

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 143/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: 17th of October, 2021

IN THE MATTER OF:

Petition under Sections 66 and Section 178(2)(y) of the Electricity Act, 2003 read with Regulations 6 and 7 of the Central Electricity Regulatory Commission (Power Market) Regulations, 2010 for introduction and approval of Integrated Day 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, India

....Petitioner

Versus

National Load Despatch Centre (NLDC),
Power System Operation Corporation Limited,
B-9 (1st Floor), Qutab Institutional Area, Katwaria Sarai,
NewDelhi-110016

....Respondent



Parties Present:

Shri Sakya Singha Chaudhuri, Advocate, PXIL
Ms. Nithya Balaji, Advocate, PXIL
Shri Prabhajit Kumar Sarkar PXIL
Shri Shekhar Rao, PXIL
Shri Ambrish Kumar Khare, PXIL
Shri Anil V Kale, PXIL
Shri Sunil Hingwani, PXIL
Shri Chandrashekhar Bhat, PXIL
Ms. Mukti Marchino, PXIL
Shri Subhendu Mukherjee, POSOCO
Shri Gajendra Vasava, POSOCO

ORDER

The Petitioner, Power Exchange India Ltd. (PXIL) has sought approval of the Commission to introduce Integrated Day Ahead Market (IDAM) for providing exclusive trading in renewable energy (RE) on its platform to provide avenues to the existing and prospective RE generators for sale of RE power and thereby to provide more options to the obligated entities to fulfill their Renewable Purchase Obligation (RPO).

2. The Petitioner has made the following prayers:

- “1) Accord approval for introduction of IDAM at the petitioner’s platform;*
- 2) Exempt Buyers and Sellers from payment of transmission charges and losses at the drawl/injection points, respectively, for the transactions undertaken in renewable segment of IDAM executed on power exchange;*
- 3) Bring into effect provisions relating to market coupling envisaged under CERC (Power Market) Regulations, 2021 (PMR, 2021) to facilitate introduction of IDAM at PXIL;*

- 4) *Issue appropriate Order/direction for recognition of power purchase made by the obligated entities in renewable segment to be considered for RPO fulfillment;*
- 5) *Issue appropriate Order/direction to facilitate issuance of RECs to RE Sellers cleared in conventional segment;*
- 6) *Issue appropriate Order/direction allowing participants to modify their Orders after declaration of results of first matching i.e. matching in the renewable segment but prior to initiation of second matching i.e. matching in the conventional segment;*
- 7) *Issue appropriate Order/direction to POSOCO / NLDC for issuing relevant amendments to the 'Procedure for Scheduling Collective transaction' providing for introduction of IDAM in power exchanges with separate price formation for RE power and conventional power;*
- 8) *Approve the Contract Specification provided as Annexure P-4 and to include this IDAM Contract by replacing the existing Day Ahead Market (DAM) Contract in the approved Business Rules of the Petitioner;*
- 9) *Pass such other order(s) that this Hon'ble Commission may deem fit to remove difficulties and allow implementation of the above;”*

Submissions of the Petitioner

3. The Petitioner has sought approval of the Commission to introduce IDAM on its platform. The proposal is based on letter dated 24.03.2021 of the Ministry of Power, Government of India (MoP) titled “Development of Integrated Day Ahead Market (DAM) in Power Exchange with separate price formation for RE Power and Conventional Power –Reg.”, which inter alia suggested a framework for integrating the trading of RE power with conventional power in day ahead market with separate price formation for RE and conventional power. The salient features of IDAM mentioned in the said letter dated 24.03.2021 are as under:

- a) Power Exchange to have IDAM with separate price formation for RE power and conventional power.
- b) IDAM to have a single RE market for all types of Renewable Energy i.e., solar, non-solar, hydro.
- c) Participants can submit their bids in two parts, i.e. the quantity they would be willing to buy or sell, as renewable energy or conventional energy.
- d) Participants of RE segment of the bid would have the option to transfer their unselected bids to the conventional segment of IDAM.
- e) The entire set of bids can be cleared one after another. First, renewable bids could be matched with renewable offers, taking into consideration the availability of transmission for the quantities selected. After the selected renewable segment of the bids are cleared, the conventional segment (net of that cleared under RE segment) of the bids would be cleared considering the availability of transmission, net of what has been allocated under the first segment.
- f) Buyers of RE segment of the bids will get solar and non-solar RPO credit on the basis of proportion of the solar and non-solar bids of the sellers cleared in the total volume of the RE segment.
- g) Sellers of RE will get RECs (Renewable Energy Certificates) against quantum of power cleared in the conventional segment.

