

Power Exchange of India Limited

Circular No PXIL/Market Operations/2010/20

Date: 03.03.2010

Subject: Revision of Weekly product in PXIL

Members of PXIL are invited to participate in the **Weekly product** as per the following:-

1.0 Weekly Market

1.1 Basic Contract Specifications

Trading System	PXIL
Type of Market	Weekly
Type of Contract	Firm Delivery Contract
Revision	Revision in schedules are not allowed.
Trading Methodology	Anonymous competitive bidding by Buyers and Sellers.
Auction Timings	10.00 am to 04.00 pm (Day D)
Minimum Bid Volume	1 MW
Minimum Volume Quotation Step	0.01 MW/10 kW
Minimum Value Quotation step	Rs. 10 per MWh
Delivery Point	The delivery point shall be on the state/regional periphery of the selling entity
Transmission charges	The transmission charges to be paid by the buyers and sellers for Exchange transactions would be as laid down under the Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008 and

	<p>would be payable to the Exchange in cash.</p> <ol style="list-style-type: none"> 1. Buyer bears the charges for regions and states involved beyond the delivery point. 2. Seller bears the charges till the Delivery Point
Transmission Losses	<p>The losses would be handled as per the Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008.</p> <ol style="list-style-type: none"> i. Buyer bears the Transmission Losses for regions and states involved beyond the delivery point. ii. Seller bears the charges till the Delivery Point.
Settlement Price(s)	As per Matching Rules of Exchange – Mid-point of Buyer’s and Seller’s Price for each transaction

1.2 CONTRACT CALENDAR/ PERIOD

The Exchange shall operate Weekly contracts, wherein the contract period shall be determined by reference to a calendar week of seven days i.e. from Monday to Sunday. The Delivery Days shall be each day of such contract period.

1.3 CONTRACT HOURS

Slot	Hours
Round the Clock	00 to 24 Hours
Morning Peak	06 to 10 Hours
Evening Peak	18 to 23 Hours
Day off Peak	10 to 18 Hours
Night off Peak	23 to 06 hours
Any other Time Slot as defined by Exchange from Time to Time	

1.4 TRADING DAYS

The Exchange shall operate on various days as may be prescribed by Exchange from time to time, called the Trading Day. The days for trading for the current weeks are as notified on PXIL website **Circular No : PXI/ Mkt. Operations/ 2009-2010/ 0017 Date of Issue : 07/01/2010**

1.5 TRADING HOURS

The trading session for Weekly contracts would be as prescribed by Exchange from time to time. Presently the trading session for Weekly contracts would be from 10.00 am to 04.00 pm for the operational days of the Exchange. The Exchange may extend, advance or reduce trading hours by notifying the Members as and when it deems fit and necessary.

1.6 TRADING CALENDER

The Exchange proposes to declare a Trading Calendar on quarterly basis in the subsequent circulars.

1.7 TRADING CYCLE

Trading Cycle of the Exchange would be in accordance with relevant provisions of the Central Electricity Regulatory Commission (Open Access in Inter-state Transmission) Regulations, 2008 as amended from time to time and the Detailed Procedure for Scheduling of Bilateral Transactions issued by CTU. The various steps in the Trading Cycle are as follows:

Day – T (Days of Trading)

1. Time 10.00 am to 04.00 pm - Auction Trade Session: The Auction Trade Session would run from 10.00 am to 04.00 pm on the Trading Days. During this session Members (through their Approved Users) would be allowed to place bids for buying or selling of Electricity on the Trading System as described at Table-I as follows.

Table-I

Timing	
10 AM to 12 Noon	1. Only the sellers quote the price and quantity for sale in their Region 1.1. Sellers cannot see any other seller during this process 1.2. Buyers are not allowed to participate at this point 1.3. Sellers can modify their quotes anytime during this time period
Timing	
12 Noon to 2 PM	1. Buyers can see only the prices and quantities quoted by the sellers in all the Regions and can therefore place buy bids in accordance with the visible prices <i>1.1. However, seller and buyer identity is not revealed</i> 2. Buyer can quote in any particular region or all the regions from which the buyer wants to purchase the electricity
2 PM to 3 PM	1. The best buyer and the lowest priced seller are matched as pairs within each region at the midpoint of buyers and sellers price. <i>1.1. The bids by the sellers in a region and all the bids made by any buyer in that region are taken together for matching</i>
Timing	
3:00 PM to 3:30 PM	1. Only sale quantities quoted in the first session, but not sold, is allowed here 2. Sellers are allowed to keep their prices constant or reduce their prices. Sellers cannot put in any new quantity, which has not been shown in the first session
3:30 PM to 4 PM	1. Buyers allowed to keep their prices constant or increase their prices
4 PM to 5 PM	1. Final Trade Matching

