# CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

# Petition No. 304/MP/2020

#### Coram:

Shri P. K. Pujari, Chairperson Shri I.S.Jha, Member Shri Arun Goyal, Member

Date of Order: 29th May, 2020

#### In the matter of

Petition under Section 66 of The Electricity Act, 2003 read with Section 178 (2) (y) of the Electricity Act, 2003 and Regulation 2, 4, 6, 7 and 11 of the Central Electricity Regulatory Commission (Power Market) Regulations, 2010 for approval of introduction of Real Time Market at Power Exchange India Limited and for the fair and transparent allocation of transmission corridor under the framework for Real Time Market under Regulation 13(B) of the Central Electricity Regulatory Authority (Open Access in inter-state transmission) (Sixth Amendment) Regulations, 2019 and Regulation 6.5 of the Central Electricity Regulatory Authority (Indian Electricity Grid Code) (Sixth Amendment) Regulations, 2019.

And

#### In the matter of

# Power Exchange India Limited (PXIL)

Ninth Floor, 901, Summer Plaza,
Marol Maroshi Road, Marol Andheri (East)
Mumbai – 400059

.....Petitioner

#### Vs

Power System Operation Corporation Limited B9 (First Floor), Qutab Institutional Area Katwaria Sarai, New Delhi – 110016

.....Respondent

# Parties present (through video conferencing):

Shri Sakya Singha Chaudhuri, Advocate, PXIL Shri Nithya Balaji, Advocate, PXIL Shri Prabhajit Sarkar, PXIL Shri Kapil Dev, PXIL Shri Yasir Altaf, PXIL Shri Gajendra Singh, POSOCO Shri Subhendu Mukherjee, POSOCO

# **ORDER**

The present Petition has been filed by Power Exchange India Limited (PXIL) for approval of introduction of Real Time Market (RTM) at PXIL platform; to amend applicable regulations/procedures for equitable allocation of transmission capacity among power exchanges for RTM operated by the Petitioner and Contract Specifications provided at Annexure-P7; and to include these contracts in the approved Business Rules of the Petitioner.

- 2. The Petitioner has submitted the following facts:
  - (i) The present petition is filed under Section 66 of the Electricity Act, 2003 which enjoins the Commission to develop electricity market including power trading. Regulation 6 of the CERC (Power Market) Regulations, 2010 (in short, PMR) stipulates that the Commission may permit power exchange to introduce new contracts.

- (ii) Regulation 2, 4, 11 of the CERC (Power Market) (Second Amendment) Regulations, 2019 introduces Real Time Market (RTM) contracts as delivery-based contracts on an exchange in addition to the contracts in Day Ahead Market (DAM), Term Ahead Market (TAM), and Intraday/ Contingency contracts.
- (iii) Further, the Commission vide Regulation 6.5 of the CERC (IEGC) (Sixth Amendment) Regulations 2019, has provided that the limit for scheduling of collective transactions in terms of transmission corridor, during real time for respective power exchanges shall be worked out in accordance with the directives of the Commission. Vide Regulation 13 (B) of the CERC (Open Access in inter-state transmission) (Sixth Amendment) Regulations, 2019, the Commission has provided that the NLDC is required to furnish the available transmission corridors to the power exchanges before the trading for RTM. These regulations are silent on the manner of allocation of transmission corridor. However, an indicative methodology wherein allocation is proposed to be carried out between the power exchanges in the ratio of their shares in the cleared volumes in the DAM subject to minimum of 10% of the available capacity to the power exchange having smaller share, has been provided in the supporting documents. Pursuant to the same, the Petition has been filed for fair and transparent allocation of transmission corridor under the framework for RTM.
- (iv) The Commission introduced the regulatory framework for RTM with the objective of providing the market players with an organized platform for energy trade closer to real time. This proposal was introduced for the first time through the Discussion Paper titled "Re-Designing the Real Time Electricity Markets in India" which was published on the website of CERC on 25.7.2018 inviting comments from stakeholders.

