



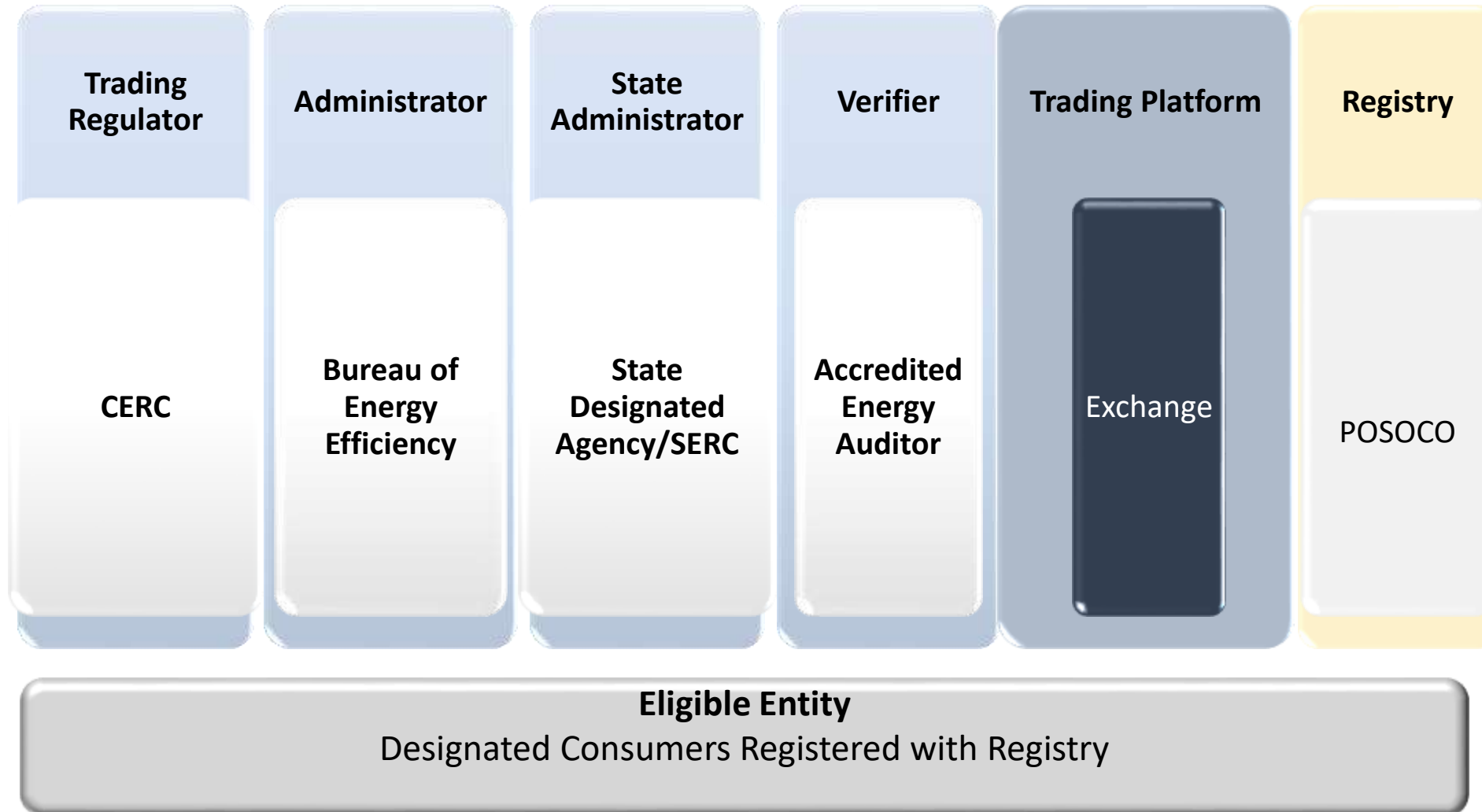
# Energy Saving Certificates (ESCert) Trading @IEX

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# Stakeholders under the PAT scheme



# Roles & Responsibilities of PX



- ✓ Formulate **Rules and Bye Laws** for Transaction of ESCerts on PX
- ✓ **Develop IT Platform** compatible with the PAT-Net portal and D-CRM for online transaction.
- ✓ Permit transaction of ESCerts only to the Eligible Entities.
- ✓ To **determine MCP and MCV** based on double sided closed Auction with Uniform Pricing principle
- ✓ **Send reports for Transaction confirmation**, pay-in and pay-out for Executed Transaction.
- ✓ **Issue Purchase Certificate** to the Buyers.
- ✓ **Display ESCerts demand supply curves** on the website

