

UPSC Preparation

Indian Energy Exchange

India's first and largest energy exchange is the Indian Energy Exchange (IEX). In April 2021, IEX expanded beyond India with the commencement of Cross-Border Electricity Trade (CBET). Learn relevant facts about IEX for [UPSC 2021](#) in this article.

How to approach IEX for UPSC?

As a body, the topic comes under the Polity subject. Hence, candidates should know the organisational structure, its functions, number of participants, its regulator etc.

Get the compilation of [Polity Questions of UPSC Prelims](#) spanning across 2013 and 2020 from the linked article. This will help you form an idea about the format of questions asked in the IAS Prelims Exam.

How Indian Energy Exchange Work?

It is an automated trading platform that allows physical delivery of electricity and two certificates known as Renewable Energy Certificates and Energy Saving Certificates.

It has more than 6600 participants from 29 states and 5 Union Territories who can purchase electricity. There are various product segments through the electricity is a trade:

1. **Day-Ahead Market:** It is a market for physical electricity trade. It is used for deliveries for any/some/all 15-minute time blocks in 24 hours of the next day starting from midnight. The double-sided closed auction bidding process determines the price and the quantum of electricity.
2. **Term-Ahead Market:** Participants can buy or sell electricity on a term basis for a duration of up to 11 days ahead.
3. **Renewable Energy Certificates:** It facilitates transaction in environmental attributes. According to the exchange;
 - The Renewable Energy (RE) generator can opt to get RECs against the green attributes of their generation. The RECs can be sold by these generators through IEX.
 - The obligated entities-distribution companies, captive plants and open access consumers may opt to purchase RECs to fulfil their Renewable Purchase Obligation (RPO).
4. **Energy Saving Certificates:** Also called ESCerts, these are tradable certificates under the Perform-Achieve-Trade (PAT) Scheme.
 - What is a PAT Scheme? It was launched in 2012 by the Bureau of Energy Efficiency (BEE), Ministry of Power. According to the Ministry, "PAT scheme is a regulatory instrument to reduce specific energy consumption in energy-intensive industries, with an associated market-based mechanism to enhance the cost-effectiveness through certification of excess energy saving which can be traded."

Vision and Mission of IEX:

The focus is on competitive, transparent and reliable access to sustainable energy. It aims to initiate marketplaces by leveraging innovation and technology that fosters its mission to deliver affordable, reliable energy to consumers.

Related Articles:

List of Largest Solar Power Plants in India	National Solar Mission
National Wind-Solar Hybrid Policy	Wind Energy in India
Thermal Power Plants in India	Renewable Purchase Obligation

Types of Membership in IEX

There are three types of membership:

1. Proprietary: The eligible entities are:
 - Inter-State Generating Stations (ISGSs)
 - Distribution Licensees
 - State Generating Stations
 - IPPs
 - CPPs & IPPs with consent from SLDC
 - Open Access Consumers with consent from SLDC
2. Trader: An eligible entity is the one with a valid and subsisting Interstate Trading License from the Central Electricity Regulatory Commission (CERC).
3. Professional: The entities that are neither proprietary nor trader. Such entities are not entitled to trade for themselves. However, they have the right to act for and/on behalf of their clients. They also cannot clear contracts on the Exchange for such clients.

Note: The following can be the members of the IEX:

- Proprietor Firm
- Registered Partnership Firm
- Private Limited Company
- Public Limited Company
- Government-owned Entity
- State Electricity Board

Who regulates IEX?

Central Electricity Regulatory Commission (CERC) regulated Indian Energy Exchange. CERC is a statutory body and a quasi-judicial body. Power Market Regulations 2010 are one among various regulations that regulate IEX.

Candidates should know the above-mentioned facts about Indian Energy Exchange for UPSC preparation.

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