



City Gas Distribution; 9th May, 2019

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- **Natural Gas Market : Current Scenario**
- **PNG- A Smart Choice**
- **Enabler for NGV**
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Natural Gas Market : Current Scenario

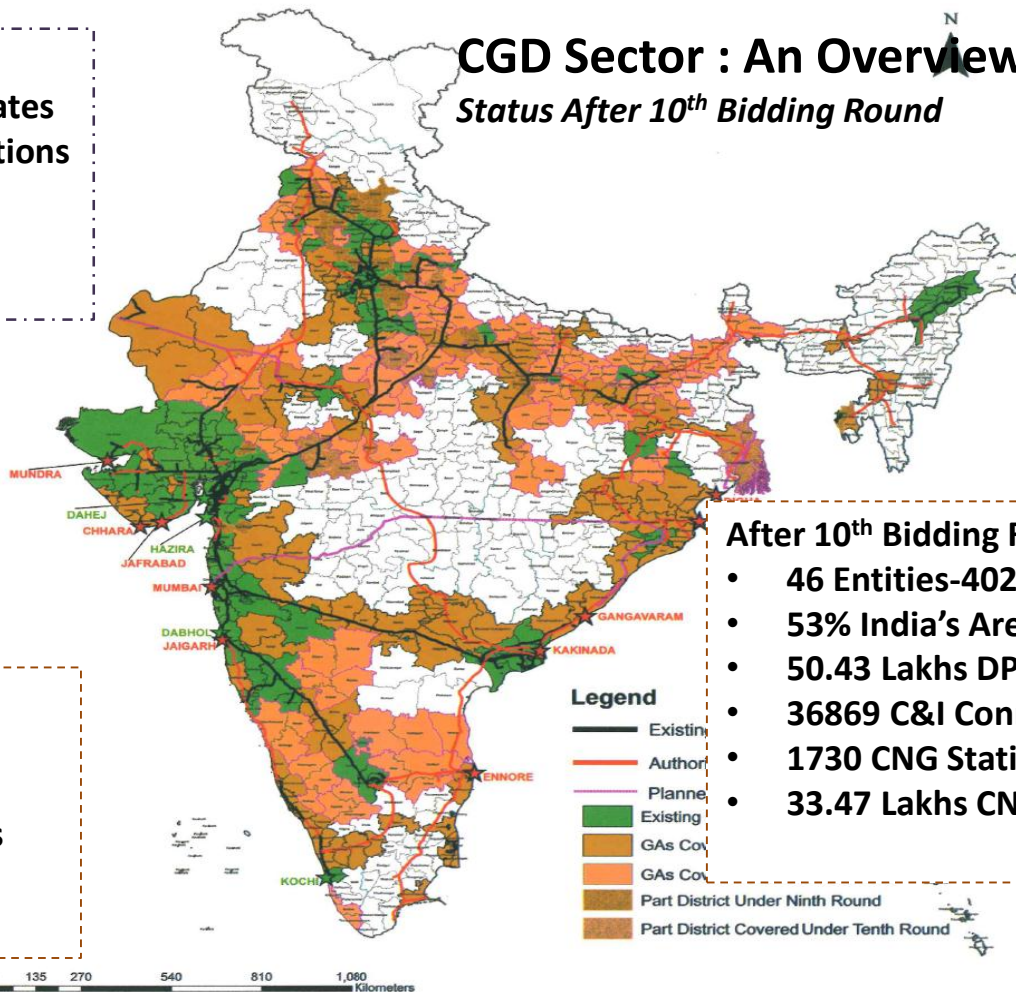
- ❖ Share of Natural Gas in Primary Energy Mix : 6.2%
- ❖ Govt. aims to increase share of NG in energy basket to 15% by 2025
- ❖ Consumption Natural Gas in FY 18-19 : ~149 MMSCMD (Less than consumption of 162 MMSCMD during 2010-11).
- ❖ Gas consumption in CGD sector for Mar'19 : ~25.38 MMSCMD [Dom. Gas ~15.22 & R-LNG ~10.16 MMSCMD] : 17.89% of Total Natural Gas consumption
- ❖ LNG Import in FY 18-19 : 27015 MMSCM (2.6% increase compared to FY 17-18)

