

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case No. 40 of 2019

Case for Verification of compliance of Renewable Purchase Obligation targets by Indian Railways for FY 2017-18

Coram

I.M. Bohari, Member
Mukesh Khullar, Member

Parties

1. Indian Railways (**IR**)
2. Maharashtra Energy Development Agency (**MEDA**)
3. Maharashtra State Load Despatch Centre (**MSLDC**)

Appearance

- | | |
|--------------|-----------------------------|
| 1. IR | : Smt. Vinita Melvin (Adv.) |
| 2. For MEDA | : Shri. Manoj Pise |
| 3. For 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 IR as a Deemed 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 23 July, 2018 in Case No. 211 of 2017 regarding compliance of RPO targets by IR for FY 2016-17, the Commission had stated as follows:

“15. The Commission notes that FY 2016-17 was the second year of operation of Indian Railways as a Deemed Distribution Licensee. Indian Railways had availed power through Open Access for the first time as a Deemed Distribution Licensee only since 26 November, 2015, towards the end of the third quarter of FY 2015-16. Considering the short time available and its newly-established Licensee status, the Commission by its Order dated 4 July, 2017 in Case No 173 of 2016 had allowed Indian Railways to meet its RPO shortfall of FY 2015-16 by the end of FY 2017-18 (to the extent that it has not already made up for it in FY 2016-17). The Commission in that Order further directed Indian Railways for exercising the option for fulfilling its RPO shortfall by its own RE generation, procurement of RE power and/or purchase of RECs.

16 Indian Railways in its submission dated 5 January, 2018 has stated that IR has evaluated the available options for fulfillment of its RPO targets by procurement

of RECs. Presently, only non-Solar RECs are being traded in power exchanges and trading of Solar RECs has been suspended. IR can only avail procurement of non-Solar RECs. Indian Railways further stated that it has taken necessary steps towards procurement of RECs and is in advanced stages of completion of necessary formalities with Trader/ Member of power exchange. Indian Railways is in line with its power procurement plan and also developing long term strategy for procurement of Renewable energy. However, the Commission observed that Indian Railways has neither exercised the option of purchasing non-Solar RECs at advantageous rates being traded in power exchanges for fulfilling its non-Solar shortfall nor submitted its concrete future plan for purchasing RECs/and or RE power. Indian Railways has chosen not to do either. In these circumstances, the Commission finds no justification for the standalone shortfall for FY 2016-17 and cumulative shortfall of Solar, non-Solar and Mini/Micro Hydro Project.

17 The Commission expects Indian Railways to discharge its responsibilities as a Deemed Distribution Licensee under the EA, 2003 and the Commission's Regulations with regard to its RPO in future. Considering its relatively recent Status of deemed Distribution Licensee, the Commission considers it appropriate to give one last chance to Indian Railways and directs it to comply with its assigned mandate by clearing cumulative RPO shortfall for the period from FY 2015-16 to FY 2016-17, to the extent that it has not so far been met in subsequent years, by RE procurement or purchase of RECs by the end of FY 2018-19. The RPO compliance status of Indian Railways would be reviewed in the next RPO compliance verification for FY 2017-18, for any shortfall in RPO compliance by Indian Railways would be liable to RPO Regulatory Charges.

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 IR which is summarized below:

TABLE 1: RPO Settlement Data for Indian Railways as furnished by MEDA

RPO settlement data for Indian Railways as furnished by MEDA								
Item	FY 2015-16		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	%	MUs	
Gross Energy consumption	100%	653.24	653.24	100%	2282.11	100%	2419.639	5354.99
Solar RPO								
Target	0.50%	3.266	3.266	1.00%	22.821	2.0%	48.393	74.48
Achivement	0.00%	0.000	0.000	0.00%	0.000	0.000	0.000	0.00
Shortfall /(Surplus)	0.500%	3.266	3.266	1.000%	22.821	2.0%	48.393	74.480
Non-Solar RPO								
Target	8.50%	55.53	55.53	10.00%	228.21	10.50%	254.06	537.80
Achivement	0.00%	0.000	0.000	0.00%	0.000	0.000	0.000	0.00
Shortfall /(Surplus)	8.50%	55.53	55.53	10.00%	228.211	10.5%	254.062	537.80
Mini-Micro RPO(Within Non-Solar)								
Target	0.20%	0.11	0.11	0.20%	0.456	0.20%	0.508	1.08
Achivement	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00	0.00
Shortfall /(Surplus)	0.20%	0.11	0.11	0.20%	0.456	0.002	0.508	1.08

According to MEDA, IR has shortfalls as against its standalone and cumulative Solar, Non-Solar and Mini /Micro Hydro Power RPO targets of FY 2017-18.

