



BUSINESS RULES

OF

INDIAN ENERGY EXCHANGE LIMITED

Indian Energy Exchange Limited
Fourth Floor, Plot No.7, TDI Center, District Center, Jasola, New Delhi 110 025

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CHAPTER- I

1. INTRODUCTION AND MEMBERSHIP

1. Introduction

- 1.1 These Business Rules shall be termed as 'the Business Rules of Indian Energy Exchange Limited' or for the sake of brevity as 'IEX Business Rules' or 'these Business Rules.'
- 1.2 These Business Rules shall at all-time be subject to and read consistent with the provisions of the Electricity Act, 2003, the Rules made thereunder by the Central Government and Regulations, Codes, and directives issued thereunder by the Central Electricity Regulatory Commission (hereinafter referred as the 'Commission') including and in particular the Central Electricity Regulatory Commission (Power Market) Regulations, 2010, Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 and Central Electricity Regulatory Commission (Terms and Conditions for Dealing in Energy Savings Certificates) Regulations, 2016 as amended from time to time.
- 1.3 In case of any inconsistency between these Business Rules and directives issued under these Rules of the one part and any of the provisions of the Electricity Act, 2003, the Rules made thereunder by the Central Government and Regulations, Codes, and directives issued thereunder by the Commission including and in particular the Central Electricity Regulatory Commission (Power Market) Regulations, 2010, Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 and Central Electricity Regulatory Commission (Terms and Conditions for Dealing in Energy Savings Certificates) Regulations, 2016 of the other part the later will prevail to the exclusion of the former.
- 1.4 These Business Rules may be amended or changed from time to time by the Exchange and wherever required with the approval of the Commission and shall further be subject to such modification or change as may be directed by the Central Commission from time to time.
- 1.5 The Exchange may issue clarifications, circulars or directives, as may be required from time to time, to remove any difficulty or ambiguity in implementing the provisions of any of Business Rules. Such clarifications, circulars or directions issued shall have binding force.
- 1.6 **Conflict between Rules, Bye Laws and Business Rules**
In event of any conflict between Bye Laws and Business Rules, the content of Bye Laws shall supersede and in the event of any conflict between Rules and Bye Laws or Rules and Business Rules, the Rules shall supersede. Without prejudice to the generality of the above, in case of any ambiguity or any confusion with regard to any of the provisions of Business Rules, the clarification given by Exchange shall be binding.

2. Applicability

- 2.1 These Business Rules shall be enforceable on the Exchange Members, Clearing Banks, Clients, and all other participants operating on or through the Exchange in respect of their rights and obligations relating to Contracts admitted on the Exchange.

3. Business operations

- 3.1 The Exchange shall conduct transactions in Electricity Contracts, Renewable Energy Certificate (REC) Contracts and Energy Saving Certificates (ESCert) Contracts permitted by the Commission under the Electricity Act, 2003, rules and regulations made thereunder, and any other Act or any other authority as may be applicable.

4. Eligibility for trading

- 4.1 At the Exchange, only the Exchange Members, who have been admitted as such by the Exchange, are eligible to enter into Contracts, and undertake transactions within the Exchange relating to such Contracts. Persons, who are not Exchange Members, can participate only as Clients through a registered Exchange Member. At the discretion of the Exchange, Clients may be allowed direct access on the Exchange ATS, on an application made for the said purpose by the Member representing the Client.

5. Membership Application and Admission

- 5.1 A person who desires to be a Member of the Exchange shall submit the application seeking such Membership in the format prescribed by the Exchange and also deposit the fee and charges specified for the purpose.
- 5.2 The admission to Membership shall be at the sole discretion of the Exchange. The Exchange may appoint a Committee, if it considers appropriate, to review and consider the application and make recommendation to the Exchange on the application filed by the person.
- 5.3 As a condition of being admitted as a Member of the Exchange the person applying for Membership shall pay the fees and charges, including all securities, deposits guarantees as may be decided by the Exchange from time to time.

6. Transfer of membership

- 6.1 No Member shall be entitled to transfer the Membership except as may be specifically permitted by the Exchange from time to time and the transfer of Membership if agreed to by the Exchange shall be subject to satisfactory settlement of all pending dues and claims against the Member and further subject to payment of such transfer fees to the Exchange as may be specified for the purpose.

7. Surrender of membership

- 7.1 In case of surrender of membership, the Members shall only be eligible for return of margin deposits and security deposits made by him, subject to final settlement and adjustment of all pending dues, outstanding contracts and charges, fees, and other payments to the satisfaction of the Exchange. The refund of security deposit shall not be made if the membership is surrendered within three (3) years from the date of admission of the Member. The Member shall continue to pay annual subscription and other charges until the surrender of his membership is accepted by the Exchange, after which all such recurring charges are discontinued. There shall be no processing fee applicable in case of surrender of membership.

8. Insurance

- 8.1 The Members shall be required to obtain insurance cover at their own cost, so as to protect themselves from risks and hazards relating to their business operations at the Exchange.

CHAPTER- II

2. MARKET OPERATIONS

9. Market Segment

- 9.1 The Exchange will operate such market segments as permitted in law and as it may from time to time decide subject to the provisions of the Act, Rules and Regulations framed thereunder. The types and category of market segments available for contracts and transactions on the Exchange shall be notified by the Exchange from time to time. The description of market segments operated by the Exchange and the terms and conditions applicable to such market segments are given in the Schedules A to D of these Business Rules.
- 9.2 The market segment to facilitate transaction in Renewable Energy Certificate in accordance with Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 and Energy Saving Certificate in accordance with Central Electricity Regulatory Commission (Terms and Conditions for Dealing in Energy Savings Certificates) Regulations, 2016 is included in Schedule C and Schedule D respectively of these Business Rules.
- 9.3 The Exchange may from time to time amend or modify or introduce new market segments as the Exchange may consider appropriate and the amended market segments shall operate from the time notified for this purpose by the Exchange.
- 9.4 The Exchange will from time to time decide on the trading session, trading segments, trading days, trading duration, security deposit, margin and collaterals to be maintained, order placement, matching, clearing and settlement, Delivery procedure and other parameters applicable for each trading or contract type in compliance with CERC (Power Market) Regulations, 2010 and as amended from time to time.
- 9.5 The Exchange has the right to introduce, continue or discontinue any market segment, including all the terms and conditions for transactions undertaken within each market segment subject to approval of the Commission, as applicable. The introduction of any market segment by the Exchange or the terms and condition specified therein will not vest or create in a Member any right whatsoever that will require the Exchange to continue with such market segments with or without any modification or change of the terms and conditions for transactions undertaken within each market segment.

10. Deposits

10.1 Initial Security Deposit

The Exchange Members are required to pay security deposit in accordance with Rule 5 of the Rules titled "Membership" at the time of admission, which will be used as initial margin for giving exposure to the Members linked to the percentage of the Margin applicable for each Contract. This is payable only by way of demand draft drawn in favor of 'Indian Energy Exchange Limited.'

10.2 Additional Security Deposit

Any Margins over and above the initial margin will be considered as additional deposit. The Members may remit additional security deposit in the form of minimum 50% cash and of the balance in the form of bank guarantee or fixed deposit from any of the Exchange approved banks.

The security deposit paid by the Member is interest-free refundable deposit. Security deposit, whether initial deposit and additional deposit, paid by the Members shall constitute a part of the Settlement Guarantee Fund (SGF). In case of surrender or transfer of membership, the initial deposit and/or the additional deposit is refundable subject to settlement of all pending dues, claims and charges, subject to lock-in period of 3 (three) years from the date of membership for initial deposit. There is no such lock-in period in respect of additional deposit.

11. Forms of Additional Deposit

- 11.1 The additional deposit and margin will be directly debited from the Members Settlement Account opened in any of the Clearing Banks or in the form of bank guarantee, fixed deposits, subject to conditions specified above.
- 11.2 In case the Member opts to transfer funds from his settlement account, he will have to give written intimation to the Exchange for debiting its Settlement Account towards additional deposit. In case a Member intends to get his additional security deposit released to it during its tenure or on its maturity, the Member shall inform the Exchange, in writing, at least one week in advance. Any request for withdrawal of the additional security deposit will be considered by the Exchange subject to clearance of Exchange dues.
- 11.3 **Bank Guarantee:** The Exchange will accept bank guarantees strictly as per the format prescribed by it as decided by the Exchange and such bank guarantees shall be acceptable from the approved banks of the Exchange only. The tenure of bank guarantee instrument should be for a minimum period of one (1) year and a maximum period of three (3) years having an additional claim period of three (3) months. The bank guarantee must be issued by the bank on behalf of the Member. A third party bank guarantee instrument issued on behalf of person other than the Member himself will not be accepted by the Exchange.
- a. A Member will be required to renew the bank guarantee submitted by it prior to its expiry. In case of renewal of bank guarantees with a specific claim period, the Members shall furnish the renewal document strictly in the prescribed format at least seven (7) working days before the date of expiry of the bank guarantee.
 - b. The Members may also opt to give a fresh bank guarantee in favor of "Indian Energy Exchange Limited" instead of renewing the expired bank guarantees.
 - c. A bank guarantee deposited by a Member, whose validity period is over, shall be excluded for the purpose of computing the benefit provided to such Member towards exposure seven (7) working days before the date of expiry of the bank guarantee. The processing of bank guarantee instruments, its validation and upload in to the system whereby the trading limits of the respective Member will be enhanced will take at least three (3) working days.
 - d. While submitting the bank guarantee, Exchange Members shall ensure that the bank guarantee instrument strictly conforms to the format specified by the Exchange and that:
 - i. No relevant portion is left blank,
 - ii. All handwritten corrections and blanks are authenticated by the bank by affixing the bank seal and stamp along with the signature of at least one authorized signatory,
 - iii. All irrelevant portions struck off on the printed format should also be authenticated by the bank by affixing the bank seal and stamp along with the signature of at least one authorized signatory,

- iv. Each page of the bank guarantee should bear the bank guarantee number and should be signed (with bank's seal/stamp) by at least one authorized signatory of the bank,
 - v. It is free from any discrepancy.
 - e. In case the bank guarantee does not strictly conform to the above-mentioned conditions, the same shall not be accepted by the Exchange.
- 11.4 **FixedDeposit Receipts:** Members may submit fixed deposit receipt (FDR) issued by the approved banks for the purpose of Additional deposit. The FDR should be issued in the favour of 'Indian Energy Exchange Limited - A/C Member name' by any of the approved bank(s).

All such fixed deposits shall be under lien of the Exchange and the bank must confirm that such lien has been recorded and that the Exchange has first charge on such fixed deposit receipts by issuing a letter along with the fixed deposit receipt. The Member shall submit the fixed deposit certificate along with a letter issued by the Member himself. The processing of fixed deposit instruments, its validation and upload in the system will normally take three (3) working days and therefore, the Members should be normally entitled to get additional exposure limit after three (3) working days from receipt thereof by the Exchange. The FDR should be suitably discharged on the backside.

12. Trading Days

- 12.1 The Exchange shall operate on all days except Exchange specified holidays. A list of holidays for each calendar year will be notified by the Exchange in advance. In case of Sundays and public or bank holidays, the Exchange shall run the order books whereby a Member can put his quotes for such holidays.

13. Trading hours

- 13.1 The Exchange will have specified trading sessions for each market segment.
- 13.2 The Exchange may extend, advance or reduce trading hours by notifying the Members as and when it deems fit and necessary. Exchange will notify trading hours for new products as and when these are launched.
- 13.3 **Contractual liability termination:** Members can extinguish their contractual liabilities only by delivery and not by financial settlement.
- 13.4 **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 Bye-laws of the Exchange or with an intention of price manipulation, price rigging or price distortion.
- 13.5 **Settlement Guarantee:** Subject to the Bye-Laws, the Exchange shall guarantee the settlement of the net settlement liability of the Clearing Members or the Clients, as applicable, for all the trades done on the Exchange in accordance with the Bye-Laws of the Exchange. The settlement guarantee of the Exchange is confined only to the extent of settlement liability in terms of daily funds pay-in and pay-out upto the extent of funds available in the Settlement Guarantee Fund, subject to force majeure.
- 13.6 **Governing law and jurisdiction:** Every Contract executed as per Bye-laws of the Exchange shall take effect as a Contract made in New Delhi and shall be governed by the laws of India under the jurisdiction of the Courts of New Delhi.

- 13.7 **Contract specifications:** The contract specification for each contract shall be specified in relevant Schedules which form part of these Business Rules. The specifications shall specify details of the delivery procedure and other trading and settlement parameters relating to tick size, unit of trading, unit of delivery, delivery point, minimum and maximum order size, and other relevant matters. All such contract specifications will be notified to the Members, which will form an integral part of these Business Rules and shall be binding on all Members and, 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.

14. Clearing Banks

14.1 Exchange to regulate

The Exchange shall specify the processes, procedures, and operations that every Clearing Member shall be required to follow for participation in the clearing and settlement activities and operating their bank accounts with the Clearing Banks appointed by the Exchange.

14.2 Functions of Clearing Bank

The Exchange has appointed Clearing Banks for electronic transfer of funds between Clearing Members or the Clients, as applicable, and the Exchange. The Exchange reserves right to include or exclude some of the Banks at its absolute discretion.

14.3 Members to have account with the Clearing Bank

Every Exchange Member shall have designated bank accounts known as Member Settlement Account with any of such branches of the designated Clearing Banks appointed by the Exchange. Members shall operate the Settlement Account only for the purpose of settlement of deals entered through the Exchange, for the payment of margin money and for any other purpose as may be specified by the Exchange. Every Exchange Member is required to open the following accounts with any of the Clearing Banks.

- a. **Settlement Account or Clearing Account:** All Exchange Members or the Clients, as applicable, will have to open their Settlement Account with any the approved Clearing Banks. The Member or the Client, as applicable, will not have cheque book facility for issuing cheque to any third party or outsiders. The Trader Member can only issue cheque for transfer of money from this account to its Client Account. Apart from such transfer, only the Exchange will have power to withdraw money from this account by way of direct debit instruction. In respect of all pay in, Margins, charges and other dues payable to the Exchange, the Exchange will send direct debit instructions to the bank advising them to debit Settlement Account of the respective Member or the Clients, as applicable, by such payable amount. Similarly, the Exchange will credit the pay out, refund of Margins to this account only. The Trader Member will not use the Clients' funds for meeting his own obligation.

14.4 Clearing Bank to act as per the instructions of the Exchange

The Exchange shall instruct the Clearing Bank as to the debits and credits to be carried out for the funds settlement between the Members or the Clients, as applicable. For this purpose, the Members or the Clients, as applicable, will submit an authority letter to the bank, authorizing the Exchange to issue such debit and credit based on the Exchange's

instructions. The Clearing Bank shall act as per the instructions received from the Exchange for the funds movement. Instructions of the Exchange as to debits and credits to a Member's accounts or the accounts of the Clients, as applicable, shall be deemed to be irrevocable, confirmed and binding. In order to enable the Exchange to issue such instructions for debiting their account and also to authorize the Exchange in respect of freezing the account or to hold further debits or to block the funds, every Member or the Clients, as applicable, will be required to submit a written undertaking addressed to the bank to such effect. This undertaking will also authorize the bank to sweep the Client account of the Trader Member for any shortfall in the Settlement Account. Besides, the Exchange will also have the power to freeze various accounts of the Member or the Client, as applicable, maintained with the Clearing Bank, in case of any default or shortfall in pay in or Margin account.

14.5 **Clearing Bank to inform Exchange of default in funds settlement**

If there is any funds default arising out of the instructions received from the Exchange, the Clearing Bank shall inform the Exchange immediately.

14.6 **Clearing Account(s) of Exchange in the Clearing Bank**

The Exchange will maintain its Settlement Account with the Clearing Bank and all money received from the Members or the Clients, as applicable, towards pay in or Margin, shall be used appropriately for settlement.

15. **Clearing House**

15.1 **Regulation of Clearing House**

The Exchange and Clearing House will monitor and perform all activities relating to funds settlement, margining, managing the settlement guarantee fund, and other relevant matters.

15.2 **Functions of Clearing House**

The Clearing House will collect Margins from the Member or the Clients, as applicable, effect pay in and pay out and monitor delivery and settlement process. For carrying out such activities, it may appoint various agencies as its agents and may delegate such activities and responsibilities to such agencies, as it may desire. Save as except if it is scheduled otherwise by the Exchange, the funds pay in will take place on the same days as that of the trading and funds pay out will be done on the day after delivery i.e. on (T+2) where T stands for the trading day.

15.3 **Lien on Member's deposits and assets**

A Member or the Clients, as applicable is liable to clear all the dues against its trading liability irrespective of whether such liability is generated on its own account or on behalf of its Client Account. When a Member or the Client, as applicable defaults in making such payment to the Clearing House all deposits, Margins, funds payout and other assets of such defaulter Member or the Client, as applicable lying with the Exchange shall be under lien and first charge of the Exchange, irrespective of the fact whether such assets or deposits belong to the Trader Member or its Clients. No Client or any other person shall have any claim any charge or right on any such deposit, margin or delivery documents under any circumstances.

15.4 **Clearing code and clearing forms**

A Member shall be allotted a unique member specific clearing code which must appear on all forms used by the Member connected with the operation of the Clearing House. All clearing forms shall be signed by the Member or its authorized signatory.

15.5 Specimen signatures

A Member shall file with the Clearing House specimens of his own signature and of the signatures of his authorized signatory.

15.6 Notices and directions

All Clearing Members shall comply with the instructions, resolutions, orders, notices, directions and decisions of the Executive Committee in all matters connected with the operations of the Clearing House.

15.7 Liability of the Clearing House

The only obligation of the Clearing House in this matter shall be to facilitate payment in respect of the Contracts for purchase /and sale of electricity units.

15.8 Liability of the Exchange

Notwithstanding to the provisions of the Bye-Laws, no liability shall attach either to the Exchange, its officials, or to the Executive Committee or any member of the Executive Committee by reason of anything done or omitted to be done by the Clearing House in the course of its operations nor shall the Exchange, its officials, or the Executive Committee or any member of the Executive Committee be liable to answer in any way for the title, ownership, quantity or validity of any delivery or any documents passing through the Clearing House nor shall any liability attach to the Exchange, its officials, the Executive Committee or any member of the Executive Committee in any way in respect of such delivery and any other documents.

15.9 False or misleading statements

The Exchange may fine, suspend or expel a Clearing Member who makes any false or misleading statement in the clearing forms required to be submitted in conformity with these Business Rules or any resolutions, orders, notices, directions and decisions of the Clearing House.

15.10 Class of Contracts covered

The Clearing House shall be responsible in the manner stated above only in respect of Contracts executed on the trading system of the Exchange as per the Rules, Bye-Laws and these Business Rules.

15.11 Procedure of effecting transactions on bank holidays

In cases where the Exchange has to collect the funds pay in for trades done but there is a bank holiday, the Exchange, in consultation with the Clearing Bank, shall evolve a process where it will take a confirmation from the banks for the availability of funds and block such funds against the obligation of respective Member or the Clients, as applicable. If the banking system is available, the Exchange will debit the funds pay in on such holidays after finalization of the trade

16. Risk management system

- 16.1 A Member or the Clients, as applicable, is allowed to transact only when it maintains the requisite Margin, including any additional Margin as specified for the respective trading segment or the type of contracts or the directions issued by the Exchange. Bank balance lien marked in favour of Exchange can also be allowed towards margin required for facilitation of intraday and day ahead contingency products, at the discretion of the Exchange.

17. Transaction fees

- 17.1 The Exchange will charge a transaction fee as may be specified from time to time on the transactions carried out through the Exchange. Such transaction fee will be computed on value basis or volume basis, as may be decided from time to time, which will be computed on both purchases and sales separately. This will be billed separately on periodic basis and will be recovered from the settlement account of the Member or the Clients, as applicable.

18. Dealing with Clients

- 18.1 There are two categories of Clients for Electricity Contracts.
- a. Grid-connected Client: A Client who is eligible to buy or sell electricity and is connected to the grid. The entities including but not limited to, Distribution Licensees, Generators, Consumers and Open Access Users can become Grid-connected Clients.
 - b. Trader Client: A Client who is eligible to trade in electricity under the Electricity Act, 2003 and has a legally valid power purchase/sale agreement, which gives the Client the right to purchase and sell electricity. A Trader Client will register each power purchase/sale agreement with the Member who will be registering the same with the Exchange and receive a separate registration identification code. The entities such as trading licensees can become Trader Clients.
- 18.2 In the REC Market segment, the REC Member transacting on behalf of others can have Eligible entity, obligated entity or entity willing to purchase RECs as Client. Such Client will be known as REC Client. The Exchange may introduce new category of Clients consistent with the Act and regulations issued by commission.
- 18.3 In the ESCert Market segment, the Member transacting on behalf of others can have Eligible Entity (a Designated Consumer) as Client. Such Client will be known as ESCert Client. The Exchange may introduce new category of Clients consistent with the Electricity Act 2003 and Energy Conservation Act 2001 and regulations issued by the Commission.
- 18.4 Clients who have been provided direct access to the Exchange ATS shall be referred to Direct Access clients.
- 18.5 Every Trader Member shall enter into an agreement with each of its Clients as per **Annexure-IIA**, and as amended by the Exchange from time to time before accepting or placing orders on the Client's behalf. Similarly, every Professional Member shall enter into an agreement with each of its Clients as per **Annexure-IIB**, and as amended by the Exchange from time to time before accepting or placing orders on the Client's behalf. In addition, the Clients of the Professional Members shall execute an undertaking in favour of the Exchange as **Annexure IIC** as amended by the Exchange from time to time before he is permitted to transact any contract on the Exchange. A Member intending to trade on its own account as Client need not sign such agreement, however, the Client Registration

and other documents required to be submitted by the Member will be submitted to the Exchange.

- 18.6 When establishing a relationship with a Client, the Exchange Members must take reasonable steps to assess the background, genuineness, beneficial identity, financial soundness of such person, and its trading objectives by registering the Client with them in the format prescribed as Client Registration Form, as per **Annexure-III** and Self Registration Form prescribed by the Exchange. The Member shall also obtain:
- a. an approved copy of the board resolution permitting the transactions in contracts allowed on the Exchange .
 - b. a copy of Power Purchase or Sale Agreement(s) with a grid connected entity from Trader Clients.
 - c. other relevant documents.
- 18.7 The Exchange Member shall make the Client aware of particulars of Member's registration number allocated by the Exchange, an employee primarily responsible for the business of dealing in Contracts permitted by the Exchange including any limitations or liability attached thereto and the capacity in which the Member acts and the Client's liability thereon by issuing to the Client a copy of the Risk Disclosure Document as per **Annexure-IV**. The Exchange Member shall furnish a copy of the Risk Disclosure Document to all its Clients and to get and maintain their acknowledgement on second copy of the same document.
- 18.8 The Exchange Member shall provide extracts of relevant provisions governing the rights and obligations of Clients as Clients of Exchange Members, relevant manuals, notifications, circulars any additions or amendments thereto of the Exchange, or of any regulatory authority, to the extent it governs the relationship between Members and Clients, to the Clients at no extra cost.
- 18.9 The Exchange Member shall also bring to the notice of its Clients, any indictments, strictures or disciplinary actions taken against the Member by the Exchange or any other regulatory authority. The obligations of the Exchange Member in this context shall, inter alia, include the following:
- a. An Exchange Member shall make adequate disclosures of relevant material information in the dealings with its/ his Clients.
 - b. No Exchange Member or person associated with the Member shall guarantee a Client against a loss in any transactions affected by the Exchange Member for such Client.
 - c. The Exchange Member shall not recommend to the Client a sale or purchase of Contracts available on the Exchange, unless it has reasonable grounds to believe that such recommendation is suitable for the Client on the basis of facts, if any, disclosed by the Client, whether in writing or orally, regarding the objectives; Client's capacity of dealing with the specific Contracts and investment. The Member shall take all possible measures to keep confidentiality of information related to its Client(s) including bids, trades.
 - d. The Exchange Member shall make adequate disclosures of relevant material information in its dealing with its Client including the latest UMCP and Area MCPs along with cleared quantities, proprietary orders (buy/sell), any relevant announcement from the Exchange relating to Margin, trading restrictions as to price, or quantity.

- e. The Exchange Member shall not furnish any false or misleading information or advice with a view to inducing the Client to do business in particular Contract or Contracts and which shall enable the Exchange Member to profit thereby.
 - f. The Exchange Member shall explain the trading system and order matching process to the Client before accepting any orders from it and to a direct access client before giving consent.
 - g. Where the Client requires an order to be placed or any of its order to be modified after the order has entered the system but has not been traded, the Exchange Member shall ensure that it obtains order placement/modification details in writing from such Client on whose behalf such orders are placed by them. The Exchange Member shall accordingly provide the Client with the relevant order confirmation/modification slip or copy thereof, forthwith.
 - h. Where the Client requires any of its order to be cancelled after the order has been entered in the system before the end of trading period, the Exchange Member shall obtain the order cancellation details in writing from the Client on whose behalf such orders are placed by them. The Exchange Member shall accordingly provide the Client with the relevant order cancellation details, forthwith.
 - i. The Exchange Member shall not accumulate or withhold Client's order for Contracts permitted by the Exchange, if it has adequate margin of such Client with it. The Exchange Member shall place all orders forthwith.
 - j. The Exchange Member shall act promptly in accordance with the instructions provided by the Client unless it has discretion as to the timing relating to entering and/or execution of the order, in which case it must exercise prudently its judgment as to the best moment for entering that order in the system.
 - k. The Exchange Member shall provide the Client with a copy of the trade confirmation slip as generated on the ATS, forthwith on execution of the trade and with a contract note for the trade executed in the specified format as per **Annexure- V**.
 - l. Exchange Member shall at all times keep the money of the Client in the Member's Clients Account maintained with the Clearing Bank. The Member shall not use this money for its own transactions or for transactions of such other Client or for any purpose other than Margin and pay in relating to transactions entered into by such Client paying the margin. In case, Member is Client of its own, it does not need to maintain a separate account.
 - m. The Member shall collect adequate Margin from its Client before entertaining any order from it. In case of a direct access client, the Member should take sufficient margin and also should specify trading/ obligation limits, which such direct access clients can commit on the Exchange.
 - n. It will be responsibility of the Members to inform their Clients about the successful trades and their physical and financial obligations, based on the Exchange's reports received by them.
- 18.10 Clients can have their own trading terminal through which they can put their orders electronically. In order to keep anonymity of bid prices, the Client may enter his bids through the terminal. Any trade undertaken by a Client via direct access will be done in the name of the Member, and the Trader Member shall be fully responsible for all orders entered by the Client and for the conduct of all such trades as principal.

19. Member Service Charges

Subject to the provisions of these Business Rules and the provisions of the Act, Rules and Regulations made thereunder the Member Service Charges that a Member can charge to its Clients, for providing services may be mutually agreed to between them.

Provided however the Professional Member who is not trading licensee shall not provide any credit or financing or working capital facility to their Clients.

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CHAPTER- III**3. TRADING SYSTEM****20. Trading System**

- 20.1 The entire trading operation at the Exchange shall be conducted under the Automated Screen based Trading system, which is also called as 'TWS'.
- 20.2 Trading on the Exchange shall be allowed only through approved workstation(s) located at approved locations for the office(s) of a Member. If an approved workstation of a Member is connected by LAN or any other way to other workstations at any other place it shall require a prior approval of the Exchange. For every TWS, a Member shall be required to obtain a specific permission from the Exchange and obtain user id in advance.
- 20.3 Each Member shall have a unique identification number which shall be provided by the Exchange and which shall be used to log on (sign on) to the system.
- 20.4 A Member shall have a non-exclusive permission to use the TWS as provided by the Exchange in the ordinary course of business as an Exchange Member.
- 20.5 A Member shall not have any title, rights or interest with respect to TWS, its facilities, software and the information provided by the Exchange. The permission to use the TWS shall be subject to payment of such charges as the Exchange may from time to time prescribe in this regard.
- 20.6 A Member shall not, permit itself or any other person(s) to:
- use the software provided by the Exchange for any purpose other than the purpose as approved and specified by the Exchange,
 - use the software provided by the Exchange on any equipment other than the workstation approved by the Exchange,
 - copy, alter, modify or make available to any other person the software provided by the Exchange,
 - use the software in any manner other than the manner as specified by the Exchange,
 - attempt directly or indirectly to decompile, disassemble or reverse engineer the same.
- 20.7 A Member shall not, by itself or through any other persons on its behalf, publish, supply, show or make available to any other person or reprocess, retransmit, store or use the facilities of the TWS or the information provided by the TWS except with the written approval of the Exchange.
- 20.8 The Exchange will provide the application software for installation of TWS. However, the Member has to arrange at its own cost the system software personnel required for installation of trading application. Besides, it has to arrange for installation of trading application software at his TWS at its own cost.
- 20.9 The Exchange Member shall maintain confidentiality of bid information of Clients during and after the trade sessions.

21. Approved Users

- 21.1 For every TWS to be used by a Member, it shall be required to obtain registration of the Approved User in the specified format, who will be responsible for such TWS. Such Approved Users can be its own employees responsible for such TWS or branch. Before termination of any of such Approved Users, the Member shall be required to obtain prior written approval of the Exchange. In case it is found that a Member has allotted a TWS to any user not registered with the Exchange, such Member will be suspended by the Exchange forthwith.
- 21.2 In case of lease line connection, the Member will get registration up to two (2) Approved User without any cost, but any Approved User over and above such Users will be permitted by the Exchange on payment of fee as prescribed through circulars.

22. Connectivity

- 22.1 In order to connect the TWS of the Members with the IEX server, the Members will have option to connect with IEX using the MPLS (Multi-Protocol Label Switching) i.e. Leased Line provided by the vendor approved by IEX.

a. Lease Line Connectivity

Members can connect trading workstation through leased line. The service provider will provide nation-wide Leased Line network for Members using Multi-Protocol Label Switching (MPLS) based VPN solution. The data reaches to the trading system through the node located at Mumbai.

The MPLS is one of the most sophisticated and latest VPN technologies available as on date. MPLS can provide secure, most cost effective, high performance, scalable and managed end-to-end network connectivity. It allows label switching, due to this it offers fastest mode of data transfer, making it most suitable for real time trading application like ours. Due to the features like 'Bandwidth on Demand' and 'Committed Bandwidth' it has overcome all shortfalls of conventional point-to-point leased line network. The BSNL MPLS network nodes are mesh connected on STM 1 (155 mbps) links. This ensures congestion free data transfer on the network. The network has multiple ring redundancy, ensuring high uptime to the end users.

b. Application procedure

All applications to BSNL and co-ordination with BSNL will be taken care by the IEX Systems Department. Interested Members may send the necessary details in the specified format.

c. Equipment requirement:

A Member has to procure one router, dedicated for the IEX connectivity. The details of the router are as under:

- (i) The router should have one serial interface, one ISDN (optional) and one Ethernet Interface.
- (ii) **Leased line modems:** In case the service providers (like MTNL or TATA Tele) do not provide leased line modems, Members have to procure one pair of leased line modems separately.

d. Recurring charges

Members are requested to pay the necessary charges towards installation, equipment rental, leased line etc. payable to the service provider (MTNL or TATA Tele) directly. Members may also have to pay any additional charges raised by the service providers / Govt. agencies as and when applicable.

e. Back-up link

Members having Leased Line connectivity are required to obtain ISDN BRI line from their local telecom service provider. For automatic switch over, in case of leased line failure, ISDN backup line is required to be terminated on the same router on which leased line is connected. In order to avoid usage during non-trading hours because of automatic dialing, Members are advised to disconnect the ISDN line after trading hours and re-connect before the next trading session.

