

Public Notice

Hindustan Power Exchange Ltd. (HPX) invites comments/suggestions on a new hydropower bid type, known as Hydro (other RPO), is proposed to be introduced to the Green intraday and contingency market as well as the Green Term-ahead market (GTAM).

The Ministry of Power, GoI, has reclassified the existing RPO framework to Wind RPO, HPO, and Other RPO, necessitating changes in the Green Contracts at the Exchange as Hydro Power projects with COD before 08.03.2019 are now eligible to fulfil RPO in the "Other RPO" category. To facilitate such Hydropower Project's compliance with the 'Other RPO,' HPX proposes to introduce a new Hydro Power Bid Type, namely Hydro (Other RPO), in accordance with Regulation 25(1) of the CERC (Power Market) Regulations 2021, in consultation with NLDC and stakeholders.

For HPO fulfilment, the new hydro power bid type will have the same contract terms as the existing hydropower contract in the green term-ahead market (GTAM) and green intra-day & contingency market (GTAM). The sole distinction is that under this new bid type, major hydropower projects that were finished before 8.3.2019 (and whose electricity is not considered for meeting HPO) will be allowed to sell power, enabling obligated firms to satisfy their "Other RPO" needs.

As a result, HPX invites comments/suggestions from all stakeholders and the public on the proposal to introduce a new Hydro Power Bid Type, namely, Hydro (Other RPO), at HPX for meeting obligated entities' 'Other RPO'. Our comments and suggestions will be submitted to NLDC for consideration and approval. HPX's detailed proposal in this regard is available for reference on the HPX website i.e, www.hpxindia.com.

The comments may be sent to HPX by **10.03.2023** at the following address.

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PROPOSAL FOR INTRODUCTION OF A NEW HYDROPOWER BID TYPE I.E. HYDRO (OTHER RPO)” IN GREEN INTRA-DAY & CONTINGENCY AND GREEN TERM-AHEAD MARKET AT HINDUSTAN POWER EXCHANGE LTD.

1. HPX introduced Contracts beyond T+11 days and Hydropower Contracts in Green Intra-day & Contingency and Green Term Ahead Market (GTAM) to facilitate compliance of Hydropower Purchase Obligation (HPO) in pursuance to the approval granted by Hon’ble CERC vide order date 30th Dec,22 in Petition No 206/MP/2022.
2. The Ministry of Power, GoI vide its order dated 22.07.2022 and 19.09.2022 has reclassified the existing RPO framework to Wind RPO, HPO and Other RPO necessitating further modifications in the Green Contracts at the Exchange. The RPO framework as per Ministry of Power GoI said orders is as under:

Year	Wind RPO	HPO	Other RPO	Total RPO
2022-23	0.81%	0.35%	23.44%	24.61%
2023-24	1.60%	0.66%	24.81%	27.08%
2024-25	2.46%	1.08%	26.37%	29.91%
2025-26	3.36%	1.48%	28.17%	33.01%
2026-27	4.29%	1.80%	29.86%	35.95%
2027-28	5.23%	2.15%	31.43%	38.81%
2028-29	6.16%	2.51%	32.69%	41.36%
2029-30	6.94%	2.82%	33.57%	43.33%

A copy of the said Order dated 22.07.2022 & 19.09.2022 is annexed hereto as **Annexure-I** & **Annexure-II** respectively.

3. The said orders dated 22.07.2022 and 19.09.2022 provide eligibility conditions for compliance of different RPO. As regards to ‘Other RPO’, its inter-alia provides that the Energy from all Hydro Power Projects (HPPs) including free power from HPPs commissioned before 8th March 2019 will be considered as part of ‘Other RPO’ category.
4. Since the current GTAM-Hydropower contract caters to the HPO requirement by enabling procurement from Hydropower projects with COD after 08.03.2019, there is a need to introduce instrument to facilitate the compliance of ‘Other RPO’ based on hydropower procurement as per new framework.

