

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 225/RC/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 Regulation 7 of the Central Electricity Regulatory Commission (Power Market) Regulations, 2010 for approval of introduction of the Real Time Market (RTM) Contracts at Indian Energy Exchange Ltd (IEX).

And

In the matter of

Indian Energy Exchange Limited (IEX)

Fourth Floor, TDI Centre,

Plot No - 7, Jasola,

New Delhi – 110025

.....**Petitioner**

Parties present (through video conferencing):

Shri Jogendra Behra, IEX

Shri Gaurav Maheshwari, IEX

ORDER

The present Petition has been filed by Indian Energy Exchange Ltd. (IEX), for approval of introduction of Real Time Market (RTM) contracts on IEX platform and corresponding amendment in the Business Rules of IEX.

2. The Petitioner has submitted the following facts:
- (i) Presently, IEX is operating the Day Ahead Market (DAM) and Term Ahead Market (TAM) for trading of electricity. IEX is also operating markets for Renewable Energy Certificates (RECs) and Energy Saving Certificates (ESCerts).
 - (ii) A discussion paper was floated by staff of the Commission on “Redesigning the Real Time Electricity Markets in India” on 25th July 2018 inviting comments/ suggestions of stakeholders.
 - (iii) Based on the comments and suggestions received from stakeholders on the discussion paper, the Commission proposed "Framework for Real Time Market for Electricity" on 6th August, 2019. To enable Real Time Market, the Commission also proposed amendments to the Central Electricity Regulatory Commission (Power Market) Regulations 2010; Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008; and Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010.
 - (iv) The Commission finalized “Framework for Real-Time Market for Electricity” and notified CERC (Power Market) (Second Amendment) Regulations, 2019, CERC (Open Access in inter-State Transmission) (Sixth Amendment) Regulations, 2019 and CERC (Indian Electricity Grid Code) (Sixth Amendment) Regulations, 2019 along with the “Statement of Reasons” on 12th December, 2019.

- (v) The Commission, in its 'Statement of Reasons' dated 12.12.2019 while notifying "Framework for Real-Time Market for Electricity", inter-alia issued the following directions:
- a. The Commission has decided to implement RTM from 1st April 2020. (Para 6.4)
 - b. The Commission expects that the Power Exchange will develop the requisite market engine and rules so that participants can place bids for all the time blocks of the upcoming day in advance. However, the market engine will consider only the respective bids for clearing as per the proposed timeline. The Power Exchange is expected to frame suitable rules and bye-laws in this regard and obtain approval of the Commission. (Para 3.9)
 - c. Bidding for a particular block cannot be simultaneously done at Intra Day and RTM. (Para 3.10)
 - d. It is expected that Power Exchanges will create suitable infrastructure and procedures to enable effective implementation of bidding and clearing mechanism as per the timeframe. (Para 3.11)
 - e. NLDC will provide corridor availability just at the end of the bidding window for RTM. Bids received in the Real time market will be cleared by the Power Exchanges based on this corridor availability.(Para 4.9)
 - f. Both the power exchanges are expected to operate as per existing practices. Detailed rules and bye-laws to introduce RTM, including provisions relating to price discovery mechanism, timelines, bidding formats, enabling generators to buy back power in case of forced outage, etc. will be prepared suitably by the Power exchanges after finalization of the regulations. (Para 7.23)

- g. The Commission is of the view that single NOC for Long Term Access, Medium Term Open Access, and Short-Term Open Access including quantum to be traded under RTM should be within the limit of the approved NOC quantum for the applied period. (Para 8.9)
- h. The Commission directs POSOCO to frame the detailed procedures and the power exchanges to frame suitable market rules and bye-laws for the proper implementation and functioning of Real time market. (Para 10.4)

3. Following the directions of the Commission, the Petitioner has filed the present petition seeking approval for introduction of the real-time contracts on IEX platform. The Petitioner has submitted the designed real-time contracts with following contract specifications:

1.	Contract Name	Real-Time Contract
2.	Trading system	IEX trading system
3.	Trading Session	Each session of 15 Minute duration on rolling basis with a gap of 15 minutes (E.g. 2245 to 2300 than 2315 to 2330)
4.	Delivery Period	Half hourly delivery consisting two 15-Min time blocks.
5.	Minimum volume	0.1 MW
6.	Minimum volume step	0.1 MW
7.	Minimum quotation step	Rs. 1 per MWh
8.	Auction method	Double sided close bid auction with uniform Market Clearing Price for all buyers and sellers.
9.	Order Code	Trader's ID, instrument, quantity/price combination
10.	Delivery point	Periphery of Regional Transmission System in which the grid-connected entity is located.
11.	Settlement	Settlement at ACP x volume traded in MWh