CGD Sector : An Overview

Status After 10th Bidding Round

Till 8th Bidding Round (2017)

- 35 Entities, 92 GAs, 23 States
- 42.8 Lakhs DPNG Connections
- 1424 CNG Stations
- 27 Lakh vehicles



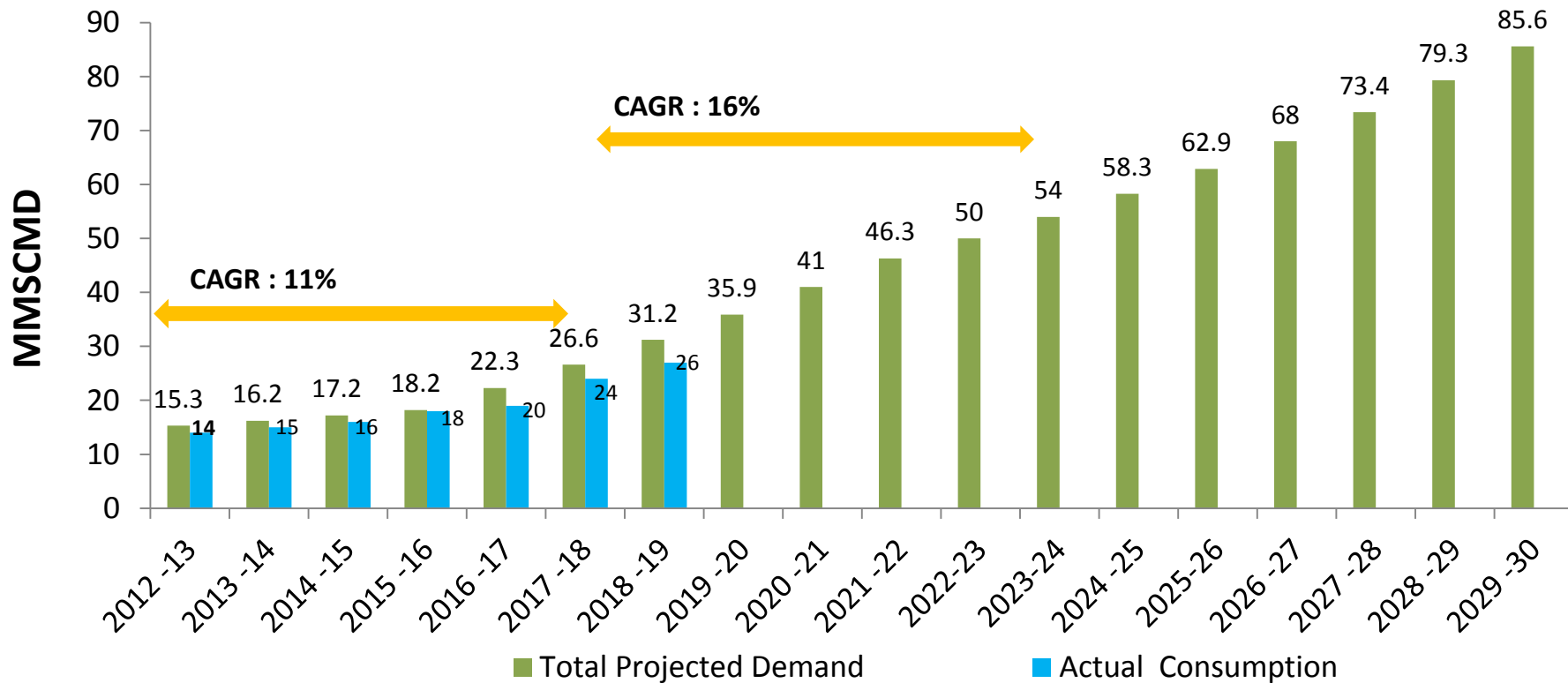
After 10th Bidding Round (Mar'19)

- 46 Entities-402 Districts-228 GAs
- 53% India's Area, 70% Population
- 50.43 Lakhs DPNG Connections
- 36869 C&I Connections
- 1730 CNG Stations
- 33.47 Lakhs CNG vehicles

