

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 81/RC/2023

Petition No. 82/MP/2023

and

Petition No. 88/RC/2023

Coram:

Shri Jishnu Barua, Chairperson

Shri I.S. Jha, Member

Shri Arun Goyal, Member

Shri P.K. Singh, Member

Date of Order: 28th April, 2023

Petition No. 81/RC/2022

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 seeking approval for introduction of Ancillary Service in Day ahead Market (AS-DAM) & in Real Time Market (AS-RTM).

And in the matter of

Hindustan Power Exchange Limited
(Formerly Pranurja Solution Ltd)
25th Floor, P J Towers
Dalal Street, Mumbai – 400001

... **Petitioner**

Petition No. 82/MP/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 Ancillary Service Contracts on PXIL's PRATYAY Platform.

And in the matter of

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

... **Petitioner**



Petition No. 88/RC/2023

In the matter of

Petition under Regulation 25 of Central Electricity Regulatory Commission (Power Market) Regulations, 2021 read with Central Electricity Regulatory Commission (Ancillary Services) Regulations, 2022 for approval of introduction of the Ancillary Services Market segments at IEX.

And in the matter of

Indian Energy Exchange Limited
Plot No. C-001/A/1, 9th Floor,
Max Towers, Sector 16 B,
Noida, Gautam Buddha Nagar,
Uttar Pradesh – 201301

... **Petitioner**

Parties present:

1. Ms. Nithya Balaji, Advocate, PXIL
2. Shri. Sakya Singha Chaudhuri, Advocate, PXIL
3. Shri Vishal Vinod, Advocate, HPX
4. Shri Naveen Godiyal, HPX
5. Shri Kirti Goyal, HPX
6. Shri Anil V. Kale, PXIL
7. Shri Jogendra Behera, IEX
8. Shri Gaurav Maheshwari, IEX
9. Shri Alok Mishra, Grid Controller of India Limited
10. Ms. Manisha, Grid Controller of India Limited

ORDER

The Petitioners, Indian Energy Exchange Ltd. (IEX), Power Exchange India Ltd. (PXIL) and Hindustan Power Exchange Ltd. (HPX) are the power exchanges operating in India and have filed the present petitions for seeking approval of the Commission to introduce Ancillary Services Market Segments on their platform for facilitating bidding for procurement of capacity for Tertiary Reserve Ancillary Service (TRAS) in Day Ahead Ancillary Services Market (AS-DAM) and Real Time Ancillary Services Market (AS-RTM), in accordance with the Central Electricity Regulatory Commission (Ancillary Services) Regulations 2022 (hereinafter referred as “AS Regulations 2022”), read with Regulation 25 of the Central Electricity Regulatory Commission (Power Market) Regulations, 2021 (hereinafter referred to as “PMR 2021”).



2. The Petitioners have made the following prayers:

In Petition No. 81/RC/2022

- 1) *Admit the present Petition;*
- 2) *Approve the introduction of Ancillary Services Day Ahead Market and Ancillary Service Real Time Market contracts as per the specifications set out in the present Petition;*
- 3) *Pass such other or further order(s) or direction(s) as this Hon'ble Commission may deem fit and proper in the facts and circumstances of the case.*

In Petition No. 82/MP/2023

- 1) *Approve introduction of Tertiary Ancillary Service Contracts;*
- 2) *Approve amendment of Business Rules and Bye Laws of the Petitioner Exchange by inclusion of contract specification for Tertiary Ancillary Service Contracts;*
- 3) *Approve 'Double Sided Open Bidding' as bid entry for participation in Tertiary Ancillary Service Contracts;*
- 4) *Approve Nodal Agency to publish Tertiary Ancillary Service requirement on their website / National Open Access Registry portal to enable market participants to make informed decision regarding participation in energy market and/or ancillary service market;*
- 5) *Approve 'Bid' entry parameters as existing in 'PRATYAY' system for sharing of bids received from Tertiary Ancillary Service providers to the Nodal Agency in the interim till formats as required are notified by Nodal Agency and the same are developed in 'PRATYAY' system;*
- 6) *Permit market participants of DAM to revise their uncleared bids and resubmit bids afresh for participation in DAASM;*
- 7) *Approve transaction fee to be collected in three parts, i.e. Transfer fee, Clearance fee and Despatch fee as under:*
 - a. *Transfer fee: 0.50 paise/kWh for every unit of energy bid transferred to Nodal Agency for providing TRAS-Up or TRAS-Down service submitted by a participant*
 - b. *Clearance fee: 1 paise/kWh for every unit of energy cleared by Nodal Agency in TRAS-Up and TRAS-Down from a TRAS provider*



- c. *Despatch fee: 10% of price discovered in TRAS-Up and TRAS-Down for every unit of energy despatched by Nodal Agency from a TRAS provider*
- d. *The 'Transfer fee' and 'Clearance fee' shall not be applicable when Nodal Agency despatches TRAS-Up or TRAS-Down service*
- e. *The 'Transfer fee' shall not be applicable if Nodal Agency clears the bid of TRAS provider but does not despatch the TRAS-Up / TRAS-Down service*

The above transaction fee shall be settled by the Nodal Agency on weekly basis in a manner similar to settlement of Tertiary Ancillary Service as provided in Regulation 21 of AS Regulation 2022;

- 8) *Approve power exchange to be placed at same pedestal for exercising indemnification rights as applicable to Nodal Agency/RLDCs/SLDC for transactions executed by market participants in Tertiary Ancillary Services Market*
- 9) *Pass such other order(s) that this Hon'ble Commission may deem fit to remove difficulties and allow implementation of the above;*

In Petition No. 88/RC/2023

- 1) *Accord approval of introduction of proposed Ancillary Services Market (ASM) on IEX platform.*
- 2) *Accord approval for proposed amendments in Business Rules of IEX.*
- 3) *Issue directions to harmonize the price cap in the AS Market and remove possibilities of arbitrage in the markets.*
- 4) *Rescind the Order Carry Forward option provided in the Draft NLDC Procedure for TRAS.*
- 5) *Approve levy of transaction fee in Ancillary Services Market from TRAS Providers based on the quantum cleared in the market.*
- 6) *Pass such further order or orders as may be considered necessary in the facts and circumstances of the case.*

Background:

3. The Central Electricity Regulatory Commission (Ancillary Services) Regulations 2022 (hereinafter referred as "AS Regulations 2022") were notified by the Commission on 31st January 2022. The operation of the AS Regulations 2022, except certain



provisions pertaining to Tertiary Reserve Ancillary Services (TRAS), was brought into effect from 05.12.2022. Subsequently, the provisions related to TRAS were notified to come into effect from 01.04.2023. Thereafter, vide Notification dated 27.03.2023, the Commission notified that the TRAS related provisions shall come into force from 01.05.2023.