12.	Transmission charges	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.
13.	Transmission losses	Payable in kind from delivery point to its grid connection point.
14.	Pay in and Pay out	Pay-in on day 'T' or 'T+1' and Pay-out on 'T+1' or 'T+2' where 'T' is the Trade day.

The above contract specifications are detailed out in Schedule E of the revised Business Rules under the heads of eligibility of participation, risk management, bidding mechanism, price discovery methodology, auction timing, scheduling, delivery, transmission congestion management, Deviation Settlement Mechanism, timelines, contract specifications etc. IEX also submitted that the timelines of intra-day contracts will not overlap with the timelines of RTM contracts.

4. The Commission heard the petition on 12.03.2020 and issued the ROP of the hearing directing the petitioner to upload the Petition in its website for seven days for inviting comments from all stakeholders and general public on the proposed RTM contracts. The Commission also directed the petitioner to file the comments of the stakeholders and replies on the comments on or before 23.03.2020.

5. In compliance of the directions of the Commission, the petitioner uploaded the Petition on its website on 12.03.2020 seeking comments of stakeholders. In response to the IEX public notice on the petition, four stakeholders, namely, NTPC, NVVN, Torrent Power Generation and Maharashtra State Electricity Distribution, have submitted their comments. Due to COVID-19, the Petitioner had submitted comments of the stakeholders and responses on 23.04.2020 instead of 23.03.2020.

6. The Commission, thereafter, heard the petition on 20.05.2020. During the hearing, the Petitioner submitted that the comments of the stakeholders mainly pertain to consolidated obligation report for a day, display of aggregate demand and supply curves, margin requirement during non-banking and non-office hours, final NLDC procedure and clarity on standing clearance. As regards the consolidated obligation report for a day and display of aggregate demand-supply curves, the Petitioner has incorporated such features in its system which would fulfil these requirements. As regards margin requirement during non-banking and non-office hours, the Petitioner has designed its risk management mechanism keeping in view the risks involved at an overall level and not specific to RTM. Members will be provided exposure based on their available margins and bank balance in the settlement account and its utilization across different market segments. The petitioner has invoked NLDC Procedure in its Business Rules at appropriate places and whatever provisions are there in the Procedure will be automatically applicable to the RTM trade on the Exchange Platform.

7. In response to the specific query of the Commission as to what type of bids the Petitioner intends to introduce under the RTM segment, the Petitioner submitted that initially single bid and block bid would be introduced and after gaining some experience of the market and based on feedback of the market participants, IEX may also introduce minimum quantity block bid and profile block bid at a later stage.

Analysis and Decision

8. The Commission has examined the RTM contract specifications and the draft of revised Business Rules taking into account the stakeholder's comments and the Petitioner's response thereon. The Commission observes that the design of RTM contracts submitted by IEX is aligned with Power Market Regulations, Open Access Regulations and Indian Electricity Grid Code Regulations and that it has been suitably incorporated in the draft revised Business Rules and in Schedule E that is specific to RTM Contracts.

9. Therefore, the Commission hereby accords approval for proposed RTM Contracts on IEX platform and approves Schedule E (regarding introduction of RTM) to be incorporated in the Business Rules of IEX (**Annexure-I**). The amendments to the Business Rules consequent to introduction of RTM contacts on IEX platform submitted with the Petition have been noted.

10. The Petitioner is directed to follow the “Detailed Procedures for Scheduling of Collective Transactions through RTM” issued by POSOCO from time to time.

11. The Petitioner is directed to submit a report on the functioning of RTM on IEX platform after one month from the date of issue of this order.

12. 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).

