



# IEX BULLETIN



## IN THIS ISSUE...

### REGULATORY NEWS

- 01** Karnataka Electricity Regulatory Commission issues Discom Tariff Order for FY'25
- 01** Bihar Electricity Regulatory Commission issues a Tariff Order from Discoms for FY'25
- 02** Haryana Electricity Regulatory Commission issues a Tariff Order for Discoms for FY'25
- 03** The Ministry of Coal issues Strategy Paper on Coal Import Substitution
- 03** Odisha Electricity Regulatory Commission (OERC) issues Tariff Order for Distribution Licensees for FY'25
- 04** Revisions to Methodology for Allocation of Coal under SHAKTI Policy

### BUSINESS ARTICLE

- 05** Power Exchanges: Catalysts for Building a Robust Green Energy Market

### POWER INSIGHTS

- 06** POWER INSIGHTS: MARCH 2024

### MARKET NEWS

- 07** Market News

### TRADE INSIGHTS

- 09** Day-Ahead Power Market
- 10** Term-Ahead Power Market
- 11** Real-Time Electricity Market
- 12** Green Market

## REGULATORY NEWS

### Karnataka Electricity Regulatory Commission issues Discom Tariff Order for FY'25

On 28<sup>th</sup> February, the Karnataka Electricity Regulatory Commission (KERC) issued the Tariff Order of Discoms for FY'25. It includes true up of FY 22-23, APR of FY 23-24 and ARR for FY 24-25. Highlights of the orders are as follows:

- Approved APPC including transmission charges for FY'25 – Rs. 6.30/unit.
- **Tariff Change:** HT 2a reduced by Rs.0.50/unit and HT 2b reduced by Rs. 1.25/unit.
- **Open Access Charges:** CSS charges for HT 2a reduced by Rs.1.50/unit and for HT 2b reduced by Rs.0.34/unit. Additional Surcharge reduced by Rs.0.11/unit.
- **TOD Charge:** The Commission has decided to introduce ToD @Rs.1/unit for morning peak between 6 a.m. to 9 a.m. in addition to retaining the existing evening peak between 6 p.m. to 10 p.m.

### Bihar Electricity Regulatory Commission issues a Tariff Order from Discoms for FY'25

On 1<sup>st</sup> March, the Bihar Electricity Regulatory Commission (BERC) issued the Tariff Order of Discoms for FY 24-25. It includes true up of FY 22-23, APR of FY 23-24 and ARR for FY 24-25. The revised tariffs are applicable from April 1, 2024. Highlights of the orders are as follows:

• **Renewable Purchase Obligation Status:**

	NBPDCL	SBPDCL
Wind Shortfall/(Surplus)	(2131.49)	(2290.15)
Hydro Shortfall/(Surplus)	179.50	212.53
Other Shortfall/(Surplus)	1592.35	1705.60

- APPC (exc. Transmission) for FY24 for NBPDCL approved at Rs. 5.05/kWh and for SBPDCL approved at Rs. 5.01/kWh.
- BERC has reduced tariff by 15 paise per unit across all consumer categories. Industrial tariff for FY 2022-23 and FY 2023-24 is provided below:

	FY 2023-24		FY 2024-25	
	Fixed Charges (Rs./kVA/Month)	Energy Charges (Rs./kVAh)	Fixed Charges (Rs./kVA/Month)	Energy Charges (Rs./kVAh)
HTS-II (33 KV)	550	8.07	550	7.92
HTS-III (132 KV)	550	8.00	550	7.85

- **Open Access Charges:** CSS charges for 33 KV reduced by Rs.0.70/unit and for 132KV reduced by Rs.0.19/unit. Additional Surcharge remains unchanged.

## Haryana Electricity Regulatory Commission issues a Tariff Order for Discoms for FY'25

On 5<sup>th</sup> March 2024, the Haryana Electricity Regulatory Commission (HERC) issued a tariff order for Discoms for true-up for FY 22-23, APR for FY 23-24 and ARR for FY 2024-25. The order is applicable from 1<sup>st</sup> April 2024. Key points of the order are:

• **RPO Targets for FY'25**

	Wind RPO	HPO	Other RPO	Total RPO	Energy Storage
Energy Consumption (MU)	51,128				
%age of RPO	2.46%	1.08%	26.37%		1.5%
RPO Target (MU)	1257	552	13482	15291	767

- APPC (exc. Transmission) approved at Rs. 3.19/unit for FY 24-25.
- **Tariff Details:** No change in tariff for industrial consumers.
- **OA Charges & Losses:** CSS charges reduced by Rs.0.02/unit each for HT Industry and HT NDS. Transmission charge reduced by Rs.0.08/unit.
- **TOD Charges:** No change in TOD charges.

