

# The Brihan Mumbai Electric Supply & Transport Undertaking

(OF THE BRIHAN MUMBAI MAHANAGAR PALIKA)

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BEST BHAVAN,  
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 POST BOX NO. 192,  
 MUMBAI-400 001.

ADDRESS ALL COMMUNICATION BY  
 TITLE NOT BY NAME

DATE: 04 DEC 2018

Our Ref.: CER/MERC/ 107/2018

Secretary (MERC)  
 Maharashtra Electricity Regulatory Commission  
 13<sup>th</sup> Floor, Centre No. 1, World Trade Centre  
 Cuffe Parade, Colaba, Mumbai-400 005.

<b>MERC</b>		
Inward No: 6289	Date: 4/12/18	
Chairman	Member	Member
Secretary	Executive Director	
Director (EE)	Director (T)	

Sub: Verification and Compliance of Renewable Purchase Obligation targets of BEST for FY 2017-18 as specified under MERC (RPO-REC) Regulations, 2016  
 --Submission of BEST's reply on affidavit

Ref: MERC/RE Cell/RPO/2017-18/1268 dated 25th October, 2018  
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Sir,

Hon'ble Commission, vide its letter referred above, in the matter of verification and compliance of RPO targets of BEST for FY 2017-18 as specified under MERC (RPO-REC) Regulations, 2016 has directed BEST to submit its replies on Affidavit.

Accordingly, BEST Undertaking is herewith submitting its replies on Affidavit along with necessary Annexures.

Thanking you,

Yours faithfully,

(Rajendra Patsute)  
 Chief Engineer (Regulatory)

Encl.: Affidavit (Original + 6 copies)  
 & Annexures A to G

**BEFORE THE HON'BLE  
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION**

FILING NO.: \_\_\_\_\_

CASE NO.:

1. IN THE MATTER OF: Verification and Compliance of RPO Targets of BEST Undertaking for FY 2017-18 as specified under MERC (Renewable Purchase Obligation, its Compliance and Implementation of REC Framework) Regulations, 2016  
And

IN THE MATTER OF : Mumbai Municipal Corporation constituted under the Mumbai Municipal Corporation Act, 1888 through the General Manager, Brihanmumbai Electric Supply and Transport Undertaking, an Undertaking wholly owned by Mumbai Municipal Corporation, having their office at BEST Bhavan, BEST Marg, Colaba, Mumbai-400 001.

2. *Affidavit verifying the application*

I, Rajendra D. Patsute aged 51 years, son of Dadaram Patsute, having my office at BEST Undertaking, Colaba, Mumbai 400 001 do solemnly affirm and say as follows:

- 2.1 I am the Chief Engineer (Regulatory) of Brihanmumbai Electric Supply and Transport Undertaking, the applicant in the above matter and am duly authorized to make this affidavit.



- 2.2 The statements made in the enclosed submissions are based on the information received from the concerned officers of the Undertaking and I believe them to be true.
- 2.3 I say that there are no proceedings pending in any Court of Law/Tribunal or Arbitrator or any other authority wherein the deponent is a party and where issues arising and/or reliefs sought are identical or similar to the issues arising in the matter pending before the Commission.

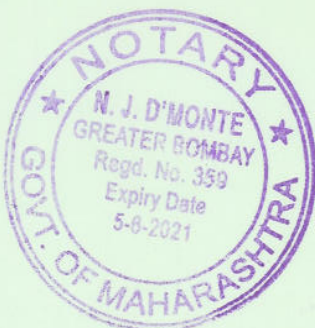
I solemnly affirm at Mumbai on this 4<sup>th</sup> December 2018 that the contents of the above affidavit are true to my knowledge, no part of it is false and nothing material has been concealed therefrom.