# Who we are

## IEX Ecosystem

6600+  
Registered  
Participants

50+  
DISCOMs

500+  
Electricity  
Generators

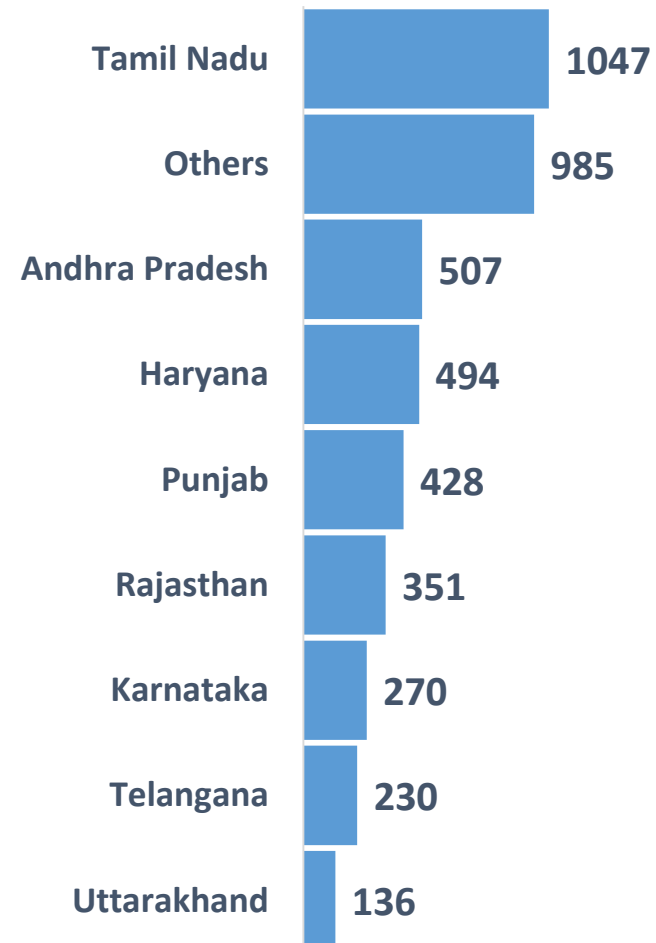
4400+  
Industries

1700+  
RE Gen & Ob.  
Entities

### Industrial participants in FY21



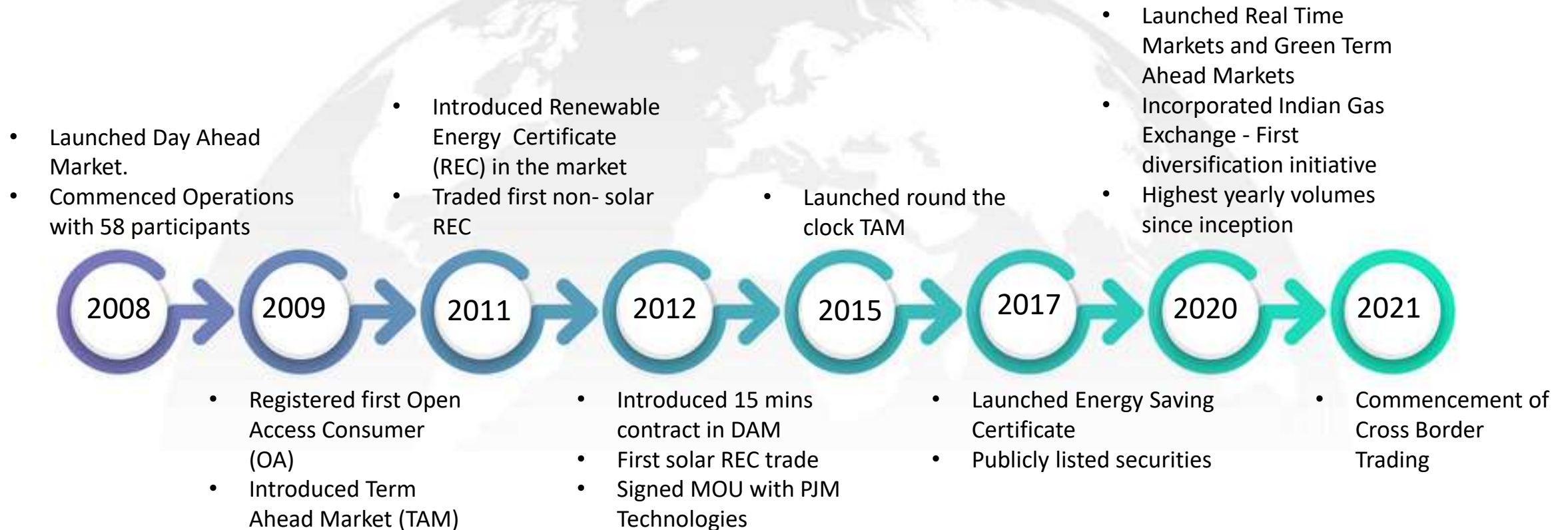
## FY21 Registered Participants



## Fast Facts

- ✓ Commenced operations - 2008
- ✓ First and largest energy exchange in India
- ✓ nationwide, automated trading platform
- ✓ physical delivery of Electricity, RECs and ESCerts
- ✓ Market Leader: 95% (DAM & RTM >99%)
- ✓ Electricity volume CAGR 32% since 2008
- ✓ FY21 Electricity trade: 74 BU
- ✓ Average daily trade: 8,000+ MW
- ✓ Record day volume: 308 Mus
- ✓ ISO 9001, 27001, 14001
- ✓ Publicly listed company (NSE and BSE)

# IEX completes 13 years of successful operations. Endeavors to support a sustainable energy economy



## Day-Ahead Market<sup>^</sup>

Since June, 08

- **Delivery** : any/some/all 15- minute time blocks in 24 hours of the next day
- **prices and quantum discovery**: double-sided closed auction bidding

## Term-Ahead Contracts

- **Products & Delivery:**

Since Sep., 09 :

Daily Contracts\* -T+2 to T+11

Weekly Contracts# - Next Week

Since Jul., 15 (RTC) :

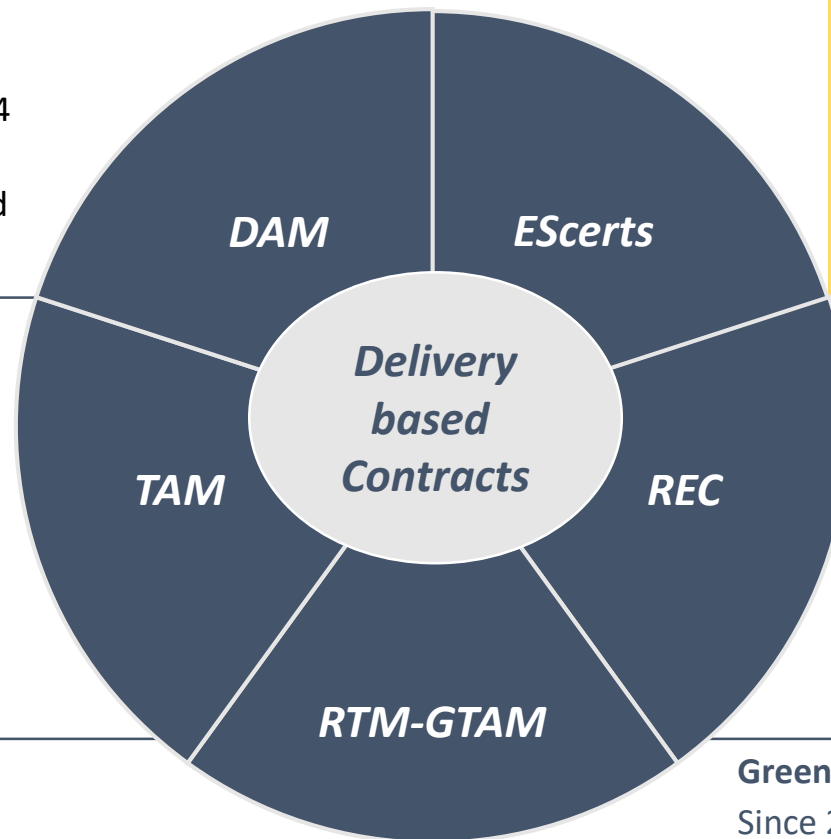
Intraday \* -04:00 to 24:00 hrs same day

Day-Ahead Contingency\* - all hrs following day

## Real Time Market<sup>^</sup>

Since 01 Jun'20

- **Bid sessions** Half Hourly market; 48 times per day
- **Delivery:** 30 minutes in two time blocks of 15 minutes each
- **prices and quantum discovery:** Double sided closed auction.



## Energy Saving Certificates<sup>^</sup>

Since Sep., 17

- 1 Escert = 1 Mtoe (Metric Tonne Oil Equivalent)
- **Trading Frequency** : Once a week (every Tuesday)
- **Price Determination** : Double-sided closed auction

## Renewable Energy Certificates<sup>^</sup>

Since Feb., 11

- 1 MWh = 1 Certificate
- attributes of electricity generated from renewable resources
- **Sellers:** RE generators not under feed in tariffs
- **Buyers:** Obligated entities; 1MWh equivalent to 1 REC

## Green Term Ahead Market

Since 21 Aug' 20

### Products & Delivery :

- Intraday \* -04:00 to 24:00 hrs same day
- Day-Ahead Contingency\* - 00:00 to 24:00
- Daily Contracts\* - T+2 to T+11; 10 rolling contracts
- Weekly Contracts# - Next Week



# Salient Features of ESCert trading



<b>Compliance</b>	Mandatory
<b>PAT Cycle</b>	3 Years
<b>Target Entities</b>	Designated Consumers
<b>Sellers</b>	DCs to whom ESCerts have been Issued
<b>Buyers</b>	DCs who have been entitled to purchase ESCerts
<b>Target</b>	12.13 MTOE for 2 <sup>nd</sup> Cycle
<b>Mechanism</b>	Cap and Trade
<b>Self Retention</b>	Not Allowed for Group Companies
<b>Penalty</b>	As per Energy Conservation Act, 2001 (Linked to market value of oil equivalent)

# Salient Features of ESCert trading



<b>ESCert</b>	<ul style="list-style-type: none"><li>• 1 ESCert = 1 MTOE (Metric Tonne of Oil equivalent)</li></ul>
<b>Trading Platform</b>	<ul style="list-style-type: none"><li>• Power Exchange only</li></ul>
<b>Trading Frequency</b>	<ul style="list-style-type: none"><li>• Weekly (Tuesday)*</li></ul>
<b>Price Determination</b>	<ul style="list-style-type: none"><li>• Double-sided Closed Auction with Uniform Price</li></ul>
<b>Selection Principle</b>	<ul style="list-style-type: none"><li>• Price   Pro-Rata</li></ul>
<b>Banking</b>	<ul style="list-style-type: none"><li>• Allowed for one consecutive cycle</li></ul>
<b>Resale</b>	<ul style="list-style-type: none"><li>• Not allowed</li></ul>
<b>Cap &amp; Floor Price</b>	<ul style="list-style-type: none"><li>• No Cap &amp; Floor Price</li></ul>
<b>Redemption</b>	<ul style="list-style-type: none"><li>• First In - First Out principle</li></ul>
<b>Order Type</b>	<ul style="list-style-type: none"><li>• Single Bid</li></ul>
<b>Margin</b>	<ul style="list-style-type: none"><li>• 100% from Buyers</li></ul>



# ESCerts Performance Snapshot(Pat Cycle-1)

## VOLUME (MWh)



Avg. Buy Bid: 1,57,999

Avg. Sell Bid: 5,06,534

Avg. Cleared: 76,406

## PARTICIPATION



97 out of 110 Buying DCs.

