3247.87	11.14%	548.46	11.37%	571.95	4368.28
Shortfall /(Surplus)	2.19	-0.14%	-6.80	-0.06%	-2.82	-7.43
Mini-Micro RPO (Within Non-Solar)						
Target	5.51	0.20%	1.08	0.20%	1.14	7.73
Achievement	20.88	0.00%	0.00	0.00%	0.00	20.88
Shortfall /(Surplus)	-15.36	0.20%	1.08	0.20%	1.14	-13.15

'-' or () indicates surplus

19. Accordingly, the Commission notes that BEST has:

- i. Surplus of its stand-alone Solar RPO target by 68.31 MU and shortfall of 0.85 MU for FY 2018-19 and FY 2019-20, respectively. Further, the cumulative Solar RPO surplus at the end of FY 2019-20 is 2.92 MU.
- ii. Surplus of its stand-alone non-Solar RPO target by 6.80 MU and 2.82 MU for FY 2018-19 and FY 2019-20 respectively. Further, the cumulative non-Solar RPO surplus at the end of FY 2019-20 is 7.43 MU.
- iii. Shortfall of its stand-alone Mini/Micro target by 1.08 MU and 1.14 MU for FY 2018-19 and FY 2019-20, respectively. Further, the cumulative Mini/Micro RPO surplus at the end of FY 2019-20 is 13.15 MU.

20. BEST has fulfilled standalone Solar and Non-Solar RPO targets for FY 2018-19. For FY 2019-20, BEST has shortfall in Solar RPO and surplus situation in Non-Solar RPO achievement. BEST has standalone shortfall of Mini-Micro Hydro RPO of 1.08 MU and 1.14 MU for FY 2018-19 and FY 2019-20. However, it has previous year's surplus of Mini/Micro Hydro RPO which BEST now requests to allow it to be used for compensating shortfall for FY 2018-19 and FY 2019-20.

21. In this regard, on account of non-availability of sufficient capacity under Mini/Micro Hydro in the State, the Commission in earlier dispensations has allowed State Distribution Utilities

to meet such shortfall on cumulative basis in future years and even allowed them to meet such shortfall through Non-Solar REC. In the present case, BEST has previous year's surplus of Mini/Micro Hydro and shortfall in standalone RPO for FY 2018-19 and FY 2019-20. Under such circumstances, the Commission deems it appropriate to allow BEST to use its previous year's surplus to meet its standalone shortfall of Mini/Micro Hydro for FY 2018-19 and FY 2019-20.

22. Further, the Commission notes that the MoP by its Order dated 29 January 2021 has notified the RPO trajectory for the Hydro Energy Sources i.e. the Hydro Power Obligation (HPO). As per the Order, the large hydro power projects (above 25 MW) which have come into commercial operation after 8 March 2019 shall be the eligible sources for HPO:

“4. On 8th March 2019, the Government had issued an order detailing various policy measures to promote hydropower sector in India inter-alia declaring large hydropower projects including pumped storage projects having capacity of more than 25 MW (LHPs) which come into commercial operation after 8.3.2019 as renewable energy source and to specify Hydropower Purchase Obligation (HPO) within Non-Solar Renewable Purchase Obligation (RPO).

5 In compliance of the above decision and with the objective to add 30,000 MW of hydropower capacity by the year 2029-2030, Ministry of Power has prepared a revised trajectory of RPO including long term trajectory for HPO considering the LHPs commissioned after 8th March 2019.

6 In super-session of orders dated 22nd July 2016 and 14th June 2018, Ministry of Power hereby specifies the following RPO Trajectory-

Year	Solar RPO	Non-Solar RPO			Total RPO
		HPO	Other Non-Solar RPO	Total Non-Solar RPO	
2019-20	7.25%	-	10.25%	10.25%	17.50%
2020-21	8.75%	-	10.25%	10.25%	19%
2021-22	10.50%	0.18%	10.50%	10.68%	21.18%
2022-23	To be specified later	0.35%	To be specified later	To be specified later	To be specified later
2023-24		0.66%			
2024-25		1.08%			
2025-26		1.48%			
2026-27		1.80%			
2027-28		2.15%			
2028-29		2.51%			
2029-30		2.82%			

.....”