4. The AS Regulations 2022 provide for procurement of TRAS through market-based mechanism and provide the regulatory framework for the same. A separate market segment shall be introduced on the Power Exchange(s). The Regulations have designated 'NLDC, Grid-India' as the nodal agency and require the nodal agency to issue detailed procedure for TRAS in compliance to Regulation 23 of the AS Regulations 2022. The final detailed procedure has been prepared and notified by NLDC, Grid-India on 18.04.2023, after stakeholder consultation process. The detailed procedure elaborates various aspects and processes for procurement of ancillary services through the TRAS market segment.

Submissions of the Petitioner:

In Petition No. 81/RC/2023

5. The Petitioner (HPX) has sought to introduce Ancillary Services contracts in Day Ahead Market ("AS-DAM") and Real Time Market ("AS-RTM") contracts in its trading platform, so as to implement and give effect to the provisions pertaining to TRAS of the AS Regulations promulgated by the Commission.

6. The Petitioner has stated that while the Petitioner's proposal is broadly in line with the framework set out in the AS Regulations; there is certain detailing which the Petitioner has carried out keeping in mind the market realities and interest of stakeholders. The Petitioner has highlighted a few concerns as under:

- (i) With regard to Order Carry Forward (OCF) basis from Integrated Day Ahead Market (I-DAM) to AS-DAM, the Petitioner has submitted that it will effectively render the AS-DAM and AS-RTM market segments anti-competitive and hinder market penetration. If OCF mechanism is followed, it would be possible only on the liquid exchange and the stakeholders would have no choice but to



participate in these segments on the said exchange which has liquidity in the I-DAM segment, leading to unintended concentration of bids on one Power Exchange without any apparent benefit to the stakeholders. Further, the fact that the bid timing for both I-DAM and AS-DAM segments is common, namely, 1000 hrs to 1200 hrs, and hence sellers may opt to place their bids only in the I-DAM segment of the Exchange which has most liquidity, leading to artificial suppression of liquidity in the individual AS-DAM segment of other Power Exchanges where there is less liquidity in the I-DAM segment. Any proposal to introduce AS-DAM and AS-RTM market segments through OCF mechanism be permitted only after market coupling between Power Exchanges is implemented. Until such time market coupling is not implemented, power exchanges should be permitted to collect bids for AS-DAM and AS-RTM, independent of participation by the entity in the I-DAM segment.

- (ii) While the regulations clarify the commercial responsibility of the NLDC regarding settlement of payment liabilities of the AS providers; the manner of clearing and settlement of TRAS transactions is required to be detailed. The Petitioner submits that clearing and settlement of transactions is also a significant aspect of the role and responsibilities of a Power Exchange. Further, any participant submitting bids on a Power Exchange expects and relies on the said power exchange only for the clearing and settlement, justifiably backed by the robust payment security mechanism mandated by the Power Market Regulations, including by way of the Settlement Guarantee Fund. NLDC procuring capacities under AS-DAM and AS-RTM is required to make payment through a pool of funds to the participating entities; however, such payments ought to be routed to such entities through Power Exchanges only. Further, in case of delay in payment from the pool, for whatsoever reason, these entities would be approaching exchanges to complete the settlement.

7. In light of the above and as required by Regulation 25(2) of the PMR 2021, the Petitioner has briefly set out below the contract specifications of the various types of contracts it has proposed to introduce in the AS-DAM and in AS-RTM Segment:

Ancillary Services Day Ahead Market (AS DAM) Contract and Ancillary Services Real Time Market (AS RTM) Contract



- (i) **Type of Contract:** AS-DAM and AS-RTM, where two sub segments will be there namely TRAS UP and TRAS DOWN
- (ii) **Eligible Entities:** It is proposed that only those sellers as approved by the Commission and identified by the Nodal Agency to be Ancillary Service sellers will be eligible to participate in AS DAM and AS RTM contracts.
- (iii) **Price Discovery and Matching Methodology:** In accordance with Regulation 17 of the AS Regulations, the exchange would only be collecting bids and submitting them to NLDC. The price discovery and matching shall be carried out by the NLDC. The price discovery shall be as per Uniform Clearing Price Mechanism for TRAS UP bids and Pay-as-Bid for TRAS DOWN.
- (iv) **Timelines, including commencement of bidding and duration of bidding session:** The timeline for the bidding session shall be 10 AM to 12 PM.
- (v) **Delivery mechanism and delivery duration:** As per Regulation 18 of the AS Regulations and the Detailed Procedure for TRAS as may be notified by the NLDC.
- (vi) **Risk management mechanism including margining and final price settlement mechanism:** The generators who have participated in the TRAS Down segment shall be required to provide the initial margin, which will be intimated separately through exchange circular.
- (vii) **Clearing and Settlement:** Payment will be routed through power exchanges on back-to-back basis, where NLDC will adjust pay-in/pay-out against AS-DAM, AS-RTM and pay/collect to power exchanges from pool account. Power exchange shall further release payment on next working day, after adjustment of exchange transaction fees and applicable taxes as approved by this Hon'ble Commission, subject to receipt of payment by NLDC.

In Petition No. 82/MP/2023

8. The Petitioner (PXIL) has sought approval for introduction of Ancillary Service Contracts on PXIL's PRATYAY Platform, in accordance with Regulation 25 of the PMR 2021. Regulation 25 (1) of PMR 2021 stipulates that the Commission may permit power exchanges to introduce new contracts as specified in Regulation 4(1) of the said Regulations. Regulation 4(1)(a)(vi) of the PMR 2021 provides for any other contracts, including Capacity Contracts and Ancillary Service Contracts, as may be approved by the Commission. Regulation 25 (2) of the PMR 2021 stipulates the details

which have to be submitted by an exchange seeking permission from the Commission to introduce such contracts.

9. The Commission has framed the Central Electricity Regulatory Commission (Ancillary Services) Regulations, 2022 where under the power exchanges have been enjoined with an important function to facilitate discovery of price for providing Tertiary Reserve Ancillary Service through placement of bids on the exchange. Hence, by way of the present Petition and in furtherance of Regulation 25 of the PMR 2021 and the provisions of AS Regulations 2022, the Petitioner has prepared the modalities and specifications for the TRAS segment.

10. The Petitioner has submitted the following information for introduction of Ancillary Service Contracts:

- (i) **Type of Contract:** There shall be of two types – 1). Day Ahead Ancillary Service Market and 2). Real Time Ancillary Service Market
- (ii) **Price Discovery:** The price discovery shall be done by Nodal Agency. The Power exchange shall collect and share the bids with the Nodal Agency. It is submitted that this mechanism of discovery of a common market clearing price across power exchanges, would pave the way for market coupling in other market segments as envisaged under the PMR 2021.
- (iii) **Bidding Timeline:** In compliance with the Regulation 16(1) of the AS Regulations, 2022, the bidding timelines shall be as follows:

Name of Contract	Bidding Timeline
Day Ahead AS Market	Similar to existing DAM Contract as provided in Regulation 5(1) of PMR 2021 i.e. 10:00 to 12:00 hrs
Real Time AS Market	Similar to existing Real time Market Contract as provided in Regulation 5(1) of PMR 2021 i.e. for 15-minute duration during every even time block of the hour

- (iv) **Delivery:** Scheduling and delivery shall be as per Regulation 18 of AS Regulation 2022 and in accordance with the directions of the Nodal Agency,



as may be issued, from time to time. Further, TRAS shall be activated and deployed by Nodal Agency under provision of Regulation 15 of AS Regulation 2022

- (v) **Price Settlement:** The settlement of payment liabilities in respect of TRAS providers shall be done directly by a Nodal Agency
- (vi) **Risk Management:** Petitioner has requested the Commission to provide appropriate relief with regard to applicability of provisions of Regulation 26 of PMR 2021.