## The Ministry of Coal issues Strategy Paper on Coal Import Substitution

The Ministry of Coal issued a Strategy Paper on Coal Import Substitution in March 2024. Some key recommendations of the report are-

- **Reduction in Coal Imports by Import Coal-based Power Plants** - In order to remove dependence of Imported Coal-based plants on the imported coal with volatile prices, the MoP may consider mandating the ICB plants to retrofit their boilers to make them compatible with the Indian thermal coal specifications and any cost in carrying out the same may be passed on to the consumers (in a manner similar to that of installation of FGDs). As domestic coal is lower priced than the landed cost of the imported coal, the resultant cost of Power, even after retrofit, may not be high. On the other hand, nearly 17 GW of this capacity, which is 8% of total thermal capacity of 204 GW in the country may become fully deployed and also create a demand for nearly 70 Mt of domestic coal which can be met.
- **Export of Power**- Few of the power plants in the country utilise imported coal for generation of electricity for the purpose of export and the electricity is supplied at a tariff which is competitively discovered. Therefore, supplying of domestic coal to such power plants which are exporting electricity may be explored by both MoP as well as Ministry of Coal. Allowing access to domestic coal to these power plants may lead to substitution of coal import.
- **Rationalisation of GST Compensation Cess on Coal** - GST Compensation Cess is based on tonnage and not on the GCV value of coal. Imported coal being the high GCV value (5000-6000 Kcal) in comparison to domestically supplied coal (3000-3500 Kcal), the tax incidence on imported coal on per Kcal basis is less in comparison to domestic coal. Thus, the cess may be imposed on ad-valorem basis wherein the Cess would be directly related to the price and quantity of the coal, instead of the present levy of a fixed amount of Rs 400 per tonne.

## Odisha Electricity Regulatory Commission (OERC) issues Tariff Order for Distribution Licensees for FY'25

On 13<sup>th</sup> February 2024, the Odisha Electricity Regulatory Commission (OERC) issued a tariff order for distribution licenses for FY'25. The tariff is effective from April 1<sup>st</sup>, 2024. The key highlights of the order are:

- **RPO Compliance for FY 2024-25:** Shortfall of 936 MU for Non-Solar and 1,083 MU for Solar for a total shortfall of 2,019 Mus.

	Non-Solar (including HPO)	Solar	Total RPO
Target (%)	8.25%	9.75%	18.00%
Target (MU)	2566	3033	5600
Proposed Compliance (%)	5.24%	6.27%	11.51%
Proposed Compliance (MU)	1630.62	1950.00	3580.62
Shortfall (MU)	936	1083	2019

- No Change in Industrial Tariff.
- Green Energy Tariff reduced from 25 paise/unit to 20 paise/unit as premium over and above the normal rate of energy charges.
- **TOD Charges:** Peak tariff rate for 18:00 – 24:00 Hrs introduced @ Rs0.20/unit.

## The Ministry of Power issues Revisions to Methodology for Allocation of Coal under SHAKTI Policy

On 15<sup>th</sup> March, the Ministry of Power issued revisions to the methodology for allocation of coal as per SHAKTI Policy. The original methodology was issued vide MoP letters dated 02.12.2019 and 12.05.2020. Further changes were issued vide letter dated 06.04.2022. Revisions are as below:

- **Para iv. Periodicity of auctions:**

Auctions shall be carried out in 3 separate windows having a period of 3 months, 6 months and 12 months to cater to the dynamic requirements and demand variations in short-term and any product day-ahead market in power exchanges. Auctions under these 3 windows are required to be carried out at regular intervals every month.

- **Para v. Eligibility of Power plant for participation in auctions- All such power plants:**

- i) which do not have PPAs;

- ii) having PPA(s) which is expiring within one month of date of EoI publication;

Or

- iii) having a PPA which has been signed but is not effective on the date of EoI publication and also not likely to be effective during the duration of coal supply, shall be allowed to participate for auction of Coal Linkage for short-term period (maximum up to one year) with conditions specified in this methodology. Further, it is clarified that, the effective date of PPA, shall be the date of PPA adoption by appropriate Regulatory Commission or the date of commencement of power supply as per PPA, whichever is later.

