

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 359/MP/2022

Coram:

Shri I. S. Jha, Member

Shri Arun Goyal, Member

Shri P. K. Singh, Member

Shri Ghanshyam Prasad, Member (Ex-Officio)

Date of Order: 16th February, 2023

IN THE MATTER OF:

Petition under Section 66 of The Electricity Act, 2003 read with the Regulation 25 of the Central Electricity Regulatory Commission (Power Market) Regulations, 2021 for approval of introduction of the High Price Day Ahead Market (HP-DAM) in Integrated Day Ahead Market (I-DAM) segment at IEX.

And in the matter of

Indian Energy Exchange Limited

Plot No. C-001/A/1,
9thFloor, Max Towers,
Sector 16 B, Noida, Gautam Buddha Nagar,
Uttar Pradesh – 201301

.... Petitioner

Versus

National Load Despatch Centre (NLDC)

Power System Operation Corporation Limited
B-9 (1st Floor), Qutab Institutional Area,
Katwaria Sarai,
New Delhi 110016

...Respondent



Parties Present:

Mr. Jogendra Behera, IEX
Mr. Gaurav Maheshwari, IEX
Mr. Debajyoti Majumder, NLDC, GRID-India
Mr. Alok Kumar Mishra, NLDC, GRID-India
Mr. Vishal Binod, Advocate, HPX
Mr. Parvesh Sharma, HPX

ORDER

The Petitioner, Indian Energy Exchange Ltd. (hereinafter referred to as the "IEX") has sought approval of the Commission to introduce the High Price Day Ahead Market (HP-DAM) in the Integrated Day Ahead Market (I-DAM) segment on its platform to facilitate high variable cost generators to participate in the market.

2. The Petitioner has made the following prayers:
 - i. Accord approval for introduction of proposed High Price Day Ahead Market (HP-DAM) on IEX platform.
 - ii. Accord approval for proposed amendments in Business Rules of IEX.
 - iii. Provide a maximum price limit of 50,000 Rs. /MWh for the purpose of the price discovery in HP-DAM.
 - iv. Pass such further order or orders as may be considered necessary in the facts and circumstances of the case.

Submissions of the Petitioner

3. In 2008, the Petitioner, was granted the permission to set up, operate and commence power exchange operations. Presently, it is offering contracts in Integrated Day Ahead Market (IDAM), Real Time Market (RTM), Term Ahead Market (TAM), Green Term Ahead Market (GTAM), Renewable Energy Certificates (RECs), and Energy Saving Certificates (ESCs).

4. The Petitioner has filed the present petition for seeking approval of the Commission to introduce High Price Day Ahead Market (HP-DAM) in the I-DAM segment on its platform to facilitate high variable cost generators to participate in the market which are otherwise not able to do so due to the prevailing price cap.

5. During March 2022, with surge in electricity prices in the spot market owing to prevailing demand and supply constraints, the Hon'ble Commission vide order dated 1st April 2022 directed the Power Exchanges to operate their software, in such a way that members can quote price in the range of Rs. 0/kWh to Rs. 12/kWh in DAM and RTM, which was subsequently made applicable to all the electricity market segments vide order dated 6th May 2022. While this has ensured that the spot prices are within the ceiling of Rs.12/kWh, the generators based on high variable cost were unable to participate in these markets.

6. The petitioner has stated that against this background, the Ministry of Power (MoP) has proposed to introduce a High Price Market segment (HP-DAM) within the existing Integrated-DAM (I-DAM) vide its letter dated 01.08.2022 and issued a detailed note vide letter dated 11.10.2022 after incorporating public comments on the same. The salient features of the MoP's HP-DAM proposal are as under:

(i) **Eligibility of Sellers:** Sellers with high cost of generation will be allowed to sell in this market. To begin with, the following categories of generators shall be eligible to participate in HP-DAM:

- 1) Gas based Power Plants using imported RLNG and Naphtha
- 2) Imported Coal based Power Plant using imported coal.
- 3) Battery Energy Storage Systems (BESS)
- 4) The category of plants eligible to participate in HP DAM shall be subject to quarterly review by the Central Commission.