- (v) In this backdrop, the Commission, for the implementation of the RTM mechanism created the necessary regulatory framework and enacted the following amendments on 12.12.2019:
  - a. CERC (Open Access in Inter-state transmission) (Sixth Amendment) Regulations, 2019
  - b. CERC (Power Market) (Second Amendment) Regulations, 2019
  - c. CERC (Indian Electricity Grid Code) (Sixth Amendment)
    Regulations, 2019
- (vi) One of the aspects of the RTM mechanism that require immediate attention of the Commission, is clarity and consistency regarding the manner of allocation of transmission corridor between the power exchanges for real time transactions. As per the amendments w.r.t. real time market, the limit for scheduling of collective transactions in terms of transmission corridor, during real time for respective power exchanges shall be worked out in accordance with the directives of the Commission.
- (vii) Para 4.8 of the Statement of Reasons for the Framework for Real-Time Market for Electricity, which accompanied the above stated amendments, is extracted herein below:
  - "4.8.Regarding the issue of transmission capacity allocation between the power exchanges, the Commission has stated in the Explanatory Memorandum that the allocation of transmission corridor between the power exchanges for real time transactions could be in the ratio of their shares in the cleared volumes in the day ahead market subject to a minimum of 10% of the available capacity to the power exchange having smaller share; or based on such methodology to be decided by the Commission by way of an Order. The Commission has decided to continue with this principle as the same is also in line with the existing practice in the day-ahead collective transactions through the power exchanges."
- (viii) The petitioner had responded to the suggestion in the draft framework by pointing out that applying the allocation criteria based on cleared volumes in DAM would deprive market participants of their choice as well as benefit the users of a particular power exchange and leave no

- choice to consumers but to transact only through one exchange, and thus negate the competition between power exchanges.
- (ix) In its "Draft Procedure for Scheduling Collective Transactions in Real Time Market", POSOCO, taking cue from the principle enunciated by this Commission in the Statement of Reasons, has adopted a similar approach of allocation. In light of the same, the Petitioner submitted its comments on 21.2.2020 wherein the Petitioner had objected to POSOCO's adoption of the methodology for allocation of transmission corridor. PXIL requested POSOCO to delete the provision and allocate the transmission capacity equally among the power exchanges for the RTM.
- (x) The restriction of availability of transmission corridor will have a direct impact on the ability of the Petitioner to develop its market in RTM segment. The Commission may provide for allocation of transmission capacity equally among the competing power exchanges i.e. in a ratio of 50:50. The Commission could conduct a review after the period of one year by receiving feedback from the market participants, to gauge such evolution of the new market segment.
- 3. The Petitioner has submitted the salient features of the Contract Specification of RTM in compliance with 'Framework of Real Time Market for Electricity', as under:
  - a) The bidding mechanism shall be Double Sided Closed Bid Auction with Uniform Market Clearing Price for all the buyers and sellers who are cleared.
  - b) In case of congestion in transmission corridor, Market Splitting mechanism shall be adopted.
  - c) The delivery / drawl of power shall be considered at Regional Periphery.

- d) The power exchange shall conduct 48 separate auctions of 15-minute duration each for delivery period of not more than 2-time blocks of 15minute duration each.
- e) The delivery period shall commence one (1) hour after closure of auction session.
- f) The cleared bid information shall be submitted to NLDC for scheduling. NLDC shall communicate to RLDCs to prepare the schedule for dispatch.
- 4. The petitioner has provided RTM contract specifications in Annexure P7 to be included in revised Business Rules as under:

| Product Name             | Real-Time Market Contract                                  |  |  |  |  |
|--------------------------|--|--|--|--|--|
| Trading system           | PXIL   |  |  |  |  |
| Trading Methodology      | Double Sided Closed Bid Auction with Uniform Market        |  |  |  |  |
|                          | Clearing Price for all buyers and sellers.                 |  |  |  |  |
|                          | As per new Clause 13 (B) of Central Electricity            |  |  |  |  |
|                          | Regulatory Commission (Open Access in inter-state          |  |  |  |  |
|                          | transmission) (Sixth Amendment) Regulations, 2019, the     |  |  |  |  |
|                          | auction shall be held at two different 15-minute time      |  |  |  |  |
|                          | blocks of each hour of the day commencing at hh:15 hrs     |  |  |  |  |
|                          | and hh:45 hrs.   |  |  |  |  |
|                          | The timeline for auction and delivery of contract shall be |  |  |  |  |
|                          | on rolling basis, the details are given below.             |  |  |  |  |
| No. of Contracts per day | 96 Contracts of 15 minutes duration each                   |  |  |  |  |
| Minimum Bid Volume       | 0.1 MW or as decided by exchange from time to time         |  |  |  |  |
| Minimum Volume           | 0.01 MW  |  |  |  |  |
| Quotation Step           |  |  |  |  |  |
| Minimum Value            | Rs. 1 per MWh  |  |  |  |  |
| Quotation Step           |  |  |  |  |  |
| Delivery Point           | As described in 4.2.6.4.3 of the Business Rules            |  |  |  |  |
| Transmission charges     | Inter-State Transmission System: As per Central            |  |  |  |  |
|                          | Electricity Regulatory Commission (Open Access in inter-   |  |  |  |  |

|                     | State Transmission) Regulations, 2008 and Central   |  |  |  |  |
|---------------------|---|--|--|--|--|
|                     | Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 as |  |  |  |  |
|                     |   |  |  |  |  |
|                     | amended from time to time and relevant orders of the  |  |  |  |  |
|                     | Central Electricity Regulatory Commission   |  |  |  |  |
|                     |   |  |  |  |  |
|                     | State Transmission System: As per concerned State   |  |  |  |  |
|                     | Electricity Regulatory Commission's Regulations/ CERC   |  |  |  |  |
|                     | (Open Access) Regulations, 2008, as amended from time   |  |  |  |  |
|                     | to time and relevant orders of the Central Electricity  |  |  |  |  |
|                     | Regulatory Commission   |  |  |  |  |
|                     |   |  |  |  |  |
| Transmission losses | Payable in kind from delivery point to its grid connection  |  |  |  |  |
|                     | point.  |  |  |  |  |
| Settlement Price(s) | The Market Clearing Prices of the respective Bid Zones  |  |  |  |  |

The above contract specifications have been detailed out in the Annexure P7 under following points: Auction Trade Session and Delivery Information, Trading Cycle, Margin, Settlement, Open Access from Load Dispatch Centers, Generator to Power in RTM, Transaction Fee, Deviation Settlement Charges, Power Supply & Scheduling, Force Majeure etc.

- 5. The petitioner has sought approval for RTM contracts on PXIL platform apart from the equitable allocation of transmission capacity among power exchanges for RTM transactions.
- 6. The Commission heard the petition on 12.03.2020 and directed the petitioner to upload the Petition on its website for seven days for inviting stakeholder's comments. The Commission also directed the petitioner to file the comments of the stakeholders and replies of the petitioner on or before 23.03.2020.

- 7. The petitioner uploaded the petition on its website on 12.03.2020 and received comments from six stakeholders, namely, JSW Energy, GMR Energy, Arunachal Pradesh Power Corporation, Uttar Pradesh Power Corporation, Tata Power Delhi Distribution and Tata Power Trading Company. Due to COVID-19, these comments and petitioner's response were submitted by the Petitioner on 11.05.2020 instead of 23.03.2020.
- 8. The Commission heard the petition on 20.05.2020. During the hearing, the Petitioner raised the issue regarding allocation of transmission corridor for RTM between the power exchanges which has been recorded in the RoP and is not being repeated for the sake of brevity.

# **Analysis and Decision**

- 9. The Commission has examined the RTM contract specifications and Business Rules for RTM (Annexure P7 to the Petition) to be incorporated into revised Business Rules, taking into account the comments of stakeholders and response of the petitioner. The Commission observes that the design of RTM contracts submitted by PXIL is aligned with Power Market Regulations, Open Access Regulations and Indian Electricity Grid Code Regulations and that it has been suitably incorporated to the Business Rules for RTM (Annexure P7 to the Petition).
- 10. Therefore, the Commission hereby accords approval for proposed RTM Contracts on PXIL platform. The Commission also approves the Business Rules for RTM (Annexure P7 to the Petition) (Annexure-I). The Petitioner is directed to file a copy of revised Business Rules incorporating Annexure P7 and various forms/formats for data collection on RTM contracts for information of the Commission.
- 11. The Petitioner is directed to follow the "Detailed Procedures for Scheduling of Collective Transactions through RTM" issued by POSOCO from time to time.