  
Deponent

**ATTESTED BY ME**

*N. J. D'Monte*  
**N. J. D'MONTE**  
ADVOCATE & NOTARY  
51-A, Chapel Road,  
Bandra, Mumbai-50.  
Ph: 9820068642 / 2642884

**- 4 DEC 2018**



**BEFORE THE HON'BLE  
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION**

FILING NO.: \_\_\_\_\_

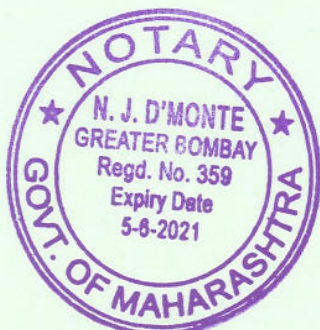
CASE NO.:

IN THE MATTER OF: Verification and Compliance of RPO Targets of BEST Undertaking for FY 2017-18 as specified under MERC (Renewable Purchase Obligation, its Compliance and Implementation of REC Framework) Regulations, 2016 And

IN THE MATTER OF : Mumbai Municipal Corporation constituted under the Mumbai Municipal Corporation Act, 1888 through the General Manager, Brihanmumbai Electric Supply and Transport Undertaking, an Undertaking wholly owned by Mumbai Municipal Corporation, having their office at BEST Bhavan, BEST Marg, Colaba, Mumbai-400 001

The petitioner named above respectfully showeth under:

1. The Municipal Corporation of Greater Mumbai is a Municipal Corporation, duly constituted under the Mumbai Municipal Corporation Act, 1888. The Municipal Corporation of Greater Mumbai is also a local authority under Part IX A of the constitution of India. The Municipal Corporation of Greater Mumbai, under the provisions of the Mumbai Municipal Corporation Act, 1888, has an Undertaking known as the Brihanmumbai Electric Supply and Transport Undertaking (of the Municipal Corporation of Greater Mumbai) [hereinafter referred to; for sake of brevity, as "BEST"]. BEST, as such, is a statutory Undertaking of a local authority.



2. BEST is a Municipal/public utility, which has been and is providing two essential services in the City of Mumbai, namely, (i) mass public transportation in the City of Mumbai as well as its extended suburbs, and (ii) distribution or supply of electricity in the Island City of Mumbai (i.e. the area from Colaba up to Mahim and Sion).
3. (A) BEST is a "distribution licensee" under the present Electricity Act, 2003. BEST, under the Maharashtra Electricity Regulatory Commission (Specific Conditions of Distribution License applicable to Brihanmumbai Electric Supply & Transport Undertaking of the Municipal Corporation of Greater Mumbai) Regulations, 2007, is authorized and required to distribute or supply electricity in the area of supply specified therein, in accordance with the provisions of the Electricity Act, 2003.
- (B) BEST, being a statutory Undertaking of the Municipal Corporation of Greater Mumbai is also encompassed by the definition of a "Local Authority" under Section 2(41) of the Electricity Act, 2003.
4. Hon'ble Commission, vide letter dated 25 October, 2018, in the matter of Verification and Compliance of Renewable Purchase Obligation targets of BEST for FY 2017-18 as specified under MERC (Renewable Purchase Obligation, its Compliance and Implementation of REC framework) Regulations, 2016 has directed BEST to submit its replies on affidavit within two weeks from the date of the letter. Accordingly, BEST submits as follows:



5. The RPO settlement data for FY 2017-18 is verified and corrected statement is given below:

**Table A: RPO settlement data of BEST for FY 2017-18**

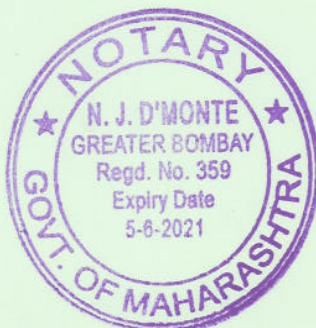
Item	Approved Cumulative RPO (Surplus)/ Short fall up to FY 2016-17		FY 2017-18		Net Short fall for FY 2017-18
	MU		%	MU	MU
Gross Energy at G-T Interface	4830.27			4989.85	
<b>Solar</b>	Standalone	Cumulative			
RPO Target	48.30	158.865	2.00 %	99.797	
RPO Achieved	48.93	159.44	0.69 %	34.2252	
RPO (-Surplus / Shortfall)	<b>(0.627)</b>	<b>(0.575)</b>		<b>65.5718</b>	<b>64.9968</b>

<b>Non-Solar</b>	Standalone	Cumulative			
RPO Target	483.027	2728.565	10.50 %	523.9311	
Non-Solar RE	234.72			191.02	
Non-Solar REC	201.52			376.81	
Non-Solar RPO Achieved	436.232	2680.037		567.8324	
RPO (-Surplus / Shortfall)	46.795	48.528		<b>(43.90)</b>	<b>4.63</b>