(ii) **Bid Price Range:** There will not be any floor price and forbearance price in HP DAM.

(iii) **Market Design:**

- 1) The segment can be operated in an integrated (parallel) manner.

- 2) In the integrated option the HP-DAM will operate similar to G-DAM market in I-DAM.
- 3) The Sellers eligible for HP-DAM will be allowed to place bids in this product.
- 4) The Buyers will have an option of auto-carry their uncleared bids from DAM to HP-DAM.
- 5) The Buyers can also separately place bids in the HP-DAM.
- 6) During auto-carry option, the buyers have a flexibility to specify different prices for the un-cleared quantity in DAM.
- 7) Market Clearing shall take place in a sequential manner i.e., first DAM will be cleared followed by HP-DAM considering the uncleared bids in DAM, if any.
- 8) The price discovery for HP-DAM will be Double-Sided Closed Auction (same as G-DAM, DAM and RTM).

(iv) Market Timelines:

- 1) The Bidding will take place between 10 AM & 12:00 PM.
- 2) Power Exchanges will send the provisional file to NLDC at 1:00 PM (combined file after considering provisional volume across all three product segments i.e., G-DAM, DAM, HP-DAM).
- 3) NLDC will provide the transmission capacity by 2:00 PM.
- 4) In case of congestion, the transmission corridor allocation will be first for G-DAM, then DAM, and last for HP-DAM.
- 5) Power Exchanges will send the Final File to NLDC by 3:00 PM (combined file after considering the final cleared volume across all three product segments G-DAM, DAM, HP-DAM).
- 6) NLDC/ RLDC will publish the Final Schedule by 5:30 PM.
- 7) All the activities viz. bidding, price discovery, allocation of transmission corridor etc. will be completed within the given timeline.
- 8) As all this can be achieved in a single process, allocating available transmission capacity first to the renewable segment and then to the

conventional segment in DAM then to HP-DAM, the process can be managed in the existing timelines.

7. The key features of the framework proposed by the Petitioner for HP-DAM on IEX platform is as under:

- a. In addition to the existing Green Day Ahead Market (G-DAM) and Day Ahead Market (DAM) in Integrated Day Ahead Market (I-DAM) segment, an additional contract High Price Day Ahead Market (HP-DAM) shall be available for trade.
- b. The participants can place bids in HP-DAM during the market hours (10 am to 12 pm) based on their eligibility criteria. The participants will also have the option to transfer unselected bids in DAM to HP-DAM with the flexibility to specify different prices.
- c. The price discovery will take place in a sequential manner i.e., first GDAM will be cleared followed by DAM and HP-DAM.
- d. The price determination will be carried out separately whereas other processes like bidding, settlement, scheduling will remain combined for all the three contracts in I-DAM with clear identification of Renewable/Conventional/High Price transactions.
- e. **Eligibility for Participation in HP-DAM:**
 - i. **Sellers:** The Seller having Standing Clearance issued by Load Despatch Centre specifying that the source of power of such Seller is eligible for participating in the HP-DAM shall be eligible to participate in HP-DAM. Such Seller will also be eligible to participate in the other contracts at Exchange based on same standing clearance subject to applicable eligibility conditions of respective contracts, if any.
 - ii. **Buyers:** All the entities which are eligible to procure power through Open Access shall be eligible to participate in HP-DAM as buyer.

- f. **Other Contract details of HP-DAM:** All other contract specifications are similar to the ones existing for the DAM in the I-DAM segment

8. The Petitioner further submitted that although the MoP's note has not envisaged any floor and forbearance price for HP-DAM, a maximum price is required as a technical limit for the price discovery algorithm. In view of this and considering the prevailing high imported coal & gas prices, it has proposed that the maximum price limit may be kept at 50,000 Rs. /MWh. The Petitioner further requested the Hon'ble Commission to specify this maximum price limit of 50,000 Rs. /MWh uniformly across all the Power Exchanges.

