

MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION
BHOPAL

Subject: - Notice under section 142 of the Electricity Act 2003 for non-compliance of RPO Obligation as per provisions of MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2010 (Revision-I) as amended and directions of the Commission from time to time during the period 10.11.2010 to 31.03.2024.

ORDER

(Date of Order: 19.09.2024)

**Indian Railways through Chief Electrical Engineer
/Electrical Engineering Management, Electrical Department,
General Manager's Office, West Central Railway,
Jabalpur, 482 001 (MP)**

Respondent

Shri JR Meena, CEDE, WCR and Shri Chetan Bulwani, Dy CEDE, WCR appeared on behalf of the Respondent.

The subject Suo-moto petition was registered by this Commission in the matter of non-compliance of renewable power purchase obligations (RPO) by the Indian Railways as specified by the Commission under MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2010 (Revision-I) as amended and revised from time to time and directions issued thereunder during the period from 10.11.2010 to 31.03.2024.

2. A notice under section 142 of the Electricity Act 2003 was issued to the Respondent on 18.07.2024 to show cause for non-compliance of aforesaid Regulations/ directives of the Commission as to why not penal action under the Section 142 of the Electricity Act 2003 be taken against them. The said notice was issued for non-compliance of RPO for the period from FY 2020-21 to 2023-24. A separate notice was again issued to Railways on 29.08.2024 and the period of consideration for non-compliance of RPO was revised to FY 2016-17 to 2023-24.

3. MP SLDC again informed vide its mail dated 15 Sep 2024 that Railway has actually started availing power supply through open access from FY 2015-16 onwards and also submitted revised data of energy drawn by Railway through open access from 2015-16

onwards. The period of consideration for non-compliance of RPO under this order pertains to the period from 2015-16 till 2023-24.

4. First hearing of the petition was held on 6th Aug 2024. Shri J R Meena, CEDE, West Central Railway, Jabalpur appeared on behalf of the respondent. During hearing, Shri J R Meena, CEDE, West Central Railway, Jabalpur informed the efforts being made by Indian Railway for procurement of renewable power for fulfilment of renewable power purchase obligation as per the extant regulations of MPERC and that Railway is likely to achieve RPO targets from current year onwards. The Commission clarified that the suo moto petition is regarding fulfillment of RPO shortfall for the period from 2020-21 to 2023-24. The Commission noted that the petitioner has submitted a letter dated 05.08.2024 which does not provide information on RPO compliance for the subject period. Petitioner was allowed 15 days' time for submission of complete information on RPO compliance for the period from 2020-21 to 2023-24. The case was listed for a hearing on 03.09.2024.

5. On 3rd Sep 2024, Shri Chetan Bulwani, Dy CEDE, West Central Railway, Jabalpur appeared on behalf of the respondent. During hearing, Respondent admitted that RPO compliance could not be made for the period from 2016-17 to 2023-24. Respondent requested the Commission to allow carry forward of past shortfalls in RPO compliance to the year 2024-25 onwards. After hearing the respondent, the case was closed for orders.

6. Railway have made following submissions vide letters dated 05.08.2024, 16.08.2024 and 30.08.2024: -

- (i) West Central Railway (WCR) being the Nodal Railway for Electrical Energy Management matters over Madhya Pradesh State is trying its best for the compliances of guidelines issued by Hon'ble MPERC for implementation of RPO obligations.
- (ii) The details of Renewable Energy (RE) purchases made by Railways in preceding FY 2023-24 and in current FY 2024-25 over MP state is enclosed in prescribed proforma as Annexure-2A, 2B & 2C enclosed to letter dated 05.08.2024.
- (iii) It is worth mentioning that installation of Renewable Energy sources is in its nascent stage and Railway itself is new entity in purchase of electrical energy through open access. Still Railway has managed to cater its RE requirement through open access and started to procure Renewable Energy (RE) from presently available sources through Indian Energy Exchange (IEX) from July 2022 onwards. Various Power Purchase Agreements (PPAs) have also been executed by Railways for the purchase of RE power.

The details of PPAs are submitted as Annexure-1 enclosed to letter dated 05.08.2024.