<b>Mini / Micro Hydro</b>	Standalone	Cumulative			
RPO Target	0.968	4.472	0.2 % of Non-solar RPO	1.0457	
RPO Achieved	2.458	20.463		0.41544	
RPO (-Surplus / Shortfall)	<b>(1.491)</b>	<b>(15.992)</b>		<b>0.63242</b>	<b>(15.3595)</b>

Approved Cumulative RPO Short fall up to FY 2016-17 (MUs)	<b>47.95</b>				
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<b>Total RPO Target for FY 2017-18</b>		12.50 %	<b>623.73</b>		
Total RPO Achieved in FY 2017-18		12.07 %	<b>602.05</b>		
Standalone shortfall of FY 2017-18			<b>21.68</b>		
Cumulative shortfall of FY 2017-18					<b>69.63</b> <b>(47.95 + 21.68)</b>



6. As directed by the Hon'ble Commission, BEST submits its point-wise replies as follows:

a) *BEST should verify the RPO settlement details for FY 2017-18, as submitted by MEDA and highlight discrepancies, if any, along with proper justification.*

**i) Discrepancies in Gross Energy consumption:**

Gross Energy consumption submitted by MEDA for FY 2017-18 is 4989.82 MUs. However the Gross Energy consumption for FY 2017-18 is revised to 4989.85 MUs which is also approved Hon'ble Commission in its MTR Order for BEST dated 12 September 2018 in Case no. 203 of 2017.

**ii) Discrepancies in Non-solar energy procured:**

Non-solar RPO and shortfall calculated by MEDA is 567.4170 MUs and 43.485900 MUs respectively whereas the Non-solar RPO and shortfall calculated by BEST is 567.832 MUs and 43.90 MUs respectively.

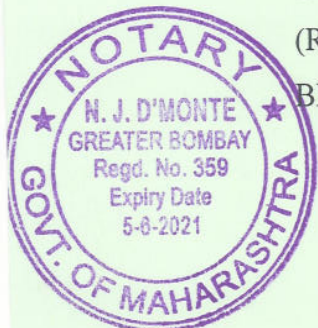
**iii) Discrepancies in shortfall in total RPO:**

The shortfall in total RPO calculated by MEDA is 22.717722 MUs whereas the shortfall in total RPO calculated by BEST is 21.68 MUs.

b) *BEST should submit the status of Solar, non-Solar RPO compliance including Min-Micro Hydro RPO compliance as per the directives of the Commission vide Orders in Case No.181 of 2013, Case No.191 of 2014 and Case No. 17 of 2016 and 170 of 2016 and Case No. 208 of 2017 along with detailed statement for project wise energy procurement in MUs from all solar, non-Solar generating projects including Min-Micro Hydro projects and project wise contracted solar, non-Solar power capacity in MW, including Min-Micro Hydro projects, during FY 2010-11 to FY 2017-18.*

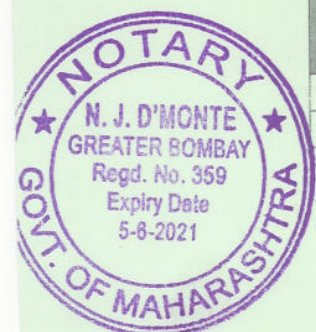
**Status of Solar RPO compliance:**

- i. Hon'ble Commission, vide its order dated 17th April 2013 in Case no. 30 of 2013 has relaxed/waived the Solar RPO targets as stipulated under Regulation 7.1 of the MERC (RPO-REC) Regulation 2010 for BEST for FY 2010-11 and FY 2011-12 and directed BEST to fulfil the solar target on a cumulative basis by FY 2015-16.