- 12. The Petitioner is directed to submit a report on the functioning of RTM on PXIL platform after one month from the date of issue of this order.
- 13. The Commission has already decided the allocation of transmission corridor between the power exchanges for implementation of Real Time Market in electricity vide order dated 28.5.2020 in Petition No.10/SM/2020(Suo-Motu).
- 14. The Petition No. 304/MP/2020 is disposed of in terms of above.

Sd/- Sd/- Sd/
(Arun Goyal) (I.S.Jha) (P. K. Pujari)

Member Member Chairperson

|  | Annexure-I |
|--|------------|
| PXIL Business Rules<br>for<br>Real Time Market |            |
|  |            |
|  |            |

# 4.2.6. Real Time Market - Operations

# 4.2.6.1. **CONTRACT CALENDAR / PERIOD**

The Exchange shall operate Real Time Market Contract on Collective basis as per Clause 13 (B) of Regulation 13 of Central Electricity Regulatory Commission (Open Access in inter-State Transmission) (Sixth Amendment) Regulations, 2019

#### 4.2.6.2. AUCTION TRADE SESSION

Auction Trade Sessions are specific times within the Trading Days during which the Real Time Market Contracts would be available for Trading on the Exchange. The Auction Trade Session timings would be notified to the Members by the Exchange from time to time.

The Exchange may extend, advance or reduce Trading hours by notifying the Members as and when it deems fit and necessary.

#### 4.2.6.3. TRADING CYCLE

Trading Cycle of the Exchange would be as per the "Procedure for Scheduling Collective Transactions in the Real Time Market (RTM)" issued by the Power System Operation Corporation limited, National Load Despatch Centre. The various steps in the Trading Cycle would be intimated to the Members by the Exchange from time to time.

#### 4.2.6.4. TRADING PARAMETERS

# **4.2.6.4.1.** Contract Specifications:

For the Real Time Market, the detailed Contract Specifications are given in 'Annexure IF' below. These Contract Specifications will form an integral part of these Business Rules and shall be binding on all Members and their Clients trading on the Exchange. Any Contract entered into in violation of these norms or not conforming to the specifications laid down by the Exchange shall be considered as void.

#### 4.2.6.4.2. Delivery Period:

The Delivery in the present Contracts would be for two consecutive time blocks of 15-minute duration each, based on the application submitted by the Exchange to NLDC and scheduled by NLDC / RLDCs / SLDCs.

#### **4.2.6.4.3. Delivery Point:**

Delivery point is the regional periphery of the regional transmission system in which the grid connected entity is located.

#### 4.2.6.4.4. Traded Schedule vs. Actual Schedule:

For the purpose of the Contract in the Real Time market, the trade schedule shall be reckoned at the Delivery Point as defined in clause 4.2.6.4.3. The actual schedule at various seams including that of grid connected entities shall be worked out after incorporation of transmission losses in kind.

## 4.2.6.4.5. Transmission Charges:

The transmission charges to be paid by the buyers and sellers shall be as per Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008 and Central Electricity Regulatory Commission (Sharing of Interstate Transmission Charges and Losses) Regulations, 2010 as amended from time to time.

#### 4.2.6.4.6. Transmission Losses:

The transmission losses would be charged and handled as per Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008 and Central Electricity Regulatory Commission (Sharing of Interstate Transmission Charges and Losses) Regulations, 2010 as amended from time to time.

# 4.2.6.4.7. Scheduling and System Operation Charges:

Scheduling and System Operational Charges for NLDC / RLDC / SLDC shall be payable by the Exchange in accordance with Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008, along with the Procedures issued by POSOCO for 'Procedure for Scheduling Collective Transactions in the Real Time Market (RTM)' as approved by CERC and as amended from time to time. Such charges shall be recovered by the Exchange and socialized amongst all Buyers and Sellers.

#### 4.2.6.4.8. Fulfilment of Contractual liability

This contract is for physical delivery only. Members can fulfill their contractual liabilities through physical delivery / off-take and by meeting all financial obligations arising out of such physical delivery / off-take.