11. The Petitioner had submitted that while the AS Regulations 2022 prescribe the price discovery mechanism for TRAS-Up and TRAS-Down, it is silent on the nature of order entry by market participants intending to participate in the TRAS market. As the invocation of TRAS capacity by Nodal Agency is contingent upon grid requirement and the commitment charge is limited to only 20 paise/ kWh, it creates a negative incentive to TRAS providers to quote exorbitant price. The Petitioner has suggested that to dissuade TRAS providers from placing bids at unrealistic/exorbitant price which will result in high market clearing price, it would be beneficial if self-regulation is made applicable by allowing bid entry as 'open bidding'. Since participation in TRAS market and/or existing collective/bilateral market is voluntary, submission of bids as 'Closed bidding' results in TRAS providers accepting its consequences as *fait accompli* when results are announced. However, 'open bidding' would compel TRAS providers to make informed decisions regarding their bids resulting in realistic bidding by all TRAS providers. It is submitted that 'Double Sided Open Bidding' should be mandated for the TRAS market.

12. The Petitioner has submitted that the information regarding requirement of TRAS-Up and TRAS-Down should be communicated simultaneously to all the operating power exchanges prior to commencement of DAM or RTM as the case may be. Further, the requirement information may also be made available in public domain by the Nodal Agency, as this would enable market participants to make informed decision to either participate in the energy market or in the ancillary service market or in both while ensuring that the same capacity is not being offered in both energy and ancillary service market.



13. The Petitioner submitted that the power exchanges are required to share bids of TRAS with the Nodal Agency. In case of uncleared bids to be transferred from DAM to Day Ahead AS Market, power exchanges would be required to share with the Nodal Agency. However, there is no provision for such sharing of 'bid' related information in DAM under PMR 2021. To enable market participants to make best use of uncleared bids, the Petitioner proposes that market participants be allowed to review and submit their bids for participation in Day Ahead AS Market between 14:30 Hrs to 15:30 Hrs. Currently, the results for DAM are announced to market participants between 14:00 Hrs and 15:00 Hrs, thereafter, the application for scheduling collective transactions is submitted. As proposed by the Petitioner, by 15:30 Hrs the power exchange would share bids received from TRAS providers including bids from such market participants whose bids were uncleared in DAM and results for which were declared before 15:00 Hrs.

14. The Petitioner submits that for the TRAS contracts an obligation has been cast on the power exchange platform to collect bids for provision of TRAS-Up and TRAS-down from market participants and transfer the same to Nodal agency for price discovery. It is submitted that since the 'PRATYAY' platform would have to provide such services on 24X7 basis during all the days, the prerequisites for collecting and transferring bid information is 100% availability of exchange infrastructure. The Petitioner submits that Regulation 23 of the PMR 2021, which prescribes the ceiling limit of 2 (two) paise/kWh transaction fee, is applicable on contracts provided under clauses (1) to (3) of Regulation 5, namely, day ahead contracts and real time contracts, intraday contracts and contingency contracts and term ahead contract. Hence, there is no transaction fee prescribed for ancillary services contracts in PMR 2021. In view of the same, the Petitioner proposes the transaction fee for provision of such ancillary services as follows which shall be in three parts:

- a. *Transfer fee*: 0.50 paise/kWh for every unit of energy bid transferred to Nodal Agency for providing TRAS-Up or TRAS-Down service submitted by a participant
- b. *Clearance fee*: 1 paise/kWh for every unit of energy cleared by Nodal Agency in TRAS-Up or TRAS-Down from a TRAS provider

- c. *Despatch fee*: 10% of price discovered in TRAS-Up or TRAS-Down for every unit of energy despatched by Nodal Agency from a TRAS provider
- d. The 'Transfer fee' and 'Clearance fee' shall not be applicable when Nodal Agency despatches TRAS-Up or TRAS-Down service
- e. The 'Transfer fee' shall not be applicable if Nodal Agency clears the bid of TRAS provider but does not despatch the TRAS-Up / TRAS-Down service

15. The Petitioner has submitted that the Hon'ble Commission may direct all TRAS providers to keep Nodal Agency / RLDCs / SLDCs / Power Exchange indemnified at all times and shall undertake to indemnify, defend and save the Nodal Agency / RLDCs / SLDCs / Power Exchange from any and all damages, losses, claims and actions including those relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the transactions.

In Petition No. 88/RC/2023

16. The Petitioner (IEX) has submitted the present petition for seeking approval of amendments in its Business Rules to introduce Ancillary Services Market Segments on its platform for facilitating bidding for procurement of capacity for Tertiary Reserve Ancillary Service (TRAS) in Day Ahead Ancillary Services Market (AS-DAM) and Real Time Ancillary Services Market (AS-RTM), in accordance with the Central Electricity Regulatory Commission (Ancillary Services) Regulations 2022, Statement of Objects and Reasons to AS Regulations 2022 dated 26.04.2022, and Procedure for Tertiary Reserve Ancillary Services (TRAS) (hereinafter referred as "NLDC Procedure for TRAS") issued by National Load Dispatch Center (NLDC) under CERC AS Regulations 2022.

17. Based on the draft procedure published by NLDC, the Petitioner has made the following submissions:

- (i) A differential price cap across the market i.e., Rs. 12 for DAM & RTM and Rs. 50 for the AS market will create arbitrage opportunities for the sellers. The Generators will be encouraged to allocate a higher capacity in the AS market for maximizing their revenue which may deteriorate the demand

supply situation in the Energy market and increase the electricity prices in Energy Market. The price cap across AS and Energy market should be harmonized so that it does not provide arbitrage opportunities and create distortion in the market. The Petitioner submitted that AS market should have two segments akin to the Energy Market having price cap of Rs. 12/kWh and Rs. 50/kWh. All Generators should be allowed to place bids in AS Market with a price cap of Rs. 12/kWh and only Generators eligible for HP-DAM should be allowed to place bids for the AS segment with price cap of Rs. 50/kWh. NLDC should consider discovering price separately for both the segments.