13. The Petition No. 225/RC/2020 is disposed of in terms of above.

Sd/-
(Arun Goyal)
Member

Sd/-
(I.S.Jha)
Member

Sd/-
(P. K. Pujari)
Chairperson

**IEX Business Rules
for
Real Time Market**

SCHEDULE E – REAL-TIME MARKET (RTM) SEGMENT

Real Time Market (RTM) segment shall provide platform for trading of Real Time Contracts for 15 min delivery period in a half hourly market which will be matched through double-sided closed bid auction with uniform price. Congestion on transmission network will be managed through implicit auction and market splitting. The contracts concluded in this segment shall be scheduled in accordance with the "Procedure of Collective Transaction in Real Time Market" issued by National Load Dispatch Center (NLDC) and CERC Regulations. All terms and conditions of the contracts including eligibility, trading sessions, matching rules, margin requirement and delivery procedure etc., will be as per specific rules mentioned herein.

1. Eligibility:

- 1.1 **Sellers:** All grid connected entities shall be eligible to sell electricity in 'Real Time Market' (RTM) subject to submission of No Objection Certificate (NoC)/Standing clearance issued by RLDC/SLDCs to Exchange containing details viz maximum sell quantum, time period etc. as may be specified in the procedure issued by NLDC or its amendments from time to time
- 1.2 **Buyers:** All the entities which are eligible to procure electricity through Open Access shall be eligible to participate in RTM as buyer subject to submission NoC/Standing Clearance issued by RLDC/SLDCs to Exchange containing details viz maximum buy quantum, time period etc. as may be specified in the procedure issued by NLDC or its amended from time to time.
- 1.3 Generator will have an option to purchase electricity in RTM only in the case of forced outage of a unit(s) subject to submission of details viz. maximum buy quantum, time period etc. approved by RLDC/SLDCs to Exchange and fulfillment of other terms and conditions as may be specified in the procedure issued by NLDC or its amendments thereof.

2. Trading Days:

The Exchange shall operate Real-Time Market segment on all days except Exchange specified holidays.

3. Trading hours:

- 3.1 The Exchange will operate trading sessions for all trading days as under:

Sessions per Day	Market Type	Monday to Sunday
48	Real Time Contracts	Every alternate 15 min time block

- 3.2 The Exchange may extend, advance or reduce trading sessions by notifying the Members as and when it deems fit and necessary.

4. Contract specifications:

The contract specification shall be as per **Annexure E1** to this Schedule.

5. Delivery Point:

Delivery point shall be the interconnection of the respective grid connected entity. However, for the purpose of the contract, the trade schedule shall be reckoned at the periphery of the regional transmission system in which the grid connected entity is located. The actual schedule at various interconnection including that of grid connected entities shall be worked out after incorporation of transmission losses in kind. The trade schedules shall be used for the purpose of payment of transmission charges and wheeling charges (if applicable).

For example, delivery point of a state embedded entity in Maharashtra will be at the seam of the intra state entity. For a trade schedule of 100 MW purchase by this entity, the schedule for this transaction at WRTS periphery would be 100 MW, at Maharashtra periphery would be 96 MW. (assuming 4% regional loss) and at the intra state entity periphery would be 91.20 MW (assuming 5% Maharashtra state loss). The transmission charges payable will be for 100 MW. Additional losses in the above example have been assumed to be nil and the same if any would be applied as per procedure for scheduling of collective transactions, issued by POSOCO.

Similarly, in the above example, if the State embedded entity in Maharashtra has a trade schedule of 100MW sell, then the schedule at the WRTS periphery and State periphery will be 104.17 MW and 109.65 MW respectively.

- 6. Order types:** The Exchange will make available one or more type of orders from the following types of orders to be separately notified by the Exchange:
- 6.1 **Single bid:** Single bid will specify multiple sequences of price and quantity pairs in a portfolio manner. The quantity shall be assumed to vary linearly between two price pairs.
 - 6.2 **Block bid:** Block bid will specify one price and one quantity for a combination of continuous two 15-minute time blocks. Selection criterion shall be average of Area Clearing Price (ACP) for the quoted 15-minute time blocks, of the respective Client's bid area. It will be an 'All or None' type of order. Maximum number of block bids and maximum quantity per block bid shall be prescribed by the Exchange from time to time, with the prior approval of the Commission.
 - 6.3 **Minimum Quantity Block Bid:** Minimum Quantity Block Bids will specify one price and one quantity for a combination of continuous 15-minute time blocks along with a 'Minimum Quantity percentage' and number of sub-bids. The Minimum quantity block bids are block bids wherein partial acceptance of Block Bid is possible. The minimum quantity percentage will specify the quantity up to which the block bid can be accepted whereas the number of sub-bids will specify the size in which the remaining quantity shall be divided into. The system will first consider 'Min Quantity' in selection criteria. If it is selected, the system would then consider remaining sub bids in selection criteria till it has reached to the equilibrium at which no further sub-bids can be selected. Maximum number of Minimum Quantity Block Bids, Minimum quantity percentage limit and maximum number of sub-bids per block bid shall be prescribed by the Exchange from time to time.
 - 6.4 **Profile Block Bids:** Profile Block bid will specify one price and varying quantities for a combination of continuous 15-minute time blocks. Selection criterion shall be based on weighted average of Area Clearing Price (ACP) for the quoted 15-minute time blocks, of the respective Client's bid area. It will be an 'All or None' type of order. Maximum number of profile block bids and maximum quantity per block bid shall be prescribed by the Exchange from time to time.