- ii. Hon'ble Commission, vide its Order dated 24th April 2015 in Case no. 191 of 2014 in the matter of Verification and Compliance of Renewable Purchase Obligation targets by BEST Undertaking for FY 2013-14 as specified under MERC (Renewable Purchase Obligation, its compliance and Implementation of REC framework) Regulations, 2010 directed BEST to make up for past shortfalls, including the shortfall in FY 2013-14, by fulfilling its Solar RPO target on a cumulative basis by the end of FY 2015-16. If BEST is unable to procure sufficient Solar power for the purpose, it should meet the shortfall by purchase of Solar RECs to that extent before 31 March, 2016.
- iii. BEST's standalone Solar RPO target for FY 2015-16 was 25.29 MUs only. However BEST had procured total 32.88 MUs (additional 7.59 MUs) in FY 2015-16 to fulfill the solar RPO target on a cumulative basis from FY 2010-11 to FY 2015-16 as directed by Hon'ble Commission.
- iv. BEST's total Solar RPO target from FY 2010-11 to FY 2015-16 was 110.56 MUs and BEST has achieved cumulative Solar RPO target of 110.51 MUs up to FY 2015-16 with a shortfall of 0.05 MUs. Hon'ble Commission vide its order dated 30 May 2017 in Case no. 170 of 2016, had directed BEST to fulfill cumulative shortfall of 0.05 MUs in FY 2016-17.
- v. BEST's standalone Solar RPO target for FY 2016-17 was 48.30 MUs only. However BEST had procured total 48.93 MUs in FY 2016-17 to fulfill the solar RPO target of FY 2016-17 and cumulative shortfall of 0.05 MUs from FY 2010-11 to FY 2015-16 as directed by Hon'ble Commission vide its order dated 30 May 2017 in Case no. 170 of 2016. Out of total 48.93 MUs, BEST has purchased 33.39 MUs on long term basis from M/s Welspun Energy Maharashtra Pvt. Ltd and 15.54 MUs RECs from Power Exchanges. BEST has achieved Solar RPO target of FY 2016-17 with a surplus of 0.57 MUs as indicated in table 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
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



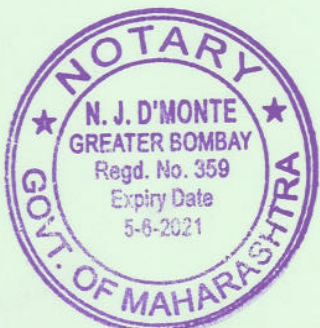


2012-13	4914.10	0.25	12.29	0.00	12.29	36.53
2013-14	4830.04	0.5	24.15	24.60	(0.45)	36.08
2014-15	4919.00	0.5	24.60	53.03	(28.44)	7.64
2015-16	5057.81	0.5	25.29	32.88	(7.59)	0.05
2016-17	4830.27	1.0	48.30	48.93	(0.63)	(0.57)
Total			158.87	159.44		

- vi. BEST's standalone Solar RPO target for FY 2017-18 was 99.80 MUs (2.00 %) only. However BEST had procured total 34.22 MUs in FY 2017-18 to fulfill the solar RPO target of FY 2017-18. Out of total 34.22 MUs, BEST has purchased 31.50 MUs on long term basis from M/s Welspun Energy Maharashtra Pvt. Ltd and 2.72 MUs on short term basis. BEST has achieved Solar RPO target of FY 2017-18 with a shortfall of 64.99 MUs as indicated in table 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
2016-17	4830.27	1.0	48.30	48.93	(0.63)	(0.57)
2017-18	4989.85	2.0	99.80	34.22	65.57	<b>64.99</b>

- vii. Due to suspension of solar REC trading in Power Exchanges from May 2017 to March 2018, BEST could not purchase solar RECs in FY 2017-18. Vide our letter 7<sup>th</sup> March 2018, we had requested Hon'ble Commission that in case trading for solar RECs does not resume before March 2018, BEST may be allowed to carry forward the shortfall of solar RPO to FY 2018-19. This matter will also be taken by BEST during the verification and compliance of RPO targets of BEST for FY 2017-18. This letter was forwarded to apprise Hon'ble Commission about the current situation of BEST's solar RPO for FY 2017-18 arising out of suspension of trading for solar RECs. Copy is placed as **Annexure A.**
- viii. Detailed statement of project wise energy procurement from various solar RE sources from FY 2010-11 to FY 2017-18 are enclosed herewith as **Annexure B.** Detailed statement of project wise contracted solar RE power from FY 2010-11 to FY 2017-18 are enclosed herewith as **Annexure C.**

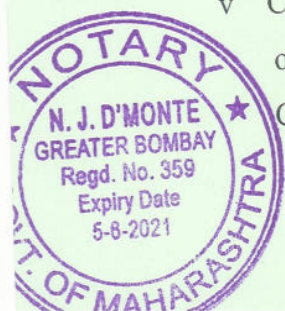


### Status of Non-Solar RPO compliance:

- i BEST's standalone Non - Solar RPO target for FY 2015-16 was 429.91 MUs and BEST has achieved the target of 423.70 MUs by the way of purchasing Non-solar energy and Non-solar RECs. BEST had a standalone shortfall of Non-solar RPO by 6.21 MUs for FY 2015-16.
- ii Hon'ble Commission was requested to consider the cumulative Non-solar RPO surplus of 4.48 MUs from FY 2010-11 to FY 2014-15 towards Non-solar RPO compliance for FY 2015-16 in case no. 17 of 2016 in the matter of Verification and Compliance of Renewable Purchase Obligation Cumulative targets for FY 2014-15.
- iii Hon'ble Commission has issued the order in this matter vide case No. 17 of 2016 dated 20.04.2016 and given the ruling as follows:

*"BEST has sought to carry forward and set off the Non-Solar RPO surplus achieved in FY 2014-15 and earlier years against its target for subsequent years. The Commission notes that, as pointed out by IWPA, the CERC REC Regulations (Third Amendment) dated 30 December, 2014 provides Distribution Licensees the option to obtain tradeable RECs against the excess over the RPO target by applying to the Central Agency for issue of RECs provided certain conditions are met. The Commission notes that, in pursuance of its Order dated 11 January, 2016 in Case No 39 of 2015, the Secretariat of the Commission has issued a certificate in the prescribed format to enable Reliance Infrastructure Ltd. to approach the Central Agency in respect of the excess over its Solar and Non-Solar RPO targets in FY 2013-14. BEST should explore this option in the first instance."*

- iv BEST in its letter Ref. No. CER/129/2016 dated 3<sup>rd</sup> August 2016 submitted to Hon'ble Commission, BEST has stated that BEST has procured RECs and not RE power in excess of its RPO for FY 2014-15. BEST had purchased Non-Solar RECs in the last trading session i.e.in March 2014 and March 2015 to overcome the shortfall up to March and fulfilled the RPO of respective years. Therefore BEST requested Hon'ble Commission to allow BEST to carry forward the cumulative surplus of Non-solar RPO up to FY 2014-15 to FY 2015-16 to enable BEST to reduce Non-solar RPO for FY 2015-16 to that extent.
- v CERC in its draft order dated 28.02.2017, had proposed a downward revision of Floor price of Rs. 1.00 per unit for solar and Non solar RECs from 1st April 2017. In view of above CERC draft order, RInfra-D filed a petition before Hon'ble Commission vide Case No 35

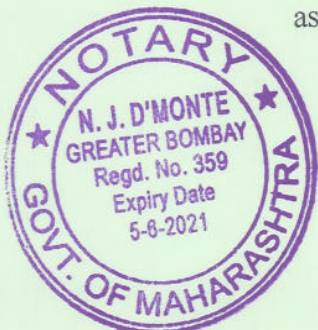


of 2017 to allow RInfra-D to defer the purchase of balance requirement of RECs of FY 2016-17 and allow cumulative fulfillment of RPO for FY 2016-17 and FY 2017-18.

- vi Hon'ble Commission issued Daily Order dated 16.03.2017 in Case No 35 of 2017 which allowed all Distribution Licensees to purchase RECs in FY 2017-18 to the extent of any shortfall in RPO compliance as on date, and to consider such purchase towards compliance of their RPO targets up to FY 2016-17.
- vii Since Hon'ble Commission had already approved in Daily Order for cumulative fulfillment of RPO for FY 2016-17 and FY 2017-18, BEST had not purchased the balance solar RECs and Non solar RECs during the trading sessions of RECs on 29.03.2017 to fulfill the RPO of FY 2016-17 and decided to purchase balance RECs of FY 2016-17 in FY 2017-18.
- viii BEST has achieved Non- Solar RPO target of FY 2016-17 with a shortfall of 48.52 MUs as indicated in table below:

FY	Gross Energy in MUs (Actual/Projected)	% Non-Solar RPO	RPO Target MUs	RPO Achieved (MUs)	Surplus / Shortfall in MUs	Cumulative Surplus / Shortfall in MUs
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
Total			2728.83	2680.04		

- ix BEST's standalone Non Solar RPO target for FY 2017-18 was 523.93 MUs (10.50%) only. However BEST had procured total 567.87 MUs in FY 2017-18 to fulfill the Non solar RPO target of FY 2017-18 and to overcome the shortfall of 48.52 MUs of FY 2016-17. Out of total 567.87 MUs, BEST had purchased 191.06 MUs of Non solar energy on short term basis and 376.81 MUs of Non solar RECs from Power Exchange. BEST has achieved Non Solar RPO target of FY 2017-18 with a surplus of 4.63 MUs as indicated in table 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
2016-17	4830.27	10.00	483.30	436.23	46.79	48.53
2017-18	4989.85	10.50	523.93	567.83	(43.90)	<b>4.63</b>