By 2029

- 10000 CNG Stations
- 2.4 Cr. CNG Vehicles
- 4.5 Cr. DPNG Connections

Cumulative CGD NG Demand Projections 2012-13 to 2029-30





GAIL & GAIL Gas : At A Glance

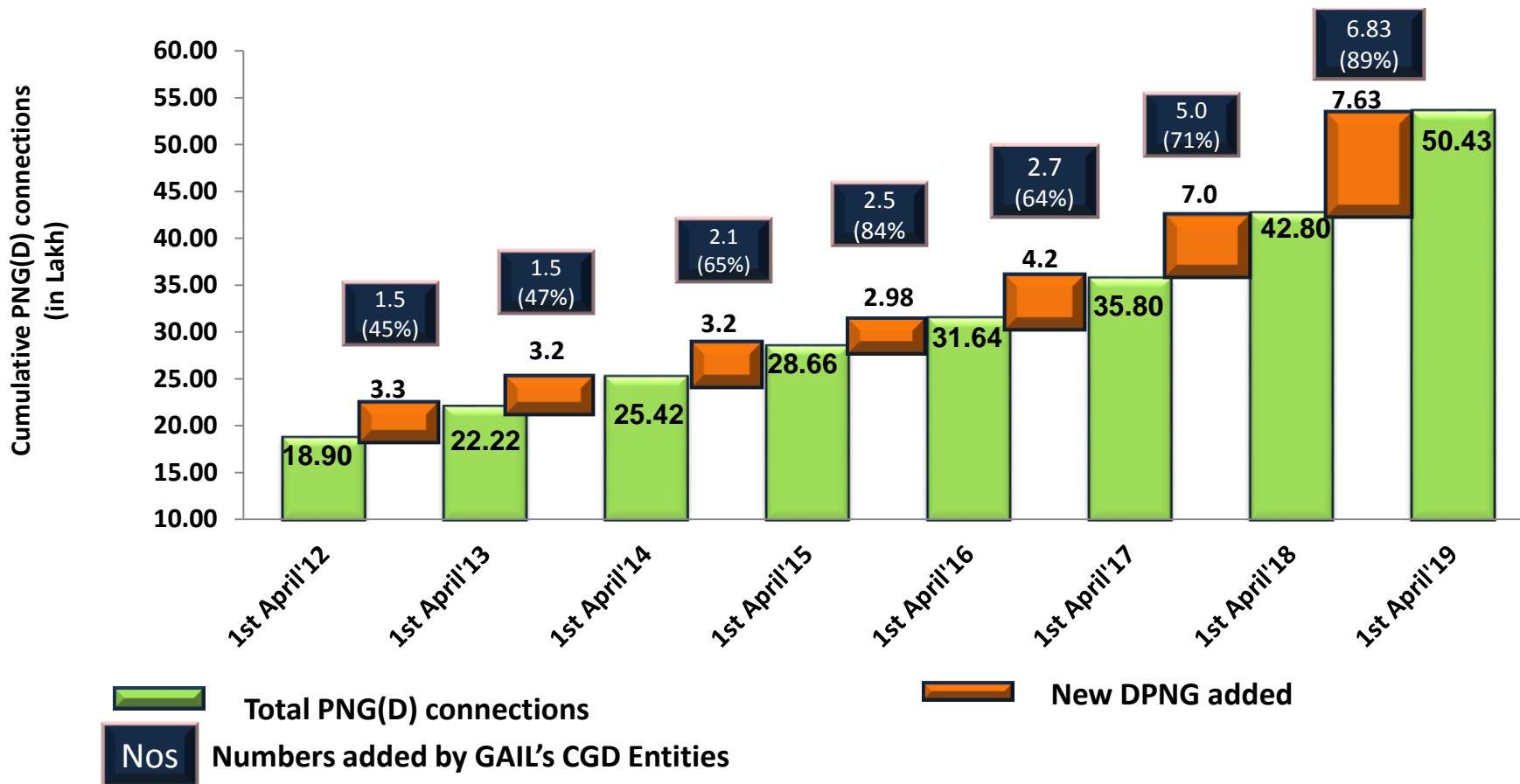
GAs after 10th Bidding Round
Other details as on 31.03.2019 (PPAC)