# 4.2.6.4.9. Invalidation of a Traded Contract

The Exchange may invalidate a matched Contract if according to the Exchange a Member has attempted to conclude the transaction in violation of the Rules, Bye-laws and/ or Business Rules of the Exchange or with an intention of indulging in price manipulation, price rigging or price distortion or violation of any Applicable Law.

#### 4.2.6.4.10. Settlement Guarantee

Subject to the Bye-Laws, Rules and these Business Rules, the Exchange shall guarantee the settlement of all the trades done on the Exchange in accordance with the Bye-Laws of the Exchange. The settlement guarantee of the Exchange shall be confined to the extent as may be prescribed in the Applicable laws from time to time.

# 4.2.6.4.11. Governing Law & Jurisdiction

Every Contract executed as per Rules, Bye-laws and Business Rules of the Exchange shall take effect as a Contract made in Mumbai and shall be governed by the Laws of India under the jurisdiction of the Courts of Mumbai.

# **4.2.6.4.12.** Types of Orders

The Members through their Approved Users can place the following types of Orders on the Exchange through the Trading System:

- **Normal Orders:** The Members would be able to put multiple price-quantity orders for each Contract (i.e. each timeslot).
- **Block Orders (All or None type Orders):** Block Order will specify one price and one quantity for a single time slot or combination of continuous time slots i.e. same quantity, at one particular price for multiple time slots, as may be notified by the Exchange from time to time. A Block order would consist of orders for Single time slot or group of contiguous time slots (e.g. 2 time slots of 15 minutes each), or as notified by Exchange from time to time.
- Other Orders: The Exchange shall introduce other types of orders as per the requirement of the market. Details of such other possible orders shall be notified by the Exchange from time to time.

#### 4.2.6.4.13. Order Validation

The bids and offers entered by the Approved Users into the Trading System would be validated by the Exchange as per various parameters of price/quantity/margins etc. decided from time to time. Only after successful validation, the Orders would be accepted by the Exchange.

Members shall be solely responsible for the accuracy of details of Orders entered into the Trading System including Orders entered on behalf of their Clients or entered by Approved Users on their behalf.

# **4.2.6.4.14. Matching Rules**

Matching Rules would be as per Annexure V to the Business Rules. The Exchange also reserves its right to modify or change the matching rules as per any of the methodology prescribed in Annexure V to the Business Rules as would be felt relevant and necessary to do so, subject to the approval of the CERC.

# 4.2.6.4.15. Reports

During and at the end of a Trading Session, the Exchange will give various reports to the Members including the Provisional Obligation Report, Final Obligation Report and other relevant matters. Based on the Exchange's Reports, the Members can inform their Clients about their successful trades along with their obligation.

#### 4.2.6.4.16. Settlement

Based on the application made by the Exchange, NLDC would arrange to schedule the cleared trades which would reflect in the schedules of the respective RLDCs/SLDCs.

# 1. Basic Contract Specifications

| Product Name                     | Real Time Market Contract  |  |  |
|----------------------------------|--|--|--|
| Trading System                   | PXIL   |  |  |
| Trading Methodology              | Double Sided Closed Bid Auction with Uniform Market Clearing Price for all buyers and sellers  |  |  |
| Auction Timings                  | As per new Clause 13 (B) of CERC (Open Access in inter-State Transmission) (Sixth Amendment) Regulations, 2019, the auction shall be held at two different 15-minute time blocks of each hour of the day commencing at hh:15 hrs and hh:45 hrs.  The timeline for auction and delivery of contract shall be on rolling basis, the details are given below.           |  |  |
| No. of Contracts per day         | 96 Contracts of 15 minutes duration each   |  |  |
| Minimum Bid Volume               | 0.1 MW or as decided by Exchange from time to time   |  |  |
| Minimum Volume<br>Quotation Step | 0.01 MW  |  |  |
| Minimum Value<br>Quotation step  | Rs. 1 per MWh  |  |  |
| Delivery Point                   | As described in 4.2.6.4.3 of these Business Rules  |  |  |
| Transmission charges             | Inter-State Transmission System: As Per Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008 and Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and losses) Regulations, 2010 as amended from time to time and relevant orders of Central Electricity Regulatory Commission |  |  |
|                                  | <b>State Transmission System</b> : As per the concerned State Electricity Regulatory Commission's Regulations/ CERC (Open access) Regulations, 2008, as amended from time to time and relevant orders of Central Electricity Regulatory Commission.  |  |  |
| Transmission Losses              | Payable in kind from delivery point to its grid connection point.  |  |  |

| Settlement 1 | Price( | (s) |
|--------------|--------|-----|
|--------------|--------|-----|