- (iv) It is evident from the PPAs, that Railway is proactive in this regard and likely to achieve the targets of RPO obligations from current FY onwards as per commissioning schedules of the RE power plants. Also, Railway has planned to become net zero carbon emitter by year 2030. It is also evident from the above that Railway is trying its best to adopt use of RE power based on the availability of RE power availability over the market, though below than the required quantum of power as per RPO obligations.
- (v) In order to meet the shortfall in the RE power, WCR has currently done a meeting with MPUVNL for installation of solar plants of desired capacity over WCR in Bhopal and Jabalpur division. Moreover, Railway Energy Management Company Limited (REMCL), a joint venture of Indian Railways, has also finalised a tender for RE power purchase of 80 MW for WCR. By 2030, WCR will be able to meet all RE power requirements as per RPO
Still, Hon'ble commission is requested to condone the shortfall in use of RE power and grant more time to meet the desired RPO Targets.
- (vi) In compliance to Hon'ble MPERC order dated 06.08.2024 in SMP No. 37 of 2024, information on RPO compliances for the year 2020-21 to 2023-24 is submitted as enclosure to letter dated 16.08.2024. It is stated that Renewable Energy purchase for the year 2020-21 and year 2021-22 could not be made by Indian Railways. However, from July 2022 onwards, Indian Railways has started to procure Renewable Energy through Indian Energy Exchange (IEX) The details of Green Energy Certificates issued by IEX from July-2022 to March-2024 are also enclosed herewith.
- (vii) It is worth mentioning that IEX has issued Green Energy purchase in following format: (i) Solar (ii) Non-Solar and (iii) Hydro. So, details of Renewable purchase made by Railway through IEX have been furnished in accordance with Green Energy Certificates issued by IEX.
- (viii) Difficulties faced by Indian Railways in achieving the RPO targets set by Hon'ble Commission have already been elaborated. It is again intimated to Hon'ble Commission that Indian Railways have executed various Power Purchase Agreements (PPAS) to meet the targets of RPO obligation as per details enclosed as Annexure-I to letter dated 05.08.2024. It is again requested that Indian Railway may be granted some more time to achieve the RPO targets. Railway is expected to achieve the RPO targets from this year onwards and shortfall in RPO obligation shall be compensated likely from this year or next year onwards.
- (ix) In reference to Hon'ble MPERC's Notice dated 29.08.2024, it is stated that Indian Railways have significant shortfall in Renewable Energy purchase from the year 2016-17 to year 2021-22 due to the reason that initially Railways have planned for installations of

rooftop solar plants to meet the target of RPO obligations prevailing at that time. Tender was also floated for rooftop solar plants, but somehow the plan could not be materialized. Moreover, when Railway succeeded in finalizing the tender, due to some unavoidable reasons the various rooftop solar plants couldn't be commissioned on time.

- (x) **Also, no RE Certificates have been procured by Indian Railway from 2016-17 to 2023-24.**
- (xi) It is further stated that will try best to compensate for the shortfall in RPO obligations from this year onwards or likely from next year onwards. So, it is requested to please carry forward the present shortfall in RPO obligations to upcoming years.

Commission's observations:

- 7. The Commission has observed the following in this matter:
 - i. Commission had notified the MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy) (Revision-I) Regulations, 2010 on 19.11.2010. This regulation along with its amendments was applicable till 11.11.2021. The Commission had specified renewable purchase obligation for all the obligated entities during the period from 19.11.2010 to 11.11.2021 under the aforesaid regulations.
 - ii. Commission subsequently notified the MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy) (Revision-I) Regulations, 2021 on 12.11.2021. This regulation along with its amendments is the current regulation. The Commission has specified revised renewable purchase obligation for all the obligated entities during the period from 12.11.2021 onwards up to FY 29-30 under the aforesaid regulations.
 - iii. Commission noted that the thermal CPPs, WHRs and Open Access consumers who are obligated entities within the meaning of MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2010 and 2021 as amended from time to time are required to comply with the renewable purchase obligation as specified in aforesaid regulations.
 - iv. The Commission vide order dated 21st Dec 2021 has designated Madhya Pradesh Urja Vikas Nigam (MPUVNL) as Designated Authority to discharge functions in accordance with Regulation 14 of Co-gen Regulations. The designated agency failed to submit

complete information regarding RPO Compliance for the period from 2020-21 to 2023-24 in respect of open access consumer (other than RE based) and Captive Power plants (other than RE based) despite various reminders and meetings with them.

