



10 June 2021

CFI-LRA-LRA-RGWR-LETR-000134

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

Dear Sir,

**Sub: Verification of compliance of Renewable Purchase Obligation targets of TPC – Distribution [“TPC-D”] for FY 2018-19 and FY 2019-20, as specified under RPO Regulations,2016. (Case No.52 of 2021)**

*Ref: 1. MERC Letter No. MERC/Tech/RPO/TPC-D/119 dated 27<sup>th</sup> April 2021*  
*2. MEDA Letter Ref No. BP/Discom-RPO/CR-151/2019-20/467 dated 30.01.2020*  
*3. MEDA Letter Ref No. BP/Discom-RPO/CR-159/2020-21/3890 dated 30.12.2020*

This has reference to the above captioned subject and the referred letter wherein the Hon’ble Commission has initiated Suo-motu proceedings for verification of RPO compliance of TPC-D for FY 2018-19 and FY 2019-20, based on the data submitted by MEDA. In this regard, the Hon’ble Commission has sought some additional information / reconciliation from TPC-D for verification of RPO compliance and submit any discrepancies in the report submitted by MEDA for RPO compliance for FY 2018-19 & FY 2019-20 along with the justification for the same.

Accordingly, TPC-D is hereby filing its response to the Hon’ble Commission as Appendix – 1 enclosed herewith.

In view of the current pandemic due to COVID-19 and the ensuing restrictions in the state of Maharashtra, we request the Hon’ble Commission to kindly take the same on record through email and allow TPC-D to file the hard copy of the instant reply with a supporting affidavit once the situation improves.

Thanking you,

-Sd/-

**Peyush Tandon**  
**Chief – Regulatory**



**BEFORE THE MAHARASHTRA ELECTRICITY REGULATORY COMMISSION**

**WORLD TRADE CENTRE, CENTRE NO.1,**

**13th FLOOR, CUFFE PARADE, MUMBAI 400005**

**CASE NO. 52 OF 2021**

**IN THE MATTER OF**

Verification of compliance of Renewable Purchase Obligation targets of TPC-D for FY 2018-19 and FY 2019-20, as specified under RPO Regulations, 2016.

**REPLY ON BEHALF OF THE TATA POWER COMPANY LIMITED- DISTRIBUTION**

The Tata Power Company Limited – Distribution Business ("**Tata Power-D**") most respectfully submits as under:-

1. The Hon'ble Commission vide its letter dated 27<sup>th</sup> April, 2021 has sought replies from Tata Power-D in respect of following –
  - a. *Reconciliation statement along with rationale with regards to GEC data reported by MSLDC and audited data of TPC-D.*
  - b. *TPC-D should verify the RPO settlement details for FY 2018-19 and FY 2019-20, as submitted by MEDA (copy attached as Annexures to this letter) and highlight the discrepancies, if any, along with proper justification.*
  - c. *TPC-D should submit the status of Solar, Non-Solar RPO compliance including Mini/Micro Hydro RPO compliance, as per the directives of the Commission vide Orders in Case No.99 of 2012, Case No.182 of 2013, Case No.192 of 2014, Case No. 18 of 2016, Case No. 171 of 2016, Case No.209 of 2017 and Case No. 38 of 2019 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.*



- d. TPC-D should submit 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.
- e. TPC-D should submit the details for long term RE procurement plan (in MUs and corresponding MW) for meeting the future RPO targets.
2. Accordingly, Tata Power-D, is submitting its query wise response for due consideration of this Hon'ble Commission:

**a. MERC Query –**

*Reconciliation statement along with rationale with regards to GEC data reported by MSLDC and audited data of TPC-D.*

**Tata Power-D's Submission –**

3. In this regard, we wish to submit that for FY 2018-19, Tata Power-D had submitted the CA certified RPO data, including GEC data, vide letter No. CREG/MUM/MEDA/2019/247 dated 8<sup>th</sup> November, 2019, in which it was mentioned that since the Tata Power-D has not received the credit notes for some of the wind project, hence data submitted by Tata Power-D is on provisional basis. Further, it was also mentioned that Tata Power-D will submit the final data on receipt of all the credit notes. The same is enclosed herewith as **Annexure 1** to this submission and summary of the same is as follows –

**Table 1: Tata Power-D's provisional submission on RPO achievement**

FY2018-19 - Submitted vide letter No. CREG/MUM/MEDA/2019/247 dated 8th November 2019								Mus	
Renewable Source		% Obligation for FY 2018-19	Requirement @ InSTS	Obligation 3=1*2	Preferential Tariff purchase	Met Through REC	Total 6=4+5	Shortfall/ (Surplus) 7=3-6	
		1	2	3=1*2	4	5	6=4+5	7=3-6	
RE Other than Mini Hydro and Solar	a	10.98%		513.33	304.99	208.90	513.90	-0.571	
Mini Hydro	b	0.02%		1.029	0.00	1.03	1.03	0.000	
<b>Total Non-Solar</b>	<b>c = a+b</b>	<b>11.00%</b>		<b>514.35</b>	<b>304.99</b>	<b>209.93</b>	<b>514.92</b>	<b>-0.571</b>	
Solar	d	2.75%		128.59	51.096	100.00	151.10	-22.507	
<b>Total</b>	<b>e =c+d</b>	<b>13.75%</b>		<b>4675.95</b>	<b>642.94</b>	<b>356.09</b>	<b>309.93</b>	<b>666.02</b>	<b>-23.078</b>



4. Further, in response to the letter received from MEDA vide No. BP/DISCOM-RPO/CR-151/2019-20/467 dated 30th January, 2020, Tata Power-D had submitted the revised GEC data for RPO compliance of FY 2018-19 vide letter No. CREG/MUM/MEDA/2020/90 dated 27th February, 2020. The same is enclosed herewith as **Annexure 2** to this submission. The summary of revised data submitted for FY 2018-19 is as shown below –

**Table 2: Tata Power-D's revised submission on RPO achievement**

FY2018-19 - Revised submitted vide letter No. CREG/MUM/MEDA/2020/90 dated 27th February 2020 Mus

Renewable Source		% Obligation for FY 2018-19	Requirement @ InSTS	Obligation 3 = 1 * 2	Preferential Tariff purchase	Met Through REC	Total 6 = 4+5	Shortfall/ (Surplus) 7 = 3-6
		1	2		4	5		
RE Other than Mini Hydro and Solar	a	10.98%		513.21	307.41	208.90	516.31	-3.094
Mini Hydro	b	0.02%		1.03	0.00	1.03	1.03	0.000
<b>Total Non-Solar</b>	<b>c = a+b</b>	<b>11.00%</b>		<b>514.24</b>	<b>307.41</b>	<b>209.93</b>	<b>517.34</b>	<b>-3.094</b>
Solar	d	2.75%		128.56	51.174	100.00	151.17	-22.613
<b>Total</b>	<b>e = c+d</b>	<b>13.75%</b>	<b>4674.94</b>	<b>642.80</b>	<b>358.58</b>	<b>309.93</b>	<b>668.51</b>	<b>-25.707</b>

5. Subsequently, the Hon'ble Commission issued the MYT order for Tata Power-D in Case No. 326 of 2019 dated 30<sup>th</sup> March 2020, in which truing up was done for FY2017-18 & FY2018-19. In this order the Hon'ble Commission has approved the total Energy Requirement of Tata Power-D at G<>T interface for FY 2017-18 & FY 2018-19, based on the inputs provided by Tata Power-D and energy drawn by Tata Power-D at T<>D interface-based on the input received from MSLDC. The same is reproduced herein below –



