

**Before the**  
**MAHARASHTRA ELECTRICITY REGULATORY COMMISSION**  
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**Case No. 38 of 2019**

Case for Verification of compliance of Renewable Purchase Obligation targets by Tata Power Co. Ltd. (Distribution) for FY 2017-18

**Coram**

**I.M. Bohari, Member**  
**Mukesh Khullar, Member**

**Parties**

1. Tata Power Co. Ltd. (Distribution) (TPC-D)
2. Maharashtra Energy Development Agency (MEDA)
3. Maharashtra State Load Despatch Centre (MSLDC)

**Appearance For**

- |          |                      |
|----------|----------------------|
| 1. TPC-D | : Shri.Peyush Tandon |
| 2. MEDA  | : Shri. Manoj Pise   |
| 3. MSLDC | : None               |

**ORDER**

**Date: 2 April, 2019**

1. The MERC (Renewable Purchase Obligation, its Compliance and Implementation of Renewable Energy Certificate Framework) Regulations, 2016 (**RPO Regulations 2016**) specify the Renewable Purchase Obligation (**RPO**) targets for Obligated Entities, including TPC-D as Distribution Licensee, for FY 2017-18. 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 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 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. 209 of 2017 regarding compliance of RPO targets by TPC-D for FY 2016-17, the Commission had stated as follows:

*“16. The Commission notes that TPC-D has purchased non-Solar RECs in FY 2016-17 for fulfilling its standalone target of Mini/Micro Hydro for FY 2016-17 and cumulative shortfall of 1.55 MUs till end of earlier control period i.e. FY 2015-16 as per the dispensation provided by the Commission in its Order dated 16 June, 2017 in Case No.171 of 2016.*

*17. The Commission further notes that TPCD-D has requested in its submission that it will approach the Commission for utilising the surplus of 4.47 MUs and 2.67 MUs for Solar RPO and Non-Solar RPO respectively, in future years by obtaining tradeable RECs against this surplus in line with CERC REC Regulations (Third Amendment), 2014 and MERC Order in Case 171 of 2016 in the matter of RPO Verification of TPC-D for FY 2015-16. The Secretariat of the Commission had issued the certificate to TPC-D in prescribed format for excess of Solar and non-Solar energy procurement in FY 2015-16 on 14 December, 2017 in line with the*

direction given by the Commission in its Order dated 16 June, 2017 in Case No 171 of 2016. TPC-D may explore the option of obtaining the Certificate for tradable RECs against surplus Solar and non-Solar energy procurement in FY 2016-17.

6. In accordance with Regulation 9.5, MEDA, vide its letter dated 21 July, 2018, submitted the RPO settlement data for FY 2017-18 in respect of TPC-D. TPC-D's RPO compliance position for this period as submitted by MEDA is summarized below:

**TABLE 1: RPO Settlement Data for TPC-D as furnished by MEDA**

RPO settlement data for TPC-D as furnished by MEDA						
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	%	
<b>Gross Energy consumption</b>		100%	4641.268	100%	4542.747	
<b>Solar RPO</b>						
Target	139.86	1.00%	46.413	2.00%	90.855	277.128
Achivement	140.08	1.10%	50.982	1.55%	70.20	261.262
Shortfall/(Surplus)	-0.22	-0.098%	-4.569	0.45%	20.655	15.866
<b>Non-Solar RPO</b>						
Target	2842.18	10.00%	464.127	10.50%	476.988	3783.295
Achivement	2856.250	10.11%	469.289	9.56%	434.235	3759.774
Shortfall/(Surplus)	-14.070	-0.11%	-5.162	0.94%	42.753	23.521
<b>Mini-Micro RPO (Within Non-Solar)</b>						
Target	4.470	0.20%	0.928	0.20%	0.95	6.35
Achivement	2.92	0.53%	2.481	0.20%	0.95	6.35
Shortfall/(Surplus)	1.550	-0.33%	-1.553	0.00%	0.00	0.00

7. According to MEDA, TPC-D has not fulfilled its Solar, Non-Solar RPO targets but has fulfilled its Mini /Micro Hydro Power RPO targets of FY 2017-18.

