

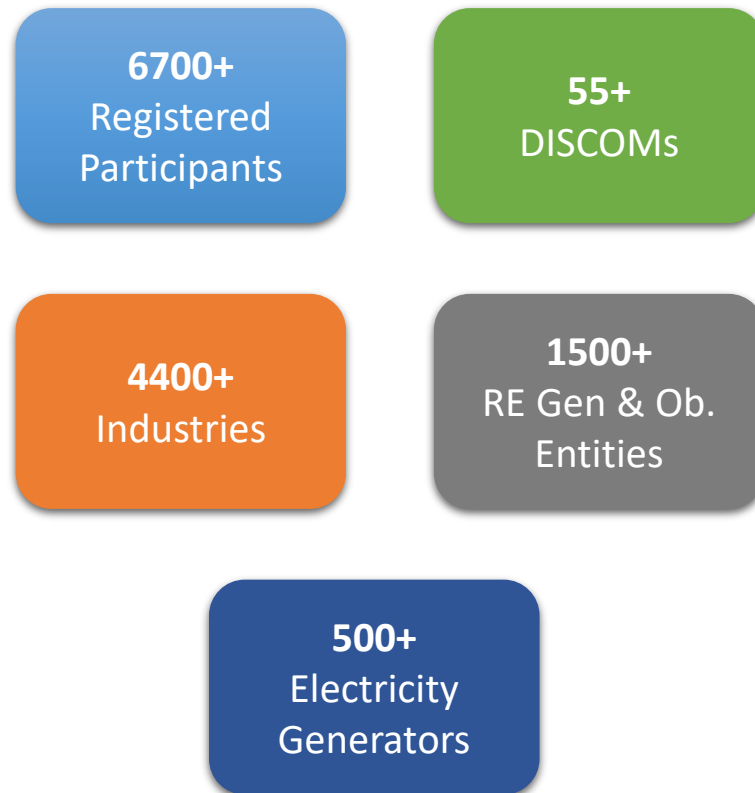
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**Session: Integration of Electricity & Gas Distribution Utilities**

# **Technology-led Energy Marketplaces**

**by**  
**Rajesh K Mediratta, MD & CEO,**  
**Indian Gas Exchange (IGX)**

## IEX Ecosystem



## 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 Bus
- ✓ Average daily trade: 8,000+ MW
- ✓ Record day volume: 308 Mus
- ✓ ISO 9001, 27001, 14001
- ✓ Publicly listed company (NSE and BSE)

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

Conventional Since June, 08 GDAM since 26 Oct 21

- **Delivery** : any/some/all 15- minute time blocks in 24 hours of the next day
- **prices and quantum discovery**: double-sided closed auction bidding.
- Green: Bid category for sellers-NS, SL & Hydro

## 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

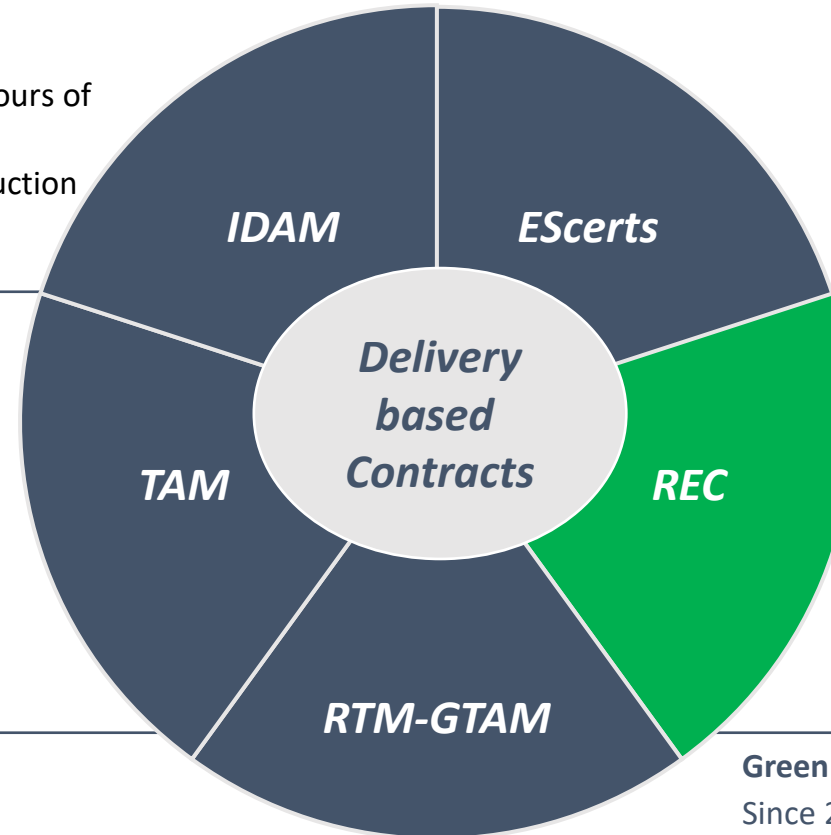
- 1 MWh = 1 Certificate
- Attributes of electricity generated from renewable resources
- **Sellers**: RE generators not under feed in tariffs
- **Buyers**: Obligated entities




