

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
13th Floor, Centre No.1, World Trade Centre, Cuffe Parade, Mumbai - 400 005
Tel: 022-22163964/65/69 Fax: 022-22163976
E-mail: mercindia@merc.gov.in
Website: www.merc.gov.in / www.mercindia.org.in

Case No. 193 of 2014

In the matter of

**Verification of compliance of Renewable Purchase Obligation targets by Reliance
Infrastructure Ltd. for FY 2013-14**

CORAM

Smt. Chandra Iyengar, Chairperson
Shri. Azeez M. Khan, Member
Shri. Deepak Lad, Member

Parties

1. Reliance Infrastructure Ltd. (RInfra)
2. Maharashtra Energy Development Agency (MEDA)
3. Maharashtra State Load Despatch Centre (MSLDC)

Appearance

- | | | |
|---------------|---|-------------------------|
| 1. For RInfra | : | Ghansham Thakkar (Rep.) |
| 2. For MEDA | : | Dr. J.V Torane |
| 3. For MSLDC | : | Shri. Jayant Kulkarni |

ORDER

Date: 27th April, 2015

1. The Commission has notified the Maharashtra Electricity Regulatory Commission (Renewable Purchase Obligation, its Compliance and Implementation of Renewable Energy Certificate Framework) Regulations, 2010 ('RPO-REC Regulations') on 7 June,

2010. These Regulations specify the Renewable Purchase Obligation (RPO) targets for Obligated Entities, including Reliance Infrastructure Ltd., as a Distribution Licensee, for FY 2010-11 to FY 2015-16. The specified RPO targets are as below:

<i>Year</i>	<i>Minimum quantum of purchase (in %) from Renewable Energy sources (in terms of energy equivalent in kWh)</i>		
	<i>Solar</i>	<i>Non-Solar (other RE)</i>	<i>Total</i>
<i>2010-11</i>	<i>0.25%</i>	<i>5.75%</i>	<i>6.0%</i>
<i>2011-12</i>	<i>0.25%</i>	<i>6.75%</i>	<i>7.0%</i>
<i>2012-13</i>	<i>0.25%</i>	<i>7.75%</i>	<i>8.0%</i>
<i>2013-14</i>	<i>0.50%</i>	<i>8.50%</i>	<i>9.0%</i>
<i>2014-15</i>	<i>0.50%</i>	<i>8.50%</i>	<i>9.0%</i>
<i>2015-16</i>	<i>0.50%</i>	<i>8.50%</i>	<i>9.0%</i>

The Regulations also stipulate that

“Further, the Distribution Licensee (s) are also mandated to procure 0.1% per year of their Non-Solar (other RE) RPO obligation for the period from FY 2010-11 to FY 2012-13 and up to 0.2% of their Non-Solar (other RE) RPO obligation for the period from FY 2013-14 to FY 2015-16 by way of purchase from Mini Hydro or Micro Hydro power project.”

2. Regulation 12 of the RPO-REC Regulations empowers the Commission to deal with shortfall 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. The Commission, through its *suo moto* Order dated 1 July, 2010 in Case No. 21 of 2010, designated the Maharashtra Energy Development Agency (MEDA), Pune as the State Agency to undertake the functions envisaged under the Regulations.
4. As per Regulation 10.4 of the RPO-REC Regulations, 2010, a Distribution Licensee is obliged to submit, at the end of each financial year, a detailed statement of energy

procurement from various Renewable Energy (RE) sources, duly certified by the auditors.

5. Vide its Order dated 6 March, 2014 in Case No. 183 of 2013 in *suo-moto* proceedings regarding compliance of RPO targets by RInfra, cumulatively for three years i.e. FY 2010-11, FY 2011-12 and FY 2012-13 the Commission directed as follows:

“24. The Commission has observed that RInfra-D has fulfilled its cumulative Solar RPO target with surplus of 2.13 MUs and Non-Solar RPO target with surplus of 9.29 MUs except Mini-Micro hydro RPO targets.

25. The Commission decides that cumulative shortfall in procurement of power from Mini/Micro hydro sources during FY 2010-11 to FY 2012-13 shall be carry forward to FY 2015-16. Thus the Commission hereby relaxes/waives the provisions of Regulation 7 of the MERC (RPO-REC) Regulations, 2010 for the year during FY 2010-11 to FY 2012-13 for procurement of power from Mini/Micro hydro sources.