- 2 It is mandatory for all the members to place a Bid security / Margin with the Exchange at the time of bidding as may be prescribed by the Exchange from time to time. At present the **bid-security for Weekly Firm Contract is set to 10 paisa/Kwh for both buyers and Sellers. This needs to be put in form of cash.**
- 3 It is also mandatory for all the members to submit SLDC clearance for the bid quantum in the prescribed format as at Annex-II up to 2 PM. If SLDC clearance is not received before time, PXIL reserves the right to reject the bid for matching.
- 4 Time 05.00 pm – Final Trade Matching in line with matching rules as at Annex-I.

- 5 The unmatched buy and sell bids will be carried forward to next days of trading day if any, pertaining to the relevant contract period.
- 6 Time 05.00 pm in the last day of trading – After Final Trade Matching, matched applications will be sent to Members. Based on the **Matched Trade Volume** and Price, the **Matched Trade Value** will be obtained and provisional obligation report for the member will be available. **Matched Trade Volume** is the quantum of Power matched with counter-parties for the contract period in the Exchange Platform. **Matched Trade Value** for a member is the total value of all the trades finalized after matching with respective counter-parties during any trading session. It can be determined by **Summation of (Quantity of Matched Trade x Matching Price x Delivery Period)**.
- 7 In case of matching of one buyer to multiple number of sellers or vice versa, multiple contracts may be generated, each of which will be treated as separate contract. Each such separate contract would need to be performed separately by the specified parties only.
- 8 Time 5.30 PM – Provisional application to Nodal RLDC – The Exchange would forward the transaction as generated by trade matching to all the nodal RLDCs.
- 9 Time 6.00 PM – Exchange would issue provisional schedules to the Members as applied to Nodal RLDC.

Day- T + 1(Day of RLDC approval)

1. Time 11.00 AM: Buyer member shall provide margin equivalent to 4 days' Matched Trade Value for the Weekly Contract. **25% of the applicable Margins shall be provided in form of Cash/ Allocation of Bank Limit.**

2. Any default in providing the requisite margin by the buyer within the scheduled time shall be treated as termination of contract and will have the following effects.

2.1 The Transmission corridor booked for the contract shall be cancelled by PXIL

2.2 The Seller will be compensated by an amount equivalent to the bid security put up by Buyer discounting application fee to nodal RLDC and Penalty as at 2.3 .

2.3 Exchange will levy a penalty of Rs 5000/- on Buyer for default in provision of margin.

3. Time 5.30 P.M – RLDCs grants approval and confirms provisional application for scheduling and payment for the Contract Period, taking care of congestions, if any. In the event of RLDC curtailing the quantum of clearance, only the curtailed quantum will be considered for scheduling. The **Approved Trade Volume** is the quantum of Power cleared by the nodal RLDC out of the Matched Trade Volume due to congestion, if any. **Approved Trade Value** is the total value of the trade after approval from the Nodal RLDC. It can be determined by **Summation of (Quantity of Approved Trade Value x Matching Price x Delivery Period)**.

4. Margin of the buyer will be adjusted based on Approved Trade Value.
5. Time 6.00 PM – Exchange issues Final Confirmation of Schedules to the Members and RLDC. Based on the Final Confirmation, the Exchange would issue the Final Obligation Report and the Margin requirement to the Members.

1.8 Delivery Cycle

1. Day (D) of each day during the Contract Period - Time 11.00 A.M – Pay-in of Funds by Buying Members: Buying Members would have to bring in funds by 11.00 am as per the final obligation report for the respective **Approved value of trades** cleared and other charges/penalty due from him.

2 Day (D+1) of each day during the Contract Period - Time 11.00 AM – Pay-out of Funds to the Selling Members: By 11.00 AM on Day D+1 Exchange would pay-out funds to the Selling Members as per the Final Obligation Report after confirmation of the implemented delivery schedules. The seller member shall receive payout after adjustment for charges/penalty payable by/due to him.