Hearing dated 22.12.2022

9. The matter was heard by the Commission on 22.12.2022. The Petitioner submitted that the Petition has been filed seeking approval of the Commission to introduce High Price Day Ahead Market (HP-DAM) in Integrated Day Ahead Market (I-DAM) segment on its platform for providing a separate segment under I-DAM for facilitating high variable cost generators to participate in the market which are otherwise not able to do so due to prevailing price cap. The representative of Petitioner informed that the said proposal is in line with the framework proposed in the Ministry of Power letter dated 11.10.2022 to introduce a High Price Market segment (HP-DAM) within the existing I-DAM.

10. During the course of hearing, the representative of the Petitioner explained the proposed price discovery mechanism, eligible sellers under HP-DAM, and the option to be given to the participants to transfer unselected bids in DAM to HP-DAM with the flexibility to specify the different prices. The representative of the Petitioner also clarified that the Ministry of Power has not envisaged any floor and forbearance price for HP-DAM, but a maximum price is required as a technical limit for the price discovery algorithm and the Petitioner has proposed a maximum price limit to be kept as Rs. 50,000/MWh.

11. After hearing the representative of the Petitioner, the Commission admitted the petition and directed to issue notice to the Respondent (NLDC) and the Respondent to file its reply within two weeks with copy to the Petitioner who may file its rejoinder within two weeks thereafter. The Petitioner was also directed to give wide publicity to its proposed new contract by uploading the same on its website for stakeholders' comments and file an affidavit with detailed study incorporating the comments received from the stakeholders and the response thereon.

Stakeholder's Comments and Petitioner's Response

12. In pursuance of the Commission's directions, the Petitioner hosted the proposal on its website vide public notice dated 27.12.2022 and also served a copy of its petition to the Respondent. In response, the Petitioner received comments from four stakeholders and NLDC as mentioned below:

- I. West Bengal State Electricity Distribution Ltd.
- II. Sembcorp
- III. New Age Markets in Electricity Private Ltd.
- IV. RPG Power Trading Company Ltd.
- V. National Load Despatch Centre

13. The Petitioner has submitted that the stakeholders have largely given positive feedback on the proposal for introduction of the HP-DAM in Integrated Day Ahead Market (I-DAM) segment at IEX. Some of the key issues raised by the stakeholders and the Petitioner's response thereon are as under:

- a. **Technical Limit for Algorithm:** Some of the stakeholders have given suggestions regarding the level of technical price cap that should be considered for the proposed market. The stakeholders have suggested that the maximum limit should enable the costliest generators to recover the cost along with some margins.

Petitioner's View: We have proposed a technical limit of Rs. 50/kWh considering the prevailing high imported coal & gas prices. However, the Hon'ble Commission may take a view regarding the technical limit to be considered for price discovery algorithm based on stakeholder's suggestions.

- b. **Eligible plants for HP-DAM:** Some of the stakeholders have given suggestions regarding the eligibility of sellers to participate in the market. One of the stakeholders suggested to include generating stations with imported coal blending while another suggested to define the "imported coal-based plants" and an appropriate authority to publish the list of such eligible plants.

Petitioner's view: We agree with the stakeholder's suggestion that NLDC/CEA should be designated to publish the list of eligible imported coal-based plants.

- c. **Re-opening of Bidding Window for HP-DAM:** Some of the stakeholders have suggested that the bidding in HP-DAM should be carried out after the provisional results are declared in DAM so that it will be an informed decision.

Petitioner's View: We have proposed the HPDAM market in line with MoP's letter dated 11.10.2022 which doesn't provide for reopening of bidding window for HPDAM. It is further submitted that the objective is to have an integrated market based on uniform auction mechanism where the market participants give their best quote without being influenced by the outcome of other segments of I-DAM.

- d. **Minimum Bidding Price of Seller:** Some of the stakeholders have suggested that sellers should place a minimum bid price of Rs. 12/kWh in HP-DAM.