6.5 **Other bids:** The Exchange may introduce other types of bids as per the requirement of the market. Details of such other possible bids shall be notified by the Exchange from time to time.

7. **Treatment of Transmission Charges and Losses:** The bids and offers submitted will be for delivery at the specified delivery point. Transmission charges and losses will be dealt as under:

7.1 **Transmission charges:** Buyers and Sellers shall be required to pay in cash for the transmission charges for their respective Regional and State transmission systems and wheeling charges for distribution network (if applicable). These charges shall be payable as stipulated by the appropriate Commission. These charges shall be recovered by the Exchange and paid as per CERC (Open Access in inter State Transmission) Regulation 2008 and procedure made thereunder, as amended from time to time.

7.2 **Transmission losses:** Buyers and Sellers shall be required to bear transmission losses in kind for their respective Regional and State transmission systems. These losses are declared by the NLDC/RLDCs / SLDCs. The requisition submitted by the Exchange would be based on the trade quantum and would not reflect losses. The schedules issued by NLDC/RLDCs/SLDCs reflects such transmission losses.

7.3 **Scheduling and System Operation Charges:** Scheduling and System operational charges for respective LDCs shall be payable by the Exchange in accordance with the Procedures issued by NLDC. Such charges shall be recovered by the Exchange through socializing such charges amongst all Buyers and Sellers.

8. Order Management

8.1 **Modification and cancellation of orders:** A Member shall be permitted to modify or cancel his orders, during the bidding session. No order will be cancelled after bidding session except in case of any direction from LDC or Regulatory Commission/ statutory requirement.

8.2 **Order validation:** Orders and bids entered into the Trading System shall be subject to various validation requirements as prescribed by the Exchange including price and quantity restrictions as decided by the Exchange. Orders that do not meet the validation checks will not be accepted by the Exchange. The Exchange shall specify from time to time price steps (tick size) in which orders shall be entered on the trading system of the Exchange.

9. **Matching rules:** The rules for matching of bids as specified in Clause 8 of SCHEDULE A – Day Ahead Market (DAM) Segment of these Business Rules shall be mutatis-mutandis applicable for the Real-Time Market Segment.

10. **Margin requirements:** Initial Security Deposit and Additional Deposit shall be considered as provided in Clause 10 of the IEX Business Rules. The Margins shall be calculated considering exposure of a Member in all the market segments. Decisions of the Exchange in this respect, shall be binding on the Member and Clients.

11. **Real-Time Market Segment Operations:** The Real-Time market segment operations and the exact time schedule relating to pay-in and pay-out activities shall be adhered to by the Exchange Members in order to have smooth and orderly operations of the Exchange. These market operations shall be in accordance with the Procedures issued by NLDC. The operations activities shall be as follows:

11.1 Order accumulation period (Bidding phase):

- i) Bidding session for day (Do) shall be open for 15 minutes from 2245 hrs. to 2300 hrs. of previous Day (Do-1) for the delivery of power for the first two-time blocks of (Do) i.e. 0000 hrs. to 0030 hrs. and shall be repeated after every half an hour on rolling basis on all seven (7) days of a week except Exchange declared holidays.
- ii) During the bidding sessions on trading day, orders entered by Members in the Trading Platform shall be stored in the central order book without giving rise to Contracts. After the end of the bidding session, bid matching will take place and contracts shall be executed. Orders entered by the direct access clients shall be treated as orders entered by Members.
- iii) Members will have option to enter orders in advance for all trading sessions or part thereof in a trading day, however, orders entered in advance will get activated in the respective bidding session. Such advance orders may be modified/deleted till end of respective bidding session.