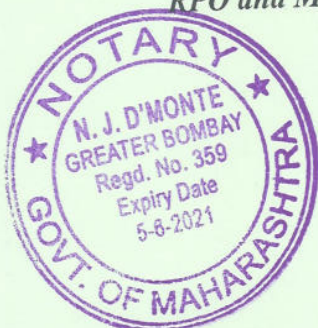
- x In the trading session of March 2018, BEST had placed the order for 55.317 MUs of Non solar RECs in the PXIL. However the Exchange has cleared only 51.313 MUs due to clearance ratio of 92.75 %.
- xi Detailed statement of project wise energy procurement from various Non-solar RE sources from FY 2010-11 to FY 2017-18 are enclosed herewith as **Annexure D**. Detailed statement of project wise contracted Non-solar RE power from FY 2010-11 to FY 2017-18 are enclosed herewith as **Annexure E**.

**Status of Min-Micro Hydro RPO compliance:**

- i. BEST confirms that BEST's standalone Mini/micro Hydro RPO target for FY 2017-18 was 1.04786 MUs and BEST has achieved Mini/micro Hydro RPO of 0.41544 MUs with a shortfall of 0.63242 MUs.
- ii. Detailed statement of project wise energy procurement from various Mini/micro Hydro power sources from FY 2010-11 to FY 2017-18 is enclosed herewith as **Annexure F**. Detailed statement of project wise contracted Mini/micro Hydro power sources FY 2010-11 to FY 2017-18 is enclosed herewith as **Annexure G**.

**Status of Total Cumulative RPO (including Solar, Non - Solar and Mini/micro Hydro):**

- i. BEST confirms that BEST's standalone RPO target including Solar, Non - Solar and Mini/micro Hydro for FY 2017-18 is 623.73 MUs and BEST has achieved RPO target of 602.05 MUs with a shortfall of 21.68 MUs as shown in Table- A above.
- c) *BEST should submit detailed list of actions and efforts undertaken by it, prior to and during FY 2017-18 to ensure compliance RPO targets in respect of Solar RPO, Non-Solar RPO and Mini-Micro Hydro RPO for FY 2017-18.*

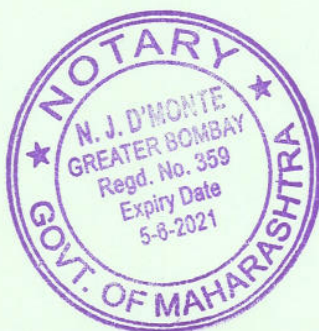


The detailed list of actions and efforts undertaken by BEST prior to and during FY 2016-17 to ensure compliance of RPO targets in respect of Solar, Non-solar and Mini/micro hydro power are as follows:

- i. On 30.04.2008, BEST filed Case No. 45 of 2008 before Hon'ble Commission, for approval of methodology of the EOI advertised on 03.09.2007, as a competitive bidding method for long term procurement of RE. The Hon'ble Commission, by Order dated 21.11.2008 passed in said Case No. 45 of 2008, rejected the Petition filed by BEST on the ground of various infirmities making it not maintainable. The relevant Para 22 of said Order dated 21.11.2008 held, as follows:

*"As is evident, there are infirmities in the Petition submitted by BEST, which cannot be covered by citing paucity of time. In view of this, the Petition filed by BEST is not maintainable and therefore stands rejected. However, the Commission grants liberty to BEST to file an appropriate Petition to seek the Commission's prior approval on the deviations contained in the bidding documents in accordance with the procedure prescribed by the "Guidelines for Determination of Tariff by Bidding Process for Procurement of Power by Distribution Licensees". Moreover, BEST can always procure renewable energy as per rates and other terms approved by the Commission in its respective Orders as detailed in the table below, which are applicable for all licensees in the State of Maharashtra, and meet its RPS obligation."*