# Power Exchanges: Catalysts for Building a Robust Green Energy Market

By Vineet Harlalka

(Chief Financial Officer, IEX)

*This article appeared on March 11<sup>th</sup>, 2024 in Business World Sustainability.*

At the seminal COP26 climate summit in 2021, India boldly pledged to achieve net-zero carbon emissions by 2070. This commitment represents a monumental stride towards energy transformation. The target is aligned with an ambitious plan of meeting 50% of the nation's energy requirements from renewable sources by 2030. These goals reflect India's dedication to sustainable development and desire to assume climate leadership on the global stage.



Within this overarching vision, power exchanges will become crucial catalysts playing an instrumental role in realising India's green energy and net-zero objectives. Since its establishment in 2008, power exchanges have revolutionised the landscape by introducing competitive and transparent price discovery mechanisms for electricity. These platforms have facilitated efficient planning for DISCOMs and offered flexibility in procurement, thus ensuring an uninterrupted 24x7 power supply to consumers while maintaining strong financial liquidity. The evolution has been remarkable, with platforms now offering diverse trading options catering to India's dynamic electricity market. Currently trading more than 100 billion units annually, equivalent to around 7% of the country's total generation, power exchanges provide around 25 contracts across various market segments. These include the Day-Ahead Market (DAM), Real-Time Market (RTM), Term-Ahead Market (TAM) serving up to 90 days, Green Market, and Ancillary Market.

The integral flexibility of Real-Time Market (RTM) platforms has enabled market participants to adapt swiftly to demand variations, support large-scale renewable energy integration, and enhance grid security. By providing efficient price signals, power exchanges have fostered the integration of renewable energy into India's power grid. Over the last 15 years, exchange prices have consistently proven to be more competitive than alternate modes of power procurement, resulting in significant financial savings for distribution companies and large industries alike. The missing link for renewable power integration has been energy storage, and Battery Energy Storage Systems (BESS) are identified as a future growth driver for the sector. SECI's recent award of India's first pilot project of a 500 MW battery storage, with 40% open capacity to be sold through power exchanges, marks a significant milestone in this direction.

Furthermore, the growing emphasis on renewable energy resources has prompted the trading of market-based instruments such as Renewable Energy Certificates (RECs) and Energy Saving Certificates (ESCerts) on exchanges since 2011. These instruments not only reduce India's carbon footprint but also support the government's Perform Achieve Trade (PAT) policy, showcasing the pivotal role of power exchanges in promoting sustainable energy practices.

As electrification expands and the focus intensifies on green energy banking solutions such as pumped storage, battery, and hydrogen, power exchanges will adapt by introducing new products to cater to India's evolving energy mix and growing energy demand. The emergence of Green Hydrogen and Peer-to-Peer (P2P) Trading presents untapped opportunities that are set to revolutionise the energy sector, aligning India's energy landscape with global trends towards decentralised energy solutions.

In essence, power exchanges emerge as foundational pillars propelling India towards a greener and more sustainable future. Their role as catalysts for building a robust green energy market is undeniable, and their continued evolution and innovation will be instrumental in shaping India's energy landscape for generations to come.

## POWER INSIGHTS: MARCH 2024

### Capacity

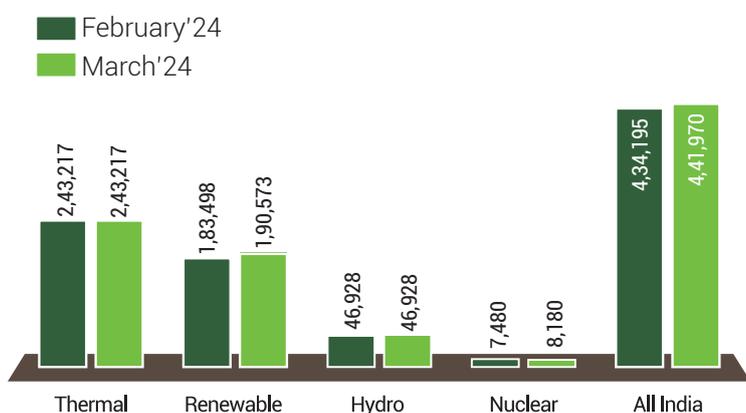
In March 2024, all India installed capacity stood at 4,41,970 MW with capacity addition of 7,774 MW during the month with break-up as below:

• **Thermal:** No Change • **Renewable:** 7,074 MW (Increase) • **Hydro:** No Change • **Nuclear:** 700 MW (Increase)

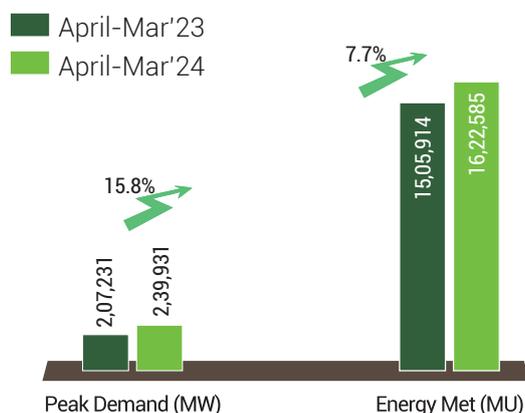
All India peak demand met printed at 2,39,931 MW during April'23 – March'24 registering a 15.8% YoY increase from 2,07,231 MW during April'22 – March'23.