Petitioner's View: We have proposed the HPDAM market in line with MoP letter dated 11.10.2022 where there is no floor and forbearance price. It is further

submitted that as the market prices vary across different times of the day, the seller should be given the flexibility to bid as per the underlying demand & supply situation to achieve technical minimum etc. while remaining viable over the period during which they are operating their plants.

NLDC's Comments and Petitioner's Response

14. In pursuance of the Commission's directions vide RoP dated 26.12.2022, the NLDC (Grid Controller of India) submitted its comments on the proposal to the Petitioner. Some of the important observations made by NLDC along with Petitioner's response thereon are summarized below:

(i) MoP in its direction categorically mentioned that there will not be any floor price and forbearance price in HP DAM. Recently, the costlier power which was dispatched under RRAS was having variable cost more than Rs. 45/kWh. Hence, if Power Exchange has to put the maximum price for the technical limit for the price discovery algorithm, it may be including the variable cost, fixed cost and some margin attributed towards incentive to run the costlier plant in the crunch period. However, Hon'ble Commission may direct to regulate the maximum price from time to time depending upon the variation in the fuel price.

Petitioner's view: We have proposed a technical limit of Rs. 50/kWh keeping in view the high cost of generation from imported coal & gas based generating stations. However, as suggested, the Hon'ble Commission may take a view regarding the technical limit to be considered for price discovery algorithm.

(ii) In case of congestion in the bid area(s) and/or inter regional links, the GDAM followed by DAM transaction shall have priority over HP-DAM transactions in the market clearing as per the proposed methodology. In case of real time curtailment due to grid security, if it is required to curtail the collective transactions, then the inter-se curtailment priority within Integrated DAM may be directed by Hon'ble

Commission through suitable amendment regarding Open Access in inter-State Transmission regulations. Till such date the said amendment is notified by Hon'ble Commission, it is proposed to curtail HP-DAM transactions followed by DAM & GDAM transactions. Further, Integrated DAM shall be curtailed first followed by real time transactions in the RTM.

Petitioner's view: We concur with the inter-se curtailment priority proposed by NLDC. The Hon'ble Commission may consider specifying the inter-se curtailment within the I-DAM through amendments in suitable Regulations/Orders.

(iii) Considering basic framework of the proposed HP-DAM and it being a new contract, the proposed timelines may be mutually agreed between NLDC & Power Exchanges.

Petitioner's view: We have proposed the timeline in accordance with the MoP's letter dated 11.10.2022 and is as per the existing timelines of I-DAM. However, as suggested, the timeline may be further finetuned in consultation with NLDC.

(iv) For smooth implementation of the Integrated DAM, there is a requirement of having a process and procedure in place. The procedure of collective transactions for Integrated DAM was already approved by the Hon'ble Commission. In this regard the Hon'ble commission may give suitable directions to the petitioner to prepare procedure for HP-DAM within Integrated DAM and submit same to the Hon'ble Commission for necessary approval.

Petitioner's view: It is submitted that the procedure for collective transactions has been issued by NLDC and the same needs to be amended by NLDC with the approval of the Hon'ble Commission. As such no difference in process and procedure is envisaged apart from adding another segment within the I-DAM.

(v) Hon'ble Commission may like to issue directions in regard to scheduling of HP-DAM transactions, applicability of losses and transmission charges in HP-DAM transactions, transmission margin sharing between power exchanges and congestion management, curtailment priority and settlement of transactions, price discovery or any other generic design related issue as deemed fit.