11.2 Bid matching process:

- i) NLDC will communicate in advance the ATC in each transmission corridor at end of each bidding session for the time blocks wherein contracts executed in a bidding session will be delivered (e.g. say by end of 2300 hrs. for delivery of power between 0000 hrs. to 0030hrs).
- ii) After each Bidding Session, the Exchange will run the bid matching process to determine constrained Area Clearing Price (ACP) and Area Clearing Volume (ACV) taking into consideration the ATC provided by NLDC.

11.3 Congestion management:

- i) In case of congestion, in various power transmission corridors, the solution shall be determined through market splitting process, which may result into different prices for different areas. These prices are Area Clearing Price (ACP). This price differential of different bid areas may generate Congestion amount.
- ii) Congestion amount is the amount by which total funds pay in may exceed total funds pay out, this arises because of the market splitting, and the said congestion amount will be transferred to a regulatory fund as may be directed by the Commission.
- iii) The market splitting methodology explained in the **Annexure A2** of the **Schedule – A** (Day Ahead Market Segment) of these Business Rules shall be *mutatis-mutandis* applicable for the Real-Time Market Segment.

11.4 Clearing process:

- i) Based on the ACP, obligation reports will be generated and shall be made accessible through TWS.
- ii) The instructions of debit and credit of Settlement Accounts of the respective Members/Clients by the amount payable and receivable will be generated and sent to the respective Clearing Banks in banking hours.
- iii) The funds pay in from the buyer Members will be done on the “T” or “T+1” day where “T” stands for trade day. The funds pay out to the seller Members will be on the “T+1”

or “T+2” day. In case of Bank Holiday, payout will be made on the bank working day. The Bank will run the pay in file at the scheduled time and report to the Exchange regarding successful debits.

11.5 Timelines:

The Exchange timelines for one trading session is as under. This will be repeated for every bidding session on rolling basis. They are subject procedures issued by NLDC or CERC Regulations.

TIME	DETAILS
2245 hrs. to 2300 Hrs.	<ul style="list-style-type: none"> • Bid - Call session
at 2300 Hrs.	<ul style="list-style-type: none"> • NLDC to inform available ATC in the interfaces/control areas/ regional transmission system.
By 23:15 Hrs.	<ul style="list-style-type: none"> • Exchange to determine MCP and ACP & obligations of the Members • Scheduling request of Collective Transaction in Real Time Market to NLDC • Publishing constrained and unconstrained results on the website
By 23.30 Hrs.	<ul style="list-style-type: none"> • Communication of Schedule to NLDC/RLDCs/ SLDCs. • Exchange will issue obligation report to Members
0000 Hrs. to 0030 Hrs.	<ul style="list-style-type: none"> • Delivery

12. Delivery procedure

- 12.1 After finalization of successful trades, the Exchange will send its requisition for scheduling to the NLDC/RLDC/SLDCs as per Detailed Procedure issued by the NLDC.
- 12.2 Respective LDC will include these requisitions in their final schedules after adjusting for transmission losses as per the Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008, Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 and detailed procedure issued by the NLDC as amended from time to time.
- 12.3 The quantity of power scheduled by respective NLDC/RLDCs/SLDCs, in respect of Exchange traded Contracts, shall be deemed to have been delivered. The scheduling procedure will be as per the Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008, as amended from time to time and detailed procedure issued by the NLDC thereunder.
- 12.4 Transmission charges and losses shall be in accordance with the 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, detailed procedures issued by the NLDC thereunder and rate of Transmission Losses as determined by the NLDC for ISTS and as prescribed by the concerned SERC / SLDC for use of intra-state network.
- 12.5 Any shortage or excess delivery of electricity from the total schedule, including schedule for Contracts traded on the Exchange of the grid connected entity will be settled by them under Deviation Settlement / imbalance settlement mechanism as per the procedure laid down by the CERC or SERC, as may be applicable.

