

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 195/MP/2021

Coram:

Shri P. K. Pujari, Chairperson

Shri I. S. Jha, Member

Shri Arun Goyal, Member

Shri P. K. Singh, Member

Date of Order: 5th of April 2022

IN THE MATTER OF:

Petition under Section 66 of the Electricity Act, 2003 read with Regulation 25 of the Central Electricity Regulatory Commission (Power Market) Regulations, 2021 for approval of introduction of the Hydro Two Day Ahead Contracts, Hydro Green Term Ahead Contracts, Weekly Uniform Price Contracts and, Uniform Price Auction to Contracts in Term Ahead Market, Green Term Ahead Market as well as in Hydro Green Term Ahead Market at Power Exchange India Limited.

And in the matter of

Power Exchange India Limited,
9th Floor, 901, Sumer Plaza,
Marol Maroshi Road, Marol Andheri (East),
Mumbai 400059.

.....Petitioner

Vs

Power System Operation Corporation.
B-9, Qutab Institutional Area, Katwaria Sarai,
New Delhi

.....Respondent

Parties Present

Mr. Sakya Singha Chaudhuri, Petitioner

Mr. Nithya Balaji, Petitioner

Mr. Prabhajit Kumar Sarkar, Petitioner

Mr. Shekhar Rao, Petitioner

Mr. Anil V Kale, Petitioner

Mr. Sunil Hingwani, Petitioner

Mr. Chandrashekhar Bhat, Petitioner

Mr. Ambrish Kumar Khare, Petitioner

Mr. Mukti Marchino, Petitioner

Mr. Subhendu Mukherjee, Respondent



ORDER

The Petitioner has filed the present Petition seeking approval of the Commission for introduction of the Hydro Two Day Ahead Contracts, Hydro Green Term Ahead Contracts, Weekly Uniform Price Contracts and Uniform Price Auction to Contracts in Term Ahead Market, Green Term Ahead Market as well as in Hydro Green Term Ahead Market at Power Exchange India Limited.

2. The Petitioner has made the following prayers:
- a) To allow the Petitioner to introduce Hydro Two Day Ahead Contract in the Term Ahead Market;
 - b) To allow the Petitioner to introduce a new category “Hydro” in the GTAM segment for sale and procurement of hydro energy;
 - c) To approve Uniform Price Auction to Contracts approved in the Term Ahead Market, Green Term Ahead Market and in Hydro Green Term Ahead Market, and any other Contracts to be introduced in such market segments in the future and to make necessary changes in the Business Rules accordingly;
 - d) To allow the Petitioner to introduce different matching mechanisms in the existing Contract and new Contracts in Term Ahead Market including Green Term Ahead Market and proposed Hydro Green Term Ahead Market where delivery is on a day more than one day ahead i.e. ‘T +2’ or more to meet market participants’ requirement, by issuance of a Circular from time to time;
 - e) To permit “No Objection or Prior Standing Clearance” submitted by Regional entity / State Utilities / Intra State entity to the power exchange for the Day Ahead Market and Real Time Market to be utilised for Hydro Two Day Ahead Market, as well;
 - f) To permit the “No Objection or Standing Clearance” issued to Seller by RLDC/SLDC to mention the source of energy as ‘Hydro’ generation for participation in Hydro Two Day Ahead Market and Hydro Green Term Ahead Market along with the date of commissioning of the hydro generating station;

- g) To amend Regulation 5 of Central Electricity Regulatory Commission (Power Market) Regulations, 2021 providing features of contracts of Day Ahead Market and Real Time Market to be made applicable for Hydro Two Day Ahead Market, as well;
- h) To direct NLDC to incorporate / amend / issue detailed procedure for scheduling collective transaction in Hydro Two Day Ahead Market in a manner similar to procedures made for operation of Day Ahead Market and Real Time Market in power exchanges;
- i) To approve inclusion of Hydro Two Day Ahead Contract specification in the approved Business Rules for introducing it in the power exchange platform operated by the petitioner;
- j) To allow the Petitioner to change the nomenclature from “Discriminatory Price matching” to “Multiform Price matching” in the Business Rules of the petitioner;
- k) To adjust the filing fees for processing this Petition against the fees paid earlier by the Petitioner in Petition No. 58/MP/2021;
- l) Pass such other order(s) that this Hon’ble Commission may deem fit to remove difficulties and allow implementation of the above;