Petitioner's view: HP-DAM is going to be an additional segment within the I-DAM with no other major changes required in the existing practice. However, the Hon'ble Commission may take a view based on suggestions of NLDC

Hearing dated 19.01.2023

15. The second hearing of the Petition was held on 19.01.2023. During the course of hearing, the representative of the Petitioner submitted that as per the directions of the Commission vide RoP for the hearing dated 22.12.2022, the Petitioner impleaded NLDC (Grid Controller of India, in short GRID-India) as the Respondent and also hosted its proposal on its website vide public notice dated 27.12.2022 for seeking comments/suggestions from the stakeholders. In response, the Petitioner had received comments/suggestions from four stakeholders and NLDC, who have largely submitted positive feedback. In response to a specific query regarding the basis for proposing the upper price limit of Rs. 50/kWh in HP-DAM segment, the representative of the Petitioner informed that the limit has been proposed as a technical limit for entering into the system and is based on the prevailing high imported coal and gas prices. The Petitioner further submitted that suggestions have also been received on the eligibility of plants for HP-DAM; wherein one suggestion was to define "imported coal-based plants" and other suggestion was to include generating stations with imported coal blending. In this regard, the Petitioner proposed that NLDC/CEA should ascertain the eligibility and provide the NoC based on which the eligible generating stations will be allowed to participate in the HP-DAM.

16. The representative of the Respondent, NLDC submitted that the NLDC has already filed its reply, which may be taken into the consideration. He further added that the Integrated DAM including HP-DAM should be cleared by NLDC in a single iteration as being currently done in case of G-DAM. As regards the real time curtailment, the representative of NLDC proposed that HP-DAM shall be curtailed first followed by DAM and G-DAM and also requested the Commission to issue directions in regard to scheduling of HP-DAM transactions, applicability of losses and transmission charges in HP-DAM transactions, transmission margins between power exchanges and congestion management, curtailment priority and settlement of transactions, price discovery and any other generic design related issues.

17. Considering the submissions made by the representative of the Petitioner and the Respondent, the Commission reserved the matter for order with directions to the Petitioner to submit the basis for proposing Rs. 50/kWh technical price cap and the Respondent to provide the framework for ascertaining the eligibility criteria & issuance of NoC for consideration of the Commission within a week.

Additional submission by the Petitioner and NLDC

18. In compliance with the directions of the Commission vide RoP in hearing dated 19.1.2023, the Petitioner submitted the rationale of technical price limit proposed by it vide affidavit dated 31.1.2023. The Petitioner mentioned that the technical price limit is only required for the price discovery algorithm, so it should be kept high enough to enable competitive price discovery in the market purely based on the underlying demand and supply forces. The Petitioner further submitted that in order to arrive at the highest cost of generation, the monthly RRAS data published by GRID-INDIA have been analyzed by it, which shows that the total cost of highest power under RRAS during 2022 was from RGPPL-Maharashtra Gas based plant (run in open cycle mode) having a variable charge of Rs. 58.48/kWh and the total charge including the mark-up at Rs. 58.98/kWh. Accordingly, the Petitioner, submitted the revised proposal as under:

“7. Since the HP-DAM market is supposed to cater to the needs to the end consumers by providing a scope to high fuel cost plants to dispatch during scarcity situations and possibility of competition among buyer, it is proposed that a technical price cap limit of Rs. 99/kWh (highest 2-digit number) should be considered which is more than 1.5 times of the highest cost of generation. It may be noted that the present system is designed for 2digit numbers.

8. In view of the above and considering the above assessment of the technical price limit, it is proposed that in place of 50 Rs. /KWh as proposed in the petition, the Hon'ble Commission may consider approving 99 Rs. /KWh as technical price limit for proposed HP-DAM market.”

19. NLDC, in compliance with the Commission's directions in RoP in hearing dated 19.1.2023, submitted a framework for ascertaining the eligibility criteria for participation in HP-DAM vide affidavit dated 3.2.2023. NLDC, inter-alia, mentioned that the eligible sellers shall require to submit a declaration through NOAR at the time of submission of application for Standing Clearance, regarding the eligibility to sell its power in the HP-DAM segment. A format of the declaration has also been attached. The proposed framework by NLDC for identification of for ascertaining the eligibility criteria for participation in HP-DAM is as under:

“2. It is respectfully submitted that the eligible seller willing to participate in HP-DAM shall submit the request for standing clearance through NOAR. The concerned nodal agency shall grant the standing clearance through NOAR as per the extant provisions of the regulations. NLDC shall share the time block wise available standing clearance quantum for each eligible seller with the Power Exchanges through NOAR on daily basis before opening the bidding window for Integrated Day Ahead Market. It shall be ensured by the entity that the aggregated bidding quantum across all the power exchanges shall not exceed the 'Standing Clearance' granted by the concerned SLDC/RLDC/NLDC.”