7. The Commission asked IR to submit its response to the data furnished by MEDA. In its response dated 21 November, 2018, IR stated as follows:

7.1 MEDA has considered figures for FY 2017-18 as per submission of IR's letter dated 25 June, 2018.

7.2 As regards the status of compliances as per the directives given by the Commission in previous Orders for the RPO compliance verifications, IR stated that:

For FY 2015-16, the Solar obligation of IR was 0.50% amounting to 3.26 MUs, the Non-Solar obligation of IR was 8.50% amounting to 55.53 MUs and Mini/Micro Hydro RPO 0.2% amounting 0.11MUs (within Non-Solar RPO). For FY 2016-17, the Solar obligation of IR was 1.0% amounting to 22.821 MUs, the Non-Solar obligation of IR was 10.00% amounting to 228.211 MUs and Mini/Micro Hydro obligation of IR was 0.2% amounting to 0.456MUs (within Non-Solar RPO) for FY 2016-17. The Commission in its order dated 23 July, 2018 in Case No. 211 of 2017 has allowed IR to meet its RPO shortfall for FY 2015-16 and FY 2016-17 by the end of FY 2018-19, to the extent that it has not already made up for it in FY 2017-18. Accordingly IR is in the process of entering into agreement with M/s PTC India Ltd for purchasing RECs, to fulfill the RPO obligations. IR will endeavor to fulfill RPO as specified by the Commission within the stipulated time limit, i.e. March 2019.

7.3 As regards the action taken prior to and during FY 2017-18 to meet the RPO targets, IR stated that:

Non-solar RPO

Procurement of 54 MW of wind power through Tariff based competitive bidding to fulfill non-Solar RPO of IR is under process. The CUF of this project is 22% and CR will get around 105 MUs per year from this project. Central Railway will avail this power on long term basis for 25 years. The bids have been opened and technical evaluation is under process. The commissioning period of this project is 18 months from the date of issue of LOA.

Also, LOA has been issued by Railway Energy Management Co. Ltd (**REMCL**) on behalf of IR to M/s Inox Wind Infrastructure Services Limited on 05.01.2018 for development of 6 MW wind power project in Sangli, Maharashtra. Accordingly, IR has signed PPA for 6 MW wind power in Maharashtra with M/s Inox Wind Infrastructure Services Limited for a period of 25 years at the rate of Rs. 5.18 per unit. The commissioning period of this project is 12 months from the date of issue of LOA. CUF of this project is 20.5 % and with this CUF, IR will be able to fulfill its Non solar RPO upto 10.775 MUs (energy generated corresponding to CUF of 100%). Remaining shortfall in non-Solar RPO will be fulfilled through the purchase of Renewable Energy Certificates (**RECs**).

Solar RPO

IR is planning to source power from upcoming solar park in Madhya Pradesh being developed by Rewa Ultra Mega Solar (RUMS) Ltd, a JV between Solar Energy Corporation of India (SECI) and Madhya Pradesh Urja Vikas Nigam Ltd. (MPUVNL). The capacity of this solar park being developed is 1050 MW out of which 400 MW power will be supplied to IR in various States. The power from solar park will be supplied under optimum scheduling method and limited to 207 MW (equivalent to 400 MW solar plant capacity). Out of 207 MW, 60 MW will be availed in Maharashtra by IR to fulfill its Solar RPO targets. With the proposed capacity of 60 MW, the number of solar units to be procured by IR will be 220 MUs per year which will be more than its cumulative shortfall for year FY 2017-18 & FY 2018-19.

Further, as a green power initiative, IR is also implementing 10.67 MWp (in Maharashtra) Rooftop Solar Photovoltaic plants on roofs of various buildings such as office buildings, Station buildings, Hospital buildings etc. under Viability Gap Funding (VGF)/ Central Financial Assistance (CFA) scheme of MNRE. Accordingly, PPAs have been signed by Central Railway with M/s Azure power Rooftop Pvt. Ltd for 2.3 MWp (in Maharashtra) on 14.12.2017 and M/s Mytrah Surya Energy Pvt Ltd for 8.37 MWp (in Maharashtra) on 22.01.2018 for a period of 25 years under net metering arrangement with DISCOM.

The Commission is requested to consider the consumption of Central Railway from these Rooftop Solar Photovoltaic plants against fulfillment of solar RPO of IR as per clause no. 11.1 of MERC's Net Metering for Roof-top Solar Photo Voltaic Systems;

“11.1. The quantum of electricity consumed by the Eligible Consumer from the Roof-top Solar PV System under the Net Metering Arrangement shall qualify towards his compliance of Solar RPO, if such Consumer is an Obligated Entity.”