3. The case was called out for a virtual hearing on 30.11.2021 and 09.03.2022.

Submissions of the Petitioner

4. The Petitioner has submitted that the Ministry of New and Renewable Energy (MNRE) has up-scaled the target of renewable energy capacity to 175 GW by 2022 which includes 100 GW from solar, 60 GW from wind, 10 GW from bio- resources and 5 GW from small hydro-power. The generation target is also coupled with Renewable Purchase Obligation (RPO) to be met by distribution licensees and open access consumers.

5. To accelerate the growth of hydro power sector, the Ministry of Power (MoP) has, on 08.03.2019, declared Large hydro Power Plants (LHPs) having installed capacity > 25 MW and

commissioned after 08.03.2019 as renewable energy source. The ministry has also notified Hydro Purchase Obligation (HPO) as a separate category to Non-Solar RPO.

6. MoP, on 29.01.2021 has issued a revised trajectory of RPO for FY 21-22 including long term trajectory for HPO. HPO may be met from the power procured from eligible LHPs commissioned on and after 08.03.2019 and up to 31.03.2030 in respect of 70% of the total generated capacity for a period of 12 years from the date of commissioning. HPO may also be met out from the free power being provided to the State from such LHPs. In case of any gap, States may have to buy the corresponding amount of Hydro Energy Certificates to meet the HPO.

7. In light of the above, the Petitioner has proposed to proportionately allocate the benefits to the buyer depending upon the type of Hydro plant, in the following manner:

- a) Where Hydro plants commissioned before 08.03.2019 are the selling entities, the buyer is benefited by reduction in RPO;
- b) Where Hydro plants commissioned on and after 08.03.2019 are the selling entities, the buyer's HPO requirement is met.

Proposed Hydro Contracts at Power Exchange

8. In continuance of the efforts towards hydel power sector in the country, the petitioner has proposed (i) Hydro Two Day Ahead Contracts and (ii) Hydro GTAM Contracts at its platform. The Petitioner enlists following benefits to have hydro contracts at power exchange:

- a) Hydro generators would have an additional option of selling green power that would help buyers meet their demand while simultaneously fulfilling their HPO;
- b) Price discovery which takes into account the HPO related benefits of hydro generation would provide encouragement for development of new merchant capacity in the Hydro market;
- c) Hydro generators may not need to lock themselves into long term PPAs in advance or depend on the conclusion of PPAs for the purpose of their project feasibility;

- d) It would address the concerns of Hydro generators regarding the issue of cost recovery of hydro power's green attributes as the market discovered price signals would provide adequate impetus for pricing of base load and peaking power transactions and green attributes of hydro power.

(i) *Hydro Two Day Ahead Contracts*

9. In the Hydro Two Day Ahead Contracts (HTDAC), participants will be able to transact on day-T, for delivery of power on day T+2 in 96-time blocks. In case, the offers of sellers are not cleared or partially cleared, then they would have an option to sell their power in the existing DAM or RTM. For the HTDAC, the Petitioner has made following requests:

- a) A procedure for scheduling transactions under HTDAC may be issued by NLDC in line with the existing procedures for DAM & RTM transactions.
- b) The NOC issued to Seller by respective RLDC/SLDC shall mention the source of energy as "Hydel generation". Moreover, the NOC issued for DAM, should also be permitted for participation in Hydro Two Day Ahead Contract as well.

(ii) *Hydro GTAM Contracts*

10. The Petitioner has proposed to introduce a new category 'Hydro' contract in the existing Green Term Ahead Market (GTAM). The transactions in Hydro GTAM Contracts shall be in a manner similar to GTAM Contracts approved by the Commission in the Order dated 19.03.2021 in Petition No. 228/MP/2020. The parameters and tenure of Hydro GTAM Contracts would be similar to the existing GTAM Contracts.