1.9 Default in Contract

1. **Firm Contract:** The Schedule as finalized by RLDC shall be firm over the period of contracts i.e. week as defined in the contract specifications. The members / clients are not allowed to revise or cancel the contract/s.
2. Without prejudice to the provisions of force majeure, the Members/Clients shall endeavor to supply/off take the contracted quantum on a first charge basis.
3. Any default in the supply/off take the contracted quantum shall be subjected to Unscheduled Interchange (UI) as per the provisions of the Central Electricity Regulatory Commission (Open Access in Inter-state Transmission) Regulations, 2008 as amended from time to time and the Detailed Procedure for Scheduling of Bilateral Transactions issued by CTU.
4. Any default in payment by the buyer shall be treated as termination of contract and will have the following effects.
 - 4.1 The Transmission corridor booked for the contract shall be cancelled by PXIL by paying mandatory 2 days of STOA charges to Nodal RLDC thereby canceling the delivery schedule after 2 days of date of cancellation.
 - 4.2 The Seller will be compensated by an amount equivalent to 20 % of the remaining approved trade value.
 - 4.3 The Exchange will levy a penalty of Rs 5000/- on Buyer for default of payment.

1.10 CURTAILMENT

Curtailment in case of transmission constraints will be as per para 12 of the Detailed Procedure for Scheduling of Bilateral Transactions issued by CTU.

1.11 EXCHANGE FEES

The Exchange shall charge a transaction fee on the transactions registered with 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. Presently the transaction fee applicable on volume of a Member will be Rs. 0.01/kWh and will be charged as per Matched Trade Volume on Trading Day.

In case of any clarification, Members are requested to contact the undersigned at 022-26530504 or 09819996449.

For Power Exchange India Limited

Sd/-

Satyajit Ganguly

Head - Operations

ANNEX-I

Matching Rules

- Trading Session: The Exchange may launch more than one Trade Auction Session running either in 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 Trading Session any time where it is necessary to do so.
- Without prejudice to the generality of the above, the order matching rules will have the following features
 - Same client cannot place a bid and offer at the same time, for a particular price-time slot combination in the same Auction Trade session.
 - Block Bids
 - Block Bid will be allowed only for offer quantity (sell)
 - All block bids shall be considered indivisible and they shall either be included or excluded in totality.
 - Block Bid quantity cannot be offered for less than 2 hours
 - A client cannot enter 2 block bids for the same time slots
 - Block bids can be rejected if adequate demand quantity not available for the hours for which block bid is inserted in the system.
- **Types of Orders**
 - Fixed Orders – Fixed orders are those orders which are the first priority for the Buyers. Fixed orders can be put in one or all the regions as feasible for the buyer at different price and for different quantity. Buyer will not be allowed to put two fixed orders in the same region. The total power requirement of the Buyer will be equal to the sum of all Fixed orders put across all the region. Fixed orders of any Buyer cannot be more than the SLDC clearance for the entity for Bilateral transaction.

- Optional Orders – Optional orders are those orders which will be on a lower priority than the Fixed Orders. These orders will get executed only when the Fixed orders don't get traded fully. Buyers can put four Optional Orders namely Option 1, Option 2, Option 3 and Option 4. Option 1 will have higher priority among the optional orders followed by Option 2, followed by Option 3 and last priority will be for the Option 4. Optional order of all the Buyers shall be considered together for matching
- **Buyers are allowed to prioritize their bids in various regions**
 - Buyers can put “Fixed” bids in one or more regions. These fixed bids are matched within each region separately and the cumulative amount is chosen
 - In addition to the “Fixed” bids, buyers can also put “Optional” bids. There can be only **four optional bids**.
 - These would be in decreasing order of priority, i.e. Option-1 is higher in priority to Option-2, which is higher than Option-3 and which again is higher than Option-4.
- The Option-1 bids from all buyers are matched together as one priority, after that Option-2 bid of all buyers are taken and so on.
- If the fixed bids of a particular buyer have been matched, his Optional bids are not taken. Similarly, if Option-1 gets matched, the Option-2 is not taken and so on.
 - The buyers can put all the Optional bids in one region or in more than region
 - The sum of Option 1, 2, 3 and 4 bids has to be less than or equal to the cumulative of all the Fixed Bids
- **Sellers and Buyers are allowed to quote the “Minimum Acceptable Quantity” for Week Ahead Product (WA)**
 - Exchange would define Minimum Acceptable Quantity (MAQ) from time to time. The MAQ would either be specific values in MW, e.g. 1 MW, 5 MW etc or would be a percentage of the Bid or any other methodology as would be prescribed by Exchange from time to time. The values would be determined on the basis of economic despatch even if only the MAQ is despatched for a seller or buyer.