Mini-Micro Hydro RPO

As there are very few generators/capacity available from Mini/Micro Hydro, commission is requested to allow IR to fulfill shortfall of Mini-Micro Hydro RPO through the purchase of non- Solar RECs.

7.4 As regards the long term plan, IR stated that considering that it is a new licensee, IR has evaluated the available options for fulfillment of its RPO. IR is gradually increasing its power procurement under Open Access and in line with its power procurement plan is also developing long term strategy for procurement of Renewable energy as mentioned in para 7.3. Hence the Commission is requested to allow IR to meet its non-Solar and Solar RPO shortfall of FY 2015-16, FY 2016-17, FY 2017-18 & FY 2018-19 by the end of financial year 2019-20.

Regulatory Process

8. 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 considering the submissions of MEDA and IR. 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.

9. The summary of RPO compliance of IR for FY 2017-18, based on details provided by MEDA and IR, 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.)
10. At the Public Hearing, IR reiterated the points regarding its compliance of RPO targets made in its written submissions. Also, IR requested the Commission to allow it to place on record its additional submission. The Commission agreed for the same.
11. IR in its additional submission dated 16 March, 2019 has provided its long term RE planning as under:
 - 11.1 Procurement of 50.4 MW of wind power through Tariff based competitive bidding to fulfill non-Solar RPO of IR is under process. Tender for the same has been finalized and LOA has been awarded on 19.12.18 to M/s NTPC Vidyut Vyapar Nigam Limited (NVTNL). PPA has been executed between Central Railway and M/s NVTNL (Trader) on 6 March, 2019. As per PPA executed, CR will get minimum 100 MUs and maximum 150 MUs per year from this project. NVTNL shall supply this power from an already commissioned plant of M/s NALCO situated at Jat, Sangli in Maharashtra and anticipated date of power flow is April'19. Central Railway will avail this power on long term basis for 25 years.
 - 11.2 Also, Central Railways has signed PPA for 6 MW of wind power in Maharashtra with M/s Inox Wind Infrastructure Services Limited for a period of 25 years at the rate of Rs. 5.18 per unit. This plant has been commissioned on 05.01.19 at Jat, Sangli (Maharashtra). CUF of this project is 20.5 % and with this CUF, CR will be able to fulfill its non-Solar RPO upto 10.775 MUs.

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 of the year in which they were commissioned. Since most CPPs have been commissioned prior to 2011, almost all CPPs will not have RPO. This need to be established by MEDA. Further Dr. Pendse has prayed as under:
 - a) No crossover of RPO should be allowed, and if done, suitable fine should be levied.

- b) MEDA should check in the light of new order of MoP on status of RPO compliance of CPPs.

Commission's Analysis and Ruling

12. The Commission notes that in its Order dated 21 December, 2018 in Case NO. 149 of 2017 relating to the *suo moto* proceeding for taking on record the deemed Distribution Licensee status of the Indian Railways, the Commission had directed the Indian Railways as follows:

“3. The Commission directs Indian Railways to adhere and comply with following Regulations with immediate effect on provisional basis, which could also form part of their Specific Conditions to be specified by the Commission after following due process:

- i. MERC (State Grid Code Regulations) 2006;*
- ii. MERC (Transmission Open Access) Regulations, 2016;*
- iii. MERC (Renewable Purchase Obligation, its Compliance and Implementation of Renewable Energy Certificate Framework) Regulations, 2016*
- iv. MERC (Fees and Charges) Regulations, 2017;*
- v. Order issued by the Commission in Case No. 42 of 2007 (ABT) Order and FBSM mechanism;*
- vi. Transmission Pricing framework as specified under Multi-Year Tariff Regulations (InSTS Order dated 12 September, 2018 passed by the Commission and other relevant Orders/Directions issued by the Commission in respect of Indian Railways);*
- vii. Commission's Orders/Practice directions/amendments, if any in the Regulations mentioned above in relating to Indian Railways.*

The above conditions would be applicable till issuance of Specific Conditions for Indian Railways.”

Thus, the present proceeding for RPO verification of Indian Railways for FY 2017-18 is in accordance with the above directives of the Commission. IR has also participated in the proceeding and submitted its plan for complying with its RPO obligations as stipulated under the MERC Regulations.