Price Discovery Methodology

11. The petitioner has sought approval to introduce a variant in the Weekly Contract with bilateral settlement of trade at a single price i.e. Uniform Clearing Price. Presently, the exchange is following Discriminatory Price Matching Methodology for matching of bids in weekly contracts wherein prices vary across multiple clearings. Therefore, a buyer / seller whose traded volume is cleared in multiple clearing, has to settle the contracts at multiple clearing prices. For distribution companies who are regulated entities, it is sometimes a matter of concern to justify procurement of power at different clearing prices. The transactions if cleared at single price under

the proposed Uniform Clearing Price Auction mechanism will remove the concerns of providing justification to procurement of power at different clearing prices faced by regulated entities like distribution companies.

12. The Petitioner has also sought approval to apply Uniform Price Auction in existing Contracts approved in the Term Ahead Market, Green Term Ahead Market, and other Contracts to be approved by the Commission in future.

13. The Petitioner has further sought approval to change the nomenclature of “Discriminatory Price Matching” to “Multiform Price Matching” in the business rules. This change is being sought in the light of the new set of matching types for various products being proposed at the Petitioner’s platform in future which shall provide flexibility in order entry and matching mechanism to market participants.

14. The Petitioner has submitted that with the introduction of the above contracts, relevant clauses of the existing Business Rules are required to be amended and the Petitioner may be allowed to do the same.

Hearing dated 30.11.2021

15. During the hearing held on 30.11.2021, the Petitioner reiterated its submissions made in the petition. After hearing the Petitioner, the Commission observed that insofar as the Petitioner’s proposal for introduction of HTDAC is concerned, admittedly, the said proposal will require changes/modifications to the existing regulatory frameworks and/or procedures, which may take its own course and cannot be subject matter of the present proceedings. Further, as regards the submission of the Petitioner that in the meantime, the proposal may be approved and be treated at par with day ahead contracts, the Commission observed that such dispensation may also not be possible in the existing regulatory framework as it may lead to various issues relating to transmission corridor allocations and curtailment priority, etc. between the day ahead contracts and two-day ahead contracts. Accordingly, the Commission admitted the petition and directed to issue notice to the Respondent for the prayers except for the proposal to introduce HTDAC in TAM and the other prayers to the extent they relate to HTDAC. The Commission further

directed the Petitioner to give wide publicity to its proposals to the extent as are covered under the existing regulatory framework with the requirement for amendment to the Regulations issued by the Commission in the context.

16. To comply with the directions of the Commission, on 14.12.2021, the Petitioner issued a public notice on its website for inviting Stakeholders' Comments. The Petitioner received comments from the following stakeholders: (i) Maharashtra State Electricity Distribution Co. Limited (MSEDCL), (ii) Prayas Energy Group, (iii) Sembcorp Energy India Limited (SEIL), (iv) Teesta Urja Limited (TUL) and (v) NTPC Limited. On 08.02.2022, the Petitioner filed an affidavit providing comments received from the stakeholders and its response thereon. The Petitioner has not received any comment/ suggestion from the Respondent 'POSOCO'.

Comments of Stakeholders & Response of the Petitioner

17. Stakeholders have commented that while introducing Hydro GTAM contracts, the characteristics and mechanism of these newly introduced contracts should be kept same as per the existing GTAM contracts prevailing in the market for Solar and Non-Solar segments. In response, the Petitioner has stated that the contract parameters for transacting in Solar/Non Solar type of Renewable energy as available in GTAM Contracts shall be replicated in proposed Hydro Contracts.

18. Stakeholders have commented that PXIL petition proposes that the power exchange will retain flexibility to change matching mechanism in any TAM contract. As the matching mechanism is critical to the contract design, it should be pre-specified in the petition before launch of the contract and should be adopted after Commission's approval. Any change in matching mechanism for an existing contract should also be approved by the Commission. In response, the Petitioner has submitted that the matching mechanism shall be as per the Business Rules of the exchange and the approvals issued by the Commission from time to time.