- (ii) The Petitioner submitted that an overall design perspective, the widely accepted model for the AS market is to operate the AS market as a separate market from the Energy Market wherein the Generators are required upfront to allocate capacity for the Energy Market and AS Market (PJM, CAISO, ERCOT, MISO, NYISO etc.). The proposed carry forward option from DAM to AS Market is not in alignment with the AS Regulations. Recently due to deficit scenario GRID-INDIA has faced difficulties in obtaining the reserves required to provide Ancillary services and has to resort to costlier RLNG based stations. It is likely that the majority of the Generators in DAM will use carry forward options of transferring uncleared bid of DAM to the DAM-AS as it will provide flexibility to sellers in avoiding any firm commitment to ancillary services. However, in a deficit scenario and with carry forward option, it may happen that all the generation capacity available will get cleared in the Energy Market with no capacity available in the AS market which may not be a desirable situation. The Order Carry Forward from DAM or HP-DAM may also affect the bidding behaviour of the seller and increase the electricity prices in the DAM.
- (iii) The proposed bid structure in Draft Procedure for TRAS is different from the bid structure prevailing in DAM. Draft Procedure has proposed in the bids of AS-DAM a minimum volume of 1 MW and price step of Rs. 100/kWh whereas the minimum volume and price step allowed in DAM is 0.1 MW and Rs. 1/MWh respectively. Further, the Draft Procedure has proposed only single bids for the AS-DAM whereas both single and block bids are allowed

in DAM. The block bids are also of different types viz. minimum quantity block bid, profile block bid etc. and the Petitioner submitted that unless the bid structure of DAM and AS-DAM is aligned, the Order Carry Forward option cannot be implemented.

18. The following framework has been proposed by the Petitioner for the Ancillary Services segment on IEX:

- (i) **Market Segment**: Two market segments shall be available for bidding namely Day Ahead Ancillary Market (AS-DAM) and Real Time Ancillary Services Market (AS-RTM). In each market segment, a separate bidding window will be available for TRAS-UP and TRAS-DOWN services.
- (ii) **Eligibility for Participation**: A TRAS Provider should be registered at Exchange and have a valid Standing Clearance issued by LDC through NOAR specifying that the entity is eligible to participate as a TRAS provider.
- (iii) **Order types**: The Exchange will make available Single Bid types of order for TRAS-UP and TRAS Down bidding
- (iv) **Bidding Range**: Bidding Range: 0 Rs/MWh to 50,000 Rs/MWh or as may be specified by the Commission or NLDC. If the suggestion regarding the harmonization of price cap across the market segments is accepted, then the bidding can take separately for 0 Rs/MWh to 12,000 Rs/MWh and 0 Rs/MWh to 50,000 Rs/MWh.
- (v) **Bidding Session**:
 - AS-DAM: 10:00 AM to 12:00 PM of previous day (D-1)
 - AS-RTM: Each session of 15 Minute duration on rolling basis with a gap of 15 minutes (e.g. 2245 to 2300 than 2315 to 2330)
 - **Pre bidding phase:**
 1. Nodal Agency to communicate the quantum of reserves to be procured by Nodal Agency before the start of bidding session separately for TRAS-UP & TRAS-DOWN to the Exchange.
 2. In case of non-receipt of the quantum of reserves to be procured by Nodal Agency before a bidding session, such bidding session shall not be available for bidding.

3. The quantum of reserves to be procured by Nodal Agency received by Exchange shall be available for information of TRAS Providers.

- **Order accumulation period (Bidding phase):** Bid session for Day Ahead Ancillary Services Market (AS-DAM) will be available from 10.00 am to 12.00 pm and 48 bidding sessions for Real Time Ancillary Services Market (AS-RTM) on all bidding days subject to receipt of the quantum of reserves to be procured by Nodal Agency. Separate bidding window will be available for TRAS-UP & TRAS-DOWN.

- **Bid Matching:**

1. After the end of the bidding session, the Exchange shall verify funds available in the Settlement Account of the Member or Clients, as applicable, towards obligation of Exchange fee and charges on bid quantity.
2. Bids of those Members who have not brought sufficient funds shall be from the bids to be forwarded to the Nodal Agency for price discovery and clearing.

(vi) **Clearing Process:**

1. The Nodal Agency to communicate Market clearing price and cleared quantity separately for TRAS-UP & TRAS-DOWN of each TRAS provider.
2. The cleared quantum and price shall be informed to each selected TRAS Provider on receipt of this information from the Nodal Agency.

- (vii) **Risk Management:** The Nodal Agency shall carry out the price discovery, issue the dispatch instructions to the TRAS providers, directly settling the transactions with the TRAS providers based on the clearing and actual dispatch of the provider. The Exchange shall only be collecting the bids from the TRAS provider and sharing them with the nodal agency for further activities. As in the AS Market there will be no participation from the buyer side and the Exchange contract will not be executed at the exchange platform. The Exchange will not be in a position to provide the counterparty guarantee to the transactions taking place in the AS market. Accordingly, the risk management and default remedy mechanism provided under Regulations 26 and 27 of the PMR 2021 may not be applicable for ancillary services market.
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The Exchange may be indemnified from any disputes arising on account of the activities not carried out at the Exchange end.

- (viii) **Transaction Fee**: The Commission may approve the transaction fees for the AS Market considering its importance for the grid security and the bidding system & other services to be provided by the Exchange for ensuring that the market is available on a 24x7 basis. The transaction fees may be decided on the basis of the quantum cleared in the AS Market.

Hearing on 21.03.2023

19. The case was called out for virtual hearing on 21.03.2023. The learned counsels and representatives of the three petitioners reiterated the submissions in the respective petitions.

20. The Learned counsel for HPX submitted that while the commercial responsibility for settlement of amounts shall remain with the NLDC, the clearing and settlement should be routed through the Power Exchanges, which will ensure efficient settlement of transactions particularly for the smaller clients.

21. The learned counsel of PXIL submitted:

- (i) For TRAS, 'open bidding' may be allowed. If the double-sided closed auction is followed in the TRAS, as under DAM and RTM, there may be a tendency for the sellers to quote prices on the higher side. However, open-bidding will lead to realistic bidding by all TRAS providers.
- (ii) NLDC Procedure on TRAS should provide the bid format to be adopted by the Power Exchange and the requirement of TRAS UP and TRAS Down may also be made available in the public domain by the Nodal Agency, as this would enable market participants to make an informed decision.
- (iii) The market participants may be allowed to review and submit their bids for participation in the DAM-Ancillary Service market between 14:30-15:30 Hrs, in which case no order carry forward would be required

22. The representative of IEX submitted:

- (i) Since there is already a price cap in DAM, this differential price cap of Rs. 12/kWh in DAM and Rs. 50/kWh in Ancillary Services Market will create



arbitrage opportunity for sellers to get cleared in ancillary markets at high prices. So, price cap in the ancillary market should be harmonized with DAM.