26. The Commission directs RInfra-D to fulfil the shortfall in RPO targets for Mini/Micro hydro for FY 2010-11 to FY 2012-13 for FY 2015-16 cumulatively before 31 March, 2016.

27. The Commission also decides that no Regulatory charges shall be applicable on RInfra-D for non-fulfilment of RPO targets for Mini/Micro hydro during FY 2010-11 to FY 2012-13 provided that the same shall be fulfilled on a cumulative basis in addition to the RPO target for FY 2013-14 to FY 2015-16 before 31 March, 2016.”

6. In accordance with Regulation 9.6 of the RPO-REC Regulations, MEDA, vide its letter dated 18 September, 2014 submitted the RPO settlement data cumulatively by FY 2013-14, i.e. cumulatively for the four years FY 2010-11 to FY 2013-14, for the Distribution Licensees, including RInfra. The RPO compliance details of RInfra for FY 2010-11 to FY 2013-14 as submitted by MEDA is summarised below:

Table A: RPO settlement data for RInfra as furnished by MEDA

Item	FY 2010-11		FY 2011-12		FY 2012-13		FY 2013-14		RPO (Surplus) / Shortfall MUs
	%	MUs	%	MUs	%	MUs	%	MUs	
		(a)		(b)		(c)		(d)	
Gross Energy consumption in Mus	100	8600.18	100	7445.73	100	7334.57	100	7511.12	
Solar RPO Target	0.25	21.50	0.25	18.61	0.25	18.34	0.5	37.56	
Solar RPO Met	0.00	0.00	0.01	0.46	0.82	60.13	0.93	69.60	
Solar RPO (surplus)/shortfall		21.50	0.24	18.15	(0.57)	(41.79)	(0.43)	(32.04)	(32.04)
Non Solar RPO Target	5.75	494.51	6.75	502.59	7.75	568.43	8.5	638.44	
Non Solar RPO Met	6.80	584.51	4.69	349.47	8.73	640.84	8.57	643.49	
Non Solar RPO (surplus)/shortfall	(1.05)	(90.00)	2.06	153.12	(0.99)	(72.41)	(0.07)	(5.05)	(5.05)

Item	FY 2010-11		FY 2011-12		FY 2012-13		FY 2013-14		RPO (Surplus) / Shortfall
	%	MUs	%	MUs	%	MUs	%	MUs	MUs
		(a)		(b)		(c)		(d)	
Mini/Micro Hydro Target (within Non Solar RPO target)	0.10	0.49	0.10	0.50	0.10	0.57	0.2	1.28	2.84 (cumulative)
Mini/Micro Hydro Target Met	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mini/Micro Hydro RPO (surplus)/shortfall (within Non Solar RPO Target)	0.10	0.49	0.10	0.50	0.10	0.57	0.2	1.28	2.84 (cumulative shortfall)

7. MEDA has submitted that RInfra has fulfilled its Solar and Non-solar RPO targets for FY 2013-14 with surplus procurement of 32.04 MUs and 5.05 MUs respectively. However, there is shortfall in meeting the cumulative Mini/Micro Hydro RPO target, within the Non-Solar RPO target, by the end of FY 2013-14.

8. Since FY 2013-14 had already elapsed, the Commission decided to initiate *suo moto* proceedings for verification of compliance of RPO targets by RInfra and undertake actions in accordance with Regulation 12 of the RPO-REC Regulations. Accordingly, vide Notice dated 24 November, 2014, the Commission directed RInfra to submit its response to the data furnished by MEDA within two weeks.

9. In response, vide its affidavit dated 15 December, 2014, RInfra submitted as follows:

9.1. MEDA has considered figures of Gross Energy Consumption (GEC) for FY 2013-14 as per the submission of RInfra vide letter dated 12 June, 2014. However, due to revision of the Final Balancing and Settlement Mechanism (FBSM) statement by the Maharashtra State Load Despatch Centre (MSLDC), the GEC for FY 2013-14 is 7517.52 MUs. Accordingly, the revised information for FY 2013-14 is as follows:

(in MUs)

GEC	Solar RPO			Non-Solar RPO			Mini /Micro Hydro RPO		
	Target	Met	(Surplus)/Shortfall	Target	Met	(Surplus)/Shortfall	Target	Met	(Surplus)/ Shortfall
7517.52	37.59	69.60	(32.01)	638.99	643.49	(4.50)	1.28	0.00	1.28

9.2. RInfra has submitted detailed statements of Project-wise energy procurement (in MUs) from Solar and Non-Solar RE sources during FY 2013-14, duly audited. RInfra has fulfilled its Solar and Non-Solar RPOs for FY 2013-14. Any shortfall in Non-Solar RPO procurement has been met by purchase of Non-Solar Renewable Energy Certificates (RECs) from Power Exchanges. However, there has been no procurement of Mini/Micro Hydro Power from FY 2010-11 to FY 2013-14 due to its non-availability in the RInfra area of supply, and because all Mini/Micro Hydro Projects

are connected at 11 KV level to the network of the Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL).

