# CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

# **Petition No. 206/MP/2022**

Coram: Shri I. S. Jha, Member Shri Arun Goyal, Member Shri P. K. Singh, Member

Date of Order: 30<sup>th</sup> December, 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 for approval of introduction of Hydropower Contracts in Green Contingency Contracts and Green Term Ahead Contracts and additional Term Ahead Contracts and Green Term Ahead Contracts beyond T + 11 days.

#### And in the matter of

Hindustan Power Exchange Limited (HPX)
(Formerly Pranurja Solutions Limited)
25<sup>th</sup> Floor, P J Towers
Dalal Street, Mumbai 400001 ......Petitioner

Vs

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

**Parties Present** 

Shri Ravi Kishore, Advocate, HPEL Shri Akhilesh Awasthi, Petitioner Shri Parvesh Sharma, Petitioner

#### **ORDER**

The Petitioner has filed the present Petition seeking approval for introduction of Hydropower contracts in Green Contingency and Green Term Ahead contracts and additional Term Ahead Contracts and Green Term Ahead Contracts beyond T+11 days at the Hindustan Power Exchange Limited.

- 2. The Petitioner has made the following prayers:
  - a. allow the present Petition;
  - b. approve introduction of Hydropower Contracts in Contingency and Green Term Ahead Market Contracts at the Petitioner's Exchange platform;
  - c. approve introduction of Long Duration Contracts (Daily, Weekly, Monthly and Any Day Single Sided) in Term Ahead Market and Green Term Ahead Market Contracts at the Petitioner's Exchange platform;
  - d. allow the Petitioner to suitably amend its Business Rules to include the proposed contracts;
  - e. pass such other and further Order(s) as this Hon'ble Commission may deem fit and proper under the facts and circumstances of the present case and in the interest of justice.
- 3. The case was called out for virtual hearing on 09.09.2022 and on 25.11.2022.

## **Submissions by the Petitioner**

- 4. The Petitioner was granted registration on 12.05.2022 to establish and operate a power exchange and subsequently vide Order dated 27.06.2022 was accorded permission to commence operations of its Power Exchange in Integrated Day Ahead Market, Real Time Market, Day Ahead Contingency, Intra-Day, Daily and Weekly Contracts. Consequently, the Petitioner commenced operation from 06.07.2022 in Contingency (Day Ahead and Intra-day) and Green Contingency (Day Ahead and Intra-day) Contracts.
- 5. Presently, the Petitioner offers Day Ahead Contracts, Intraday Contracts, Day Ahead Contingency Contracts, Real Time Contracts and Term Ahead Contracts for trading of electricity. It also offers exchange of Renewable Energy Certificates and Energy Saving

Certificates. Under the Term Ahead segment, Weekly Contracts and Daily contracts are being offered for the period up to 11 days.

- 6. The Commission, vide Order dated 24.02.2022 in Petition no. 169/MP/2021 (Indian Energy Exchange Ltd. Vs. Power System Operation Corporation) approved introduction of Hydropower contracts in Green Term-Ahead Market (GTAM) contracts to facilitate Hydropower Purchase Obligation (HPO) compliance of obligated entities.
- 7. The Commission, vide Orders dated 07.06.2022 in Petition no. 229/MP/2021 (Power Exchange of India Ltd. Vs. Power System Operation Corporation) and in Petition No. 219/MP/2021 (Indian Energy Exchange Ltd. Vs. Power System Operation Corporation) approved the following contracts to be traded on power exchanges:
  - a. Daily Contracts: Uniform Price Step Auction based daily (T) bidding for prespecified and pre-notified time blocks delivery from T + 2 to T + 90 days.
  - b. Weekly Contracts: Uniform Price Step Auction based bidding from Monday to Friday of every week (TW) for pre-specified and pre-notified time blocks for delivery from TW + 1 to TW + 12 weeks.
  - c. Monthly Contracts: Uniform Price Step Auction based bidding in a month (TM) for pre-specified and pre-notified time blocks for delivery from TM + 1 to TM + 3 months.
  - d. Any-Day(s) Single Sided Contracts: Reverse Auction based bidding for user defined days and time blocks for delivery from T + 2 to T + 90 days.
- 8. Accordingly, the Petitioner has filed the present Petition for approval of introduction of Hydropower Contracts in Green Contingency (Day Ahead and Intra-day) and Green Term Ahead Market contracts and long duration contracts (Daily, Weekly, Monthly and Any Day) in Term Ahead Market and Green Term Ahead Market contracts.
- 9. Following Hydropower Contracts in Green Contingency (Day Ahead and Intra-day) and Green Term Ahead Market contracts are proposed to be introduced by the Petitioner:

- a. Green Day Ahead Contingency Contracts (Hydro): These will be hourly/block-wise contracts to be traded on D-1 day for delivery on D day. Continuous matching will be followed as price discovery methodology.
- b. Green Intra-day Contingency Contracts (Hydro): These will be hourly/block-wise contracts to be traded on D day for delivery on the same day and as may be allowed by the System Operator. Continuous matching will be followed as price discovery methodology.
- c. Green Daily Contracts (Hydro): These contracts are proposed to be traded on T day for delivery from T + 2 day onwards. Uniform Price Step Auction will be used as price discovery methodology.
- d. Weekly Contracts (Hydro): These contracts are proposed to be traded from Monday to Friday of Trading Week (TW) week for delivery from TW + 1 week onwards. Uniform Price Step Auction will be used as price discovery methodology.
- 10. The salient features of the proposed contracts are:
  - a. National or Regional: Presently, in Green Contingency contracts, the contracts are being executed at National level. However, Regional contracts may be suitable in cases of transmission congestion. Thus, it is proposed that the Exchange may launch National or Regional contracts based on feedback from the market. Accordingly, the Hydropower Contracts are proposed to be National or Electrical Region-specific contracts for Northern Region (NR), Eastern Region (ER), Western Region (WR), Southern Region (SR) and North East Region (NER) or combination thereof for physical delivery of electricity, as may be notified by the Exchange.
  - b. Eligible Entities: As per Commission's Order dated 24.02.2022 in Petition no. 169/MP/2021, buyers need to procure power from Large Hydro Plants (LHPs) (> 25 MW) commissioned on or after 08.03.2019 and up to 31.03.2030. It is proposed that only such LHPs will be eligible to participate in Hydro Contingency and Hydro GTAM contracts.

- Minimum Volume Quotation: The Minimum Volume Quotation is proposed as 0.1 MW.
- d. Bidding Process: It is proposed that the bidding be carried out based on quantum (MW) and price (Rs.) of power similar to the bidding process for conventional power in Contingency segment.
- e. Price Discovery Methodology: In line with the directions of the Commission, price discovery methodology for Hydro Contingency contracts (Day Ahead and Intra-day) shall be Continuous matching and for Daily Hydro and Weekly Hydro contracts, it shall be Uniform Price Step Auction.
- 11. Other items like Revision of Schedule, Application for Scheduling, Pay-in & Pay-out etc. shall be as per the existing procedure followed for Contingency and Term Ahead Market contracts on the exchanges and as approved by the Commission. However, risk management will have additional features for long duration contract (monthly/Single side reverse auction) same are detailed subsequently under long duration contracts.
- 12. The Petitioner has also proposed to introduce following delivery-based Contracts both in the Term Ahead Market and Green Term Ahead Contracts
  - a. Daily Contracts: These contracts are proposed to be traded on T day for prespecified and pre-notified time blocks for delivery from T + 2 day to T + 90 days onwards.
  - b. Weekly Contracts: These contracts are proposed to be traded from Monday to Friday of every week (TW) for pre-specified and pre-notified time blocks for delivery from TW + 1 to TW + 12 weeks.
  - c. Monthly Contracts: These contracts are proposed to be traded in a month (TM) for pre-specified and pre-notified time blocks for delivery from TM + 1 to TM + 3 months. Bidding days will be different for the three different months as specified in following paragraphs.
  - d. Any-Day (s) Single Sided Contracts: These contracts are proposed to be for user defined days and time blocks for delivery from T + 2 to T + 90 days.