- (ii) The Order Carry Forward option proposed in the Draft Procedure may increase the prices in the energy market as the seller will be incentivized to bid at a higher price considering that there is an additional market segment available for clearing. This might lead to increase in the energy market.
- (iii) Bid structure proposed by NLDC in the draft procedure is different from the existing structure at the petitioner's exchange for DAM. NLDC procedure only has provision for single bid but in power exchanges block bids and other versions of block bids are also there.
- (iv) Minimum price or tick size is 1 MW in power exchanges in DAM which is different as per the draft procedure tick size of 100 MW. Therefore, NLDC and Power Exchange have to align their system and for certain changes to be made effective one month's time is required

23. After considering the submissions, vide Record of Proceedings, the Commission directed as follows:

"4. The Commission, after considering the submissions made by the learned counsels and representatives of the Petitioners, ordered as under:

- (a) Admit the Petitions*
- (b) The Petitioner to file their brief written submissions within two days.*
- (c) The option to carry forward the uncleared bids, as proposed in the Draft Procedure of NLDC, need be retained to avoid the likelihood of adverse impact on the availability of energy bids in DAM. However, in cases where there is no energy bid in any time block in the DAM or the RTM, there has to be a provision for 'Ancillary Service (AS) only' bid.*
- (d) With regard to price tick size, the Power Exchanges to align the same in consultation with the NLDC.*
- (e) As regards the price cap for AS market, the Commission is of the view that the same need be harmonized with DAM and HP-DAM. Accordingly, NLDC and the Power Exchanges to make suitable provisions in their respective procedures and software towards the same.*
- (f) In order to avoid arbitrage opportunities, similar bid/price cap need be provided for RTM-AS as well. NLDC to examine various possible options, like bid cap, separate bid segments, or any other options, in consultation with the Power Exchanges for this purpose.*
- (g) Based on the assessment of preparedness of NLDC and the Power Exchanges, the Commission has decided to defer the implementation of TRAS by one month from 1.4.2023, for which a separate notification shall be issued by the Commission.*



5. The Commission further directed that during this period, the NLDC and the Power Exchanges shall finalize their procedures and software, and also undertake a mock exercise. NLDC was further directed to submit a report to the Commission on or before 17.4.2023 in this regard (including of mock exercise for a minimum period of 10 days).”

Written Submission by HPX:

24. In compliance with the directions vide RoP of hearing dated 21.03.2023, HPX has submitted the following recommendations for operationalising AS-DAM and AS-RTM market segments:

- (i) There ought to be a purely dedicated market segment for AS-DAM contracts without any Order Carry Forward (OCF) or integration with I-DAM segment. The rationale given by the Petitioner as below:

- Uncertainty in supply in the AS market: In case OCF is introduced in the AS-DAM segment, there will be uncertainty in supply in the AS-DAM segment as clearing of transactions in the AS market will become subject to non-clearing of bids in the IDAM segment. This will not only lead to uncertainty of supply of TRAS, but will also hinder the development of a robust AS market segment. Even though there may be a separate segment for AS-DAM, the presence of OCF from the I-DAM segment may negatively affect market behaviour and sellers may opt to offer TRAS via the I-DAM route as the last resort. Similarly, having OCF may also result in uncertainty from the seller side as there can be situations where the seller’s bids in the I-DAM market do not get cleared even up to its technical minimum capacity and the carry forward bids in the TRAS-UP segment get cleared, leading to an anomalous situation.
- Selective OCF: The Nodal Agency has proposed OCF only for the TRAS-UP segment and that too only in the DAM segment. In RTM, even the Nodal Agency has proposed that AS and I-DAM segments be completely separate segments. As such, selectively introducing OCF for AS-DAM segment for TRAS-UP transactions shall unnecessarily burden the development cycle of power exchanges without any cogent benefits, and shall also seriously prejudice the effective and timely implementation of the AS segment, which is critical.

- Minimum Quotation Step: In the existing I-DAM segment, the minimum quotation step is Re. 1 per MWh, wherein in the proposed AS-DAM market minimum quotation step is Rs. 100 per MWh. Further, various exchanges are having different types of bid structure in day-ahead segment such as, single bid, block bid (Linked Bid, Profile Block Bid, etc.), whereas in AS segment only single bid is allowed. Therefore, it is not feasible to accommodate these changes and integrate the AS-DAM and I-DAM market segments.
 - Differential Maximum Ceiling in I-DAM and AS-DAM: At present, there is maximum ceiling rate for transactions in the G-DAM and I-DAM segments, namely, a cap of Rs. 12,000/MWh, whereas in the proposed market of AS-DAM and AS-RTM, the maximum ceiling rate indicated in draft procedure is Rs. 50,000/MWh. The differential capping in these segments not only presents technical issues in updating bid collection software to accept differential bid caps, it also presents serious market issues of potential gaming by market participants.
- (ii) Clearing and Settlement of transactions done by the Nodal Agency ought to be routed through the power exchanges on a back-to-back basis:
- The potential for participation by generators in the AS market through power exchanges is enormous, as any generator, standalone system, drawing entity having demand response with a capacity of more than 1 MW can participate in the AS market.
 - However, in order to truly harness this potential for AS market expansion, it is imperative that the new, smaller participants are provided a one-stop solution through power exchanges, as any requirement to liaise with different entities for different aspects of the same transaction may lead to an entry barrier for newer players. As such, it is recommended that while the clearing and settlement of TRAS transactions may be done by the Nodal Agency, the payment for the same ought to be routed through the concerned Power Exchanges so that the settlement process can be kept seamless and simple for the service providers.

Written Submission by PXIL:

25. The Petitioner has proposed that 'Double Sided Open Bidding' should be introduced as bid entry for participation in Day Ahead Ancillary Services and Real Time Ancillary Services segment. Open bidding will enable TRAS providers to take informed decisions regarding bid submission during the auction session and having regard to anticipated movement of price.

26. It is proposed that market participants should be provided a window between say 3:00 to 3:30 pm by which time DAM is cleared, to review their uncleared bids in the DAM, resubmit bids for participation in DAM Ancillary services market. This will allow them to work out better price / volume decisions in DAM Ancillary services market. Since bids in DAM have to be separate from DAM Ancillary services market and cannot overlap, there may be instances of lopsided price / volume decisions by TRAS Providers. Prices may be bid high in DAM markets so that carry over to DAM Ancillary services market is at a higher price. On the other hand, uncertainty of despatch in DAM Ancillary services market may not attract significant volume in DAM Ancillary services market.

27. PXIL submitted that the TRAS requirement on a daily basis may be disclosed by the NLDC in public domain. This will allow market participants to decide more effectively w.r.t. participation in ancillary services market and make optimal utilisation of asset /capacities available with them. This may allow other generators with generation cost above Rs.12/ unit, who are not covered under HPDAM, to participate in TRAS market.

28. PXIL has proposed transaction fee in TRAS Contract to be collected in three parts i.e. Transfer Fee, Clearance fee and Despatch fee.