- h) The price determination process could be a two-step process while other processes like bidding, settlement and scheduling may be combined for both segments. However, clear identification of type of transaction (renewable/ conventional) should not be lost sight of.
 - i) For balancing purpose, RE generators may be allowed to buy from the Real Time Market (RTM) and transmission charges of Inter-State Transmission System be waived for RE transactions at IDAM as per policy of Government of India.
4. The Petitioner has proposed the following framework of IDAM at PXIL:
- a) The participants in RE as well as conventional segment may submit their bids in two parts, that is, quantity they would be willing to buy or sell as renewable or conventional power.
 - b) Sellers that can participate under renewable segment shall be pre-certified through a process similar to the existing GTAM wherein, the source of renewable energy of the seller is mentioned in the 'No Objection Certificate' (NOC) issued by concerned SLDC.
 - c) Bidders may be given the option to change the bid price when uncleared part of the renewable segment of the bid is transferred to the conventional segment.

- d) Coupling of exchanges should be adopted to avoid multiple prices from different exchanges for renewable and conventional power. For this purpose, a new entity, Market Coupling Operator needs to be created, which should be an independent entity. This entity would receive bids from all exchanges and clear them together.
- e) Once all bids are received, the entire set of bids can be cleared one after another. First renewable segment of the bids would be matched taking into consideration availability of the transmission corridor for the selected quantities. Once renewable segment is cleared, this set of cleared bids would be scheduled. All quantities transacted under this segment would be considered for meeting RPO compliance of the buyer.
- f) Depending upon the choice of the bidders, uncleared quantities of bids from renewable segment can be transferred to the conventional segment. This segment would also be cleared considering availability of the transmission corridor, net of what has been allocated under the first segment.
- g) Final schedules of both the segments can be settled (from payment perspective) together with two separate settlement statements for each participant, clearly identifying renewable and conventional part of quantities selected.
- h) Other contract details of IDAM:

- Contract calendar/ period: The Exchange shall operate IDAM Contract on Collective basis as per CERC (Open Access in inter-State Transmission) Regulations, 2008 (in short, 'the Open Access Regulations').
- Auction Trade Session: The Auction Trade Session timings would be notified to the Members by the Exchange from time to time. The Exchange may extend, advance or reduce trading hours by notifying the Members as and when it deems fit and necessary.
- Trading Cycle: Trading Cycle of the Exchange would be as per the "Procedure for Scheduling Collective Transactions in the Day Ahead Market" issued by NLDC (National Load Despatch Centre). Various steps in the trading cycle would be intimated to the Members by the Exchange from time to time.
- Delivery Period: Delivery in the IDAM Contracts would be on 15-minute basis for the next day, based on the application submitted by the Exchange to NLDC and scheduled by NLDC/ RLDCs/ SLDCs.
- Delivery Point: Delivery point is the regional periphery of the regional transmission system in which the grid connected entity is located.
- Traded Schedule vs. Actual Schedule: For the IDAM Contracts, the trade schedule shall be reckoned at the Delivery Point. The actual

schedule at various seams including that of grid connected entities shall be worked out after incorporation of transmission losses in kind.

- Transmission Charges and Losses: The transmission charges and losses shall be in accordance with the Open Access Regulations and CERC (Sharing of Inter-state Transmission Charges and Losses) Regulations, 2020 (in short, 'the Sharing Regulations').
- Scheduling and System Operation Charges: Scheduling and System Operational Charges for NLDC/ RLDC/ SLDC shall be payable by the Exchange in accordance with the Open Access Regulations, along with the procedures issued by CTU (Central Transmission Utility) for 'Procedure for Scheduling Collective Transactions'. Such charges shall be recovered by the Exchange and socialized amongst all buyers and sellers.
- Other specifications of IDAM Contract:
 - No. of IDAM Contracts per day: 96 Contracts of 15 minutes duration each for next day
 - Minimum Bid Volume: 0.1 MW
 - Minimum Volume Quotation Step: 0.01 MW
 - Minimum Value Quotation step: Rs. 1/MWh

i) Proposed Timelines:

Timeline	Activity
10:00 to 12:00 Hrs	The Auction Trade Session would run from 10:00 to 12:00 hrs on all seven (7) days of the week except for the Exchange declared holidays. During this session, Members (through their Approved Users) would be allowed to place bids for buying or selling of Electricity on the Trading System.
12:00 to 12:10 Hrs	<p>Provisional Trade matching – Renewable Energy Segment</p> <p>The Orders received in Renewable segment would be matched by the Exchange to identify Contract for each 15 minutes for next day by aggregating the supply and demand bids and discovering the Unconstrained Market Clearing Price (MCP) and the Unconstrained Market Clearing Volume (MCV) based on this matching.</p>
12:10 to 12:20 Hrs	<p>NLDC Verification</p> <p>The Exchange would send the details of the electricity flows (as obtained through the unconstrained market solution) on various corridors as specified by NLDC. NLDC would check the electricity flows provided by the Exchange and in case of congested corridors, if any, convey to the Exchange, the revised Available Transmission Capacity (ATC) on these corridors.</p>
12:20 to 12:30 Hrs	<p>Final bid matching process – Renewable Segment</p> <p>The Exchange shall verify funds available in the Settlement Accounts/ Margin of all provisionally selected Exchange Members. Those Members who have not brought sufficient funds (pre-trade margin) may be provided a time window by the Exchange at its discretion to bring in the requisite margin. New Members/ clients may get selected in the bid matching process, which were not selected earlier but have sufficient funds in their Settlement Account.</p> <p>Based on the ATC and funds made available by the Members, the Exchange will re-run the bid matching process and declare results of Renewable segment matching at 12:30 Hrs.</p>
12:30 to 12:45 Hrs	<p>The Auction Trade Session would run from 12:30 to 12:45 hrs for participants to revise their bids prior to start of matching of conventional segment of the bids.</p> <p>Uncleared Order from Renewable segment matching and Order submitted for conventional segment shall be allowed</p>

	to be revised and/or deleted during this session.
12:45 to 13:15 Hrs	<p>Provisional Trade matching – Conventional Segment</p> <p>The Uncleared Orders from Renewable segment will be combined with Order received for matching in Conventional segment. Contract for each 15 minutes for next day would be determined by aggregating the supply and demand bids and discovering the Unconstrained Market Clearing Price (MCP) and the Unconstrained Market Clearing Volume (MCV) based on this matching.</p>
13:15 to 14:00 Hrs	<p>NLDC Verification – Conventional segment</p> <p>The Exchange would send the details of the electricity flows (as obtained through the unconstrained market solution) on various corridors as specified by NLDC. NLDC would check the electricity flows provided by the Exchange and in case of congested corridors, if any, convey to the Exchange, the revised Available Transmission Capacity (ATC) on these corridors.</p>
14:00 to 14:30 Hrs	<p>Final bid matching process – Conventional segment</p> <p>At 14:00 hrs, the Exchange shall verify funds available in the Settlement Accounts/ Margin of all provisionally selected Exchange Members. Those Members who have not brought sufficient funds (pre-trade margin) may be provided a time window by the Exchange at its discretion to bring in the requisite margin. New Members/ clients may get selected in the bid matching process, which were not selected earlier but have sufficient funds in their Settlement Account.</p> <p>Based on the ATC and funds made available by the Members, the Exchange will re-run the bid matching process at 14:30 hrs.</p>
14:30 to 15:00 Hrs	<p>Application to NLDC – Renewable and Conventional segment</p> <p>The Exchange would send the Application for Scheduling to NLDC after reworking the market solution based on the constraints provided by NLDC and funds made available by the members or the clients. The Exchange shall issue the Provisional Obligation Report to the Members by 14:30 hrs and based on it, make the application to NLDC by 15:00 hrs.</p>
17:30 Hrs	NLDC would confirm the Final Schedules to the Exchange and the Exchange would issue the Final Obligation Report at 18:00 hrs.

5. The Petitioner submitted the following benefits of the proposed IDAM:
- a) Participants can clearly identify that they have actually purchased renewable power from the Exchange.
 - b) All quantities transacted under the RE segment of IDAM would be considered for meeting RPO compliance of the buyer.
 - c) Transfer of uncleared bids and offers from renewable segment to conventional segment would ensure that though the two segments are not being cleared together, because of the transfer of uncleared bids, these segments would get integrated.
 - d) Green sellers will be eligible for RECs for the transactions taken place in the conventional segment of the IDAM.
 - e) As all this can be achieved in a single process, i.e. allocating available transmission capacity first to the renewable segment and then to the conventional segment, the process can be managed in the existing timelines. At a later date, counter flows of the two segments can be netted off to achieve better outcomes.
 - f) IDAM will provide significant opportunity for the country to move further away from conventional thermal power to renewable power. Considering the competitive price of renewable power, generators will not only have the

possibility to compete amongst themselves in the renewable segment, but will also have the opportunity to compete with conventional generators.

- g) In IDAM, coupling of power exchanges will ensure further depth and spread of the market by allowing participants in different exchanges to avail the benefits of multi-exchange requirements on the buy and sale side with the formation of single price.
6. The Petitioner requested that the Commission may consider relevant amendments to the Central Electricity Regulatory Commission (Power Market) Regulations, 2021 (in short, 'PMR 2021') and in the 'Procedure for Scheduling Collective transaction' for facilitating the introduction of IDAM.
7. The Petition was heard on 23.07.2021. During the hearing, the Commission observed that the proposal as contained in the petition would admittedly require amendments to the existing regulatory framework. However, considering the categorical submissions of the Petitioner that IDAM can be introduced within the existing regulatory framework, the Commission admitted the Petition to this limited extent of introduction of IDAM.
8. The Commission directed the Petitioner to give wide publicity to the proposal of IDAM by uploading its features and specifications on the website, and to invite stakeholders' comments and file an affidavit with detailed study incorporating the comments received from the stakeholders and the response of the Petitioner

thereon. The Commission also directed the Petitioner to implead POSOCO as a party to the Petition.