| Particulars | PAN (India) (Numbers) | GAIL & its JVCs | GAIL Gas & its JVCs | Total (GAIL + GAIL Gas) | |
|-----------------------------|--------------------------|-----------------|---------------------|-------------------------|------------|
| | | Numbers | Numbers | Numbers | % of Total |
| GAs | 228 | 38 | 23 | 61 | 27% |
| DPNG Connections | 50.43 Lakhs | 28.25 Lakhs | 3 Lakhs | 31.25 Lakhs | 62% |
| CNG Stations | 1730 | 1056 | 84 | 1140 | 66% |
| Industrial | 8823 | 2276 | 578 | 2854 | 32% |
| Commercial | 28046 | 7522 | 2716 | 10238 | 37% |
| CNG Vehicles (Lakhs) | 33.47 | 21.19 | 1.04 | 22.24 | 66% |

➤ **Achievement in FY 2018-19 :**

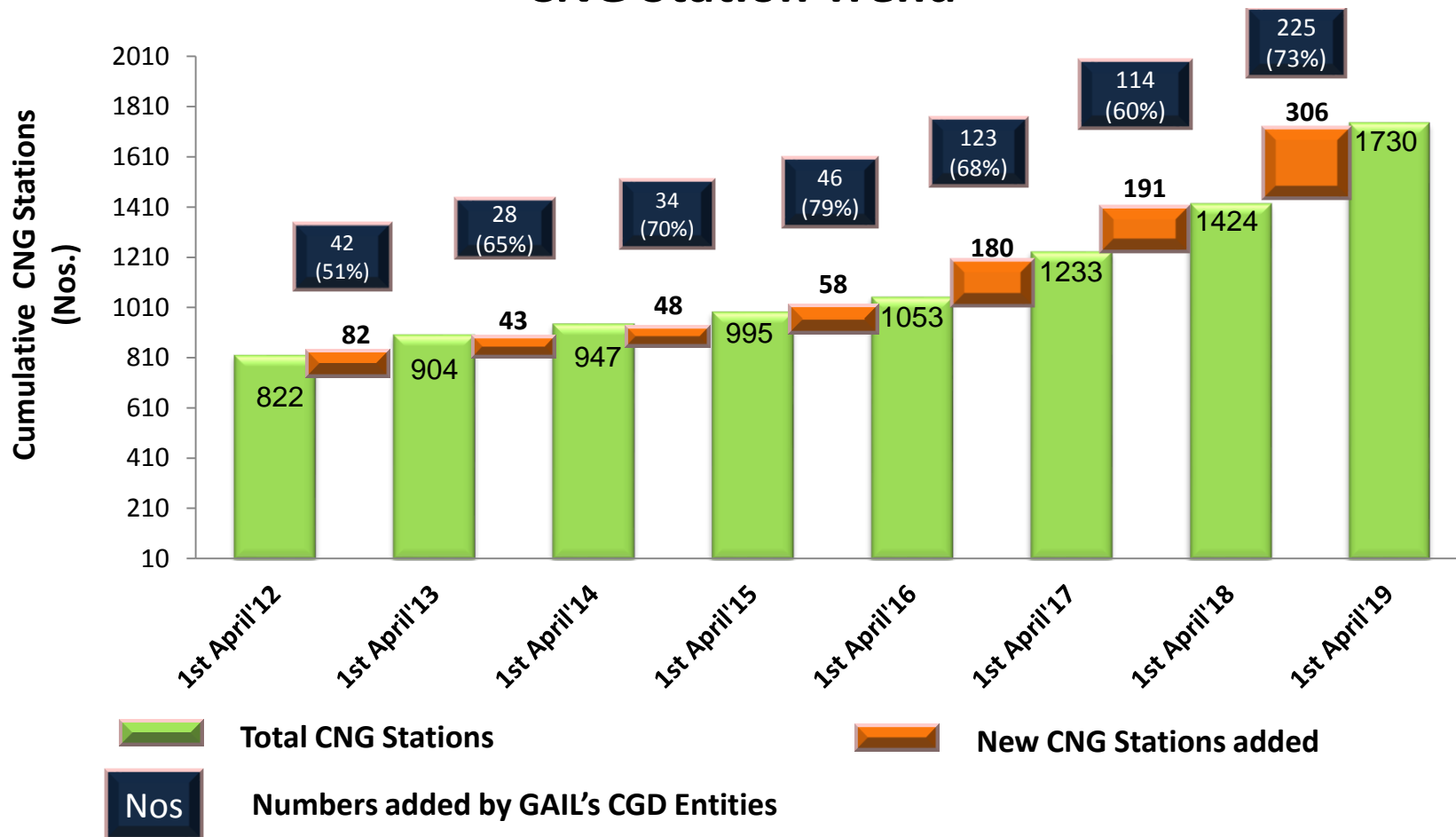
- **DPNG Connections :** GAIL & its JVCs : 5.62 Lakhs; GAIL Gas & its JVCs : 1.21 Lakhs; **Total : 6.83 Lakhs**
- **CNG Stations :** GAIL & its JVCs : 188; GAIL Gas & its JVCs : 37; **Total : 225**