The Market Clearing prices of the respective Bid Zones

# 2. Auction Trade Session and Delivery duration

The timelines for trading sessions and delivery durations shall be as per Clause 13 (B) of CERC (Open Access in inter-State Transmission) (sixth amendment) Regulations, 2019. The window for delivery during first two time blocks of the 1st hour of the Day (D) i.e. from 00:00 to 00:30 hrs shall open during the period 22:45 to 23:00 hrs of the previous day (D-1).

The auction process would be conducted during even time blocks of the hour. The timelines for auction and delivery would be as provided in the **Table 1** below.

**Table 1: RTM Auction and delivery timelines** 

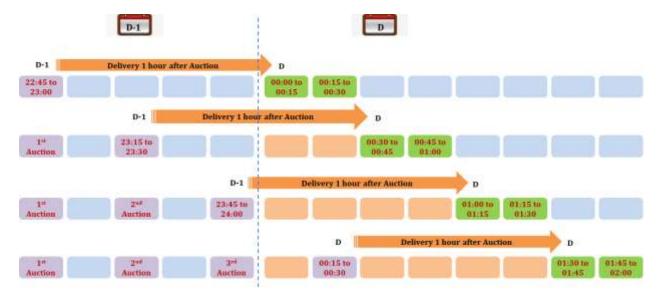
| RTM Auction        | Matching, Submission of RTM transaction details to NLDC and Auction Results to the Participants | Inform details of<br>RTM transaction to<br>respective SLDC | Delivery of Power  |
|--------------------|---|--|--------------------|
| 22:45 to 23:00 hrs | 23:00 to 23:15 hrs  | 23:15 to 23:30 hrs   | 00:00 to 00:30 hrs |
| 23:15 to 23:30 hrs | 23:30 to 23:45 hrs  | 23:45 to 24:00 hrs   | 00:30 to 01:00 hrs |
| 23:45 to 00:00 hrs | 00:00 to 00:15 hrs  | 00:15 to 00:30 hrs   | 01:00 to 01:30 hrs |
| 00:15 to 00:30 hrs | 00:30 to 00:45 hrs  | 00:45 to 01:00 hrs   | 01:30 to 02:00 hrs |
|                    |   |  |                    |
| 10:15 to 10:30 hrs | 10:30 to 10:45 hrs  | 10:45 to 11:00 hrs   | 11:30 to 12:00 hrs |
| 10:45 to 11:00 hrs | 11:00 to 11:15hrs   | 11:15 to 11:30 hrs   | 12:00 to 12:30 hrs |
|                    |   |  |                    |
| 21:45 to 22:00 hrs | 22:00 to 22:15 hrs  | 22:15 to 22:30 hrs   | 23:00 to 23:30 hrs |
| 22:15 to 22:30 hrs | 22:30 to 22:45 hrs  | 22:45 to 23:00 hrs   | 23:30 to 24:00 hrs |

The deliveries for the six-time time blocks of the day i.e. from 00:00 hours onwards to 01:30 hours of the day (D), the auction would be conducted a day prior to delivery (D-1).

Based on the matching of bids for each auction session, the delivery could cover any time block of 15-minute or both the time blocks during the delivery period of 30-minute (i.e. 00:00 to 00:15 and/or 00:15 to 00:30 for 30-minute delivery period of 00:00 to 00:30 hrs).

The Exchange shall provide 'Good till Cancelled' queuing type wherein the order shall be carried over for remaining auction sessions till they are modified or cancelled by the participants. The 'Good till Cancelled' queuing type provided by the Exchange will facilitate the participants to submit bids for all the delivery time periods, however the bids would be considered for auction as per the timelines for each trading session as illustrated in the Table 1 above.