- v. From the submissions of Railways in Para 5 above, Commission noted that Railways did not plan properly for RPO compliance for the period from 2015-16 till 2019-20. Railway started to procure some RE power from FY 2020-21 onwards, but it was far behind in fulfilling the RPO targets. Railway, being a department of Central Government, was required to act more responsibly and should have carefully planned purchase of power from open access duly considering the renewable purchase obligations. However, Railway failed to take appropriate action in this regard and did not procure either RE power or RECs to meet RPO during the period from 2015-16 to 2023-24.

Commission's findings and conclusion

8. As per regulation 4.1 of MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy) (Revision-I) Regulations, 2010, the RPO (Renewable Purchase Obligation) is to be computed on energy procured. MP SLDC has submitted revised details of energy scheduled to the Respondent vide mail dated 15 Sep 2024. The Commission noted from the letters submitted by the Respondent that Railway has procured some RE power during the years 2020-21 to 2023-24. **The Commission has accordingly computed the RPO based on energy procured by Respondent through open access for the entire period from 2015-16 till 2023-24 in Annexure-1 attached to this order.**

9. The Commission noted that the Respondent failed to discharge its renewable purchase obligation as computed by the Commission till this date. Railways being part of the Central Government ought to be aware of the Central Government's commitments with respect to renewable energy. Central Government has committed transition towards clean energy at International Forums. Railways was supposed to lead energy transition to renewable energy rather than finding excuses for not fulfilling renewable purchase obligations. Railways is drawing power also through open access and being aware of open access mechanism, they could have scheduled renewable power through open access, till such time their own projects started generating renewable power. They could have also bought RECs during respective years to fulfill their RPO targets. Railways has not provided any details regarding installation of solar rooftops and detailed reasons as to why the rooftops could not be installed as planned. Railways could not provide any satisfactory justifications for his non-compliance during the period from 2015-16 till

2023-24. The Commission thus found the Respondent in default of the regulations of the Commission.

10. Railway has requested to allow them to carry forward shortfall of past period to 2024-25 onwards. Commission, in this regard, would like to clarify that there were no provisions in the regulations namely MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2010 (Revision-I) to allow carry forward of past period to subsequent years. Such provisions have only been introduced in MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2021 effective from 12.11.2021 which stipulates as under: -

“In case of genuine difficulty in complying with the RPO on account of non-availability of Renewable power or certificates, the obligated entity can approach the Commission to carry forward the compliance requirement to the next year and the Commission will take the appropriate view in the matter on case-to-case basis.”

11. It can be observed that carry forward of RPO shortfall can only be considered from 2021-22 onwards and only for next year. In light of the above, the request of Railway to allow carry forward of RPO shortfall prior to FY 2022-23 cannot be considered and rejected herewith. However, considering that Railway started making efforts towards RE procurement from 2020-21 onwards, Commission would consider the request of Railway for carry forward of shortfall of 2023-24 to 2024-25 only.

12. The treatment of default in fulfillment of RPO is specified in Regulation 15 of the MPERC (Co-generation and generation of electricity from Renewable sources of energy) Regulation, 2010 and 2021 which provides as under:

15.1 In the event the Obligated Entities do not fulfil the mandate of the obligation to purchase energy from Renewable Energy Sources as provided in these Regulations during any Financial Year and also do not purchase the certificates from the Power Exchange, the Commission may:

- (i) direct the Obligated Entity to deposit into a separate Fund, to be maintained by such Obligated Entity, such amount as the Commission may determine as required for purchase of Certificates to the extent of the estimated obligation on the basis of the shortfall in units of RPO and the Forbearance Price of the Certificates which shall be*

utilized, as may be directed by the Commission, partly for purchase of the certificates and partly for development of Transmission infrastructure for evacuation of power from Generating Stations based on Renewable Energy Sources:

Provided that the Obligated Entities shall not be authorized to use the fund created in pursuance of Clause (i) above, without prior approval of the Commission;

- (ii) *to the extent of the shortfall in the fulfillment of the Obligations, the Commission may empower an Officer of the State Nodal Agency to procure from the Power Exchange the required number of Certificates out of amount in the Fund.*

15.2 -----.

15.3 *Further, where any person though required to comply with these Regulations fails to purchase the required percentage of power from Renewable Energy Sources or the Renewable Energy Certificates, he shall also be liable for penalty as may be decided by the Commission under Section 142 of the Act.*

13. The Commission examined the issue of non-compliance by Respondent towards meeting RPO targets for the period from FY 2015-16 to 2023-24 and noted that Respondent has failed to give any satisfactory reasons or justifications as to why RPO compliance could not be made by them. The Commission is of the view that the Respondent is already drawing power through open access and could have scheduled portion of RE power to fulfil renewable power obligation. Other option available was procuring renewable energy certificates (RECs) which were available during the period of consideration and subsequently also till now. The Commission is therefore convinced that default was made by the respondent in fulfilling RPO as computed by the Commission.