## 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



**Note** - \*  Continuous Trading; #  Double side Open Auction; <sup>^</sup>  Double Side closed auction

# Indian Gas Exchange: Technology-led Gas Marketplace

## 5 Physical Trading Hubs

<b>Hubs launched</b>	Dahej, Hazira, KG Basin, Dabhol & Jaigrah
<b>New Hubs</b>	Haryana & Uttarakhand State, East CBM, Kakinada

## 6 Contracts

Day-Ahead | Daily | Weekly | Weekday | Fortnightly | Monthly

3-6 Months and Day-ahead planned

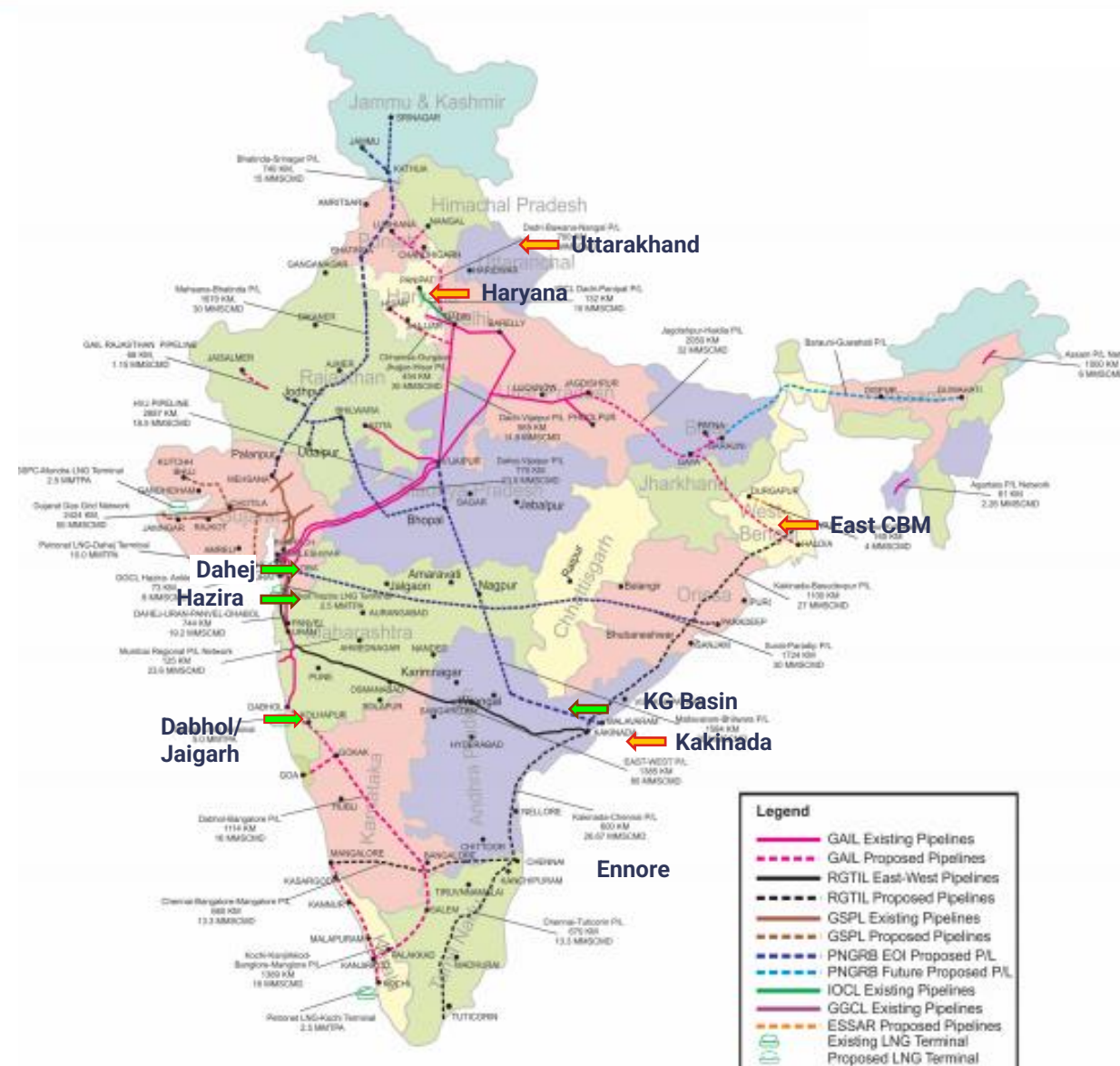
## Price Discovery Mechanism

<b>Open Auction</b>	Weekday, Weekly, Fortnightly & Monthly
<b>Continuous Matching</b>	Day-Ahead, Daily