- 13. The Petitioner has proposed that the Monthly Contracts may be allowed to be annulled or curtailed, without any transfer of positions, due to transmission constraints or force majeure. It is being proposed considering the length of the proposed contracts and prevailing practices in the bilateral OTC market. However, as directed by the Commission in Orders dated 07.06.2022, this revision will be subject to validation by system operator and default mechanism of Petitioner's Exchange. In Any Day Single Sided contracts, it is proposed that buyer may partially or fully reject the trade up to two days before the day of delivery. During this time, the bid will remain valid and the successful bidders will not be able to change their bids. If no communication is received from the buyer or the seller during this time regarding acceptance of the trade or on non-payment of Additional Margin, the trade shall be deemed to be rejected by the buyer/seller. In case of default, the future delivery under the concerned contract shall be reduced/ cancelled/ suspended and penalty may be imposed on the defaulting entity as may be specified by the Exchange in advance. Such penalty will be paid to the counter party as compensation against cancellation/ revision of the contract after adjustment of charges and deduction of Exchange administrative charges.
- 14. The Petitioner has proposed that as part of risk management mechanism, it will collect 'Initial Margin' at the time of bidding and then 'Additional Margin' before the scheduling application is made to the Load Dispatch Centre. In case a party defaults, the Margins collected shall be utilized to pay compensation to the counterparty. Initial Margin equivalent to 5% for daily and weekly contracts and 1% of the Order values for monthly contracts shall be collected. After the trade gets executed an 'Additional Margin' equivalent to 50%, 25%, and 20% of the trade value shall be collected for contracts up to 7 days, 15 days and beyond 15 days respectively. In case of Any Day(s) Single Sided contract an 'Initial Margin' equivalent to Rs. 30,000/MW/month will be collected from the sellers considering the nature of the contract and the proposed Reverse auction mechanism. Though, in the Any-Day(s) Single Sided Contracts, the buyer/seller who has initiated auction shall have the right to partially accept or cancel the trade up to two days before the day of delivery. The Petitioner has annexed the draft Contract Specifications seeking approval of the Commission.

#### Hearing Dated 09.09.2022

- 15. The Petition was first heard on 09.09.2022. During the hearing, the Petitioner submitted that the present Petition has been filed in view of the Commission's orders approving similar contracts for other two power exchanges and that the proposed contracts by the Petitioner are in line with the approval accorded by the Commission in case of these Power Exchanges.
- 16. After considering the submissions made by the Petitioner, the Commission admitted the Petition and directed the Petitioner:
  - a) to implead POSOCO as Respondent to the Petition and to file revised memo of parties immediately;
  - b) to serve copy of the Petition on the Respondent to file its reply, if any, within two weeks after serving copy of the same to the Petitioner, who may file its rejoinder, if any, within two weeks thereafter; and
  - c) to give wide publicity to its proposed contracts by uploading the same on its website for inviting comments from the stakeholders and general public and file an affidavit with detailed study incorporating the comments received from the stakeholders and the response thereon.
- 17. In compliance to the Commission's directions, the Petitioner impleaded POSOCO as Respondent and served a copy of the Petition. Also, the Petitioner have submitted that they have uploaded the copy of Petition on its website for seeking comments/ suggestions from the stakeholders. In response to the same, no comments/suggestion/reply was received from any stakeholder.

#### **Hearing Dated 25.11.2022**

18. During the hearing held on 25.11.2022, the Petitioner submitted that it has complied with the directions of the Commission given vide RoP for the hearing dated 09.09.2022. As to the comments offered by POSOCO, the Petitioner submitted that it has already replied to such comments vide affidavit dated 31.10.2022. The Petitioner added that similar contracts have already been approved by the Commission in respect of the other Power Exchanges vide order dated 24.2.2022 in Petition No. 169/MP/2021 (IEX v. POSOCO) and order dated 7.6.2022 in

Petition No. 229/MP/2021 (PXIL v. POSOCO). The Petitioner accordingly prayed for necessary approval for introduction of above stated contracts at the Petitioner's exchange platform.

#### Stakeholders Comments

#### **POSOCO**

19. Hydro being a flexible resource forms an important part of portfolio for the buying utilities. For scheduling of hydro energy, it is preferable to have long term / medium term access which will not only ensure adequate revenue, long term commitment but would also allow flexing of hydro for critical grid balancing close to real time operation. It will also act as reserves for mitigating any shortfall & supporting grid in any unforeseen contingencies.

**Reply by petitioner**: - Most of the Hydro Electricity Plants are having long term arrangements for sale of power. However, many a times the total capacity are not contracted on long term basis and surplus power is available with Hydro Electricity Plants. In such a scenario the surplus power needs to be scheduled on short term basis and the procurer will be able to avail the green power and meet its HPO obligations.

20. To ensure portfolio sale of hydro energy, DISCOMs should provide actual injection point. DISCOMS may apply standing clearance accordingly. This will allow tracing of power from actual despatch point in a transparent manner.

**Reply by petitioner**: - SLDC while issuing the NOC is required to provide the plant location.

21. While introducing the Hydro Purchase Obligations (HPO) related contracts all existing CERC regulations and procedure including provisions of Grid Code need to be complied.