13. The Commission notes that the IR's submission dated 21 November, 2018 has been reaffirmed by MEDA vide its letter dated 14 March, 2019. The status of achievement of RPO targets by Indian Railways, as determined by the Commission considering the details provided by MEDA, MSLDC and Indian Railways, is as shown in Table 2 below:

Table 2: RPO Settlement Details for Indian Railways as approved by Commission

RPO settlement data for Indian Railways (Approved)								
Item	FY 2015-16		Cumulative RPO (Surplus)/ Short fall till end of earlier control	FY 2016-17		FY 2017-18		Cumulative RPO (Surplus)/ Short fall till end of FY 2017-18
	%	MUs		MUs	%	MUs		
Gross Energy consumption	100%	653.24	653.24	100%	2282.11	100%	2419.639	5354.99
Solar RPO								
Target	0.50%	3.266	3.266	1.00%	22.821	2.0%	48.393	74.48
Achivement	0.00%	0.000	0.000	0.00%	0.000	0.000	0.000	0.00
Shortfall /(Surplus)	0.500%	3.266	3.266	1.000%	22.821	2.0%	48.393	74.480
Non-Solar RPO								
Target	8.50%	55.53	55.53	10.00%	228.21	10.50%	254.06	537.80
Achivement	0.00%	0.000	0.000	0.00%	0.000	0.000	0.000	0.00
Shortfall /(Surplus)	8.50%	55.53	55.53	10.00%	228.211	10.5%	254.062	537.80
Mini-Micro RPO(Within Non-Solar)								
Target	0.20%	0.11	0.11	0.20%	0.456	0.20%	0.508	1.08
Achivement	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00	0.00
Shortfall /(Surplus)	0.20%	0.11	0.11	0.20%	0.456	0.002	0.508	1.08

‘-’ or () indicates surplus

14. The Commission notes that Indian Railways has

- i) Fallen short of its stand-alone Solar RPO target by 48.393 MUs in FY 2017-18, and has a cumulative shortfall of 74.48 MUs.
- ii) Fallen short of its stand-alone non-Solar RPO target by 254.06 MUs in FY 2017-18, and has a cumulative shortfall of 537.80 MUs
- iii) Fallen short of its stand-alone Mini-Micro RPO target by 0.508 MUs in FY 2017-18, and has a cumulative shortfall of 1.08 MUs.

15. The Commission notes that FY 2017-18 was the third year of IR’s operation as a Deemed Distribution Licensee. IR had availed power through Open Access for the first time as a Deemed Distribution Licensee only since 26 November, 2015, towards the end of the third quarter of FY 2015-16. Considering the short time available and its newly-established Licensee status, the Commission by its Order dated 4 July, 2017 in Case No 173 of 2016 had allowed IR to meet its RPO shortfall of FY 2015-16 by the end of FY 2017-18 (to the extent that it has not already made up for it in FY 2016-17). Further the Commission by its Order dated 23 July, 2018 in Case No 211 of 2017 has allowed IR to comply with its assigned mandate by clearing cumulative RPO shortfall for the period from FY 2015-16 to FY 2016-17, by RE procurement or purchase of RECs by the end of FY 2018-19.

16. The Commission notes that considering the subsequent development after its submission dated 21 November, 2018, IR has filed its additional submission on 16 March, 2019 highlighting execution of PPA and commissioning of projects etc particularly for non-Solar RE, in last quarter of FY 2018-19.

Solar RPO

17. The Commission notes that IR is planning to source power from upcoming solar park developed by RUMS. The capacity of this solar park is 1050 MW out of that 60 MW will be availed in Maharashtra by IR to fulfill its Solar RPO targets. Tender for the project has been floated by RUMS on 8 October, 2018. IR is also implementing 11.34 MWp (in Maharashtra) Rooftop Solar PV plants on roofs of various buildings. Two PPAs have been signed for 2.3 MWp and 8.37 MWp in Maharashtra on 14 December, 2017 and 22 January, 2018 respectively for a period of 25 years under net metering arrangement with DISCOM. The Commission observes that IR has not provided the details of Commissioning date, expected Solar power generation from 60 MW project and for rooftop Solar PV projects. The Commission vide its Order dated 23 July, 2018 in Case No. 211 of 2017 has already allowed IR to meet its RPO shortfall for FY 2015-16 and FY 2016-17 in FY 2018-19. Same will be reviewed in RPO verification of FY 2018-19.
18. Further, in FY 2017-18, IR is not able to meet its RPO targets. Considering efforts being taken by IR in complying with RPO, the Commission allows it to meet its Solar RPO shortfall for FY 2017-18 by March, 2020. Thereafter, any shortfall in RPO compliance by IR would be liable to RPO Regulatory Charge.