184 out of 318 Selling DCs

## PRICE (Rs/ESCert)



AVERAGE: 619

MIN: 200

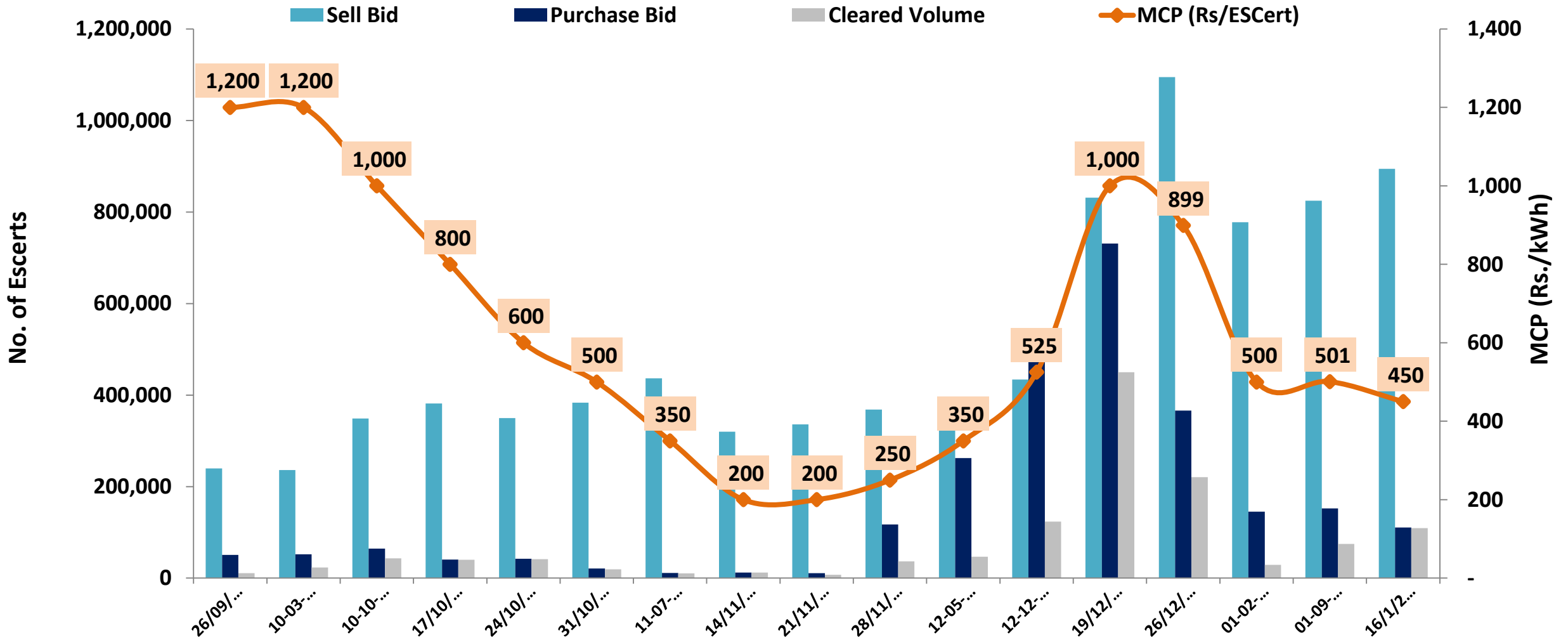
MAX: 1200

## DAYS



**Total 17 Sessions**

# ESCerts Performance Snapshot(Pat Cycle-1)

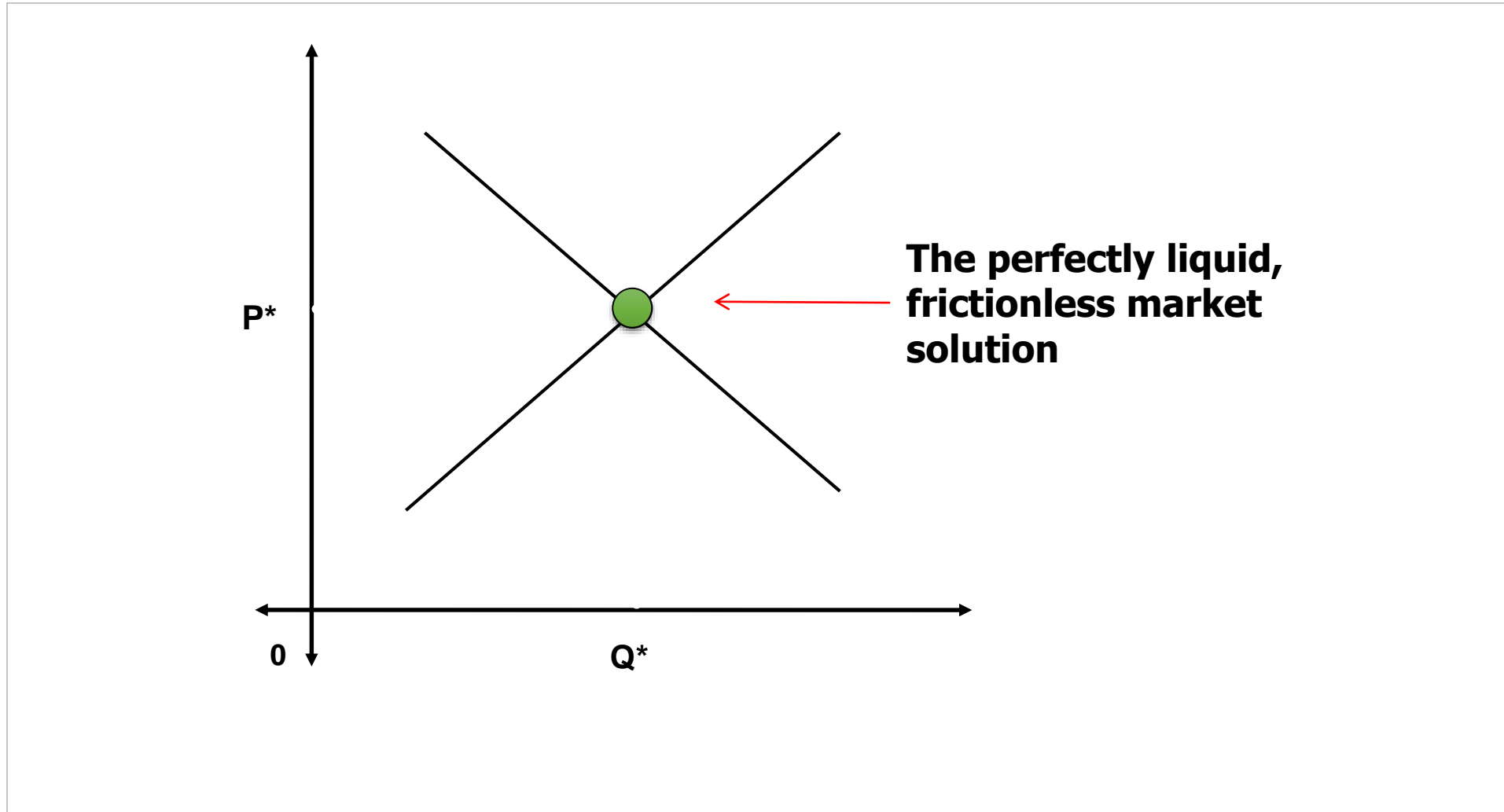


# Key Learnings from PAT-I & recommendations for PAT-II

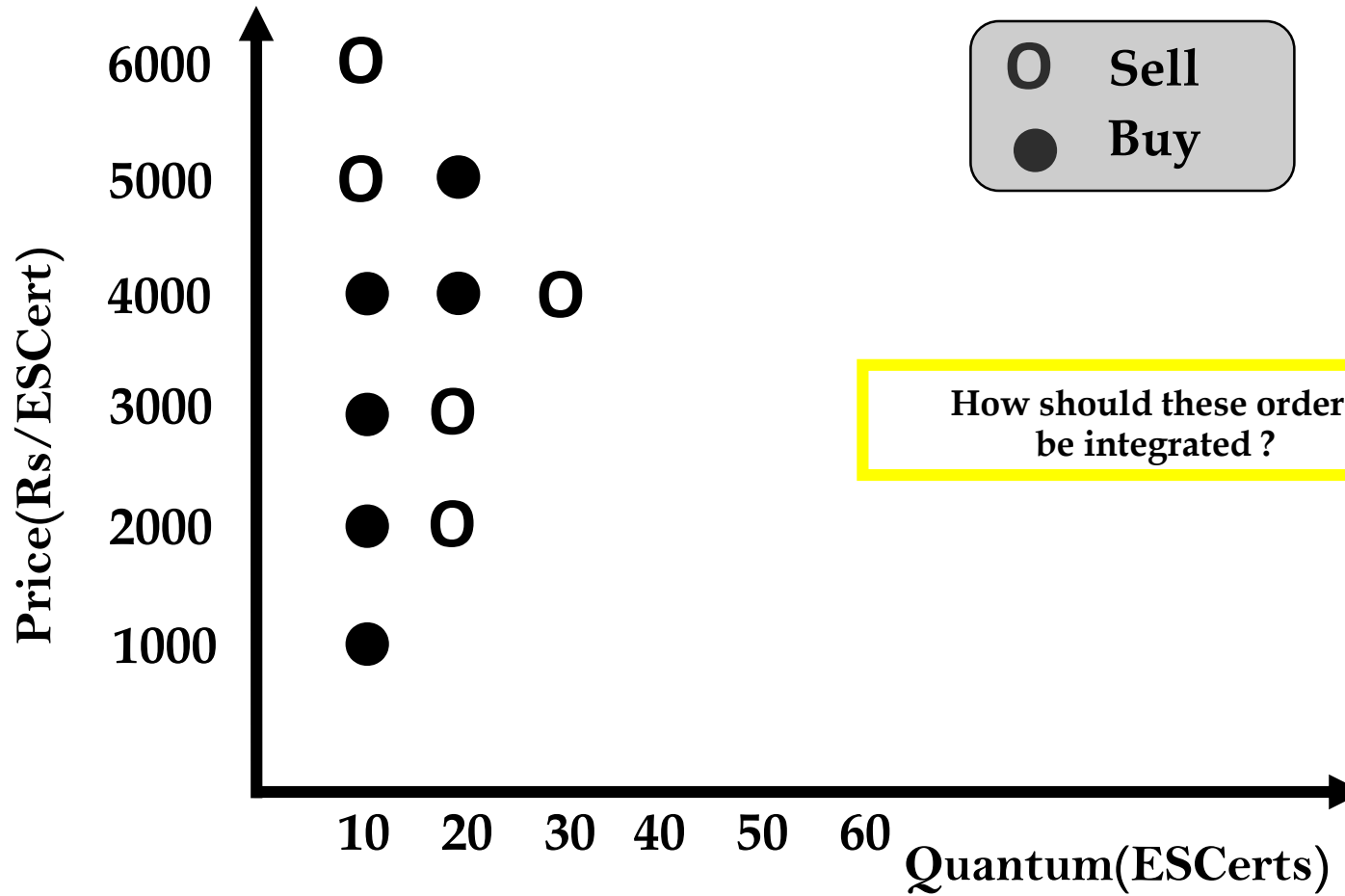


1. While placing bids for sell by an eligible DC, place the bid price based on marginal cost of investment for respective PAT Cycle.
2. While placing bids for buy by an eligible DC, place your bid price based on potential investment for achieving energy efficiency plus compliance penalty cost, that may be levied, if not met compliance for a specific PAT Cycle.
3. DCs need to register with the Registry as Eligible Entity before registering with the power exchanges for trading of ESCerts.
4. DCs must register with power exchange before start of trading sessions which will help DCs to be a part of all trading sessions.
5. DCs must ensure that their KYC is completed in IEX GST portal for invoice for seamless registration.
6. Portfolio ID should be activated and relevant ESCerts segment should be enabled before each trading session for uninterrupted bidding experience.
7. For buying DCs, sufficient funds should be available in the settlement account with the power exchange on the trading day.
8. If the DC is participating in a trade session with the power exchange, the cumulative sell quantity bid across power exchanges should be within the permissible limit. Otherwise, registry will remove the DC's bids from both the power exchanges.
9. The Selling DCs to raise the invoice on IEX GST portal on time to avoid any delay in pay-outs.
10. Participate in all mock ESCert trading sessions of IEX to have a better hands-on experience of the trading platform.