14. The Commission observed that the regulation 15.1(i) stipulates that the obligated entity shall deposit a sum equivalent to the short fall of RE energy as determined by the Commission in a separate account and the nodal agency shall procure required RECs from such fund. However, considering that the nodal agency is unable to discharge its functions consistently. The Commission is of the view that instead of procurement of RECs by nodal agency, it would be appropriate that the obligated entity procured RECs themselves. The Commission has therefore decided to invoke clause 18.1 of the MPERC (Co- generation and generation of electricity from Renewable sources of energy) (Revision-I) Regulation, 2010 to use its inherent powers and

dispense with the condition of depositing the sum in separate account in this case.

Conclusion

15. In view of the above, the Commission hereby directs the Respondent for the following:

- (i) To procure RECs for the deficit energy as computed by the Commission in Annexure-1 within a period of 3 months from the date of this order and submit the same to the Commission as well as the nodal agency i.e. MP Urja Vikas Nigam Limited, Bhopal in 7 days thereafter.
- (ii) The Respondent failed to comply with the provisions of the aforesaid Regulations towards fulfillment of RPO targets and has not provided appropriate justification for such default in reply to the show cause notice. Respondent being part of Central Government should have acted more responsibly and should have taken all necessary measures towards fulfillment of the commitment of Central Government with respect to the energy transition towards clean energy. In view of the continuing defaults for 8 years in fulfilling RPO obligation without satisfactory reasons of such defaults, the Commission hereby imposes a penalty of Rs. 8 Lakh (Rupees Eight Lakhs only) @ Rs 1.0 Lakh for each year of default under Regulation 15.3 of the aforesaid Regulations. The respondent is directed to pay the amount of penalty to the Commission within 15 days of the date of this order.
- (iii) Respondent is allowed to carry forward the shortfall in meeting RPO target for the period 2023-24 to the period 2024-25. Respondent shall ensure compliance of RPO targets for FY 2024-25 as well as the RPO shortfall of FY 2023-24 in FY 2024-25 itself and submit compliance to nodal agency as well to the Commission.

16. The Commission held that the Renewable Purchase Obligation of the Respondent shall stand discharged only after compliance of directions given in Para 15 of this order.

(Prashant Chaturvedi)

Member

(Gopal Srivastava)

Member(Law)

(S.P.S. Parihar)

Chairman

Annexure-1:

Name of Obligated Entity

Indian Railways

Computation of RPO from FY 2010-11 to FY 2023-24 (upto19.01.2023)

RPO Statement Form A: RPO Statement-Non Solar (Yearly)

SCHEDULED ENERGY (A)		RPO Obligation (for particular year as stipulated by the Commission) (1)		Actual Purchase of Electricity from Non Solar RE Sources (B)	Actual Purchase of Non Solar REC from PX Source (C)	Equivalent Energy of non solar RECs purchased (D)	Total (B+D) (2)	Short fall, if any (1-2)
FY	MU	%	MU	MU	Nos	MU	MU	MU
19-11-2010 to 31-03-2011	0	0.80%	0.000	0.000	0.000	0.000	0.000	0
2011-2012	0	2.10%	0.000	0.000	0.000	0.000	0.000	0
2012-2013	0	3.40%	0.000	0.000	0.000	0.000	0.000	0
2013-2014	0	4.70%	0.000	0.000	0.000	0.000	0.000	0
2014-2015	0	6.00%	0.000	0.000	0.000	0.000	0.000	0
2015-2016	314.302	6.00%	18.858	0.000	0.000	0.000	0.000	18.858
2016-2017	1818.511	6.50%	118.203	0.000	0.000	0.000	0.000	118.203
2017-2018	1881.383	7.00%	131.697	0.000	0.000	0.000	0.000	131.697
2018-2019	2003.012	7.50%	150.226	0.000	0.000	0.000	0.000	150.226
2019-2020	2083.053	8.00%	166.644	0.000	0.000	0.000	0.000	166.644
2020-2021	1794.027	8.50%	152.492	0.000	0.000	0.000	0.000	152.492
2021-2022	2672.599	9.00%	240.534	0.000	0.000	0.000	0.000	240.534
01-04-2022 to 19-01-2023	2383.931	9.50%	226.473	53.826	0.000	0.000	53.826	0.000
TOTAL	21078.167		1756.589					1530.116