The Commission has not yet amended its RPO Regulations 2019 to include HPO. However, the Commission notes that its RPO Regulations 2019 is based on broad principle of specifying achievable RPO targets as mandatory target and target set by the Central Government as overall target. Non achievement of mandatory target is liable for penalty, whereas obligated entities are incentivized (Rs. 0.25/kWh) for achieving overall target set by

the Central Government. Relevant part of MERC RPO Regulations 2019 is reproduced below:

“12.2 Distribution Licensee shall endeavor to achieve total RPO target notified by the Central Government and for doing so it will get incentive of Rs. 0.25 per kWh for RE procured above the minimum percentage specified in Regulation 7 upto the percentage notified by the Central Government as under or as may be notified from time to time:

.....”

In view of above, HPO specified by the Ministry of Power vide order dated 29 January 2021 forms integral part of above provision of RPO Regulations 2019. Hence, Distribution Licensee would be eligible for above incentive of Rs. 0.25/kWh for meeting HPO targets specified by the Central Government. Accordingly, BEST shall endeavor to achieve RPO and HPO targets specified by the Central Government.

23. The Commission notes that only objection received during the public process is from Shri. Kiran Chaudhari which was related to Green Tariff option approved by the Commission for consumer who voluntarily want to procure only green energy from Distribution Licensee. Shri. Chaudhari has objected to levying extra charge for such supply of Green Energy. However, this issue is not part of the present proceeding beside the fact that it is just an enabling option, the Commission is not addressing the same in this proceeding.
24. Next RPO verification process under RPO Regulations 2019 will be conducted for FY 2020-21 and FY 2021-22 as part of Mid Term Review process under MYT Regulations 2019.
25. Hence, the Following Order:

ORDER


The Case No. 50 of 2021 stands concluded with the following findings:

- a. BEST has standalone surplus for Solar RPO of 68.31 MU and shortfall of 0.85 MU for FY 2018-19 and FY 2019-20, respectively and cumulative surplus of 2.92 MU till FY 2019-20.**
- b. BEST has stand-alone surplus for its Non-Solar RPO of 6.80 MU and 2.82 MU for FY 2018-19 and FY 2019-20, respectively and cumulative surplus of 7.43 MU till FY 2019-20.**
- c. BEST has standalone shortfall for its Mini/Micro Hydro RPO of 1.08 MU and 1.14 MU for FY 2018-19 and FY 2019-20, respectively and cumulative surplus of 13.15 MU till FY 2019-20.**

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

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

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


(Abhijit Deshpande)
Secretary



Annexure – 1

Summary of RPO compliance by BEST for FY 2018-19 and FY 2019-20, as submitted by MEDA and BEST

(in MU)

BEST's RPO status for FY 2018-19	Gross Energy Consumption	Solar RPO Target (2.75 %)	Solar RPO Achievement	Solar RPO Shortfall / (surplus)	Non-Solar RPO Target 11.00%	Non-Solar RPO Achievement	Non-Solar RPO Shortfall/(Surplus)	Mini/Micro Hydro target (0.2%) within Non-Solar RPO)	Mini/Micro Hydro RPO Achievement	Mini/Micro Hydro Shortfall/(Surplus)
As per MEDA	4923.79	135.40	203.72	(68.32)	541.62	548.46	(6.84)	1.08	0.00	1.08
As per BEST	4924.18	135.41	203.72	(68.31)	541.66	548.46	(6.80)	1.08	0.00	1.08

BEST's RPO status for FY 2019-20	Gross Energy Consumption	Solar RPO Target (3.50 %)	Solar RPO Achievement	Solar RPO Shortfall / (surplus)	Non-Solar RPO Target 11.5%	Non-Solar RPO Achievement	Non-Solar RPO Shortfall/(Surplus)	Mini/Micro Hydro target (0.2%) within Non-Solar RPO)	Mini/Micro Hydro RPO Achievement	Mini/Micro Hydro Shortfall/(Surplus)
As per MEDA	4948.73	173.21	171.62	1.59	569.10	571.95	(2.85)	1.14	0.00	1.14
As per BEST	4948.94	173.21	172.36	0.85	569.13	571.95	(2.82)	1.14	0.00	1.14

Annexure -2

A] List of those who submitted written comments/suggestions or made oral submissions at the Online Public e-Hearing

1. Shri Kiran Chudhari

B] List of persons at the Online Public e-Hearing:

1. Shri. Prashant Kumar, TPC-D
2. Shri. Kishor Patil, AEML-D
3. Shri. N.N.Chhougule, BEST
4. Shri. S.S.Bansode, BEST
5. Shri. Pulkit Agarawal (Adv), Indian Railways
6. Shri. Saurabh Gupta, NUPLLP
7. Shri. Swapnil Kolwadkar, NUPLLP
8. Smt. Juelee M. Wagh, MSLDC
9. Shri. Manoj Pise, MEDA
10. Shri. Arif H.Shaikh, MEDA