Domestic PNG Trend

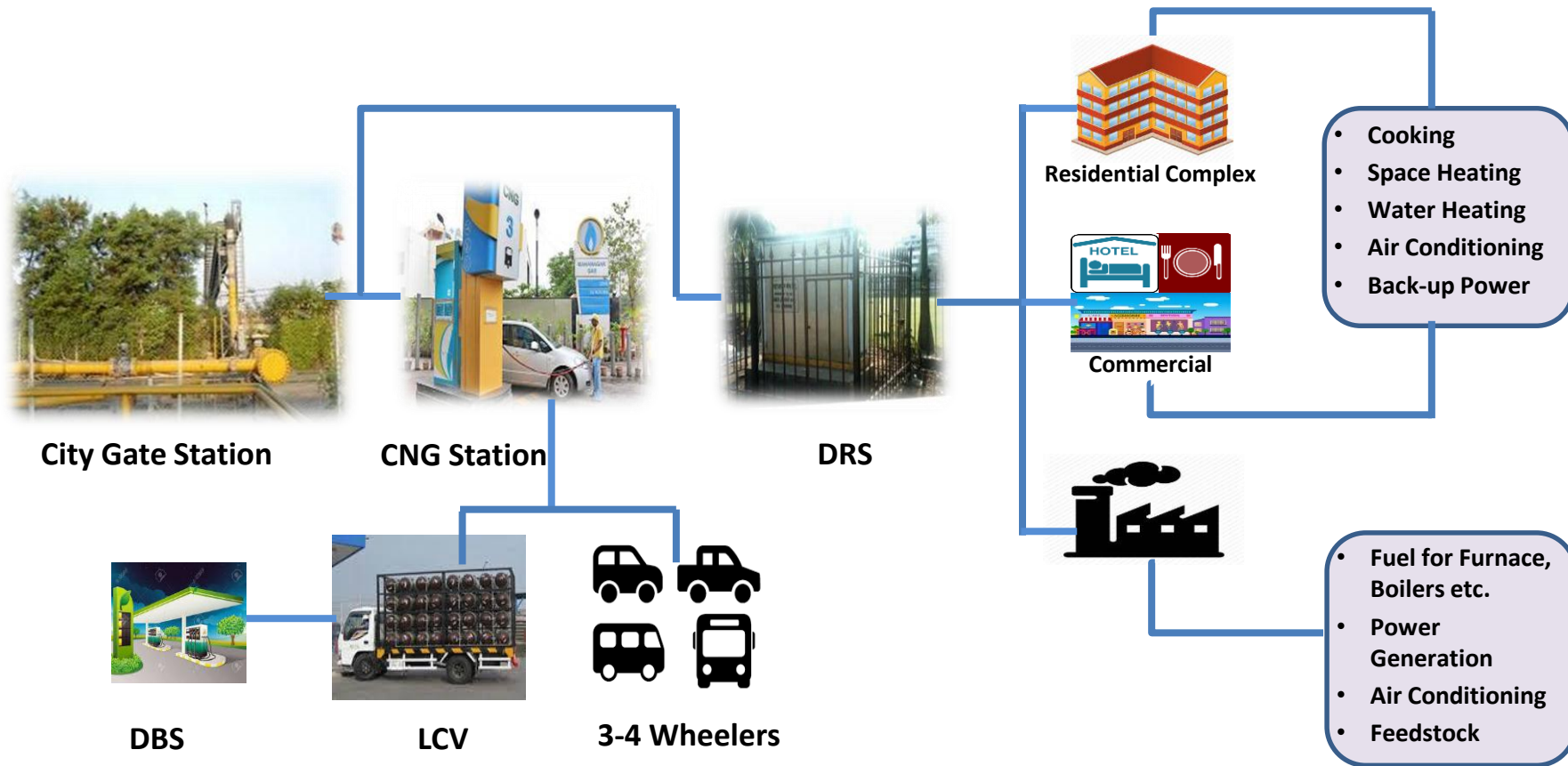




CNG Station Trend



CGD Value Chain

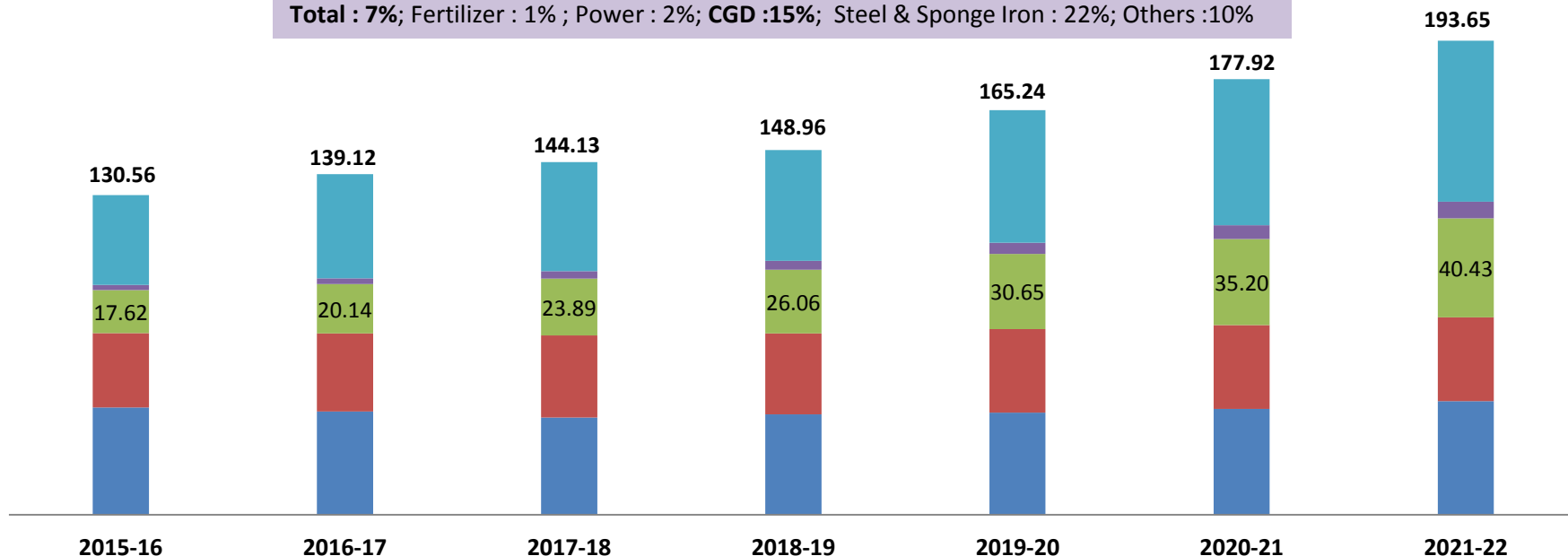


Sectoral Demand Projection (In MMSCMD)

■ Fertilizers
 ■ Power
 ■ CGD Sector
 ■ Steel & Sponge iron
 ■ Others

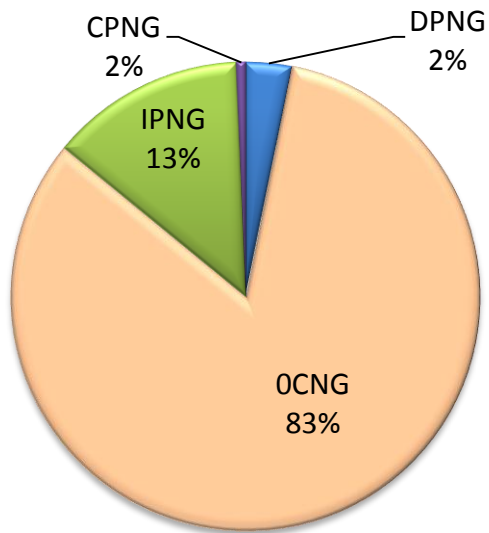
CAGR (FY 15-16 to FY 21-22)