All Members having leased line are requested to avail the ISDN backup facility to avoid disruption in trading due to problems in leased line connectivity.

Members should note that installation/ STD/ usage charges/ any other charges related to the ISDN link is to be paid by Members to their respective telecom service provider.

f. Router configuration

The Exchange will provide necessary step-by-step router configuration to the Member once the leased line is commissioned. However, the configuration and testing of the router at the Member end will be the responsibility of the respective users. All Members are obliged to co-ordinate with the IEX System Department for any assistance

g. Payment

Members have to pay towards port charges, local loop charges (considering 7 km distance), one time modem installation charges and inclusive of service tax applicable. Such charges are payable on an annual basis except the modem installation charges. The payment shall be made by way of demand draft favouring 'AO (F&A) BSNL Mumbai' payable at Mumbai. Member may send the demand draft along with the application form to the Exchange, Mumbai Office in advance to start the LL application process. The prices are uniform across the country except Mumbai and Navi Mumbai. In case of non-availability of BSNL network in a particular city, the payment would be refunded to the Member. In case of transfer of the facility to some other location, the Member has to pay the necessary charges to be decided by BSNL.

h. Number of terminals

In case a Member wants to install more terminals, they may request for additional leased lines. As such there is no limitation on number of leased lines that one Member can opt for. Separate user IDs would be allocated for LL connectivity, which cannot be used for Internet, VSAT or other media. For ensuring additional security, the User IDs will be tagged with IP addresses.

i. Crisis management

The complete MPLS network is monitored 24x7 from a centralized Network Operating Centre (NOC) of BSNL. This NOC is managed by highly skilled engineers which can give all assistance to all Members. The NOC can be accessed on toll free number –16004 41957. For any further assistance any Member can also get in touch with respective Nodal Officer of BSNL which will be informed to you shortly.

j. Undertaking

All Members are obliged to provide the Exchange with an undertaking on company's letterhead in the enclosed format given in **Annexure-VII**.

On receipt of the application along with the undertaking and payment, the application will be forwarded immediately to BSNL for further processing. It may take four (4) to (6) weeks for BSNL to complete the process of providing Leased Line Network to the Member.

23. Expansion of trading terminals

23.1 With every Lease line installation, a Member will be entitled to have up to five (5) trading terminals at the same location. All classes of Members are entitled to expand their trading terminals. A Member can set up multiple terminals either in the same city, where he is located or in multiple cities within India except the state of Jammu & Kashmir, either by way of opening branch offices or by appointing their franchise/approved users, but in such cases, all its obligations will be netted out at the Member level, and he shall be required to settle all such trades, in respect of margin, pay in as well as final settlement as any other trade settlement procedure of the Exchange, irrespective of the fact whether the trades are done by it or through its other terminals.

23.2 Terms relating to expansion of terminals

A Member shall be entitled to expand its trading terminals by virtue of opening up branches, tying up with Approved Users. For setting up such terminals, it will be required to apply to the Exchange in the prescribed format specifying name of the Approved User in charge of such terminal, giving details of the location where the additional terminal is to be installed and also to undertake responsibility relating to all trades done through such terminal. The Exchange will not charge any additional fee or deposit for setting up such additional terminals except the cost of Lease line installation and deposit, software installation and out of pocket expenses relating thereto. There can be various models of expansion of terminals, such as:

- a. **Direct connectivity to IEX system:** The Member can install terminals at various places, which can be linked to the IEX system through Lease line directly. In such cases also, the Member will be able to set trading limits for all such terminals from his office using the Member administrator terminal.
- b. **Private network of a Member:** If a Member is already having a private network or he proposes to put in place a private network of leased line or ISDN connectivity for expanding his terminals, such private networks could be connected to IEX system by way of installing one lease line at Member's central office. However, if the number of terminals is large, the Member may be required to get a leased line (which would be decided by the Exchange on case to case basis) with adequate bandwidth between his central office and the Exchange office so as to support the interactive traffic of all such terminals. In respect of performance and maintenance of such private network, the Member has to bear all costs and assume all responsibilities and the Exchange will not be responsible in any manner. This is subject to the Member obtaining relevant approvals from the relevant statutory agency.

24. Force majeure

24.1 Notwithstanding the provisions of the Bye-Laws on force majeure, in case of the settlement of power contracts, the injection and drawal by the power generators and consumers depend upon the transmission corridors available with regional grids. In case of non availability of transmission corridors because of system constraints notified by System Operator on the day of delivery, the outstanding Contracts will be settled on pro-rata basis.

24.2 In case of any natural calamity like flood, earthquake, strikes etc., which has such a substantial bearing on the power market that the availability of electricity in the country is expected to reduce at least by 50%, making delivery of the electricity virtually impossible, then the Exchange will have the power to settle the Contract independently and/or in consultation with the Commission.

24.3 In case of trading system related problems, while the Exchange will attempt to rectify the problem at the earliest, however, it will not be responsible for the consequential losses, if any.

- 24.4 In the event of disruption in the office or administrative services of the Exchange or the designated Clearing Bank due to technical reasons including Computer System breakdown or due to absence, non-attendance and/or strike by the employees or due to any unforeseen circumstances or due to natural or other calamities such as earthquake, outbreak of war, general strike or any such circumstance of a force majeure nature, the daily clearing shall be suspended for such days and period till normalcy is restored. The Exchange shall immediately notify all the Members about the suspension and/or postponement of daily clearing settlement as also about the restoration or return of normalcy and resumption of daily clearing and settlement work. If the circumstances so demand, the Exchange may order closure of the market in accordance with relevant Bye-laws and call an emergency meeting of the Board of the Exchange to deal with the abnormal situation.
- 24.5 Any restriction imposed by NLDC/RLDCs on account of transmission bottlenecks or restriction/failure of REC Registry System or restriction/failure of ESCerts Registry System(D-CRM) and otherwise will be treated as force majeure without any liability on the Exchange.

25. Contingency management

- 25.1 In the event of failure of a Member's workstation and/or the loss of access to the trading system, the Exchange may assist the Member in placing the order on best effort basis. For this purpose, the Member must forward a valid request in writing in a clear and precise manner to the Exchange as per **Annexure-VI**. The Exchange will execute such orders on behalf of the Member subject to such terms and conditions, which the Exchange may deem necessary to be imposed. The Member shall be accountable for the trades executed by the Exchange on their behalf and shall indemnify the Exchange against any losses or costs arising out of the above situation.
- 25.2 In case of any mismatch between scheduling request issued by the Exchange at 15:00 hrs and final schedule issued by NLDC at 18:00 hrs, the final schedule issued by the NLDC shall be considered for adjustments in the obligations and the trades shall be reversed to the extent of such mismatch. Similarly, in case of subsequent changes on account of curtailment of transmission capacity by the Load Dispatch Centre(s), the trades shall be reversed to the extent of such curtailment. Reversal of trade shall be done at the respective Area Clearing Prices. The difference in the amount payable and recoverable due to such reversal shall be adjusted from the Congestion Revenue Account.

26. Major breakdown of the system or failure of communication link

- 26.1 In the event of a major breakdown of the system or failure of communication link, the Exchange may decide to extend the trading hours or to operate a separate trading session on the same day after end of usual trading session. Such decisions will be taken considering the overall interests of the market. The decision of the Exchange in this regard shall be final and binding.
- 26.2 Provided that if the breakdown of the system or communication link is so severe that at least 75 % of the active Members are not able to trade, the market will be halted and a separate trading session will be commenced after fixing the problem.
- 26.3 In such cases, the Exchange will take appropriate decision, as may be expedient to do so under those circumstances.

CHAPTER- IV

4. INSPECTION AND DISCIPLINARY ACTIONS

27. Records, Books of accounts and Inspection

27.1 The Exchange will conduct inspection of books of accounts of the Members periodically. The scope of such inspection will, in normal circumstances, be limited to the operations of the Member at the Exchange and its off-market deals, but in special circumstances the Exchange may decide for extending the scope of such inspection. The Exchange, directly or through empanelled Chartered Accountant Firms, will conduct such inspection. All Exchange Members shall be required to maintain Books of Accounts, documents, counterfoil of contract notes and other details for such period, as may be directed by the Exchange. They shall produce such records before the inspection team as per directions issued by the inspection team and extend their full co-operation in terms of providing information so as to carry out inspection smoothly. In addition to the normal inspection of the Books of Accounts, audit of statutory compliance and adherence to the Articles, Bye-laws, Rules, Business Rules, circulars and notifications issued by the Exchange from time to time, the Exchange may take suitable action based on the inspection report, if it deems proper.

Without in any manner affecting the scope and extent of the powers of the Exchange, the inspection may cover the following aspects:

- a. Failure to follow the norms as prescribed by the Exchange for Client accounts, know-your-client scheme, improper / non execution of the Member-Client Agreement, and other relevant matters.
- b. Unauthorized use or / misuse of the TWS, software and other facilities provided by the Exchange.
- c. Improper maintenance of books and records.
- d. Violations in the issue of contract notes (not having pre-printed serial nos., signatory not authorized, contract note not in proper format, (e.g. contract price and brokerage not appearing on the contract notes separately, proper rates not given or any information on the contract note tampered with in comparison to the data available with the Exchange, unauthorized change of Client codes against the Trade nos., printing of Order number on the contract note, and similar matters).
- e. Failure to abide by or respond to the circulars, communications, notices issued by the Exchange.
- f. Unfair trade practices and market misconduct including insider dealing.
- g. Attempt to forge or indulged in forging of signatures or authorizations of officials (or any other regulatory body),
- h. Suppression of material facts and not taking prior approval of the Exchange regarding change in shareholding pattern, nature of organization, activities, change in memorandum and articles of association, change of address, change of telephone / fax numbers, or such things which are likely to affect his operations on the Exchange, including information about himself being convicted, declared insolvent, and other similar matters.
- i. Coercing, attempting or indulging in influencing another Member.
- j. Dealing with black listed Clients or persons.
- k. Other relevant matters which may affect the efficient and transparent operations of the markets.

28. Fines and penalties

In case of any violation on the part of the Member the Exchange shall have the authority to levy penalty on such Members.

29. Mechanism for redressal of grievances

If any complaint received with regard to the claim, differences or disputes between the Exchange Members inter se or between an Exchange Member and a Client or arising out of or in relation to trades, Contracts and transactions executed on the Exchange or with reference to anything incidental thereto or in pursuance thereof or relating to their validity, construction, interpretation or fulfillment and/or the rights, obligations and liabilities of the parties thereto and including any question of whether such trades, contracts and transactions have been entered into or not shall be addressed by the Exchange through a grievance redressal mechanism on receipt of a written complaint from the aggrieved party by the Exchange. Such complaint shall be resolved through the administrative mechanism under the supervision of the Executive Committee within such days as may be fixed by the Exchange. In case of non-redressal of such grievances through the administrative process, the same shall be dealt as per the Arbitration and Conciliation procedure of the Exchange as specified under the Bye-laws of the Exchange.

30. Submission of Information on Member Service Charge:

Each Professional Member of the Exchange shall charge its Member Service Charge in accordance with the CERC (Power Market) Regulation, 2010. The Exchange will monitor Member Service Charge levied by a Professional Member from its clients in the manner prescribed below:

- 30.1 **Manner of Calculation:** The manner of determining the charges to be recovered by a Member from his client shall be in accordance with Power Market Regulations 2010 and as specified by the CERC in para 14 of the order dated 21st Dec 2011 in suomotu petition number 123/2011.
- 30.2 **Manner of Collection:** The Member may determine charges as explained in Clause 30.1 above, on a regular periodicity, however it should be collected from the client atleast once in every quarter. The Member can however decide to have a shorter collection cycle. Members can also collect the charges in advance however they should settle the account with their clients on the basis of working as per clause 30.1 above and the settlement cycle defined hereunder. The Member should collect money from its clients through cheque/demand draft or through net banking transaction. However, there shall not be any cash transaction between a Member and his client.
- 30.3 **Settlement Cycle:** Periodicity of settlement of accounts between Member and clients shall be at least on financial year basis or as prescribed by the Exchange from time to time. However Members can adopt a shorter period of settlement if they so desire.
- 30.4 **Submission of Monthly Report:** Each Member shall furnish detail of member service charges on monthly basis separately in respect of transactions in Day Ahead Market, Term Ahead market, Renewable Energy Certificate market and Energy Saving Certificate market in the formats appended at Annexure-VIII, Annexure-IX, Annexure-X and Annexure XI respectively, as applicable, of these Business Rules, so as to reach the Exchange before 10th of the succeeding month.
- 30.5 **Records:** Each Member shall maintain books of Accounts as per clause 27.1 of this Chapter.

30.6 Procedure for securing compliance

- a) Where the Exchange, on the basis of material in its possession is satisfied that the Member is contravening, or is likely to contravene, above conditions, it shall serve a notice to the Member narrating the conditions contravened or likely to be contravened by him to invite his objections or suggestions.
- b) The notice may be served on him by delivering the same at the registered office or at the usual or his last known place of residence or business, either through registered post or speed post or by hand delivery through a messenger where the Exchange is satisfied that it is not reasonably practicable to serve the notice on the Member through registered post or speed post or by hand delivery or in any other manner as considered appropriate by the Exchange in the facts and circumstances of the case.
- c) The Exchange may issue a notice specifying the conditions contravened or likely to be contravened by the Member to bring the matters to the attention of persons affected or likely to be affected by such contraventions, to invite suggestions from such persons.
- d) The Member or the persons affected or likely to be affected by the contravention of the conditions may file their objections or suggestions within the time specified by the Exchange from the date of receipt of notice under clause (a) or (c) as the case may be.
- e) The Exchange shall on consideration of the objections and suggestions received as aforesaid, pass such directions as may be necessary to secure compliance of the above conditions.”

31. Arbitration

- 31.1 A Member or Client can file reference to arbitration in accordance with the provisions of the Bye-Laws in the prescribed format along with a fee of Rs. 5,000 or such other fee as may be decided by the Exchange.
- 31.2 Each arbitrator will receive a sitting fee as decided by the Exchange per meeting for participation in arbitration proceedings.
- 31.3 The total cost of arbitration, cost of conducting proceedings, sitting fee, documentation, cost of obtaining legal or expert opinion, cost of litigation, cost of hiring of professional for resolving a dispute, will be shared by both the parties to the dispute equally during the course of proceedings pending final adjustment and for that matter, the Exchange will demand adequate deposits from the concerned Members and Clients periodically for meeting such costs on ad-hoc basis. On declaration of award, the entire cost of the proceedings will be borne by the parties in the manner as may be decided by the arbitrators and documented in the award and the Exchange shall ensure final adjustment of accounts between the parties.
- 31.4 Any dispute involving claim upto Rs. 1 lakh shall be decided by the Exchange administratively and claims involving more than Rs. 1 lakh shall only be filed with Arbitration Panel.
- 31.5 Subject to the Arbitration provisions the courts in Delhi will have jurisdiction in the matter irrespective of the location or residence of the Exchange Member or where the transaction has been initiated or completed and all transaction will be deemed to have taken place in Delhi.

INSTRUCTIONS TO FILL MEMBERSHIP UNDERTAKING

1. The MEMBERSHIP UNDERTAKING has to be executed on a Non-Judicial Stamp Paper of the value of Rs. 300/- or the value prevailing in the State of residence or business of the person seeking Membership, whichever is more.
2. Each and every blank in the Undertaking shall be duly filled.
3. The signature of two authorized signatories and rubber stamp shall be affixed on each and every page of the Undertaking.
4. Two persons shall sign as witnesses against each authorized signatory on the last page of the Undertaking.
5. In case of a corporate entity the common seal of the Company and in case of a firm the rubber stamp shall be affixed on the last page of the Undertaking.
6. The Undertaking shall be Notarized.
7. The following shall be typed on the Stamp Paper (as the first page).

Membership Undertaking

This Non-Judicial Stamp paper of Rs.300 forms part and parcel of this Undertaking submitted by to Indian Energy Exchange Limited executed by

Mr./Mrs./Ms. _____ on
day of __, 20 __.on behalf of -----

This undertaking is given at ____ this day of, 20....

To Indian Energy Exchange Limited, New Delhi, India Hereinafter called "IEX" (which expression shall unless it be repugnant to the context or meaning thereof be deemed to mean and include their successors and assigns)

Signature (1).....
Rubber Stamp

Signature (2).....
Rubber Stamp

Notary (Stamp & Seal)

Notary (Stamp & Seal)

.....
Registered Office:
.....

Hereinafter called “the Undersigned” (which expression shall unless repugnant to the context or meaning thereof be deemed to include its successors and permitted assigns).

WHEREAS THE Undersigned is desirous to be admitted as the Member of IEX hereinafter referred as Member.

AND WHEREAS IEX has agreed to admit the Undersigned as a Member on IEX in accordance with the Rules, Bye-Laws, and Business Rules of IEX in force from time to time subject to the Undersigned furnishing the Undertaking in the manner and on the terms specified herein below:

NOW THEREFORE in consideration of IEX admitting the Undersigned as a Member of IEX, the Undersigned hereby undertakes and agrees that:

1. The Undersigned shall comply with all such requirements, existing and future, with regard to and in connection with admission and continuance of the Undersigned as a Member.
2. On being admitted as a Member, the Undersigned shall be active participant of IEX.
3. The Undersigned shall abide by, comply with and be bound by the Rules, Bye- Laws, and Business Rules of IEX, as in force from time to time and any clarification, directive, circular, order, notice, instruction issued by the IEX and in force from time to time.
4. The Undersigned shall abide by the code of conduct applicable to Member as laid down by IEX from time to time.
5. The Undersigned agrees that IEX shall be entitled to amend its Rules, Bye-laws, and Business Rules unilaterally and the Undersigned shall be deemed to have consented to any amendment made to the Rules, Bye-laws, and Business Rules of IEX, and accordingly shall be bound by the Rules, Bye-laws, and Business Rules prevailing from time to time and IEX shall be entitled to exercise all powers vested in it under its Rules, Bye-Laws Business Rules and Circulars by which the Undersigned unconditionally agrees to be bound.

Signature (1).....
Rubber Stamp

Signature (2).....
Rubber Stamp

Notary(Stamp &Seal)

Notary (Stamp &Seal)

6. The Undersigned shall maintain and preserve such information, records, books and documents pertaining to the working of the Undersigned as a Member for such period as may be specified by IEX from time to time.
7. The Undersigned shall permit IEX or any person authorized by it for inspection, access to all records, books, information, documents and its offices as may be required.
8. The Undersigned shall submit periodic reports, statements, certificates and such other documents as may be required by IEX, and shall comply with such audit requirements as may be prescribed by IEX from time to time.
9. The Undersigned shall follow and comply with such orders or instructions, whether being in the nature of a penalty, fine or otherwise, as may be issued by IEX or any committee of IEX duly constituted for the purpose, in the event of the Undersigned committing any violation of any Rules, Bye-Laws, Business Rules, Circulars or practice or code of conduct prescribed by IEX in respect of conduct of the business on IEX.
10. The Undersigned shall conduct business at IEX prudently and shall ensure that it will not be prejudicial or detrimental to public interest in general, and to the interest of IEX in particular.
11. If any difference or dispute shall arise as to the interpretation, meaning or effect of this Undertaking or as to the rights and liabilities of the Undersigned or in respect of any other matter relating to IEX operations, the decision of IEX shall be final, conclusive and binding on the Undersigned.
12. The Undersigned shall abide by and adopt the Rules, Bye-Laws, and Business Rules of the clearing and settlement systems of IEX and any other agencies appointed by IEX for this purpose and any amendments made thereto from time to time.
13. The Undersigned shall pay the costs and expenses including fees prescribed by IEX from time to time, as communicated by IEX within due date as indicated in Invoice/Demand Note from IEX and in case of nonpayment by due date IEX may deduct from the settlement account.
14. The Undersigned shall use IEX infrastructure facilities and equipment only for the purpose for which they are permitted to be used so and for no other purpose.


Signature (1).....
Rubber Stamp


Signature (2).....
Rubber Stamp

Notary (Stamp & Seal)

Notary (Stamp & Seal)

15. The Undersigned shall furnish security deposits, pledge of securities, hypothecation of movables, lien on bank accounts or such other security as may be required by IEX from time to time and to do all acts, deeds and things to enable IEX to exercise all or part of the above mentioned securities to secure recovery of default in payment and other incidental charges relating to default and other dues of IEX and clearing house, if any.
16. The Undersigned shall bring in additional margin deposits and funds as and when required as decided by IEX from time to time to participate in the trading and clearing operations on IEX.
17. The Undersigned is aware that the Undersigned would be/is admitted as a Member of IEX on paying the prescribed membership fee and security deposit and that the membership is not transferable for a minimum period of 3 (three) years or such other minimum period as may be stipulated from time to time by IEX and the Undersigned does unequivocally undertake that the Undersigned shall not be entitled to make any claim for refund of the security deposit for a minimum period of 3 (three) years from the date of deposit or such other minimum period as may be stipulated from time to time by IEX even if the Undersigned intends to cease to be the Member or discontinue to transact on IEX.
18. Without prejudice to what has been undertaken above, IEX shall be entitled to forfeit any property, funds, amounts, deposits or other sums due to the Undersigned or to the credit of the Undersigned in such events or contingencies as may be stipulated in the Rules, Bye-laws and Business Rules of IEX in force from time to time.
19. IEX shall not be held responsible or liable for any loss to the Undersigned or the Clients of the Undersigned on account of failure of computer systems, telecommunication network and other equipment installed by IEX at the offices of the Undersigned and IEX shall also not be held responsible for any misuse, mishandling, damage, loss, defect or injury to the computer systems, telecommunication network and other equipment installed by IEX.
20. IEX shall have the right to inspect and supervise all computer systems, software programs, telecommunications equipment, VSAT/MPLS and the like, which are provided by IEX at the office of the Undersigned.

Signature (1).....
Rubber Stamp

Signature (2).....
Rubber Stamp

Notary (Stamp & Seal)

Notary (Stamp & Seal)

21. The Undersigned shall not make any alterations, modifications and changes to the computer systems, software programs, telecommunications equipment, VSAT and the like installed by IEX without prior written consent of IEX.
22. The Undersigned shall not disclose, reveal, publish and advertise any material information relating to operations, membership, software, hardware, and the like of IEX without prior written consent of IEX except and to the extent as may be required in the normal course of its business. Similarly, the Undersigned shall not use without prior written approval of IEX, the name of IEX to directly or indirectly promote the business of the undersigned.
23. The Undersigned shall from time to time and of its own notify to IEX any change in the composition of the Board of Directors of the Undersigned and where in the opinion of IEX any change in the composition of the Board of Directors of the Undersigned has resulted or is likely to result due to such change any direct or indirect transfer of shares or securities in the share capital of the Undersigned, IEX will be entitled to review continuation of the Undersigned as a Member of IEX and, the Undersigned shall be bound by any decision taken by IEX in this regard which shall be final.
24. The Undersigned hereby confirms and undertakes that it is competent in all respects to become a Member of IEX and participate in contracts transacted at IEX. The Undersigned further confirms that in case of any doubt or reference in future regarding validity of its candidature to become a Member, the onus to prove the same shall lie on the Undersigned itself and IEX shall not be liable for any matter in case of such eventuality.
25. The Undersigned shall execute, sign, and subscribe to such other documents, papers, agreement, covenants, bonds, and/or undertakings as may be prescribed or required by IEX from time to time.
26. The Undersigned undertakes to make such contributions to Settlement Guarantee Fund or any other fund pertaining to IEX as and when required by IEX and also comply with all requirements of IEX in respect thereof.
27. The Undersigned shall arrange to get itself registered with respective relevant authorities as may be required from time to time under any law of the land for the purpose of participating in the operations of IEX.
28. The Undersigned has received and/or will obtain required consent from respective DISCOM/STU/SLDC/RLDC, as applicable, to carry out its business as Member on the platform of IEX.

Signature (1).....
Rubber Stamp

Signature (2).....
Rubber Stamp

Notary (Stamp & Seal)

Notary (Stamp & Seal)

29. The Undersigned shall abide by provisions of the Electricity Act, 2003 or any rules or regulations made there under or Grid Code or any other applicable Act or law or any rules or regulations made there under.
30. The Undersigned shall subscribe to at its cost the mandatory centralized insurance cover as required by IEX for the Members at IEX to pay the insurance premium as may be required by IEX and also to comply with all requirements of IEX in respect thereof. The Undersigned shall not have any objection to create a default reserve fund by transferring a specified amount out of the Settlement Guarantee Fund, as may be decided by the Exchange from time to time, every year to meet the liability of the Undersigned defaulting in paying dues of the Exchange..
31. The Undersigned shall forthwith notify IEX in writing as and when any notice is received by the Undersigned in connection with any institution of insolvency proceedings against the Undersigned and that the Undersigned shall also inform IEX in writing before the Undersigned initiates any insolvency proceedings to be declared to be insolvent. The Undersigned further shall forthwith inform IEX in writing on the onset of any circumstance which is likely to or may render the Undersigned to be declared to be insolvent(s) or which is likely to or may render the Undersigned liable to be subject to insolvency proceedings.
32. The fees, security deposits, other monies and any additional deposits paid, whether in the form of cash, bank guarantee, securities or otherwise, with IEX, by the Undersigned from time to time, shall be subject to a first and paramount lien for any sum due to IEX and all other claims against the Undersigned for due fulfillment of engagements, obligations and liabilities of the Undersigned arising out of or incidental to any dealings made subject to the Rules, Bye-Laws, and Business Rules of IEX. IEX shall be entitled to adjust or appropriate such fees, deposits and other monies for such dues and claims, to the exclusion of other claims against the Undersigned, without any reference to the Undersigned.
33. Without prejudice to the rights, remedies whether legal or otherwise available to IEX upon the Undersigned's non-compliance with this Undertaking, the Undersigned shall indemnify and keep indemnified IEX against any loss, injury or damage suffered by IEX whether legal or otherwise arising due to its non-compliance with the provisions of this Undertaking.
34. This Undertaking shall be binding upon the heirs, legal representatives, successors and assigns of the Undersigned in the same manner as the Undersigned.
35. The Undersigned further agrees that IEX reserves the right to terminate the membership of the applicant, at its absolute discretion and at any time, for any reason whatsoever and without communicating those reasons to the Undersigned.

Signature (1).....
Rubber Stamp

Signature (2).....
Rubber Stamp

Notary (Stamp & Seal)

Notary (Stamp & Seal)

- 36. The Undersigned shall forthwith notify, in writing, IEX of any change in its constitution or articles of association or Management
- 37. The Undersigned does hereby confirm that the information provided in the application form of the Undersigned for the Member of IEX is true and correct to the best of the knowledge and belief of the Undersigned and that this Undertaking will be binding on the successors, heirs, legal representatives and permitted assigns of the Undersigned.

Signed and delivered by the hereunder named Member.

Name of the Member.....

Signature (1).....
Name of the Authorised Signatory
Rubber Stamp

Signature (2).....
Name of the Authorised Signatory
Rubber Stamp

Witnesses

Name: **Signature:**

Address:
.....
.....

Name: **Signature:**

Address:
.....
.....

The common seal of _____

_____ has been hereunto affixed pursuant to a resolution passed at a meeting of the Board of Directors of the Company or Partners of the Firm, as the case may be, held on _____ day of _____ 20____ in the presence of * _____

COMMON SEAL:

Signature (1).....

Signature (2).....

Rubber Stamp:

Rubber Stamp:

Common seal:

* As required by the Articles of Association of the Company

Notary (Stamp&Seal)

Member - Client Agreement(Between a Trader Member and the Client)

This agreement is made at New Delhi on this day of.....20.....

By and Between

....., a company/ firm/ individual or any other body duly formed and registered under the Relevant Act, hereinafter called MEMBER, having its registered office at,

And

....., a company / firm / individual or any other body duly formed and registered under the Relevant Act, hereinafter called CLIENT, having its registered office address at

WHEREAS the MEMBER is registered with the INDIAN ENERGY EXCHANGE LIMITED (hereinafter called IEX) as Trader Member,

AND WHEREAS the CLIENT being desirous of executing contracts transacted on the platform of the IEX as defined in the Rules, Bye – laws and Business Rules of the IEX through the MEMBER has accordingly made an application with the MEMBER for registration,

AND WHEREAS the MEMBER has satisfied and shall continue to satisfy itself about the genuineness and financial soundness of the CLIENT for transacting contracts and achieving objectives relevant to the services to be provided.

AND WHEREAS the CLIENT has satisfied and shall continue to satisfy itself of the capability of the MEMBER to deal in the contracts transacted on the platform of the IEX before transacting any contracts through the MEMBER.

AND WHEREAS the MEMBER has taken steps and shall continue to take steps to make the CLIENT aware of the precise nature of the liability of the IEX and the MEMBER for the contracts to be transacted, including the limitations on that liability and the capacity in which the MEMBER acts and the MEMBER has accordingly brought the contents of the Risk Disclosure Document to the notice of the CLIENT and has explained to the CLIENT the significance of the said document.

NOW THEREFORE, in consideration of the mutual understanding arrived at, the parties thereto have agreed to the terms and conditions, as follows:

Obligations of MEMBER

1. The MEMBER shall keep money deposited by the CLIENT in a separate account, distinct from its own account or account of any other person and shall not use such money for any purpose other than the purpose of settlement of the contracts transacted by the CLIENT.
2. The MEMBER shall not charge brokerage exceeding the brokerage, if any, fixed under the Rules, Bye –laws, Business Rules or Circulars of the IEX.

3. The MEMBER shall not, without the concurrence of the CLIENT, disclose to any person or authority, except as specifically required under any law for the time being in force or to meet any regulatory requirement, any information pertaining to the CLIENT contained in the client registration form or any other information furnished by the CLIENT to the MEMBER in confidence from time to time.

