

# GREEN MARKET

## OVERVIEW

Globally, there is a rapid shift in the energy landscape, and this is evident in India as well. Countries across the globe have initiated measures to decarbonise their energy economy and mitigate the adverse consequences due to climate change. A new energy order which is sustainable, flexible and efficient, and where renewables, hydro, gas, and other newer non-conventional technologies have a greater role to play, is taking shape. India is also likely to see a complete change in its energy mix in this decade. Renewables will occupy a central role from an energy security, accessibility, and sustainability perspective.

## THE GREEN MARKET

Until August 2020, the Exchange-based power market could only procure renewable energy through Renewable Energy Certificates (RECs). This changed in August 2020, when the Central Electricity Regulatory Commission approved trading in renewable energy (solar and non-solar power) with term-ahead contracts and trading in Green Day-Ahead Market in October 2021, on the Power Exchange. The market paved the way for establishing a first-of-its-kind 'green market' in India. This was a significant milestone towards building India as a sustainable energy economy. Cumulatively, IEX has traded 5.39 BU of green energy since August 2020.

## GREEN DAY-AHEAD MARKET

The Green Day-Ahead Market was commenced in Oct 2021. The market allows anonymous and double-sided closed collective auction in renewable energy on a day-ahead basis and discovery of the most competitive price. The clearing takes place in a sequential manner – first in the renewable segment having the must-run status, considering the availability of the transmission corridor, followed by the conventional segment. The participants have the option to transfer the unselected bids from the renewable to the conventional segment and price it accordingly. This way, generators have the option of selling power to the G-DAM market, fetching them a better price discovery, and allowing more flexibility in the transactions.

## GREEN TERM-AHEAD MARKET

The Green Term-Ahead Market was commenced in August 2020. The market offers a range of contracts in both solar & non-solar segments, allowing participants to buy/sell electricity on a term basis for a duration of up to 11 days ahead. The contracts include - Green-Intraday, Green Day-Ahead Contingency (DAC), Green-Daily and Green-Weekly. The matching mechanism is continuous/spot trading for Green-Intraday, Green-DAC and Green-Daily contracts whereas a double-sided open auction process is to be implemented for Green-Weekly.

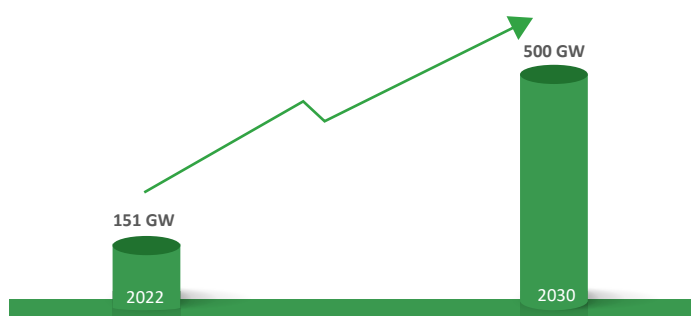
## BENEFITS

### BUYER

- Competitive prices
- Flexible and transparent procurement
- No long term rigid commitments
- Integrated Energy and RPO fulfilment
- Voluntary sustainability goals

### SELLER

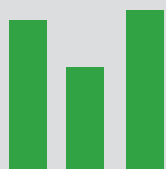
- Pan India market
- Additional avenue to sell besides longterm
- Merchant renewable capacity
- Certainty in despatch
- RTM for imbalance management
- Portfolio sale by RE rich Discoms
- Payment guarantee



India envisions renewable capacity of 500 GW by 2030 from the present base of 151 GW

## KEY STATISTICS

(Till Q2 FY23)