**Table 3-8: Energy Balance approved for FY 2017-18 and FY 2018-19, (MU)**

Particulars	FY 2017-18			FY 2018-19		
	MTR Order	TPC-D Petition	Approved after Truing Up	MTR Order	TPC-D Petition	Approved after Truing Up
TPC-D Sales (Retail) with 15 days Adjustments	2247.97	2532.93	2532.93	2372.55	2804.20	2,804.19
110 kV Billed Units		284.97	284.79		347.57	348.76
Bill credit given to OA consumers	817.21	817.21	817.21		660.80	660.80
<b>Total Sales excluding 110 kV Sales</b>	<b>3065.18</b>	<b>3065.18</b>	<b>3,065.36</b>	<b>2372.55</b>	<b>3117.43</b>	<b>3,116.23</b>
Distribution Losses	0.75%	0.78%	0.75%	1.02%	0.56%	0.27%
ABT Meter readings at T<math>\diamond</math>D Interface	3088.44	3374.41	3,373.40	2397.00	3482.71	3,473.30
110 kV Sales @ T<math>\diamond</math>D		285.02	284.79		347.57	348.76
ABT Meter readings without 110 kV Sales		3089.39	3,088.61		3135.14	3,124.54
OA wind credit at T<math>\diamond</math>D Interface	820.77	828.08	828.08		655.50	655.50
Energy Requirement for TPC-D consumers at T<math>\diamond</math>D interface	2267.67	2261.31	2,260.54	2397.00	2479.64	2,469.04
Sales to Change-over consumers for FBSM Adjustment	1854.62	1852.18	1854.62	1817.74	1721.78	1,721.63
Bill credit given to OA consumers		1.92	1.92		3.30	3.30
Sale to Change-over consumers after adjusting for OA wind credit	1854.62	1850.25	1,852.70	1817.74	1718.48	1,718.33
Energy Sales at 110/132 kV level	284.96	285.02	284.79	289.77	347.57	348.76
<b>Total Energy Requirement at T&lt;math&gt;\diamond&lt;/math&gt;D</b>	<b>4407.25</b>	<b>4396.58</b>	<b>4,398.02</b>	<b>4504.52</b>	<b>4545.69</b>	<b>4,536.13</b>
Transmission Loss	3.30%	3.31%	3.30%	3.30%	3.10%	3.11%
<b>Total Energy Requirement at G&lt;math&gt;\diamond&lt;/math&gt;T</b>	<b>4557.48</b>	<b>4546.98</b>	<b>4,547.93</b>	<b>4648.18</b>	<b>4691.05</b>	<b>4,681.57</b>
Surplus Sale/ (Purchase)		342.55	342.55		104.37	104.37
<b>Total Energy Requirement at G&lt;math&gt;\diamond&lt;/math&gt;T Interface</b>	<b>4557.48</b>	<b>4889.53</b>	<b>4,890.48</b>	<b>4648.18</b>	<b>4795.42</b>	<b>4,785.94</b>

6. In this regard, we wish to submit that during the proceeding of Case No. 326 of 2019, for FY2017-18, the submission done by Tata Power-D for credit passed on to open access consumers was based on the data available till March 2018. Similarly, for FY 2018-19 the details of credit passed on to open access consumers was based on the data available till March 2019. Hence, at the time of submission of the MYT Petition in Case No. 326 of



2019, the final data for credit passed on to the open access consumers beyond March 2018 and March 2019 was inadvertently not updated in the data submitted with true up of ARR Petition for FY 2017-18 and FY 2018-19 respectively to the Hon'ble Commission. Therefore, Tata Power-D vide the instant RPO Verification proceedings is bringing to light the correct and final data qua credit passed on to the open access consumers. Additionally, we have also updated the Changeover Sales based on the monthly settlement of energy between Tata Power-D and AEML-D for FY2018-19. Considering these revision, the Tata Power-D's total energy requirement at G<>T interface will be as follows –

**Table 3: Tata Power-D's Revised total energy requirement**

Particulars	FY 2017-18			FY 2018-19			FY 2019-20		
	TPC-D Petition	Approved after Truing Up	Revised due to updated credit notes	TPC-D Petition	Approved after Truing Up	Revised due to updated OA credit notes & CO sale	TPC-D Petition	Approved for provisional Truing Up	Revised After Year End
TPC-D Sales (Retail) with 15 days Adjustments	2532.93	2532.93	2532.93	2804.2	2,804.19	2,804.19	2922.72	2,930.92	2,881.92
110 kV Billed Units	284.97	284.79	284.79	347.57	348.76	348.76	374.13	354.99	334.98
Bill credit given to OA consumers	817.21	817.21	817.21	660.8	660.8	660.8	495.9	495.9	647.54
Total Sales excluding 110 kV Sales	3065.18	3,065.36	3,065.36	3117.43	3,116.23	3,116.23	3044.49	3,071.84	3,194.48
Distribution Losses	0.78%	0.75%	0.75%	0.56%	0.27%	0.27%	1.02%	1.02%	1.02%
ABT Meter readings at T<>D Interface	3374.41	3,373.40	3,373.40	3482.71	3,473.30	3,473.30	3075.86	3,103.49	3,557.99
110 kV Sales @ T<>D	285.02	284.79	284.79	347.57	348.76	348.76	374.13	354.99	334.98
ABT Meter readings without 110 kV Sales	3089.39	3,088.61	3,088.61	3,135.14	3,124.54	3,124.54	2,701.73	2,748.50	3,223.01
OA wind credit at T<>D Interface	828.08	828.08	833.08	655.5	655.5	670.52	501.01	501.01	670.65
Energy Requirement for TPC-D consumers at T<>D interface	2261.31	2,260.54	2,255.53	2479.64	2,469.04	2,454.02	2574.85	2,602.48	2,552.36
Sales to Change-over consumers for FBSM Adjustment	1852.18	1854.62	1854.62	1721.78	1,721.63	1,727.40	1668.22	1,638.06	1,678.62
Bill credit given to OA consumers	1.92	1.92	2.44	3.3	3.3	3.88	0	0	4.09
Sale to Change-over consumers after adjusting for OA wind credit	1850.25	1,852.70	1852.18	1718.48	1,718.33	1723.52	1668.22	1,638.06	1674.53
Energy Sales at 110/132 kV level	285.02	284.79	284.79	347.57	348.76	348.76	374.13	354.99	334.98
Total Energy Requirement at T<>D	4,396.58	4,398.03	4,392.50	4,545.69	4,536.13	4,526.29	4617.2	4,595.53	4,561.86
Transmission Loss	3.31%	3.30%	3.30%	3.10%	3.11%	3.11%	3.30%	3.18%	3.17%
<b>Total Energy Requirement at G&lt;&gt;T</b>	<b>4546.98</b>	<b>4,547.93</b>	<b>4542.40</b>	<b>4691.05</b>	<b>4,681.57</b>	<b>4671.58</b>	<b>4774.77</b>	<b>4,746.46</b>	<b>4711.21</b>