9. In compliance of the Commission's directions, the Petitioner uploaded a public notice on its website inviting stakeholders' comments on the proposed IDAM. In response to the public notice, the Petitioner received comments from 1) Prayas (Energy Group), 2) NTPC Limited, 3) Tata Power Company Limited, 4) JSW Energy Limited, 5) Hero Future Energies Private Limited, 6) Avaada Energy Limited, 7) Renew Power, 8) Gujrat Urja Vikas Nigam Limited, 9) Andhra Pradesh Power Purchase Committee, 10) GMR Energy Trading Limited, and 11) Maharashtra State Electricity Distribution Company Limited.
10. POSOCO filed its comments on 19.08.2021 on which the Petitioner filed rejoinder on 31.08.2021. Subsequently, on 04.09.2021, through an affidavit the Petitioner submitted its views on the comments received from the stakeholders.

Stakeholders Comments and the Petitioner's Response

11. The Petitioner submitted that the stakeholders have given positive feedback on the concept and proposal of IDAM and supported its introduction at the Exchange platform. Most of the stakeholders have affirmed that the introduction of such a contract would provide an alternate avenue for the buyers and the sellers to transact in renewable energy (RE) which will eventually promote renewable energy in the

country. The important issues raised by the stakeholders, along with Petitioner's response thereon, are summarised below:

- a) **Need for certification process for sellers participating in IDAM:** It has been suggested by one of the stakeholders that as certification for seller's participation in IDAM has been envisaged, the process of certification should also be provided in PMR 2021 and in the Business Rules of both the Power Exchanges.

Response of the Petitioner: In the present petition, it has been proposed that a seller whether an RE generator or a DISCOM can sell power in IDAM after obtaining NOC/ Standing Clearance from the concerned RLDC/ SLDC. The NOC/ Standing Clearance should *inter alia* specify the source of RE generation viz. solar, wind, hydro etc. required for recognition of the type of RPO compliance of the Obligated Entities. This practice is already being followed in the existing GTAM based on the directions of the Commission vide Order in Petition No. 228/MP/2020.

- b) **Re-opening of trading window for conventional segment after clearance of RE segment:** It has been suggested by some of the stakeholders that the sellers should be given an opportunity to revise their bids for conventional segment based on their clearance in RE segment of IDAM. For this purpose, an additional window for revising bids in conventional segment should be provided post clearance of the RE segment.

Response of the Petitioner: The Petitioner has requested relevant amendments to be made to 'Procedure for Scheduling Collective transaction' for providing an option to participants to modify their Order after declaration of results of first matching i.e. renewable segment but prior to initiation of second matching i.e. conventional segment, wherein a short duration of 10-15 minutes can be provided to the market participants to revise their bids for conventional segment. Since the bidding mechanism is double-sided closed bid auction as specified in Regulation 7(1)(a)(iii) of PMR 2021, the participants when provided access to the trading system shall view only their Orders and exercise the option to modify Order, if deemed necessary. The option to revise the bids shall be allowed to all participants who have opted to place bids for matching of conventional segment including the bids that were uncleared and/or partially cleared in renewable segment.

- c) **Consideration of hydropower participation in IDAM:** It has been suggested by one of the stakeholders that as MoP vide OM dated 08.03.2019 has introduced an additional obligation in terms of Hydro Purchase Obligation (HPO), the same may also be incorporated in the proposed IDAM.

Response of the Petitioner: The Commission may consider allowing participation of eligible hydro power plants (COD after 08.03.2019) in IDAM for meeting HPO of buyers. Further, HPO may be considered in a

proportionate manner similar to the way it has been considered for solar and non-solar RPO in the MoP proposal.

- d) **Waiver of ISTS charges for transactions in RE Segment:** It has been suggested by some of the stakeholders that waiver of ISTS charges may be provided to renewable transactions which would promote RE development and broaden and deepen the market operations.

Response of the Petitioner: As suggested by the stakeholders, the Commission is requested for amendment in the Sharing Regulations to enable such waiver in line with the MoP's Order dated 21.06.2021.

- e) **RE Sellers to buy from RTM to manage variations:** It has been suggested by some of the stakeholders that RE sellers should be allowed to buy power from RTM to manage their variations at IDAM.