Obligations of CLIENT

4. The CLIENT shall abide by the provisions of the Electricity Act, 2003, Grid Code, Rules and Regulations made thereunder or any other applicable Act or Rules or Regulations made under such Act.
5. The CLIENT shall be bound by the Rules, Bye-Laws, Business Rules, and Circulars of the IEX.
6. The failure, if any, of the CLIENT to understand the risks involved in the contracts transacted on the platform of the IEX as contained in the Risk Disclosure Document or otherwise, shall not render a contract transacted as void or voidable at the option of the CLIENT and the CLIENT is and shall continue to be responsible for all the risks and consequences for transacting such contracts, whether transacted by it or its duly authorised representative.
7. The CLIENT shall pay to the MEMBER brokerage and statutory levies as applicable from time to time for the contracts transacted through the MEMBER and for the services rendered by the MEMBER to the CLIENT.
8. The CLIENT shall deposit with the MEMBER such money as may be required to open and/or maintain account or maintain any position.
9. The CLIENT shall notify to the MEMBER in writing any change in the information disclosed in the 'client registration form' submitted at the time of opening of the account or any time thereafter.

General

10. This agreement may be terminated at any time by mutual consent of the parties or by giving notice of at least one month by one party to the other party of its intention to terminate this agreement:

Provided that termination shall not have any effect on the contracts transacted before the date of termination and the parties shall be subject to same rights and obligations in respect of such contracts as in force on the date of their transaction.

11. In the event of the death or insolvency of the CLIENT or its otherwise becoming incapable of receiving and paying for the contracts which the CLIENT has transacted or delivering or transferring the contracts transacted, the MEMBER may, with the prior approval of the IEX, close out the transactions of the CLIENT and the CLIENT or its legal representative shall be liable for any losses, costs and be entitled to any surplus resulting from such closing out.

12. All contracts, transacted shall be subject to the Rules, Bye-laws, Business Rules and Circulars of the IEX and shall be deemed to have taken effect as wholly made, entered into and to be performed in the city of New Delhi.

13. Unless otherwise agreed to by the parties, the courts at New Delhi shall have the jurisdiction over all matters arising under this agreement.

Provided that where the Exchange is party to any proceeding, the courts at New Delhi shall have the exclusive jurisdiction.

14. All claims, differences and disputes arising between the parties to this agreement arising out of or under this agreement shall be settled through arbitration conducted under the Rules, Bye-laws, Business Rules and Circulars of the IEX.

In WITNESS THEREOF, the parties to agreement have caused these presents to be executed as of the day and year first above written.

SIGNED for and on behalf of

THE Member

By

Signature

Title

Witness

.....
.....

THE Client

By

Signature

Title

Witness

Member - Client Agreement(Between a Professional Member and the Client)

This agreement is made at New Delhi on this day of.....20.....

By and Between

....., a company/ firm/ individual or any other body duly formed and registered under the Relevant Act, hereinafter called MEMBER, having its registered office at

And

....., a company / firm / individual or any other body duly formed and registered under the Relevant Act, hereinafter called CLIENT, having its registered office address at

WHEREAS the MEMBER is registered with the INDIAN ENERGY EXCHANGE LIMITED (hereinafter called IEX) as Professional Member,

AND WHEREAS the CLIENT being desirous of executing contracts transacted on the platform of the IEX as defined in the Rules, Bye-laws and Business Rules of the IEX through the MEMBER has accordingly made an application with the MEMBER for registration,

AND WHEREAS the MEMBER has satisfied and shall continue to satisfy himself about the genuineness and financial soundness of the CLIENT for transacting the Contracts and achieving objectives relevant to the services to be provided.

AND WHEREAS the CLIENT has satisfied and shall continue to satisfy himself of the capability of the MEMBER to deal in the Contracts transacted on the IEX through the MEMBER.

AND WHEREAS the MEMBER has taken steps and shall continue to take steps to make the CLIENT aware of the precise nature of the liability of the IEX and the MEMBER for the Contracts to be transacted, including the limitations on that liability and the capacity in which the MEMBER acts and the MEMBER has accordingly brought the contents of the Risk Disclosure Document to the notice of the CLIENT and has explained to the CLIENT the significance of the said document.

NOW THEREFORE, in consideration of the mutual understanding arrived at, the parties thereto have agreed to the terms and conditions, as follows:

Obligations of MEMBER

1. The MEMBER shall not collect any money deposited from the CLIENT in respect of the Contracts transacted on the Exchange:

Provided that wherever the MEMBER collects any money from the CLIENT, the MEMBER shall keep the money collected from the CLIENT in a separate account, distinct from his own account or account of any other person and shall not use such money for any purpose other than the purpose of settlement of the Contracts transacted by the CLIENT.

2. The MEMBER shall not charge brokerage exceeding the brokerage, if any, fixed under the Rules, Bye-laws, Business Rules or Circulars of the IEX.
3. The MEMBER shall not, without the concurrence of the CLIENT, disclose to any person or authority, except as specifically required under any law for the time being in force or to meet any regulatory requirement, any information pertaining to the CLIENT contained in the client registration form or any other information furnished by the CLIENT to the MEMBER in confidence from time to time.

Obligations of CLIENT

4. The CLIENT shall abide by the provisions of the Electricity Act, 2003, Grid Code, Rules and Regulations made thereunder or any other applicable Act or Rules or Regulations made under such Act.
 - a. The CLIENT shall be bound by the Rules, Bye-laws, Business Rules, and Circulars of the IEX.
 - b. The failure, if any, of the CLIENT to understand the risks involved in the Contracts transacted on the IEX as contained in the Risk Disclosure Document or otherwise, shall not render any Contract transacted as void or voidable at the option of the CLIENT and the CLIENT is and shall continue to be responsible for all the risks and consequences for transacting such Contracts, whether transacted by him or his duly authorised representative.
 - c. The CLIENT shall pay to the MEMBER brokerage and statutory levies as applicable from time to time for the Contracts transacted through the MEMBER and for the services rendered by the MEMBER to the CLIENT.
 - d. The CLIENT shall deposit with the MEMBER such money as may be required to open and/or maintain account or maintain any position in accordance with the Power Market Regulations.
 - e. The CLIENT shall notify to the MEMBER in writing any change in the information disclosed in the 'client registration form' submitted at the time of opening of the account or any time thereafter.

General

- f. This agreement may be terminated at any time by mutual consent of the parties or by giving notice of at least one month by one party to the other party of its intention to terminate this agreement:

Provided that termination shall not have any effect on the Contracts transacted before the date of termination and the parties shall be subject to same rights and obligations in respect of such Contracts as in force on the date of their transaction.

- g. In the event of the death or insolvency of the CLIENT or its otherwise becoming incapable of receiving and paying for the Contracts which the CLIENT has transacted or delivering or transferring the Contracts transacted, the MEMBER may, with the prior approval of the IEX, close out the transactions of the CLIENT and the CLIENT or its legal representative shall be liable for any losses, costs and be entitled to any surplus resulting from such closing out.

- h. All Contracts transacted on the Exchange shall be subject to the Rules, Bye-laws, Business Rules and Circulars of the IEX and shall be deemed to have taken effect as wholly made, entered into and to be performed in the city of New Delhi.
- i. Unless otherwise agreed to by the parties, the courts at Delhi/New Delhi shall have the jurisdiction over all matters arising under this agreement:

Provided that where the Exchange is party to any proceeding, the courts at Delhi/New Delhi shall have the exclusive jurisdiction.

- j. All claims, differences and disputes arising between the parties to this agreement arising out of or under this agreement shall be settled through arbitration conducted under the Rules, Bye-laws, Business Rules and Circulars of the IEX.

In WITNESS THEREOF, the parties to agreement have caused these presents to be executed as of the day and year first above written.

SIGNED for and on behalf of

THE Member

By

Signature

Title

Witness

¹

THE Client

By

Signature

Title

Witness

Annexure - IIC

¹Details to be given include Name of Member, Membership Registration No and Address

Undertaking by and on behalf of the Client of a Professional Member

This undertaking is given at New Delhi on this day of.....20.....

By

....., a company / firm / individual or any other body duly formed and registered under the Relevant Act, hereinafter called CLIENT, having its registered office address at

WHEREAS the CLIENT being desirous of transacting the Contracts on the platform of the Indian Energy Exchange Ltd, hereinafter called the EXCHANGE as defined in the Rules, Bye-laws and Business Rules of the EXCHANGE through -----, admitted as the Professional Member of the EXCHANGE, hereinafter called PROFESSIONAL MEMBER and made an application with the PROFESSIONAL MEMBER for registration as the CLIENT.

AND WHEREAS the CLIENT based on the application made by him has been registered with the PROFESSIONAL MEMBER.

AND WHEREAS the CLIENT is aware that the Central Electricity Regulatory Commission has decided that the Professional Members shall not provide any credit or financing or working capital facility to their Clients.

AND WHEREAS In view of the above decision of the Central Electricity Regulatory Commission, the CLIENT has approached the EXCHANGE to permit it to transact the Contracts admitted on the EXCHANGE in compliance with the decision.

AND WHEREAS the PROFESSIONAL MEMBER has taken steps to make the CLIENT aware of the precise nature of the liability of the EXCHANGE for the Contracts to be transacted, and the MEMBER has accordingly brought the contents of the Risk Disclosure Document to the notice of the CLIENT and has explained to the CLIENT the significance of the said document.

AND WHEREAS the EXCHANGE has permitted the CLIENT to transact the Contracts admitted on the EXCHANGE on the condition that the CLIENT opens the Settlement Account and other accounts as required under the Bye-laws, Rules and Business Rules of the EXCHANGE individually in its own name and make all payments directly to the EXCHANGE.

NOW THEREFORE, the CLIENT undertakes and agrees to abide the following terms and conditions, namely:

1. The CLIENT shall transact the Contracts admitted on the EXCHANGE on opening the Settlement Account and other accounts as required under the Bye-laws, Rules and Business Rules of the EXCHANGE individually in its own name and make all payments directly to the EXCHANGE.
2. The CLIENT shall open and/or maintain Settlement Account and any other account as may be required under the Bye-laws, Rules and Business Rules of the EXCHANGE and deposit such margin or money as may be required to maintain any position to be able to transact the Contracts admitted on the Exchange.

3. The CLIENT shall indemnify the Exchange and keep the Exchange indemnified against loss caused to the Exchange on account of default of the CLIENT under the Bye-laws, Rules, Business Rules, clarification, directive, circular or notice of the Exchange.
4. The CLIENT shall pay all costs and expenses including taxes, levies, fees prescribed by the EXCHANGE from time to time, within due date as indicated by the EXCHANGE and in case of non-payment by due date the EXCHANGE shall be at liberty to recover the dues in any manner as it considers appropriate and without demur or objection from the CLIENT. The CLIENT undertakes to indemnify the EXCHANGE against any loss arising in account of non-payment or delay in payment of the dues of the EXCHANGE by the CLIENT.
5. The failure, if any, of the CLIENT to understand the risks involved in the Contracts transacted on the EXCHANGE as contained in the Risk Disclosure Document explained to him by the PROFESSIONAL MEMBER or otherwise, shall not render any Contract transacted by him as void or voidable at the option of the CLIENT and the CLIENT is and shall continue to be responsible for all the risks and consequences for transacting such Contracts.
6. The CLIENT shall notify to the EXCHANGE and the PROFESSIONAL MEMBER in writing any change in the information submitted at the time of opening of the account or any time thereafter.
7. This agreement shall stand terminated on the CLIENT ceasing to be the Client of the PROFESSIONAL MEMBER.
8. In the event of the death or insolvency of the CLIENT or its otherwise becoming incapable of receiving and paying for the Contracts which the CLIENT has transacted or delivering or transferring the Contracts transacted, the EXCHANGE may close out the transactions of the CLIENT and the CLIENT or its legal representative shall be liable for any losses, costs and be entitled to any surplus resulting from such closing out.
9. All Contracts transacted on the Exchange shall be subject to the Rules, Bye-laws, Business Rules and Circulars of the IEX and shall be deemed to have taken effect as wholly made, entered into and to be performed in the city of New Delhi.

SIGNED for and on behalf of

The Client

By

Signature

Designation/Title

Witness

Witness

Client – Registration Form (Client to Member)

2

Dear Sir,

We request you to register us as your client. The details of Registration are as under:

Client Category: **A:** **Grid Connected Client** **B:** **Trader Client**

1	Name of the Applicant (Full)	
2	Registered Office Address City: State: Pin code: Telephone No.: Fax No: (with STD Code): Email: Name of the contact person(s): Mobile No.:	
3	Address for Correspondence City: State: Pin code: Telephone No.: Fax No: (with STD Code): Email: Name of the contact person(s): Mobile No.:	
4	(A) Grid Connected Client Details I. Grid Connection details : a) Maximum Capacity to Inject b) Maximum Capacity of Drawl	

²Details to be given include Name of Member, Membership Registration No and Address

	<p>c) Voltage Level</p> <p>d) Point of Connection (Name of EHV station of ISTS/InSTS)</p> <p>e) Single Line Diagram of Point of Connection (enclosed)</p> <p>f) If applicant is embedded in DISCOM</p> <ul style="list-style-type: none"> • Name of DISCOM • State <p>g) In case of Open Access Standing Clearance</p> <ul style="list-style-type: none"> • Open Access Permission Valid upto (Copy Enclosed) <p>II. Copy of Power Purchase/Sale Agreement</p>	<p>Yes <input type="checkbox"/> <input type="checkbox"/></p>
	<p>(B) Trader Client Details</p> <p>I. Entity on whose behalf power is being purchased/sold</p> <p>II. Grid Connection details :</p> <p>a) Maximum Capacity to Inject</p> <p>b) Maximum Capacity of Drawl</p> <p>c) Voltage Level</p> <p>d) Point of Connection (Name of EHV station of ISTS/InSTS)</p> <p>e) Single Line Diagram of Point of Connection (enclosed)</p> <p>f) If applicant is embedded in DISCOM</p> <ul style="list-style-type: none"> • Name of DISCOM • State <p>g) In case of Open Access Standing Clearance</p> <ul style="list-style-type: none"> • Open Access Permission Valid upto (Copy Enclosed) <p>III. Copy of Power Purchase/Sale Agreement</p>	<p>Yes <input type="checkbox"/> <input type="checkbox"/></p>
5	Nationality	
6	Constitution	Individual/Registered Partnership Firm/Private Ltd Co./HUF/Public Ltd Co/Institution/PSU/Others
7	Date of Incorporation/Registration	
8	Income Tax Permanent Account No.	
9	<p>Details of your Existing Bank Name and Branch Address:</p> <p>Account No:</p> <p>Account is Operational since:</p>	

10	Present Business/Occupation	
11	Present Net worth	Rslakh as on
12	Name of your Authorized Person(s), w shall be responsible to the Exchange ensure compliance of different provisio of the law and procedures	

The information furnished above is true to the best of my knowledge and belief.

I undertake to inform changes in any of the above details in writing immediately to the member and to the Exchange.

I enter into agreement to abide by all the terms and conditions of the Exchange and further undertake that to and for the benefit of the Exchange, I shall be bound by the Bye-Laws, Rules and Business Rules of the Exchange, as amended from time to time, and further understand and agree that my registration with the Exchange shall be terminated if I fail to comply with any of these Bye-Laws, Rules and Business Rules, as amended or my Member's membership is cancelled or terminated for any reason.

Date:

Place:

Authorized Signatories:

Signature(s):

(Names of the signatories)

.....
 (Designation of the signatories)

Affix photograph
and sign across
the photograph

Affix photograph
and sign across
the photograph

For Office Purpose (To be completed, signed and authorized by the member)

Client Code:

Verified by: Authorized by:
(Name) (Name)

Documents to be submitted along with Client Registration Form

- a. Certified true copy of the Latest Annual Report/Auditors Report.
- b. Certified true Copy of PAN card of the applicant
- c. In case of Corporates:-
 - Board Resolution seeking membership of the Exchange and for appointment of authorized signatories and authorized persons,
 - Certified copy of Memorandum and Articles of Association (**The company should include the business of Buying/Selling or Trading of Electricity**)
- d. In case of a Partnership firm:-
 - Certified true copy of Firm Registration Certificate
 - Certified true copy of Registered Partnership Agreement, undertaking from all partners authorizing the Managing Partner
- e. Proof of Address
- f. Certified true copy of Trading License (applicable for Trade Client)
- g. Certified true copy of Standing Clearance from respective SLDC/RLDC in the prescribed format

Client – Registration Form (Member to Exchange)

To

Indian Energy Exchange Limited,
 Fourth Floor, Plot No.7, TDI Center,
 District Center, Jasola,
 New Delhi 110 025

Dear Sir,

We request you to register the following entity as our client. The details of Registration are as under:

Client Category: **A:** **Grid Connected Client** **B:** **Trader Client**

1	Name of the Client (Full)	
2	Office Address City: State: Pin code: Telephone No.: Fax No: (with STD Code): Email: Name of the contact person(s): Mobile No.:	
3	(A) Grid Connected Client Details I. Grid Connection details : a) Maximum Capacity to Inject b) Maximum Capacity of Drawl c) Voltage Level d) Point of Connection (Name of EHV station of ISTS/InSTS) e) Single Line Diagram of Point of Connection (enclosed) f) If applicant is embedded in DISCOM <ul style="list-style-type: none"> • Name of DISCOM • State g) In case of Standing Clearance <ul style="list-style-type: none"> • Standing Clearance valid upto (Copy Enclosed) 	Yes <input type="checkbox"/> <input type="checkbox"/>
	(C) Trader Client Details III. Entity on whose behalf power is being purchased/sold	

	IV. Grid Connection details : a) Maximum Capacity to Inject b) Maximum Capacity of Drawl c) Voltage Level d) Point of Connection (Name of EHV station of ISTS/InSTS) e) Single Line Diagram of Point of Connection (enclosed) f) If applicant is embedded in DISCOM <ul style="list-style-type: none"> • Name of DISCOM • State g) In case of Open Access Standing Clearance <ul style="list-style-type: none"> • Open Access Permission Valid upto (Copy Enclosed) IV. Copy of Power Purchase/Sale Agreement	Yes <input type="checkbox"/> <input type="checkbox"/>
4	Nationality	
5	Constitution	Individual/Registered Partnership Firm/Private Ltd Co./HUF/Public Ltd Co/Institution/PSU/Others
6	Date of Incorporation/Registration	
7	Income Tax Permanent Account No.	

The information furnished above is true to the best of my knowledge and belief.

I undertake to inform changes in any of the above in writing immediately to the exchange and further undertake that to and for the benefit of the Exchange, I shall be bound by the Bye-Laws, Rules and Business Rules of the Exchange, as amended from time to time, and shall maintain with the Exchange details of an individual whom the Exchange may contact in connection with any matter whatsoever relating to my activities, and further understand and agree that my registration with the Exchange shall be terminated if I fail to comply with any of these Bye-Laws, Rules and Business Rules, as amended or the membership is cancelled or terminated for any reason.

Date:

Place:

Signature:

(Name of the Authorised signatory)

(Designation of the Authorised signatory)

Enclosure:

1. Copy of Standing Clearance from SLDC/RLDC
2. Copy of Power Purchase/Sale Agreement (For Trader Client Only)
3. Single Line Diagram of Point of Connection

Risk Disclosure Document

[THIS DOCUMENT SHOULD BE READ BY EACH AND EVERY PROSPECTIVE CLIENT BEFORE ENTERING INTO MEMBER-CLIENT AGREEMENT AND SHOULD BE READ IN CONJUNCTION WITH THE RULES, BYE_LAWS AND BUSINESS RULES OF INDIAN ENERGY EXCHANGE LIMITED (IEX)]

IEX has not passed the merits of participating on the Exchange but has passed the adequacy or accuracy of this disclosure document. This brief statement does not disclose all of the risks and other significant aspects of trading. In light of the risks, the CLIENT should undertake such transactions only if it understands the nature of the contracts (and contractual relationships) into which the CLIENT is entering and the extent of the CLIENT's exposure to risk. The CLIENT should carefully consider whether trading is appropriate for it in light of his experience, objectives, financial resources and other relevant circumstances. Trading requires not only the necessary financial resources but also adequate knowledge of Electricity Act 2003, Energy Conservation Act 2001, Rules and Regulations including but not limited to OA Regulations, Grid Code, Power Market Regulation, REC Regulation and ESCerts Regulations. In case of any adverse consequences or loss resulting from execution of contracts, the IEX or any regulatory authority shall not be responsible and it will not be open for any CLIENT to take the plea that no adequate disclosure was made or it was not explained the full risk involved by the MEMBER. The CLIENT will be solely responsible for the consequences and no contract can be rescinded on that account. The CLIENT must ask the MEMBER of the IEX to provide full details of the contract i.e., the contract specifications and the associated obligations.

Deposited cash and property

The CLIENT should familiarize itself with the protections accorded to the money or other property it deposits particularly in the event of a firm insolvency or bankruptcy. The extent to which the CLIENT may recover its money or property may be governed by specific legislation or local rules. In some jurisdictions, property, which has been specifically identifiable as the CLIENT's own, will be pro-rated in the same manner as cash for purposes of distribution in the event of a shortfall. In case of any dispute with the MEMBER, the same shall be subject to arbitration as per the Rules, Bye-Laws and Business Rules and Circulars of the IEX.

Commission and other charges

Before the CLIENT begins to trade, it should obtain a clear explanation of all commission, fees and other charges for which it will be liable. These charges will affect the CLIENT's net profit (if any) or will increase its loss.

Trading facilities

The IEX offers electronic trading facilities, which are computer-based systems for order-routing, execution, matching, registration or clearing of contracts. As with all facilities and systems, they are vulnerable to temporary disruption or failure. The CLIENT's ability to recover certain losses may be subject to limits on liability imposed by the system provider, the market, and/or the MEMBER of the IEX. Such limits may vary; the CLIENT should ask the MEMBER with which it deals for details in this respect.

This document does not disclose all of the risks and other significant aspects involved in participation on an electricity/REC market/ESCerts market at the platform of IEX. The CLIENT should therefore study all aspects of participation in electricity/REC contracts/ESCerts contracts carefully before becoming involved in it. The CLIENT hereby acknowledges that he has received and understood this risk disclosure statement.

Client's Signature (If Partner, Corporate, or other Signatory, then attest with company seal.)

Date :.....(DD-MM-YYYY)

Contract Note

Tel. no..... Fax no.

(Subject to exclusive jurisdiction of the courts in New Delhi only)

Name of the
Member.....

Authorized Signatory

Dealing Office address/ Tel no. / Fax no.

Name of the Member

Address of the Member

To, Client Name/ Code No./ Order Ref. No. Sir/
Madam, I/ We have this day done by order and on
your account the following transactions:

Contract No:.....

To be stamped as per the provisions applicable under the relevant Stamp Act

Date:

Order No.	Trade No.	Trade Time	Contract	Bought for you				Amount (Rs.)	Sold for you					
				Quantity	Price	Value (Rs.)	Brokerage (Total)		Contract	Quantity	Price (Rs.)	Value	Brokerage (Total)	Amount (Rs.)

OTHER LEVIES, IF ANY:

Brokerage has been charged as stated and has been at rates not exceeding the official scale of brokerage and indicated separately.

This contract is subject to the Rules, Bye- Laws and Regulations and usages of Indian Energy Exchange Limited, New Delhi.

Yours faithfully

Date:For.....

Authorized Signatory

EXTRACTS FROM THE BYE-LAWS & BUSINESS RULES TO ARBITRATION

All claims, differences or disputes between the TCMs inter se and between TCMs and Clients arising out of or in relation to dealings, contracts and transactions made subject to the Bye-Laws, Rules and Business Rules of the Exchange or with reference to anything incidental thereto or in pursuance thereof or relating to their validity, construction, interpretation, fulfillment or the rights, obligations and liabilities of the parties thereto and including any question of whether such dealings, transactions and contracts have been entered into or not shall be submitted to arbitration in accordance with the provisions of these Bye-Laws.

In all dealings, contracts and transactions, which are made or deemed to be made subject to the Bye-Laws, Rules and Business Rules of the Exchange, the provisions relating to arbitration as provided in these Bye-Laws and Business Rules shall form and shall be deemed to form part of the dealings, contracts and transactions and the parties shall be deemed to have entered into an arbitration agreement in writing by which all claims, differences or disputes of the nature referred to in clause (1) above shall be submitted to arbitration as per the provisions of these Bye-Laws and Business Rules.

All claims, differences or disputes referred to in clause (1) above shall be submitted to arbitration within six months from the date on which the claim, difference or dispute arose or shall be deemed to have arisen. The time taken in conciliation proceedings, if any, initiated and conducted as per the provisions of the Act and the time taken by the Relevant Authority to administratively resolve the claims, differences or disputes shall be excluded for the purpose of determining the period of six months.

Save as otherwise specified by the Exchange, the seat of ARBITRATION shall be at New Delhi.

(For more details please refer the Bye-Laws of INDIAN ENERGY EXCHANGE LIMITED.)

Letter from Member authorizing IEX for making transactions on his behalf

(To be submitted on Member's letter head)

Date:

To,

The Clearing and Settlement Department
Indian Energy Exchange Ltd.
Fourth Floor, Plot No.7, TDI Center,
District Center, Jasola,
New Delhi 110 025
Fax no.: 011 – 43004015

Dear Sir,

Sub.:Order execution

We are not able to place any order in the Trader Workstation due to the following reason:

- a. Connectivity failure
- b. Power failure
- c. Deactivation / Suspension.
- d. Any Other

It is, therefore, requested that you may please do the order entry in the system on our behalf, as detailed below, for which we will be responsible for clearing and settlement.

Thanking you.

Yours faithfully

For

Authorized Signatory

Multi-Protocol Label Switching (MPLS) Undertaking

On Company's letterhead

Undertaking

I/we _____ do hereby undertake the following:

1. I/We agree that the circuit will be used purely for IEX trading purpose only.
2. I/We agree that this circuit will not be interconnected to any of the Leased Line/ Data Circuit/ Network/ PSTN/EPABX etc of BSNL or any other service providers which is not permitted by the rules of Telegraph Authority/BSNL. I/We further agree to extend facility to the Telegraph authority/BSNL in order to enable monitoring of the purpose, performance and operation of the circuit, as and when required.
3. I/we hereby agree to abide by the provisions of Indian Telegraph Rules in force and as modified from time to time and such other terms and conditions prescribed by the telegraph Authority/BSNL.
4. I/We agree that necessary charges for registration/installation/Advance annual rental/Arrears, if any will be paid to the controlling/billing authority of BSNL & IEX, as and when we receive demand note/advice from BSNL/IEX and when such charges become due.
5. I/We agree that I/We shall pay the cancellation charges and other expenses incurred to establish the circuit as requested by me/us that may become payable, in the event of cancellation of the application/closure of the circuit at a later date.
6. I/We do hereby agree to indemnify the Govt. of India/ DoT/ BSNL and keep them indemnified against any loss damage claim, cost, charges, expenditure incurred by or made against them in respect of loss of rent/ call charges, violation of C.U.G. norms due to misuse of the circuit or otherwise whatsoever in the matter.
7. In case BSNL provides us MLLN modems, it will be our responsibility to maintain the same safely. In case of any physical damage or theft we will bear the charges specified by BSNL.

Stamp & Signature of the Authorized Signatory

Date:

Place:

Monthly Report on Member Service Charge (REC Market)

VOLUME AND PRICE OF REC TRADED BY PROFESSIONAL MEMBERS OF IEX

Name of the Member:

Date of Transaction	Portfolio Name	Portfolio No.	No. of RECs Buy/Sale	Member Service Charge_Total (Rs.)	Remarks	Invoice Date	Invoice No.

- Note: (1) Data shall be submitted transaction-wise and should not be aggregated.
- Note: (2) Data shall be submitted on a monthly basis by 10th of the following month to the IEX
- Note: (3) Data shall be submitted to the IEX i.e. soft copy in an Excel Sheet by E-mail:
- Note: (4) Member service charges shall also include charges of any subordinate service provider.

Annexure XI

Monthly Report on Member Service Charge (ESCerts Market)

VOLUME AND PRICE OF ESCerts TRADED BY PROFESSIONAL MEMBERS OF IEX

Name of the Member:							
Date of Transaction	Portfolio Name	Portfolio No.	No. of ESCerts Buy/Sale	Member Service Charge_Total (Rs.)	Remarks	Invoice Date	Invoice No.

Note: (1) Data shall be submitted transaction-wise and should not be aggregated.
 Note: (2) Data shall be submitted on a monthly basis by 10th of the following month to the IEX
 Note: (3) Data shall be submitted to the IEX i.e. soft copy in an Excel Sheet by E-mail:
 Note: (4) Member service charges shall also include charges of any subordinate service provider.

SCHEDULES

DRAFT

SCHEDULE A - DAY-AHEAD MARKET (DAM) SEGMENT

This market segment will cover Contracts for one-day delivery period on day-ahead basis which will be matched through closed double-sided auction. Congestion on transmission network will be managed through implicit auction or market splitting. The contracts concluded in this segment are scheduled in accordance with the procedures issued by CTU for 'Scheduling of Collective Transactions'. All terms and conditions of the contracts including trading sessions, matching rules, margin requirement and delivery procedure etc, will be as per specific rules mentioned herein.

1. Trading Days

The Exchange shall operate Day-Ahead Market segment on all days except Exchange specified holidays.

2. Trading hours

The Exchange will have trading sessions for all trading days as under:

Session	Market Type	Monday to Sunday
I	Day ahead Contracts	10.00 am to 12.00 noon

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

3. Contract specifications: The contract specification shall be as per **Annexure A1** to this Schedule.

4. Delivery Point: Delivery point shall be the seam 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 seams 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 CTU.

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.

5. Order management

5.1 Order types

The Exchange Members will be able to submit the following types of orders:

- a. **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.
- b. **Block bid:** Block bid will specify one price and one quantity for a combination of continuous 15 minute³time 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.
- c. **Other bids:** The Exchange shall introduce other types of bids viz. flexi bid as per the requirement of the market. Details of such other possible bids shall be notified by the Exchange from time to time.

6. 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:

- a. **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, as amended from time to time.
- b. **Transmission losses:** Buyers and Sellers shall be required to pay in kind for the transmission losses for their respective Regional and State transmission systems. These losses shall be as declared by the RLDCs / SLDCs and additional losses if any as declared by NLDC. The requisition submitted by the Exchange would be based on the trade schedule and would not reflect losses. The schedules issued by NLDC/RLDCs/SLDCs shall reflect the losses.
- c. **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 CTU for 'Scheduling of Collective Transactions'. Such charges shall be recovered by the Exchange and socialized amongst all Buyers and Sellers.

7. Modification and cancellation of orders

A Member shall be permitted to modify or cancel his orders, during the trading hours.

7.1 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.

8. Matching rules

³Time block for bidding in DAM Market segment has been modified from one hour to fifteen minutes with effect from 01st April, 2012

- 8.1 All Clients shall be assigned unique client ID / Portfolio ID as per Rules.
- 8.2 The Exchange may launch more than one order book running either parallel or at different time spans. Subject to the approval of the CERC, the Exchange is also entitled to modify or change the matching rules relevant to any market or order books any time where it is necessary to do so. The Exchange however will not run any Day-Ahead Auction for delivery on same day.
- 8.3 Without prejudice to the generality of the above, the order matching rules will have the following features. All purchase and sale bids shall be aggregated for tracing a demand supply curve. The bid and offer portfolio shall be assumed to be a sloping curve. The final traded quantity can be less than 10 MW also. Following rules shall be followed while aggregating the demand supply bids:
 - a. All purchase bids can have only non-increasing quantity for every increase in the bid price, and every sale bid will have only non-decreasing quantity for every increase in the bid price.
 - b. Bid and offer quantity shall be assumed to vary linearly between consecutive prices.