- 9.3. For the period FY 2010-11 to FY 2013-14, there is a cumulative shortfall of 2.84 MUs against the Mini/Micro Hydro RPO target. RInfra has issued Expressions of Interest (EoI) from time to time for purchase of RE power from Mini/Micro Hydro sources, but no offers were received. All Mini/Micro Hydro stations are situated in the MSEDCL Licence area and, owing to their size, many are connected at very low voltage level to its distribution system. Hence, developers prefer to sell power to MSEDCL considering the need to obtain Open Access permissions otherwise and higher distribution losses and wheeling charges.
- 9.4. Shortfall in Mini/Micro hydro RPO cannot be met through purchase of RECs since there is no separate category for the purpose under in the Non-Solar REC framework.
- 9.5. RInfra has entered into a long term Energy Purchase Agreement (EPA) with Dhursar Solar Power Pvt. Ltd. for 40 MW to meet its Solar RPO. For its Non-Solar RPO, RInfra has entered into a 121.875 MW EPA, which comprises 117.375 MW of Wind power and 4.5 MW of Small Hydro power.
- 9.6. In its Order dated 6 March, 2014 in Case No. 183 of 2013, the Commission allowed RInfra to meet its Mini/Micro Hydro target on a cumulative basis for the Control Period FY 2010-11 to FY 2015-16 by 31 March, 2016. RInfra is continuing to make efforts to meeting its Mini/Micro Hydro target.
- 9.7. RInfra has entered into long term contracts to meet its RPO targets for FY 2014-15 and 2015-16. Any shortfall would be met by purchase of RECs.

Regulatory Process

10. Vide Public Notice dated 27 February, 2015 published in the Loksatta and Lokmat (Marathi), and Times of India and Indian Express (English) daily newspapers, the Commission invited suggestions and objections considering the submissions made by MEDA and RInfra. The Commission also impleaded MEDA and MSLDC as Parties. A Public Hearing was held on 23 March, 2015 in the Office of the Commission at the World Trade Centre, Cuffe Parade, Mumbai.
11. The summary of RPO compliance of RInfra for FY 2013-14 based on details submitted by MEDA and RInfra is at Annexure-1. The list of persons who submitted their comments/suggestions in writing or made oral submissions during the Public Hearing is at Annexure-2 (A). The list of persons present at the Public Hearing is at Annexure-2(B).
12. At the Public Hearing, RInfra made a presentation regarding its compliance of RPO targets, and reiterated the points made in its written submissions. RInfra sought that the shortfall in Min/Micro Hydro be permitted to be fulfilled on a cumulative basis by the end of FY 2015-16.

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

13. Vide letter dated 10 March, 2015, Hydro Power Association (India) submitted that, in order to meet the RPO targets, Distribution Licensees need to make more source-wise

efforts and be more transparent in their processes. Standard draft of EPA and other documents should be publicized. Project-wise contracted capacity and monthly energy fed into grid should be made available by each Distribution Licensee separately for small Hydro Projects and Mini/Micro Hydro Projects.

14. Vide letter dated 18 March, 2015, Power Exchange India Limited (PXIL) submitted that, with better forecasting and scheduling, Distribution Licensees should endeavour to meet their obligations well in advance rather than resorting to last minute efforts in order to avoid a penalty. Fulfilment of RPO on a quarterly rather than yearly basis was suggested so as to avoid a greater financial burden during the latter half of the financial year.
15. PXIL submitted further that the actual energy consumption report for the financial year is available from MSLDC in April/May of the next financial year. Hence, the Distribution Licensees should be allowed time till the first quarter of the subsequent financial year to purchase RECs from the Power Exchanges and fulfill their RPO targets. While the Licensees have submitted that there is a dearth of long-term RE suppliers, purchase of RECs on the Power Exchanges will ensure compliance of yearly RPO targets.
16. Shri T.P. Vartak, Four Eyes Research Pvt. Ltd., submitted that special consideration should be given to Mini/Micro Hydro Projects. He refuted the contention that Mini/Micro Hydro Projects are not available or that their developers did not respond to EoIs. Sufficient potential for Mini/Micro hydro projects exists in the State. However, due to connectivity issues at LT level of distribution network, such potential has largely not been exploited. Distribution Licensees should co-operate to harness the available Mini/Micro Hydro potential in Maharashtra.