# Double Sided Closed Auction

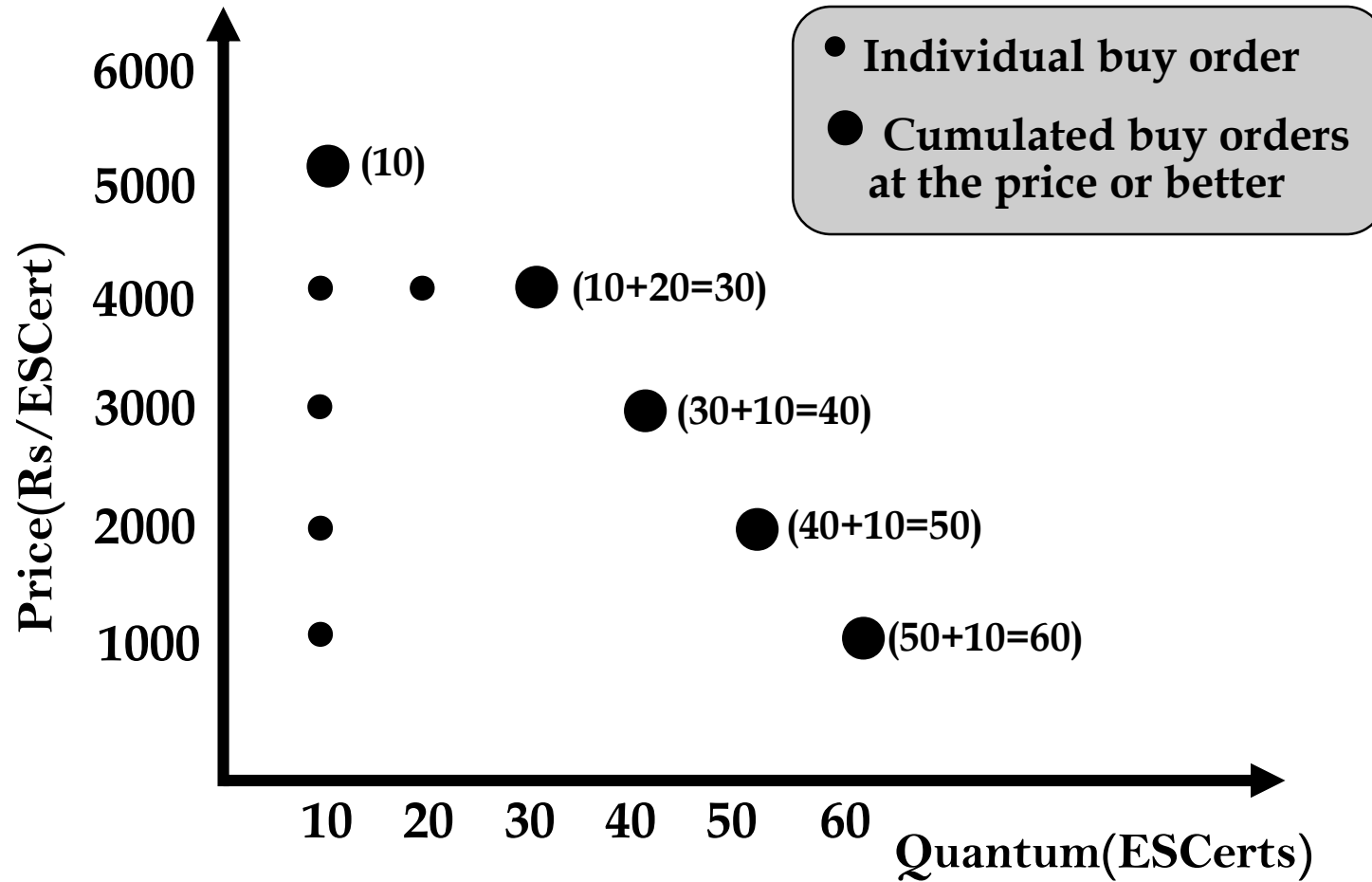


# Matching of Customer Orders



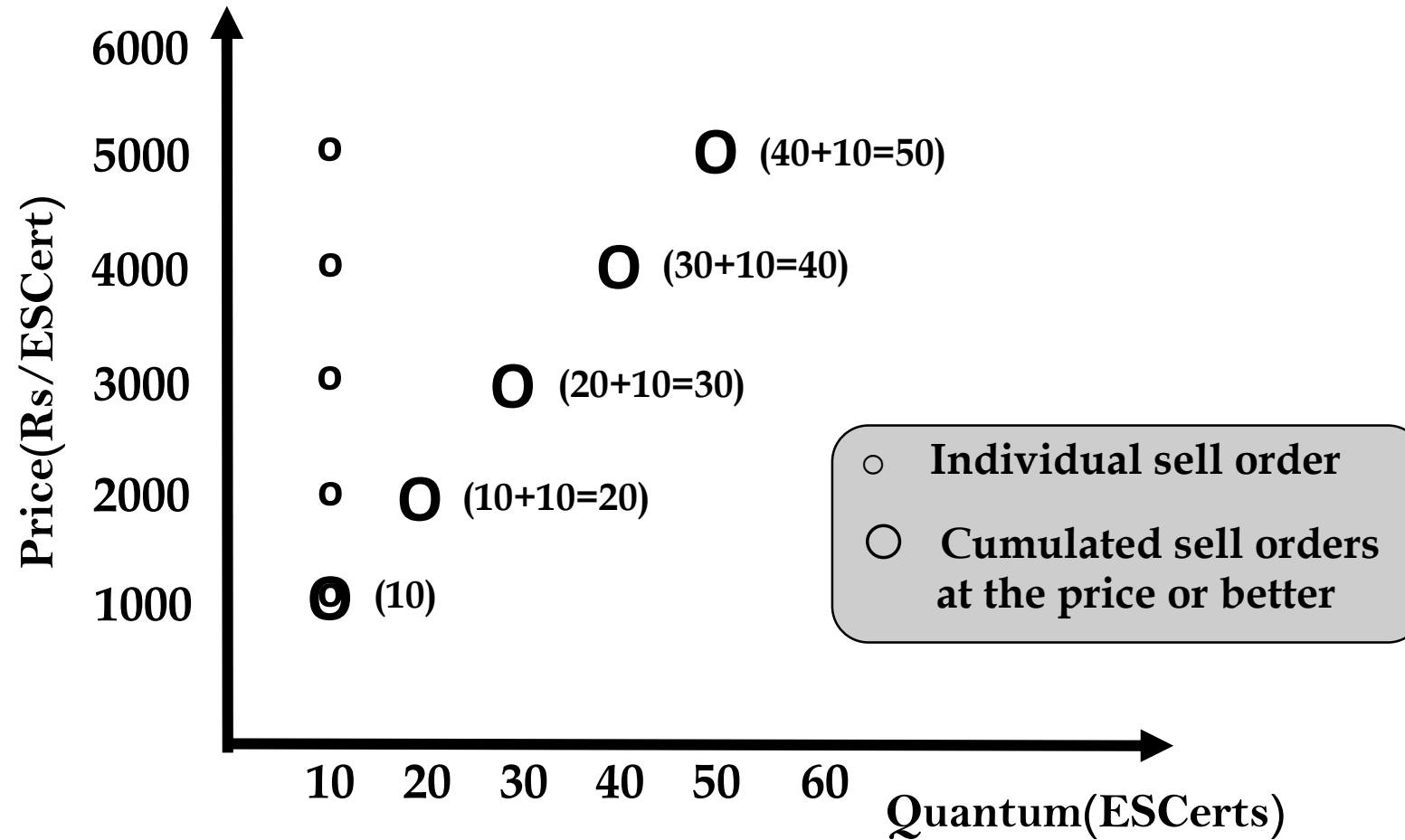
How should these orders be integrated ?