The meaning of phrase “Bid and offer quantity shall be assumed to vary linearly between consecutive prices” is as under:

“While submitting Single bids (purchase or sell), a Participant specifies various price quantity pairs. These pairs can be represented as points on a graph with Quantity and Price as its two axes. Points representing two consecutive prices are joined by straight line. It is presumed that all points in this line segment are individually representing various price quantity pairs.”

For working out solution, all purchase bids and all sell bids are aggregated to give a demand curve and a supply curve. The point at which these curves intersect gives the Market Clearing Price. Volume quoted by individual participants corresponding to this Market Clearing Price is allocated to them. The process is explained as under:

Consider the following bids:

(i) Buy Bids

Buy Bid -1				
Price(Rs/MWh)	0	4000	8000	20000
Quantity(MWh)	2000	2000	1000	500



Figure 1: Buy Bid-1

Buy Bid-2				
Price(Rs/MWh)	0	2000	6000	20000
Quantity(MWh)	1000	500	300	300

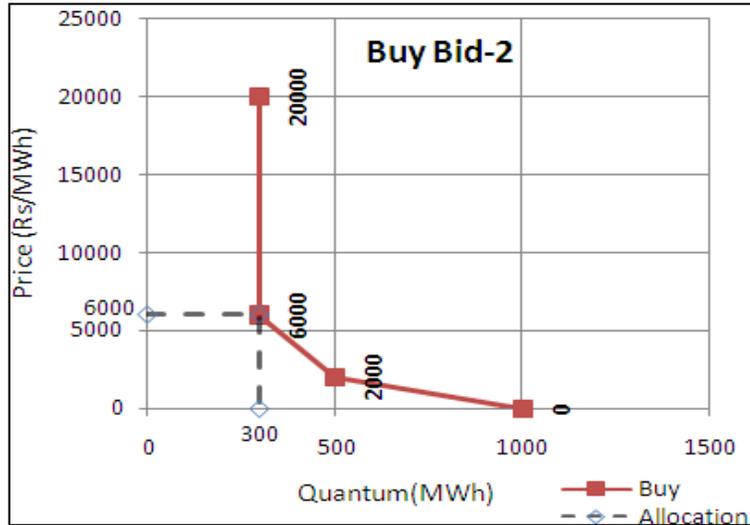


Figure 2: Buy Bid-2

(ii) Sell Bids

Sell Bid-1					
Price(Rs/MWh)	0	4000	6000	9000	20000
Quantity(MWh)	-0	-500	-1000	-1300	-1300

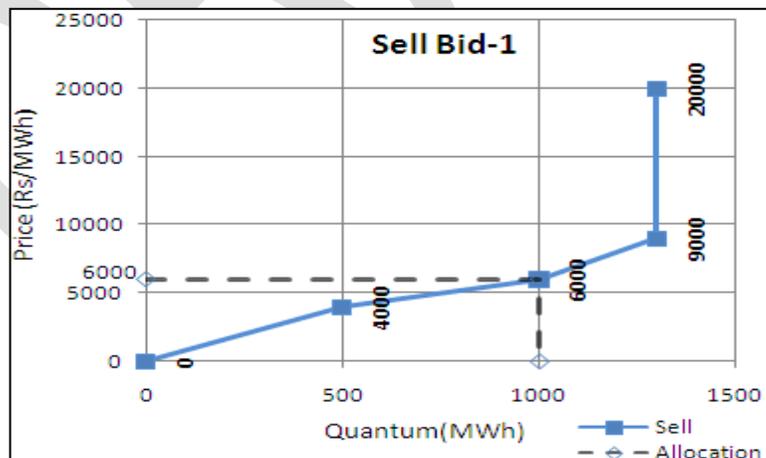


Figure 3: Sell Bid-1

Sell Bid-2				
Price(Rs/MWh)	0	3000	7000	20000
Quantity(MWh)	-0	-500	-900	-900

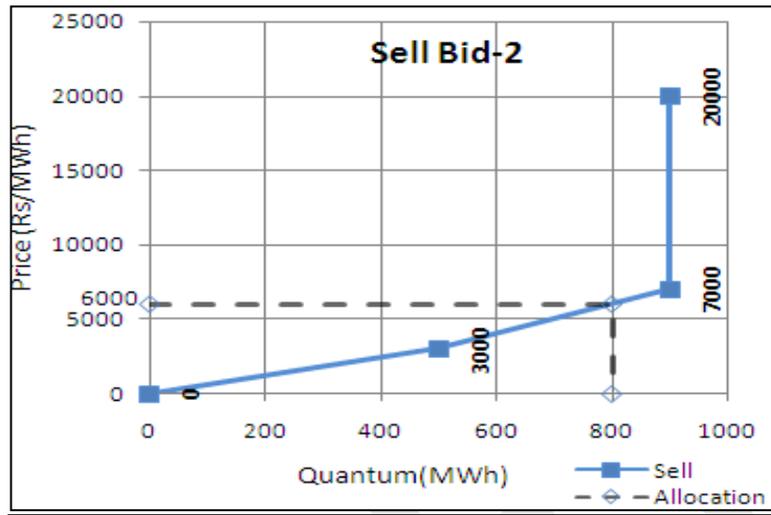


Figure 4: Sell Bid-2

(iii) **Aggregate Curves:** The aggregate curve of the above purchase and sell bids will then be:

Aggregate Buy Bid						
Price(Rs/MWh)	0	2000	4000	6000	8000	20000
Quantity(MWh)	3000	2500	2400	1800	1300	800

Aggregate Sell Bid							
Price(Rs/MWh)	0	3000	4000	6000	7000	9000	20000
Quantity(MWh)	0	975	1100	1800	2000	2200	2200

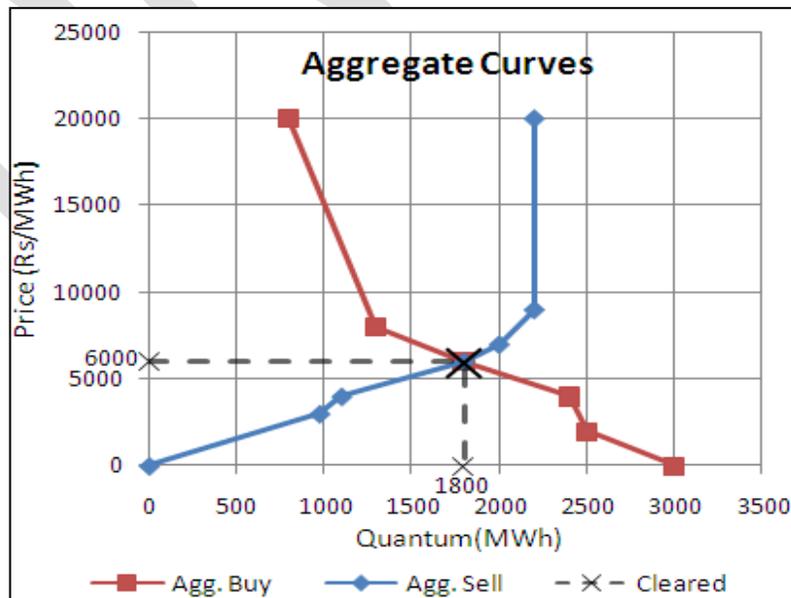


Figure 5: Aggregate Curves

In Buy Bid-2, the price tick corresponding to Rs 4000/MWh was not given but the same exists for Buy Bid-1. For Buy Bid-2, the straight line between price ticks Rs 2000/MWh and Rs 6000/MWh is negatively sloped. To calculate the aggregate buy bid, the quantity corresponding to the price Rs 4000/MWh is calculated using the equation of straight line through two points

Accordingly, the aggregate quantity at the price Rs 4000/MWh= 2400MWh
 In the similar manner, aggregate buy and sell curves are constructed. In the present example these aggregated curves cut each other at Rs 6000/MWh and the cleared volume is 1800MWh. Hence the volume corresponding to the price Rs 6000/MWh in the respective Buy and Sell bids shall be allocated to the respective buyers. In the present case, 1500MWh shall be allocated to buyer-1 and 300MW to buyer-2, whereas allocating 1000MWh to seller-1 and 800MWh to seller-1.

Accordingly the bidder will get quantity allocation, what he has quoted at the Market Clearing Price.

Aggregate supply and demand curves may intersect vertically while finding the solution. There is no possibility of a horizontal overlap. This is because a Single bid can never have two volumes at one price.

In cases of vertical overlap, midpoint of the overlapped section shall be considered as the ACP; however in case overlap starts right at the minimum price ('zero' has been set by the Exchange as minimum price minimum price (Zero) shall be considered as ACP.

For example, consider the following aggregate purchase and sale bids

Aggregate purchase bid:

Price(Rs/MWh)	0	2000	4000	5000	20000
Quantity(MWh)	400	300	300	200	0

Aggregate sell bid:

Price(Rs/MWh)	0	2000	3000	5000	20000
Quantity(MWh)	0	200	300	300	450

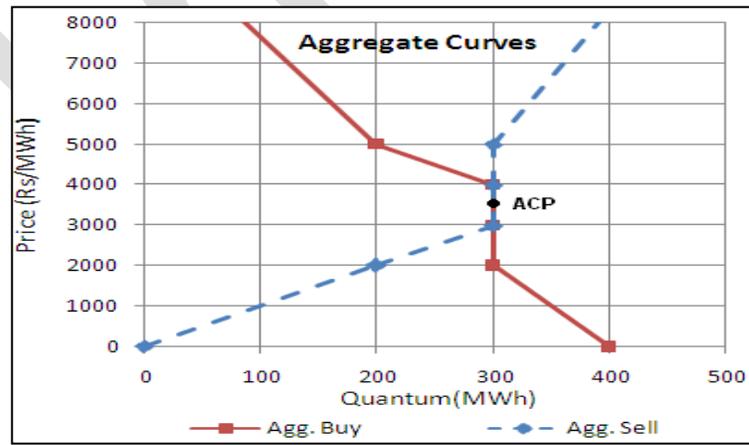


Figure 6: Aggregate Curves- Vertical Overlap

In the above case, the aggregate buy and sell curves overlap between the price range Rs 4000/MWh and Rs 3000/MWh. Midpoint of the overlap shall be considered as ACP, which is **Rs 3500/MWh**.

- c. For single bids Member and Client must indicate quantity to buy and sale at zero (minimum) and maximum prices, else the bid shall not be accepted.
- d. In case selection is to be made out of more than one similarly placed bid then, bid will be selected based on time priority of the bids submission.

Bid selection based on time priority, in case of similarly placed bids, shall be considered only for Block bids. Priority for Block bid selection is as stated below in order of priority:

- i. **Price**:- Most favorable price shall be given priority
- ii. **Volume** :- Block bid which maximizes the market volume is favored
- iii. **Time**:- Block bids submitted earlier attract priority

For example: Consider two block bids having the same price and quantity, submitted at different time periods, as shown in table below:

	Bid- hours	Price(Rs/MWh)	Qty(MW)	Time of bid submission
Block bid-1	B1022	4500	100	10:30:43
Block bid-2	B1022	4500	100	10:30:44

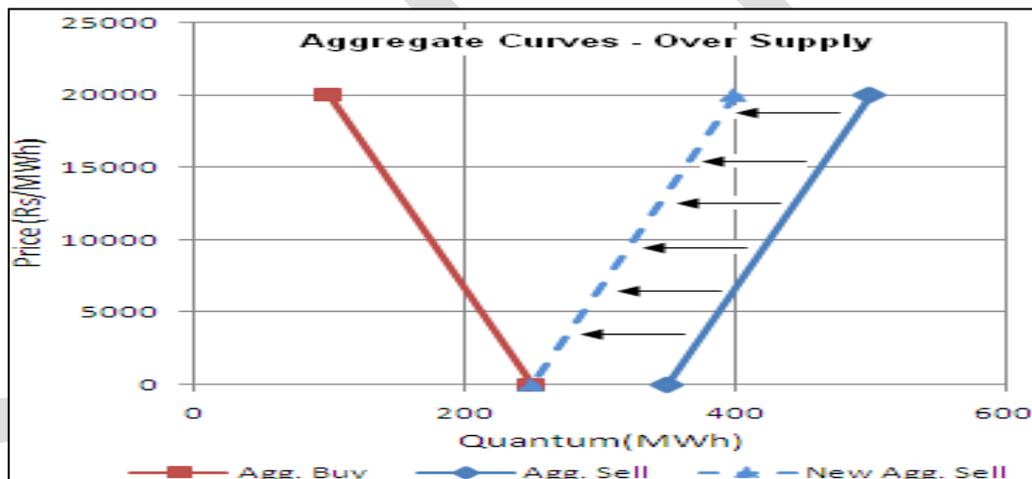
Block bid-1 will be selected, in case only one of the above two bids can be selected by applying the time preference criteria.

- e. All block bids shall be considered indivisible and they shall either be included or excluded in totality.
- f. Normal rounding off principle shall be applied upto two decimal points in price and quantity. When each Contract volume is rounded, the sum of rounded sale and rounded purchase will sometimes be not equal. The sales should always be equal to the purchase, hence the system will adjust the rounding off by allocating 1 (one) unit to the Contract volume having the highest value, and this process continues until the rounding deviation is eliminated.
- g. In case of transmission congestion, solution shall be worked out on the basis of market splitting. Decisions of the Exchange in this respect shall be binding on all parties concerned. The congestion revenue, which is the excess arising due to market splitting will be transferred to a separate account and shall be utilized as directed by the CERC.
- h. In case funds are insufficient in the Settlement Account of Member for the pay in, his order will be rejected. Decisions of the Exchange in this respect shall be final and binding on all parties and Members.
- i. The final MCP computed might be different from the provisional MCP or unconstrained MCP, as the case may be, due to transmission congestion or cancellation of bid due to insufficient funds in the Settlement Account of the Member/s. Final MCP shall be considered for settlement of successful trades.
- j. If the buy and sell curves do not cross each other between the price range defined by the Exchange, then in case of over supply, sell offers will be reduced

proportionately so that curves cross each other at minimum price and in case of over demand, purchase bids will be reduced proportionately so that curves cross each other at maximum price.

Over-Supply is a condition where aggregate sell volume is greater than aggregate purchase volume at the minimum price (set by the exchange); whereas Over-Demand is a condition when aggregate purchase volume is greater than aggregate sell volume (at the maximum price) set by the exchange.

In case of over-supply, as shown in figure below, where supply and demand curves does not intersect each other, the entire aggregated supply curve is shifted to the left so that both the curves intersect at the minimum. In the graph below, aggregate supply curve is shifted by 100MW to the left (from 350MW to 250MW at Rs0/MWh) so that both the curves now intersect at the minimum price point. Here the ACP would be Rs 0/MWh, being the point of intersection with modified supply curve. In such situation quantity is prorated amongst suppliers at minimum price. Therefore, in present case quantities quoted by all suppliers would be reduced by a factor of $(250/350)$, and this revised quantity would be allocated to individual supplier.



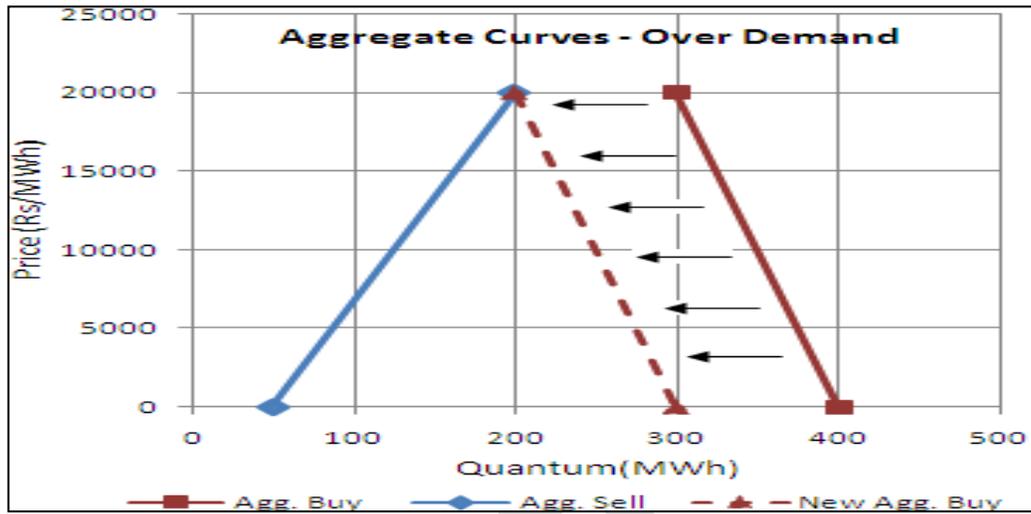


Figure 7: Over Supply and Over Demand Situation

Considering the other case as in graph which represents non-intersecting curves, when there is over-demand. In such situation the aggregated supply and demand curves are made to intersect at the maximum price point by shifting the demand curve to the left. In this case demand curve is shifted 100MW to the left so that now the curves intersect at the maximum price point, which is Rs 20000/MWh. The MCP in this case would be Rs. 20000/- and the quantity allocation amongst buyers at this price.

Pro rata allocation of quantum is done in such over-supply and over-demand cases. For example, take the case of over-demand as shown in the graph above. Consider that there are four sellers totaling 200MW and two buyers totaling 300MW at Rs20000/MWh; buyer-1 and buyer-2 contributing 100MW and 200MW respectively. All sellers would be selected whereas buyer-1 will get $(100 \times 200 / 300)$ MW and buyer-2 will get $(200 \times 200 / 300)$ MW. Similar prorated allocation shall be done to sellers, in case of over-supply.

- k. In some cases, a bid might be rejected by the system even though it would appear to be a valid bid. This can happen in a situation where inclusion of such bid and offer might result in change in MCP at which this bid cannot be accepted. Rejection of such bids is known as paradoxically rejected bids.

When block bid exclusion process is finished, it may have resulted in one or more block bids which appear to be rejected even though the bid price is more favorable than the average price. This type of rejection of a Block Bid is "Paradoxically rejected bids". The reason for rejection is that in case if the system accepts these bids, the average price of market changes in such a way that the block bids are no longer justified to be in. This may be both due to price as well as volume balancing

Example:

Consider the following single and block bids:

Block Bid (Sell):

	Bid- hours	Price(Rs/MWh)	Qty(MWh)
Block bid	From 02:00 To 04:00	3500	-50

Hour-3:

	Price	0	1999	2000	2999	3000	3999	4000	4999	5000	20000	ACP
Excluding Block Bid	Buy Qty	400	400	325	325	325	325	100	100	0	0	3999.11
	Sell Qty	-0	-0	-200	-200	-300	-300	-300	-300	-350	-350	
Including Block Bid	Buy Qty	400	400	325	325	325	325	100	100	0	0	2999.75
	Sell Qty	-50	-50	-250	-250	-350	-350	-350	-350	-400	-400	

Hour-4:

	Price	0	999	1000	2999	3000	4500	4501	4999	5000	20000	ACP
Excluding Block Bid	Buy Qty	400	400	300	300	300	300	100	100	0	0	4500.13
	Sell Qty	-0	-0	-150	-150	-275	-275	-275	-275	-350	-350	
Including Block Bid	Buy Qty	400	400	300	300	300	300	100	100	0	0	2999.80
	Sell Qty	-50	-50	-200	-200	-325	-325	-325	-325	-400	-400	

The quantity associated with Block bid, i.e. 50MW, is included in the calculation by adding 50MW at the zero price tick.

By including the Block bid, the ACP of hour-3 has dropped from Rs 3999.11/MWh to Rs. 2999.75/MWh. In hour-4, the ACP dropped from Rs. 4500.13/MWh to Rs 2999.80/MWh. The average ACP of hour-3 and hour-4 before inclusion of Block bid is Rs. 4249.62/MWh, and after inclusion is Rs. 2999.78/MWh. The Block bid order was placed at Rs. 3500/MWh, therefore if it is accommodated, fails to meet the criteria as the Block bid price is not better than the average ACP of the respective bid hours. On exclusion of the block bid, the price discovered in both the hours is higher than the Block bid's price, and therefore seems unjustified. Because of this paradox, in the final solution this bid is not selected although the results suggest that it should have been selected. Because of this paradox, such bid rejection is categorized as paradoxically rejected bids.

9. Margin requirements

- 9.1 Initial Deposit: The initial security deposit paid by a Member or the Client, as applicable, will be considered as his initial margin deposit, which shall be the minimum Margins required.
- 9.2 Additional Deposit: The Exchange on a daily basis will compute the minimum margin that should be available with the Member or the Client, as applicable, for start of trade.

This will be the average value of trades of respective Member for last seven (7) days (in case of new Members, it will be the total number of trading days if it is less than seven (7) days) of trading or the initial margins given to the Exchange by the Member. In case if the average value is more than the available initial margins with the Exchange, the Member or the Clients, as applicable, has to bring in the difference in the form of additional deposit. However, in case of abnormal increase in the expected obligations of a Member or the Client, as applicable, the Exchange can demand additional deposit from that Member or the Client, as applicable,. Decisions of the Exchange in this respect, shall be binding on the Member and other parties.

- 9.3 Refund of Additional Deposit: If there is a surplus deposit lying with the Exchange towards margin, it will be refunded to the Member, or the Client, as applicable, on receipt of a written request from the Member or the Client, as applicable, for refund. Refund of additional deposit, shall be made within seven (7) working days of receipt of request for refund.
- 9.4 The Member or the Client, as applicable, will have to bring in additional funds in case if his existing margins are less than the margins calculated as in Rule 9.2 mentioned above. The Member or the Client, as applicable, will be able to get information regarding additional margin requirement, through file transfer protocol (FTP) at end of the trading session. Unless the Member or the Client, as applicable, brings in the additional deposit required, he will not be allowed to put his order.
- 9.5 Special Margin: The Exchange may levy more margin or across market for covering any enhanced risk.

10. Day-Ahead Market Operations

- 10.1 The Day-Ahead market 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 for scheduling of Collective Transactions' issued by CTU and are subject to approval from the CERC for activities related to NLDC/RLDCs or SLDCs shall be as follows:
 - (a) **Order accumulation period (Bidding phase):** Bidding session also referred to as the Bid call period will start from 10.00 am to 12.00 pm on all seven (7) days of a week except Exchange declared holidays. Before the opening of the trading session, the Exchange will validate available Margins of the Members required as per Business Rule 9 above. If sufficient Margins are not available, then Member shall not be allowed to submit his bids, till such time sufficient Margins are brought in by the Member. During the bidding sessions on trading day, orders entered by Members in the Trading Platform shall be automatically stored in the central order book without giving rise to Contracts. Orders entered by the direct access clients shall be treated as orders entered by Members. After the end of the bidding session, bid matching will take place.
 - (b) **Provisional bid matching process:** At the end of the bid session, the trading platform will seek to match orders for each Contract. During this matching process, orders cannot be entered into the trading platform, and orders already entered cannot be cancelled or modified. All bids and offers are aggregated and Provisional Market Clearing Price or Unconstrained MCP is determined based on the unconstrained scenario.

- (c) After the provisional market clearing price determination phase is concluded, the Members, whose orders have been partially or fully executed, will be provided all relevant trade information regarding each execution that has occurred by the trading platform.
- (d) **Provisional obligation determination process:** After end of the bid matching session, a provisional obligation report will be generated at 12.30 PM, which will provide the quantity and amount of provisional pay in / pay out and transaction fee payable etc. The information regarding Provisional Market Clearing Price shall be sent to all Members. All Buyers will have to keep funds ready as per the provisional obligation in their respective Settlement Account.
- (e) **Delivery allocation determination process:** On the basis of Provisional Solution as above, the Exchange will send to the NLDC, at 1.00 PM every day, requisition for Transfer Capabilities Verification and Reservation, across different transmission corridors for the successful bids. NLDC based on the margins available, shall indicate the ATC at different corridors for the successful trades, between 1.00 pm to 2.00 pm.
- (f) **Final bid matching process:** At 2.00 pm the Exchange shall verify funds available in the Settlement Accounts of all provisionally selected Exchange Members. Those Members who have not brought sufficient funds shall be excluded from the final bid matching process. New Members shall be included in the bid matching process, who were not selected earlier but have sufficient funds in their Settlement Account.
- (g) Based on the ATC and funds made available by the Members in their Settlement Account, the Exchange will re-run the bid matching process at 2.30pm.
- (h) On the basis of final bid matching process as in (g) above the Exchange will generate the final result. 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) Final obligation of Members shall be worked out on the basis of such ACP. On the basis of the ACP, final obligation report will be generated. A period of half hour from the time of issue of the final obligation will be provided to Members for raising any dispute/s in relation to their final obligation. An automated bank file for debit and credit of Settlement Accounts of the respective Members by the amount payable / receivable will be generated and sent to the respective Clearing Banks. The funds pay in from the buyer Members will be done on the same day i.e. on "T" day where the "T" stands for trade. The funds pay out to the seller Members will be given on the T+2 day, where the second day is the bank working day. In case of trades confirmed on Sundays, the funds payout will be done on Tuesdays, subject to bank holidays. The Bank will run the pay in file at the scheduled time and report to the Exchange regarding successful debits. After final obligation is worked out, the Exchange shall work out margin or additional margin required from the Member. This margin or additional margin will have to be brought in by the Member before the opening of the market on the next day. The TWS of the Member shall not be activated till sufficient funds are brought in by the Member.
- (i) The market splitting methodology adopted by the Exchange is explained in the **Annexure A2** of this Schedule.

- (j) 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 difference shall be transferred to the congestion revenue account and shall be utilized as directed by the CERC. The transfer of funds shall be as per the provisions of the CERC(Power Market) Regulations,2010, as amended from time to time.

The Exchange timelines are as under. They are subject to change as per 'Procedures for scheduling of Collective Transactions' issued by CTU and Central Electricity Regulatory Commission (Open Access in Inter-State Transmission) Regulations 2008, as amended from time to time.

TIME	DETAILS
10.00 AM to 12.00 PM	Bid - Call session
By 11.00 AM	<ul style="list-style-type: none"> Funds pay out pertaining to previous day's delivery, margin refund request (if any) NLDC to inform list of interfaces/control areas/ regional transmission system on which unconstrained flows are required.
By 12:20 PM	<ul style="list-style-type: none"> Exchange to determine MCP /ACP & determining provisional obligations of the Members
By 1.00 PM	<ul style="list-style-type: none"> Communication of unconstrained solution to NLDC. Communication to bank to confirm & block the funds pay in from Buyer Members; settlement account. Exchange will issue to Members PROVISIONAL OBLIGATION
By 2.00 PM	<ul style="list-style-type: none"> NLDC to confirm available limit for scheduling. Exchange will receive confirmation from bank for availability & blocking of clear balance along with a note on shortages.
By 2.30 PM	<ul style="list-style-type: none"> Interaction with Members to ensure availability of funds. Exchange to determine MCP/ACP based on final funds status & final ATC
By 2.45 PM	<ul style="list-style-type: none"> Exchange will issue to Members FINAL OBLIGATION
At 3.00 PM	<ul style="list-style-type: none"> Exchange submits the requisition to the NLDC File to be sent by Exchange to banks for actual debits

The Exchange may change the above timings depending on the experience gained during the operations. It may also revise the time-line in consultation with NLDC according to market feedback.

11. Delivery procedure

- 11.1 After finalization of successful trades, the Exchange will send its requisition to the NLDC and respective State Load Dispatch Centers as per Detailed Procedure issued by the CTU.
- 11.2 NLDC 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, 2010and detailed procedure issued by the CTU as amended from time to time.
- 11.3 The quantity of power scheduled by respective NLDC/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 CTU thereunder.

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 CTU 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.

- 11.4 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 UI mechanism as per the procedure laid down by the CERC or any other settlement system as prescribed by concerned SERC.
- 11.5 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.
- 11.6 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.
- 11.7 Transmission Charges of STU or State transmission licensees , wheeling charges of distribution licensee 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.

12. Risk management system

- 12.1 A Member or the Client, as applicable, is allowed to trade only when it maintains the higher of the following margin deposit:
 - i) The margin deposited by the Member or the Client, as applicable, is at least or equivalent to the average value of trades done by it for last seven (7) days; or
 - ii) The initial margins prescribed by the Exchange for any Member or the Client, as applicable,.
- 12.2 After receiving the Available Transfer Capability (ATC) for the Exchange from the NLDC and after ensuring availability of funds in the Settlement Account of buyer Member or the Clients, as applicable, then the Exchange processes the final bid matching solution. During this process, the Exchange has the right to reject the bid of the Buyers, who do not have sufficient balance in their account. The Exchange has the right to impose penalty on defaulting Member or the Client, as applicable, as decided from time to time.

- 12.3 An Exchange Member or the Client, as applicable, 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 collect the funds from the Settlement Account and increase the margin deposit of the Member or the Client, as applicable,. In case a Member or the Client, as applicable, fails to bring in any additional margin at beginning of the trading session, such Member or the Clients, as applicable, will not be allowed to put orders till Margins are brought in or its orders would 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 Member or the Clients, as applicable.
- 12.4 In case a Member or the Client, as applicable, 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 cancel the allocation of its trades and initiate appropriate action against such Member or the Client, as applicable,. The Exchange in such circumstances will revise the trade allocation by incorporating other bidders at lower price and who have sufficient balance in their accounts. Any loss arising out of such instructions by the Exchange shall be borne by the defaulting Member or the Client, as applicable, The Exchange may also impose penalty on such defaulting member or the Client, as applicable,

13. Surveillance

- 13.1 **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.
- 13.2 **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.
- 13.3 **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.
- 13.4 **Correlation with Unscheduled Interchange (UI):** The trend in the UI 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 UI obligations.
- 13.5 **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.