Analysis and Decision

20. The Petitioner has proposed to introduce the High Price Day Ahead Market (HP-DAM) in the Integrated DAM segment on IEX platform to facilitate participation of high

variable cost generators which may not otherwise have been able to participate in DAM due to the prevailing price cap.

21. In accordance with the directions of the Commission, the Petitioner has conducted stakeholder consultation and submitted its point-wise reply to the comments/suggestions given by the stakeholders. The Petitioner also submitted its response on the NLDC's suggestions. It is observed that majority of the stakeholders, including NLDC, have largely welcomed the proposal for introducing HP-DAM in the Exchange platform. However, suggestions have been made by stakeholders on issues relating to the bidding window for HP-DAM, restriction on participation of HP-DAM sellers, identification of eligible sellers, proposed technical limit of Rs 50/kWh, impact on the DAM and other market segments etc.

22. We have considered the submissions of the Petitioner, and the comments/suggestions of different stakeholders along with the reply thereon by the Petitioner. Prima facie, we are of the view that the introduction of HP-DAM in the Integrated Day Ahead Market (I-DAM) segment in the Power Exchange may provide anew avenue to the high variable cost generators which may not have been able to participate in DAM due to the existing price ceiling of Rs.12/kWh. We have at the same time noted the concerns regarding liquidity and market fragmentation on introduction of HP-DAM, but feel that it would be a good idea to create an enabling market segment for such sellers and willing buyers to trade. Price cap in the Power Exchange transactions was introduced to balance the interest of buyers while at the same time ensuring that suppliers get adequately compensated but (especially infra-marginal generators) do not get unduly enriched in situations of high demand and shortage of supply. However, it is equally important to ensure that such price caps do not drive away the high cost generators from the market.

23. Considering the above, we are of the view that approval needs to be accorded to the Petitioner's proposal to introduce HP-DAM on its platform. The stakeholders have submitted valuable comments/suggestions on various aspects of the proposed HP-

DAM. We have also considered the revised submission made by the Petitioner regarding the proposed technical limit and the framework suggested by NLDC for ascertaining the eligibility criteria for participation in HP-DAM, in compliance with the Commission's directions vide RoP in hearing dated 19.1.2023. Accordingly, 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.

Bidding, Market clearing and Scheduling

24. The Petitioner has proposed that price determination shall be carried out separately for GDAM, DAM and HP-DAM, whereas other processes like bidding, settlement and scheduling will remain combined for all the three contracts in I-DAM with clear identification of Renewable/Conventional/High Price transactions. The price discovery and market clearing will take place in a sequential manner i.e., first GDAM will be cleared followed by DAM and HP-DAM. The participants (buyers and eligible sellers) will also have the option to transfer unselected bids in DAM to HP-DAM with the flexibility to specify different prices. We observe that this process and sequencing of transaction have also been agreed to by NLDC and the stakeholders. We note that I-DAM already follows a similar sequential clearing. To this, a new segment of HP-DAM will be added. As such, we agree with the proposal of the Petitioner for sequential clearing of GDAM first, followed by DAM and finally HP-DAM. We also endorse the proposal that the buyers and eligible sellers will have the option to transfer unselected bids in DAM to HP-DAM with the flexibility to specify different prices for different segments at the time of bidding. Both buyers and sellers will be allowed to submit a price premium in case they opt for carry forward of their unselected bids from DAM to HP-DAM. However, in the case of buyers, we feel that the option proposed by the Petitioner for order carry forward (OCF) of all the unselected bids from DAM to HP-DAM at a premium may result in an unwarranted situation of the buyer's bids (the entire quantum of unselected bids in DAM) getting cleared at a higher price in HP-DAM, irrespective of whether the buyer is willing to buy the entire quantum of such un-

selected bids at higher price in HP-DAM. Therefore, in the interest of buyers and for protecting market integrity, we direct the Petitioner to provide an option to the buyers to quote their maximum quantum of unselected bids from conventional DAM that they would like to carry forward to the HP-DAM segment.