**Reply by petitioner**: - To meet the renewable target of 450 GW by 2030, a separate HPO trajectory for each State is already notified by the Government for which surplus power, after meeting the long-term commitments, and the merchant capacity are also envisaged to be added. For this, there is a requirement of a market to cater to this surplus power. Power Exchanges

including that of the Petitioner is an ideal platform for sale and purchase of such surplus power of Hydro Electricity Plants.

#### **Other Stakeholders**

22. No comments have been received from any of the stakeholders.

# Analysis and Decision

- 23. The Commission notes that the issue of longer duration contracts (beyond T+11 days) and financial derivatives was sub-judice since 2011. On 26.10.2018, the Ministry of Power constituted a Committee to examine the technical, operational and legal framework for futures/forward and derivative contracts in electricity and to give recommendation in this regard. The Committee submitted its report on 30.10.2019 with the following recommendations:
  - a) All Ready Delivery Contracts and Non-Transferable Specific Delivery (NTSD) Contracts as defined in the Securities Contracts (Regulation) Act, 1956 (SCRA) in electricity, entered into by members of the Power Exchanges shall be regulated by CERC.
  - b) Commodity Derivatives in electricity other than Non-Transferable Specific Delivery (NTSD) Contracts as defined in SCRA shall fall under the regulatory purview of SEBI.
  - c) A Joint Working Group between SEBI and CERC shall be constituted with Terms of Reference as agreed in the Report of the Committee.
- 24. Based on the recommendations of the Committee, both SEBI and CERC have come to an agreement that CERC will regulate all the physical delivery based forward contracts whereas the financial derivatives will be regulated by SEBI.
- 25. The Supreme Court of India, in its Order dated 06.10.2021 for Civil Appeals 5290-5291 of 2011 favorably disposed of the matter of futures/forward and derivative contracts in electricity in terms of the agreement reached between SEBI and CERC. The relevant extract of the Order is as under:

"

The present applications have been placed on record in all the appeals which have been listed before this Court seeking the disposal of the appeals based on the settled terms agreed upon by the parties. These terms, delineating the respective jurisdictions of SEBI and CERC have been formulated by the Committee on Efficient Regulation of Electricity Derivatives constituted by the MoP during the pendency of the present appeals before this Court.

. . . . . . . . .

We have perused the applications and the settled terms placed on record. Without commenting on the proposed terms, we permit the authorities to take the necessary steps in pursuance of the same, in accordance with law.

• • • • • •

The parties are directed to abide by the terms and conditions as recommended by the Committee on Efficient Regulation of Electricity Derivatives and the Office Memorandum dated 10.07.2020 issued by the MoP in its letter and spirit....."

- 26. By virtue of disposal of the Civil Appeals by Hon'ble Supreme Court on 06.10.2021, and in line with Orders dated 07.06.2022 in Petition no. 229/MP/2021 (Power Exchange of India Ltd. Vs. Power System Operation Corporation) and in Petition No. 219/MP/2021 (Indian Energy Exchange Ltd. Vs. Power System Operation Corporation) the Petitioner has filed the present Petition on 01.08.2022. During the first hearing on 09.09.2022, the Petition was admitted and the Petitioner was directed to invite stakeholders' comments and file its reply on the comments. During the second hearing on 25.11.2022, the Commission reserved the matter for Order.
- 27. Regulation 25 of the Central Electricity Regulatory Commission (Power Market) Regulations, 2021 (in short "the PMR 2021") provides for "Approval or Suspension of Contracts by the Commission". In accordance with Regulation 25 of PMR 2021, the proposal of the Petitioner on the long duration term ahead contracts beyond 11 days has been evaluated in subsequent paragraphs. Regulation 25 is reproduced as under:

# "25. Approval or Suspension of Contracts by the Commission

(1) The Commission may, on its own or on an application made in this behalf, permit any Power Exchange to introduce new contracts as specified in clause (1) of Regulation 4 of these regulations:

.....

- (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;

......"