Commission's Analysis and Ruling

17. **The status of achievement of RPO targets by RInfra, based on the details provided by MEDA and subsequent submissions by RInfra, and the shortfall in meeting the Mini/Micro Hydro RPO targets for FY 2010-11 to FY 2013-14 and carried forward to subsequent years, is shown in Table B below:**

Table B: RPO Settlement details for RInfra:

Item	FY 2010-11		FY 2011-12		FY 2012-13		FY 2013-14		Total Achievement (Surplus)* /Shortfall MUs
	%	MUs	%	MUs	%	MUs	%	MUs	
		(a)		(b)		(c)		(d)	
Gross Energy Consumption	100%	8600.18	100%	7445.73	100%	7334.57	100%	7517.52	
<u>Solar RPO</u>									
Target	0.25%	21.50	0.25%	18.61	0.25%	18.34	0.5%	37.59	
Achievement	0.00%	0.00	0.01%	0.46	0.82%	60.13	0.93%	69.60	
(Surplus) / Shortfall		21.50	0.24%	18.15	(0.57)%	(41.79)	(0.43%)	(32.01)	(32.01) Surplus

Item	FY 2010-11		FY 2011-12		FY 2012-13		FY 2013-14		Total Achievement (Surplus)* / Shortfall
	%	MUs	%	MUs	%	MUs	%	MUs	MUs
		(a)		(b)		(c)		(d)	
<u>Non-Solar RPO</u>									
Target	5.75%	494.51	6.75%	502.59	7.75%	568.43	8.5%	638.99	
Achievement	6.80%	584.51	4.69%	349.47	8.73%	640.84	8.57%	643.49	
(Surplus) / Shortfall	(1.05)%	(90.00)	2.06%	153.12	(0.99)%	(72.41)	(0.07%)	(4.50)	(4.50) Surplus
<u>Mini-Micro RPO (Within Non-Solar)</u>									
Target	0.10%	0.49	0.10%	0.50	0.10%	0.57	0.2%	1.28	2.84 (cumulative)
Achievement	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00
(Surplus) / Shortfall	0.10%	0.49	0.10%	0.50	0.10%	0.57	0.2%	1.28	2.84 (shortfall)

Note: () indicates surplus

18. The Commission notes that RInfra has fulfilled its Solar and Non-Solar RPO targets, but not its Mini /Micro Hydro Power targets (within the Non-Solar RPO targets), for FY 2013-14. In fact, the Solar and Non-Solar RPO targets for FY 2013-14 have been exceeded by 32.01MUs and 4.50 MUs respectively.

19. Regarding RInfra's Mini/Micro Hydro RPO targets, the Commission had directed in its Order dated 6 March, 2014 in Case No 183 of 2013 as follows:

“21. The Commission directs RInfra-D to fulfil the shortfall in RPO targets for Mini/Micro hydro for FY 2010-11 to FY 2012-13 for FY 2015-16 cumulatively before 31 March, 2016.”

20. The Commission notes the efforts being made and action being taken by RInfra to fulfill its Mini/Micro Hydro RPO target, and its difficulties in achieving it so far. Along the same lines as directed by the Commission in its earlier Order in Case No. 183 of 2013, the Commission directs RInfra to make up for past shortfalls, including the shortfall in FY 2013-14, by fulfilling its Mini/Micro Hydro RPO target on a cumulative basis by the end of FY 2015-16.

21. The Commission had decided earlier that no Regulatory Charges would be applied to RInfra for non-fulfilment of Mini/ Micro Hydro RPO targets during FY 2010-11 to FY 2012-13, and the shortfall was allowed to be cumulatively fulfilled by 2015-16. Considering the facts and circumstances, and along the same lines, the Commission is of the view that imposition of such Regulatory Charges is not called for in respect of the shortfall in FY 2013-14 either.