25. Some of the stakeholders have suggested that bidding window for HP-DAM should be re-opened after clearing of DAM or a separate timeline for HP-DAM subsequent to the publishing of provisional I-DAM report. However, we agree with the Petitioner that in the proposed integrated market based on uniform auction mechanism, the participants are supposed to submit their best quote without being influenced by the outcome of other segments of I-DAM. Therefore, we hold that there shall be a single window for bidding as per the existing timeline of 10 am to 12 noon.

Procedure for scheduling of collective transactions

26. NLDC has submitted that considering the basic framework of HP-DAM and it being a new contract, the timelines may be mutually decided between Power Exchanges and NLDC. We observe that the timelines for collective transactions have been specified in the procedure for scheduling of collective transactions. The timeline for auction window for HP-DAM is the same as the existing GDAM and DAM, and also combined requisition is required to be made from the Power Exchanges to NLDC. Subject to the above, NLDC and the Petitioner may mutually formalize the communication protocol between themselves.

27. NLDC has suggested that in case of congestion in the bid area(s) and/or inter regional links, the GDAM followed by DAM transaction shall have priority over HP-DAM transactions in the market clearing as per the proposed methodology. Further, Integrated DAM shall be curtailed first followed by real time transactions in the RTM. We note that the process of curtailment has been specified in the Indian Electricity Grid Code (IEGC). HP-DAM being a new product does not obviously find mention in the IEGC. While suitable provisions are made in the IEGC in this regard in due course of

time, we agree with the suggestion of NLDC, and allow as an interim arrangement that in the event of congestion, curtailment shall follow the sequence of curtailment of HP-DAM transactions first, followed by the transactions in DAM, then in GDAM and finally in RTM.

Eligibility for Participation in HP-DAM

28. The Petitioner has proposed that the sellers with high cost of generation will be allowed to sell in HP-DAM. To begin with, the following categories of generators will be eligible to participate in HP-DAM:

- i. Gas based Power Plants using imported RLNG and Naphtha
- ii. Imported Coal based Power Plant using imported coal.
- iii. Battery Energy Storage Systems (BESS)

29. The Petitioner has submitted that the seller having standing clearance issued by the Load Despatch Center specifying the source of power of such Seller shall be eligible for participating in the HP-DAM and all the entities which are eligible to procure power through Open Access shall be eligible to participate in HP-DAM as buyer.

30. While stakeholders broadly agree to the categories of generators proposed by the Petitioner, suggestions have been received to include generating stations with imported coal blending. In this regard, we are not inclined to make the generating stations with imported coal blending eligible for participation in HP-DAM, as we are of the view that such generating stations can recover their cost in the DAM, and that price ceiling of Rs. 12/kWh is not a barrier to their participation in the market. Accordingly, we decide that as now, the following categories of generating stations shall be eligible for participation in HP-DAM:(i) gas based generating stations using imported RLNG and Naphtha; (ii) imported coal based generating stations using only imported coal; and (iii) Battery Energy Storage Systems (BESS). The category of generating stations eligible to participate in HP-DAM shall be subject to periodic review by the Commission.

31. As regards the process of NOC/standing clearance, we agree with the NLDC's proposal in this regard and hold that the eligible seller willing to participate in HP-DAM shall submit the request for standing clearance along with a declaration form through NOAR, and the concerned SLDC/RLDC/NLDC shall grant standing clearance through NOAR as per the extant provisions of the regulations after verifying the information furnished in the declaration form with the available records. The NoC/Standing clearance should clearly specify the source of power of such sellers. Similarly, eligibility of HP-DAM sellers shall be ascertained at the time of registration with the Power Exchange based on NoC/Standing clearance issued by SLDC/RLDC/NLDC, as applicable.