Hearing dated 09.03.2022



19. During the hearing held on 09.03.2022, the Petitioner submitted that based on its discussion with stakeholders and as directed by the Commission through the ROP for hearing dated 30.11.2021, it is now seeking approval on the following limited prayers of the Petition:

- To allow the Petitioner to introduce a new category “Hydro” in the GTAM segment for sale and procurement of hydro energy;
- To approve Uniform Price Auction to Contracts approved in the Term Ahead Market, Green Term Ahead Market and in Hydro Green Term Ahead Market, and any other Contracts to be introduced in such market segments in the future and to make necessary changes in the Business Rules accordingly;
- To permit the “No Objection or Standing Clearance” issued to Seller by RLDC/SLDC to mention the source of energy as ‘Hydro’ generation for participation in Hydro Two Day Ahead Market and Hydro Green Term Ahead Market along with the date of commissioning of the hydro generating station.

20. On hearing the submissions made by the representative of the Petitioner, the Commission reserved the matter for an order.

Analysis and Decision

21. The Petitioner has proposed to introduce Hydropower Contracts in existing Green Term Ahead Market (GTAM) on its platform for exclusive trading of hydro energy. The Petitioner has submitted that the proposed contract will provide additional avenue to the eligible hydro generators for sale of hydro energy and obligated entities to fulfill their Hydro Purchase Obligations (HPOs). The Petitioner has highlighted that the proposed contract will provide a market-based mechanism where hydro surplus and hydro deficit States can trade hydro power and balance their HPO targets. The Petitioner has also submitted that this proposal would lessen the burden on hydro-rich States and incentivize them to develop hydro capacity beyond their own HPO. The proposed contract will enable obligated entities to procure hydro power at competitive prices at the power exchanges. The Petitioner has also highlighted that the proposed contract will promote hydro merchant capacity addition which will eventually help in achieving hydro capacity addition targets of the country.

22. In pursuance of the directions of the Commission, the Petitioner has carried out stakeholder's consultation and submitted its reply to the comments/suggestions given by the stakeholders. Further, the Petitioner has also impleaded POSOCO as respondent. It is observed that majority of the stakeholders have given positive feedback to the proposal for introduction of Hydro GTAM Contracts at the exchange platform and have also sought clarity on some points. It is also noted that no comment/ suggestion was received from the respondent 'POSOCO'.

23. We have considered the submissions of the Petitioner, and the comments/suggestions given by the different stakeholders along with the reply thereupon by the Petitioner. We agree with the submission of the Petitioner that the introduction of Hydropower Contracts in existing GTAM at the power exchange will provide an additional avenue to the existing and prospective Hydro Generators to sell the hydro power at the exchange platform. Through the Hydro GTAM Contracts, the obligated entities would be able to procure hydro green power and thus be able to meet their HPO requirements. In the long-term, it may promote hydropower capacity.

24. Considering the above, we are of the view that grant of approval to the Petitioner to introduce Hydropower Contracts in the existing GTAM on its platform can be considered. However, before according the approval, it is necessary to examine the comments/suggestions received from the stakeholders during the stakeholders' consultation. The different aspects of the proposed contract have been dealt with in the succeeding paragraphs keeping in view the submissions made by the Petitioner and comments/suggestions given by the stakeholders.

(i) HPO fulfillment through Hydropower contracts in GTAM

25. The Petitioner has submitted the proposal for introducing Hydropower Contracts in existing GTAM on its platform for trading of hydro energy on short-term basis. The Petitioner has proposed separate window for Hydro Contracts (other than Solar and Non-Solar) in GTAM so that the procurement of hydro power by the obligated entities through the exchange platform can be differentiated and the buyer of such hydropower can be considered for meeting HPO.