Mus



7. We request the Hon'ble Commission to consider the aforementioned GEC shown in the above table for determining the RPO status of Tata Power-D based on final data of the credit passed on to the Open Access consumers, which was erroneously missed out during the final MYT submissions..
8. Further, we wish to submit that the Hon'ble Commission had issued an Order in the matter of Verification of compliance of Renewable Purchase Obligation targets by Tata Power Co. Ltd. (Distribution) for FY 2016-17, in Case no. 209 of 2017 on 31<sup>st</sup> July 2018. In the said order the Hon'ble Commission had determined the RPO status of Tata Power-D considering the Gross Energy Consumption (GEC) as 4,650.94 Mu's.
9. Further, the Hon'ble Commission had issued the MTR order in Case No. 69 of 2018 on 12<sup>th</sup> September, 2018, in which the Hon'ble Commission had approved the total Energy Requirement at G<>T interface as 4,642.62 Mus in true up of FY 2016-17, accordingly the RPO targets, shortfall and surplus for FY2016-17 should be recalculated considering the requirement as 4642.62 Mus instead of 4650.94 MUs. The comparison of the same is as shown below –

**Table 4: Tata Power-D's Revised RPO status for FY 2016-17**

Item	Cumulative RPO (Surplus)/ Short fall till end of earlier control period (FY 2010-11 to FY 2015-16)	Order Case No. 209 of 2017 dtd. 31 July, 2018		Order Case No. 69 of 2018 dtd. 12 September, 2018 (pg. 149)			
		FY 2016-17		Cumulative RPO (Surplus)/ Short fall till end of FY 2016-17	FY 2016-17		Cumulative RPO (Surplus)/ Short fall till end of FY 2016-17
		Mus	%	Mus	Mus	%	Mus
Gross Energy consumption		100%	4650.94		100%	4642.62	
Solar RPO							
Target	139.86	1.00%	46.51	186.37	1.00%	46.43	186.29
Achivement	140.08	1.10%	50.98	191.06	1.10%	50.98	191.06
Shortfall /(Surplus)	-0.22	-0.096%	-4.47	-4.69	-0.096%	-4.55	-4.77
Non-Solar RPO							
Target	2842.18	10.00%	465.09	3307.27	9.98%	463.33	3305.51
Achivement	2856.25	10.09%	469.32	3325.57	10.09%	469.32	3325.57
Shortfall /(Surplus)	-14.07	-0.09%	-4.23	-18.30	-0.11%	-5.99	-20.06
Mini-Micro RPO (Within Non-Solar)							
Target	4.47	0.02%	0.93	5.40	0.02%	0.93	5.40
Achivement	2.92	0.53%	2.48	5.40	0.53%	2.48	5.40
Shortfall /(Surplus)	1.55	-0.33%	-1.55	0.00	-0.33%	-1.55	0.00



10. Similarly, the Hon'ble Commission had issued an order in Case no. 38 of 2019 dated 2<sup>nd</sup> April 2019 in the matter of Verification of compliance of Renewable Purchase Obligation targets by Tata Power Co. Ltd. (Distribution) for FY 2017-18. The cumulative RPO status at the end of FY 2017-18 approved by the Hon'ble Commission in this order is as below –

**Table 5: RPO status approved in Case No. 38 of 2019**

Order Case No. 38 of 2019 dtd. 2nd April, 2019 (pg. 7)						
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
		%	Mus	%	Mus	
Gross Energy consumption		100%	4650.94	100%	4542.69	
Solar RPO						
Target	139.86	1.00%	46.51	2.00%	90.85	277.22
Achivement	140.08	1.10%	50.98	1.55%	70.20	261.26
Shortfall /(Surplus)	-0.22	-0.096%	-4.47	-0.096%	20.65	15.96
Non-Solar RPO						
Target	2842.18	10.00%	465.09	10.50%	476.98	3784.26
Achivement	2856.25	10.09%	469.32	10.50%	477.15	3802.72
Shortfall /(Surplus)	-14.07	-0.09%	-4.23	-0.004%	-0.17	-18.46
Mini-Micro RPO (Within Non-Solar)						
Target	4.47	0.02%	0.93	0.02%	0.95	6.35
Achivement	2.92	0.53%	2.48	0.02%	0.95	6.35
Shortfall /(Surplus)	1.55	-0.33%	-1.55	-0.33%	0.00	0.00

11. Further, considering the revised GEC for FY2017-18, as determined in Table 3 for determining the Tata Power-D RPO obligation status for FY2017-18 and revised computations for FY 2016-17 as shown in the table No. 4, the cumulative status of Tata Power-D RPO obligation till end of FY 2017-18 will be as shown in the table below –



**Table 6: Revised RPO status based on revised GEC for FY2017-18**

Revised Table Considering Order Case 69 of 2018 (for GEC for FY17) & revised GEC for FY2018 based on updated OA data						
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
		Mus	%	Mus	%	
Gross Energy consumption		100%	4642.62	100%	4542.40	
Solar RPO						
Target	139.86	1.00%	46.43	2.00%	90.85	277.13
Previous Year Shortfall/(Surplus)					-4.77	
Achivement	140.08	1.10%	50.98	1.55%	70.36	261.42
Shortfall /(Surplus)	-0.22	-0.096%	-4.55	-0.096%	15.71	15.71
Non-Solar RPO						
Target	2842.18	9.98%	463.33	10.48%	476.04	3781.56
Previous Year Shortfall/(Surplus)					-20.06	
Achivement	2856.25	10.09%	469.32	10.50%	476.46	3802.03
Shortfall /(Surplus)	-14.07	-0.11%	-5.99	-0.024%	-20.47	-20.47
Mini-Micro RPO (Within Non-Solar)						
Target	4.47	0.02%	0.93	0.02%	0.95	6.35
Achivement	2.92	0.53%	2.48	0.02%	0.95	6.35
Shortfall /(Surplus)	1.55	-0.33%	-1.55	-0.33%	0.00	0.00

12. The Hon'ble Commission has approved the cumulative Shortfall in Solar, Non-Solar and mini Hydro RPO till FY 2019-20 in the Tata Power-D's order in Case No. 326 of 2019 as below –

**Table 7: Cumulative RPO status approved in Case 326 of 2019**

Cumulative Shortfall in Solar and Non-Solar RPO till FY 2019-20 approved in Case 326 of 2020					
RPO Targets & Achievement	Units	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Total Energy Requirement	MU		4547.93	4681.57	4746.46
Solar RPO target	%		2.00%	2.75%	3.50%
Solar RPO target	MU		90.96	128.74	166.13
Previous Year Shortfall/(Surplus)	MU		-4.69	15.99	-6.44
Solar RPO Achievement	MU		70.28	151.17	51.17
<b>Solar RPO Shortfall/(Surplus)</b>	<b>MU</b>		<b>-4.69</b>	<b>15.99</b>	<b>-6.44</b>
Non-Solar (Excl. Mini Hydro) RPO target	%		10.48%	10.98%	11.48%
Non-Solar (Excl. Mini Hydro) RPO target	MU		476.62	514.04	544.89
Previous Year Shortfall/(Surplus)	MU		-18.30	-17.87	-17.61
Non-Solar RPO Achievement	MU		476.20	513.77	534.55
<b>Non-Solar RPO Shortfall/(Surplus)</b>	<b>MU</b>		<b>-18.30</b>	<b>-17.87</b>	<b>-17.61</b>
Mini Hydro RPO target	%		0.02%	0.02%	0.02%
Mini Hydro RPO target	MU		0.91	0.94	0.95
Previous Year Shortfall/(Surplus)	MU		0.00	-0.04	-0.09
Mini Hydro RPO Achievement	MU		0.95	1.03	1.10
<b>Mini Hydro RPO Shortfall/(Surplus)</b>	<b>MU</b>		<b>0.00</b>	<b>-0.04</b>	<b>-0.09</b>