Day-Ahead Market 15 minute contract specifications

1.	Product definition	96 separate fifteen-minute time blocks throughout the following delivery day (D).
2.	Trading system	IEX (Leased Line)
3.	Auction timings	10:00 AM to 12:00 PM of previous day (D-1)
4.	Fixing times	15:00 hrs of D-1 (dispute settlement period: 30 min.)
5.	Minimum volume	<p>0.1MW (Minimum allowable quantity for buy/ sell in the standing clearance, it should not be less than this quantity)</p> <p>However, grid connected entity in the state of Uttarakhand on non independent feeders up to the limit specified in state regulations for allowing open access, for which the NOC has been issued by concerned SLDC, will be allowed to transact on the Exchange. All other entities on the same feeder should have received the NOC for same period. Complying with the conditions laid down in State regulations, including the condition of rostering restriction, and simultaneous scheduling of all entities on the one feeder etc. shall be the responsibility of respective grid connected entities.</p> <p>The Exchange Members shall indemnify the Exchange against any implications on account of the State regulations, in particular for the consequences when other entities on a mixed feeder are not allowed to draw power for reason of inability, for any reason whatsoever, of any one of such entities on the mixed feeder to buy power.</p>
6.	Minimum volume step	0.1 MW
7.	Minimum quotation step	Rs. 1 per MWh
8.	Quotation method	Double sided close bid auction with uniform Market Clearing Price for all buyers and sellers.
9.	Order wording	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	Daily settlement at ACP x volume traded in MWh (by the Client or Member as the case may be). Final settlement adjusted for any force majeure deviations.
12.	Transmission charges	<p>a) Regional 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.</p> <p>b) State Transmission System: As per the concerned State Electricity Regulatory Commission's Regulations/ CERC (Open access in ISTS) Regulations, 2008, as amended from time to time.</p>
13.	Transmission losses	Payable in kind from delivery point to its grid connection point.

Methodology of market splitting

As per Rule 18.3. (g), in case of transmission congestion a solution is to be worked out on the basis of market splitting. In this document a concept of market splitting is explained along with suitable examples.

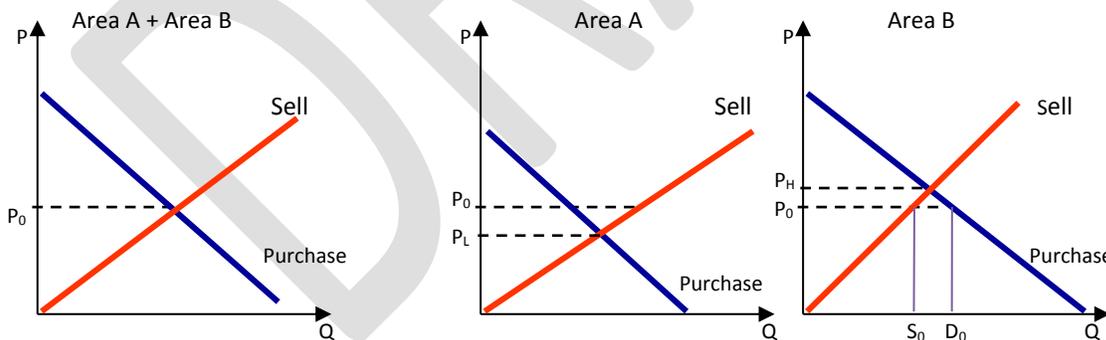
Market Splitting:

Market splitting is an evolved form of implicit auctioning wherein energy component and corresponding transmission capacity between bid areas are traded simultaneously. In the market splitting methodology areas on either side of congested corridor are identified separately and initially both are cleared as if there is no interconnection between the areas, and then the area which has highest price, draws electricity from the area with the lower price just as much as the capacity of the congested line will allow. Allowing this flow into higher price area will reduce prices in the higher price bid area and would increase prices in the lower price bid area depending upon the bid prices in the respective areas.

For a simple situation involving only two areas A and B is illustrated as under:

In the first step, all bids from both areas are aggregated together, similar to the System Price calculation. The common price, P_0 , for both areas are established.

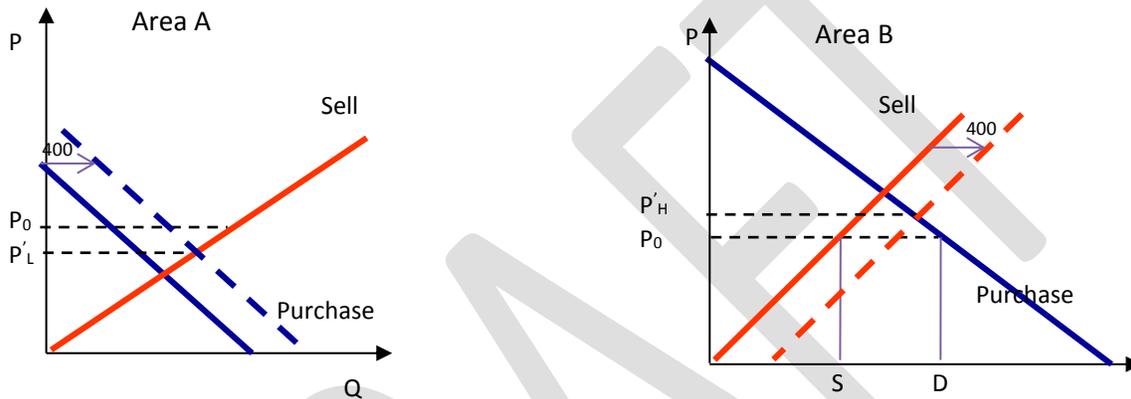
The bids are then aggregated in the area A and B separately. The aggregated curves could then look like this:



In this example the aggregated curves of area A intersect at a lower price, P_L , than the common price, P_0 . Applying P_0 in area A show that the sale at P_0 is greater than the purchase at P_0 . Thus area A is surplus area. On the contrary, the aggregated curves of area B intersect at a higher price, P_H , than the common price P_0 . Applying P_0 in area B show that the purchase at P_0 is greater than the sale at P_0 . Thus, area B is a deficit area.

At this step, the transmission capacity is introduced in the Area Price calculation process. The power flow will always be from the surplus area to the deficit area, thus the transmission capacity from A to B will be used. The needed capacity is simply the difference between sale S_0 and purchase D_0 at price P_0 in the deficit area. Assume that $S_0=2000$ and $D_0=2600$, giving a difference of 600. If the available capacity from A to B is 600 or higher, the resulting area prices in both A and B will be P_0 .

If the available capacity from A to B is 0, the area prices will be P_L in area A and P_H in area B. If the available capacity is anywhere between 0 to 600, e.g. 400, the available capacity is added to the purchase curve in the surplus area (A) and to the sale curve in the deficit area (B). This results in a parallel displacement of these curves, as shown below:



The area price will now be set at the intersection of the sale curve and displaced purchase curve in area A, and at the intersection of the displaced sale curve and the purchase curve in area B. The transmission capacity is utilized so that the power flow exactly equals the available capacity. As a consequence of this, the area prices in A and B are leveled as much as possible. P'_H , P'_L are the new intersection points on movement of demand / supply curves. The difference between P'_H and P'_L is now lesser than it otherwise would have been (if no power flow is possible between area A and area B). In case there is no constraint, price in area A and area B will be equal. The Area Price calculation is now complete, including the congestion management described above. The main objective of the concept is fulfilled:

- All grid constraints are relieved
- The available capacities are fully utilized
- The sale-purchase balance requirement is satisfied in both areas (at different price levels).

SCHEDULE B: TERM-AHEAD MARKET (TAM) SEGMENT

This market segment will cover all electricity contracts except those mentioned in the Day Ahead Market segment. This will cover market timeframes of intra-day, day-ahead contingency, daily, weekly etc. as allowed by the Commission. The Term Ahead Market will operate in accordance with the procedures issued by CTU for 'Scheduling of Bilateral Transactions'. All terms and conditions of the contracts including trading sessions, matching rules, margin requirement and delivery procedure etc, will be as per specific rules mentioned herein.

1. Contracts

The Exchange shall make the contracts as specified in this section available for trading as per the trading calendar. These contracts will be traded in accordance with provisions of trading as specified in the respective Contract Specification. The trade sessions, matching rules applied in each trade session for concluding the contracts, risk management and settlement for such contracts will be as per specific contract specifications provided herein. The delivery of such contracts will be in accordance with CERC (Open Access in Inter-State Transmission) Regulations, 2008, as amended from time to time and relevant procedures issued by CTU and by Open Access Regulations of concerned State. The Exchange holds the right to modify all other parameters except those specified in regulation 7 of CERC (Power Market) Regulation, 2010.

These contracts will be further differentiated on time of day basis (Peak and Off-Peak basis), day-of-the week basis (weekday, week-end and holiday).

Following contracts shall be available for trading in Term-Ahead Market:

1.1 Day-Ahead Contingency Contracts

The Exchange shall make the 24-hourly contracts available for trading on day-ahead basis for 00:00 hours to 24:00 hours of next day. The Exchange will carry out trading in such contracts either through 'Uniform Price Step Auction' or 'Continuous Trade' sessions or a combination of both depending on market feedback. The timeline for trade matching sessions will be specified in Contract Specifications. They will be sent for scheduling in accordance with CERC (Open Access in Inter-State Transmission) Regulation, 2008, as amended from time to time and relevant procedures issued by CTU as specified in the contract specifications. The Exchange holds the right to modify parameters as specified by CERC. The contract specifications are given at **Annexure- B1**.

1.2 Intra-Day Contracts

The Exchange shall make the Intra Day contracts available for trading hourly contracts on same day or previous day on rolling hour basis till some hour prior to the delivery of electricity as specified in the contract specification. The Exchange will carry out trading in such contracts through 'Continuous Trade' The timeline for trade matching sessions will be specified in Contract Specifications. They will be sent for scheduling in accordance with CERC (Open Access in Inter-State Transmission) Regulation, 2008, as amended from time to time and relevant procedures issued by CTU as specified in the contract specifications. The Exchange holds the right to modify parameters as specified by CERC. The contract specifications are given at **Annexure- B2**.

1.3 Daily Contracts

The Exchange shall make the daily contracts available for trading upto a period specified by CERC for delivery of electricity for defined blocks of hours of the day. The Exchange will carry out trading in such contracts either through 'Uniform Price Step Auction' or 'Continuous Trade' sessions or a combination of both depending on market feedback. The timeline for trade matching sessions will be specified in Contract Specifications. They will be sent for scheduling in accordance with CERC (Open Access in Inter-State Transmission) Regulation, 2008, as amended from time to time and relevant procedures issued by CTU as specified in the contract specifications. The contracts may contain provisions allowing quantity variation in delivery. The Exchange holds the right to modify parameters as specified by CERC. The contract specifications are given at **Annexure- B3**.

1.4 Weekly Contracts

The Exchange shall make the weekly contracts available for trading maximum upto a period specified by CERC for delivery of electricity for defined blocks of hours on all defined weekdays and/or weekends of the week. The Exchange will carry out trading in such contracts through 'Uniform Price Step Auction' or 'Continuous Trade' sessions or a combination of both as approved by CERC. The timeline for trade matching sessions will be specified in Contract Specifications. They will be sent for scheduling in accordance with CERC (Open Access in Inter-State Transmission) Regulation, 2008, as amended from time to time and relevant procedures issued by CTU as specified in the contract specifications. The contracts may contain provisions allowing quantity variation in delivery. The Exchange holds the right to modify parameters as specified by CERC. The contract specifications are given at **Annexure- B4**.

2. Trading Days and trading hours

The Exchange shall operate this segment on all days except Exchange specified holidays. The Exchange shall declare trading calendar indicating trading sessions and trading days for each of Contracts on quarterly basis. The Exchange may extend, advance or reduce trading hours by notifying the Members as and when it deems fit and necessary.

3. Matching Methodologies

The matching of contracts will employ different matching methodologies. The two matching methodologies are explained below.

A. Uniform Price Step Auction

In such trading session, the participants submit their orders for sale and buy during the call auction phase. Such orders are automatically stored in the order book without giving rise to Contracts. After the end of the call auction phase, there is a call auction freeze phase. Until the call auction freeze phase, members can enter new orders (or quotes) or modify their existing orders. Execution of trade takes place after the call auction freeze phase is over. The matching of orders takes place in accordance with matching rules given in subsequent sections. All trades are effected at uniform price known as Equilibrium Price (EP). All orders that have prices that are better than the equilibrium price are executed, and the ones that have a price equal to the equilibrium price are executed according to a First In First Out (FIFO) algorithm. The algorithm for determining Equilibrium Price is given in the matching rules.

In such auction, the transmission network constraints are not considered implicitly while matching the orders.

One of the following two auction methodologies will be adopted at any point of time.

1. **Closed uniform price auction:** In closed auction, the orders are not disclosed to market participants and information regarding the equilibrium price and surplus are informed to market participants only after the call auction phase.
2. **Open uniform price auction:** In the open auction, the participants submit their order for sale and buy during the auction phase. Complete list of order prices and aggregated quantities of buy and sale bids will be displayed to market participants maintaining bidder's anonymity. The participants can modify, delete or enter new orders during call auction period.

B. Continuous Trade Session

In such trading session, the participants shall submit buy and sale offers on a continuous basis during the trading period. The buyers and sellers will be matched on continuous basis with price-time priority. For a specific Contract, the seller with minimum quote and buyer with the maximum quote are considered as best seller and best buyer. Best five buy and sell bids, excluding the details of participants, shall be displayed on the trader's work station (TWS) to all the participants to show the market depth. In case, best buy order is better than or same as best sale order, they will be matched resulting into Contracts. Such matching will continue till the end of trading period. In case, best buy order is worse than the best sale, they will continue to be available in the order book, without resulting into Contracts.

Market depth of best five orders in terms of price shall be displayed to all the participants. Order-depth option displays the best five placed orders in terms of price; whereas Price-depth option displays the best five prices by cumulating the volumes under similarly priced bids.

4. Order Management

The Exchange may launch more than one order book running either parallel or at different time spans.

All Clients shall be assigned unique client ID / Portfolio ID code which may be same or different for different market segments.

The types of order available in different trading sessions are mentioned below.

i. Uniform Price Step Auction Session

Following orders are available in this auction session.

a) Timing Constraints

- a. Rest of day

The order will be valid till the end of trading hours of that trading day.

- b. Good until expiry

The order will be valid till the expiry of the contract.

- c. Timed Order

The order will remain valid till the time specified (while putting the order) by the User.

- d. Good until date

The order will be valid till the date specified (while putting the order) by the user.

b) Execution Constraints

Call Auction order

Valid for auction session only.

c) Besides above mentioned orders, a user can also put a stop loss and a local order.

i) Local order

Local order is a order lying in the order book of a member and which can be activated as and when need.

ii) Exchange Can also define any other type of order as per trade requirement.

ii. Continuous Trade Session

Following orders are available in the Continuous Trade Session.

(a) Timing Constraints

I. Rest of day

The order will be valid till the end of trading hours of that trading day.

II. Good until expiry

The order will be valid till the expiry of the contract.

III. Timed Order

The order will remain valid till the time specified (while putting the order) by the User.

IV. Good until date

The order will be valid till the date specified (while putting the order) by the user.

(b) Execution constraints

I. Fill and Kill (FaK)

This order will match as much as possible AND delete the rest of the order.

II. Fill or Kill (FoK)

This order will match the whole order OR delete the whole order.

(c) Besides above mentioned orders, a user can also put a stop loss and a local order.

i) Stop loss order

Gets activated at a particular price, before which it remains local order.

Stop Loss Order provides the facility to the User, of keeping order in inactive state and making it active (placing orders in the market) based on a predefined condition. This is applicable only for instrument in trading and is based on the following conditions

1. Price of any of the other order entering in the order book (available for Continuous as well as Auction phases)
2. Last traded price (available only for continuous trading phase)

Example:

- (1) Stop Loss based on Order Price: A participant placing a buy order on a Day-ahead Contingency instrument (SEP10-H05-D25-RI) for 50MW at a price of Rs3000/MWh has put a stop loss on an instrument (SEP10-H015-D25-RI) for buy price ≤ 4000 , as shown in table below.

Instrument (Buy Order)	SEP10-H05-D25-RI
Lots (MW)	50
Price (Rs/MWh)	3000
Stop Instrument	SEP10-H015-D25-RI
Condition	Buy<=
Price (Rs/MWh)	4000

Accordingly, the bid placed for 5th hour will get activated only when an order for 15th hour is received in the system which fulfills the above condition. Till that time, this order for 5th hour will remain local.

- (2) Stop Loss based on Last Trade Price: A participant placing a sell order on an Intra-day instrument (SEP10-H20-I25-RI) for 20 MW at a price of Rs5000/MWh has put a stop loss on the same instrument (SEP10-H20-I25-RI) with the condition of last trade price \geq Rs 4500/MWh, as shown in table below.

Instrument (Sell Order)	SEP10-H20-I25-RI
Lots (MW)	20
Price (Rs/MWh)	5000
Stop Instrument	SEP10-H20-I25-RO
Condition	Last \geq
Price (Rs/MWh)	4500

Order placed in the instrument, SEP10-H20-I25-RI will get activated only when a trade gets executed with the price greater than or equal to Rs 4500 / MWh. Till that time, this order (in instrument SEP10-H20-I25-RI) will remain local. If at the time of placing the stop loss order, the trade price condition is already met then the stop loss will directly assume an active order status

- ii) Local order

Local order is a order lying in the order book of a member and which can be activated as and when need.

5. Matching Rules

Only with prior approval of CERC, the Exchange may modify or change the matching rules relevant to any market or order books. The matching rules for different trading sessions are mentioned below.

A) Uniform Price Step Auction

A Matching of the auction will only take place if there are crossing prices (buy price \geq Sell Price) in the order book, that is, if the best bid price is equal to or higher than the best ask price. In that case, the equilibrium price is determined according to the following criteria:

1. Maximum tradable volume: The Equilibrium Price will be the price at which there is maximum tradable volume.
2. Minimum unbalance: If there is more than one price with equal value for maximum tradable volume, the price that leaves the least volume untraded at its level is chosen as Equilibrium Price.

If Auction Session has overlapping Buy and Sell orders resulting in at least 1 trade (if there are crossing prices i.e. best buy price \geq best Sell Price) then the system would use the below mentioned principles to determine that Session's Auction Uniform Price. If system achieves more than one potential Auction Uniform Price by Principle 1, then the algorithm would move to Principle 2 to narrow down the options and so on. If any Principle achieves a single potential Auction Uniform Price, then that price would be assigned as that Session's Auction Uniform Price.

The Auction Uniform Price calculation logic is explained below with the help of an example:

The Order Book would be sorted on Best Buy and Best Sell basis for a product e.g. 'AUCREC SOLAR' at the end of the Auction session as below:

BUY			SELL		
Order	Qty	Price	Price	Qty	Order
A	4,500	825	831	290	J
B	28,200	824	828	11,420	K
C	1,900	822	826	21,650	L
S	49,700	820	825	8,500	M
D	8,000	819	823	1,900	N
E	16,400	818	820	17,500	O
F	5,400	815	819	3,600	P
G	900	814	818	11,600	Q
H	4,575	812			R

1) Principle: Determining the Maximum Tradable Volume

The principle would establish the **price(s)** at which **maximum tradable volume** would be **executed**. There would be two steps involved in applying this principle.

- a. **STEP 1** – Determine the Cumulative Buy and Sell quantities at each eligible price. The Cumulative Buy and Sell quantities at each price for 'XYZ' are as follows:

BUY		Price	SELL	
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity
0	0	831	290	76,460
0	0	828	11,420	76,170
0	0	826	21,650	64,750
4,500	4,500	825	8,500	43,100
32,700	28,200	824	0	34,600
32,700	0	823	1,900	34,600
34,600	1,900	822	0	32,700
84,300	49,700	820	17,500	32,700
92,300	8,000	819	3,600	15,200
108,700	16,400	818	11,600	11,600
114,100	5,400	815	0	0
115,000	900	814	0	0
119,575	4,575	812	0	0

- b. **STEP 2** – Establish the total tradable volume at each eligible price (i.e. Maximum Quantity which may be traded at that each price). The total tradable volume at a price would be computed as 'Minimum of Cumulative Buy and Cumulative Sell quantity' at

the respective price. The Maximum Tradable Volume (MEV) for each eligible price is as below:

BUY		Price	SELL		Maximum Executable Volume
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity	
0	0	831	290	76,460	0
0	0	828	11,420	76,170	0
0	0	826	21,650	64,750	0
4,500	4,500	825	8,500	43,100	4,500
32,700	28,200	824	0	34,600	32,700
32,700	0	823	1,900	34,600	32,700
34,600	1,900	822	0	32,700	32,700
84,300	49,700	820	17,500	32,700	32,700
92,300	8,000	819	3,600	15,200	15,200
108,700	16,400	818	11,600	11,600	11,600
114,100	5,400	815	0	0	0
115,000	900	814	0	0	0
119,575	4,575	812	0	0	0

Note: The Maximum Tradable Volume is the highest value amongst 'Maximum Tradable Volume' derived for all price points.

In this example, the maximum quantity that may be traded is 32,700 at prices 820, 822, 823 and 824. Therefore, as per Principle 1, the Prices eligible for Auction Uniform Price Calculation are 820, 822, 823 and 824. The algorithm would eliminate all other price points as the potential Auction Uniform Price. To further narrow the choices for Auction Uniform Price, Principle 2 would be used to determine the Minimum Unbalance level.

2) Principle: Establishing the Minimum Unbalance

The second principle would ascertain the eligible price levels (from prices 820, 822, 823 and 824) at which the Unmatched Quantity is a minimum.

The Minimum Unbalance at each price level is equal to 'Cumulative Buy Quantity – Cumulative Sell Quantity'

BUY		Price	SELL		Maximum Executable Volume	Minimum Unbalance (CBO – CSO)
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity		
32,700	28,200	824	0	34,600	32,700	-1,900
32,700	0	823	1,900	34,600	32,700	-1,900
34,600	1,900	822	0	32,700	32,700	1,900
84,300	49,700	820	17,500	32,700	32,700	51,600

Ignoring the positive and negative signs, the lowest number in the Minimum Unbalance column is 1,900. The minimum Unbalance occurs at prices 822, 823 and 824. Therefore, as per completion of Principle 2, the Prices eligible for Auction Uniform Price Calculation are 822, 823 and 824. The algorithm would further eliminate 820 as Auction Uniform prices and the algorithm would continue to the 3rd step to establish the Auction Uniform Price.

Note: 0 is the lowest Minimum Unbalance Quantity.

3) Principle: Ascertaining where the Market Pressure exists

The third principle should ascertain where the market pressure of the potential Auction Uniform Price prices exists: on the buy or the sell side.

- a. If all the potential Auction Uniform Prices have positive (+) Minimum Surplus then the market pressure is on the BUY side (Buyer's Market) and the Auction Uniform Price would be highest of the potential Auction Uniform Prices (Assuming that residual BUY pressure would likely cause the price to rise)

BUY		Price	SELL		Maximum Executable Volume	Minimum Surplus (CBO – CSO)	Multiple Minimum surplus with all +ve Surplus, so Buyer's Market and Uniform Price MAX (100,99) = 100
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity			
200	200	100	0	150	150	50	
200	0	99	150	150	150	50	

- b. If all the potential Auction Uniform Prices have negative (-) Minimum Surplus then the market pressure is on the SELL side (Seller's Market) and the Auction Uniform Price should be lowest of the potential Prices (Assuming that residual SELL pressure would likely cause the price to fall)

BUY		Price	SELL		Maximum Executable Volume	Minimum Surplus (CBO – CSO)	Multiple Min surplus with all – Surplus, so Seller's Market and Uniform Price MIN (99,98) = 98
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity			
150	150	99	0	200	150	-50	
150	0	98	200	200	150	-50	

- c. If the potential Auction Uniform Prices have either 'positive (+) as well as negative (-) Minimum Surplus' of 'If the Minimum Surplus is zero for each potential Price' then the algorithm should not further eliminated any potential Auction Uniform Prices derived from Principle 2 and should continue to Principle 4 carrying forward all the potential Auction Uniform Prices

BUY		Price	SELL		Maximum Executable Volume	Minimum Surplus (CBO – CSO)
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity		
32,700	28,200	824	0	34,600	32,700	-1,900
32,700	0	823	1,900	34,600	32,700	-1,900
34,600	1,900	822	0	32,700	32,700	1,900

In this example it is not yet possible to calculate as Auction Uniform Prices, since the potential Auction Uniform Prices have positive (+) as well as negative (-) Minimum Surplus. Therefore, at the completion of Principle 3, the Prices eligible for Auction Uniform

Price Calculation are 822, 823 and 824 and the algorithm continues to the fourth and final step to establish the Auction Uniform Price.

4) Principle: Average of Price Points having Minimum Unbalance

The fourth and final principle determines Auction Uniform Price from the range of prices established in Principle 3 (from prices 822, 823, 824).

There are two steps to this Principle. The first step should be to narrow the options of potential Auction Uniform Prices to 2 potential Auction Uniform Prices from within the derived price range

a. STEP 1

- I. If the result of Principle 3 is a combination of positive and negative Market Pressure, then the algorithm should mark the two prices where the sign changes.

BUY		Price	SELL		Maximum Executable Volume	Minimum Surplus (CBO – CSO)
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity		
32,700	0	823	1,900	34,600	32,700	-1,900
34,600	1,900	822	0	32,700	32,700	1,900

- II. If the Minimum Surplus for all potential Auction Uniform Prices is zero, then the algorithm should mark the highest and lowest prices within the potential price range as the potential Auction Uniform Prices.

BUY		Price	SELL		Maximum Executable Volume	Minimum Surplus (CBO – CSO)	Multiple Min Surplus with all 0, so Uniform Price AVG (110, 105) = 107.50
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity			
1000	1000	110	0	1000	1,000	0	
1000	0	105	1000	1000	1,000	0	

In this example the sign at 822 is positive and changes to negative to 823. Therefore, the algorithm chooses 822 and 823 as the potential Auction Uniform Prices to be applied in this principle.

b. STEP 2

The Auction Uniform Price should be defined as the average of 2 derived potential Auction Uniform Prices i.e. 822 and 823. Auction Uniform Price = AVG (822,823) = 822.50

The determined official Auction Uniform Price would be **‘822.50’**

Note: if determined Auction Uniform Price is not as per Product’s Price Tick then Auction Uniform Price would be rounded off to the nearest product’s price tick

All the matching orders would get traded at the Determined Auction Uniform Price, regardless of the price actually stated when placing an order. The Order Priority for matching purpose

would be determined on '**Price-Time**' Priority basis. All the Auction Session's Unmatched Pending Orders would get cancelled

Note: If the Auction session has no overlapping Buy and Sell orders (i.e. Trades = 0), then the 'Three step Conditional Decision Rule Approach' to determine 'Auction Uniform Price' would not be referred.

B) Continuous Trade Session

The order matching rules for this trade session will have the following features

- a) In case of continuous market segment the order is immediately checked if it can be matched.
- b) The Orders are matched based on price and time priority. In case of more than one order having the same price, the order with the earlier time will get the priority in matching.
- c) The best buy order is matched with the best sell order when (buy price \geq Sell Price). For order matching, the best buy order is the one with the highest price and the best sell order is the one with the lowest price.
- d) An order may match partially with another order resulting in multiple trades.

6. Margin Requirement

The Members or the Clients, as applicable, participating in Term Ahead Market segment will have to make available the following types of margins to the Exchange from time to time as described below.

- a) **Initial Margin (Operational limit):** Initial Margins have to be submitted to the Exchange by the Member or the Client, as applicable, before start of their trading. Initial Margins will be computed on the total order value. The percentage of the order value required as initial margins shall be defined in the Contract Specification. This initial margin will be blocked automatically from the total available deposits. The trading system will automatically reject orders in case the initial margin exceeds the balance deposits available. Initial Margins will be released only after such time as defined in the Contract Specification. The release of Margin Funds shall be based on the Members or the Clients, as applicable, request and after adhering to the risk management procedures of the exchange.
- b) **Additional Margin (Basis Margin):** Additional Margin will be computed as a percentage of the traded value as per the risk curve defined and will be collected in different trenches as per the contract specifications. Only the buyer Members or the Client, as applicable, will have to pay the Additional Margin to the exchange based on their trade confirmation. The Member or the Client, as applicable, will have to make available the Additional Margin before the end of the trading day or as may be specified in respective Contract Specification. Unlike Initial Margin which is a pre trade margining system, Additional Margins will be computed on the traded value at client level. This margin will be blocked from the available cash or non cash collaterals and will be released progressively as per the risk curve defined by the exchange. In case if the Member or the Client, as applicable, fails to bring in the additional margin within the specified period then the trades will be cancelled and penalty will be levied to the member. All other forms of margin collected by the exchange till such time may also be impounded.

- c) **Variation Margin:** The Exchange on a pre-decided day will compute the Variation Margin of members based on their trades (open position). Variation Margin is levied member wise and computed at client level. It is the difference (loss) between the Settlement price and the traded price where the Settlement price is the average price of the last 'N' number of trades on the trading day or the last traded price of the contract having the same underlying delivery period or as decided by the exchange from time to time. In case if there is a profit for a particular client then it will not be credited to the member, neither will it be adjusted against any other losses at client level or at member level. In case if the Member fails to bring in the variation margin till the next working day then the trades may be cancelled and the Exchange at its own discretion impose penalty on the member. All other forms of margin collected by the Exchange till such time, may also be impounded.
- d) **Extreme loss Margin:** The Exchange may collect any ad hoc margins from time to time in case if it feels that the available margins collected by the exchange are inadequate due to variation in the prices in the Market. Prior intimation of the same will be provided to the Member or the Clients, as applicable,.
- e) Each of the above namely initial margin, additional margin, variation margin and extreme loss margin as the case may be shall be payable and be paid in cash or such non cash security or collateral as the Exchange may notify from time to time. Refund of Additional Deposit: If there is a surplus deposit lying with the Exchange towards margin, will be refunded to the Member or the Client, as applicable,, on receipt of a written request from the Member for refund.
- f) The Member or the Client, as applicable, will get information regarding additional margin requirement, through file transfer protocol (FTP) at end of the trading session. In case the Member or the Client, as applicable, does not have adequate Cash / Non-cash collaterals, the Member or the Client, as applicable,, at the entire discretion of the Exchange, can be barred from further trading on the Exchange.
- g) The Exchange automatically on its own may not adjust the unutilized additional margin in the DAM segment against the margins applied in TAM segment and vice versa.

7. Risk Management System

- a) At the time of submission of the order, exchange will verify the availability of Initial Margin and the order would be accepted only if sufficient funds are available under this head. Initial Margin shall be in form of cash. Further the orders will not be accepted if earlier calls for additional, variation and extra-ordinary margins, have not been fulfilled. The Members or the Clients, as applicable, will be allowed to take exposure on the initial security deposit as decided by the exchange. Thereby a member can put an order to buy or sell in a contract as per his available exposure with the Exchange. Exchange has the right to give exposure limits based on the bank balance or available margins of such Member or both for facilitation of intraday and day ahead contingency products.
- b) Additional Margins in the form of cash / non cash collaterals has to be paid by the buyer member or the Client, as applicable, to the exchange as per the Contract Specification and as per the Trading and Delivery Calendar. In case if the member or the Client, as applicable, fails to bring in the required Additional Margin as per the schedule mentioned, then the Exchange can cancel the trade and may impound the available Initial Margin and Additional Margin and also recover penalty from the member or the Client, as applicable,.