Response of the Petitioner: As per the Procedure for scheduling collective transactions at RTM, power generators have an option to buy at RTM in case of forced outage only. However, in accordance with the Regulation 6(3) of the PMR 2021, the Commission may define other events as well wherein generators can be allowed to fulfill their supply obligation through RTM.

- f) **Issuance of RECs for RE power sold under conventional segment of IDAM:** It has been highlighted by the stakeholders that in the existing

framework, RE generators do not have the option to sell power under both REC and non-REC category. Therefore, current procedures may be amended to allow flexibility to RE generators to sell the RE power under both renewable and conventional segments of IDAM.

Response of the Petitioner: The Commission may provide appropriate directions to such renewable energy generators which are cleared in conventional segment of IDAM for issuance of RECs as per the Central Electricity Regulatory Commission (Terms and Conditions for Recognition and Issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 (in short, the REC Regulations’).

- g) **Deviation in Schedule:** It has been suggested by some of the stakeholders that due to forecasting error of RE generation, sometimes deviation occurs which can be managed if revision in the submitted schedules is allowed for IDAM.

Response of the Petitioner: Deviations from schedule shall be settled as per the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014 (in short, ‘the DSM Regulations’) and in case of intra-State entities, the deviation settlement is required to be done in accordance with the provisions of the Regulations and Orders of the respective State Commission.

- h) **Market Coupling:** The concept of market coupling ensures the same clearing price throughout the nation. However, with market coupling competition within the exchanges for competitive price discovery and development of different product to buyer will come to an end. Further, the exchanges offering lower trading margin will have the cheaper landed cost of energy (as the clearing price is same). Hence, in case the Commission considers introduction of the market coupling mechanism, it is necessary to fix the minimum and maximum transaction fee to be claimed by the power exchanges.

Response of the Petitioner: The issue of market coupling is to be examined by the Commission separately as indicated during the public hearing while finalizing PMR 2021 held on 23.07.2021. However, all market participants have expressed the need and urgency for implementing market coupling at the earliest for greater market depth and more effective integration of the market.

NLDC/ POSOCO's Comments and the Petitioner's Response

12. In pursuance of the Commission's directions, POSOCO submitted its comments on the proposal to the Petitioner. The important observations made by POSOCO along with the Petitioner's response thereon are summarized below:
- a) **Clearing and Curtailment Priority:** POSOCO has proposed that during clearing and also during congestion, RE should be given priority over conventional transactions. POSOCO has also requested for suitable amendment in the Open Access Regulations to provide inter-se curtailment

priority within the collective transactions during real time. POSOCO has proposed that till such amendment is notified, conventional transactions of IDAM may be curtailed followed by RE transactions and IDAM transactions may be curtailed followed by RTM transactions.

Response of the Petitioner: The Commission may provide for necessary flexibility in the sequence of bidding, bid closure, transmission allocation timelines etc. as the same is not specified in the MoP's proposal for IDAM.

- b) **Waiver of ISTS charges:** POSOCO has requested the Commission to amend the Sharing Regulations to provide for waiver of ISTS charges for RE transactions at IDAM. Further, it has been proposed that till such amendment takes place, ISTS charges may remain applicable.

Response of the Petitioner: The Commission may consider amending the Sharing Regulations to enable waiver of ISTS charges for RE transactions at IDAM, as the same has now been allowed by MoP vide OM dated 21.06.2021.

- c) **REC Issuance:** POSOCO has submitted that if an RE generator sells through different modes with some of these modes being not eligible for RECs, it would be difficult to differentiate the energy injection for issuance of RECs.

Response of the Petitioner: The Petitioner concurs with the views of POSOCO and requests the Commission to pass necessary orders/ directions and amend the REC Regulations in this regard.

- d) **Portfolio RE sale by DISCOM in IDAM:** POSOCO has proposed not to allow portfolio RE sale by DISCOM in IDAM as this may lead to mixing of green and conventional/ brown power.

Response of the Petitioner: If the DISCOMs are restricted from selling RE power in IDAM, one of the key objectives of enabling the RE rich states to sell their surplus power to RE deficit states through the market mechanism will go unfulfilled. Sale of surplus green power by DISCOMs would enable liquidity in the market-based avenue of collective transactions for the obligated entities. Moreover, for transactions in the renewable segment, the apportionment between solar and non-solar is possible under the present framework. A similar approach is being followed for GTAM approved earlier by the Commission and no issue has been faced.

- e) **Timelines for IDAM:** POSOCO has suggested that the timelines with respect to IDAM Contract should be decided mutually between the Exchange and the NLDC.

Response of the Petitioner: The Petitioner agrees with the proposal of POSOCO.