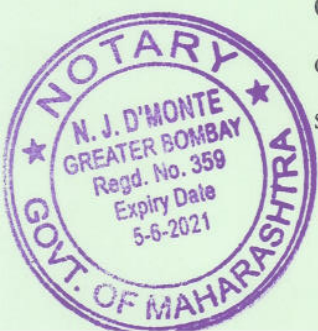
- ii. On 20.03.2009, BEST appointed a consultant for preparation of competitive bidding document for long term power procurement from RE sources, to implement aforesaid Order dated 21.11.2008 passed by the Hon'ble Commission in Case No. 45 of 2008 filed by BEST. Thereafter, on 20.01.2010, BEST submitted vide Case No. 101 of 2009 to the Hon'ble Commission, competitive bidding documents for long term power procurement from RE sources for approval. The Hon'ble Commission, by Order dated 30<sup>th</sup> November 2012 granted liberty to BEST to file an appropriate Petition for any deviation, after the Ministry of Power has notified the final Standard Bidding Guidelines for procurement of power from Renewable Energy Sources.



- iii. In the meantime, BEST had been and is procuring RE by duly and publicly inviting Expression of Interest from RE generators to meet its RPS Obligations. Following table indicates the details regarding various Expression of Interest (EoIs) advertised by BEST since FY 2007-08:

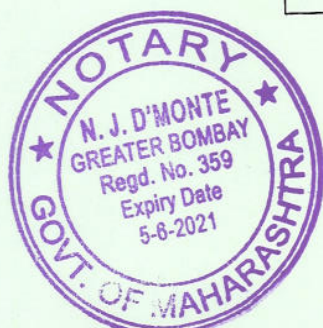
EoI Summary					
Sr. No.	Expression Of Interest Advt. on	No of offers	Suitable offer	Not-Suitable	MU offered
1	3 <sup>rd</sup> Sept'2007	2	2	0	300 MUs from Spark Green
2	30 <sup>th</sup> Nov'2007	1	1	0	31
3	26th June, 2008	23	9	14	6
4	16th Jan 2009	11	6	5	21
5	4th Aug'2009	5	5	0	93
6	15.May.2010	13	3	10	4
7	01 Sep. 2010	31	18	13	134
8	15. Feb-2011	49	12	37	220
9	15.Dec-2011	4	0	4	0
10	13. April-2012	10	6	4	345
11	08.Oct-2012	9	3	6	474
12	01 Jan-2013	8	2	6	499

- iv. Based on the responses to the EoIs, BEST issued Letter of Intent (LoIs) to all the eligible RE generators/traders by adhering to the MERC (RPO-REC) Regulations, 2010 and procured RE during FY 2010-11 to FY 2013-14. To meet RPO target for FY 2014-15, FY 2015-16 and FY 2016-17, BEST continued some of the short term contracts by issuing Letter of Intent (LoIs).
- v. Hon'ble Commission, vide Order dated 26<sup>th</sup> December 2012 in Case no. 100 of 2012 in the matter of Verification and Compliance of Renewable Purchase Obligation targets by BEST Undertaking for FY 2010-11 and FY 2011-12 as specified under MERC (Renewable Purchase Obligation, its compliance and Implementation of REC framework) Regulations, 2010 directed BEST to fulfill the shortfall in RPO targets for both Solar and Non-Solar (including mini/micro hydro targets) for FY 2010-11 and FY 2011-12 and RPO targets for FY 2012-13 cumulatively before 31 March, 2013. Hon'ble Commission further directed BEST to consider availability of Non-Solar RECs, as one of the options amongst various available options, for fulfillment of its cumulative shortfall in Non-Solar RPO targets for FY 2010-11 and FY 2011-12.