- c) During the entire tenure of the contract, Exchange will monitor traded price of a contract with that of the price of the contract with same underlying traded earlier and in case of change in the Prices between two trading sessions, Variation Margins will be worked out and recovered from the members. Exchange will have the right to collect from its members an ad hoc margin during the tenure of the contract to cover any additional risk arising out of Price Movement in the Market.
- d) Types of Financial and delivery defaults and penalties levied thereof:
- 1) Financial defaults can be of two types:
 - i. Margin default
 - ii. Funds pay in default

i. Margin default: In case if the seller member fails to bring in the initial margin after the trade for the difference between the order value and the trade value on the traded day, the exchange will withhold the initial margin available with the exchange and impose penalty for amount equivalent to such difference from the other available margins of the member or the Client, as applicable,. Similarly, the exchange will cancel the trade in case if the member or the Client, as applicable, fails to pay Basis margin or Variation margin as per the schedule. All the margins collected from such member or the Client, as applicable, will be withheld. The non-cash collateral will be liquidated and passed on to the counter party. Apart from the above, exchange will also collect difference between the higher of the traded price or the settlement price for that contract on its platform. Similarly in case if a member fails to pay Extreme loss margins demanded by the exchange, the exchange will have the right to take all the above mentioned actions against the member or the Client, as applicable.

ii. Funds pay in default: In case if the buyer member or the Client, as applicable, fails to make good the funds pay in on any of the pay in day, the Exchange will be at liberty and has the power and discretion to cancel the allocation of its trades and initiate appropriate action against such Member or the Client, as applicable,. The total margins collected till that period will be withheld and sent for liquidation. Apart from the above, exchange will also collect difference between higher of the traded price or the settlement price for that contract on its platform.

- 2) Delivery defaults can be of following types:

Failure to receive SLDC clearance: In case, the exchange does not receive the SLDC clearance as per the scheduled time from the seller member, then 5% of the total trade value or the total settlement value (trade quantity * settlement price), whichever is higher will be collected from the defaulting member. Penalty so collected shall be passed on to the counter party after deducting administrative charges for the exchange which will be 5% of the penalty amount. In case if the member fails to make good the penalty amount in his settlement account, the non cash collateral available with the exchange shall be liquidated.

Failure in Seller's ability to deliver: In case of failure in delivery by Seller, the difference between the traded quantity and actual delivery is settled under UI.

Revision of Schedule: Once the trade has taken place normally no revision of trade shall be allowed. However, if exchange is satisfied that the revision of schedule is necessary because of reasons beyond control and there is no

commercial consideration motivating the party requesting for revision, then the following procedure will be adopted:

In case if, a party wants to exit the contract, than he has to deposit amount in cash to the exchange which shall be sum of following elements.

- (i) 125% of the difference between the trade price and the last settlement price of the same underlying.
- (ii) The transmission charges paid by the counter party for the quantum requested for revision.
- (iii) 5% of (i) above, as administrative charges for the exchange subject to minimum of Rs.10,000/- (Rupees Ten Thousand Only).

The affected counter party will be credited the difference and the transmission charges.

Exchange will debit the amount from member's settlement account: The effected counter party will be credited the difference and the transmission charges. The exchange, on receipt of amount based on above formula, shall send request for revision of schedule. In the next trading session when same underlying is traded again, the exchange will check the new settlement price with the amount worked out as at (i) above and make suitable adjustments as under.

Adjustment of amount collected for rescheduling from sellers: In case new settlement price is higher than the previous settlement price and the difference between the earlier collected amount and amount worked out on new settlement price works out to be more than the amount collected as above, and the difference between the earlier collected amount and amount worked out on new settlement price works out to be more than the amount collected as above seller. However, if, the difference works out to be less than the 125 % collected then any excess will be refunded to the seller. But, if the new settlement price is lower than the traded price then entire amount as above will be refunded to the seller. No refund of transmission charges shall be done to the seller will be allowed due to above adjustments.

Adjustment of amount collected for rescheduling from buyers: In case new Settlement Price is lower then previous Settlement Price and is more and the difference between the earlier collected amount and amount worked out on new settlement price works out to be more than the amount collected, then the difference would be additionally collected from the buyer. However if difference works out to be less the 125% collected then any excess will be refunded to the buyer. But, if the new settlement price is higher than the traded price then entire amount will be refunded to the buyer. No refund of transmission charges to the seller will be allowed due to above adjustments.

In case there is no trading session remaining in that underlying before start of delivery then such working shall be based on the prices of daily contracts which are corresponding to days of such weekly contract. Further, in case no daily contract is available for trading before start of delivery then the working shall be done on the basis of average of hourly prices in the day ahead market (collective

transactions). Similarly for working out rescheduling charges for Daily Contracts reference would be taken from the same underlying and in absence of this, basis of working shall be hourly prices in the day ahead market (collective transactions).

The Settlement Prices mentioned above shall be for the regions in which the requesting party is located.

- e) Amount for everyday Pay-in and Pay-out shall be on net basis and the member will be responsible for settling funds obligation between its client's pay-in and pay-out.

8. Surveillance

1. In order to ensure market integrity and to avoid market abuses, the Exchange will use various on-line and off-line surveillance tools. The Exchange shall have the right to take appropriate actions in such cases, which are discussed as under.
2. **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 price or bid quantity, 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. Members are required to ensure that the bids are for the quantity registered with the Exchange for trading which shall be on the basis of their capacity to arrange open access from their respective SLDC. In case the quantity is beyond the above limits, then Exchange will have right to cancel or modify one or more order.
3. **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.
4. **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.
5. **Correlation with Unscheduled Interchange (UI):** The trend in the UI 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 UI obligations.
6. **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.

9. Delivery procedure

Delivery procedure will be different for National and Regional Contracts.

National and Regional Contracts

- i. All Contracts (trades) shall be for delivery of power as per the requisition submitted by the Exchange and scheduled by NLDC / RLDCs / SLDCs.
- ii. **Delivery Point:** The delivery point of all the contracts shall be at the Seller's Regional Periphery as per Procedure for Scheduling of Bilateral Transaction and Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 as amended from time to time..
- iii. After finalization of successful trades, the exchange will send details to both the counter parties to obtain concurrence from their respective SLDC. The participants would be

- required to submit these concurrences in the prescribed Format in accordance with the 'Procedure for Scheduling of Bilateral Transactions' and as specified in the Calendar. Exchange will make application for transmission capacity reservation and advance scheduling as per the schedule mentioned in the Calendar. In case if the "Concurrence from SLDC" received from both the parties does not match with each other, the Exchange will consider the minimum of the quantity mentioned for sending the application for scheduling only if the quantity is same for all the traded hours. In all other cases where there is mismatch in hours and / or in quantity cleared in the SLDC concurrences, the contract will be liable to made void.
- iv. The Buyer shall accept the decision on routes that may be available to carry the power without any reservation. Buyer will be deemed to have consented for all possible routes for delivery of the power, however, they can give preference amongst the possible routes along with the concurrence. In absence of any preference from the buyer, the Exchange at its absolute discretion, can decide the route through which application is to be made and also the alternate routes to be mentioned in such application.
 - v. Nodal RLDC's acceptance for scheduling will be binding on both buyers and sellers. In case of anticipated congestion in one or more transmission corridor, the Exchange will have the right to participate in the electronic bid on behalf of the Members as per the guidelines laid down in the 'Procedure for Scheduling of Bilateral Transactions'. Trade once executed shall not be revised except as provided in the Contract Specification and shall be sent for reservation of transmission capacity and advance scheduling as per the Trading and Delivery Calendar. The schedule shall not be revised during the delivery period except as provided in the Contract Specification.
 - vi. Any shortage or excess delivery of electricity from the total schedule will be settled by the respective participants under UI mechanism as per the procedure laid down by the CERC or any other settlement system as prescribed by concerned SERC.
 - vii. Taxes, duties, cess and other levies: The price of all the Contracts shall be quoted at delivery point excluding the transmission charges, losses, scheduling and system operation charges, taxes, duties, cess, surcharge and other levies and the same shall be borne by the Buyers or Sellers as applicable.
 - viii. Metering of electricity: Arrangement for metering shall be made by the Seller/Buyer as per the requirements of respective SLDC / RLDC. Members and the relevant authority shall be responsible to resolve the issues related to metering of electricity. Members shall indemnify and keep indemnified the Exchange from any disputes related to metering.
 - ix. Transmission Losses: Seller shall bear in kind the transmission/ distribution losses from its own interface up to the delivery point. Buyer shall be required to bear in kind all the transmission/ distribution losses from the delivery point up to its own interface. Transmission loss percentage for the respective transmission system as applicable at the time of actual delivery shall be applied for deriving scheduled quantities at various points in the transmission route in accordance with the Procedure for Scheduling of Bilateral Transaction and Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 as amended from time to time.
 - x. Transmission Charges: All the transmission charges shall be calculated on the total quantum of power scheduled at seller's Regional Periphery. Seller shall pay for the transmission charges and Wheeling Charges (wherever applicable) up-to the point of delivery and Buyer shall bear all the charges for enroute regional transmission system and also the transmission and wheeling charges (wherever applicable) for its respective State grid in accordance with the Procedure for Scheduling of Bilateral Transaction and Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 as amended from time to time..
 - xi. Scheduling and Operating charges: Seller will pay for the Scheduling and Operating charges upto delivery point i.e. for the concerned RLDCs /SLDCs /ALDCs involved in transaction. Buyer will bear all the Scheduling and Operating charges from its interface

- upto delivery point i.e. for the concerned RLDCs /SLDCs /ALDCs involved in transaction. Application fees for the Nodal RLDC will be paid by the buyer.
- xii. All Transmission, Wheeling charges, Scheduling, Operating charges and application fees will be paid to the Nodal RLDC as per advice received from them and the same will be recovered from the buyers and sellers.
 - xiii. The Application fee for processing the 'Concurrence from SLDC' shall be paid by Buyer and Seller for their respective SLDCs.
 - xiv. **E bidding consent:** In the event, it is reiterated that the implementation of the contract finalized between the Buyer and the Seller through Power Exchange shall be subject to the availability of the transmission capacity and constraints in the system. In the event of anticipated congestion in one or more transmission corridor and a need for participating in the e-bidding for securing transmission corridor as per the guidelines laid down in the procedure for scheduling of bilateral transaction, the following shall apply:
 - a) The Exchange will have the right to participate in the e-bidding on behalf of the Members as per the above guidelines for bilateral transactions;
 - b) In case of more than one transaction contracted through the Exchange, the Exchange will have the right to participate in the e-bidding for both the transactions;
 - c) Each of the Buyer participating in the transaction through the Exchange shall notify to the Exchange the maximum transmission charges for which the Exchange can bid on his behalf.
 - d) In case any of the Buyer participating in the Exchange is not willing to give consent for e-bidding, there will be an automatic reduction in the contracted quantity for such Buyer and the schedule for dispatch of the related quantum affected by the anticipated congestion may not be implemented, although the Exchange will forward to the concerned RLDC the request for scheduling subject to the availability of the transmission capacity;
 - e) In case the Buyer notifies the maximum transmission charges to which they are agreeing to pay, the Exchange will participate on behalf of the respective Buyer in the e-bidding up to the same limit;
 - f) The decision on the person entitled to the transmission corridor based on e-bidding taken by the concerned RLDC shall be binding on the parties.

10. Transaction fees

The Exchange will charge a transaction fee, as may be specified by the Exchange from time to time, on the transactions carried through the Exchange. Such transaction fee will be computed on value basis or volume basis, as may be decided from time to time, which will be computed on both purchases and sales separately.

11. Reports

- I. After end of trading session, the Exchange will download the reports to the Members which consist of Trade file Report, Provisional Obligation Report, Final Obligation Report and other relevant matters.
- II. Based on the Exchange's Reports, the Members can inform their Clients about their successful trades along with their obligation.

Annexure B1**Contract Specification: - Regional Day Ahead Contingency Contracts (RDACC)**

Sr No.	Item	Details
1	Contract Name*	Region wise Day-Ahead Contingency Contracts
2	Regions	Regional contracts one each for each electrical region will be available for trading i.e. for Northern Region (NR), Eastern Region (ER), Western Region (WR), Southern Region (SR) and North East Region (NER)
3	Contract Code*	“Type of Contract- Hour No. – Region “ (E.g.DAC-H21-WR) Where, DAC: Day Ahead Contract Hour:Hour of delivery Region detail WR: Western Region.
4	Contract Type	Delivery Option - Firm Delivery
5	Contract available for Trading	Hourly contracts for next day from 1 st Hour to 24 th Hour i.e. 24 contracts of one hour each.
6	Trading day*	A day before delivery day or as per trading calendar declared in advance.
7	Trading Session*	On each trading day, one continuous trading session will be made available to the members for bidding.
8	Bidding process	Seller will submit bid for the contract of that region to which he belongs. Whereas a buyer can buy any regional contract. Netting off (square off) of positions will not be allowed.
9	Matching of Bids	Continuous trade session. Details in clause 5 (B) of Schedule B of Business Rules. Each trade will be sent for scheduling, on trade to trade basis.
10	Trading Hours	Continuous trade session: 03.00 PM to 11.00 PM on trading day i.e. one day before delivery date or as per trading calendar
11	Minimum Volume quotation*	1 MW
12	Minimum Volume Step*	1MW
13	Lot size	1 MW * 1 Hour
14	Maximum bid size*	Bids should not be more than the allowed MW in any of Concurrence/Clearance issued by its SLDC to the Members/Clients at any time. It will be the responsibility of the Member to adhere to this rule.
15	Price Quote Basis	Rs. per MWh (excluding all fees,charges, taxes, if applicable)
16	Price Tick*	Rs. 1 per MWh
17	Volume Tick size	1 MWh
18	Quantity Variation	Zero quantity variation allowed.
19	Settlement	Traded price * Quantity scheduled by RLDC at delivery point.
20	Initial Margins (Operational Limit)*	100% margin from buyers of the total order value should be available in cash with the exchange at the time of bidding for continuous trading sessions.
21	Variation Margin*	NA

22	Extreme Margin*	Loss	NA
23	Transaction Fees*		Fees payable by buyer and seller to Exchange for the quantity approved by nodal RLDC at delivery point as specified by the exchange from time to time.

Trading Cycle

	Details	Time (Hrs)
24	Continuous Trade Session (Daily)	1500 – 2300
25	SLDC Clearance and Declaration Form sent to Members	As specified in TAM Trading and Settlement Calendar
26	Submission of SLDC Clearance to the Exchange by the Member	As specified in TAM Trading and Settlement Calendar
27	Submission of Application to Nodal RLDC ⁽¹⁾	As per Procedure for scheduling of Bilateral transactions
28	Approval from nodal RLDC	As per CERC Order dated 08.04.2015 in Petition no. 006/SM/2015.
	Pay in/ adjustment on T+1 basis where T is the trading day	Post receipt of nodal RLDC approval
	Payout on T+2 basis where T is the trading day	By 1100
29	Payment of charges to Nodal RLDC as per Procedure for Scheduling of Bilateral Transaction.	1500
	⁽¹⁾ Application for Scheduling will be sent only when the SLDC Clearances from buyer and seller are received by the Exchange. In case, the SLDC approval is not received from SLDCs of buyer/ seller as specified in Trading and Delivery Calendar, then it will be considered as default by buyer/seller.	

Delivery Procedure

30	Delivery	Delivery shall commence 3 hours after expiry of the contract. Trade once executed shall not be revised and shall be sent for scheduling, and at no point of time during the contract period shall be allowed to be revised. The quantity shall be deliverable as per the schedule issued by the respective RLDC.
31	Delivery period	Delivery for each hour.
32	Delivery point	The delivery point shall be at Seller's Regional Periphery as per Procedure for Scheduling of Bilateral Transaction and Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 as amended from time to time.
33	Application for Scheduling	Application for Scheduling will be Submitted to Nodal RLDC on Contingency basis as per the "Procedure for Scheduling of bilateral transactions"
34	SLDC Clearance	The buyer and seller will have to take concurrence from their respective SLDC for scheduling of Power. This concurrence has to be submitted as per the timelines specified in the Trading and Delivery Calendar. NOC / Prior Standing Clearance issued by the SLDC in format PX-I as per CERC (Interstate Open Access) Regulations, are also valid for these transactions.

35	Application fees, Operating and Transmission Charges and Losses	Seller will bear all the Transmission, Scheduling & Operating charges and Transmission Losses (in kind) up to the delivery point and Buyer shall bear all the Transmission, Scheduling & Operating charges including Application Fees and Transmission Losses from delivery point up to their point of drawl . The charges shall be applied on the quantum of power scheduled at seller's Regional Periphery.
36	Alternate route	Unless preference is specified by the buyer, he will be deemed to have consented for all possible transmission corridors from seller's injection point till drawal point.
37	Force majeure	In case of force majeure, the Exchange will settle the contract as per final schedule issued by RLDCs.
38	Fines & penalties*	As decided by the Exchange from time to time and informed through circular.

Settlement procedure

39	Payment of Application fees, Transmission & Operating Charges by Members	Application fees, Transmission and Operating Charges as applicable on quantum scheduled at the delivery point and payable to the Nodal RLDC, will be recovered from the buyer and seller members on receipt of acceptance from the nodal RLDC.
40	Funds pay in by Members	Exchange will debit/adjust the funds pay-in on the next day of trade from buyer's member's /clients, as applicable. Excess margins, if any due to partial concurrence received will be refunded back to the member on the settlement day..
41	Funds pay out to Members	Exchange will credit the funds pay out in seller's member's settlement account on D+1 basis at 12.00 noon for each delivery day subject to confirmation of delivery pay in by the seller. Pay-outs and refund of Margins shall not be allowed to the Clients of the Professional Members before expiry of fifteen (15) working days from the date the Pay-out has become due under these Business Rules.

* Exchange may modify these parameters from time to time with prior intimation to its Members.

Contract Specification:- Regional Intra-Day Contract

Sr No.	Topic	Details
1	Contract Name*	Regional Intra Day Contracts
2	Regions	Regional contracts one each for each electrical region will be available for trading i.e. for Northern Region (NR), Eastern Region (ER), Western Region (WR), Southern Region (SR) and North East Region (NER)
3	Contract Code*	"Type of Contract- Hour No. – Region (E.g.ITD-H21-NR) Where, ITD: Intraday Contracts: Hour of delivery Region detail: NR: Northern Region".
4	Contract Type	Delivery Option - Firm Delivery
5	Contract available for Trading	Hourly contracts of one hour each for consecutive hours on same day will be available for trading.
6	Trading day*	Every calendar day of the year for same delivery date.
7	Trading Session*	Continuous Trading session will be made available to the members for bidding.
8	Bidding process	Seller will submit bid for the contract of that region to which he belongs. Whereas a buyer can buy any regional contract. Netting off (square off) of positions will not be allowed.
9	Matching of Bids	Continuous trade session: Details in clause no. 5 (B) of Schedule B of Business Rules. Each trade will be sent for scheduling, on trade to trade basis.
10	Trading Hours	Continuous trade session: 0030 hrs to 2000 hrs on trading days
11	Minimum Volume Quotation*	1 MW
12	Minimum Volume Step*	1 MW
13	Lot size	1 MWh
14	Maximum bid size*	Bids should not be more than the allowed MW in any of Concurrence/clearance issued by its SLDC to the members/clients at any time. It will be the responsibility of the member to adhere to this rule.
15	Price Quote Basis	Rs. per MWh (excluding all fees, charges, taxes, if applicable)
16	Price Tick*	Rs. 1 per MWh
17	Quantity Variation	Zero quantity variation allowed.
18	Settlement	Traded price * Quantity scheduled by RLDC at delivery point.
19	Initial Margins (Operational Limit)*	105% margin from buyers of the total order value should be available in cash with the exchange at the time of bidding for continuous trading sessions.
20	Variation Margin*	NA
21	Transaction Fees*	Fees payable by buyer and seller to Exchange for the quantity approved by nodal RLDC at delivery point as specified by the exchange from time to time.

Trading Cycle

	Details	Time (Hrs)
22	Continuous Trade Session (Daily)	0030 to 2000
23	SLDC Clearance and Declaration Form sent to Members	As specified in TAM Trading and Settlement Calendar
24	Submission of SLDC Clearance to the Exchange by the Member	As specified in TAM Trading and Settlement Calendar
25	Submission of Application to Nodal RLDC ⁽¹⁾	As per Procedure for Scheduling of Bilateral Transaction.
26	Approval from nodal RLDC	As per CERC Order dated 08.04.2015 in Petition no. 006/SM/2015.
	Payin /adjustment on T+1 basis where T is the trading day	Post receipt of nodal RLDC approval
27	Payout on T+2 basis where T is the trading day	By 1100
28	Payment of charges to Nodal RLDC as per "Procedure for Scheduling of Bilateral Transaction".	1500
⁽¹⁾ Application for Scheduling will be sent only when the SLDC Clearances from buyer and seller are received by the Exchange. In case, the SLDC approval is not received from SLDCs of buyer/ seller as per specified in Trading and Delivery Calendar, then it will be considered as default by buyer/seller.		

Delivery Procedure

29	Delivery	Delivery shall commence 3 hours after expiry of the contract. Trade once executed shall not be revised and shall be sent for scheduling, and at no point of time during the contract period shall be allowed to be revised. The quantity shall be deliverable as per the schedule issued by the respective RLDC.
30	Delivery period	Delivery for each hour.
31	Delivery point	The delivery point shall be at Seller's Regional Periphery as per Procedure for Scheduling of Bilateral Transaction and Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 as amended from time to time.
32	Application for Scheduling	Application for Scheduling will be Submitted to Nodal RLDC on Contingency basis as per the "Procedure for Scheduling of bilateral transactions".
33	SLDC Clearance	The buyer and seller will have to take concurrence from their respective SLDC for scheduling of Power. This concurrence has to be submitted as per the timelines specified in the Trading and Delivery Calendar. NOC / Prior Standing Clearance issued by the SLDC in format PX-I as per CERC (Interstate Open Access) Regulations, are also valid for these transactions.
34	Application fees, and Operating	Seller will bear all the Transmission, Scheduling & Operating charges and Transmission Losses (in kind) up to the delivery

	Transmission Charges and Losses	point and Buyer shall bear all the Transmission, Scheduling & Operating charges including Application Fees and Transmission Losses from delivery point up to their point of drawl . The charges shall be applied on the quantum of power scheduled at seller's Regional Periphery.
35	Alternate route	The buyer will be deemed to have consented for all possible routes; however, they can give preference amongst the possible routes.
36	Force majeure	In case of force majeure, the Exchange will settle the contract as per final schedule issued by RLDCs.
37	Fines & penalties	As decided by the Exchange from time to time and informed through circular.

Settlement procedure

38	Payment of Application fees, Transmission & Operating Charges by Members	Application fees. Transmission and Operating Charges as applicable on quantum scheduled at the delivery point and payable to the Nodal RLDC will be recovered from the buyer and seller members on receipt of the acceptance from the nodal RLDC.
39	Funds pay in by Members	Exchange will debit/ adjust the funds pay-in on the next day of trading from buyer's member/ clients as applicable. Excess margins, if any due to partial concurrence received will be refunded back to the member on the settlement day.
40	Funds pay out to Members	Amount equivalent to net obligation will be credited at 12.00 noon on T+2 basis (where T stands for Trading day.)

* Exchange may modify these parameters from time to time with prior intimation to its Members.

Contract Specification: Regional Daily Contracts

Sr. No.	Item	Details
1	Contract Name*	Daily Contracts
2	Regions	Regional contracts one each for each electrical region will be available for trading i.e. for Northern Region (NR), Eastern Region (ER), Western Region (WR), Southern Region (SR) and North East Region (NER)
3	Contract Code*	<p>“Month Year-Block of Hours-Delivery Day-‘RI’” (e.g. MAR11-FBA-D03-NR) Where Month: Month of delivery day. Year: Year of delivery day Block of Hour: FBA : Firm base load power for the entire 24 hours FNT : Firm night power of 8 hours time block starting from 00.00 hrs in night till 07.00 hrs and from 23.00 hrs till 24.00 hrs. FDY : Firm day power for 11 hours time block starting 07.00 till 18.00 hrs. FPK : Firm evening power for 5 hours time block starting 18.00 hrs till 23.00 hrs. Delivery Day : Delivery Day NR: Northern Region</p>
4	Contract Type	Delivery Option - Firm Delivery
5	Firm Daily Contract	The daily contracts for trading will be available on a rolling basis i.e. everyday seven daily contracts of the following week.
6	Trading day*	Trading will be available on all days or as per trading calendar declared in advance
7	Trading Session*	On each trading day, one continuous trading session will be made available to the members for bidding.
8	Order Management*	The Exchange Members will be able to submit orders as per Clause No. 34 of Business Rules. A Member shall be permitted to modify or cancel his orders, during the trading hours. 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	Bidding process	Seller will submit bid for the contract of that region to which he belongs. Whereas a buyer can buy any regional contract. Netting off (square off) of positions will not be allowed.
10	Matching of Bids	Continuous trade session: Details as per clause no. 5 (B) of Schedule B of Business Rules. Each trade will be sent for scheduling, on trade to trade basis.

11	Trading Hours*	Continuous trade session: 12.00 noon to 3.00 PM on trading days
12	Minimum Quotation*	1 MW
13	Minimum Volume Step*	1 MW
14	Lot size	Base or RTC Contract (FBA): 1 lot = 1 MW * 24 Hours Night Off-peak Contract (FNT) : 1 lot = 1MW * 8 Hours Day Contract (FDY) : 1 lot = 1MW * 11 Hours Day Peak Contract (FPK) : 1 lot = 1 MW * 5 Hours
15	Maximum bid size*	Bids should not be more than the allowed MW in any of Concurrence/Clearance issued by its SLDC to the members/clients at any time. It will be the responsibility of the member to adhere to this rule.
16	Price Quote Basis	Rs. per MWH (excluding all fees, charges and taxes, if applicable)
17	Price Tick*	Rs. 1 per MWh
18	Quantity Variation	Zero quantity variation allowed.
19	Settlement	Traded price * Quantity scheduled by RLDC at delivery point.
20	Initial Margins (Operational Limit)*	5% margin of the total order value should be available in cash/non cash with the exchange at the time of bidding for continuous trading sessions.
21	Additional Margins (Basis Margin)*	Additional Margin will be based on a risk curve defined by the Exchange for each contract. Exchange will have the right to define and modify the risk curves from time to time. Additional Margin could be in the form of collaterals (Bank Guarantee or FDR) or bank limit.
22	Variation Margin*	Variation Margin may be collected from buyer Members only. Variation Margin is the difference in the Value of the contract based on the Trade price and the Settlement price. In case the Settlement price is less than the trade price, the difference in the value is collected from the buyers however at any point the sum of Basis Margin collected upto that day and Variation Margin will not exceed the trade value. Variation Margin will be computed at the end of each available trading day for a specific contract and will be collected from the member on the same day in the form of collaterals. Variation Margin will be applied at client level.
23	Extreme Loss Margin*	Exchange can impose Extreme Loss Margin, which the exchange can apply any time during the life of the contract.
24	Transaction Fees*	Fees payable by buyer and seller to Exchange for the quantity approved by nodal RLDC at delivery point as specified by the exchange from time to time.

Trading Cycle.*

Sr. No.	Time	Details
25	12:00 – 15:00	Continuous Trade Session
	15:30	SLDC Clearance and Declaration Form sent to Members.
	16.30	Calculation of Additional Margin of the buyer's member
26	17:00	Blocking of the Additional Margin from the available cash/non cash collateral of the buyer's Member provided to the

		exchange. In case if there is any deficit, call for the deficit additional margins.
27	As per the Trading & Delivery Calendar	SLDC Clearance from Members and fulfillment of additional margin requirement call, if any.
		On completion of formality and receipt of adequate additional margin, application on 'First Come First Serve' or 'Day-Ahead Bilateral' basis will be sent to Nodal RLDC.
		Acceptance for Scheduling from Nodal RLDC.
		Receipt of Transmission/Operating Charges and Application Fees from the members.
		Payment of Charges to Nodal RLDC.
		Pay-in ; equivalent to one day's obligation collected on D-1 basis , where D=Delivery day.
		Payout; Equivalent to one day's obligation credited on D+1 basis, till the contract delivery ends
		Payout; Equivalent to one day's obligation credited on D+1 basis, till the contract delivery ends

Delivery Procedure

28	Delivery	Trade once executed shall not be revised and shall be sent for scheduling, The quantity shall be deliverable as per the schedule issued by the RLDC
29	Delivery period	As mentioned under item no.2
30	Delivery point	The delivery point shall be at Seller's Regional Periphery as per Procedure for Scheduling of Bilateral Transaction and Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 as amended from time to time.
31	SLDC Clearance	After trading on the exchange, the buyer and seller will have to take a concurrence of their respective SLDCs. This concurrence has to be submitted to the exchange as per the timelines specified in the trading and delivery calendar.
32	Application for Scheduling	Application for Scheduling will be Submitted to Nodal RLDC as specified in the Trading Calendar and as per the "Procedure for scheduling of bilateral transactions".
33	Delivery Process	Application for Scheduling, as specified in the trading and delivery Calendar, shall be sent to the Nodal RLDC, on FCFS basis as per the "Procedure for scheduling of bilateral transactions".
34	Application fees, Operating and Transmission Charges and Losses	Seller will bear all the Transmission, Scheduling & Operating charges and Transmission Losses (in kind) up to the delivery point and Buyer shall bear all the Transmission, Scheduling & Operating charges including Application Fees and Transmission Losses from delivery point up to their point of drawl . The charges shall be applied on the quantum of power scheduled at seller's Regional Periphery.
35	Alternate route	Unless preference is specified by the buyer, it will be deemed to have consented for all possible transmission corridors from seller's injection point till drawal point.
36	Force majeure	In case of force majeure the Exchange will settle the contract as per final schedule issued by RLDCs.

37	Fines & penalties*	As decided by the Exchange from time to time and informed through circular.
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Settlement procedure*

38	Payment of Application fees, Transmission & Operating Charges by Members	Application fees will be collected from buyer on date of application to Nodal RLDC. Transmission and Operating Charges as applicable on quantum scheduled at seller's periphery and payable to the Nodal RLDC, will be recovered from the buyer and seller members on the next day of receiving the acceptance from the nodal RLDC.
39	Funds pay in by Members	Exchange will debit the funds pay-in on each D-1 basis at 11.00 am from buyer's member's settlement account.
40	Funds pay out to Members	Exchange will credit the funds pay-out in seller's member's settlement account on D+1 basis at 12.00 noon subject to confirmation of delivery pay in by the seller.

* Exchange may modify these parameters from time to time with prior intimation to its Members.