- 12.6 Taxes, duties, cess and other levies: The price of all the Contracts shall be quoted on the basis of actual value of the electricity Contract excluding the transmission charges, losses, scheduling and system operation charges, taxes, duties, cess and other levies and the same shall be borne by the Buyers or Sellers as applicable.
- 12.7 Metering of electricity: Arrangement for metering shall be made by the Seller/Buyer at the point of injection and the point of off-take from the GRID should conform to the provisions of Indian Electricity Grid Code (IEGC) and Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008, as amended from time to time. The Members and the relevant authority shall be responsible to resolve the issues related to metering of electricity. The Members shall indemnify and keep indemnified the Exchange from any disputes related to metering.
- 12.8 Transmission Charges of STU or State transmission licensees, wheeling charges of distribution licensee (if applicable) and Scheduling and Operation Charges of State Load Dispatch Centre shall be recovered from the Members and shall be paid to the STU / SLDCs respectively as per CERC's / SERC's regulations by the Exchange.

13. Risk management system

- 13.1 A Member can trade only when it maintains adequate margin deposits determined by the Exchange for such Member.
- 13.2 In case of Clients having their own settlement account, such clients shall be allowed to bid only to the extent of funds available in their settlement bank account and lien marked in favor of the Exchange, net of provision towards applicable charges.
- 13.3 An Exchange Member can pay additional margin by depositing funds in its Settlement Account and inform the Exchange through fax or email any time during the trading session. Thereafter, based on the instruction received, the Exchange will increase the bid limit and margin deposit of the Member with Exchange.
- 13.4 In case a Member fails to bring in additional margin, as may be required, at beginning of the trading session, such Members or the Clients, as applicable, will not be allowed to put orders till Margins are brought in or its orders will not be accepted for matching or if matched then the trades would not be scheduled. The decisions of the Exchange shall be final and binding on the Members.
- 13.5 In case a Member fails to pay to the Exchange any amount towards its final pay-in, the Exchange will be at liberty and has the power and discretion to restrict its subsequent trades at Exchange and initiate appropriate action against such Member. The Exchange may also impose penalty on such defaulting member or the Client, as applicable.

14. Surveillance

- 14.1 **Validation of orders:** Members are required to ensure that bids and offers are in conformity with relevant regulatory provisions. In order to avoid any abnormal orders being put by the Exchange Members like high bid or offer rate, bids quantity or offer quantity submitted higher than the declared capacity/demand by the Member, or the maximum quantity of purchase or sale as allowed in the Standing Clearance, the Exchange will validate such orders either through software or manually on a daily basis, wherever possible. Further, the order value of the Member will also be compared with the available limits of such Member for any over utilization.

- 14.2 **Price movement:** The Exchange will observe any variation in prices as compared to past data. Further, the price movement in the Exchange shall be correlated with that of the bilateral markets that is available with the Exchange.
- 14.3 **Market behavior:** The Exchange shall compare the trend in other national or bilateral markets with that of the Exchange. Any unwarranted change in the price pattern or order trend in this will be brought under the notice of the Exchange management.
- 14.4 **Correlation with Deviation Prices:** The trend in the DSM rate and the prices in the Exchange shall be compared for any major differences. In case of individual Member its trend of trading on the Exchange shall also be compared with his DSM obligations.
- 14.5 **Price rigging, concentration, price manipulation and other market abuses:** The Exchange will monitor concentration, price rigging, price manipulation and other market abuses and take suitable actions whenever such practices are identified.

Real-Time Market 15-minute contract specifications

1.	Contract Name	Real-Time Contract
2.	Trading system	IEX trading system
3.	Trading Session	Each session of 15 Minute duration on rolling basis with a gap of 15 minutes (E.g. 2245 to 2300 than 2315 to 2330)
4.	Delivery Period	Half hourly delivery consisting two 15-Min time blocks.
5.	Minimum volume	0.1 MW
6.	Minimum volume step	0.1 MW
7.	Minimum quotation step	Rs. 1 per MWh
8.	Auction method	Double sided close bid auction with uniform Market Clearing Price for all buyers and sellers.
9.	Order Code	Trader's ID, instrument, quantity/price combination
10.	Delivery point	Periphery of Regional Transmission System in which the grid-connected entity is located.
11.	Settlement	Settlement at ACP x volume traded in MWh
12.	Transmission charges	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.
13.	Transmission losses	Payable in kind from delivery point to its grid connection point.
14.	Pay in and Pay out	Pay-in on day 'T' or 'T+1' and Pay-out on 'T+1' or 'T+2' where 'T' is the Trade day.