Total : 7%; Fertilizer : 1%; Power : 2%; CGD :15%; Steel & Sponge Iron : 22%; Others :10%

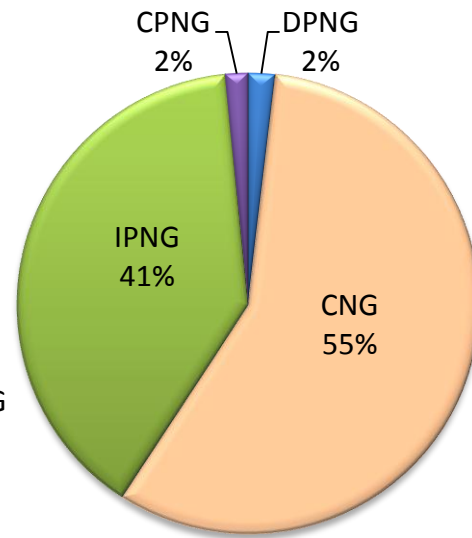


Focus of GoI driving consumption in CGD Sector

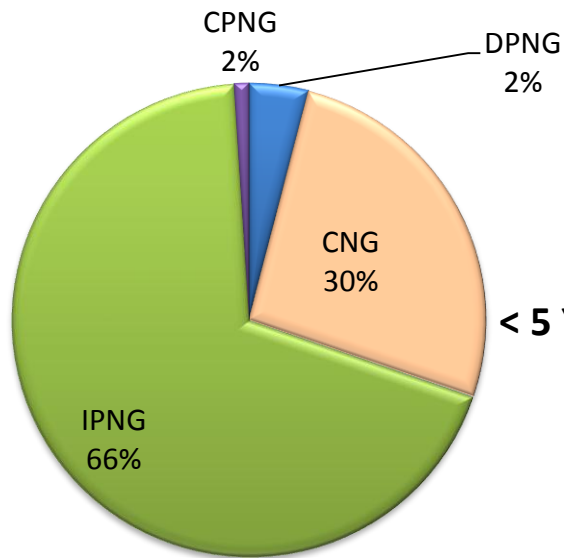
Sales Distribution (As per year of Authorization)