Contract Specification:-Regional Weekly Contracts

Sr. No.	Item	Details
1	Contract Name*	Regional Weekly Contracts
2	Regions	Regional contracts one each for each electrical region will be available for trading i.e. for Northern Region (NR), Eastern Region (ER), Western Region (WR), Southern Region (SR) and North East Region (NER)
3	Contract Code*	<p>“Month Year-Block of Hours-Delivery Week-RI” (e.g. MAR11-FBA-W14-NR)</p> <p>Where, Month: Month of delivery day. Year: Year of delivery day Block of Hour: FBA : Firm base load power for the entire 24 hours FNT : Firm night power of 8 hours time block starting from 00.00 hrs in night till 07.00 hrs and from 23.00 hrs till 24.00 hrs. FDY : Firm day power for 11 hours time block starting 07.00 till 18.00 hrs. FPK : Firm evening power for 5 hours time block starting 18.00 hrs till 23.00 hrs. Delivery Week : Week of delivery NR: Northern Region</p>
4	Contract Type	Delivery Option – Firm Delivery
5	Firm Weekly Contract	The weekly contracts for trading will be available as per the trading and settlement calendar for various calendar weeks starting on Monday and ending on Sunday.
6	Trading day*	Please refer to trading and settlement calendar for more details. Exchange can also hold multiple trading sessions on specified trading days or other days to minimize unmatched volume.
7	Trading session*	<p>On each trading day, one session will be made available to the members for bidding</p> <p>a) Call Auction session</p> <p>Details of trading session are given in trading cycle.</p>
8	Order Management	The Exchange Members will be able to submit orders as per Clause no. 34 of Business Rules. A Member shall be permitted to modify or cancel his orders, during the trading hours. 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	Bidding process	Seller will submit bid for the contract of that region to which he belongs. Whereas a buyer can buy any regional contract.

		Netting off (square off) of positions will not be allowed.
10	Matching of Bids	Uniform Price Step Auction can be closed or open as specified in Exchange circular issued from time to time. Details of closed or open auction are mentioned in Clause no. 5 (A) Schedule B of Business Rules.
11	Trading Hours*	As specified in Exchange circular from time to time.
12	Minimum Volume quotation*	1 MW
13	Minimum Volume Step*	1MW
14	Lot size	Base or RTC Contract (FBA): 1 lot =1 MW*24*7 Hours Night Off-peak Contract (FNT): 1 lot= 1MW*8*7 Hours Day Contract (FDY): 1 lot = 1MW *11*7 Hours Day Peak Contract (FPK): 1 lot = 1 MW*5*7 Hours
15	Maximum bid size*	Bids should not be more than the allowed MW in any of Concurrence/Clearance issued by its SLDC to the members/clients at any time. It will be the responsibility of the member to adhere to this rule.
16	Price Quote Basis	Rs. per MWH (excluding all fees ,charges, taxes etc)
17	Tick size*	Rs. 1 per MWH
18	Quantity Variation	Zero quantity variation allowed.
19	Settlement	Traded price * Quantity scheduled by RLDC at delivery point.
20	Initial Margins (Operational Limit)*	5% margin of the total order value should be available in cash/non cash with the exchange at the time of bidding by buyer.
21	Additional Margins (Basis Margin)*	Where the difference between the trading day and the start of delivery day is as follows: <ul style="list-style-type: none"> ➤ ≤ 10 days but > 4 days:30% (on trading day) + 20% (on Trade + 1 day).. 5% of the last trench of will be collected in cash. ➤ ≤ 4 days: 50% (on trading day). 5% of the last trench of will be collected in cash.
22	Variation Margin*	Variation Margin may be collected from buyer Members only. Variation Margin is the difference in the Value of the contract based on the Trade price and the Settlement price. In case the Settlement price is less then the trade price, the difference in the value is collected from the buyers however at any point the sum of Basis Margin collected upto that day and Variation Margin will not exceed the trade value. Variation Margin will be computed at the end of each available trading day for a specific contract and will be collected from the member on the same day in the form of collaterals. Variation Margin will be applied at client level.
23	Extreme Loss Margin*	Exchange can impose Extreme Loss Margin, which the exchange can apply any time during the life of the contract.
24	Transaction Fees*	Fees payable by buyer and seller to Exchange for the quantity approved by nodal RLDC at delivery point as specified by the exchange from time to time.

Trading Cycle*

Sr No.	Time	Details
25	12:00 – 16:00	Auction Trade Session
	16:00	Publish results.
	16.30	SLDC clearance and Declaration form sent to Members through FTP.
26	17:00	Blocking of the Additional Margin from the available cash/non cash collateral of the Buyer Member provided to the exchange. In case if there is any deficit, call for the deficit additional margins.
27	As per the Trading & Delivery Calendar	SLDC Clearance from Members and fulfillment of additional margin requirement call, if any.
		On completion of formality and receipt of adequate additional margin, application on 'First-Come-First-Serve' or 'Day-Ahead Bilateral' basis will be sent to Nodal RLDC.
		Acceptance for Scheduling from Nodal RLDC.
		Receipt of Transmission/Operating Charges and Application Fees from the members.
		Payment of Charges to Nodal RLDC.
		Pay-in ; equivalent to one day's obligation collected on D-1 basis , till the contract delivery ends
		Pay-out; Equivalent to one day's obligation credited on D+1 basis, till the contract delivery ends
¹⁾ Application for Scheduling will be sent only when the SLDC Clearances from buyer and seller are received by the Exchange. In case, the SLDC approval is not received from SLDCs of buyer/ seller as per the timeline specified in the Trading and Delivery Calendar then it will be treated as default by concerned buyer or seller.		

D = Delivery Day

Delivery Procedure

28	Delivery	Trade once executed shall not be revised and shall be sent for scheduling. The quantity shall be deliverable as per the schedule issued by the RLDC.
29	Delivery period	As mentioned under point no. 2
30	Delivery point	The delivery point shall be at Seller's Regional Periphery as per Procedure for Scheduling of Bilateral Transaction and Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 as amended from time to time.
31	Application for Scheduling	Application for Scheduling will be submitted to nodal RLDC as specified in the Trading and Delivery Calendar and as per the "Procedure for Scheduling of bilateral transactions".
32	SLDC Clearance	After trading on the exchange, the buyer and seller will have to take a concurrence of their respective SLDCs. This concurrence has to be submitted to the exchange as per the date and time specified in the trading and delivery calendar.
33	Delivery Process	Application for Scheduling, as specified in the trading and delivery Calendar, shall be sent to the Nodal RLDC, on the first available date after trading, as per the "Procedure for scheduling of bilateral transactions".

34	Application fees, Operating and Transmission Charges and Losses	Seller will bear all the Transmission, Scheduling & Operating charges and Transmission Losses (in kind) up to the delivery point and Buyer shall bear all the Transmission, Scheduling & Operating charges including Application Fees and Transmission Losses from delivery point up to their point of drawl . The charges shall be applied on the quantum of power scheduled at seller's Regional Periphery.
35	Alternate route	Unless preference is specified by the buyer, he will be deemed to have consented for all possible transmission corridors from seller's injection point till drawal point.
36	Force majeure	In case of force majeure the Exchange will have the power to settle the contract independently and/or as deemed fit by the Exchange.
37	Fines & penalties*	As decided by the Exchange from time to time and informed through circular.

Settlement procedure*

39	Payment of Application Fees by Members	Application fees will be collected from buyer on date of application to Nodal RLDC. Transmission and Operating Charges as applicable on quantum scheduled at the delivery point and payable to the Nodal RLDC, will be recovered from the buyer and seller members on the next day of receiving the acceptance from the nodal RLDC.
40	Funds pay in by Members	Exchange will debit the funds pay-in on D-1 basis at 11.00 am from buyer member settlement account.
41	Funds pay out to Members	Exchange will credit the funds pay out in seller's member's settlement account on D+1 basis at 12.00 noon for each delivery day subject to confirmation of delivery pay in by the seller. Pay-outs and refund of Margins shall not be allowed to the Clients of the Professional Members before expiry of fifteen (15) working days from the date the Pay-out has become due under these Business Rules.

* Exchange may modify these parameters from time to time with prior intimation to its Members.

SCHEDULE C: RENEWABLE ENERGY CERTIFICATE (REC) MARKET

1. Introduction

This market segment will cover Renewable Energy Certificate contracts in accordance with CERC (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 as amended from time to time.

- 1.1 REC Market will operate in accordance with the procedures issued by Central Agency for trading of RECs.

- 1.2 This market segment will typically cover two categories of certificates, solar certificates and non-solar certificates which are issued to eligible entities for generation of electricity Based on solar and non solar renewable energy sources.
- 1.3 All terms and conditions of the contracts including trading sessions, matching rules, margin requirement and delivery procedure etc, will be as per specific rules mentioned herein.

2. Membership

- 2.1 All the existing Members and Clients of the Exchange are eligible to trade RECs at the Exchange Platform. However, a separate category of membership termed as 'REC Member' is introduced for the participants who want to trade only Renewable Energy Certificates at the Exchange. The different terms and conditions for Members of the Exchange is defined in the Rules. REC Member shall be governed by Regulation 26 of CERC (Power Market) Regulation,2010. Additional eligibility conditions, if any, for REC Member will be notified by the Exchange from time to time through circulars.
- 2.2 Rules and Bye-laws as applicable to other Members shall apply to such Members except those mentioned herein or notified separately through circulars from time to time.

3. Client

- 3.1 A separate category of Client is introduced for the participants who wish to trade only RECs at the Exchange. A Professional Member or an REC Member, trading for his own account or on behalf his Clients, shall pay the Exchange, Annual Client Fees, as decided by the Exchange, for each Central Agency registered entity, which gives the Member or the Client the right to purchase and sell RECs, and shall receive a registration identification code from the Exchange provided that he complies with all the other requirements prescribed by the Exchange from time to time. This fees shall be payable for each financial year.

4. Fees

- 4.1 IEX may charge the following fees to the REC Member
 - a) Admission Fee;
 - b) Annual Subscription Fee;
 - c) Transaction fee; and
 - d) as the case may be, a single set up Fee.
- 4.2 The admission fee is one-time fee for admission to the IEX-REC. The admission fee is non-refundable.
- 4.3 A Member is required to pay annual subscription fee in accordance with his category of membership at the latest by 30th day of April every year in advance.
- 4.4 The transaction fee is due per traded volume of certificates and as specified by the Exchange from time to time.

- 4.5 The Member shall pay such fees and charges as decided by the Exchange from time to time.

5. Trading Days

- 5.1 The Exchange shall operate on days as notified by the Exchange in advance for each calendar year In accordance with detailed procedure issued by the Central Agency.

6. Trading hours

- 6.1 Trading hours shall be as per approved detailed procedure issued by the Central Agency.

7. Market Operations

- 7.1 REC Market segment will operate in accordance with the procedures issued by Central Agency for trading of RECs. The REC market operations and the exact time schedule relating to pay in and pay out activities shall be adhered by all the Exchange Members in order to have smooth and orderly operations of the Exchange.

- 7.2 Summary of terms and conditions of the contract is as specified in Contract Specifications at **Annexure C1**.

8. Trading phases

8.1 Pre-trade phase

The Exchange will validate available margins of the Buying participants required as per contracts specifications. Members will be allowed to place orders upto the available margins.

8.2 Order accumulation phase (Bidding phase)

Bidding session also referred to as the Order call period will start from 13.00 Hrs to 15.00 Hrs on the trading days specified as per the REC Trading calendar published from time to time. Orders entered by the direct access clients shall be treated as orders entered by Members. The orders collected during the order accumulation phase will not be visible to the market participants.

8.3 Order matching and trade finalization phase

At the end of the bidding phase, the trading platform will seek to match orders. During this matching process, orders cannot be entered into the trading platform, and orders already entered cannot be cancelled or modified. A report of all offers received by the exchange shall be prepared in the format approved by the Central Agency and would be sent to the Central Agency. Central Agency will verify availability of sufficient number of certificates in the sellers account and confirm the same to the exchange. In case, based on the report received from the Central Agency it is found that sufficient number of certificates are not available in the account of the seller, his offer shall be rejected. All bids and offers (after rejecting offers as mentioned above) are aggregated and Market Clearing Price and Market Clearing Volume shall be determined by 16.30 Hrs.

After the final market clearing price and volume determination phase is concluded by 16.30 Hrs, Members, whose orders have been executed, will be provided all relevant trade information regarding final trade on the trading platform. The Exchange shall also inform the Central Agency about the same by 17.00 Hrs.

8.4 Obligation determination process (Settlement Phase)

After end of the order matching and trade finalization phase, an obligation report will be generated by the Exchange at 17.00 Hrs, which will provide the quantity and amount of pay in / pay out and transaction fee payable etc. The Exchange will advise the Clearing Banks for transfer of pay-in at 17.00 hrs and pay-out at 11.00 hrs of next bank working day to / from Member's accounts. In case a professional or REC Member does not hold a Trading License from the CERC, then such Members will be governed by Regulation 26(ii) of Central Electricity Regulatory Commission (Power Market) Regulations, 2010. Accordingly the pay-in / pay-out shall take place in accordance with this regulation.

8.5 Delivery phase

On the basis of trade finalized, Central Agency shall extinguish the requisitioned number of RECs from the respective seller's account by 18.00 Hrs of the trade day. Information would be sent to the Central Agency as per the agreed data interchange formats. The Exchange shall also send a written invoice to all the successful buyers and sellers by 17.30 Hrs stating the total number of RECs purchased / sold by them along with the unique identification code for each transaction.

8.6 The information regarding Market Clearing Price and Market Clearing Volume shall be posted on the website by 18.00 Hrs.

8.7 The Exchange shall issue an electronically printable certificate as per format prescribed by CERC at **Annexure C2**, along with the REC account statement pertaining to such certificate, to the Buyers within five days of trading.

8.8 The Exchange timelines are as under. They are subject to change as per procedure specified by the Central Agency towards implementation of REC mechanism as approved by CERC and Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010.

TIME on TRADE DAY	DETAILS
Pre-trade Phase:	
By 12.00 Hrs	Exchange to check initial margin check for Members
Order Accumulation phase (Bidding)	
13.00 Hrs to 15.00 Hrs	Order Accumulation
Order matching and trade finalization	
By 15.30 Hrs	<ul style="list-style-type: none"> Exchange to send details of maximum offer placed by Sellers to Central Agency
By 16.00 Hrs	<ul style="list-style-type: none"> Central Agency to send report confirming valid RECs with Eligible Entities
By 16.30 Hrs	<ul style="list-style-type: none"> Finalization of trade results after removal of defaulters' orders

	<ul style="list-style-type: none"> Exchange to inform participants about trade results
By 17.00 Hrs	<ul style="list-style-type: none"> Exchange to inform Central Agency the details of buyers and sellers
Settlement Phase	
By 17.00 Hrs	<ul style="list-style-type: none"> Files to be sent by Exchange to banks for actual debits/credits (Pay-in & Pay-out)
By 11.00 Hrs (next bank working day)	<ul style="list-style-type: none"> Files to be sent by Exchange to banks for actual credits (Pay-out)
Delivery Phase	
By 18.00 Hrs	<ul style="list-style-type: none"> Central Agency to extinguish RECs in Seller's Account
	<ul style="list-style-type: none"> Exchange to raise invoices to each participant as proof of transfer of RECs.

The above timelines shall be subject to change as per approved detailed procedure issued by the Central Agency.

9. Order management

9.1 Order types

The Exchange Members will be able to submit the following types of orders:

- a. **Single bid:** Single order will specify the price and quantity of RECs to be traded.

9.2 Modification and cancellation of orders:

A Member shall be permitted to modify or cancel his orders, during the trading hours.

9.3 Order validation

Orders 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.

10. Matching rules

- 10.1 All the Clients shall be assigned unique ID / Portfolio ID. The Exchange may launch more than one order book running either parallel or at different time spans. Subject to the approval of the CERC, the Exchange is also entitled to modify or change the matching rules relevant to any market or order books any time where it is necessary to do so.

10.2 Uniform Price Auction for Renewable Energy Certificates

The matching of bids will be done through Uniform Price Auction. The methodology used is described as below.

A Matching of the auction will only take place if there are crossing prices (buy price \geq Sell Price) in the order book, that is, if the best order price is equal to or higher than the best ask price. In that case, the equilibrium price is determined according to the following criteria:

1. Maximum tradable volume: The Equilibrium Price will be the price at which there is maximum tradable volume.
2. Minimum unbalance: If there is more than one price with equal value for maximum tradable volume, the price that leaves the least volume untraded at its level is chosen as Equilibrium Price.

If Auction Session has overlapping Buy and Sell orders resulting in at least 1 trade (if there are crossing prices i.e. best buy price \geq best Sell Price) then the system would use the below mentioned principles to determine that Session's Auction Uniform Price. If system achieves more than one potential Auction Uniform Price by Principle 1, then the algorithm would move to Principle 2 to narrow down the options and so on. If any Principle achieves a single potential Auction Uniform Price, then that price would be assigned as that Session's Auction Uniform Price.

The Auction Uniform Price calculation logic is explained below with the help of an example:

The Order Book would be sorted on Best Buy and Best Sell basis for a product e.g. 'AUCREC SOLAR' at the end of the Auction session as below:

BUY			SELL		
Order	Qty	Price	Price	Qty	Order
A	4,500	825	831	290	J
B	28,200	824	828	11,420	K
C	1,900	822	826	21,650	L
S	49,700	820	825	8,500	M
D	8,000	819	823	1,900	N
E	16,400	818	820	17,500	O
F	5,400	815	819	3,600	P
G	900	814	818	11,600	Q
H	4,575	812			R

1) Principle: Determining the Maximum Tradable Volume

The principle would establish the **price(s)** at which **maximum tradable volume** would be **executed**. There would be two steps involved in applying this principle.

- a. **STEP 1** – Determine the Cumulative Buy and Sell quantities at each eligible price. The Cumulative Buy and Sell quantities at each price for 'XYZ' are as follows:

BUY		Price	SELL	
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity
0	0	831	290	76,460
0	0	828	11,420	76,170
0	0	826	21,650	64,750
4,500	4,500	825	8,500	43,100
32,700	28,200	824	0	34,600
32,700	0	823	1,900	34,600
34,600	1,900	822	0	32,700
84,300	49,700	820	17,500	32,700
92,300	8,000	819	3,600	15,200

108,700	16,400	818	11,600	11,600
114,100	5,400	815	0	0
115,000	900	814	0	0
119,575	4,575	812	0	0

- b. **STEP 2** – Establish the total tradable volume at each eligible price (i.e. Maximum Quantity which may be traded at that each price). The total tradable volume at a price would be computed as 'Minimum of Cumulative Buy and Cumulative Sell quantity' at the respective price. The Maximum Tradable Volume (MEV) for each eligible price is as below:

BUY		Price	SELL		Maximum Executable Volume
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity	
0	0	831	290	76,460	0
0	0	828	11,420	76,170	0
0	0	826	21,650	64,750	0
4,500	4,500	825	8,500	43,100	4,500
32,700	28,200	824	0	34,600	32,700
32,700	0	823	1,900	34,600	32,700
34,600	1,900	822	0	32,700	32,700
84,300	49,700	820	17,500	32,700	32,700
92,300	8,000	819	3,600	15,200	15,200
108,700	16,400	818	11,600	11,600	11,600
114,100	5,400	815	0	0	0
115,000	900	814	0	0	0
119,575	4,575	812	0	0	0

Note: The Maximum Tradable Volume is the highest value amongst 'Maximum Tradable Volume' derived for all price points.

In this example, the maximum quantity that may be traded is 32,700 at prices 820, 822, 823 and 824. Therefore, as per Principle 1, the Prices eligible for Auction Uniform Price Calculation are 820, 822, 823 and 824. The algorithm would eliminate all other price points as the potential Auction Uniform Price. To further narrow the choices for Auction Uniform Price, Principle 2 would be used to determine the Minimum Unbalance level.

2) Principle: Establishing the Minimum Unbalance

The second principle would ascertain the eligible price levels (from prices 820, 822, 823 and 824) at which the Unmatched Quantity is a minimum.

The Minimum Unbalance at each price level is equal to 'Cumulative Buy Quantity – Cumulative Sell Quantity'

BUY		Price	SELL		Maximum Executable Volume	Minimum Unbalance (CBO – CSO)
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity		
32,700	28,200	824	0	34,600	32,700	-1,900
32,700	0	823	1,900	34,600	32,700	-1,900
34,600	1,900	822	0	32,700	32,700	1,900
84,300	49,700	820	17,500	32,700	32,700	51,600

Ignoring the positive and negative signs, the lowest number in the Minimum Unbalance column is 1,900. The minimum Unbalance occurs at prices 822, 823 and 824. Therefore, as per completion of Principle 2, the Prices eligible for Auction Uniform Price Calculation are 822, 823 and 824. The algorithm would further eliminate 820 as Auction Uniform prices and the algorithm would continue to the 3rd step to establish the Auction Uniform Price.

Note: 0 is the lowest Minimum Unbalance Quantity.

3) Principle: Ascertaining where the Market Pressure exists

The third principle should ascertain where the market pressure of the potential Auction Uniform Price prices exists: on the buy or the sell side.

- a. If all the potential Auction Uniform Prices have positive (+) Minimum Surplus then the market pressure is on the BUY side (Buyer’s Market) and the Auction Uniform Price would be highest of the potential Auction Uniform Prices (Assuming that residual BUY pressure would likely cause the price to rise)

BUY		Price	SELL		Maximum Executable Volume	Minimum Surplus (CBO – CSO)	Multiple Minimum surplus with all +ve Surplus, so Buyer’s Market and Uniform Price MAX (100,99) = 100
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity			
200	200	100	0	150	150	50	
200	0	99	150	150	150	50	

- b. If all the potential Auction Uniform Prices have negative (-) Minimum Surplus then the market pressure is on the SELL side (Seller’s Market) and the Auction Uniform Price should be lowest of the potential Prices (Assuming that residual SELL pressure would likely cause the price to fall)

BUY		Price	SELL		Maximum Executable Volume	Minimum Surplus (CBO – CSO)	Multiple Min surplus with all – Surplus, so Seller’s Market and Uniform Price MIN (99,98) = 98
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity			
150	150	99	0	200	150	-50	
150	0	98	200	200	150	-50	

- c. If the potential Auction Uniform Prices have either ‘positive (+) as well as negative (-) Minimum Surplus Minimum Surplus’ of ‘If the Minimum Surplus is zero for each potential Price’ then the algorithm should not further eliminated any potential Auction Uniform Prices derived from Principle 2 and should continue to Principle 4 carrying forward all the potential Auction Uniform Prices

BUY	Price	SELL		
-----	-------	------	--	--

Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity	Maximum Executable Volume	Minimum Surplus (CBO – CSO)
32,700	28,200	824	0	34,600	32,700	-1,900
32,700	0	823	1,900	34,600	32,700	-1,900
34,600	1,900	822	0	32,700	32,700	1,900

In this example it is not yet possible to calculate as Auction Uniform Prices, since the potential Auction Uniform Prices have positive (+) as well as negative (-) Minimum Surplus. Therefore, at the completion of Principle 3, the Prices eligible for Auction Uniform Price Calculation are 822, 823 and 824 and the algorithm continues to the fourth and final step to establish the Auction Uniform Price.

4) Principle: Average of Price Points having Minimum Unbalance

The fourth and final principle determines Auction Uniform Price from the range of prices established in Principle 3 (from prices 822, 823, 824).

There are two steps to this Principle. The first step should be to narrow the options of potential Auction Uniform Prices to 2 potential Auction Uniform Prices from within the derived price range

a. STEP 1

- i. If the result of Principle 3 is a combination of positive and negative Market Pressure, then the algorithm should mark the two prices where the sign changes.

BUY		Price	SELL		Maximum Executable Volume	Minimum Surplus (CBO – CSO)
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity		
32,700	0	823	1,900	34,600	32,700	-1,900
34,600	1,900	822	0	32,700	32,700	1,900

- ii. If the Minimum Surplus for all potential Auction Uniform Prices is zero, then the algorithm should mark the highest and lowest prices within the potential price range as the potential Auction Uniform Prices.

BUY		Price	SELL		Maximum Executable Volume	Minimum Surplus (CBO – CSO)	Multiple Min Surplus with all 0, so Uniform Price AVG (110, 105) = 107.50
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity			
1000	1000	110	0	1000	1,000	0	
1000	0	105	1000	1000	1,000	0	

In this example the sign at 822 is positive and changes to negative to 823. Therefore, the algorithm chooses 822 and 823 as the potential Auction Uniform Prices to be applied in this principle.

b. STEP 2

The Auction Uniform Price should be defined as the average of 2 derived potential Auction Uniform Prices i.e. 822 and 823. Auction Uniform Price = $AVG(822,823) = 822.50$

The determined official Auction Uniform Price would be '**822.50**'

Note: if determined Auction Uniform Price is not as per Product's Price Tick then Auction Uniform Price would be rounded off to the nearest product's price tick

All the matching orders would get traded at the Determined Auction Uniform Price, regardless of the price actually stated when placing an order. The Order Priority for matching purpose would be determined on 'Price-Pro-rata' basis. All the Auction Session's Unmatched Pending Orders would get cancelled

Note: If the Auction session has no overlapping Buy and Sell orders (i.e. Trades = 0), then the 'Three step Conditional Decision Rule Approach' to determine 'Auction Uniform Price' would not be referred.

An illustration of price pro-rata basis allocation of quantity is shown below:

Step 1- Order Entry

Orders Details					
Order Entry	Participant	Qty	Price	Result	Allotment (Pro rata)
9.	Buyer1	50	5000	Selected	50
10	Buyer2	20	4000	Selected	20
11	Buyer3	10	2000	Rejected	0
	Total	80			70

1	Seller1	10	4000	Selected	5
2	Seller2	20	4000	Selected	10
2	Seller3	5	4000	Selected	3
4	Seller3	2	3000	Selected	2
5	Seller3	40	5000	Rejected	0
6	Seller4	10	2000	Selected	10
7	Seller5	20	2000	Selected	20
8	Seller6	20	1000	Selected	20
	Total	127			70

Step 2- Discovery of Price Equilibrium

Derivation of Equilibrium Price and Vol						
CB	B	Price	S	CS	TV	UB
50	50	5000	40	127	50	-77
70	20	4000	35	87	70	-17
70	0	3000	2	52	52	18
80	10	2000	30	50	50	30
80	0	1000	20	20	20	60
Price Discovered		4000				
Volume Cleared		70				

Step 3- Trade Details

Allocation based on Prorata priority (PR)
--

	Participant	Participant	Qty	Price	Reason
Trade1	Buyer1	Seller6	20	4000	Price Priority
Trade2	Buyer1	Seller5	20	4000	Price Priority
Trade3	Buyer1	Seller4	10	4000	Price Priority
Trade4	Buyer2	Seller3	2	4000	Price Priority
Trade5	Buyer2	Seller3	3	4000	Pro Rata Allotment
Trade6	Buyer2	Seller2	10	4000	Pro Rata Allotment
Trade7	Buyer2	Seller1	5	4000	Pro Rata Allotment
		MCV	70		

Step 3A- Pro Rata Working				
Pro Rata Working				
18	Pending Qty	WT	Allocation	Rounded Allocation
Seller1	10	0.2857143	5.14285714	5
Seller2	20	0.5714286	10.2857143	10
Seller3	5	0.1428571	2.57142857	3
	35	1	18	18

Note: In case of rounding off difference at the time of pro rata allocation, the same will be adjusted in following manner:

- One unit each of the total rounding off error would be adjusted to/from the highest selected quantum in the descending order.
- However total selected quantity along with rounding off adjustment will not exceed the total bid quantity of individual order.

11. Margin requirements

- 11.1 Initial Deposit: The initial security deposit paid by a Member will be considered as his initial margin deposit, which shall be the minimum Margins required.
- 11.2 The Member will be allowed to place a purchase order against cash amount made available, equivalent to 100% of the order value. Funds in the Settlement Account of the Member will be blocked to provide exposure for the purchase orders.
- 11.3 Special Margin: The Exchange may levy additional margin on Member(s) or across the market for covering any enhanced risk.

12. Deposits

- 12.1 All the Members who wish to buy RECs from the Exchange are required to deposit the cash amount as a security deposit to their settlement account to the extent they wish to buy RECs from the Exchange. For example, if a Member wants to buy 100 RECs from the Exchange at Rs. 2300/REC, he is required to maintain Rs. 2,30,000/- in his settlement account before the trade begins at the Exchange. The Member will not be allowed to put Buy orders exceeding the total amount available into his settlement account.

No security deposit is required for the members who wish to sell RECs on the Exchange. However, the Exchange may from time to time revise the security deposit requirements of members buying or selling RECs on the Exchange.

13. Risk management system

- 13.1 The Member will be allowed to place a purchase order against cash amount made available, equivalent to 100% of the order value.
- 13.2 After receiving confirmation about availability of RECs in the depository account of Eligible Entity, then the Exchange processes the final bid matching solution. While processing bid matching solution, the bids of the Sellers for whom the balance in the depository account with the central agency is reported short, shall not be considered. The Exchange has the right to impose penalty on defaulting Member as decided from time to time.

14. Surveillance

- 14.1 In order to ensure market integrity and to avoid market abuses, the Exchange will use various on-line and off-line surveillance tools. The Exchange shall have the right to take appropriate actions in such cases.
- 14.2 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, the Exchange will validate such orders either through software or manually on every trading day, wherever possible.
- 14.3 Price movement: The Exchange will observe any variation in prices as compared to past data.
- 14.4 Market behavior: Any unwarranted change in the price pattern or order trend shall be brought to the notice of the Exchange management.
- 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.

15. Transaction fees

- 15.1 The Exchange will charge a transaction fee on the transactions carried through the Exchange in this market segment. Such transaction fee will be computed on volume basis, as may be decided from time to time, which will be applied on both purchases and sales separately. This will be billed separately on periodic basis and will be recovered from the settlement account of the Member.

16. Reports

- 16.1 After end of trading session, the Exchange will download the reports to the Members which consist of Trade file Report, Final Obligation Report and other relevant matters.
- 16.2 Based on the Exchange's Reports, the Members can inform their Clients about their successful trades along with their obligation.
- 16.3 Exchange shall also report trade details to the CERC / Central Agency as well as the State Nodal Agency.

DRAFT

REC Contract Specifications

1. General Terms

Name of the Tradable Instrument:	Renewable Energy Certificate
Underlying	Green Attributes of 1MWh of electricity generated by eligible Renewable Generator allowed in CERC (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010
Instrument Types	Solar RECs & Non-Solar RECs
Price Quotation	INR/REC
Price tick:	1 INR
Volume tick:	1 REC
Price Limits	
Minimum Order price limit:	Floor Price notified by CERC
Maximum Order price limit:	Forbearance price notified by CERC
Minimum Order volume limit:	1 REC
Transaction Fee	Fees payable by REC buyer and seller to Exchange for the quantity approved by Central Agency as specified by the exchange from time to time.