22. While appreciating the objective behind PXIL's suggestion that RPO targets be met on a quarterly rather than yearly basis, the Commission notes that the present RPO-REC Regulations specify annual targets. As regards purchase of RECs in the first quarter of the subsequent year to meet the shortfall that may

become evident only after the end of a particular year, the Commission notes that it has so far been dealing with shortfalls by allowing, on merits, fulfillment of targets on a cumulative basis in subsequent years.

23. As regards the points made by the Hydro Power Association and Shri Vartak of Four Eyes Research Pvt. Ltd. concerning Mini and Micro Hydro Projects, the Commission has partly addressed some concerns in its Orders dated 27 October and 31 July, 2014 in Case Nos. 73 and 77 of 2014, respectively.
24. With regard to monitoring and dissemination of information, the Commission notes that the latest period for which data has been displayed on the MEDA website relates to the third quarter of FY 2013-14, with no data from MSEDCL. The Commission reiterates the directions in its recent Orders in Case Nos. 191 and 192 of 2014, namely that the Monitoring Committee constituted under Regulation 13.1 of the RPO-REC Regulations meet (including MEDA, and an officer of the Commission as invitee) to resolve issues relating to regular RPO compliance reporting and publication so that MEDA can fulfil the requirements under Regulations 9.3 to 9.6; and that MSLDC should submit the outcome of the meeting(s) to the Commission within one month.

The *suo moto* proceedings in Case No. 193 of 2014 stand concluded accordingly.

Sd/-
(Deepak Lad)
Member

Sd/-
(Azeez M. Khan)
Member

Sd/-
(Chandra Iyengar)
Chairperson

Annexure – 1

Summary of RPO compliance by RInfra for FY 2013-14, as submitted by MEDA and RInfra

(in MUs)

RInfra RPO status for FY 2013-14	Gross Energy Consumption	Solar RPO Target (0.5%)	Solar RPO Achievement	Solar RPO Shortfall/(surplus)	Non-Solar RPO Target (8.5%)	Non-Solar RPO Achievement	Non-Solar RPO Shortfall/(Surplus)	Mini/Micro Hydro target (0.2%) within Non-Solar RPO	Mini/Micro Hydro RPO Achievement	Mini/Micro Hydro Shortfall/(Surplus)
As per MEDA	7511.12	37.56	69.60	(32.04)	638.45	643.49	(5.04)	1.28	0.00	1.28
As per RInfra	7517.52	37.59	69.60	(32.01)	638.99	643.49	(4.50)	1.28	0.00	1.28

Annexure -2

A] List of persons who submitted written comments/suggestions or made oral submissions during the Public Hearing

1. Reliance Infrastructure Ltd.
2. Maharashtra Energy Development Agency
3. Hydro Power Association (India)
4. Four Eyes Research (P) Ltd.
5. Power Exchange India Ltd.
6. Maharashtra Veej Grahak Sanghatana, Ichalkaranji (in respect of MSEDCL)

B] List of persons who attended the Public Hearing:

1. Shri. Abhijit Deshpande, MSEDCL
2. Shri Ram Dutonde, MSEDCL
3. Shri. P. H. Jambhulkar, MSEDCL
4. Shri. N. P. Jagaldas, BEST
5. Shri. M. M. Davare, BEST
6. Shri. V. K. Rokade, BEST
7. Shri. K. P. Khodke, BEST
8. Ms. Swati Mehendale, TPC-D
9. Shri. Bhaskar Sarkar, TPC-D
10. Shri. R. M. Ranade, TPC-D
11. Shri. Ghansham Thakkar, RInfra-D
12. Shri. Kishor Patil, RInfra-D
13. Dr. J. V. Torane, MEDA
14. Shri. Sugam Sangole, MEDA
15. Shri. Mahesh Vipradas, Indian Wind Energy Association (IWEA)
16. Shri. D. S. Kulkarni, Hydro Power Association (India)
17. Shri. Jayant Kulkarni, MSLDC
18. Shri. K. D. Daware, MSLDC
19. Shri. T. P. Vartak, Four Eyes Research (P) Ltd.
20. Shri. Anil Kale, PXIL
21. Shri. Prabhakar Narkar, Maharashtra Veej Grahak Sanghatana, Ichalkaranji
22. Shri Gautam Chopra, Bothe Windfarm Development Pvt. Ltd.
23. Shri. Harshad Gavkar, Bothe Windfarm Development Pvt. Ltd.
24. Shri. Jagdish F., Shalivahana Group