All India energy met was higher by 7.7% at 1,623 BUs during April'23 - March'24 compared with 1,506 BUs during April'22 – March'23.

All India Installed Capacity (in MW)



Demand and Supply Position



### Peak Demand Met Comparison of Key States

The comparison of the peak demand met in the key states during April 2022 – March 2023 and April 2023 – March 2024 is as here under:

State	Apr-Mar'23	Apr-Mar'24	YoY (%)
Maharashtra	28,846	27,996	-2.9%
Gujarat	21,382	24,544	14.8%
Madhya Pradesh	17,238	17,817	3.4%
Uttar Pradesh	26,589	28,284	6.4%
Punjab	14,311	15,293	6.9%
Andhra Pradesh	12,293	13,061	6.2%
Haryana	12,768	12,844	0.6%
Tamil Nadu	17,729	19,054	7.5%
Karnataka	15,828	17,220	8.8%
Telangana	15,497	15,370	-0.8%
<b>All India</b>	<b>2,07,231</b>	<b>2,39,931</b>	<b>15.8%</b>

### Energy Met Comparison of Key States

The comparison of the energy met in the key states April 2022 – March 2023 and April 2023 – March 2024 is as here under:

State	Apr-Feb'23	Apr-Feb'24	YoY (%)
Rajasthan	1,00,057	1,06,813	6.8%
Uttar Pradesh	1,43,050	1,48,275	3.7%
Gujarat	1,38,999	1,45,715	4.8%
Haryana	60,945	63,636	4.4%
Punjab	69,220	69,644	0.6%
Maharashtra	1,87,197	2,06,962	10.6%
Telangana	77,799	84,920	9.2%
Madhya Pradesh	92,325	98,918	7.1%
Andhra Pradesh	71,893	80,557	12.1%
Tamil Nadu	1,14,722	1,26,187	10.0%
Karnataka	75,663	94,227	24.5%
<b>All India</b>	<b>15,05,914</b>	<b>16,22,585</b>	<b>7.7%</b>

(Source: www.cea.nic.in)

## MARKET NEWS

### ELECTRICITY MARKET

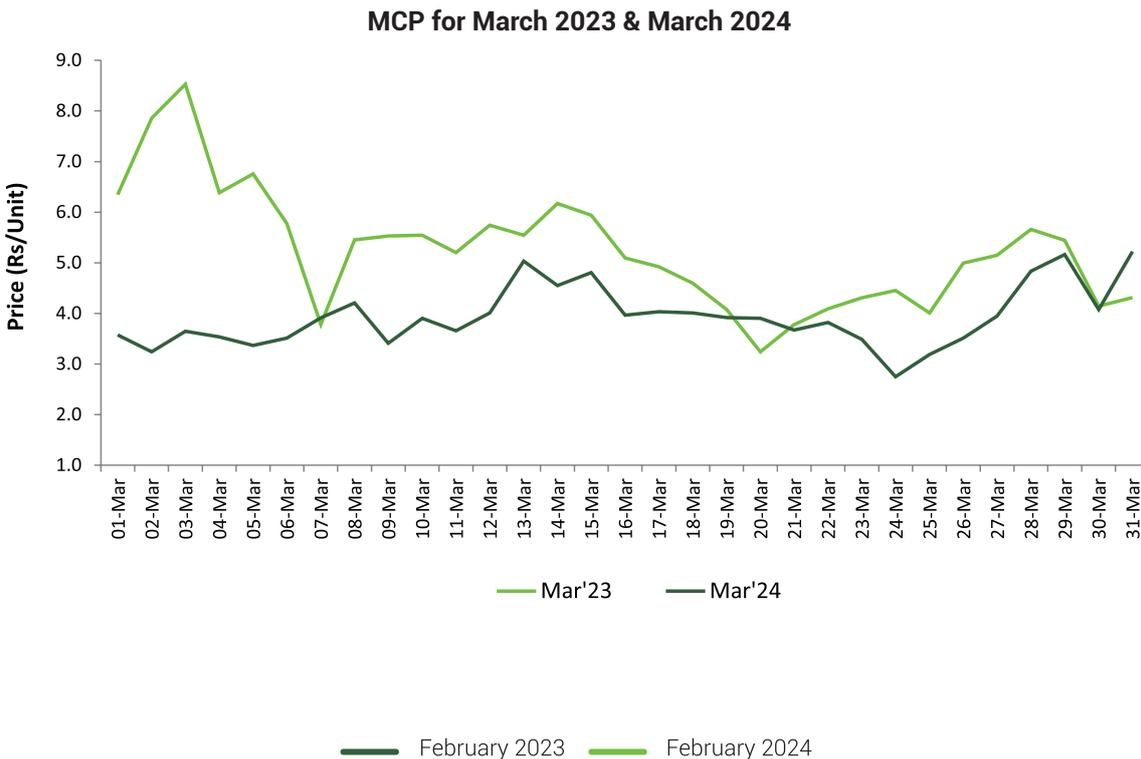
The Indian Energy Exchange, India's premier electricity exchange, achieved 110 BU in FY'24, registering an increase of 13.8% on YoY basis. Electricity volumes at 101.7BU increased 12% YoY. Additionally, 75.39 lac RECs (equivalent to 7,539 MU) were traded during FY'24. REC traded volume in FY'24 increased 26% on YoY basis. The Government undertook several measures which led to a better supply scenario in the country, as a result of which the sell side liquidity improved on the Exchange. During the year, the sell liquidity on the exchange increased by 16.9% YoY, which led to a decline in the DAM prices from Rs 5.94/unit in FY'23 to Rs 5.24/unit in FY'24, i.e a decline of 12% YoY.