13. Further, considering Tata Power-D's revised gross energy requirement for FY 2017-18 and FY 2018-19 as shown in the Table 3, the cumulative RPO status of the Tata Power-D till the end of FY2019-20 will be as follows –

**Table 8: Revised RPO status from FY2016-17 to FY 2019-20 based on revised GEC**

Cumulative Shortfall in Solar and Non-Solar RPO till FY 2019-20 based on revised data					
RPO Targets & Achievement	Units	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Total Energy Requirement	MU		4542.40	4671.58	4711.21
Solar RPO target	%		2.00%	2.75%	3.50%
Solar RPO target	MU		90.85	128.47	164.89
Previous Year Shortfall/(Surplus)	MU		-4.77	15.79	-6.84
Solar RPO Achievement	MU		70.29	151.10	56.83
<b>Solar RPO Shortfall/(Surplus)</b>	<b>MU</b>		<b>-4.77</b>	<b>15.79</b>	<b>-6.84</b>
Non-Solar (Excl. Mini Hydro) RPO target	%		10.48%	10.98%	11.48%
Non-Solar (Excl. Mini Hydro) RPO target	MU		476.04	512.85	540.71
Previous Year Shortfall/(Surplus)	MU		-20.06	-20.47	-27.40
Non-Solar RPO Achievement	MU		476.46	519.78	554.98
<b>Non-Solar RPO Shortfall/(Surplus)</b>	<b>MU</b>		<b>-20.06</b>	<b>-20.47</b>	<b>-41.67</b>
Mini Hydro RPO target	%		0.02%	0.02%	0.02%
Mini Hydro RPO target	MU		0.95	1.03	1.08
Previous Year Shortfall/(Surplus)	MU		0.00	0.00	0.00
Mini Hydro RPO Achievement	MU		0.95	1.03	1.08
<b>Mini Hydro RPO Shortfall/(Surplus)</b>	<b>MU</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

We request the Hon'ble Commission to consider the revised submission done by Tata Power-D.

**b. MERC Query –**

*TPC-D should verify the RPO settlement details for FY 2018-19 and FY 2019-20, as submitted by MEDA (copy attached as Annexures to this letter) and highlight the discrepancies, if any, along with proper justification.*

**Tata Power-D's Submission –**



14. With regard to FY 2018-19, the discrepancies between the submission done by MEDA and Tata Power-D's submission based on the revised GEC submitted in the Table No. 3 is as shown below -

**Table 9: Discrepancy in the RPO Data for FY 2018-19**

RPO compliance Submission for FY 2018-19, done for Tata Power-D by	Gross Energy Consumption	Solar		Mini/ Micro Hydro		Non-Solar		Total RE			Shortfall			Total Shortfall in RPO (as per RPO @ 13.75%)	Remarks
		Solar Energy to be procured for RPO @ 2.75%	Solar Energy Actually Procured	Energy to be procured as per Mini/Micro Hydro RPO @ 0.2% of Non-Solar	Mini/Micro Hydro Energy Actually Procured	Non-Solar Energy to be procured for RPO @ 11%	Non-Solar Energy Actually Procured	Total RE to be procured for RPO @ 13.75%	Total RE Actually Procured	RPO % achieved as against 13.75% Obligation	Shortfall in Solar Energy (as per RPO @ 2.75%)	Shortfall in Mini/Micro Hydro Energy (as per RPO @ 0.2% of non-Solar)	Shortfall in Non-Solar Energy (as per RPO @ 11%)		
MEDA (A)	4675.95	128.59	151.10	1.03	0.00	514.35	514.93	642.94	666.02	14.24%	-22.51	1.03	-0.57	-22.05	Final RPO data Submitted vide letter dated 08.11.2019
Tata Power-D (B)	4671.58	128.47	151.10	1.03	1.03	512.85	519.78	642.34	671.90	14.38%	-22.63	0.00	-6.93	-29.56	Based on the Revised data for GEC and Source wise RE data
Discrepancies C-B-A	-4.37	-0.12	0.00	0.00	1.03	-1.51	4.85	-0.60	5.88	0.14%	-0.12	-1.03	-6.36	-7.51	

As seen from Table 9, the discrepancies are explained further below:

- i. The Tata Power-D's revised power requirement at InSTs in FY 2018-19 is 4671.58 Mus. The difference in Energy Requirement of Tata Power-D at InSTS in FY 2018-19 as compared to MEDA is because of the following reasons:
  - a) Revision in Changeover Sales based on the monthly settlement of energy between Tata Power-D and AEML-D.
  - b) Revision in final Open Access credit units passed on to the consumers for FY2018-19
- ii. On account of the change in the InSTS requirement of Tata Power-D as explained above the RPO targets which are a function of the energy requirement has accordingly changed. The change in RPO targets has been brought out in the table above.
- iii. With respect to the discrepancy in Case of Mini/Micro Hydro RPO achievement, we wish to submit that for FY 2018-19, MEDA has used the RPO data submitted by Tata Power-D vide letter dated 8<sup>th</sup> November, 2019, in the same submission also it was shown that RPO obligation of Tata Power-D for Mini/Micro Hyrdo had been met by purchasing additional Non-Solar REC's however, while submitting the data to the



Hon'ble Commission, MEDA considered the achievement as zero for the same. Tata Power-D had submitted the revised data for RPO compliance of FY 2018-19 vide letter No. CREG/MUM/MEDA/2020/90 dated 27th February, 2020. The same is enclosed herewith as **Annexure 2** to this submission. Tata Power-D had highlighted the discrepancy with reference to the shortfall shown for Mini/Micro hydro RPO compliance. And requested to consider the latest submission for RPO compliance of Tata Power-D for FY2018-19.

- iv. With respect to the discrepancy in Case of Non-Solar RPO obligation achievement, we wish to submit that, Tata Power-D had submitted the revised data for RPO compliance of FY2018-19 (**Annexure 2**), but the same was not considered by MEDA for reporting to MERC. In the same letter it was mentioned that Tata Power-D is yet to receive credit notes for some of its wind farms, hence there will be revised submission. As on date also Tata Power-D is yet to receive the credit note for Khandke wind farm for March 2019 and to that extent the data submitted herewith by tata Power-D is based on provisional generation of Khandke available with Tata Power-D. Further, Tata Power-D has considered unutilised open Access Banked energy of 3.21 MU's and RE units with respect to 2% Banking Charges of 0.65 Mus for RPO compliance.

In view of the above, we request the Hon'ble Commission to consider this revised RE procurement for the purpose of RPO Verification for FY 2018-19.