# (i) Types of Contracts

- 28. The Petitioner has proposed to introduce delivery based Monthly Contracts, and Any-Day(s) Single Sided Contracts in both Term Ahead Market and Green Term Ahead Market. The Petitioner has also proposed modification in the delivery/trading timeline of the existing Daily Contracts and Weekly Contracts to make them available beyond 11 days. The petitioner has also proposed to introduce Hydropower Contracts in Green Contingency and Green Term Ahead Market.
- 29. We have examined the proposed contracts, their types and specifications as submitted by the Petitioner. We note that the contracts proposed by the Petitioner, i.e., Monthly Contracts, Any-Day(s) Single Sided Contracts, and the Daily Contracts and Weekly Contracts with proposed modification in timelines are physical delivery based forward contracts and/or NTSD Contracts. Therefore, in line with the judgment of Hon'ble Supreme Court on 06.10.2021 and in terms of the agreement reached between CERC and SEBI, CERC has jurisdiction to regulate these contracts.
- 30. The Petitioner has sought approval to introduce the proposed contracts both in Term Ahead Market and Green Term Ahead Market. Considering that the conventional and renewable energy have their own significance, we permit the contracts as per the discussion in subsequent paragraphs to be introduced in both Term Ahead Market and Green Term Ahead Market. We accord approval to the Petitioner's proposal to introduce Monthly Contracts, and existing Daily Contracts and Weekly Contracts with modified timelines for pre-specified time blocks notified to the market participants well in advance subject to the directions given in the subsequent paragraphs. We also approve Any day Single sided contracts at the Exchange.

- 31. We have also considered the submission of Petitioner regarding introduction of Hydropower contracts in Green Contingency and Green Term Ahead Market. The Petitioner has proposed Intraday Hydro Contracts, Day Ahead Contingency Hydro Contracts, Daily Hydro Contracts and Weekly Hydro Contracts. We agree that introduction of these contracts will provide an additional avenue to existing and prospective hydro generators. Considering the same, we grant approval of these contracts subject to various aspects dealt in the subsequent paragraphs.
- 32. Notwithstanding the above, these contracts are approved for the maximum duration of the three months, considering the month in which transaction is made as the zero month. Accordingly, in the zero month, the monthly contract can be transacted for the first month, second month, and for the third month. It is noticed that the delivery timeline proposed by the Petitioner for Daily Hydro Contracts is from T+2 onwards and for Weekly Hydro Contract is from TW+1 week onwards. In line of the above, the Daily Hydro Contracts are approved for delivery from T+2 day to T+90 days and the Weekly Hydro Contracts shall be for delivery from TW+1 to TW+12 weeks.

#### (ii) Price Discovery and Mechanism Methodology

- 33. The Petitioner has proposed to utilize Continuous matching for Green Day Ahead Contingency (Hydro) Contracts and Green Intraday (Hydro) Contracts and Uniform Price Step Auction as matching methodology for Daily & Weekly Hydro contracts, and the Daily, Weekly and Monthly Contracts in TAM & GTAM. For Any Day Single Sided Contracts, Petitioner has proposed to use Reverse Auction based bidding.
- 34. As the 'Continuous matching' methodology proposed for Green Day Ahead Contingency (Hydro) Contracts and Green Intraday (Hydro) Contracts is the same as that of the methodology followed in the existing Contingency contracts and Intraday Contracts, we agree with the Petitioner's proposal.
- 35. For Daily, Weekly and Monthly Contracts, we approve the use of Uniform Price Step Auction as a matching methodology for price discovery as proposed by the Petitioner for such

contracts. We further direct the Petitioner to use open auction for Uniform Price Step Auction so that the participants while bidding for these contracts can take informed decisions after seeing buy and sale bids offered by other anonymous participants. This is line with the decision of the Commission for the same set of contracts for the other two Power Exchanges.

- 36. We note that the Petitioner's proposal of Reverse Auction on buyer's requisition is similar to the contracts currently executed at DEEP Portal wherein under the Reverse Auction mechanism, multiple sellers compete against each other for matching with the requisition of a buyer. We are of the view that such contracts at the Exchange will facilitate discovery of competitive prices, and also provide counterparty risk management by ensuring timely payment on the day close to delivery. Therefore, in the interest of the consumers, we approve Reverse Auction as price discovery matching methodology for Any-Day(s) single sided Contracts. It is noticed that the Petitioner has proposed that the auction shall be conducted in two stages namely Initial Price Offer (IPO) and Reverse Auction (RA). The Petitioner is directed to clearly define the stages and timeline while revising the relevant sections of the Business Rules and the Contract Specifications.
- 37. As drawn from the above, henceforth, the contracts and their price discovery methodologies in the term ahead market and green term ahead market at the Petitioner's Power Exchange shall be as follows: i) Daily Contract with Uniform Price Step Auction, ii) Weekly Contract with Uniform Price Step Auction, iii) Monthly Contract with Uniform Price Step Auction, iv) Any day Single Sided Contract with Reverse Auction.