During Q4 FY'24, IEX achieved 30.1 BU volume across all segments, registering an increase of 15.7% on YoY basis. This volume comprises 25.9 BU from the conventional power market segment, 1 BU from the green market segment, and 32.48 lac Renewable Energy Certificates (RECs) (equivalent to 3.2 BU). REC traded volume in Q4FY'24 increased by ~98% on YoY basis. The DAM prices on the exchange reduced from Rs 6.08/unit in Q4 FY'23 to Rs 4.89/unit in Q4 FY'24, a decline of 20% YoY.

For the month of March'24, IEX achieved 9.8 BU overall volume, marking a 6.2 % year-over-year increase. The Market Clearing Price in Day-Ahead Market during March'24 was Rs. 3.91/unit, down approximately 28% year-on-year, due to increased sell quantum. The sell bids on the exchange (Day-Ahead Market plus Real-Time Market) during the month increased by ~37% on YoY basis.

The fiscal year 2024 witnessed several favourable policy and regulatory interventions that further deepened power markets. Notable among these were the General Network Access (GNA) regulation, the Indian Electricity Grid Code (IEGC) regulations, and Transmission Charges Sharing regulations. Further there were amendments in the Electricity Late Payment Surcharge Rules of 2024, which requires the sale of URS power on exchanges.

According to government data, for the year, the energy requirement at 1,626 BU grew by 7.5% YoY in 2023-24.



## DAY-AHEAD, TERM-AHEAD & REAL-TIME ELECTRICITY MARKET

The Day-Ahead Market (DAM) volume was at 4,653 MU in March'24, as compared to 4,745MU in March'23. The DAM segment registered 14,916 MU during Q4FY'24, as compared to 14,301 MU in Q4FY'23, registering an increase of 4.3% on YoY basis. The segment achieved 53,353 MU for the cumulative FY'24, as compared to 51,151 MU in FY'23, registering an increase of 4.3% on YoY basis.

The Real-Time Electricity Market (RTM) volume increased to 2,786 MU in March'24, from 2,098 MU in March'23, registering an increase of 32.8% on YoY basis. The RTM segment registered volume of 7,505 MU during Q4FY'24, as compared to 5,914 MU during Q4FY'23, registering an increase of 26.9 % on YoY basis. The segment achieved 30,125 MU for the cumulative FY'24, as against 24,174 MU in FY'23, registering an increase of 24.6% on YoY basis.

Day-Ahead Contingency and Term-Ahead Market (TAM), comprising of contingency, daily & weekly and monthly contracts up to 3 months, traded 806 MU during March'24. The total volume on the segment during the quarter was 3,511 MU, growth of 19.3% over Q4 FY'23. For the FY'24, the segment achieved 14,944 MU, registering a growth of 48% on YoY basis.

## GREEN MARKET: DAY-AHEAD & TERM-AHEAD

IEX Green Market, comprising the Green Day-Ahead and Green Term-Ahead Market segments, achieved 426 MU volume during March'24, 960 MU in Q4 FY'24 and 3,227MU in FY'24.