CLEARED VOLUME  
**2,161 MU**



AVERAGE DAILY VOLUME  
**12 MU**

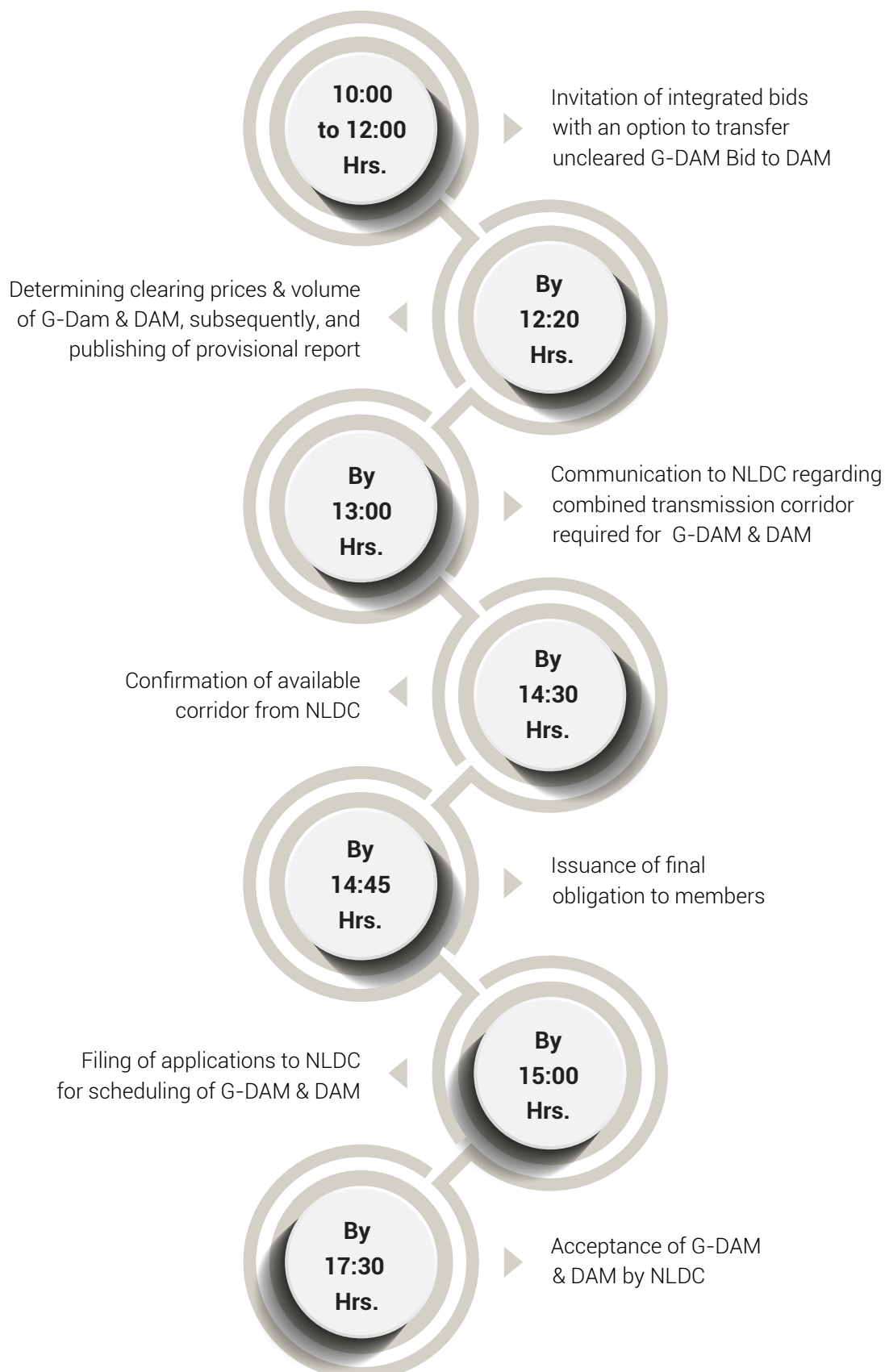


WEIGHTED  
AVERAGE PRICE  
**6.37 Rs./kWh**



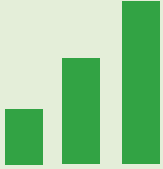
HIGHEST DAILY TRADE  
**46 MU (12 May 2022)**

## GREEN DAY-AHEAD MARKET



## KEY STATISTICS

(Till Q2 FY23)



CLEARED VOLUME: **829 MU**  
SOLAR: **140 MU**  
NON-SOLAR: **392 MU**  
HYDRO: **297 MU**



TOTAL PARTICIPANTS: **15**










PRICE (Rs./kWh)  
AVG.: **6.74**  
MIN.: **1.54**  
MAX.: **16**



HIGHEST TRADE  
**37 MU (17 May 2022)**

## GREEN TERM-AHEAD MARKET

### CONTRACT SPECIFICATIONS

		1 ▼ INTRADAY	2 ▼ DAC	3 ▼ DAILY	4 ▼ WEEKLY
	CONTRACT	15-min same day delivery	15-min next day delivery	Energy Traded in MWh (Profile)	
	TRADING	Continuous trading			Auction
	TRADING DAYS	Daily			Wednesday, Thursday, Friday
	TRADING (Hrs.)	00:15-19:30	15:00-23:30	Daily 1:00 to 23:00	Weekly 12:00 -17:00
	DELIVERY (Hrs.)	04:00-24:00	00:00-24:00	As per the profile	
	PAY-IN	T+1	D	D-1	
	PAY-OUT	T+1	D+1	D+1	

T: Trading day  
D: Delivery Day

## Customer Value Proposition



24X7 Power



Competitive Price



Flexibility



Transparency



Cost Saving








Payment Security

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