The auction timelines and the related delivery periods are illustrated in the **Figure 1** below:



**Figure 1: RTM Auction and Delivery Timelines** 

# 3. Trading cycle for Real Time Market

The following would be the trade cycle for RTM product as per the Procedure for Scheduling Collective Transactions in the Real Time Market:

- a) Bidding session: The bidding window would be open for 15-minute duration
- b) Matching & information session: The matching of bids would be done in next time block of 15-minute duration. After matching of bids, Power Exchange shall submit scheduling request to NLDC during this time block. The Power Exchange shall also declare the clearing price and schedule to the participants during this time block.
- c) Schedule intimation session:. The Power Exchange shall send break-up of each point of injection and each point of drawl within the State to respective SLDCs during the next 15-minute time block i.e. 30 minute prior to start of delivery covering information for 30 minute duration.
- d) Delivery Session: Delivery for which schedules were issued during the Matching & information session

# 4. Margin

The payment security mechanism shall be as follows:-

Buyers will have to make available the 105% Margins of the bid value before submission of bids. The margins may be in the form of Bank Guarantee, FD, Cash or Bank Limit or any other such instrument as may be notified by the exchange from time to time. For the unmatched trades, the margin will be released to the Buyer.

Bids will not get executed in case sufficient margins are not maintained by the Members. In case of any default in payment Deposits/Margins placed with the Exchange will be invoked to make good the default in payment. All other forms of margin collected for other products by the Exchange till such time may also be impounded. Exchange reserves its right to change the margin requirements from time to time as felt necessary.

#### 5. Settlement

Settlement may be done multiple times in a day for the multiple contracts valid, on the days prescribed by the Exchange from time to time. Buyer will make payment on T + 1 day by 11:00 hrs and the Seller will receive the payment on T+2 day after 11:00 hrs. Exchange reserves its right to change the settlement cycle from time to time as felt necessary.

## 6. Open Access from relevant LDCs

Both the Buyer and Seller agree to provide all the details or enter into any agreement as may be required by the concerned RLDC/SLDC for providing Open Access.

# 7. Generator to power in Real Time Market

In case of forced outage, the Generator shall have an option to purchase power in Real Time Market. In such case, the Generator shall submit an Undertaking as per "Procedure for Scheduling Collective Transactions in the Real Time Market" for Exchange to enable the Generator to submit its bid for purchase of power in RTM.

# 8. Transaction Fee

Transaction Fee for Real Time Market contract will be prescribed by Exchange from time to time. Transaction fee will be collected as per the Settlement Cycle applicable to this product. Exchange reserves its right to revise the same as required from time to time.

# 9. Deviation Settlement Mechanism charges

The Schedule and Despatch of power shall be coordinated with respective RLDCs/ SLDCs as per the relevant provisions of Indian Electricity Grid Code, various statutory regulations/orders of RLDCs and RPCs and CERC. In the event Buyer or Seller does not adhere to the schedule prepared and adopted by NLDC / RLDC / SLDC and any instance of non-adherence to the

adopted schedule results in Deviation Settlement Mechanism of power, that in turn results in Deviation Settlement Mechanism charge, the same shall be borne by Buyer or Seller, as the case may be, for that respective contract.

# 10. Power Supply & Scheduling

The evacuation of power is subject to technical and transmission corridor constraints and Force Majeure conditions. Scheduling and despatch of the power shall be coordinated by PXIL with NLDC / RLDC as per relevant provisions of IEGC and the decision of NLDC / RLDC shall be binding on Buyer and Seller.

# 11. Force Majeure

The delivery of power from Seller to Buyer shall be subject to "Force Majeure" conditions, as defined below.

"Force Majeure" means any event or circumstance or combination of events or circumstances, direct and/or indirect, which is or are beyond the control of a Party and that results in or causes the failure of that Party (the "non-performing party") to perform any of its obligations under this Agreement, and includes: -

- a) Act of strike, war, invasion, armed conflict, blockade, revolution, riot, insurrection or civil commotion, terrorism, sabotage, fire, explosion or criminal damage;
- b) Act of God, including lightning, cyclone, typhoon, flood, tidal wave, earthquake, landslide, epidemic or similar cataclysmic event;
- c) The expropriation or compulsory acquisition by any Government or Governmental agency;
- d) Technical problems or authenticity of certificates from Central Agency.
- e) Change of Law
- f) Regulatory intervention in the matter of power trading as also orders from CERC/ SERCs/ Appellate Tribunal for Electricity/ High Courts/ Supreme Court or any other Statutory Authority particularly related to trading in power, open access and grid code. This will also include regulations / orders already issued but yet to be conclusively enforced.