8. The Commission asked TPC-D to submit its response to the data furnished by MEDA. In its response dated 14 November, 2018, TPC-D stated as follows:

- 8.1 As regards the discrepancies between the data submitted by MEDA and TPC-D, it is stated that:

- i) The difference in Energy Requirement at InSTS as compared to that reported by MEDA is on account of the fact that Changeover Sales have been revised based on the monthly settlement of energy between TPC-D and RInfra-D, transmission loss figures have been revised based on the revision from MSLDC. Further, the energy requirement will be finalized once the final FBSM bills will be issued by MSLDC. The revised provisional Energy Requirement of TPC-D at InSTS in FY 2017-18 is 4542.689 MUs. The discrepancy in the RPO targets for Solar, Non-Solar and Mini/Micro Hydro is primarily arising out of discrepancy in energy requirement of TPC-D at the InSTS.

ii) The discrepancy in the RPO achievement for non-Solar has been observed. The total non-Solar Renewable Energy Certificates (**RECs**) procured by Tata Power-D during FY 2017-18 were 54.968 MUs however, the number reflected in the MEDA letter is 12.968 MUs which is creating a discrepancy of 42.92 MUs. TPC-D had purchased non-Solar RECs equivalent to 22 MUs and 20 MUs in January and February respectively and the same was included in TPC-D submission to MEDA. However, due to an inadvertent formula error the total of RECs purchased from Exchange showed only the MUs purchased in March, 2018 (12.968 MUs) as against the correct quantum of 54.968 MUs.

8.2 The status of Solar, non-Solar RPO compliance including Mini-Micro Hydro RPO compliance, as per the directives of the Commission's earlier Orders is as follows:

For Solar RPO Compliance – FY 2010-11 to 2016-17- In the case of Solar RPO obligation, TPC-D had already met the cumulative shortfall of FY 2010-11 to FY 2013-14 in the year FY 2015-16. Further, the standalone Solar RPO target for FY 2015-16 and FY 2016-17 was already been met with a surplus of 44.05 MUs and 4.471 MUs respectively. The standalone Solar RPO target for FY 2017-18 is 90.85 MUs and the standalone Solar RPO achievement is 79.20 MUs resulting in a standalone shortfall of 20.65 MUs. The process of obtaining tradeable RECs against the cumulative surplus of 0.22 MUs for FY 2015-16 and 4.47 MUs for FY 2016-17 is underway and subject to change, post actual utilization of this surplus in appropriate financial years.

For non-Solar Compliance- FY 2010-11 to 2016-17- In case of non-Solar RPO obligation TPC-D had already met the cumulative shortfall in the year FY 2013-14 & standalone target for FY 2014-15. In the case of FY 2015-16, TPC-D has already met the Non-Solar RPO target with standalone surplus of 1.89 MUs. In the case of FY 2016-17, TPC-D has met the Non-Solar RPO target with standalone surplus of 4.226 MUs. TPC-D has met the total requirement of Non-Solar RE obligation for FY 2017-18 through procurement of RE power to the tune of 269.58 MUs and balance through 207.57 MUs through REC purchase.

Mini/Micro Hydro Compliance- Cumulative shortfall from FY 2010-11 to 2015-16 and FY 2016-17 - The opening balance for cumulative shortfall upto FY 2015-16 was 1.55 MUs. The Commission in its Order dated 16 June, 2017 in Case No. 171 of 2016, has allowed TPC-D to purchase non-Solar RECs in the FY 2016-17 to meet the cumulative shortfall of 1.55 MUs remaining for the period till FY 2015-16. Accordingly, TPC-D has met the cumulative short fall in its Mini/Micro Hydro RPO compliance shortfall till FY 2015-16 through purchase of Non-Solar RECs during the year FY 2016-17. TPC-D has standalone surplus of Mini-Micro in FY 2016-17. TPC-D has met its Mini/Micro Hydro RPO target of 0.95 MUs for FY 2017-18.