26. We agree with the proposal of the Petitioner to introduce separate window for Hydropower Contracts in existing GTAM along with the already existing windows for Solar and other Non-Solar Contracts. A dedicated window for Hydro Contracts in GTAM will facilitate the matching of hydro buy bids with hydro sell bids. Also, the obligated entities procuring RE through Hydropower Contracts through the proposed separate window in the GTAM shall be eligible for meeting their HPO in view of the fact that only Hydropower with green attributes shall be available for sale through such window. Further, as the transactions through GTAM are bilateral in nature with clear identification of corresponding buyers and sellers, there will not be any difficulty in accounting for HPO.

(ii) Type of Contracts

27. The Petitioner has proposed the Hydro GTAM Contracts under the categories of Green Intra Day Contract, Green Day Ahead Contingency Contract, Green Any Day Contract and Green Weekly Contract.

28. As regards types of contracts, since the proposed contracts are on the same lines as the existing contracts under GTAM, we allow the Petitioner to introduce the proposed hydro contracts in GTAM.

(iii) Price Discovery Methodology and Matching Rules

29. The Petitioner has sought approval of the Commission to the proposal of Uniform Price Auction to Contracts approved in the Term Ahead Market, Green Term Ahead Market and in Hydro Green Term Ahead Market, and any other Contracts to be introduced in such market segments in the future.

30. We agree to the inherent merits of the Uniform Price Auction as mentioned by the Petitioner and endorse the Petitioner's proposal for price discovery methodology and matching rules for the hydro GTAM contracts. Accordingly, we allow 'Uniform Clearing Price Auction' for Hydro GTAM Any Day Contracts and Hydro GTAM Weekly Contracts. However, the proposal of the Petitioner for approval of price discovery methodology in respect of any other

contracts to be introduced in future, is not agreed to as it would amount to blanket approval without examining the implication of such proposal.

(iv) No Objection/Standing Clearance by RLDC/SLDC

31. The Petitioner has requested to issue appropriate directions to RLDCs/SLDCs regarding “No Objection or Standing Clearance” issued to the Seller. The Petitioner has requested to direct them to mention the source of energy as ‘Hydro’ along with the date of commissioning of the hydro generating station to ascertain its eligibility for participation in Hydro GTAM contracts.

32. We note that for the existing GTAM contracts, details of source and quantum etc. are being mentioned in the NOCs issued to RE generators by the respective SLDCs/RLDCs. We further note that to meet their HPO, buyers have to procure hydro power from the LHPs >25 MW commissioned on and after 08.03.2019 and up to 31.03.2030. Therefore, initially, such hydropower plants which are commissioned on and after 08.03.2019 and up to 31.03.2030 and having installed capacity greater than 25 MW would be able to participate in Hydro Contracts of GTAM. In this regard, the eligibility of hydro power project to participate in hydro segment of GTAM shall be ascertained by the respective RLDC/SLDCs, while issuing the NOC/eligibility certificate. Moreover, respective RLDCs/SLDCs are directed to provide the point of injection in the NOC itself so that the source of power and actual dispatch from that source can be traced in a transparent manner, as being done in case of existing GTAM.

(v) Waiver of ISTS charges and losses

33. We note that waiver of inter-State transmission charges and losses for RE generation are available in accordance with provisions of the CERC (Sharing of Inter-State Transmission Charges and Losses Sharing) Regulations, 2020. Any such waiver shall be admissible to the entities which fulfill the conditions specified under the Sharing Regulations.

34. In the light of the analysis and decision on the various issues arising out of the proposal for introduction of Hydropower Contracts in GTAM, the Commission approves the proposal of the Petitioner to introduce Hydropower Contracts in GTAM subject to compliance of the directions given in this Order.



35. The Petitioner is directed to incorporate appropriate provisions in its Bye-laws, Rules, and Business Rules concerning the introduction of Hydropower Contracts in GTAM and submit to the Commission for records within 2 (two) weeks from the date of this order.

36. Petition No. 195/MP/2021 is disposed of in terms of the above

Sd/-
(P.K. Singh)
Member

Sd/-
(Arun Goyal)
Member

Sd/-
(I.S. Jha)
Member

Sd/-
(P. K. Pujari)
Chairperson