15. With regard to FY 2019-20, the discrepancies between the MEDA submission based on the Tata Power-D's letter dated 19<sup>th</sup> October, 2020 and Tata Power-D's submission based on the revised GEC submitted in the Table No. 3, is as shown below –



**Table 10: Discrepancy in the RPO Data for FY 2019-20**

RPO compliance Submission for FY 2019-20, done for Tata Power-D by	Gross Energy Consumption	Solar		Mini/ Micro Hydro		Non-Solar		Total RE		RPO % achieved as against 13.75% Obligation	Shortfall			Total Shortfall in RPO (as per RPO @ 15%)	Remarks
		Solar Energy to be procured for RPO @ 3.5%	Solar Energy Actually Procured	Energy to be procured as per Mini/Micro Hydro RPO @ 0.2% of Non-Solar	Mini/Micro Hydro Energy Actually Procured	Non-Solar Energy to be procured for RPO @ 11.5%	Non-Solar Energy Actually Procured	Total RE to be procured for RPO @ 15%	Total RE Actually Procured		Shortfall in Solar Energy (as per RPO @ 3.5%)	Shortfall in Mini/Micro Hydro Energy (as per RPO @ 0.2% of non-Solar)	Shortfall in Non-Solar Energy (as per RPO @ 11.5%)		
MEDA (A)	4749.27	166.22	56.16	1.09	0.02	546.17	545.10	712.39	601.29	12.66%	110.06	1.07	1.07	112.20	Final RPO data Submitted vide letter dated 19.10.2020
Tata Power-D (B)	4711.21	164.89	56.83	1.08	1.08	540.71	554.98	706.68	612.89	13.01%	108.06	0.00	-14.27	93.79	Based on the Revised data for GEC and Source wise RE data
Discrepancies C=B-A	-38.06	-1.33	0.67	-0.01	1.06	-5.46	9.88	-5.71	11.61	0.35%	-2.00	-1.07	-15.34	-18.41	

As seen from Table 10, the discrepancies are explained further below:

- i. The Tata Power-D's revised power requirement at InSTs in FY 2019-20 is 4711.21 Mus. The difference in Energy Requirement of Tata Power-D at InSTS in FY 2019-20 as compared to MEDA is because of the following reasons:
  - a) Revision in Changeover Sales based on the monthly settlement of energy between Tata Power-D and AEML-D from April 2019 to June 2019.
  - b) Revision in final Open Access credit units passed on to the consumers for FY2019-20

Further, we wish to submit that the energy requirement will be changed with the pending monthly settlement of energy on account of changeover sale from July 2019 to March 2020 and the same will be finalized once the final FBSM bills will be issued by MSLDC.

- ii. On account of the change in the InSTS requirement of Tata Power-D as explained above the RPO targets which are a function of the energy requirement has accordingly changed. The change in RPO targets has been brought out in the table above.
- iii. With respect to RPO Achievement, the discrepancy has been observed in the case of



Solar RPO achieved. The total solar power procured in FY 2019-20 was 56.83 Mus, however, the number reflected in the MEDA data is 56.16. This discrepancy is on account of consideration of the deemed purchase of OA banked energy 0.05 Mus, Unutilised OA Banked energy of 0.03 Mus and RE units with respect to 2% Banking Charges of 0.01 MUs in FY 2019-20. We request the Hon'ble Commission to consider this revised data submitted herewith for RPO Verification for FY 2019-20.

- iv. With respect to the discrepancy in Case of Mini/Micro Hydro, we wish to submit that for FY 2019-20, MEDA has used the RPO data submitted by Tata Power-D vide letter dated 19<sup>th</sup> October 2020. In which, against the obligation of 1.092 Mus, Tata Power-D could arrange only 0.024 Mus, hence there was a short fall of 1.068 Mus. Further, considering the revised GEC as explained in Table 3, the RPO obligation has gone down and there is sufficient Non solar power purchased for complying Mini/Micro Hydro (0.2% of Non-Solar Obligation) and Non – Solar RPO obligation excluding Mini/Micro Hydro. The revised values are shown in the above table, we request the Hon'ble Commission to consider the same.
- v. With respect to the discrepancy in case of Non-Solar RPO obligation achievement we wish to submit that the Non-Solar obligation excluding Mini/Micro Hydro power obligation is 11.48%, but MEDA has calculated the obligation considering 11.5%. Further, considering the revised GEC we have calculated the Non-Solar obligation with 11.48% is 540.71 Mus. We have also updated the Non-solar data after receipt of pending credit notes. We are yet to receive the final credit note for Khandke wind farm for April 2019. Hence the units considered for this wind farm is based on meter reading data available with us. Further, Tata Power-D has considered deemed purchase of open access banked energy of 5.13 Mus, Unutilised OA banked energy of 5.41 Mus and RE units with reference to 2% Banking Charges of 0.38 Mus for RPO compliance. Considering all the revisions, Tata Power-D has met the Non-Solar RPO obligation with standalone surplus of 14.27 MU and cumulative surplus of 41.67 Mus and We request the Hon'ble Commission to approve the same and allow Tata Power-



D to utilise the cumulative surplus of Non solar power to fulfil the RPO obligations in future years.

**c. MERC Query –**

*TPC-D should submit the status of Solar, Non-Solar RPO compliance including Mini/Micro Hydro RPO compliance, as per the directives of the Commission vide Orders in Case No.99 of 2012, Case No.182 of 2013, Case No.192 of 2014, Case No. 18 of 2016, Case No. 171 of 2016, Case No.209 of 2017 and Case No. 38 of 2019 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.*

**Tata Power-D's Submission –**

**Solar RPO Compliance**

**FY 2010-11 to FY 2017-18**

16. With regard to the status of Solar, Non-Solar RPO compliance including Mini/Micro Hydro RPO compliance from FY 2010-11 to FY 2017-18, Tata Power-D has shortfall in compliance of solar RPO targets as approved by the Hon'ble Commission in its Order dated 2nd April, 2019 in Case No. 38 of 2019. The extract of the order is given below:

*"Tata Power Co. Ltd. (Distribution) is allowed to meet its cumulative shortfall in Solar till FY 2017-18 in FY 2018-19. **It shall purchase Solar Power and/or Renewable Energy Certificates in FY 2018-19 so as to fully meet its standalone and cumulative shortfall and shall inform the Commission status of tradeable Solar and non-Solar RECs obtained from Central Agency.** Commission will take review of such tradeable RECs in RPO compliance verification process for FY 2018-19.*



### FY 2018-19

17. In line with the direction of Hon'ble Commission, Tata Power-D has procured 151.10 MUs as against the cumulative Solar RPO requirement of 144.25 Mus comprising of 128.47 MUs towards meeting Solar RPO obligation of FY 2018-19 and 15.79 MUs towards meeting the shortfall RPO obligation till FY 2017-18. Thus, Tata Power -D has met its entire Solar RPO requirement till FY 2018-19 with a surplus of 6.84 MUs.

### FY 2019-20

18. Regarding Solar RPO compliance for FY 2019-20, it is to state that Tata Power-D has not met the standalone target of FY 2019-20 of 164.89 Mus. Tata Power-D has a shortfall of 101.22 Mus cumulatively till FY 2019-20, considering the surplus of 6.84 Mus of FY2018-19 in FY2019-20 and purchase of 56.83 MUs Solar Energy during FY2019-20,.