8.3 As regards the action taken prior to and during FY 2017-18 to meet the RPO targets and long term RE procurement plan for meeting the RPO targets for FY 2018-19:

## Solar RPO

With respect to Solar RPO for 2017-18, TPC-D has a standalone shortfall of 20.65 MUs in FY 2017-18. The demand of TPC-D is fluctuating due to consumers moving away from TPC-D to avail Open Access and also the movement of Changeover consumers from TPC-D to RInfra-D. Hence, TPC-D is purchasing RE power through its current contracted capacity of 28.06 MW on long term basis and balance requirement through RECs. Accordingly, TPC-D had purchased 20,000 RECs or 20 MUs equivalent in the month of April, 2017 and had planned to purchase additional RECs in the month of May, 2017. However, due to the suspension in trading of Solar RECs by the Supreme Court, TPC-D was not able to purchase Solar RECs required to meet its Solar RPO.

Tata Power-D has requested Commission to allow it to fulfill its Solar RPO targets for FY 2017-18 cumulatively in FY 2018-19.

With respect to Solar RPO for 2018-19- Considering the approved sales of TPC-D of 4648.18 MUs, the total Solar RPO requirement would be around 127.82 MUs considering 2.75% Solar RPO obligation. TPC-D has contracted 28.06 MW capacity from three sources, which will be used to meet Solar RPO for FY 2018-19. Through these long-term tie-ups, TPC-D is expected to meet most of its Solar RPO. Further, TPC-D is exploring the option of meeting its balance requirement through additional long-term and short-term tie-ups/REC. In addition to the above, the Commission in its Orders dated 16 June, 2017 in Case 171 of 2016 and 31 July, 2018 in Case No 209 of 2017, has allowed TPC-D to explore the option of obtaining tradeable RECs against excess achievement over the RPO target by applying to the Central Agency.

## Non –Solar RPO:

Considering the approved sales of TPC-D of 4648.18 MUs, the total Non-Solar RPO requirement would be around 511.30 MUs considering 11.00% Non-Solar RPO obligation. TPC-D has met the Non-Solar obligation for FY 2017-18 and has sufficient contracted capacity (170.65 MW) which has already been tied up to meet Non-Solar RPO for FY 2018-19. Further, TPC-D is exploring the option of meeting its balance requirement through additional long-term and short-term tie-ups/RECs. Also, TPC-D will explore the option of obtaining tradeable RECs against its excess achievement over the RPO target by applying to the Central Agency and will utilize these RECs in FY 2018-19 or in future years as required.

## Mini-Micro Hydro RPO:

TPC-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. For FY 2018-19 TPC-D is exploring the option of meeting its balance requirement through additional long-term and short-term tie-ups/REC. Any shortfall in Mini/Micro Hydro RPO achievement in FY 2017-18 will be met through purchase of Non-Solar RECs.

## **Regulatory Process**

9. Through a Public Notice dated 21 February, 2019 published in the Loksatta and Maharashtra Times (Marathi) and Times of India and Indian Express (English) daily newspapers, the Commission invited suggestions and objections while considering the submissions of MEDA and TPC-D. The Commission also impleaded MEDA and MSLDC as Parties. A Public Hearing was held on 16 March, 2019 in the Office of the Commission at World Trade Centre, Cuffe Parade, Mumbai.
10. The summary of RPO compliance of TPC-D for FY 2017-18, based on details provided by MEDA and TPC-D, is at Annexure-1 of this Order. The list of persons who gave their comments in writing or who 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 the same day in respect of the other Distribution Licensees also.)
11. At the Public Hearing, TPC-D reiterated the points regarding its compliance of RPO targets made in its written submissions.

## **Suggestions/Objections received (including those presented orally at the Public Hearing)**

12. Dr. Ashok Pendse of Thane-Belapur Industries Association (**TBIA**) in his email dated 27 February 2019 has stated that:
  - i) No serious effort has been made by Distribution Licensees for buying RECs from IEX.
  - ii) As per recent letter of Ministry of Power, Government of India, (MoP) dated 1.2.2019, Captive Power Plants (CPPs) have RPO obligation for the year in which it was commissioned. Since most CPPs have been commissioned prior to 2011, almost all CPPs will not have RPO. This needs to be established by MEDA. Further Dr. Pendse has prayed as under:
    - a. No crossover of RPO be allowed, if done, suitable fine should be levied.
    - b. MEDA to verify compliance in the light of new order of MoP on status of RPO compliance of CPPs.