The Green Day-Ahead Market (G-DAM) achieved 410 MU volume with a weighted average price of Rs 3.81 per unit. The market saw participation from 244 market participants during the month. The G-DAM segment achieved 885 MU during Q4 FY'24 and 2,502 MU during FY'24.

The Green Term-Ahead Market (G-TAM) achieved 16 MU volume in March'24. The G-TAM segment achieved 75 MU during Q4 FY'24 and 725 MU for FY'24.

## RENEWABLE ENERGY CERTIFICATE MARKET (REC)

A total of 6.14 lac RECs (equivalent to 614 MU) were traded in the trading sessions held on 14<sup>th</sup> February'24 and 28<sup>th</sup> February'24, at a clearing price of Rs. 360/REC and Rs. 347/REC respectively.

The next REC trading sessions at the Exchange are scheduled on 13<sup>th</sup> March'24 and 27<sup>th</sup> March'24.

## ENERGY SAVING CERTIFICATES (ESCerts)

During FY'24, 8.55 lac ESCerts (equivalent to 855 MU) were traded on IEX, at the floor price of Rs. 1840 per ESCert.

Trading of Energy Saving Certificates Market (ESCerts) under PAT Cycle III is scheduled to start from April 09, 2024.

## TRADE INSIGHTS MARCH 2024

### CONVENTIONAL POWER MARKET

#### DAY-AHEAD MARKET

Price Snapshot (₹/kWh)

AREA PRICES			
Area	Average	Minimum	Maximum
All India	3.94	0.50	10.00

1 MU= 1 Million kWh= 1 GWh

VOLUME				
Volume	Sell Bids	Buy Bids	Unconstrained Volume	Cleared Volume
Total Volume (MU)	9,672.04	7,468.20	4,660.04	4,653.50
Average Daily (MU)	312.00	240.91	150.32	150.12

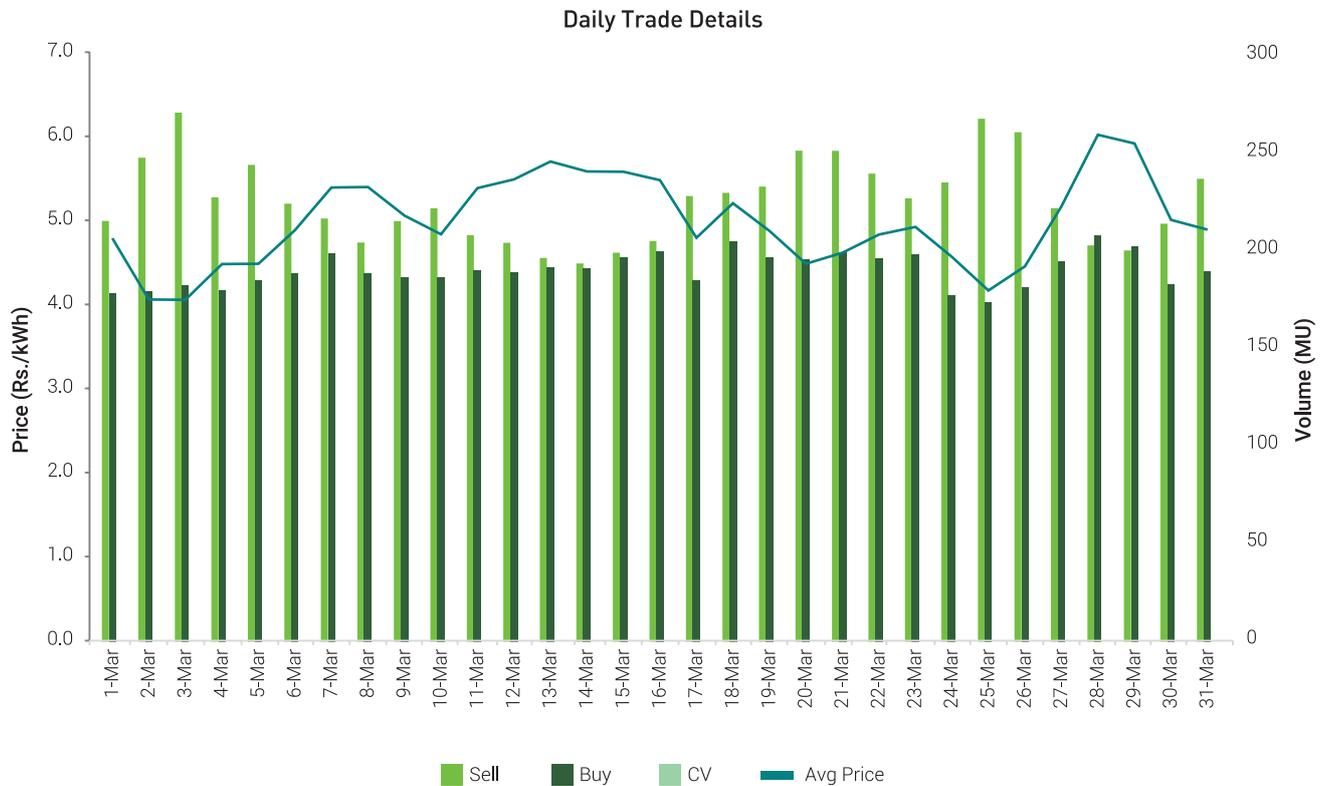
PARTICIPATION		
Total Registered Participants	Open Access Consumers	Private Generators
7,900+	4,900+	800+