Members would be allowed to put a MAQ with every bid. The MAQ will define what quantity should be matched as the lowest denomination.

- A bid of 50 MW with 5 MW as MAQ will mean that the Member intends to buy/sell minimum 5 MW and any trade less than 5 MW will not be accepted. All bilateral trades (between any one buyer and any one seller) would be matched based on the MAQ. In case trades get matched between a buyer and seller whose MAQ has already been matched then Seller or Buyer can be matched for any quantity above that in volume steps of 0.01 MW.
- Therefore, if Buyer A (who has 50 MW Bid with 5 MW MAQ) is matched with Seller B (who also has 50 MW Bid with 5 MW MAQ) for 10 MW and if there is additional matching possible for 2 MW then PXIL system would allow to match and the final Trade would be for 12 MW.
- However if Buyer A and Seller B are matched for 42 MW after consideration of the MAQs, and there is one more Seller C (Who has 100 MW Bid with 10 MW MAQ) then, as the trade available is less than Buyer B's MAQ the trade will not get executed because this will be a new bilateral trade.
- The Matching will follow the following steps:
 - Buyer can put more than one Fixed Option in different regions but only one Option 1, 2, 3 and 4 bids. The total of Options Buy Quantity will always be equal to or less than the total Fixed Order of the Buyer. For Eg: Buyer A can place fixed orders in one or five region as he desires. In case he places fixed orders in all the five region as follows

WR		SR		NR		ER		NER	
Qty	Price	Qty	Price	Qty	Price	Qty	Price	Qty	Price
50	3	50	4	50	5	50	6	50	2

In the above example, the total buy for the Buyer will be considered as 250 which is the sum of all the Fixed orders taken together.

Once the Fixed orders are put by Buyer, the Buyer can put 4 Optional orders in any region as the entity feels feasible. However, now the Buyer

cannot put Optional orders more than 250 MW since that is the sum total of all the Fixed orders taken together.

Since optional orders will be considered only after the Fixed orders are matched. So the matching of optional orders will be done only to the extent of the bids remaining unmatched out of the sum total of all Fixed orders i.e. 250 MW. So if 150 MW of Fixed orders are matched then the optional orders will be matched only to the extent of 100 MW. Further, if Option1 order are matched to the extent of 50 MW then other Optional order namely Option2, Option3, Option4 will be matched only to the extent of 50 MW

- Lowest Bid for sell will be matched with the Highest bid for Buy
- Priority for bids to get matched for the Block and Normal sell order with Fixed and Option Buy orders:
 - Block orders will be matched with the Fixed Buy order
 - Normal orders will be matched with the Fixed Buy order
 - In case of same price the bidder with highest quantity will be given preference
 - In case there are more than one sellers or buyers at the same price and same quantity – the bid will be matched on Pro-Rata basis for Day Ahead Contingency (DAC) and on Time priority for Week Ahead (WA).
 - DAC - Any quantity which is not disposed off due to the Pro-Rata matching in the previous step will be given to the next highest bid for Sell (in case of buyer) or the next lowest bid for Buy (in case of Seller)
 - DAC - In case of pro-rata when there is a split in the buy or sell bid – the remainder of the bid will be given to the Seller or Buyer who has placed the order before the other bidders – i.e. Time Priority.
- Final Traded quantity would not be less than 1 MW or MAQ as the case may be.
- Price Rounding off would be to the nearest defined price tick (as given in the Contract Specifications)

ANNEX-II

OPEN ACCESS (BILATERAL TRANSACTION) - CONCURRENCE FROM SLDC (to be enclosed along with Application)

1	Application No	Date	
2	Applicant Name		
3	Registration Code		

4	Buyer / Seller Details		
		Injecting Entity	Drawee Entity
	Name of Entity		
	Utility in which it is embedded		
	Concerned SLDC/Region		
	Whether Internalized(Yes/No)		

5	Concurrence Accorded by SLDC (Where point of Injection/point of Drawl is located)					
	SLDC Ref. No.				Date	
	DATE		HOURS		MW	
	FROM	TO	FROM	TO	Requested	Concurrence for

A curtailed concurrence (or no concurrence) is being granted on account of

<<Authorized Signatory for SLDC where point of injection/drawl is located>>

Name & Designation

Signature (With Stamp)