## **Commission's Analysis and Ruling**

13. The Commission notes that the submission made by TPC-D in its submission dated 14 November, 2018 has been reaffirmed by MEDA vide its letter dated 14 March, 2019 accepting some minor change in actual data submitted by TPC-D for Gross Energy Consumption and the quantum of Non-solar RECs purchased by TPC-D. The Commission has considered the data submitted by TPC-D as explained in the subsequent para of this Order. The status of achievement of RPO targets by TPC-D, as approved by the Commission based on the details provided by MEDA and TPC-D, is shown in Table-3 below:



**Table 3: RPO Settlement Details for TPC-D, as approved by Commission**

RPO settlement data for TPC-D (Approved)						
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	
<b>Gross Energy consumption</b>		100%	4650.940	100%	4542.689	
<b>Solar RPO</b>						
Target	139.86	1.00%	46.509	2.00%	90.854	277.223
Achivement	140.08	1.10%	50.980	1.55%	70.200	261.260
Shortfall/(Surplus)	-0.22	-0.096%	-4.471	0.45%	20.654	15.963
<b>Non-Solar RPO</b>						
Target	2842.18	10.00%	465.094	10.50%	476.982	3784.256
Achivement	2856.250	10.09%	469.320	10.504%	477.150	3802.720
Shortfall/(Surplus)	-14.070	-0.09%	-4.226	-0.004%	-0.168	-18.464
<b>Mini-Micro RPO (Within Non-Solar)</b>						
Target	4.470	0.20%	0.930	0.20%	0.95	6.35
Achivement	2.92	0.53%	2.481	0.20%	0.95	6.35
Shortfall/(Surplus)	1.550	-0.33%	-1.551	0.00%	0.00	0.00

*'-' or ( ) indicates surplus*

14. The Commission notes that TPC-D has

- i. Fallen short of its stand-alone Solar RPO target by 20.654 MUs for FY 2017-18, and has a cumulative shortfall of 15.963 MUs
- 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.
- iii. Fulfilled its stand-alone Mini/Micro target of FY 2017-18 and fulfilled cumulative target till FY 2017-18.

15. The Commission notes that TPC-D had standalone and cumulative surplus of Solar RPO targets from FY 2013-14 till FY 2016-17. The Commission in its Order dated 16 June, 2017 in Case No.171 of 2016 and Order dated 31 July, 2018 in Case No 209 of 2017 has allowed TPC-D to explore the option of obtaining tradeable RECs against excess achievement over the RPO target by applying to the Central Agency. The Commission vide its letter dated 14 December, 2017 and 4 February, 2019 had issued certificates in prescribed format to obtain tradeable RECs for 0.22 MUs (surplus in FY 2015-16) and 4.471MUs (surplus in FY 2016-17) respectively for Solar RPO. TPC-D in its submission has stated that it is under the process of obtaining tradeable RECs. Considering the fact that TPC-D has not obtained tradeable RECs till the date of its submission, the Commission for the time being has not deducted that quantum for calculating the cumulative surplus/shortfall till end of FY 2017-18 as shown in the table. However, the Commission will review that quantum and provide appropriate treatment in RPO verification for FY 2018-19.

16. The Commission further notes that TPC-D has shortfall of its stand-alone Solar RPO target by 20.654 MUs for FY 2017-18 and has requested the Commission to allow it to fulfill this shortfall of FY 2017-18 cumulatively by FY 2018-19. Such shortfall was on account of closure of Trading Window on Power Exchange as directed by the Hon'ble Supreme Court. Under such circumstances, the Commission allows TPC-D to fulfill its Solar RPO during FY 2018-19.
17. The Commission notes that TPC-D has fulfilled its non-Solar RPO target with a surplus of 0.168 MUs for FY 2017-18 by procuring RE power of 269.58 MUs and 207.57 MUs of RECs. Similarly TPC-D has exactly fulfilled its Mini-Micro RPO targets for FY 2017-18. The Commission has issued the certificate for tradeable non-Solar RECs also, however as set out in para 15 of this Order the Commission has not deducted the quantum of non-Solar tradeable RECs to be obtained by TPC-D, from the Cumulative surplus/shortfall till end of FY 2017-18 as shown in the table. However, the Commission will review that quantum and provide appropriate treatment in RPO verification for FY 2018-19.