**Ex-hub: Delivery by Buyer**  
**Delivered : Delivery facilitation by Exchange**

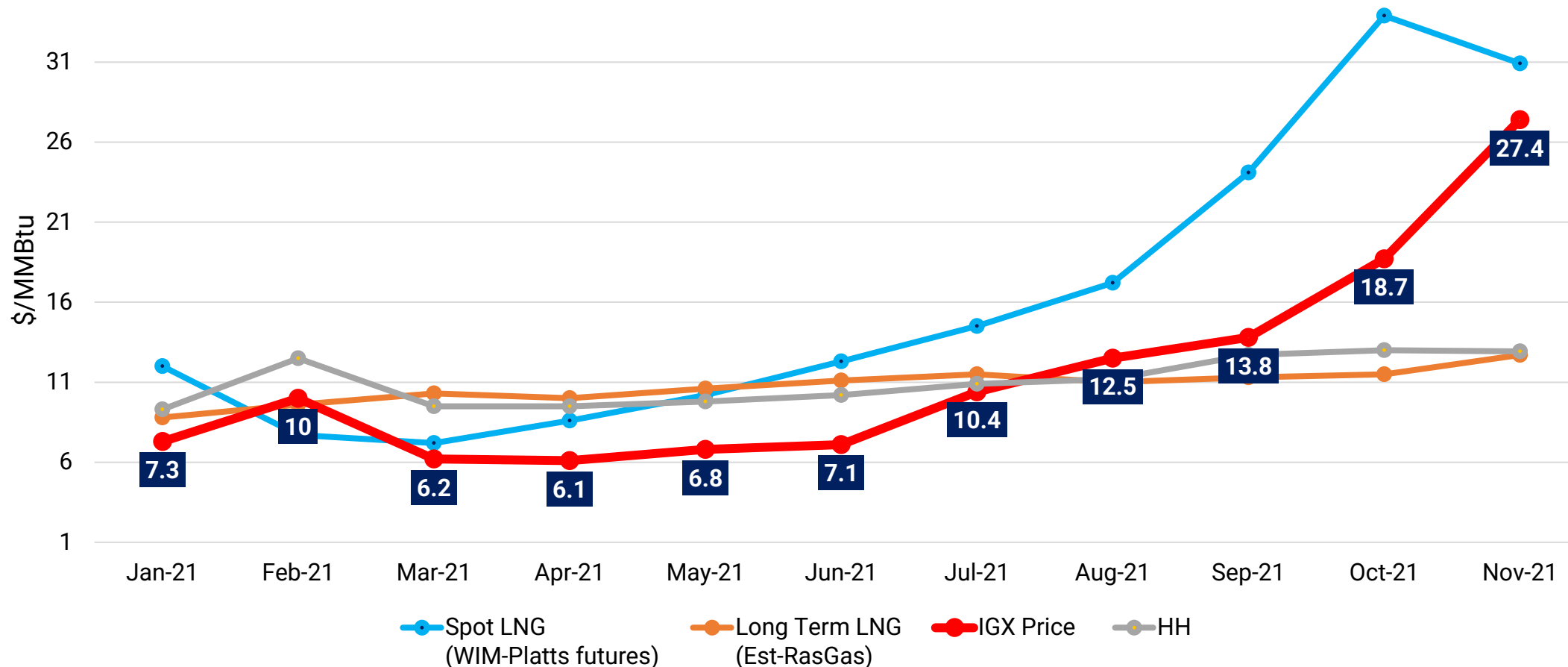
**INR Contracts**  
**Minimum purchase 50 MMBtu**