5. Hon'ble CERC has already approved the Hydropower Contract (for meeting HPO) at HPX with the detailed contract specifications. To facilitate the proposed Hydropower trade for meeting 'Other RPO' as discussed above, a new Hydropower Bid Type i.e Hydro(Other RPO) is proposed in terms of Regulation 25(1) of CERC (Power Market) Regulations 2021 with same terms and contract specification as of current Hydropower Contract. The only change is with respect to eligibility condition of sellers i.e., Hydropower projects having COD before 08.03.2019 shall be eligible to participate in this contract. Accordingly, the proposed amendments in HPX Business Rules are annexed at **Annexure-III**.
6. No modification is proposed in the existing Hydropower contract except the underlying asset i.e., in addition to 'Hydropower with COD after 08.03.2019', the 'Hydropower with COD before 08.03.2019' will also be available for trade. The proposed Hydropower Bid Type i.e., Hydro (Other RPO) will be available in the following contracts:
 - a. Green Day-ahead Contingency Contract
 - b. Green Intra-day Contracts
 - c. Green Daily Contracts
 - d. Green Weekly Contracts
 - e. Green Monthly Contracts
 - f. Any Day(s) Single Sided Contracts
7. As per the existing practice and to ascertain the eligibility of sellers for participation in the proposed Hydropower Bid Type i.e. Hydro (other RPO), the sellers shall provide NOC/Standing clearance containing name of source and its eligibility to fulfill 'Other RPO'. The eligibility conditions shall be as per notification of Government/Regulatory Commissions from time to time. No change in eligibility of buyers to participate in the proposed Bid type.
8. A separate certificate will be issued by the Exchange detailing various trades undertaken by the buyers, which may be used for meeting 'Other RPO' compliance of such buyers. Detail terms and conditions of the Hydropower Contracts is available in HPX Business Rules at HPX website www.hpxindia.com.
9. In view of the above and considering the overall development of RE market, the new Hydropower Bid Type for meeting other RPO is proposed to be introduced on the HPX platform.

F. No. 09/13/2021-RCM
Ministry of Power
Government of India

Shram Shakti Bhawan, New Delhi
Dated 22 July, 2022

ORDER

Subject: Renewable Purchase Obligation (RPO) and Energy Storage Obligation Trajectory till 2029-30 - regarding.

In exercise of the powers conferred under section 3(3) of Electricity Act, 2003, the Central Government had notified the revised Tariff Policy, which was published in Gazette of India, Extraordinary, Part-I, Section-1 dated 28.01.2016.

2. Para 6.4(1) of the Tariff Policy 2016 provides as follows:

*"Pursuant to provisions of section 86(1)(e) of the Act, the Appropriate Commission shall fix a minimum percentage of the total consumption of electricity in the area of a distribution licensee for purchase of energy from renewable energy sources, taking into account availability of such resources and its impact on retail tariffs. Cost of purchase of renewable energy shall be taken into account while determining tariff by SERCs. **Long term growth trajectory of Renewable Purchase Obligations (RPOs) will be prescribed by the Ministry of Power in consultation with MNRE.**"*

Provided that cogeneration from sources other than renewable sources shall not be excluded from the applicability of RPOs."

3. Energy from Hydro Power Projects is Renewable Energy (RE) as has been recognized world over. On 8th March 2019, the Government of India had also recognized Large Hydro Power Projects (LHPs) including Pumped Storage Projects (PSPs), having capacity of more than 25 MW, as part of RE. It was further specified that energy from all LHPs, commissioned after 8th March 2019, will be considered as part of Renewable Purchase Obligation (RPO) through a separate obligation, i.e. Hydro power Purchase Obligation (HPO).

4. Accordingly, the Ministry of Power (MoP), after detailed consultation with Ministry of New and Renewable Energy (MNRE), notified the HPO trajectory for the period from 2021-22 to 2029-30 vide order dated 29th January, 2021 and subsequent clarification dated 1st April, 2021. The revised trajectory of RPOs for Solar and Other Non-Solar power was also notified for the period from 2019-20 to 2021-22. The aforesaid order also mentioned that the RPO trajectory beyond 2021-22 will be specified later.

5. To recommend RPO trajectory beyond 2021-22, a Joint-Committee under the Co-chairmanship of Secretary, Ministry of Power and Secretary, Ministry of New and Renewable Energy, was constituted on 17th December, 2020. Based on the recommendations of the Joint Committee and further discussions with MNRE, MoP hereby specifies the following RPO Trajectory beyond 2021-22:

Year	Wind RPO	HPO	Other RPO	Total RPO
2022-23	0.81%	0.35%	23.44%	24.61%
2023-24	1.60%	0.66%	24.81%	27.08%
2024-25	2.46%	1.08%	26.37%	29.91%
2025-26	3.36%	1.48%	28.17%	33.01%
2026-27	4.29%	1.80%	29.86%	35.95%
2027-28	5.23%	2.15%	31.43%	38.81%
2028-29	6.16%	2.51%	32.69%	41.36%
2029-30	6.94%	2.82%	33.57%	43.33%

(a) **Wind RPO** shall be met only by energy produced from Wind Power Projects (WPPs), commissioned after 31st March 2022.

(b) **HPO** shall be met only by energy produced from LHPs (including PSPs), commissioned after 8th March 2019.