Written Submission by IEX:

29. The Petitioner submitted that the price cap in the AS market may be harmonized with the price caps already existing in the Energy market. The AS market should have two segments akin to the Energy market having price cap of Rs. 12/kWh and Rs. 50/kWh. All the generators should be allowed to place bids in AS Market segment with a price cap of Rs 12/kWh and only generators eligible for HP- DAM



should be allowed to place bids for the AS Market segment with price cap of Rs. 50/kWh. The above may require NLDC to discover prices separately and in a sequential manner.

30. As an alternative, the Petitioner has suggested the price discovery may be carried out in a combined manner for all the sell bids received in the AS Market. After the price discovery, if it is observed that the MCP is more than Rs. 12/kWh then the pay-out to the Generators who are not eligible for HP-DAM can be capped at Rs.12/kWh, whereas for generators eligible to participate in HP-DAM, the pay-out can be made based on MCP discovered in the market. If the MCP is observed to be lower than Rs.12/kWh then the pay-out to all the generators can be made at the MCP. This will require only single iteration in the AS Market and can be managed within the stipulated timelines. It is important to harmonize the price cap of AS-RTM as the arbitrage opportunities existing in RTM may also distort the market.

31. With the Order Carry Forward option, there is a possibility that the sellers will quote a higher price in DAM considering that there will be another market segment where they will have the opportunities to clear. Besides, there are practical difficulties in implementation as the bid structure proposed in AS market is not in alignment with the existing bid structure in DAM. Draft Procedure has proposed that there will only 15-minute time block wise single bids in the AS market, whereas block bids are allowed in DAM. Further Draft Procedure has proposed minimum volume of 1 MW and minimum price step of Rs. 100/kWh whereas the minimum volume and price step allowed in DAM is 0.1 MW and Rs. 1 /Mwh. In view of the above, it is submitted that Order Carry Forward option may be dropped, or additional time may be provided for its implementation as the bid structure across DAM and AS market is required to be aligned.

Hearing on 20.04.2023

32. The representative of NLDC submitted that based on the direction of the Commission vide Record of Proceedings for the hearing dated 21.3.2023, a mock exercise was conducted with IEX and HPX and NLDC may be permitted a week's time to file the results of the mock exercise.

33. After hearing the learned counsels and the representative of the Petitioners and NLDC, the Commission directed the NLDC to file its report by 26.4.2023, and reserved the Petitions for Orders.

Analysis and Decision

34. The Petitioners have proposed to introduce Ancillary Services Market Segment on their platform for facilitating bidding for procurement of capacity for Tertiary Reserve Ancillary Service (TRAS) in Day Ahead Ancillary Services Market (AS-DAM) and Real Time Ancillary Services Market (AS-RTM), in accordance with the Central Electricity Regulatory Commission (Ancillary Services) Regulations 2022, read with Regulation 25 of the Central Electricity Regulatory Commission (Power Market) Regulations, 2021.

35. The AS Regulations 2022 provide a detailed framework for procurement of TRAS through the market-based mechanism. This, inter-alia, requires that a separate market segment shall be introduced on the Power Exchange(s). The Regulations designate 'NLDC, Grid-India' as the Nodal Agency and require the Nodal Agency to issue the detailed procedure for TRAS. NLDC, after conducting stakeholder consultation, issued a detailed procedure on 18.4.2023. The detailed procedure elaborates various aspects and processes for procurement of ancillary services through the TRAS market segment, including the role of different agencies, eligibility of TRAS providers, price discovery, procurement, scheduling and despatch, payment and settlement, etc.

36. Regulation 25 (2) of the PMR 2021 provides as under:

“25(2): Any Power Exchange seeking permission to introduce a new contract under clause (1) of this Regulation, shall submit to the Commission complete and detailed contract specifications including the following:

(i) Type of contract;

(ii) Price discovery and matching methodology proposed;

(iii) Timelines, including commencement of bidding and duration of bidding session till delivery commences;

(iv) Delivery mechanism and delivery duration i.e. whether delivery is for intraday, daily, weekly, monthly, seasonal, yearly or beyond;



(v) Risk management mechanism including margining and final price settlement mechanism;
....”

37. The Petitioners have submitted the detailed contract specifications, as required under PMR 2021. NLDC, on the advice of the Commission, organized a stakeholder consultation workshop on 21.4.2023 to sensitize the stakeholders on the implementation aspects of SRAS and TRAS. The stakeholders, while appreciating the need for implementation of TRAS through a market-based mechanism, highlighted certain operational aspects.

38. The Commission has considered the submissions of the Petitioners, and the comments of different stakeholders. Prima facie, the Commission is of the view that the introduction of TRAS through a market-based mechanism would play a critical role in ensuring smooth operation of the power system and safety and security of the grid, while providing a new avenue to the market participants to participate under Ancillary Services (AS) mechanism. The TRAS market is aimed at enlarging the scope of participation of AS providers, which currently is limited to only the generating stations whose tariffs are determined or adopted by the Commission. Thus, in the interest of grid security and for market development, the Commission is of the view that approval needs to be accorded to the instant proposal for introducing TRAS in the power exchanges.

39. The concerns raised by the Petitioners on various operational aspects have been dealt with in the succeeding paragraphs, keeping in view the relevant provisions under AS Regulations 2022 and PMR 2021, and the detailed procedure for TRAS issued by NLDC. The other aspects of the AS market and contract specifications proposed by the Petitioners shall be governed by the relevant provisions of the AS Regulations 2022 and the detailed procedure provided by NLDC.

Order Carry Forward (OCF)

40. The Petitioner, IEX has submitted that with the OCF option there is a possibility that the sellers will quote a higher price in DAM considering that there will be another market segment where they will have the opportunities to clear. The Petitioner, HPX



has raised concerns regarding the OCF mechanism provided under TRAS, stating that it will effectively render the AS-DAM and AS-RTM market segments anti-competitive and hinder market penetration. It has been submitted that if OCF mechanism is followed, it would be possible only on the liquid Exchange and the stakeholders would have no choice but to participate in these segments on the said Exchange which has liquidity in the I-DAM segment, leading to unintended concentration of bids on one Power Exchange without any apparent benefit to the stakeholders. It has been pointed out that in case OCF is introduced in the AS-DAM segment, there will be uncertainty in supply in the AS-DAM segment as clearing in transactions in the AS market will become subject to non-clearing of bids in the IDAM segment. This will not only lead to uncertainty of supply of TRAS, but will also hinder the development of a robust AS market segment. Even though there may be a separate segment for AS-DAM, the presence of OCF in the I-DAM segment may negatively affect market behaviour and sellers may opt to offer TRAS via the I-DAM route as the last resort. Similarly, having OCF may also result in uncertainty from the sellers' side as there can be situations where the sellers' bids in the I-DAM market do not get cleared even up to its technical minimum capacity and the carry forward bids in the TRAS-UP segment get cleared, leading to an anomalous situation.