#### TERM-AHEAD MARKET

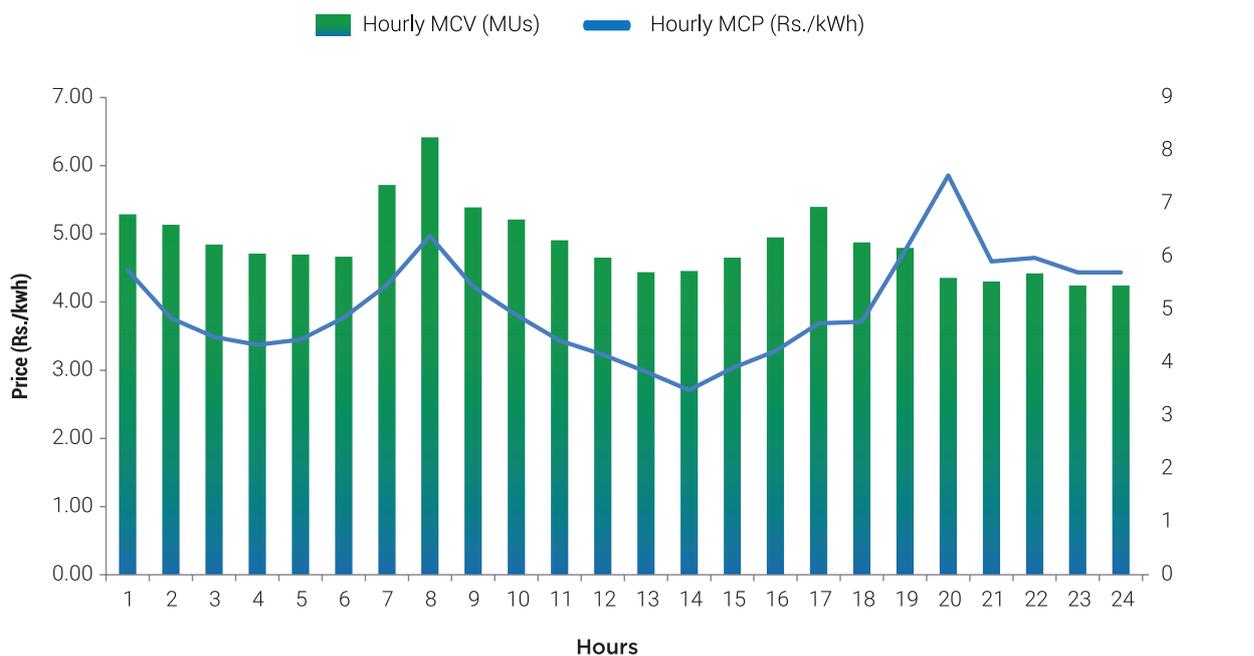
Contracts	Total Volume (MU)	Max. Price (₹/kWh)	Min. Price (₹/kWh)
Intraday	0.24	8.50	8.50
Day-Ahead Contingency	469.90	10.00	2.54
Daily	176.45	7.90	5.88
Weekly	0	-	-
Monthly	582.77	10.0	6.00
<b>Total TAM Volume</b>		<b>1,229.36</b>	