RPO Statements Form B: RPO Statement-Solar (Yearly)

SCHEDULED ENERGY (A)		RPO Obligation (for particular year as stipulated by the Commission) (1)		Actual Purchase of Electricity from Solar RE Sources (B)	Actual Purchase of Solar REC from PX (C)	Equivalent Energy of solar RECs purchased (D)	Total (B+D) (2)	Short fall, if any (1-2)
FY	MU	%	MU	MU	Nos	MU	MU	MU
19-11-2010 to 31-03-2011	0.000	0.00%	0.0000	0.000	0.000	0.000	0.000	0
2011-2012	0.000	0.40%	0.0000	0.000	0.000	0.000	0.000	0
2012-2013	0.000	0.60%	0.0000	0.000	0.000	0.000	0.000	0
2013-2014	0.000	0.80%	0.0000	0.000	0.000	0.000	0.000	0
2014-2015	0.000	1.00%	0.0000	0.000	0.000	0.000	0.000	0
2015-2016	314.302	1.00%	3.1430	0.000	0.000	0.000	0.000	3.143
2016-2017	1818.511	1.25%	22.7314	0.000	0.000	0.000	0.000	22.731
2017-2018	1881.383	1.50%	28.2207	0.000	0.000	0.000	0.000	28.221
2018-2019	2003.012	1.75%	35.0527	0.000	0.000	0.000	0.000	35.053
2019-2000	2083.053	4.00%	83.3221	0.000	0.000	0.000	0.000	83.322
2000-2021	1794.027	6.00%	107.6416	0.000	0.000	0.000	0.000	107.642
2021-2022	2672.599	8.00%	213.8079	0.000	0.000	0.000	0.000	213.808
01-04-2022 to 19-01-2023	2383.931	9.00%	214.5538	36.432	0.000	0.000	36.432	
TOTAL	21078.167		1198.6613				36.432	984.108

Format for RPO Statements from FY 2022-23 (from 20.01.2023 onwards) to FY 23-24

Form A: RPO Statement-Wind RPO (Yearly)

SCHEDULED ENERGY (A)		Wind RPO Obligation (for particular year as stipulated by the Commission) (1)		Actual Purchase of Electricity from WPPs with CoD after 31.03.2022 (B)	Actual Purchase of WPP REC from PX (C)	Equivalent Energy of WPP RECs purchased (D)	Total (B+D) (2)	Short fall, if any (1-2)
FY	MU	%	MU	MU	Nos	MU	MU	MU
20-01-2023 to 31-03-2023	575.711	0.81%	4.663			0	0	4.663
2023-2024	3167.707	1.60%	50.683			0	0	50.683
TOTAL	3743.418		55.347					55.347

Form B: RPO Statement-HPO (Yearly)

SCHEDULED ENERGY (A)		HPO Obligation (for particular year as stipulated by the Commission) (1)		Actual Purchase of Electricity from HPPs with CoD after 08.03.2019 (B)	Actual Purchase of HPP REC from PX (C)	Equivalent Energy of HPP RECs purchased (D)	Total (B+C) (2)	Short fall, if any (1-2)
FY	MU	%	MU	MU	Nos	MU	MU	MU
20-01-2023 to 31-03-2023	575.711	0.35%	2.015	0.000	0.000	0.000	0.000	2.015
2023-2024	3167.707	0.66%	20.907	0.000	0.000	0.000	0.000	20.907
TOTAL	3743.418		22.922	0.000	0.000	0.000	0.000	22.922

Form C: RPO Statement-Other RPO (Yearly)

SCHEDULED ENERGY (A)		Other RPO Obligation (for particular year as stipulated by the Commission) (1)		Actual Purchase of Electricity from RE * (B)	Actual Purchase of other REC from PX (C)	Equivalent Energy of other RECs purchased (D)	Total (B+C) (2)	Short fall, if any (1-2)
FY	MU	%	MU	MU	Nos	MU	MU	MU
20-01-2023 to 31-03-2023	575.711	23.44%	134.947	0.000	0.000	0.000	0.000	134.947
2023-2024	3167.707	25.13%	796.045	40.790	0.000	0.000	40.790	755.255
TOTAL	3743.418		930.992	40.790	0.000	0.000	40.790	890.202