| Name of the Contract          | Approved Price Discovery Methodology |  |
|-------------------------------|--------------------------------------|--|
| Daily Contract                | Uniform Price Step Auction           |  |
| Weekly Contract               | Uniform Price Step Auction           |  |
| Monthly Contract              | Uniform Price Step Auction           |  |
| Any day Single Sided Contract | Reverse Auction                      |  |

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

38. The Petitioner, in terms of Regulation 25 of the PMR 2021, is required to provide timelines of the proposed contracts, including commencement of bidding and duration of bidding session till the delivery commences. The Petitioner has submitted the following:

| Name of the<br>Contract                              | Commencement of Bidding                     | Last day of bidding   | Bidding Time        |  |
|--|---|---|---------------------|--|
| Daily Contracts                                      | On Daily Basis (T)                          | Two days before delivery day  | 12:00 – 17:00 hours |  |
| Weekly Contract                                      | Monday of the prior week (TW <sub>0</sub> ) | Friday of the week prior (TW <sub>0</sub> )   | 12:00 – 17:00 hours |  |
| Monthly Contract First Day of the zero month $(M_0)$ |   | For the first month $(M_1)$ contract – ten days prior to the close of zero month $(M_0)$ ; For the second month $(M_2)$ contract – five days prior to the close of zero month $(M_0)$ ; For the third month $(M_3)$ contract – last day of zero month $(M_0)$ . | 12:00 – 17:00 hours |  |
| Any Day Single<br>Sided Contract                     | On Daily Basis                              | Two days before delivery day  | 00:00 – 24:00 hours |  |

39. Considering that these contracts are approved for the maximum duration of three months and keeping in view the timelines decided in the Commission's Orders dated 07.06.2022, the timelines as approved, are provided in the table below.

| Name of the<br>Contract | Commencement of Bidding  | Last day of bidding                         | Bidding Time        |
|-------------------------|--|---|---------------------|
| Daily Contracts         | On Daily Basis<br>(T)  | Two days before delivery day                | 00:00 – 24:00 hours |
| Weekly Contract         | Monday of the prior week (TW <sub>0</sub> )  | Friday of the week prior (TW <sub>0</sub> ) | 12:00 – 17:00 hours |
| Monthly Contract        | First Day of the zero month $(M_0)$ :  For the first month $(M_1)$ : $(M_1)$ $(M_1)$ $(M_2)$ $(M_2)$ $(M_3)$ $(M_3)$ $(M_4)$ $(M_4)$ $(M_5)$ |   | 12:00 – 17:00 hours |

| Name of the<br>Contract          | Commencement of Bidding | Last day of bidding          | Bidding Time        |  |
|----------------------------------|-------------------------|------------------------------|---------------------|--|
| Any Day Single<br>Sided Contract | On Daily Basis          | Two days before delivery day | 00:00 – 24:00 hours |  |

Taking the month prior to three months as the zero-month, trading for these contracts can be commenced in zero month. That means Daily, Weekly, and Any day Single Sided Contracts for the third month can be traded on rolling basis in zero-month  $(M_0)$ , first month  $(M_1)$ , second month  $(M_2)$  and third month  $(M_3)$  subject to the timelines specified in above table.

40. The Petitioner is directed to commence the physical delivery of electricity on a day more than one day ahead (T + 2 or more) of the last day of bidding in accordance with the Regulation 2(ba) of the PMR 2021.

# (iv) Delivery Mechanism and Delivery Duration

- 41. For the contracts as approved above, the delivery duration proposed by the Petitioner is: i) T+2 to T+90 days for daily contracts, ii) TW+1 to TW+12 for weekly contracts, iii) TM+1 to TM+12 months for Monthly contracts, iv) T+2 to T+90 days for any day single sided contracts for user defined days and time blocks, wherein T denotes the trading day, TW denotes the Trading Week and TM denotes the trading month.
- 42. With respect to above mentioned paragraphs of this Order, we approve these contracts for the maximum duration of three months, considering the month in which transaction is made as the zero month. Accordingly, the approved delivery duration for these contracts (for the prespecified time blocks notified to the market participants well in advance) is: i) T+2 to T+90 days for daily contracts, ii) TW+1 to TW+12 for weekly contracts, iii) TM+1 to TM+3 months for Monthly contracts; and iv) T+2 to T+90 days for any day single sided contracts for user defined days and time blocks, wherein T denotes the zero day of trading, TW denotes the zero week of Trading and TM denotes the zero month of the trading and physical delivery of electricity starts on a day more than one day ahead.
- 43. The Petitioner is directed to make Daily, Weekly and Monthly Contracts available only for pre-specified time blocks notified to the market participants well in advance with the help of

circulars. In case of Any Day Single Sided contracts, the buyer is allowed to define the days and time blocks of delivery period only, within T+2 days to T+90 days, and the same shall be notified through circulars.