Non-Solar

19. The Commission notes that IR has executed PPA with NVVNL on 6 March, 2019 for 25 years for procurement of 50.4 MW. As per PPA, IR will get minimum 100 MUs and maximum 150 MUs per year from an already commissioned plant of M/s NALCO situated at Jat, Sangli in Maharashtra from April 2019. Also, REMCL on behalf of IR has executed PPA for 25 years with M/s Inox Wind Infrastructure Services Limited for 6 MW wind power project and the plant has been commissioned on 5 January, 19 at Jat, Sangli (Maharashtra). CUF of this project is 20.5 % and with this CUF, CR will be able to fulfill its non-Solar RPO upto 10.775 MUs. The Commission noted IR's efforts for procuring non-Solar power for fulfillment of its non-Solar RPO targets.
20. The Commission vide its Order dated 23 July, 2018 in Case No. 211 of 2017 has already allowed IR to meet its RPO shortfall for FY 2015-16 and FY 2016-17 in FY 2018-19. Same will be reviewed in RPO verification of FY 2018-19.
21. Further, in FY 2017-18, IR is not able to meet its RPO targets. Considering efforts being taken by IR in complying with RPO, the Commission allows it to meet its non-Solar RPO shortfall for FY 2017-18 by March, 2020. Thereafter, any shortfall in RPO compliance by IR would be liable to RPO Regulatory Charge.

Mini-Micro Hydro RPO

22. The Commission observes that IR has requested that as there are very few generators/capacity available from Mini/Micro Hydro, it shall be allowed to fulfill its Mini-Micro Hydro shortfall through the purchase of non- Solar RECs. The Commission notes that the RPO Regulations, 2016 (applicable from FY 2016-17) allow shortfalls against the Mini/Micro Hydro target to be met through Non-Solar RECs if the Distribution

Licensee shows that it has made sufficient efforts. This provision was introduced considering the inadequate availability of such resources at present and the absence of RECs specific to Mini/Micro Hydro power. Considering the above circumstances, the Commission allows IR to meet Mini/Micro Hydro RPO by purchasing non-Solar RECs.

23. The Commission vide its Order dated 23 July, 2018 in Case No. 211 of 2017 has already allowed IR to meet its RPO shortfall for FY 2015-16 and FY 2016-17 in FY 2018-19. Same will be reviewed in RPO verification of FY 2018-19.
24. Further, in FY 2017-18, IR is not able to meet its RPO targets. Considering efforts being taken by IR in complying with RPO, the Commission allows it to meet its Mini/Micro Hydro RPO shortfall for FY 2017-18 by March, 2020. Thereafter, any shortfall in RPO compliance by IR would be liable to RPO Regulatory Charge.

Other issues

25. 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 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.
26. Hence, the following Order.

ORDER

1) The Case No. 40 of 2019 stands concluded with following ruling:

- a. **Indian Railways has standalone shortfall for Solar RPO of 48.393 MUs for FY 2017-18 and cumulative shortfall of 74.48 MUs till FY 2017-18.**
- b. **Indian Railways has stand-alone shortfall for its Non-Solar RPO of 254.06 MUs for FY 2017-18 and cumulative short fall of 537.80 MUs.**
- c. **Indian Railways has standalone shortfall for its Mini/Micro Hydro RPO of 0.508 MUs for FY 2017-18, and cumulative short fall of 1.08 MUs.**

2) Indian Railways is directed as follow:


- a. **The Commission vide Order dated 23 July, 2018 in Case No. 211 of 2017 has already allowed Indian Railways to meet its RPO shortfall for FY 2015-16 to**

FY 2016-17 in FY 2018-19. Same will be reviewed in RPO verification process of FY 2018-19.

- b. Indian Railways has standalone shortfall for Solar, non-Solar and Mini-Micro RPO targets in FY 2017-18 also. Indian Railways shall purchase Solar, non-Solar and Mini-Micro Power and /or Renewable Energy Certificates by the end of March, 2020 so as to fully meet these standalone shortfalls in addition to RPO targets for that year.**

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

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


**(Abhijit Deshpande)
Secretary**



Annexure – 1

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

Indian Railways RPO status for FY 2017-18	Gross Energy Consumption	Solar RPO Target (2%)	Solar RPO Achievement	Solar RPO Shortfall/ (surplus)	Non-Solar RPO Target (10.50 %)	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	2419.639	48.393	0.00	48.393	254.06	0.00	254.06	0.508	0.00	0.508
As per Indian Railways	2419.639	48.393	0.00	48.393	254.06	0.00	254.06	0.508	0.00	0.508

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