(c) **Other RPO** may be met by energy produced from any RE power project not mentioned in (a) and (b) above.

6. From F.Y. 2022-23 onwards, the energy from all Hydro Power Projects (HPPs) will be considered as part of RPO. The HPO trajectory, as has been notified earlier will continue to prevail for LHPs commissioned after 8th March 2019. All other HPPs will be considered as part of 'RPO' under category of 'other RPO'.

7. RPO shall be calculated in energy terms as a percentage of total consumption of electricity.

8. HPO obligations may be met from the power procured from eligible LHPs (including PSPs) commissioned on and after 8th March, 2019 to 31st March, 2030.

9. HPO obligation of the State/Discom may be met out of the free power being provided to the State from LHPs (including PSPs), commissioned after 8th March, 2019 as per agreement at that point of time excluding the contribution towards LADF, if consumed within the State/Discom. Free power (not that contributed for Local Area Development) shall be eligible for HPO benefit.

10. In case, the free power mentioned above is insufficient to meet the HPO obligations, then the State would have to buy the additional hydro power to meet its HPO obligations or may have to buy the corresponding amount of Renewable Energy Certificate corresponding to Hydro Power.

11. The Renewable Energy Certificate mechanism corresponding to Hydro Power to be developed by CERC to facilitate compliance of HPO Obligation would have a capping price of Rs.5.50/Unit of electrical energy w.e.f. 8th March, 2019 to 31st March, 2021 and with an annual escalation @ 5% thereafter for the purposes of ensuring HPO compliance.

12. The above HPO trajectory shall be tried up on an annual basis depending on the revised commissioning schedule of Hydro projects. The HPO trajectory for the period between 2030-31 and 2039-40 shall be notified subsequently.

13. Hydro power imported from outside India shall not be considered for meeting HPO.

14. Any shortfall remaining in achievement of 'Other RPO' category in a particular year can be met with either the excess energy consumed from WPPs, commissioned after 31st March 2022 beyond 'Wind RPO' for that year or with excess energy consumed from eligible LHPs (including PSPs), commissioned after 8th March 2019 beyond 'HPO' for that year or partly from both. Further, any shortfall in achievement of 'Wind RPO' in a particular year can be met with excess energy consumed from Hydro Power Plants, which is in excess of 'HPO' for that year and vice versa.

15. The following percentage of total energy consumed shall be solar/wind energy along with/ through storage,

F.Y.	Storage (on Energy basis)
2023-24	1.0 %
2024-25	1.5 %
2025-26	2.0 %
2026-27	2.5 %
2027-28	3.0 %
2028-29	3.5 %
2029-30	4.0 %

16. The Energy Storage Obligation in para 15 above shall be calculated in energy terms as a percentage of total consumption of electricity and shall be treated as fulfilled only when at least 85% of the total energy stored in the Energy Storage System (ESS), on an annual basis, is procured from renewable energy sources.

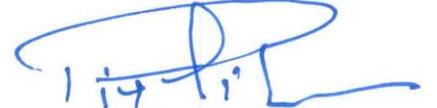
17. The Energy Storage Obligation to the extent of energy stored from RE sources shall be considered as a part of fulfilment of the total RPO as mentioned in para 5 above.

18. The Energy Storage Obligation shall be reviewed periodically considering the commissioning/ operation of PSP capacity, to accommodate any new promising commercially viable Energy Storage technologies and also reduction in cost of Battery Energy Storage Systems (BESS).

19. POSOCO will maintain a data related to compliance of RPO Obligations.

20. Further, the State Commissions may consider notifying RPO trajectory including HPO and Energy Storage Obligation trajectory for their respective States, over and above the RPO, HPO and Energy Storage Obligation trajectory given in para 5. Moreover, the Central Commission shall consider devising a suitable mechanism similar to Renewable Energy Certificate (REC) mechanism to facilitate fulfilment of HPO.

21. This issues with the approval of Hon'ble Minister of Power and New & Renewable Energy.



(Piyush Singh)

Joint Secretary to the Government of India
Tele No: 011-23714367

To

1. ACS/Principal Secretary/Secretary (Power/Energy), State Governments/UTs.
2. Secretary (CERC/FOR), New Delhi
3. Secretary, State Electricity Regulatory Commissions/Joint Electricity Regulatory Commissions

Copy to:

1. Secretary, MNRE, New Delhi
2. Chairperson, CEA, New Delhi

Copy also for information to:

1. PS to Hon'ble Minister for Power and NRE
2. Additional PS to Hon'ble Minister of State for Power
3. Sr. PPS to Secretary(P)/PPS to AS&FA, MoP/ PPS to AS(AT), MoP
4. PPS to All Joint Secretaries/ EA/ CE, MoP

F. No. 09/13/2021-RCM
Ministry of Power
Government of India

Shram Shakti Bhawan, New Delhi
Dated 19th September, 2022

CORRIGENDUM

Subject: Corrigendum to Renewable Purchase Obligation (RPO) and Energy Storage Obligation Trajectory till 2029-30 order dated 22nd July 2022.