44. A table summarizing the timelines including commencement and duration of bidding, and delivery duration for the approved contracts is provided as under:

| Name of<br>the<br>Contract    | Commencement of Bidding                    | Last day of bidding   | Bidding<br>Time           | Delivery<br>Duration      | Remarks   |  |
|-------------------------------|--|---|---------------------------|---------------------------|---|--|
| Daily<br>Contracts            | On Daily Basis                             | Two days before delivery day  | 00:00 –<br>24:00<br>hours | T+2 to<br>T+90<br>Days    |   |  |
| Weekly<br>Contract            | Monday of the<br>week prior to<br>delivery | Friday of the one week prior to delivery  | 12:00 –<br>17:00<br>hours | TW+1 to<br>TW+12<br>Weeks | For pre-<br>specified time  |  |
| Monthly<br>Contract           | First Day of the zero month                | For the first month $(M_1)$ contract – ten days prior to the close of zero month $(M_0)$ ; For the second month $(M_2)$ contract – five days prior to the close of zero month $(M_0)$ ; For the third month $(M_3)$ contract – last day of zero month $(M_0)$ . | 12:00 –<br>17:00<br>hours | TM+1 to<br>TM+3<br>Months | blocks notified<br>to the market<br>participants<br>well in advance<br>through<br>circulars |  |
| Any Day Single Sided Contract | On Daily Basis                             | Two days before<br>delivery day   | 00:00 –<br>24:00<br>hours | T+2 to<br>T+90<br>Days    | For user defined days and time blocks   |  |

45. We direct that the delivery mechanism for these contracts shall be in accordance with the CERC (Open Access in inter-State Transmission Regulations), 2008 as amended from time to time including reenactment thereof; CERC (Indian Electricity Grid Code) Regulations, 2010 as amended from time to time including reenactment thereof; CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020 as amended from time to time including re-enactment thereof; CERC (Power Market Regulations), 2021 as amended from time to time including reenactment thereof; Procedure for Scheduling of Bilateral Transaction and Procedure for Short Term Open Access in inter-State Transmission System through National Open Access Registry (NOAR) as amended from time to time including reenactment thereof.

# (v) Risk Management Mechanism including Margining and Final Price Settlement Mechanism

- 46. The Petitioner has proposed that the Exchange will collect an "Initial margin' at the time of bidding equivalent to 5% of the order value for Daily and Weekly Contracts and 1% of the order value for Monthly Contracts. For Any Day Single Sided Contracts, sellers will be required to provide an Initial Margin at the rate of Rs. 30000/MW/month or part thereof. After the bidding, an 'Additional margin' will be collected by the Exchange before the scheduling application is made to the Load Dispatch Centre. Additional Margin will be equivalent to 50%, 25% and 20% of trade value for contracts up to 7 days, 15 days and beyond 15 days respectively. In case a party defaults then the Margins collected shall be utilized to pay the compensation to the counterparty. The Margins will be collected in both cash and non-cash.
- 47. We note that Regulation 26 of the PMR 2021 permits a Power Exchange to develop and implement a prudent risk management framework which shall be dynamic based on the changing risk profiles of the market. We find that the Petitioner has proposed Initial Margin and Additional Margins as per the risk mitigation requirement of respective contracts. Accordingly, we approve the same. Further, in order to address the defaults, we are of the view that penalty should be explicitly defined in the contract specifications and Business Rules to ensure transparency in the risk management, and informed decision making for the market participants. The Petitioner is, therefore, directed to specify in advance the fines & penalties in the contract specifications.
- 48. Regarding the final price settlement, the Petitioner, in contract specifications, has proposed that it will be equivalent to the 'Traded price x Quantity scheduled' at delivery point. The Petitioner mentioned that funds pay-in by the buyers equivalent to one day's obligation shall be collected on D-1 basis (D being delivery day) whereas funds pay-out to the seller equivalent to one day's obligation shall be disbursed on D+1 basis for each delivery day subject to confirmation of delivery by the seller. The Petitioner mentioned that netting off of the positions shall not be allowed.