- f) **Clearing of IDAM in single iteration:** POSOCO has proposed that NLDC will clear both RE segment and conventional segment of IDAM in a single iteration. However, Power Exchange can run the market clearing engine separately for these segments.

Response of the Petitioner: The Petitioner agrees with the proposal of POSOCO.

- g) **Procedure for IDAM:** POSOCO has requested the Commission for suitable directions for specifying the procedure for IDAM.

Response of the Petitioner: The Petitioner concurs with POSOCO's suggestion that a procedure should be in place for operation of IDAM. The Petitioner has suggested that the same may be incorporated by amending the existing Procedure for scheduling of collective transactions.

- h) **Market Coupling:** POSOCO has suggested that to start with, IDAM may be introduced without market coupling. However, market coupling may be envisaged in near future to avoid multiple price formation.

Response of the Petitioner: Implementation of market coupling is crucial for facilitating the introduction and operation of IDAM at the power exchanges.

Market coupling is an indispensable and immediate feature to ensure transparency, efficiency and depth in market functioning.

Analysis and Decision

13. The Petitioner has proposed to introduce IDAM for providing exclusive RE trading on its platform and submitted that it will provide alternate avenue to the existing and prospective RE generators for sale of RE power and to the Obligated Entities to fulfill their RPO. The Petitioner has proposed introduction of IDAM based on the MoP letter dated 24.3.2021 on “Development of Integrated Day Ahead Market in Power Exchange with separate price formation for RE Power and Conventional Power – Reg.”, which inter alia suggested a framework for integrating the trading of RE power with conventional power in day ahead market with separate price formation for RE and conventional power.

14. In accordance with the directions of the Commission during hearing held on 23.07.2021, the Petitioner has conducted stakeholder consultation and submitted its response to the comments/ suggestions received from the stakeholders. The Petitioner has also submitted its response on POSOCO’s suggestions. It is observed that majority of the stakeholders including POSOCO have welcomed the proposal for introduction of IDAM at the exchange platform while some of them have made specific suggestions to it.

15. We have considered the submissions of the Petitioner, and the comments/ suggestions of POSOCO and different stakeholders along with the response thereupon by the Petitioner. Prima facie, we are of the view that the introduction of IDAM in the power exchange will provide an additional avenue for short-term trading of RE. Sellers of RE can use this for sale of renewable energy whereas the obligated entities can procure green power to meet their RPO. Initially, there may be issues related to liquidity in the market. However, with the availability of the trading platform, it may attract participation from the buyers and the sellers. Considering the above, we are of the view that the proposal of the Petitioner to introduce IDAM on its platform merits consideration.

16. The different aspects of the proposed IDAM have been dealt with and the decisions of the Commission are provided in the succeeding paragraphs keeping in view the submissions made by the Petitioner and comments/ suggestions given by POSOCO and various stakeholders.

Bidding, Market Clearing and Scheduling

17. The Petitioner has proposed a single window for bidding in the conventional segment and RE segment of IDAM with the option to transfer uncleared quantity from RE segment to conventional segment and that in the two segments, the bidders may quote different prices. The Petitioner has also submitted that Market Clearing and Price Discovery will take place in a sequential manner. In other words, first RE segment will be cleared followed by conventional segment and sequential requisition

will be made to NLDC for allocation of transmission corridor for the two segments. However, during the hearing held on 27.09.2021, the Petitioner has agreed for combined requisition to NLDC for allocation of transmission corridor for the two segments.

18. We observe that the Petitioner had initially proposed to operate first the RE segment and then the conventional segment under IDAM. This proposal has also been agreed by POSOCO and the stakeholders. Further, some of the stakeholders have suggested separate window for bidding for these segments or reopening of the window of bidding for conventional segment after clearing of the RE segment. We are of the view that in the double-sided closed bid auction, the participants are supposed to place their best bids with the flexibility to specify different prices for the RE segment and conventional segment. There is no requirement to have separate window for these two segments. Therefore, the Commission holds that there shall be a single window for bidding as per the existing timeline of 10 am to 12 noon. The Market Clearing shall take place in a sequential manner i.e., first RE segment will be cleared followed by the conventional segment considering the unselected bids of RE segment, if any. Further, as suggested by POSOCO and agreed to by the Petitioner, there shall be combined requisition for both of the segments by the Petitioner to NLDC for allocation of transmission corridor. NLDC shall allocate transmission corridor based on the prevailing practice for Collective Transactions. The scheduling of the transactions of RE segment and conventional segment shall be done separately based on the procedure of Collective Transactions. NLDC/RLDC/SLDC

shall ensure that RE and conventional transactions are reflected as separate schedules.