**Members & Clients:**  
**20 Members & 530+ clients registered**



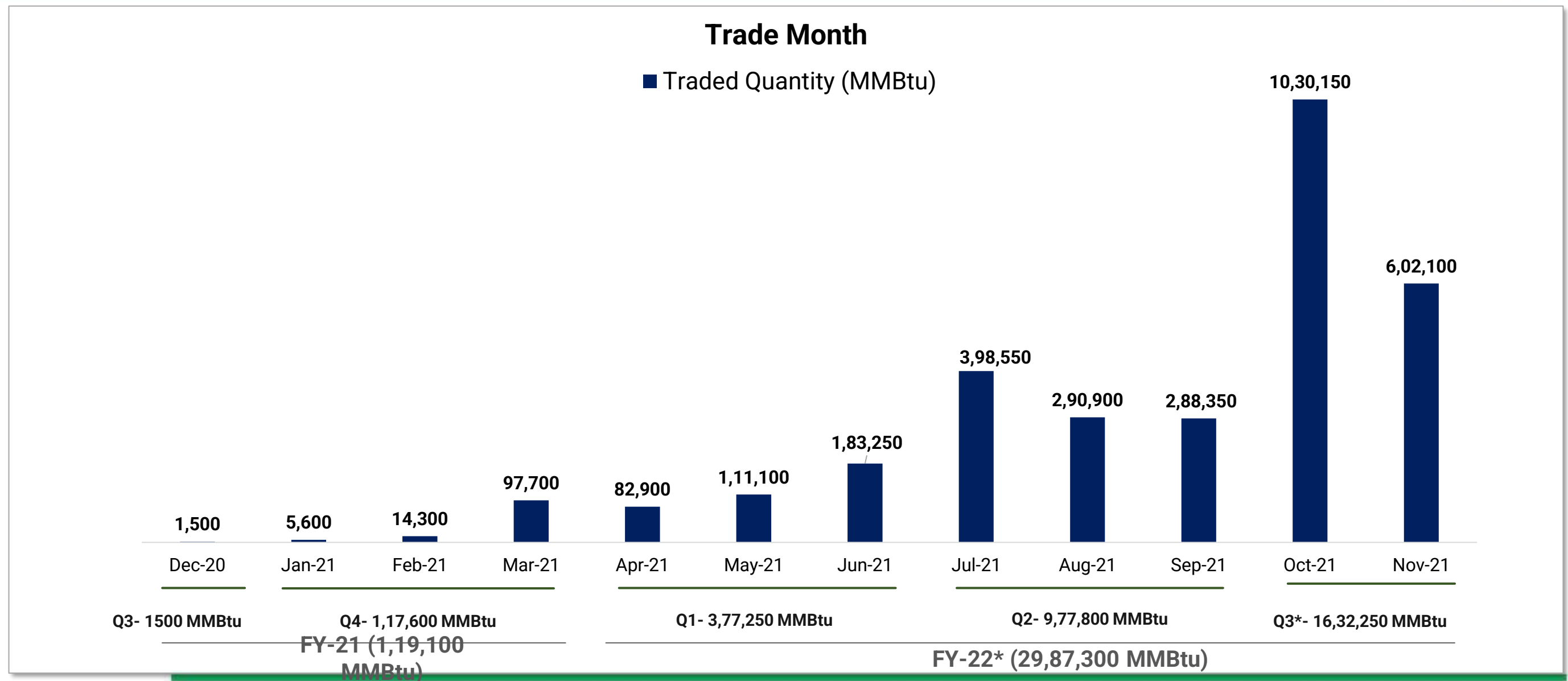
# Gas Price Benchmark – Indigenous Price Discovery

## Other Benchmarks Est. Vs IGX Prices



- IGX prices reflecting Indian demand and supply
- IGX Prices are converted to \$/MMBtu at conversion rate of USD-INR = 74

## Trade Details as a Gas Exchange (Since Dec-20)



Total quantity traded (since inception) : 31,81,000 MMBtu (84.4 MMSCM)



# IGX Members and Clients

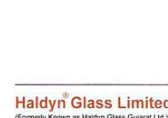
## Proprietary Member



## Trading & Clearing Member



## Clients



\*Selected representation

# Value Proposition of Exchanges



Transparency



Flexibility in Power  
Procurement



Competitive Price



Payment Security



Cost Saving



## Sale of Domestic Gas (Marketing & Pricing Freedom) at Gas Exchange

- MoPNG vide its OM date 19<sup>th</sup> August 2021 has granted additional option to sell Domestic Gas on PNGRB authorized Gas Exchanges in addition to e-auction platforms.
- Contractor may sell quantity of Gas (Marketing & Pricing freedom), up to **500 MMSCM or 10% of annual production from Contract Area, whichever is higher, per year** through Gas Exchanges.
- **Cheaper Gas to CGDs/Consumers directly through Exchange**

**Better price for domestic gas → More production →  
Cheaper gas (compared to Spot RLNG) → More Gas Demand**

# Thank You

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