# Aggregate the Buy Orders

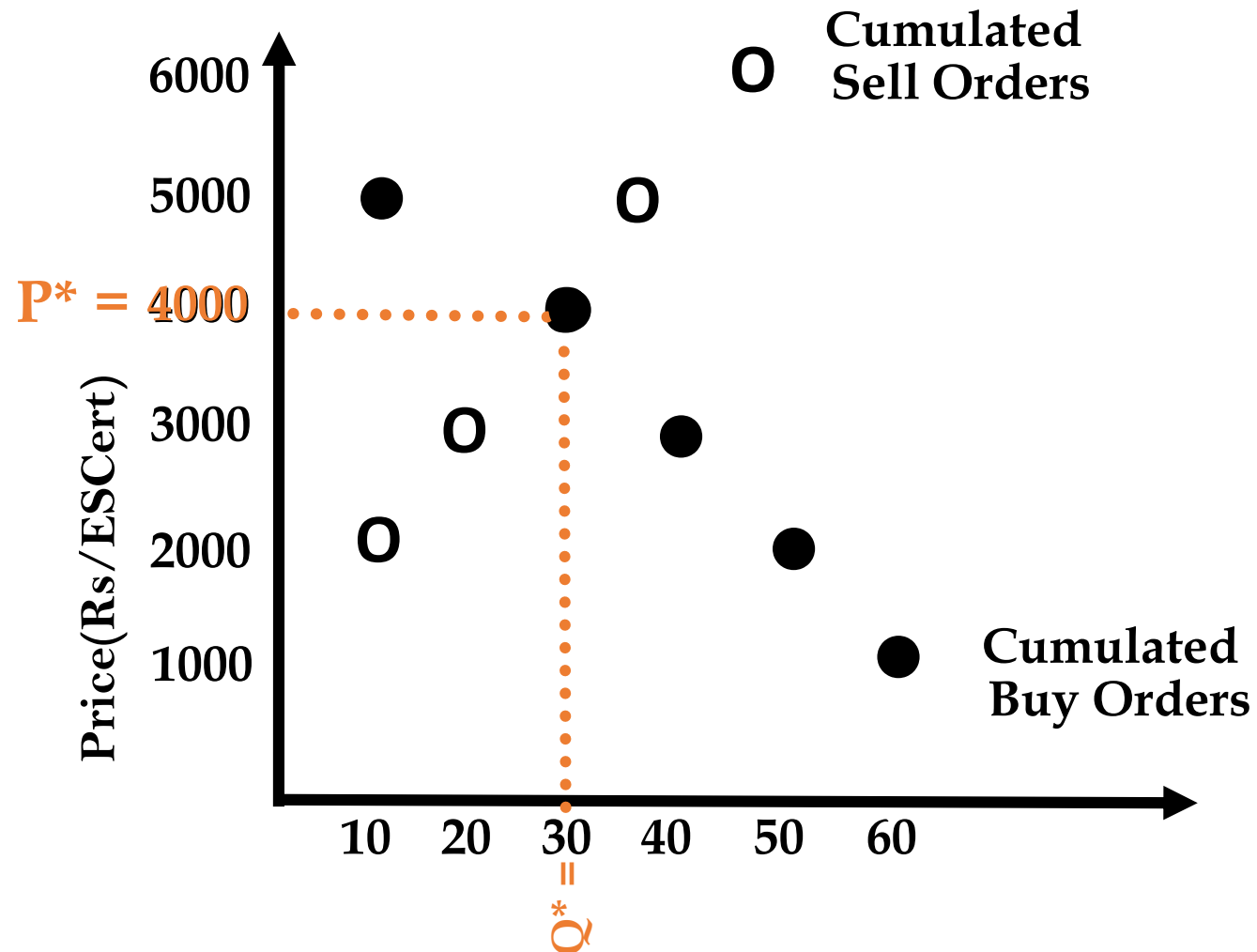




# Aggregate the Sell Orders

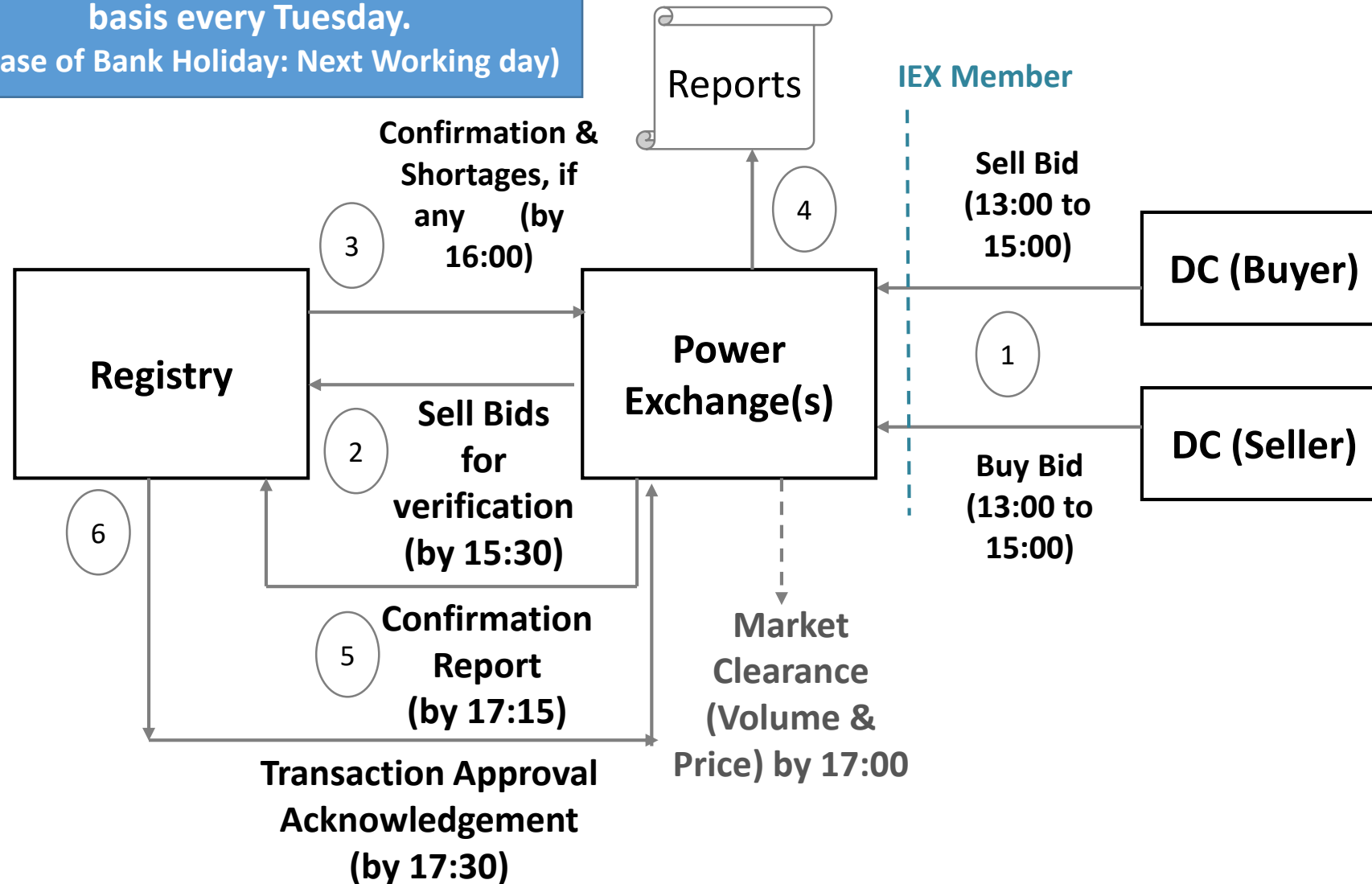


# Match Aggregated Buy & Sell Orders



# Process flow for ESCerts trading

Trading to be carried out on weekly basis every Tuesday.  
(In case of Bank Holiday: Next Working day)



# Buy/Sell Order – screenshots

Order Entry

BUY	Asset	Inst. Name	Order Type	Symbol	Qty	Price					
INDIA	▼	AUCESC	▼	Regular Lot	▼	ESC-16-19			0		
Participant ID	User	Portfolio ID	Portfolio Name	Trig. Price	Validity	User Remarks					
[Select]	▼	[Select]	▼	..	[Select]	▼	..			Submit	Clear

Order Entry

SELL	Asset	Inst. Name	Order Type	Symbol	Qty	Price					
INDIA	▼	AUCESC	▼	Regular Lot	▼	ESC-16-19	Create Profile			0	
Participant ID	User	Portfolio ID	Portfolio Name	Trig. Price	Validity	User Remarks					
[Select]	▼	[Select]	▼	..	[Select]	▼	..			Submit	Clear

# ESCerts Reports: Sample



## Participant Report - EC

Trade Date	10-Aug-21
Participant ID	AZARDAPP000
Participant Name	Arunachal Pradesh Power Corporation Pvt Ltd.
Selected Portfolio	3

### Section A - Total (B+C)

Portfolio ID	Portfolio ID NLDC	Symbol	Invoice (Rs.)	Charges & Taxes (Rs.)	Pay-in Amount (Rs.)	Pay-Out Amount (Rs.)
51KA0APP0200	CMT0041KA	ESC-16-19	8341000.00	196847.60	8537847.60	0.00
51KA0APP0201	CMT8020KA	ESC-16-19	8500000.00	-117600.00	0.00	8382400.00
51KA0APP0202	RLY0038KA	ESC-16-19	3498000.00	-117932.80	0.00	3380067.20

### Section B - Trade Details

Portfolio ID	Portfolio ID NLDC	Buy/Sell	Symbol	Rate (Rs.)	Quantity	Invoice (Rs.)
51KA0APP0200	CMT0041KA	Buy	ESC-16-19	1000.00	8341.00	8341000.00
51KA0APP0201	CMT8020KA	Sell	ESC-16-19	1000.00	3500.00	3500000.00
51KA0APP0202	RLY0038KA	Sell	ESC-16-19	1000.00	3498.00	3498000.00

### Section C - Charges and Taxes Details

Portfolio ID	Buy/Sell	Symbol	Exchange Fees (Rs.)	Discount on Exchange Fees (Rs.)	Rebate on Exchange Fees (Rs.)	Net Exchange Fees (Rs.)	IGST/UTGST on Exchange Fees (Rs.)	SGST on Exchange Fees (Rs.)	CGST on Exchange Fees (Rs.)	Charges & Taxes Total
51KA0APP0200	Buy	ESC-16-19	196820.00	0.00	0.00	196820.00	30077.60	0.00	0.00	226897.60