Market Coupling

19. The Petitioner and some stakeholders have recommended coupling of power exchanges to ensure further depth and spread of the market by allowing participants in different exchanges to avail the benefits of multi-exchange requirements on the buy and sale side with the formation of single price in IDAM. In this regard, POSOCO suggested that to start with, IDAM may be introduced without market coupling. However, market coupling may be considered in near future to avoid multiple price formations.
20. Regulation 39 of PMR 2021 provides that the provisions with regard to market coupling shall come into effect as and when decided by the Commission in accordance with the regulations to be specified separately. Accordingly, the Commission holds that the proposal of market coupling for IDAM cannot be allowed through the present petition.

Procedure for Scheduling of Collective Transactions

21. The Petitioner has submitted an indicative timeline for the activities related to IDAM within the Power Exchange and for communication between NLDC and Power Exchange. POSOCO has submitted that the timelines may be mutually decided between the Power Exchanges and NLDC. We have observed that the timelines for Collective Transactions have been specified in the procedure for scheduling of

Collective Transactions. The proposed timeline for auction window for RE segment and conventional segment is the same and also combined requisition is required to be made from the Petitioner to NLDC. POSOCO and the Petitioner may mutually formalise the communication protocol between the NLDC and the Petitioner subject to the provisions of PMR 2021 and procedure for scheduling of Collective Transactions.

22. Further, it is observed that comments have been received suggesting relevant modifications in procedure and formats for IDAM with respect to Scheduling, Real Time Congestion Management etc. POSOCO has suggested that in case of real time transmission constraint, conventional transactions may be curtailed followed by renewable transactions; and IDAM may be curtailed followed by RTM. We note that the process of curtailment has been specified in the Grid Code. If suggestions of POSOCO were to be accepted, this would involve amendment to the Grid Code, which cannot be done through the present Petition. As such, we hold that in the event of real time transmission constraint, curtailment of transmission shall be done in accordance with the provisions of the Grid Code.

RPO/HPO fulfillment through RE segment of IDAM

23. The Petitioner has submitted that for the purpose of RPO credit to the buyers of RE power, detailed statement will be issued specifying the total quantity and proportion (solar/ son-solar/ hydro) in which the RE has been purchased by the buyer in RE segment of IDAM. We observe that the Petitioner has proposed to ascertain type of

RE source at the time of registration of the sellers and through NOC issued by SLDC/RLDC. Some of the stakeholders have raised the issue that due to proportionate method for claiming RPO, the buyers may end up buying power from an RE source even though it may not have requirement for power from such RE source as regards compliance with RPO. Therefore, buyers may be given flexibility to choose the type of RPO they wish to fulfill from the power procured from IDAM. In other words, RPO fungibility may be provided with respect to power procured through IDAM.

24. We are of the view that RPO fungibility is an issue that needs wider consultation and cannot be addressed through the present petition. We agree with the proposal of the Petitioner that the buyers may claim respective RPO based on the statement issued by the Petitioner, in pursuance of the source of generation as indicated in NOC/ Standing Clearance of SLDC/RLDC. Further, as stipulated in the MoP proposal, the buyers in RE segment will get solar and non-solar RPO credit on the basis of the proportion of the solar and non-solar bids of the sellers cleared in the total volume of the RE market.

Eligibility for Participation in IDAM

25. The Petitioner has submitted that the Renewable Energy generators having NOC/ Standing Clearance issued by SLDC/ RLDC specifying maximum quantity and type of RE i.e., solar/ non-solar/ hydro shall be eligible to trade in RE segment of IDAM and all the entities which are eligible to procure power through open access shall be

eligible to participate as buyers. Eligibility of RE sellers shall be ascertained at the time of registration with the Exchange based on NOC/ Standing Clearance issued by RLDC/SLDC, as applicable.

26. We agree with the proposal of the Petitioner and direct RLDC/SLDC that while issuing NOC/ Standing Clearance as per provisions of the Open Access Regulations for Collective Transactions to RE generators, the type of RE i.e. solar/ non-solar/ hydro should be mentioned.

Portfolio RE sale by DISCOMs in IDAM

27. POSOCO has suggested not to allow portfolio RE sale by DISCOM in RE segment of IDAM as this may lead to mixing of green and conventional/ brown power. The Petitioner has submitted that the sellers participating in the RE segment of IDAM will have to produce NOC/ Standing Clearance from RLDC/SLDC indicating the source of generation which would establish that the power to be sold is truly RE and that it will go towards the fulfillment of RPO compliance of the buyer.

28. We observe that similar issue had come up for consideration of the Commission earlier while approving proposal of GTAM and the same has been dealt in the order dated 19.03.2021 in Petition No. 228/MP/2020, wherein the Commission had observed as under:

“DISCOMs as green sellers:

29. The Petitioner has submitted that presently the traded surplus power by Discoms on Power Exchanges is a mix of conventional and green power. The green component cannot be verified by Power Exchange at the time of order placement or during the real time supply. An option for the Discoms to trade surplus RE on GTAM

will not only incentivize procurement of greater RE by the Discoms, but such power can also be procured by other consumers/ entities having RPO requirements.