2. Trading Methodology, its phases and associated schedules

Trading Method	Closed double-sided uniform price auction
Trading System	IEX Trading System
Pre-trade phase	By 12.00 Hrs
Order Accumulation or Bidding phase	Between 13.00 Hrs and 15:00 Hrs of the Trading Day
Order matching and trade finalization phase	Between 15:00 Hrs and 17:00 of the Trading Day
Settlement and Delivery phase:	Between 17:00 Hrs and 18:00 of the Trading Day
Post-auction phase:	Between 17.00 and 18:00 Hrs of the Trading Day
Order Types	As defined in Schedule C of IEX Business Rules

3. Collateral and Margining

IEX requires Purchasing Participants to make funds available equivalent to their order value. Sellers shall submit orders only upto number of RECs available in their account held with Central Agency. In case of violation, the Sellers will be liable for penalties as specified in the 'Procedures for redemption of Renewable Energy Certificate issued by Central Agency.

4. Delivery of RECs

Delivery of RECs shall be as per the procedure issued by Central Agency in pursuance to CERC (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010.

5. Exchange may modify the terms and conditions of contract subject to CERC (Power market) Regulations, 2010 as amended from time to time.

Certificate of Purchase of REC(s)



Certificate of Purchase of REC(s)

Number C-[**Certificate No.**]

Issued On-[**DD-MMM-YYYY**]

Serial No.-[.....]

[**NAME OF CORPORATION**]

A [] Corporation

[**#Issued**] Certificates

REC Type [**Solar / Non Solar**]

Session ID

This certifies that [**REC Buyer**] is the holder of [**Number Issued**] [**Solar / Non Solar**] non transferable Renewable energy certificate(s) bought on _____ day of _____, 20____, through **Indian Energy Exchange Limited**.

This certificate represented hereby is issued and shall be held subject to all the provisions of the regulations of Honorable CERC as amended from time to time and the Bye-laws, Rules and Business Rules of *name of Indian Energy Exchange Limited*.

This is a computer generated statement hence doesn't require signature.

SCHEDULE D: ENERGY SAVINGS CERTIFICATE (ESCert) MARKET

1. Introduction

- 1.1 The Energy Savings Certificate (ESCert) Market segment is introduced on the Exchange to facilitate transaction of ESCerts in accordance with Central Electricity Regulatory Commission (Terms and Conditions for Dealing in Energy Savings Certificates) Regulations 2016 dated 27th May 2016 and its amendments thereof (hereinafter referred as 'ESCerts Regulations') notified by Central Electricity Regulatory Commission.
- 1.2 The ESCerts issued to Designated Consumers in accordance with the Energy Conservation Act 2001 (EC Act) read with Energy Conservation (Energy Consumption Norms and Standards for Designated Consumers, Form, Time within which, and Manner of Preparation and Implementation of Scheme, Procedure for Issue of Energy Savings Certificate and Value of Per Metric Ton of Oil Equivalent of Energy Consumed) Rules 2012 and its amendments thereof ("hereinafter referred as PAT Rules") are qualified for transaction on Exchange subject to Clause 3 of this Schedule D.
- 1.3 Exchange shall operate ESCert Market in accordance with the Detailed Procedure issued by the Administrator under Regulation 7(a) of ESCerts Regulations.
- 1.4 This market segment will typically cover Energy Savings Certificates, based on issuance in a specific cycle as per PAT Rules.
- 1.5 All terms and conditions of the contracts including trading sessions, matching rules, margin requirement and delivery procedure etc, shall be as per specific rules mentioned herein.

2. Definitions:

- 2.1 "**Administrator**" means the Bureau of Energy Efficiency;
- 2.2 "**Cycle**" means a period as specified in PAT Rules, commencing from the 1st day of April of the starting year and ending on the 31st day of March of the target year. The first Cycle would cover a period of 3 years commencing from the 1st April, 2012 and ending on the 31st March, 2015;
- 2.3 "**Designated Consumer**" means any consumer notified by the Central Government under clause (e) of section 14 of the Energy Conservation Act, 2001 and for which a target is notified under the Statutory Orders issued by the Government of India from time to time ;
- 2.4 "**Eligible entity**" means any designated consumer registered with Registry who has been issued or deemed to have been issued ESCerts and desire to sell or purchase such ESCerts for compliance with the energy consumption norms and standards specified under clause (g) of section 14 of the EC Act.
- 2.5 "**ESCerts**" means the Energy Savings Certificates issued by the Central Government in the Ministry of Power to the designated consumer under sub-section (1) of section 14(A) of EC Act, 2001.
- 2.6 "**Registry**" means the agency designated by Government of India in the Ministry of Power to perform such functions as defined in ESCerts Regulations.
- 2.7 "**Transaction of ESCerts**" means sale or purchase of ESCerts under the Perform, Achieve and Trade (PAT) scheme on Power Exchanges, and includes delivery of ESCerts.

3. Eligibility:

- 3.1 Only 'Eligible Entities' are eligible for transaction of ESCerts on Exchange.
- 3.2 'Eligible Entities' can either buy or sell ESCerts, as the case may be, on the Exchange in a Cycle.
- 3.3 All 'Eligible Entities' who intend to participate for the transaction of ESCerts on Exchange shall register themselves with the Exchange as Member or Client in accordance with the Rules and Byelaws of the Exchange.
- 3.4 'Eligible Entities', who have been barred from transaction of ESCertson Exchange by Registry or Administrator or Commission or Exchange or by any statutory body, shall not be eligible for transaction of ESCerts on Exchange.

4. Membership

- 4.1 All the existing categories of Members of the Exchange shall be eligible for transaction of ESCertsat the Exchange PlatformHowever, if any Member is interested in only carrying out transaction in ESCerts, the same shall also be as per regulation 26 of CERC (Power Market) Regulation, 2010 and amendments thereof shall also be allowed.Additionaleligibility conditions, if any, shall be specified by the Exchange from time to time through circulars.

5. Client

- 5.1 A category of Client termed as 'ESCert Client' is introduced for the participants who wish to transactinESCerts on the Exchange. All Clients, whether existing or new,shall be required to register themselves through any Member of the Exchange for transacting in ESCerts on the Exchange. Only new clients shall receive a registration identification code from the Exchangeprovided that they comply with all the requirements prescribed by the Exchange from time to time.

6. Fees

- 6.1 Exchange may charge the following fees to the Member
 - a. Admission Fee (one time non-refundable)
 - b. Interest Free Security Deposit
 - c. Processing Fee (one time non-refundable)
 - d. Member Subscription Fees per PAT Cycle including associated Compliance Period (in advance)
 - e. Transaction fee (Rs./ESCert): Based on quantity of ESCert traded on Exchange.
 - f. Client /Portfolio Subscription Fees Per PAT Cycle including associated Compliance Period
 - g. Any other Fee as may be prescribed by Exchange from time to time.
- 6.2 Member shall pay above mentioned fee and charges as specified by the Exchange from time to time.

7. Trading Days

- 7.1 The Exchange shall operate ESCert market on days as notified by the Exchange in accordance with detailed procedure issued by the Administrator.

8. Trading hours

- 8.1 Trading hours shall be as per approved detailed procedure issued by the Administrator.

9. Market Operations

9.1 ESCert Market segment shall operate in accordance with the procedures issued by the Administrator for transaction of ESCerts on Exchange. The ESCerts market timelines shall be adhered to by all the Exchange Members in order to have smooth and orderly operations of the Exchange.

10. Contract specifications: The contract specification shall be as per **Annexure D1** to this Schedule.

11. Trading phases

11.1 Pre-trade phase

The Exchange shall validate available margins of the Buying participants required as per contracts specifications. Members shall be allowed to place orders upto the available margins.

11.2 Order accumulation phase (Bidding phase)

Bidding session also referred to as the Order call period shall be available from 13.00 Hrs to 15.00 Hrs on the trading days specified in the ESCerts Trading calendar issued by Exchange from time to time. The participants shall place their sell/buy bids within the Bidding session. Orders entered by the direct access clients shall be treated as orders entered by Members. The orders collected during the order accumulation phase will not be visible to the market participants.

11.3 Order Verification phase

Post bidding session, sell bids received from the participants shall be sent to Registry through D-CRM portal by 15.30 Hrs for verification of quantity of ESCert offered for Sell against the quantity of ESCerts available for transaction with the concerned participant in their Registry account. Registry shall send confirmation report by 16.00 Hrs to exchange. In case, bids have been confirmed by Registry, same shall be processed for order matching. However, in case, cumulative sell bids placed exceed the quantity of ESCerts available in their registry account, Registry shall declare such eligible entities as defaulter, bids of such participants shall not be processed for order matching

11.4 Order matching and transaction finalization phase

After Order verification phase, the trading platform shall seek to match orders. During this matching process, orders cannot be entered into the trading platform, and orders already entered cannot be cancelled or modified. All buy bids and confirmed sell bids are aggregated and Market Clearing Price (MCP) and Market Clearing Volume (MCV) shall be determined by 17.00 Hrs through the closed double-sided uniform price auction for that particular trading session of ESCerts market.

After the final market clearing price and volume determination phase is concluded by 17.00 Hrs, Members whose orders have been executed, will be provided all relevant trade information regarding final trade on the trading platform.

11.5 Obligation determination process (Settlement Phase)

After end of the order matching and transaction finalization phase, an obligation report will be generated by the Exchange at 17.00 Hrs, which will provide the quantity of ESCerts transacted and amount of pay in / pay out and transaction fee payable etc. The Exchange will advise the Clearing Banks for transfer of pay-in at 17.00 hrs and pay-out at 11.00 hrs of next bank working day to / from Member's or Client's accounts, as applicable.

11.6 Delivery phase

On the basis of transaction finalized, Exchange shall send the confirmation report to Registry through D-CRM portal providing the ESCerts sell and buy volume along with the purchase certificate number for each of the participants who have successfully transacted ESCerts in the trading session by 17.15 Hrs. Based on the confirmation report uploaded by Exchange on D-CRM portal, Registry shall send the transaction approval acknowledgement to Exchange by 17.30 Hrs of the trade day. The Exchange shall also send transaction report to all the successful buyers and sellers by 18.00 Hrs stating the total number of ESCerts purchased / sold by them along with the unique identification code for each transaction.

- 11.7 The information regarding Market Clearing Price and Market Clearing Volume, sell and buy bids along with demand supply curves shall be published on IEX's website by 18.30 Hrs.
- 11.8 The Exchange shall issue an electronically printable ESCert purchase certificate as per format prescribed at **Annexure D2**, to the Buyers within five days of trading. – (IEX Format)
- 11.9 **Timelines:** Timelines for transaction of ESCerts on the Exchange shall be as under:

TIME on TRADE DAY	DETAILS
Pre-trade Phase:	
By 12.00 Hrs	Exchange to check initial margin for Members
Order Accumulation phase (Bidding)	
13.00 Hrs to 15.00 Hrs	Order Accumulation
Order Verification phase	
By 15.30 Hrs	Exchange to send details of maximum offer placed by Sellers and buy bids to Registry
By 16.00 Hrs	Registry to send report confirming valid ESCerts available with participant
Order matching and transaction finalization	
By 17.00 Hrs	Market clearing price and Market clearing volume determination and publishing of transaction results on Exchange Terminal
Settlement Phase	
By 17.00 Hrs	Files to be sent by Exchange to banks for actual debits (Pay-in)
By 11.00 Hrs (next bank working day)	Files to be sent by Exchange to banks for actual credits (Pay-out)
Delivery Phase	
By 17.15Hrs	Exchange to upload the confirmation report on D-CRM portal providing the final sell and buy volume of each participant.
By 17.30 Hrs	Registry to send the transaction approval acknowledgement to Exchange
By 18:00 Hrs	Exchange to send transaction report to each participant as proof of transfer of ESCerts.

12. Order management

12.1 Order types

Single bid/Single order type specifying the price and quantity of ESCerts to be traded shall be available for submission of orders by Members/Clients.

12.2 Modification and cancellation of orders:

Members/Clients shall be permitted to modify or cancel their orders, during the trading hours.

12.3 Order validation

Orders 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.

13. Matching rules

13.1 All the Clients shall be assigned unique ID / Portfolio ID, if not already assigned. The Exchange may launch more than one order book running either parallel or at different time spans. Subject to the approval of the CERC, the Exchange may modify or change the matching rules or order books any time where it is necessary to do so.

13.2 Uniform Price Auction for Energy Savings Certificates

- (1) The matching of bids will be done through uniform price closed bid double sided auction. The methodology used is described as below.
- (2) A Matching of the auction will only take place if there are crossing prices (buy price \geq Sell Price) in the order book, that is, if the best order price is equal to or higher than the best ask price. In that case, the equilibrium price is determined according to the following criteria:
 - (a) Maximum tradable volume: The Equilibrium Price will be the price at which there is maximum tradable volume.
 - (b) Minimum unbalance: If there is more than one price with equal value for maximum tradable volume, the price that leaves the least volume untraded at its level is chosen as Equilibrium Price.
- (3) If Auction Session has overlapping Buy and Sell orders resulting in at least 1 trade (if there are crossing prices i.e. best buy price \geq best Sell Price) then the system would use the below mentioned principles to determine that Session's Auction Uniform Price. If system achieves more than one potential Auction Uniform Price by Principle 1, then the algorithm would move to Principle 2 to narrow down the options and so on. If any Principle achieves a single potential Auction Uniform Price, then that price would be assigned as that Session's Auction Uniform Price.
- (4) The Auction Uniform Price calculation logic is explained below with the help of an example: The Order Book would be sorted on Best Buy and Best Sell basis for a product e.g. 'ESCERT-C12-15' at the end of the Auction session as below:

BUY			SELL		
Order	Qty	Price	Price	Qty	Order
A	4,500	825	831	290	J
B	28,200	824	828	11,420	K
C	1,900	822	826	21,650	L
S	49,700	820	825	8,500	M
D	8,000	819	823	1,900	N
E	16,400	818	820	17,500	O
F	5,400	815	819	3,600	P
G	900	814	818	11,600	Q
H	4,575	812			R

(5) Principle: Determining the Maximum Tradable Volume

The principle would establish the **price(s)** at which **maximum tradable volume** would be **executed**. There would be two steps involved in applying this principle.

- (a) **STEP 1** – Determine the Cumulative Buy and Sell quantities at each eligible price. The Cumulative Buy and Sell quantities at each price for 'XYZ' are as follows:

BUY		Price	SELL	
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity
0	0	831	290	76,460
0	0	828	11,420	76,170
0	0	826	21,650	64,750
4,500	4,500	825	8,500	43,100
32,700	28,200	824	0	34,600
32,700	0	823	1,900	34,600
34,600	1,900	822	0	32,700
84,300	49,700	820	17,500	32,700
92,300	8,000	819	3,600	15,200
108,700	16,400	818	11,600	11,600
114,100	5,400	815	0	0
115,000	900	814	0	0
119,575	4,575	812	0	0

- (b) **STEP 2** – Establish the total tradable volume at each eligible price (i.e. Maximum Quantity which may be traded at that each price). The total tradable volume at a price would be computed as 'Minimum of Cumulative Buy and Cumulative Sell quantity' at the respective price. The Maximum Tradable/Executable Volume (MEV) for each eligible price is as below:

BUY		Price	SELL		Maximum Executable Volume
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity	
0	0	831	290	76,460	0
0	0	828	11,420	76,170	0
0	0	826	21,650	64,750	0
4,500	4,500	825	8,500	43,100	4,500
32,700	28,200	824	0	34,600	32,700
32,700	0	823	1,900	34,600	32,700
34,600	1,900	822	0	32,700	32,700
84,300	49,700	820	17,500	32,700	32,700
92,300	8,000	819	3,600	15,200	15,200
108,700	16,400	818	11,600	11,600	11,600
114,100	5,400	815	0	0	0
115,000	900	814	0	0	0
119,575	4,575	812	0	0	0

Note: The Maximum Tradable Volume is the highest value amongst 'Maximum Tradable Volume' derived for all price points.

In this example, the maximum quantity that may be traded is 32,700 at prices 820, 822, 823 and 824. Therefore, as per Principle 1, the Prices eligible for Auction Uniform Price Calculation are 820, 822, 823 and 824. The algorithm would eliminate all other price points as the potential Auction Uniform Price. To further narrow the choices for Auction Uniform Price, Principle 2 would be used to determine the Minimum Unbalance level.

(6) Principle: Establishing the Minimum Unbalance

The second principle would ascertain the eligible price levels (from prices 820, 822, 823 and 824) at which the Unmatched Quantity is a minimum.

(a) The Minimum Unbalance at each price level is equal to ‘Cumulative Buy Quantity – Cumulative Sell Quantity’

BUY		Price	SELL		Maximum Executable Volume	Minimum Unbalance (CBO – CSO)
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity		
32,700	28,200	824	0	34,600	32,700	-1,900
32,700	0	823	1,900	34,600	32,700	-1,900
34,600	1,900	822	0	32,700	32,700	1,900
84,300	49,700	820	17,500	32,700	32,700	51,600

(b) Ignoring the positive and negative signs, the lowest number in the Minimum Unbalance column is 1,900. The minimum Unbalance occurs at prices 822, 823 and 824. Therefore, as per completion of Principle 2, the Prices eligible for Auction Uniform Price Calculation are 822, 823 and 824. The algorithm would further eliminate 820 as Auction Uniform prices and the algorithm would continue to the 3rd step to establish the Auction Uniform Price.

Note: 0 is the lowest Minimum Unbalance Quantity.

(7) Principle: Ascertaining where the Market Pressure exists

The third principle should ascertain where the market pressure of the potential Auction Uniform Price prices exists: on the buy or the sell side.

(a) If all the potential Auction Uniform Prices have positive (+) Minimum Surplus then the market pressure is on the BUY side (Buyer’s Market) and the Auction Uniform Price would be highest of the potential Auction Uniform Prices (Assuming that residual BUY pressure would likely cause the price to rise)

BUY		Price	SELL		Maximum Executable Volume	Minimum Surplus (CBO – CSO)	Multiple Minimum surplus with all +ve Surplus, so Buyer’s Market and Auction Uniform Price MAX (100,99) = 100
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity			
200	200	100	0	150	150	50	
200	0	99	150	150	150	50	

(b) If all the potential Auction Uniform Prices have negative (-) Minimum Surplus then the market pressure is on the SELL side (Seller’s Market) and the Auction Uniform

Price should be lowest of the potential Prices (Assuming that residual SELL pressure would likely cause the price to fall)

BUY		Price	SELL		Maximum Executable Volume	Minimum Surplus (CBO – CSO)	Multiple Min surplus with all – Surplus, so Seller’s Market and Uniform Price MIN (99,98) = 98
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity			
150	150	99	0	200	150	-50	
150	0	98	200	200	150	-50	

(c) If the potential Auction Uniform Prices have either ‘positive (+) as well as negative (-) Minimum Surplus Minimum Surplus’ of ‘If the Minimum Surplus is zero for each potential Price’ then the algorithm should not further eliminated any potential Auction Uniform Prices derived from Principle 2 and should continue to Principle 4 carrying forward all the potential Auction Uniform Prices

BUY		Price	SELL		Maximum Executable Volume	Minimum Surplus (CBO – CSO)
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity		
32,700	28,200	824	0	34,600	32,700	-1,900
32,700	0	823	1,900	34,600	32,700	-1,900
34,600	1,900	822	0	32,700	32,700	1,900

In this example it is not yet possible to calculate as Auction Uniform Prices, since the potential Auction Uniform Prices have positive (+) as well as negative (-) Minimum Surplus. Therefore, at the completion of Principle 3, the Prices eligible for Auction Uniform Price Calculation are 822, 823 and 824 and the algorithm continues to the fourth and final step to establish the Auction Uniform Price.

(8) Principle: Average of Price Points having Minimum Unbalance

The fourth and final principle determines Auction Uniform Price from the range of prices established in Principle 3 (from prices 822, 823, 824).

There are two steps to this Principle. The first step should be to narrow the options of potential Auction Uniform Prices to 2 potential Auction Uniform Prices from within the derived price range

(a) STEP 1

(i) If the result of Principle 3 is a combination of positive and negative Market Pressure, then the algorithm should mark the two prices where the sign changes.

BUY		Price	SELL		Maximum Executable Volume	Minimum Surplus (CBO – CSO)
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity		
32,700	0	823	1,900	34,600	32,700	-1,900
34,600	1,900	822	0	32,700	32,700	1,900

- (ii) If the Minimum Surplus for all potential Auction Uniform Prices is zero, then the algorithm should mark the highest and lowest prices within the potential price range as the potential Auction Uniform Prices.

BUY		Price	SELL		Maximum Executable Volume	Minimum Surplus (CBO – CSO)	Multiple Min Surplus with all 0, so Uniform Price AVG (110, 105) = 107.50
Cumulative Buy Quantity	Buy Quantity at Price		Sell Quantity at Price	Cumulative Sell Quantity			
1000	1000	110	0	1000	1,000	0	
1000	0	105	1000	1000	1,000	0	

- (iii) In this example the sign at 822 is positive and changes to negative to 823. Therefore, the algorithm chooses 822 and 823 as the potential Auction Uniform Prices to be applied in this principle.

(b) **STEP 2**

The Auction Uniform Price should be defined as the average of 2 derived potential Auction Uniform Prices i.e. 822 and 823. Auction Uniform Price = AVG (822,823) = 822.50

The determined official Auction Uniform Price would be **'822.50'**

Note: if determined Auction Uniform Price is not as per Product's Price Tick then Auction Uniform Price would be rounded off to the nearest product's price tick

- (9) All the matching orders would get traded at the Determined Auction Uniform Price, regardless of the price actually stated when placing an order. The Order Priority for matching purpose would be determined on 'Price-Pro-rata' basis. All the Auction Session's Unmatched Pending Orders would get cancelled

Note: If the Auction session has no overlapping Buy and Sell orders (i.e. Trades = 0), then the 'Three step Conditional Decision Rule Approach' to determine 'Auction Uniform Price' would not be referred.

- (10) An illustration of price pro-rata basis allocation of quantity is shown below:

Step 1- Order Entry

Orders Details					
Order Entry	Participant	Qty	Price	Result	Allotment (Pro rata)
9.	Buyer1	50	5000	Selected	50
10	Buyer2	20	4000	Selected	20
11	Buyer3	10	2000	Rejected	0
	Total	80			70

1	Seller1	10	4000	Selected	5
2	Seller2	20	4000	Selected	10
2	Seller3	5	4000	Selected	3
4	Seller3	2	3000	Selected	2
5	Seller3	40	5000	Rejected	0
6	Seller4	10	2000	Selected	10
7	Seller5	20	2000	Selected	20

8	Seller6	20	1000	Selected	20
	Total	127			70

Step 2- Discovery of Price Equilibrium

Derivation of Equilibrium Price and Vol						
CB	B	Price	S	CS	TV	UB
50	50	5000	40	127	50	-77
70	20	4000	35	87	70	-17
70	0	3000	2	52	52	18
80	10	2000	30	50	50	30
80	0	1000	20	20	20	60

Price Discovered 4000

Volume Cleared 70

Step 3- Trade Details

Allocation based on Prorata priority (PR)					
	Participant	Participant	Qty	Price	Reason
Trade1	Buyer1	Seller6	20	4000	Price Priority
Trade2	Buyer1	Seller5	20	4000	Price Priority
Trade3	Buyer1	Seller4	10	4000	Price Priority
Trade4	Buyer2	Seller3	2	4000	Price Priority
Trade5	Buyer2	Seller3	3	4000	Pro Rata Allotment
Trade6	Buyer2	Seller2	10	4000	Pro Rata Allotment
Trade7	Buyer2	Seller1	5	4000	Pro Rata Allotment
		MCV	70		

Step 3A- Pro Rata Working				
Pro Rata Working				
18	Pending Qty	WT	Allocation	Rounded Allocation
Seller1	10	0.2857143	5.14285714	5
Seller2	20	0.5714286	10.2857143	10
Seller3	5	0.1428571	2.57142857	3
	35	1	18	18

(11) Note: In case of rounding off difference at the time of pro rata allocation, the same will be adjusted in following manner:

- One unit each of the total rounding off error would be adjusted to/from the highest selected quantum in the descending order.
- However, total selected quantity along with rounding off adjustment will not exceed the total bid quantity of individual order.

14. Margin requirements

14.1 Initial Deposit: The initial security deposit paid by a Member will be considered as his initial margin deposit, which shall be the minimum Margins required.

- 14.2 The Member will be allowed to place a purchase order against cash amount made available, equivalent to 100% of the order value. Funds in the Settlement Account of the Member/Client will be blocked to provide exposure for the orders.
- 14.3 Special Margin: The Exchange may levy additional margin on Member(s) or across the market for covering any enhanced risk.

15. Deposits

- 15.1 All Members who wish to purchase ESCerts on the Exchange are required to deposit cash amount as a security deposit in their respective settlement accounts equivalent in value to the extent they wish to trade ESCerts. For example, if a Member wants to buy 100 ESCerts from the Exchange at Rs. 2300/ESCert, he is required to maintain Rs. 2,30,000/- net of haircut factor as defined by the Exchange from time to time. The haircut factor shall depend upon various levies charges and taxes applicable on such transactions, in his settlement account before the trade begins on the Exchange.
- 15.2 Member will not be allowed to place buy orders exceeding the total amount available in his settlement account net of haircut factor.
- 15.3 The Exchange may, from time to time, revise the security deposit requirements of Members transacting ESCerts on the Exchange.

16. Risk management system

- 16.1 The Member will be allowed to place a purchase order against cash amount made available, equivalent to 100% of the order value
- 16.2 The Exchange has the right to impose penalty, as decided from time to time, on defaulting Member, who short-sell ESCerts in excess of available ESCerts in his Registry account.

17. Surveillance

- 17.1 In order to ensure market integrity and to avoid market abuses, the Exchange will use various on-line and off-line surveillance tools. The Exchange shall have the right to take appropriate actions in such cases.
- 17.2 Validation of orders: Members are required to ensure that bids are in conformity with relevant regulatory provisions. In order to avoid any abnormal orders being put by the Exchange Member the Exchange will validate such orders either through software or manually on every trading day, wherever possible.
- 17.3 Price movement: The Exchange will observe any variation in prices as compared to past data.
- 17.4 Market behavior: Any unwarranted change in the price pattern or order trend shall be brought to the notice of the Exchange management.
- 17.5 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.

18. Transaction fees

- 18.1 The Exchange will charge a transaction fee on the transactions carried through the Exchange in this market segment. Such transaction fee will be computed on volume basis, as may be decided from time to time, which will be applied on both purchase and sale transactions separately. This will be billed separately on periodic basis and will be recovered from the settlement account of the Member/Client.

19. Reports

- 19.1 After end of trading session, the Exchange will provide successful Members with reports which consist of Trade file Report, Final Obligation Report and reports for other relevant matters.
- 19.2 Based on the Exchange Reports, Members can inform their Clients about their successful trades along with their obligation.
- 19.3 Exchange shall also report trade details to the CERC/ Registry.

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Energy Savings Certificate (ESCert) Contract Specifications

1. General Terms

Name of the Tradable Instrument:	Energy Savings Certificate (ESCert)
Underlying	Energy consumed in terms of one metric Ton of Oil Equivalent (mtoe). (Energy Savings Attributes of 1toe of energy savings by Designated Consumer certified and issued as per Energy Conservation (Energy Consumption Norms and Standards for Designated Consumers, Form, Time within which, and Manner of Preparation and Implementation of Scheme, Procedure for Issue of Energy Savings Certificate and Value of Per Metric Ton of Oil Equivalent of Energy Consumed) Rules, 2012)
Instrument Types	ESCert
Price Quotation	INR/ESCert
Price tick:	1 INR
Volume tick:	1 ESCert
Price Limits	
Minimum Order volume limit:	1 ESCert
Transaction Fee	Fees payable by ESCert buyer and seller to Exchange, for the transacted quantity. Such fee shall be specified by the Exchange from time to time.

2. Trading Methodology, its phases and associated schedules

Trading Method	Closed double-sided uniform price auction
Trading System	IEX Trading System
Pre-trade phase	By 12.00 Hrs
Order Accumulation or Bidding phase	13.00 Hrs to 15:00 Hrs of the Trading Day
Order Verification phase	By 15.30Hrs
Confirmation from Registry	By 16.00 Hrs
Order matching and transaction finalization phase	By 17:00 of the Trading Day
Settlement and Delivery phase	Between 17:00 Hrs and 18:00 of the Trading Day

Order Types	As defined in Schedule D of IEX Business Rules
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3. Collateral and Margining

Exchange requires purchasing participants to make funds available equivalent to their order value and Sellers shall submit orders only upto number of ESCerts available in their account held with the Registry. In case of default for more than three cases, the Sellers may be liable for barred from transaction of ESCerts for next six months, notwithstanding any penalty due to be imposed as per the provisions of the Regulations and Procedure, by relevant authority.

4. Delivery of ESCerts

Delivery of ESCert through Registry shall be as per the procedure issued by the Administrator in pursuance with Central Electricity Regulatory Commission (Terms and Conditions for Dealing in Energy Savings Certificates) Regulations, 2016.

5. Exchange may modify the terms and conditions of contract subject to Central Electricity Regulatory Commission (Terms and Conditions for Dealing in Energy Savings Certificates) Regulations, 2016 and Central Electricity Regulatory Commission (Power Market) Regulations, 2010 as amended from time to time.

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Annexure D2

Certificate of Purchase of ESCert(s)



Certificate of Purchase of ESCert(s)

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Version Control

Version	Date of Submission	Modifications
1.	06.05.2010	Compliance of CERC(Power Market) Regulations,2010
2.	04.10.2010	Compliance of the directions and observations made in CERC order dated 26.08.2010, except the observation at Ser No. 53 of the tabular statement attached to the said order.
3.	04.11.2010	Compliance of the CERC order dated 17.9.2010. Incorporated Schedule 'C' to the Business Rules regarding REC Market Segment.
4.	01.08.2011	In compliance of CERC order dated 03.06.2010 in Petition No. 26/2010.
5.	28.11.2011	1) Modification made to comply with CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010. 2) Modifications regarding revision of transaction fee.
6.	14.03.2012	1) Amendments with respect to modification of Time block for bidding from one hour to fifteen minutes. (Suo-motu Petition No. 127/2011)
7.	14.03.2012, 20.07.2012, and 08.10.2012	1) Modifications w.r.t.Mechanism on the manner of collection, settlement and monitoring of members service charge charged by the professional member to their clients.(Suo-motu Petition No. 123/2011) 2) Modification in matching rules in TAM & REC market. (Petition No. 147/MP/2012 and 231/MP/2012)
8.	20.11.2012	1) Modifications in DAM Specifications with respect to IEX Circular No. 113 dated 20.11.2012.
9.	14.12.1012	1) Modifications in Contract Specification:- Regional Intra-Day Contract (Annexue-B2) with respect to IEX Circular No. 118 dated 14.12.2012.
10.	18.07.2015	1) Modifications in compliance of CERC order dated 15.07.2015 in Petition No. 138/RC/2015 regarding Extended Market Session.
11.		Incorporation Schedule 'D' and relevant provisions to the Business Rules regarding ESCerts Market Segment.