Scheduled Volume is in the month-based on Delivery Date

## TERM-AHEAD MARKET



### Average Hourly Market Clearing Volume and Price





## REAL-TIME MARKET

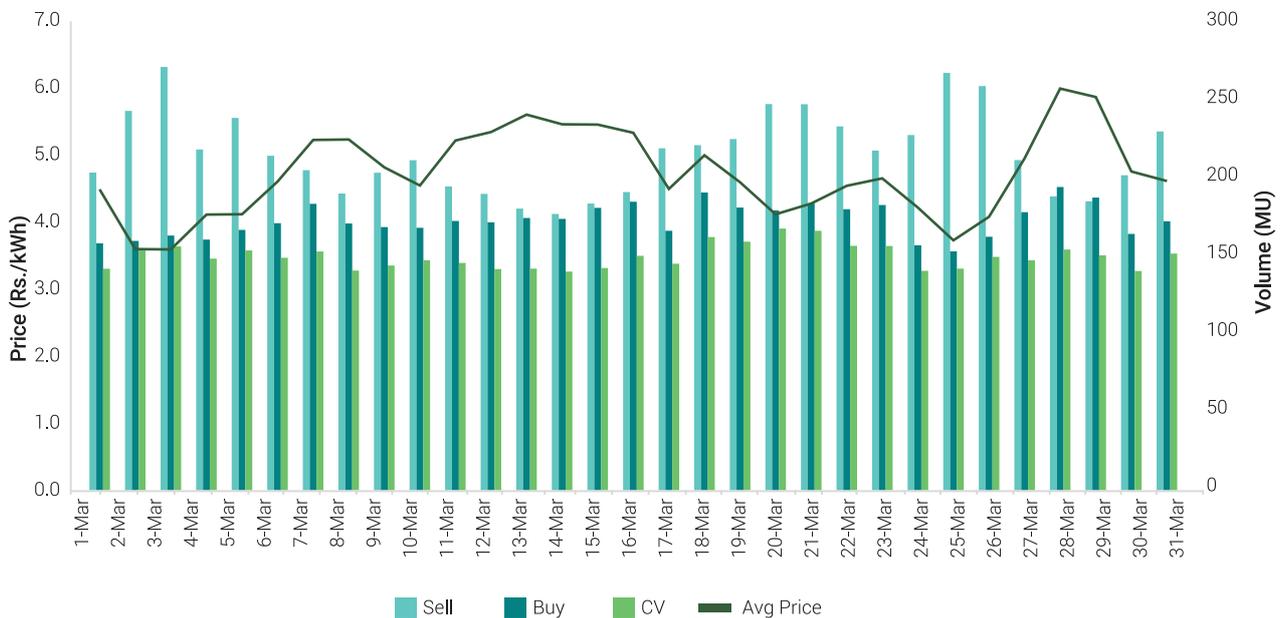
Price Snapshot (₹/kWh)

AREA PRICES			
Area	Average	Minimum	Maximum
All India	3.93	0.90	10.00

1 MU= 1 Million kWh= 1 GWh

VOLUME			
Volume	Sell Bids	Buy Bids	Cleared Volume
Total Volume (MU)	4,707.86	3,878.90	2,339.93

### Daily Trade Details



## GREEN DAY-AHEAD MARKET

Price Snapshot (₹/kWh)

AREA PRICES			
Area	Average	Minimum	Maximum
All India	4.08	1.00	10.00

1 MU= 1 Million kWh= 1 GWh

VOLUME				
Volume	Sell Bids	Buy Bids	Unconstrained Volume	Cleared Volume
Total Volume (MU)	736.89	1,595.46	411.34	409.66
Average Daily (MU)	23.77	51.47	13.27	13.21

## GREEN TERM-AHEAD MARKET

	Intra-day (Solar)	Intra-day (Non Solar)	Intra-day (Hydro)	Day-Ahead Contingency (Solar)	Day-Ahead Contingency (Non-Solar)	Day-Ahead Contingency (Hydro)	Weekly (Solar)	Weekly (Non-Solar)	Daily (Solar)	Daily (Non-Solar)
Volume (MU)	-	-	-	-	-	-	-	-	-	3.60
Price (Rs/kWh)	-	-	-	-	-	-	-	-	-	8.00
Total Volume (MU)*	3.60									

\* Does not include Green LDCs

## CONNECT WITH US



[/IndianEnergyExchange](#)



Mobile App (IEXApp)  
available on Android and iOS



Daily SMS

### Indian Energy Exchange Limited

9<sup>th</sup> Floor, Max Towers, Sec-16B, Noida, Gautam Buddha Nagar, Uttar Pradesh-201301  
Regd. Office: C/o Avanta Business Centre, First Floor, Unit No. 1.14(a), D2, Southern Park,  
District Centre, Saket, New Delhi-110017, India

CIN: L74999DL2007PLC277039

Phone: +91-120-4648100 | Email: [contact@iexindia.com](mailto:contact@iexindia.com) | [www.iexindia.com](http://www.iexindia.com)