32. We also direct NLDC to compile a list of all such eligible sellers and publish in their website under intimation to the Commission. NLDC is also directed to submit quarterly report with recommendation if any for inclusion of any resource or generating station with any specific fuel source, in the eligibility list for participation in HP-DAM.

Floor and Forbearance Price in HP-DAM

33. The Petitioner has proposed floor price as '0', based on the contention that as the market prices will vary across different time blocks depending upon the underlying demand and supply situation, the seller will require flexibility to bid at price lower than Rs.12/kWh. These time blocks may be during the daytime when the prices are lower but may be necessary for the generating station to achieve the technical minimum. In this regard, suggestions have been received for specifying a floor price above Rs.12/kWh in HP-DAM, so as to allow the participants whose variable cost is more than Rs.12 to sell power in this market.

34. We have considered the Petitioner's submissions and the stakeholders' suggestions. We are of the considered view that keeping the floor price of '0' will incentivize the eligible HP-DAM sellers as they would be able to achieve the technical

minimum and this would help in attracting liquidity into this new market segment. Thus, we agree with the Petitioner's proposal to keep the floor price of '0' for HP-DAM.

35. The Petitioner had initially proposed a technical upper limit of Rs. 50/kWh keeping in view the high cost of generation from imported coal & gas based generating stations. However, vide its affidavit dated 31.01.2023, the Petitioner proposed a revised technical price limit of Rs. 99/kWh (highest 2-digit number) which is more than 1.5 times of the highest cost of generation analyzed by the Petitioner based on the data from GRID-India. The Petitioner also submitted that its present system is designed for 2-digit numbers.

36. We agree with the Petitioner's proposal for having a technical limit for operationalizing HP-DAM in their present system. We have also considered the rationale submitted by the Petitioner for deciding the technical limit of Rs. 99/kWh. We understand that the gas based generating stations have the highest variable cost at present, mainly triggered by the present geo-political conditions, which may eventually subside with the return of normalcy in the international sphere. Based on stakeholder comments, we have also taken into cognizance the likely impact of introducing HP-DAM on the normal DAM/GDAM and also on the other market segments. We have observed from the monthly summary of highest cost of generating stations available with NLDC for utilizing for RRAS Up, that the highest cost of generation of such plants is gradually coming down from its peak in September 2022. Thus, we believe that keeping the limit of Rs. 99/kWh, as proposed by the Petitioner, may induce unwarranted volatility in other market segments through its signaling effect. Therefore, in the interest of consumers and market integrity, and considering that a 2-digit number is required for operationalizing HP-DAM, we have decided to allow the upper price limit of HP-DAM at Rs. 50/kWh keeping in view the emerging trend in imported gas prices and the latest RRAS Up data of GRID-India. However, the Commission, would undertake periodic review of this upper price limit based on the highest cost of generation and other relevant global and domestic factors, including the impact of HP-DAM on other markets. We hereby direct NLDC to regularly apprise the Commission regarding the abnormal

increase in costs of high cost generating plants utilized for RRAS Up and other market segments.

37. In the light of the analysis and decision on the various issues arising out of the proposal for introduction of HP-DAM at IEX, the Commission hereby approves the proposal of the Petitioner to introduce HP-DAM subject to compliance of the directions as stated above and the undertakings submitted in the petition.

38. The Petitioner is further directed to incorporate the appropriate provisions in its Bye laws, Rules and Business Rules with respect to introduction of HP-DAM and submit to the Commission for records within a week from the date of this order. We also direct NLDC to submit a report on the experience and performance of HP-DAM within three months from the date of introduction of HP-DAM, after seeking feedback from the Power Exchanges.

39. Petition No. 359/MP/2022 is disposed of in terms of the above.

Sd/
(Ghanshyam Prasad)
Member (Ex-Officio)

Sd/
(P.K. Singh)
Member

Sd/
(Arun Goyal)
Member

Sd/
(I.S. Jha)
Member