- 49. We note that the mechanism of final price settlement as proposed by the Petitioner has been in practice since the commencement of the existing term ahead contract at the Power Exchange. We further note that no adverse feedback regarding the said mechanism has been received in this context. Accordingly, we approve the price settlement as proposed by the Petitioner subject to the condition that the netting off of the positions shall not be allowed.
- 50. In view of the above discussions, we allow the prayers of the petitioner subject to following stipulations: -
- (A) We, hereby. direct the Petitioner to schedule these contracts, viz., Daily Weekly, Monthly and Any day Single Sided contracts on the first available day following the transaction day and to strictly abide by the following conditions of NTSD contracts:
  - (i) the contracts are settled only by physical delivery without netting;
  - (ii) the rights and liabilities of parties to the contracts are not transferable;
  - (iii) no such contract is performed either wholly or in part by any means whatsoever, as a result of which the actual delivery of electricity covered by the contract or payment of the full price therefor is dispensed with;
  - (iv) no circular trading shall be allowed and the rights and liabilities of parties to the specific delivery contracts shall not be transferred or rolled over by any other means whatsoever;
  - (v) the trading shall be done only by authorized grid connected entities or trading licensees on behalf of grid connected entities, as participants;
  - (vi) the contracts can be annulled or curtailed, without any transfer of positions, due to constraints in the transmission system or any other technical reasons, as per the principles laid down by CERC in this regard. However, once annulled, the same contract cannot be reopened or renewed in any manner to carry forward the same transaction.
- (B) As per the aforesaid condition (vi) of the NTSD contracts, the Commission directs that the contracts can be annulled or curtailed, without any transfer of positions, due to constraints in the transmission system or due to force majeure; however, this will be subject to the validation by system operator and default mechanism of the Petitioner's Exchange. Accordingly, we direct that

any downward revision in the contracted quantity (MWh) shall be subject to the aforesaid conditions.

- (C) For Any Day Single Sided contracts, the Petitioner has proposed that after the Reverse Auction, the buyer may partially or fully reject the trade within the timelines as may specified by the Exchange from time to time. During such time, the bid will remain valid and the successful bidders will not be able to change their bids. If no communication is received from the buyer or the seller within the stipulated time regarding acceptance of the trade or on nonpayment of Additional Margin, the trade shall be deemed to be rejected by the buyer or seller. We find above proposal of the Petitioner is a part of the trading activity (i.e. before transaction takes place) and therefore, we direct the Petitioner to complete the same, two days before the day of delivery. Once a transaction takes place and contract is entered into, no partial or full rejection of the contracted quantity shall be allowed, except in the case of force majeure or constraints in the transmission corridor, subject to the validation by the system operator and default mechanism of the Petitioner's Exchange.
- (D) The capacity offered, as a sell bid in Power Exchange under the Daily, Weekly, Monthly and Any day single sided contracts from a resource in the same time-block, shall be separate and non-overlapping. Non-compliance of the same by any of the parties to the transaction shall lead to its debarment as a member or client and/or revocation or suspension of registration as the case may be, along with the other actions for market abuse taken under the PMR 2021 and other applicable Regulations of the Commission.
- (E) We also direct the Petitioner to make appropriate changes in its software before the commencement of these physical delivery based forward contracts. The Commission directs the Petitioner to revise its Business Rules, Rules and Bye-Laws according to approvals granted in this Order and as per the detailed procedure for scheduling of bilateral transactions. We further direct the Petitioner to submit the compliance report of the same on affidavit within two weeks from the date of issuance of the Order. The Petitioner is also directed to upload the revised Business Rules, Rules and Bye-Laws on its website before the commencement of these contracts. Needless to mention, if any discrepancy is noticed or if it appears that the revised

Business Rules, Rules and Bye-Laws, Circulars issued do not conform to the Regulations and/or to this Order in any respect, necessary directions may be issued for such compliance.

- 51. We also direct POSOCO to submit a report within three months from the date of introduction of the contracts as approved in this Order, after seeking feedback from the Power Exchanges on the experience and performance of the said contracts.
- 52. The Petition 206/MP/2022 is disposed of in terms of the above.

Sd./(P.K. Singh) (Arun Goyal) (I.S. Jha)
Member Member Member