19. The detailed project wise summary of energy procurement in MUs from all Solar Generating Stations including energy procurement through REC is as given below:

**Table 11: Project wise summary of solar energy procurement**

Resources	Contracted Capacity											MUs	
		FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	Cumulative Solar RPO Achievement by FY 2019-20	MUs
UoM	MW	MUs	MUs										
Mulshi Solar	3 MW	0.05	4.03	4.33	4.05	4.12	4.34	4.00	3.81	3.86	3.81		36.41
Solar Rooftop	60 kWp	-	0.09	0.07	0.06	0.07	0.07	0.04	0.01	0.00	0.01		0.41
Palaswadi Solar	25 MW	-	-	-	-	38.16	47.63	46.86	45.53	43.53	42.79		264.51
Net Metering								0.08	0.84	3.71	7.31		11.93
REC Certificate - Solar	-	-	-	0.31	1.57	9.00	22.10	0.00	20.00	100.00	2.83		155.81
Deemed purchase upto 10% of the actual total generation											0.05		0.05
Unutilised OA Banked energy									0.00		0.03		0.03
2% Banking Charges									0.08		0.01		0.09
<b>Total</b>		0.05	4.12	4.70	5.68	51.35	74.15	50.98	70.29	151.10	56.83		469.25

20. The summary of shortfall/surplus of Solar RPO from FY 2010-11 to FY 2019-20 is as shown in table below:



**Table 12: Cumulative Shortfall/(Surplus) in Solar RPO**

Particulars		Mus									
		FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2017-19	FY 2019-20
Opening	a	0.00	11.50	22.69	35.36	63.91	43.83	-0.22	-4.77	15.79	-6.84
Solar Target	b	11.55	15.31	17.37	34.22	31.30	30.10	46.43	90.85	128.47	164.89
Solar RPO met	c	0.05	4.12	4.70	5.68	51.38	74.15	50.98	70.29	151.10	56.83
Standalone Shortfall/(Surplus)	d=b-c	11.50	11.19	12.67	28.54	-20.08	-44.05	-4.55	20.56	-22.63	108.06
Cumulative Shortfall/(Surplus)	e=a+b-c	11.50	22.69	35.36	63.91	43.83	-0.22	-4.77	15.79	-6.84	101.22

21. From the above table, it can be observed that Tata Power-D has met its cumulative shortfall upto the previous years but has a shortfall in RPO compliance for FY 2019-20 on standalone basis. It is pertinent to mention that Tata Power-D requested to allow carry forward for cumulative shortfall in RPO compliance upto FY 2019-20 in its MYT petition in Case No. 326 of 2019. Hon'ble Commission had directed as follows –

*“ The Commission would like to clarify that above computation of cumulative shortfall is only for the purpose of computing indicative cost of such shortfall in future years. Actual shortfall/surplus may undergo change based on RPO verification process to be initiated separately as per RPO Regulations, 2016. TPC-D’s request for carry forward of cumulative shortfall will also be dealt with in the said proceeding.”*

22. In view of the above, it is submitted that despite the efforts of Tata Power-D for procurement of balance solar power through short term tendering process, Tata Power-D was unable to procure requisite quantum of solar power to comply with solar RPO targets. In order to meet the future Solar RPO requirement along with the current shortfall Tata Power-D has entered into long term PPA for procurement of solar power to avoid uncertainty.

23. Further, The Hon'ble Commission has already allowed carry forward of cumulative shortfall in RPO compliance upto FY 2017-18 to be met in FY 2018-19 in Case No. 38 of 2019. Tata Power-D has already complied the same directive and have surplus of 6.84 Mus.



24. Accordingly, we request the Hon'ble Commission to allow Tata Power-D to allow carry forward of cumulative shortfall in fulfilment of its Solar RPO targets for FY 2019-20 cumulatively by FY2022-23 as allowed in the Maharashtra Electricity Regulatory Commission (Renewable Purchase Obligation, Its Compliance And Implementation Of Renewable Energy Certificate Framework) Regulations, 2019 for any shortfall in RPO target for FY 2020-21 & FY 2021-22 to be met upto March'2023.

25. We request the Hon'ble Commission to Condone the levy of RPO Regulatory Charges for the quantum of shortfall in Solar RPO target in FY 2019-20, under Regulation 12 of Maharashtra Electricity Regulatory Commission (Renewable Purchase Obligation, Its Compliance And Implementation Of Renewable Energy Certificate Framework) Regulations, 2016.

#### **Non-Solar RPO Compliance**

##### **FY 2010-11 to FY 2017-18**

26. With reference to compliance related to Non-Solar RPO obligation, Tata Power-D has met the Non-Solar RPO target as approved by the Hon'ble Commission vide its Order dated 2nd April, 2019 in Case 38 of 2019. The relevant extract of the Order is provided as under:

*"14. The Commission notes that TPC-D has*

*.....*

*ii. **Fulfilled its stand-alone non-Solar RPO target of FY 2017-18 with a surplus of 0.168 MUs, and has a cumulative surplus of 18.464 MUs.**"*

##### **FY 2018-19 and FY 2019-20**



27. The detailed project wise summary of energy procurement in MUs from all Wind Generating Stations including energy procurement through REC from FY 2010-11 to FY 2019-20 is as given below:

**Table 13: Project Wise Summary of Energy Procurement from Wind sources**

Resources	Contracted Capacity	MUs										Cumulative Non Solar RPO Achievement by FY 2019-20	
		FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20		
UoM	MW	MUs											
Supa	17	22.96	19.63	-	-	-	-	-	-	-	-	-	42.59
Nivede	20.95	-	-	30.41	23.71	-	-	-	-	-	-	-	54.12
Khandke	50.4	96.43	108.41	110.32	113.94	97.16	98.74	84.29	75.82	96.02	103.96	103.96	985.09
Bramhanvel	11.25	16.03	17.09	18.98	18.07	16.94	17.96	20.16	17.96	22.11	20.38	20.38	185.70
Sadawaghapur	17.5	26.18	32.14	31.36	29.31	26.00	25.74	32.06	27.28	31.70	28.40	28.40	290.18
Visapur 6 MW	6	-	12.75	11.94	13.06	11.65	10.89	11.84	10.65	11.18	11.32	11.32	105.28
Visapur 4 MW	4	7.42	7.59	7.47	7.39	6.17	6.45	6.94	6.15	6.41	7.17	7.17	69.16
Visapur (GSW) 24 MW	24	-	-	-	-	8.65	30.11	35.25	31.11	32.61	33.19	33.19	170.93
Visapur (GSW) 8 MW	8	-	-	-	-	1.65	10.10	10.45	8.90	9.83	9.78	9.78	50.71
Agaswadi	49.5	-	29.33	112.28	113.88	100.64	98.57	104.05	91.71	97.14	102.52	102.52	850.12
Bilateral	-	50.14	-	-	-	-	-	-	-	-	-	-	50.14
REC	-	-	188.39	261.00	271.00	264.56	215.08	164.28	207.57	209.93	228.42	228.42	2,010.23
Deemed purchase upto 10% of the actual total generation												5.13	5.13
Unutilised OA banked energy									0.11	3.21	5.41	5.41	8.73
2% Banking Charges									0.15	0.65	0.38	0.38	1.18
<b>Total</b>		<b>219.17</b>	<b>415.33</b>	<b>583.76</b>	<b>590.37</b>	<b>533.42</b>	<b>513.66</b>	<b>469.32</b>	<b>477.41</b>	<b>520.80</b>	<b>556.06</b>	<b>556.06</b>	<b>4,879.29</b>

28. The summary of shortfall/surplus of Non-Solar RPO from FY 2010-11 to FY 2019-20 is as shown in table below:

**Table 14: Cumulative Shortfall/(Surplus) in Non-Solar RPO**

Particulars	Mus										
	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	
Opening	a	0	46.47	44.58	-1.19	-9.76	-12.18	-14.07	-20.06	-20.47	-27.40
Non-Solar RPO Target	b	265.64	413.43	538.53	581.81	531.00	511.77	463.33	476.04	512.85	540.71
Non-Solar RPO met	c	219.17	415.32	584.31	590.37	533.42	513.66	469.32	476.46	519.78	554.98
Standalone Shortfall/(Surplus)	d=b-c	46.47	-1.89	-45.78	-8.56	-2.42	-1.89	-5.99	-0.41	-6.93	-14.27
Cumulative Shortfall/(Surplus)	e=a+b-c	46.47	44.58	-1.19	-9.76	-12.18	-14.07	-20.06	-20.47	-27.40	-41.67

29. From the above table, it can be observed that Tata Power-D has met its Non-Solar RPO obligation till FY2019-20, with cumulative surplus of 41.67 Mus. We request the Hon'ble Commission to allow Tata Power-D to utilise this surplus Non-solar power to fulfil the Non-solar RPO obligation of FY2020-21. This is in line with order of Hon'ble Commission in Case No. 39 of 2019 dated 4th April, 2019, in which the Hon'ble Commission has allowed AEML-D to set off its previous years surplus with the shortfall in the years under consideration



i.e. FY 2017-18 as consumers have already paid for excess RPO of previous control period.