- vi. BEST started procuring Non-solar RECs as early as FY 2010-11 by procuring 148 RECs (0.148 MU). During FY 2011-12, BEST procured 1000 RECs (1 MU of RE). Further to order of Hon'ble Commission in Case no. 100 of 2012, BEST, procured 4,39,884 RECs (439.884 MUs) during FY 2012-13 for fulfillment of cumulative Non-solar RPO for FY 2010-11 to FY 2012-13. Continuing this, BEST procured 2, 20,000 Non-solar RECs (220 MUs) during FY 2013-14, 1, 76,000 Non-solar RECs (176 MUs) during FY 2014-15, 1, 25,000 Non-solar RECs (125 MUs) during FY 2015-16 , 201520 Non-solar RECs (201.52 MUs) during FY 2016-17 and Non-solar RECs (376.81 MUs) during FY 2017-18 .
- vii Hon'ble Commission issued Daily Order in Case No 35 of 2017 which allowed all Distribution Licensees to purchase RECs in FY 2017-18 to the extent of any shortfall in RPO compliance as on date, and to consider such purchase towards compliance of their RPO targets up to FY 2016-17. Therefore BEST had not purchased the balance solar RECs and Non solar RECs during the trading sessions of RECs on 29.03.2017 to fulfill the RPO of FY 2016-17 and decided to purchase balance RECs of FY 2016-17 in FY 2017-18. Accordingly BEST had purchased 376.81 MUs of Non solar RECs from Power Exchange to fulfill the Non solar RPO target of FY 2017-18 and to overcome the shortfall of 48.52 MUs of FY 2016-17.
- viii By combination of actual renewable power and RECs, BEST has been able to achieve its Non-solar RPO for a period from FY 2010-11 to FY 2017-18 with a cumulative surplus of 4.59 MUs. Following table summarizes BEST's REC procurement during the period from FY 2010-11 to FY 2017-18:

FY	No of Non-solar RECs procured	Non-solar RECs in MUs
2010-11	148	0.148
2011-12	1,000	1
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



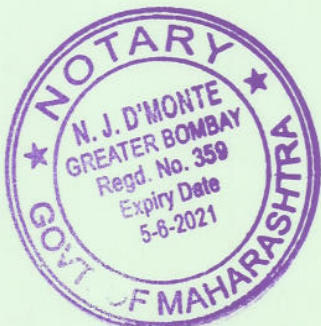
d) *BEST should submit the details for long term RE procurement plan for meeting the RPO targets for FY 2018-19.*

- i BEST has entered into long term EPA with M/s Spark Green Energy (Ahmednagar) Pvt. Ltd. and Spark Green Energy (Satara) Ltd. to procure total 50 MW( 25 MW each ) of biomass-based Non-solar RE on long term basis for fulfillment of non-Solar RPO. The first unit of 12.5 MW capacity at Ahmednagar plant has been commissioned in Jan'2016 and delivered approx. 7 MUs from Jan 2016 to June 2016. However M/s Spark Green Energy (Ahmednagar) Pvt. Ltd. has not supplied energy from its Ahmednagar plant from July 2016 onwards and also has not declared the COD of both plants.
- ii 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 for fulfillment of Solar RPO. The project has been commissioned in October 2013 and is supplying 31.5 MUs of Solar energy per annum to BEST.
- iii MERC has notified MERC (Renewable Purchase Obligation, its Compliance and REC framework implementation) Regulations, 2016. RPO target of the year FY 2016-17 to FY 2019-20, is shown in the table below:

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

- iv Based on the RE power tied up by BEST through long term PPA and short term contracts for FY 2017-18, BEST's estimated shortfall of Solar RPO and Non-Solar RPO for FY 2018-19 including the shortfall of FY 2017-18 is given below:

Shortfall		FY 2018-19
Solar RPO	Mus	110
Non Solar RPO	Mus	570





v BEST has decided to fulfil the RPO for FY 2018-19 as per the existing method with long term and short term contracts available with BEST and the remaining shortfall will be met by purchasing RECs from Power Exchanges. Further BEST is in the process of initiating the competitive bidding to procure solar power on long term basis on e-bidding portal.

7. In view of above, BEST respectfully prays that the Hon'ble Commission may be pleased to:

- i) Condone the delay of 25 days in filing the replies to the letter dated 25.10.2018
- ii) Take into consideration the earnest efforts taken by BEST in meeting the RPO target and approve the total RPO target achieved by BEST up to FY 2017-18.
- iii) Allow BEST to carry forward the cumulative shortfall of Solar RPO of 64.99 MUs up to FY 2017-18 to FY 2018-19.
- iv) Allow BEST to carry forward the cumulative shortfall of Non solar RPO of 4.63 MUs up to FY 2017-18 to FY 2018-19.
- v) Allow BEST to fulfill the shortfall of Mini-Micro Hydro RPO of 0.63242 MUs in FY 2017-18 cumulatively.
- vi) Grant the liberty to BEST Undertaking to add/change/modify/alter this affidavit and make further submissions as may be required at future date.
- vii) Pass such further and other orders as the Hon'ble Commission may deem fit and proper keeping in view of the facts and circumstances of the case.

(Rajendra Patsute)  
Chief Engineer (Regulatory)  
For Brihanmumbai Electric Supply and Transport Undertaking