Where a non-performing party is unable to perform its obligations under this Agreement by reason of Force Majeure, the non-performing party shall notify the other party as soon as practicable of the occurrence of Force Majeure, identifying the nature of the event or circumstance of Force Majeure, the expected duration of such Force Majeure, the particular obligations of the non-performing party which are affected by such Force Majeure and the period for which such obligations are expected to be so affected.

The obligations of the Parties under this Agreement shall be suspended only to the extent that:

a) Such suspension is of no greater scope and no longer duration than is required by the effects of the relevant event or circumstance of Force Majeure; and

b) The non-performing Party uses all reasonable efforts to remedy, as soon as practicable, its inability to perform the affected obligations.

Force Majeure conditions for minimum prescribed period of time as may be agreed by the Exchange in consultation with Regulator.

#### 12. Indemnification

Both Buyer and Seller (referred to as 'Parties' and individually as 'Party') shall indemnify, defend and hold harmless the other, its directors, members of the Board, partners, assigns, trustees, agents, officers and employees, against all claims, demand, judgments and associated costs and expense, related to property damage, bodily injuries or death suffered by third parties resulting from breach of its obligation by such Party under this Agreement except to the extent that any such claim has arisen due to a negligent act or omission, breach of contract or breach of statutory duty on the part of the other Party, its contractors, servants or agents.

Both the Parties agree to indemnify PXIL, CERC, NLDC/RLDCs/SLDCs against any claim for damages, losses and actions, including those relating to any injury to or to death of any person or damage to any property of any person demands, suits, recoveries, costs and expenses, attorney fees, against the third parties, arising out of or resulting from or attributable to the transactions on the Exchange.

# 13. Dispute Resolution

If any dispute or difference of any kind whatsoever ("Dispute") shall arise between the Parties in connection with or arising out of this Agreement or out of the breach, termination or invalidity of the Agreement hereof, the Parties shall resolve them by resort to the following in the order so mentioned:

- a) Parties shall attempt to resolve the dispute or difference through mutual discussions within 15 days.
- b) In case both the parties are unable to resolve the issue of dispute or difference, the matter will be referred to the Arbitration panel of PXIL. The following provisions shall then apply:
  - 1. The rights and obligations of the Parties shall remain effective during the arbitration proceedings and the Parties shall continue to perform;
  - 2. The place of arbitration shall be Mumbai, India;
  - 3. The language of the arbitration shall be English;
  - 4. Any dispute submitted to arbitration shall be considered by three arbitrators from the Arbitration Panel of PXIL, two of whom shall be nominated by either party. If within 30 days of the receipt of a Party's notification of the appointment of an arbitrator, the other Party has not notified the first Party of the arbitrator it has appointed, the first party may apply for the appointment of the second arbitrator in accordance with the Arbitration Act. The third arbitrator will be nominated by the two existing arbitrators or, failing such nomination within 30 days of the

- appointment of the second arbitrator, shall be appointed in accordance with the Arbitration Act.
- 5. Each party shall bear its own costs pursuant to Arbitration. The costs and fees payable to the arbitrators shall be equally shared by the Parties unless decided otherwise by the arbitrators pursuant to the award of Arbitration.

Notwithstanding the existence of any Dispute, whether referred to arbitration or not, the Parties hereto shall continue to perform their respective obligations under this Agreement throughout the Term of the Product.

# 14. Notices and Correspondence

All notices and correspondence must be delivered personally, by registered or certified mail or facsimile to PXIL at the following addresses mentioned: *Power Exchange India Limited, Sumer Plaza, 9th floor, Unit no - 901, Marol Maroshi Road, Andheri (East), Mumbai-400 059, India.* 

\*\*\*\*