#### *Other Issues*

18. As regards suggestion of TBIA, that crossover of RPO obligation should not be allowed, the Commission in its Order dated 2 January, 2013 in Case No 109 of 2012 has not accepted the interchangeability of Solar and non-Solar RPO targets. Similarly, in its Order dated 12 December, 2017 in Case No 108 of 2016 the Commission has not accepted the merging of Solar and non-Solar RPO targets. As regards the issue of RPO compliance of CPPs in the light of clarification issued by MoP vide letter dated 1 February, 2019, the Commission notes that obligated entities have to comply with RPO as specified in the Regulations. The Commission will initiate the next proceedings of RPO Compliance for three years starting from FY 2014-15 to FY 2016-17 once the consolidated data of OA Consumers and CPP Users is received from MEDA. Any impact of MoP's clarification can be dealt with during proceedings of RPO compliance of OA consumers and CPP users or through amendment of Regulations as deemed appropriate at that time.
19. Hence, the following Order:

### **ORDER**

#### **1) The Case No. 38 of 2019 stands concluded with following ruling:**

- a) **Tata Power Co. Ltd. (Distribution) has standalone shortfall for Solar RPO 20.654 MUs for FY 2017-18, and has a cumulative shortfall of 15.963 MUs**
- b) **Tata Power Co. Ltd. (Distribution) has 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.**
- c) **Tata Power Co. Ltd. (Distribution) has fulfilled its stand-alone Mini/Micro target of FY 2017-18 and has fulfilled cumulative target till FY 2017-18.**

#### **2) Tata Power Co. Ltd. (Distribution) is directed as follow:**



- a. **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.**

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

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



**Annexure – 1**

**Summary of RPO compliance by TPC-D for FY 2017-18, as submitted by MEDA and TPC-D  
(in MUs)**

<b>TPC-D's RPO status for FY 2017-18</b>	<b>Gross Energy Consumption</b>	<b>Solar RPO Target (2%)</b>	<b>Solar RPO Achievement</b>	<b>Solar RPO Shortfall/ (surplus)</b>	<b>Non-Solar RPO Target (10.50 %)</b>	<b>Non-Solar RPO Achievement</b>	<b>Non-Solar RPO Shortfall/ (Surplus)</b>	<b>Mini/Micro Hydro target (0.2%) within Non-Solar RPO</b>	<b>Mini/Micro Hydro RPO Achievement</b>	<b>Mini/Micro Hydro Shortfall/ (Surplus)</b>
As per MEDA	4542.747	90.855	70.20	20.655	476.988	434.235	42.753	0.95	0.95	0.00
As per TPC-D	4542.689	90.854	70.20	20.654	476.982	477.150	(0.168)	0.95	0.95	0.00

## Annexure -2

### **A] List of those who submitted written comments/suggestions or made oral submissions at the Public Hearing**

1. Dr. Ashok Pendse, Thane- Belapur Industries Association

### **B] List of persons at the Public Hearing:**

1. Ms. Kavita Gharat, MSEDCL
2. Shri. Harshal Patil, MSEDCL
3. Shri. N. P. Jagaldas, BEST
4. Shri. S.A.Jadhav, BEST
5. Shri. S.D. Bamane, BEST
6. Shri. Peyush Tondon TPC-D
7. Shri. R M Ranade, TPC-D
8. Shri. Ganesh Shriniwas, TPC-D
9. Shri Ghanshyam Thakkar, AEML
10. Shri. Kishor Patil AEML
11. Shri. Abaji Naralkar, AEML
12. Smt. Vinita Melvin Eternity Legal for Indian Railway
13. Shri. Mayur Wasnik, Indian Railway
14. Shri Kaushalesh Singh Indian Railway
15. Shri.Vikram Yermalkar, Mindspace Business Park Pvt. Ltd. & Gigaplex Estate P Ltd.
16. Shri. Nikhil Chauganjkar, Mindspace Business Park Pvt. Ltd. & Gigaplex Estate P Ltd
17. Shri. Manoj Pise, MEDA
18. Shri. Arif H.Shaikh, MEDA
19. Shri. Vijay V. Pawar, MEDA