In partial modification of this Ministry's Order No. F. No. 09/13/2021-RCM dated 22nd July 2022 on Renewable Purchase Obligation (RPO) and Energy Storage Obligation Trajectory till 2029-30, the following changes are hereby made:

2. The words "*LHPs (including PSPs)*" in Para 5(b), 8, 9 and 14 and the word "*LHPs*" in Para 6 of the Order, are substituted with the following words:-

"Hydro Power Projects (including PSPs and Small Hydro Projects (SHPs))"

3. The words "*....All other HPPs will be considered...*" in Para 6 are substituted with the following words:-

"....Energy from all other HPPs including free power from HPPs commissioned before 8th March 2019 will be considered..."

4. Further, as the Wind Power Projects (WPPs) currently require significant amount of investment when compared to other RE technologies, it was felt that benefit should be given to the States, who had commissioned or tied up with WPPs in the recent past. Accordingly, it has been decided that the share of wind in non-solar RPO (as defined in order dated 29th January 2021) and which was in excess of 7% as on 31st Mar 2022, has been considered for inclusion towards Wind RPO. In accordance with above, Para 5(a) of the order is substituted with the following new para:-

(a) Wind RPO shall be met by energy produced from Wind Power Projects (WPPs) commissioned after 31st March 2022 and the wind energy consumed over and above 7% from WPPs commissioned till 31st March 2022.

5. This issues with the approval of Hon'ble Minister of Power and New & Renewable Energy.

Hemant
19/09/22
(Hemant Kumar Pandey)
Chief Engineer
Tele No: 011-23710389

To

1. ACS/Principal Secretary/Secretary (Power/Energy), State Governments/UTs.
2. Secretary (CERC/FOR), New Delhi
3. Secretary, State Electricity Regulatory Commissions/Joint Electricity Regulatory Commissions

Copy to:

1. Secretary, MNRE, New Delhi
2. Chairperson, CEA, New Delhi

Copy also for information to:

1. PS to Hon'ble Minister for Power and NRE
2. Additional PS to Hon'ble Minister of State for Power
3. Sr. PPS to Secretary(P)/PPS to AS&FA, MoP/ PPS to AS(AT), MoP
4. PPS to All Joint Secretaries/ EA/ CE, MoP

ANNEXURE-III

Proposed changes to HPX's business rules would allow for the establishment of a new hydro bid type, known as hydro (Other RPO), in the green term ahead market and green intraday market.

CHAPTER 12

GREEN DAY AHEAD CONTINGENCY AND GREEN INTRA DAY MARKET

1. Renewable Purchase Obligation (RPO) /Hydropower Purchase Obligation (HPO)

The buyers may claim compliance of Solar and Non-Solar RPO against electricity procured from the 'Solar' and 'Non-Solar' sub-segments of these contracts respectively and further buyer may claim HPO against electricity procured from the 'Hydro' sub-segment subject to applicable regulations and Hydro (Other RPO) respectively subject to applicable regulations. The Exchange will issue an electronically printable "Certificate of Purchase of Renewable Energy" as per format prescribed at **Annexure – 1** to this Chapter, along with the trades executed pertaining to such certificate, to the Buyers within five days of trading. This Certificate shall be non-transferable and non-tradable.

Annexure 1 (B)

Green Day Ahead Contract Specifications

Eligibility- Sellers: Seller shall submit NOC issued by respective LDC specifying maximum quantity and source of renewable energy generation (e.g. Solar, Non-solar, Hydro (HPO)/Hydro (Other RPO))~~Hydro~~ etc.) Buyers: All eligible open access consumer

CHAPTER 13

GREEN TERM AHEAD MARKET (GTAM)

3. Green Purchase Obligation

4. Hydropower Purchase Obligation (HPO)/Other RPO

The buyers may claim compliance of HPO against electricity procured from the 'Hydro' (HPO) and Hydro (Other RPO) sub-segments respectively, subject to applicable regulations. The Exchange will issue an electronically printable "Certificate of Purchase of Renewable Energy" as per format prescribed at Annexure-1, along with the trades executed pertaining to such certificate, to the Buyers within five days of trading. This Certificate shall be non-transferable and non-tradable