The relevant extract of the order is as shown below –

18. ...

.....

*Whenever, there is shortfall in fulfilling RPO targets, the Commission has not discharged such Obligated entity from its obligation but has allowed it to fulfill such shortfall in RPO targets on cumulative basis in upcoming years. On the similar principles and considering AEML's submission that consumers have already paid for excess RPO of previous control period, the Commission deems it appropriate to allow AEML to set off its previous years surplus with the shortfall in the years under consideration.*

#### **Mini/Micro Hydro RPO Compliance**

##### **Cumulative shortfall from FY 2010-11 to FY 2017-18**

30. We wish to submit that TPC-D has complied with the Mini/Micro Hydro RPO compliance through procurement of Non Solar REC as approved by the Hon'ble Commission from FY 2010-11 to till date. Further, it is also pertinent to state that Tata Power -D has taken significant efforts to procure energy from Mini/Micro Hydro projects by floating a tender on 25 October, 2017 for procurement of Mini/Micro Hydro power for which it has received no responses, hence Tata Power-D has met its Mini/Micro Hydro RPO target of 0.95 MUs for FY 2017-18 by purchasing Non-Solar RECs of 0.95 Mus and same is approved by the Hon'ble Commission in order in Case No. 38 of 2019 dated 2nd April, 2019.

##### **FY 2018-19**

31. It is submitted that Tata Power-D had taken efforts in FY2018-19 also, to procure energy from Mini/Micro Hydro projects by floating a tender in December, 2018. However, TPC-D



did not receive any response for the tender. Hence, it has met the Mini / Micro Hydro Obligation for FY 2018-19 through purchase of Non-Solar RECs.

32. Similar to FY2018-19, during FY2019-20, Tata Power-D has met the Mini / Micro Hydro Obligation for FY 2019-20 through purchase of Non-Solar RECs. We request the Hon'ble Commission to approve the same.

33. The status of cumulative compliance of Mini / Micro Hydro Plant is as given in the table below:

**Table 15: Status of Mini/Micro Hydro RPO Compliance till FY 2019-20**

Particulars	<i>Mus</i>										
	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	
Opening	a	0	0.27	0.68	1.22	2.38	3.45	1.55	0.00	0.00	0.00
Mini-Micro Hydro RPO Target	b	0.27	0.41	0.54	1.16	1.06	1.02	0.93	0.95	1.03	1.08
Mini-Micro Hydro RPO met	c	0	0	0	0	0	2.92	2.48	0.95	1.03	1.08
Standalone Shortfall/(Surplus)	d=b-c	0.27	0.41	0.54	1.16	1.06	-1.90	-1.55	0.00	0.00	0.00
Cumulative Shortfall/(Surplus)	e=a+b-c	0.27	0.68	1.22	2.38	3.45	1.55	0.00	0.00	0.00	0.00

**d. MERC Query –**

*TPC-D should submit 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.*

**Tata Power-D's Submission –**

34. Tata Power-D has taken the efforts to fulfill the RPO obligation of Solar, Non-Solar & Mini-Micro Hydro power. The same are explained as follows –

**Efforts taken for Solar RPO compliance of FY2018-19 –**

35. With respect to Solar RPO, we wish to submit that, Tata Power-D has met the standalone target of FY 2018-19 as well as cumulative solar target upto FY 2018-19 through



procurement of 151.10 Mus of solar power. The details of solar power procured from various sources during FY 2018-19 is as follows:

**Table 16: Sources wise Solar Power Procurement**

<i>MUs</i>	
Resources	FY 2018-19
UoM	MUs
Mulshi Solar	3.86
Solar Rooftop	0.00
Palaswadi Solar	43.53
Net Metering	3.71
REC Certificate - Solar	100.00
<b>Total</b>	<b>151.10</b>

36. in view of the above, it is observed that Tata Power-D has procured 151.10 MUs as against the total Solar RPO requirement of 144.25 Mus which includes 128.47 MUs towards meeting Solar RPO obligation of FY 2018-19 and 15.79 MUs towards meeting the shortfall RPO obligation till FY 2017-18 and has thus met its entire Solar RPO requirement till FY 2018-19 with a surplus of 6.84 MUs.

**Efforts Taken for Solar RPO compliance of FY2019-20 –**

37. With respect to Solar RPO compliance, Tata Power-D has purchased 56.83 MUs Solar Energy during FY2019-20 comprising of 46.61 MUs from long term contracted capacities, 2.83 MUs through Solar RECs, 7.31 Mus net metering units, 0.05 Mus through deemed purchase of 10% open Access banked energy, 0.03 MUs unutilised open Access energy, 2% banking charges of 0.01 Mus against the Solar RPO requirement of around 164.892 Mus, Tata Power-D has a cumulative shortfall of 101.22 Mus till FY 2019-20, considering the adjustment of surplus of 6.84 Mus of FY2018-19 in FY2019-20.

38. As per National Tariff Policy (“NTP”), 2016 notified by the Ministry of Power (“MoP”) on 28th January 2016, States are encouraged to procure power from RE sources above the notified capacity through competitive bidding to keep the Tariff low. The National



Electricity Policy (NEP), 2005 notified on 12th February 2005 also supports for Competitive Bidding in Renewable Energy.

39. Considering the initiative specified in the National Tariff Policy / National Electricity Policy to promote Renewable Power, the Hon'ble Commission had issued an order in Case No. 52 of 2019 on 30th April 2019, in the matter of Determination of Generic Tariffs for Renewable Energy for FY 2019-20 and ruled as under regarding procurement of energy from Renewable sources by Distribution Licencee for fulfilling its RPO requirement. The extract of the order is as reproduced below-

*“a. For FY 2019-20, no Generic Tariff will be determined for RE Technologies for which competitive bidding has been enabled and the Commission has adopted such competitively discovered Tariff.”*

40. In line with the same to fulfill the RPO obligation, Tata Power-D has evaluated the option of procuring Solar RE on short term basis. Tata Power-D had floated a tender in May 2019 through DEEP e-Bidding Portal, for procurement of Solar Renewable Power on short term basis through Tariff based competitive bidding process. but there was no response for the same. The copy of Invitation for Bids is attached herewith as **Annexure 3** to this submission.

41. Further, considering the future increasing solar RPO targets, Tata Power-D had put up the proposal before the Hon'ble Commission through a petition in Case No. 136 of 2019 dated 6th June 2019, to procure 150 MW solar power from grid connected solar PV power projects through Competitive Bidding Process. The Hon'ble Commission had issued an order in this case on 2<sup>nd</sup> August 2019 in which the Hon'ble Commission has accorded an approval for procurement of 150 MW Solar power from grid connected Solar PV projects for a PPA period of 25 years through Competitive Bidding process.