41. The Commission finds that there are broadly three major concerns regarding OCF, viz., (i) the option of OCF may impact the trade in energy markets, (ii) OCF may lead to uncertainty of supply of TRAS, and (iii) OCF will render the AS-DAM and AS-RTM market segments anti-competitive and hinder market penetration. The Commission has examined these concerns raised by the Petitioners and also the suggestions made by the stakeholders during the stakeholder consultation workshop held on 21.4.2023. The Commission is of the view that it is important to understand that the very nature of AS market is different from that of the energy market. Energy market has greater certainty of despatch than the AS market. The transactions in AS market, despite having the provision for commitment charges, are subject to grid conditions. It may so happen that the TRAS provider even after getting cleared may not be despatched by NLDC, in a given situation of grid requirements. The Commission, therefore, expects that the TRAS providers would bid in the energy market and the AS market after taking into account all such factors and based on their assessment of technical minimum, ramping capability and the available market

intelligence. Accordingly, the concern regarding the negative impact on the trade in energy market does not sustain at its face value. The Commission is of the view that AS market needs to be given an opportunity to operate. In cases of market abuse, the Commission has powers under the Electricity Act, 2003 (“Act”) and the PMR 2021 to intervene and take remedial measures.

42. The Commission observes that OCF feature is provided in the detailed procedure by NLDC and it ensures sufficient participation in the AS market. The Commission feels that OCF will provide an option to those sellers who may not otherwise be interested in participating solely in the AS-only market. This way, the TRAS providers would be able to provide much needed reserve capacity for grid stability and security, without impacting the availability in the energy market. In OCF feature, the first right of use is anyway with the DAM/HP-DAM, and only the quantum of unselected bids in DAM/HP-DAM, as indicated by the participants, would get transferred to AS market. As regard the apprehension that OCF will render the AS-DAM and AS-RTM market segments anti-competitive, the detailed procedure provides for AS-only window. Thus, the price discovery shall be based on combined bids received in AS-only and OCF bids. Therefore, the apprehension that OCF would render AS-DAM or AS-RTM anti-competitive is unfounded.

43. In addition to the above, the AS Regulations 2022 and the detailed procedure issued by NLDC stipulates that TRAS provider shall ensure that the capacity offered, as a sell bid for energy in the Power Exchange and for TRAS from a resource in the same time-block, shall be separate and non-overlapping. Besides, the detailed procedure provides that there shall be no OCF for TRAS Down bids in Day Ahead AS market and there shall be no order carry forward for both TRAS Up and TRAS Down bids in Real Time AS market. In view of the relevant safeguards, as discussed above, the Commission feels that OCF would play an important role in increasing liquidity in TRAS-Up in Day Ahead AS market; and hence, we approve the same for implementation, as per the procedure defined by NLDC. Further, to take care of the cases where there is no energy bid in any time block in the DAM or the RTM, there shall also be a provision for ‘Ancillary Service (AS) only’ bid.

Bidding Timelines

44. The Petitioner, HPX has expressed concern regarding common bid timing for both I-DAM and AS-DAM segments, namely, 1000 hrs to 1200 hrs. It has been submitted that due to same bidding time the sellers may opt to place their bids only in the I-DAM segment of the Exchange which has most liquidity, leading to artificial suppression of liquidity in the individual AS-DAM segment of other Power Exchanges where there is less liquidity in the I-DAM segment. The Petitioner, PXIL has proposed that market participants be allowed to review and submit their bids for participation in Day Ahead AS Market between 14:30 to 15:30 hrs, to enable market participants to make best use of uncleared bids.

45. The AS Regulations 2022 and the detailed procedure by NLDC, envisage that the TRAS providers in AS-DAM shall submit their best quote without being influenced by the outcome of I-DAM. The similar bidding time for AS-DAM and I-DAM is provided so as to avoid the possibility of market manipulation and any arbitrage opportunity that may arise. In this regard, the Commission in the Statement of Reasons for AS Regulations 2022, in para 14.33 mentioned as follows “...*The Commission believes that same timelines will address the concerns of some stakeholders about possible arbitrage between energy and Ancillary Service (AS) Market. It is envisaged that each participant would choose appropriate strategy to either participate in the energy market or in the ancillary market or in both while ensuring that the same capacity has not been offered in both energy and AS market...*”.

46. As regards the concern of loss of liquidity in individual AS-DAM segment of Power Exchanges having less liquidity in the I-DAM segment, NLDC has made provision for AS-only bid in AS-DAM and AS-RTM in the detailed procedure. Moreover, Regulation 16(6) of the AS Regulations 2022 provides that a “*TRAS Provider cleared in the Day Ahead AS Market may place incremental bids in the Real Time AS Market. TRAS Provider not cleared in the Day Ahead AS Market or which has not participated in the Day Ahead AS Market, may also place bids in the Real Time AS Market*”. Thus, the contention of the Petitioners regarding loss of liquidity in individual AS-DAM segment of power exchanges having less liquidity in I-DAM segment, is misplaced as the participants have been provided with the option of submitting AS-only bids, as well as incremental bids in RTM-AS market.

Double Sided Open Bidding

47. The Petitioner, PXIL has suggested that the order entry in TRAS market should be based on 'Double Sided Open Bidding'. The Petitioner has suggested that to dissuade TRAS providers from placing bids at unrealistic/exorbitant price which will result in high market clearing price, it would be beneficial if self-regulation is made applicable by allowing bid entry as 'open bidding'.

48. The AS Regulations 2022 provide for Uniform Market Clearing Price (UMCP) for price discovery in TRAS-Up, as it helps in ensuring that the market participants bid at their marginal price. The double-sided closed bidding followed in UMCP has worked well and gained currency in the collective transactions in the Power Exchanges. The closed bidding has its own advantages in terms of true reflection of price and is one of the key features of the successful DAM/RTM market. Thus, keeping in view the fact that the closed bidding is an accepted practice and results in efficient price discovery allowing both buyers and sellers to submit their best offers and has successfully worked in collective transactions, the Commission approves closed bidding for TRAS market.

Bid alignment

49. With regard to the bid alignment between AS market and the existing bid structure in DAM in power exchanges, the Commission has been informed that the NLDC has held consultations with the Power Exchanges and the processes of the Power Exchanges and the detailed procedure have been aligned.

Price Cap of Ancillary Services Segment

50. The Petitioner, IEX has submitted that the price cap in the AS market may be harmonized with the price caps already existing in the Energy market.

51. The Commission vide order in Petition No. 04/SM/2023 (Suo-Motu) dated 31 March, 2023 directed all the Power Exchanges to re-design their bidding software for the period from 04 April 2023 until further orders, in such a way that the members can quote the price in the range of (a) ₹ 0/kWh to ₹ 10/kWh for all contracts, viz., DAM (including GDAM), RTM, Intra-day, Day Ahead Contingency and Term-Ahead (including GTAM); and (b) ₹ 0/kWh to ₹ 20/kWh in the HP-DAM segment.