\* This is a computer generated report



## Tax Invoice

ORIGINAL FOR RECIPIENT

Name & Address of service Provider Centralised billing from Indian Energy Exchange Ltd ONE L74599CL300PLC217056 Plot No. C-051A/1, 8th Floor Max Towers, Sector 18B Noida, Gautam Buddha Nagar, Uttar Pradesh - 201301, India. Tel. No.: 43054000   Fax No.: 43004015 Website: www.iewindia.com		S. No. 2021-22/000596 Segment : ESC Name & Address of Member / Service Recipient Arunachal Pradesh Power Corporation Pvt Ltd, 2ND FLOOR, D 203 GLOBAL BUSINESS PARK M G ROAD NEAR GURU DRONACHARYA METRO STATION SECTOR 25 Gurgaon - 122002 GSTIN : 05AAAC07858123 Delivery Address : 2ND FLOOR, D 203 GLOBAL BUSINESS PARK M G ROAD NEAR GURU DRONACHARYA METRO STATION SECTOR 25 Gurgaon - 122002 State Code : 06 Date of Invoice : 10-Aug-21 Trade Date : 10-Aug-21	
GSTIN : 05AAAC07858123	SAC : 397152	POS : Haryana	

Particular	Qty Buy	Price (Buy)	Qty Sell	Price (Sell)	Amount
Transaction fee on ESC traded at Exchange		8341.0000		8598.0000	20.00
Taxable Value of Service					306780.00
Add IGST @ 18.00%					55220.40
Add SGST @ 0.00%					0.00
Add CGST @ 0.00%					0.00
Add UTGST @ 0.00%					0.00
Gross Billing Value					362000.40

Amount In Words : Rupees Three Lac Sixty-Two Thousand And Forty Paise Only

For Indian Energy Exchange Ltd.	
Authorized Signatory	
PAN No. AADCE753N	



## EC Trade Report (Buy/Sell)

Date: 10-Aug-21

Trade Date	10-Aug-21
Participant ID	AZARDAPP000
Participant Name	Arunachal Pradesh Power Corporation Pvt Ltd.
Portfolio ID	51KA0APP0200
Portfolio Name	Penna Cement Bangalore
State	Karnataka
Registration Number	CMT0041KA
Financial Year	2021-22

Trade Obligation (Rs.)	8341000.00
Net Exchange Fees	196820.00
Exchange Fees IGST/UTGST	30077.60
Exchange Fees SGST	0.00
Exchange Fees CGST	0.00
GST On Buy Trade	0.00
GST On Sell Trade	0.00
TDS Amount	0.00
TDS Amount	0.00
Funds Pay-in	8537847.60
Funds Pay-Out	0.00

### Section A - Total (B+C)

Certificate Number	Certificate for Financial Year	Symbol	Invoice (Rs.)	Charges & Taxes (Rs.)	Pay-in Amount (Rs.)	Pay-Out Amount (Rs.)
EC 2210810000007IE	16682	ESC-16-19	8341000.00	196847.60	8537847.60	0.00

### Section B - Trade Details

Certificate Number	Certificate for Financial Year	Buy/Sell	Symbol	Rate (Rs.)	Quantity	Invoice (Rs.)
EC 2210810000007IE	16682	Buy	ESC-16-19	1000.00	8341.00	8341000.00

### Section C - Charges and Taxes Details

Certificate Number	Buy/Sell	Symbol	Exchange Fees (Rs.)	Discount on Exchange Fees (Rs.)	Rebate on Exchange Fees (Rs.)	Net Exchange Fees (Rs.)	IGST/UTGST on Exchange Fees (Rs.)	SGST on Exchange Fees (Rs.)	CGST on Exchange Fees (Rs.)	GST on Trade (Rs.)	TCS (Rs.)	TDS (Rs.)	Charges & Taxes Total
EC 2210810000007IE	Buy	ESC-16-19	196820.00	0.00	0.00	196820.00	30077.60	0.00	0.00	0.00	0.00	0.00	226897.60



## Certificate of Purchase of ESCert(s)

Number: EC 2210810000007IEX

Serial No.: IEX\_0016682

Issued On: 10-Aug-2021

Penna Cement Bangalore

8,341 Certificates

This certifies that Penna Cement Bangalore, KARNATAKA with 51KA0APP0200 is the holder of 8,341 non-transferable Energy Saving Certificate(s) bought on 10th day of August 2021, through Indian Energy Exchange Ltd.

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 Indian Energy Exchange Ltd.

(Name and Designation of Authorized Signatory)

Amil Kumar  
Sr VP Market Operations  
Indian Energy Exchange Ltd.

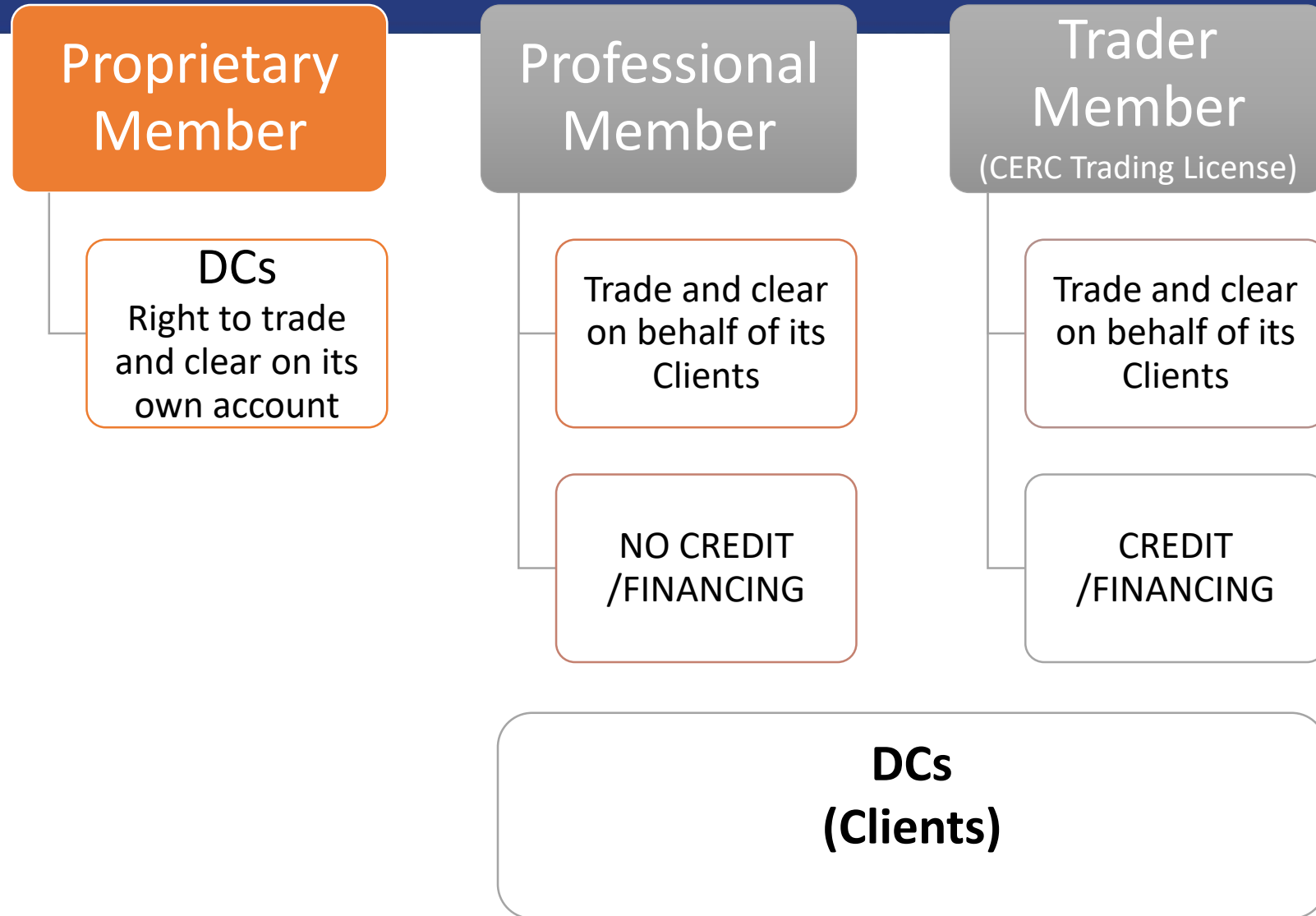
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**Trade @ IEX**