30. We have noted that the Discoms are selling their surplus power on Power Exchanges under different available contracts. Also, since there is no restrictive clause which does not permit Discoms to sell their green power on GTAM, Discoms can act as green sellers to trade their surplus RE power on GTAM.”

29. In line with the decision in the above-quoted order, any DISCOM transacting through a portfolio shall ensure that while transacting on RE segment of IDAM, the source of generation (solar or non-solar or hydro) is clearly indicated in NOC/ Standing Clearance.

Issuance of RECs for RE power sold under IDAM

30. The Petitioner has submitted that the REC Regulations need to be amended to enable all RE generators i.e. those which are registered under REC mechanism as well as those which are not, to sell power in IDAM. The Petitioner has stated that till the time such amendments are carried out, the participation in RE segment of IDAM may be restricted to RE generators which are not registered under REC mechanism and sale of power by such RE generators in the conventional segment of IDAM (uncleared bids from RE segment) would not be eligible for issuance of RECs. A similar approach is already being followed in the case of GTAM. POSOCO and some stakeholders have also raised the same issue.

31. In line with GTAM, participation in RE segment of IDAM shall be restricted to RE generators which are not registered under REC mechanism and sale of power by

such RE generator in the conventional segment of IDAM (uncleared bids) would not be eligible for issuance of RECs.

Waiver of ISTS Charges in IDAM for RE segment

32. POSOCO and other stakeholders have requested to amend the Sharing Regulations to provide for waiver of ISTS charges in IDAM for RE segment, in pursuance with the MoP's order dated 21.06.2021. Further, it has been proposed that till such amendment takes place, ISTS charges should be applicable. We note the submission of the Petitioner that amendment to any of the regulations including the Sharing Regulations is not a pre-condition to the introduction of IDAM. As such, we hold that the waiver of ISTS charges and losses shall be governed as per the provisions of the Sharing Regulations as amended from time to time.

Management of variations by RE generators

33. Some of the stakeholders have suggested that the RE sellers should be allowed to buy from RTM (real-time market) to manage variations at IDAM. However, any such purchase from RTM should not be used to meet RPO compliance of the Obligated Entities. The Petitioner has submitted that the energy procured from the RTM being conventional in nature should not be considered as green power and, therefore, should not be counted towards RPO compliance of the Obligated Entities. However, balancing of the deemed RPO compliance may be done as per the existing 'RE DSM pool-based mechanism' provided under the DSM Regulations for Regional Entities and the F&S Regulations of respective SERCs/JERCs for intra-State

entities. As per this mechanism, any shortfall in the RE generation on a pool basis will be balanced through purchase of equivalent RECs. Alternately, the RE generators procuring power from RTM may be asked to buy equivalent number of RECs to balance the deemed RPO compliance. Some of the stakeholders have submitted that the RE generators, in order to meet the shortfall, may buy from GTAM.

34. The Commission is of the view that the existing framework for Collective Transactions does not allow revision in schedule except in case of forced outages. Regulation 6(3) of PMR 2021 provides that the Commission may notify any other event in which a generator may buy from the market to fulfill its contractual obligations. Regulation 6(3) of PMR 2021 is extracted below:

*“(3) In the event of a forced outage of a generating station or unit thereof, **or any other event as may be notified by the Commission**, wherein the obligation of the generating station to supply electricity continues under an existing contract, such generating station may fulfil its obligation under the said contract by entering into a contract(s) covered under clause (1) or (2) or (3) of Regulation 5 of these regulations.”*

35. According to the above-mentioned regulation, a separate notification may be issued by the Commission to deal with the situation wherein the obligation of the generating station to supply electricity continues under an existing contract. The proposal of the Petitioner requires detailed examination as it will have implications on the existing scheduling and accounting practice as pointed out by some of the stakeholders in their comments. Accordingly, the Commission holds that the proposal seeking flexibility to RE generators to buy from RTM to meet supply obligation under IDAM is

beyond the scope of the present regulatory framework and cannot be allowed through the present petition.

36. In the light of the analysis and decision on the various issues arising out of the proposal for introduction of IDAM at PXIL, the Commission approves the proposal of the Petitioner to introduce IDAM consisting of Day Ahead Contract in RE segment (GDAC) and Day Ahead Contract in the existing conventional segment subject to compliance of the directions given in this Order.
37. The Petitioner is further directed to incorporate appropriate provisions in its Bye laws, Rules and Business Rules with respect to introduction of GDAC and submit to the Commission for records within 2 (two) weeks from the date of this order.
38. Petition No. 143/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