52. Regulation 17(5) of the AS Regulations 2022 provides that “*The Commission may, if considered necessary, provide for a price cap for TRAS*”. The Commission recognizes the importance of harmonizing price caps in energy and ancillary market, to avoid the possible arbitrage opportunities. Accordingly, in exercise of the powers under Regulation 17(5) of the AS Regulations 2022, the Commission directs that the bids placed under TRAS-DAM shall be subject to the same price caps as applicable for energy segment of I-DAM. Additionally, bids placed under TRAS-RTM shall also be subject to the same price caps as applicable for TRAS-DAM. In other words, the TRAS providers which are otherwise eligible for participation in HP-DAM shall, for the purposes of their bids in TRAS-DAM or TRAS-RTM or both, be subject to the price cap as applicable for HP-DAM. Other TRAS providers shall be subject to the price cap as applicable to market segments other than HP-DAM.

Payment and Settlement

53. The Petitioner, HPX has suggested that payment should be routed through Power Exchanges on back-to-back basis, where NLDC will adjust pay-in/pay-out against AS-DAM, AS-RTM and pay/collect to Power Exchanges from pool account. In this regard, The Commission is of the view that settlement in AS market should remain with NLDC due to the operational convenience, as the key functions in AS market, including assessment of requirement under TRAS, price discovery, sending of dispatch instructions to TRAS providers, etc., shall be performed by NLDC. Therefore, the procedure regarding settlement and payment as provided in the detailed procedure by NLDC shall form the basis for settlement of TRAS.

Risk Management

54. The Petitioners have submitted that the Exchange shall only be collecting the bids from the TRAS provider and sharing them with the nodal agency for further activities. As in the AS Market there will be no participation from the buyer side and the Exchange contract will not be executed at the Exchange platform, the Exchange will not be in a position to provide the counterparty guarantee to the transactions taking place in the AS market. Accordingly, the risk management and default remedy mechanism provided under the Regulation 26 and 27 of the PMR 2021 may not be applicable for ancillary services market. Accordingly, the Petitioners have requested that the Commission may direct all TRAS providers to keep Nodal Agency / RLDCs /

SLDCs / Power Exchange indemnified at all times and shall undertake to indemnify, defend and save the Nodal Agency / RLDCs / SLDCs / Power Exchange from any and all damages, losses, claims and actions including those relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the transactions.

55. In this regard, we note that the detailed procedure by NLDC provides that “*All the TRAS providers shall keep each of the SLDCs/ RLDCs /Nodal agency indemnified at all times and shall undertake to indemnify, defend and save the SLDCs/RLDCs /Nodal Agency harmless from any and all damages, losses, claims and actions including those relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the transactions*”.

56. The Commission notes that as per the Business Rules of the Power Exchanges, the Power Exchanges are required to be indemnified by the members against such incidences. Moreover, Power Exchanges being a commercial entity, have a robust risk management mechanism in place, and also considering the fact that settlement of TRAS shall be done through a dedicated DSM pool account, the need for separately indemnifying Power Exchanges by the TRAS providers does not arise as such.

Transaction Fees

57. The Petitioner, PXIL has proposed transaction fee in TRAS Contract to be collected in three parts, i.e., Transfer Fee, Clearance fee and Despatch fee. The Petitioner, IEX has proposed transaction fees may be decided on the basis of the quantum cleared in the AS Market.

58. The Commission has examined the suggestions made by the Petitioners regarding the mechanism to determine the transaction fee. The Commission understands that the Power Exchanges would play a limited role of collecting the bids from the TRAS provider and sharing them with the nodal agency, which assumes low risk. Also, considering the fact that the AS market is a new concept in the Indian power system, the Commission feels that appropriate incentives need to be provided to the

participants to attract more liquidity in this segment. But keeping in view the additional cost involved in technological upgradation and manpower costs and also the incremental costs for collection of bids for AS-DAM and AS-RTM, we find it justified to compensate the Power Exchanges. As such, as of now we allow the existing price ceiling of 2 paise/kWh to be charged by the Power Exchanges from TRAS providers for the quantum of AS bid cleared and despatched by the Nodal Agency. The Commission understands that determination of transaction fee for the AS market needs detailed examination. In the matter of approval of transaction fees of Power Exchanges, the Commission has already given directions to the staff of the Commission to examine all the factors that have a bearing on transaction fees, including the risks involved in Power Exchange operations. The Commission also directs that the discussion paper to be prepared by the staff should also include this aspect of transaction for AS transactions in the Power Exchanges.

59. Subject to the directions given in the paras above, the Commission hereby accords approval for introduction of Tertiary Reserve Ancillary Service (TRAS) market segment on all the three Power Exchanges.

60. The Commission directs the Petitioners to follow the “Detailed Procedure for Tertiary Reserve Ancillary Service (TRAS)” issued by NLDC from time to time. The Petitioners are also directed to incorporate appropriate provisions in their Bye laws, Rules and Business Rules with respect to introduction of AS market segment on their platform and submit to the Commission for records within a week from the date of this order.

61. Regarding the date of implementation of TRAS, the Commission notes that the TRAS framework is scheduled to be made effective from 01.05.2023. However, the Commission would like to give some more time to the NLDC and the Power Exchanges to align and test the processes involved in bidding, information exchange and price discovery, etc., to ensure smooth roll out of the TRAS from 01.06.2023 for which a separate notification would be issued. The Commission notes that vide ROP of the hearing dated 21.03.2023, NLDC was asked to conduct the mock exercise and submit a report on or before 17.04.2023 (including of mock exercise for a minimum period of 10 days). However, even until the date of hearing held on 20.04.2023 NLDC did not submit any such report. Rather, it sought some more time to carry out the mock

exercise during the hearing held on 20.04.2023. The Commission accorded time till 26.04.2023. NLDC submitted the report, which was received in the Commission on 27.04.2023. The report is merely a set of screenshots explaining the processes. Further, NLDC informed that the mock exercise with the generators is being planned over the next few days. The Commission expects NLDC to comply with the directions of the Commission in a timely manner. The basic objective of the AS Regulations 2022 is to enlarge the scope of participation of AS providers and strengthen the hands of the NLDC in discharging its primary duty of maintaining grid security. The Commission expects the NLDC to take up its assigned responsibilities with utmost seriousness. The Commission, therefore, directs NLDC to conduct mock exercise with the generators and also the Power Exchanges on regular basis during this extended time, and submit a feedback report to the Commission on a weekly basis with the details of the issues faced and measures taken to address the same.

62. Petition No. 81/RC/2023, Petition No. 82/MP/2023 and Petition No. 88/RC/2023 are disposed of in terms of the above.

Sd/-	Sd/-	Sd/-	Sd/-
(P.K. Singh)	(Arun Goyal)	(I.S. Jha)	(Jishnu Barua)
Member	Member	Member	Chairperson