# IEX Membership Types

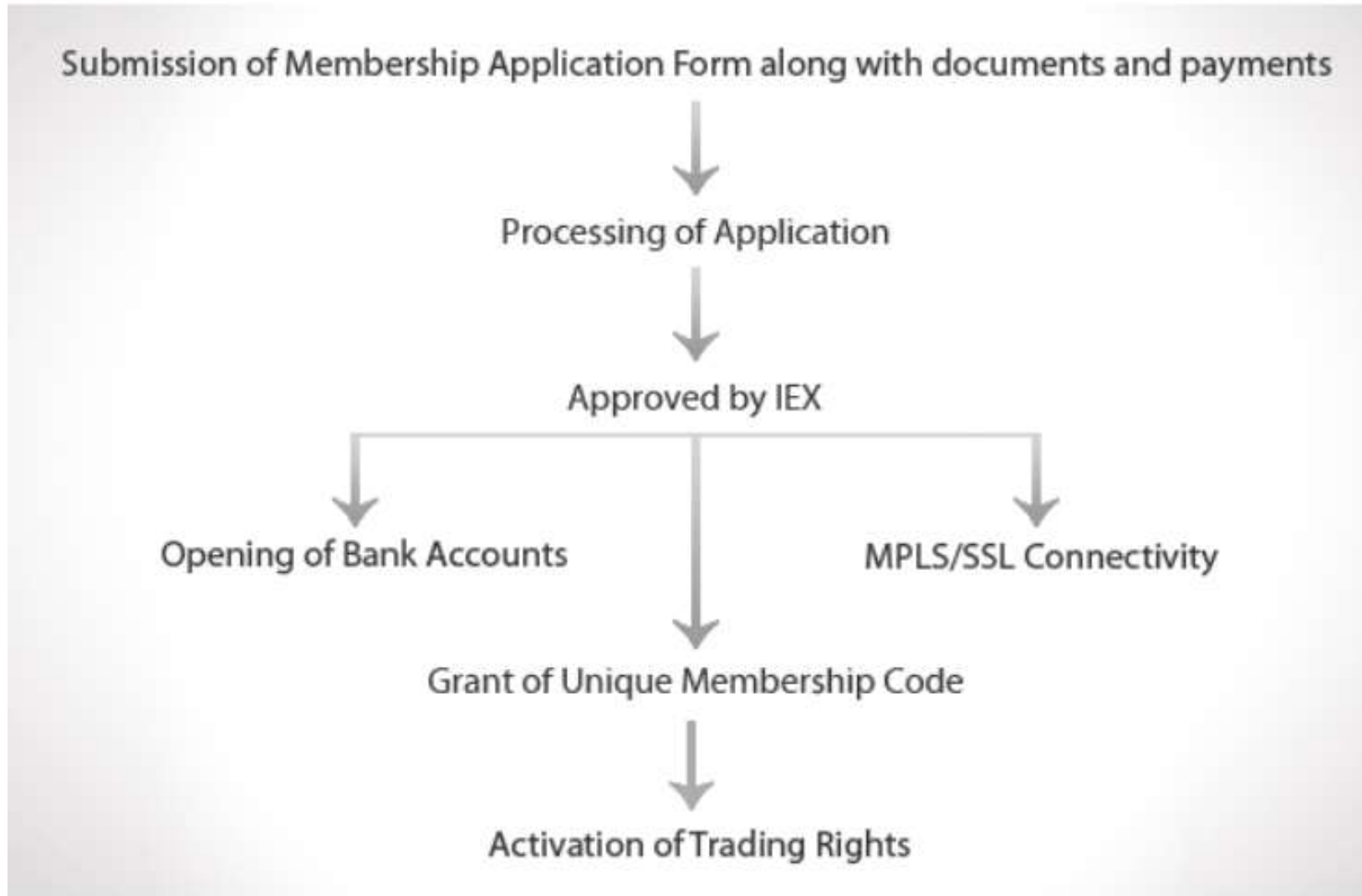


# Registration Process for ESCerts Trading



- ✓ Only Designated Consumers (DCs) who are successfully registered with POSOCO as Eligible Entity shall be permitted to become Members/Clients of IEX for trading in ESCerts segment
- ✓ Existing members and clients of IEX active in Electricity and/or REC segment are eligible to trade in ESCerts segment, provided they fulfil all eligibility criteria
- ✓ New DCs can register either as proprietary member directly or as a client of an existing IEX member and participate in ESCerts trading


# Registration Process as New Member with IEX



# Registration Process as New Client through IEX member



- Client has to fill “Client Registration Form” and send the form to IEX through the member
- IEX will scrutinise and register the client internally
- If client is registering through professional members, then they need to open settlement account
- IEX will generate unique “Portfolio Code” and the same will be communicated to client through its member
- Fulfilling all other statutory requirement, client may begin participation in ESCerts segment



**CLIENT REGISTRATION FORM**

To,  
**Indian Energy Exchange Limited**  
 Unit No. 3, 4, 5 and 6  
 Fourth Floor, TDI Centre,  
 Plot No. 7, Jasola,  
 New Delhi-110 025

From:-  
 Member \_\_\_\_\_  
 Membership Code \_\_\_\_\_  
 Membership Category (Please tick as appropriate)  
 Professional   
 Proprietary   
 Trader

Dear Sir,  
 We request you to register the following entity as our Client. The details of Registration are as under:

**ELECTRICITY**       **REC**       **ESCERTS**  
 Grid Connected Client       Eligible Entity       Buyer  
 Trader Client       Obligated Entity       Seller  
 Voluntary Entity

**15. ESCERTS SEGMENT**

15.1. Eligible Entity (EE) PAT Details:

S. No.	Plant Name	Plant State	Plant Location	Year of Establishment	PAT Cycle	No. of ESCerts		DC Registration No.
						Issued	To be Purchased	
					Amazon offer			

If registered units are more than three, provide details on a separate sheet in the format prescribed above.

15.2 Name of State Designated Agency: \_\_\_\_\_

# IEX Fee structure for ESCert trading

(Rs. In Lacs)

Segment – Type of Membership	Electricity (Trader/Professional/ Proprietary)	REC (Trader/Professional/ Proprietary)	ESCCerts (Trader/Professional/ Proprietary)
Eligible for Trading	Electricity + REC + ESCerts	REC + ESCerts	ESCCerts
Admission Fee	35	10	5
Security Deposit	25	5	2.5
Processing Fee	0.1	0.1	0.1
Annual Subscription Fee	5	2	1 (Per Pat cycle)
IEX Transaction Fee (Rs/MWh or REC or ESCerts)	20	20	20
Annual Client /Portfolio Subscription Fee	1	0.20	0.20 (Per Pat Cycle)
Minimum Net Worth	150 <i>(Only for Professional and Proprietary member)</i>	50 <i>(Only for Professional member)</i>	50 <i>(Only for Professional member)</i>

**Note:**

- a) All charges unless specified are in Rs. Lacs
- b) Fees mentioned above are exclusive of applicable taxes.
- c) ESCerts annual subscription fees for exclusive Member & Client are valid for the respective PAT Cycle and its associated compliance period.

THANK YOU

***For more assistance Please contact***

- *Mr. Sibasis Panda- +91-9873086995, [Sibasis.panda@iexindia.com](mailto:Sibasis.panda@iexindia.com)*
- *Mr. Adil Ahmad-+91- 9711601469, [Adil.ahmad@iexindia.com](mailto:Adil.ahmad@iexindia.com)*
- *Mr. Sudhir Bharti- +91-9654125139, [Sudhir.bharti@iexindia.com](mailto:Sudhir.bharti@iexindia.com)*
- *Mr. Ravi Kuchi- +91-7674917333, [Ravi.kuchi@iexindia.com](mailto:Ravi.kuchi@iexindia.com)*

**[membership@iexindia.com](mailto:membership@iexindia.com)**