42. Further, Tata Power - D floated a tender on 21.08.2019 on MSTC's e-bidding 'DEEP Portal' to procure cumulative 150 MW Solar Power from grid connected solar photovoltaic project on long term basis for a period of 25 years. TPREL was declared as successful Bidder after completion of the Bidding process. Subsequently, Tata Power-D had filed a petition for adoption of Tariff and through the order in Case No. 292 of 2019 dated 4th December, 2019 the Hon'ble Commission has accorded approval for procurement of 150 MW on long term basis from grid connected Solar power project for Rs. 2.83 per unit for 25 Years.
43. Subsequent to this order, Tata Power-D signed a PPA on 3rd January 2020. Considering the timelines of this process, this project was scheduled to achieve commercial operation in FY 2021-22.
44. In line with the same to fulfill the RPO obligation Tata Power-D has started bidding for solar RECs through market every month but the Solar RECs available in market since April, 2019 were very few and the rate for purchasing RECs was very high compared to previous year. Due to limited availability of RECs with higher rates and higher demand, Tata Power-D was not able to procure the same to fulfill the Solar RPO compliance.
45. The details of monthly demand for REC procurement (Buyers), against which available RECs (Sellers), its price are shown in the Table below:

**Table 17: REC data on Indian Energy Exchange (IEX)**

REC Data at Indian Energy Exchange (IEX)							
Month	REC Type	FY 2019			FY 2020		
		Buyers (REC)	Sellers (REC)	REC Price Rs./REC	Buyers (REC)	Sellers (REC)	REC Price Rs./REC
April	Solar	644,151	2,705,722	1,000	361,606	142,148	2,000
May	Solar	393,822	2,772,666	1,000	614,170	169,438	2,000
June	Solar	288,070	2,540,984	1,000	500,995	120,044	2,000
July	Solar	808,324	2,258,417	1,000	424,546	135,029	2,000
August	Solar	216,223	1,458,702	1,000	452,334	74,731	2,100
September	Solar	2,156,459	1,461,202	1,000	630,421	72,780	2,250
October	Solar	576,535	335,003	1,001	659,128	59,944	2,400
November	Solar	852,693	229,140	1,101	472,255	36,801	2,400
December	Solar	865,574	254,012	1,450	672,090	41,204	2,400
January	Solar	589,311	241,580	1,750	1,052,954	39,413	2,400
February	Solar	567,273	688,507	1,500	1,094,700	984,157	2,400
March	Solar	686,784	305,049	2,000	213,710	39,299	2,400



46. As can be seen from the above Table, during FY 2019-20, the rate of Solar REC in the market were increasing and availability were decreasing, Hence, considering the high rates, Tata Power-D was not able to purchase sufficient quantum of solar RECs during FY 2019-20 to fulfill the Solar Renewable Purchase Obligation.

47. Further, Tata Power-D has intimated the Hon'ble Commission that Tata Power-D will be short in Solar RPO compliance for FY 2019-20 vide letter No. CREG/MUM/MERC/2020/124 dated 8th April 2020 and requested to allow Tata Power-D to represent its detailed submissions qua cumulative fulfillment of Solar RPO target for FY 2019-20 during the suo motu proceedings of RPO verification process for FY 2019-20 as per RPO Regulation, 2016. The copy of the letter is enclosed as **Annexure 4** to this submission.

#### **Efforts Taken for Non-Solar RPO compliance of FY2018-19 and FY 2019-20–**

48. Tata Power-D has met the Non-Solar obligation partly by procuring Non solar Power from existing contracted capacity already tied up to meet Non-Solar RPO and balance through procurement of Non Solar REC for FY 2018-19 and FY 2019-20. Detail of existing contracted capacity is as follows:

Sources	Contracted Capacity (MW)
Khandke	50.4
Bramhanvel	11.25
Sadawaghapur	17.5
Visapur 6 MW	6
Visapur 4 MW	4
Visapur (GSW) 24 MW	24
Visapur (GSW) 8 MW	8
Agaswadi	49.5
Total	170.65

49. During FY2018-19, Tata power-D has purchased 307.01 MUs from long term Non-Solar RE Sources and 209.93 MUs through Non-Solar REC certificates, 3.21 Mus from Unutilised OA banked energy and 0.65 Mus from 2% Banking Charges. Considering the surplus of



previous year the Tata Power-D has cumulative surplus of non-solar power of 27.40 MU's at the end of FY 2018-19 as indicated in Table No. 14.

50. During FY2019-20, Tata Power-D has purchased 316.72 Mus from long term Non-Solar RE Sources and 228.42 Mus through Non-Solar REC certificates, 5.13 Mus from deemed purchase from open access banked energy, 5.41 Mus from Unutilised OA banked energy and 0.38 Mus from 2% Banking Charges. Considering the surplus of previous year the Tata Power-D has cumulative surplus of non-solar power of 41.67 MU's at the end of FY 2019-20 as indicated in Table No. 14.

**Efforts Taken for Mini/Micro RPO compliance of FY2018-19 & FY 2019-20 –**

51. It is submitted that Tata Power-D had taken efforts to procure energy from Mini/Micro Hydro projects by floating a tender in December, 2018. However, Tata Power-D did not receive any response for the tender. Hence, it has met the Mini / Micro Hydro Obligation for FY 2018-19 through purchase of Non-Solar RECs.

52. Similar to FY2018-19, during FY2019-20, Tata Power-D has met the Mini / Micro Hydro Obligation for FY 2019-20 through purchase of Non-Solar RECs.

**e. MERC Query –**

TPC-D should submit the details for long term RE procurement plan (in MUs and corresponding MW) for meeting the future RPO targets

**Tata Power-D Submission**

57. In this regard, the details for long term RE procurement plan for meeting the future RPO targets are as follows –



- I. Tata Power-D had floated a bid to procure cumulative 150 MW Solar Power from Grid connected Solar Photovoltaic and TPREL was declared as successful Bidder. The Hon'ble Commission has granted approval for the EPA with TPREL and adopted the discovered tariff of Rs. 2.83/kWh for purchase of 150 MW Solar Power from TPREL, vide Order dated 4 December, 2019 in Case No. 292 of 2019. The generation from 150 MW capacity is expected in FY 2021-22.
  
- II. Additionally, Tata Power-D had floated a bid to procure 225 MW wind – solar hybrid power. The Hon'ble Commission had granted approval vide order in Case No. 152 of 2020 dated 10<sup>th</sup> August, 2020, for procurement of 225 MW of Wind-Solar hybrid power on long term basis (for the period of 25 years) from grid connected projects for meeting its Solar and Non-Solar RPO and allows Tata Power Company Ltd. – (Distribution) to enter into Power Purchase Agreement with the successful bidder for a period of Twenty-Five years at Rs. 2.59/kWh.

53. Above information is respectfully submitted to Hon'ble Commission for consideration as reply to this Petition. However, TPC Tata Power -D craves leave permission of Hon'ble MERC to reserve its right to amend the reply or to file additional submissions as and when required during the hearing of this Petition.

**Sd/-**  
**(Peyush Tandon)**  
**For and behalf of The Tata Power Company Limited/**

Place: Mumbai  
Date: 10<sup>th</sup> June 2021