> 10 Years

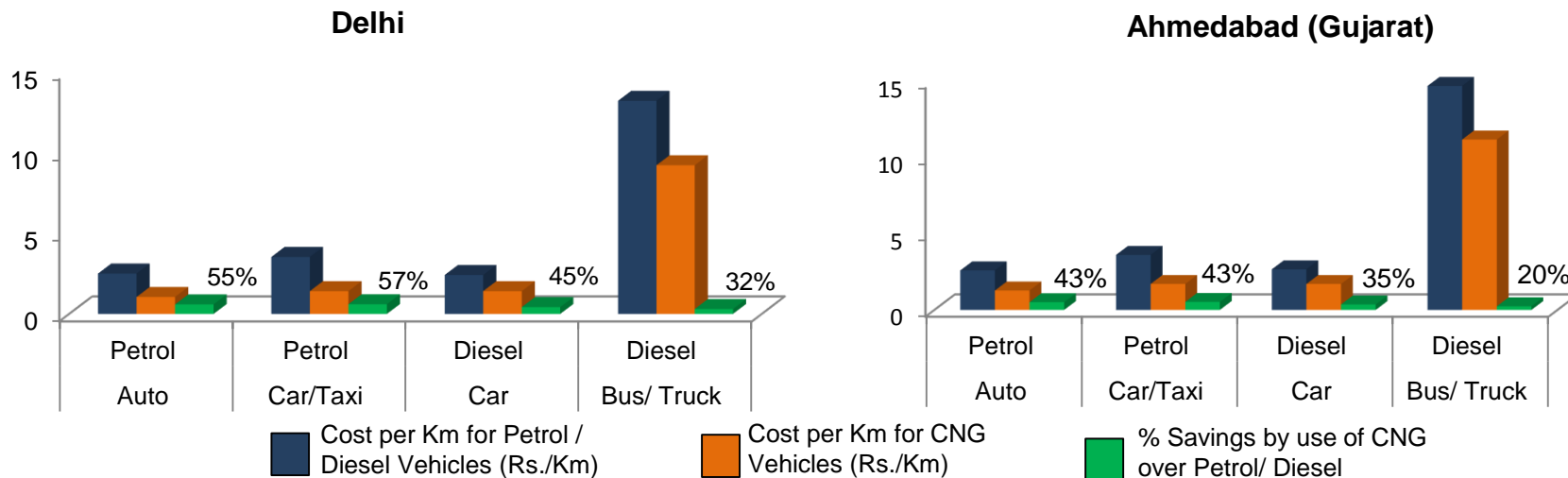


5-10 Years



< 5 Years

Cost Economy of CNG over Petrol / Diesel



| Particulars | NCT of Delhi | Gujarat |
|--|--------------|------------|
| No. of Registered Vehicles (Excluding 2 Wheelers) | ~37 Lakhs | ~50 Lakhs |
| No. of CNG run vehicles | 10.65 Lakhs | 9.23 Lakhs |
| No. of CNG Stations | 482 | 545 |

Investments planned in Gas Sector



Gas Pipelines

Rs. 70,000 Cr.

- Existing pipeline length: 16877 KM
- Planned for national gas grid: 30000 KM



Gas Based Fertilizers

Rs. 30,000 Cr.

- 4 revival units
- 1 expansion unit
- 1 greenfield unit



City Gas Distribution

Rs. 70,000 Cr.

- 228 GAs awarded
- 7 cities under Urja Ganga Project



Gas Import Infrastructure

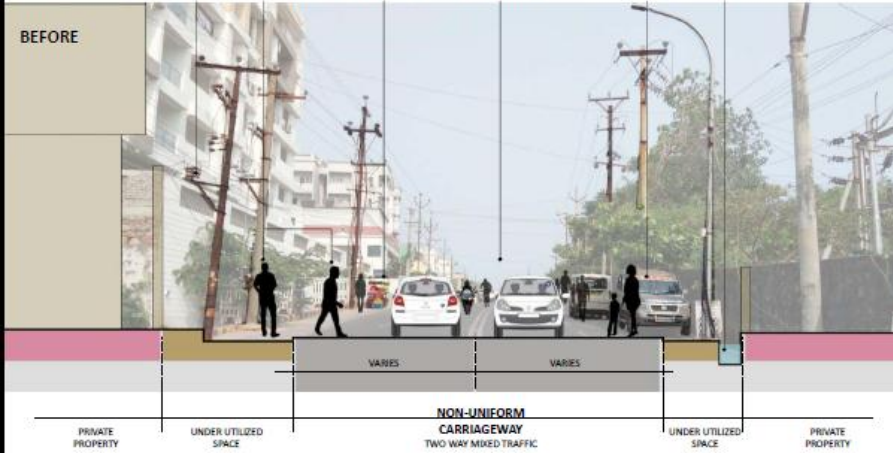
Rs. 20,000 Cr.

- Existing gas import capacity: 30 MMTPA
- Enhancement up to 50 MMTPA

Rs. 200,000 Crores of investment planned in Gas Sector

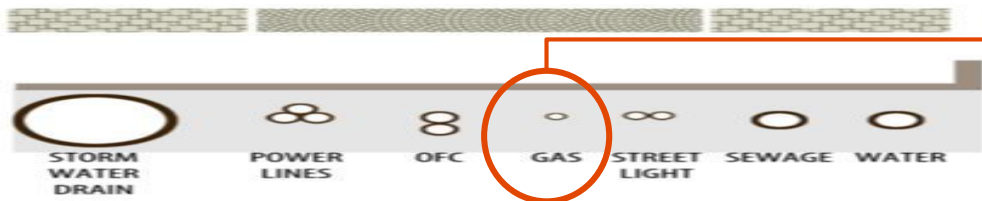
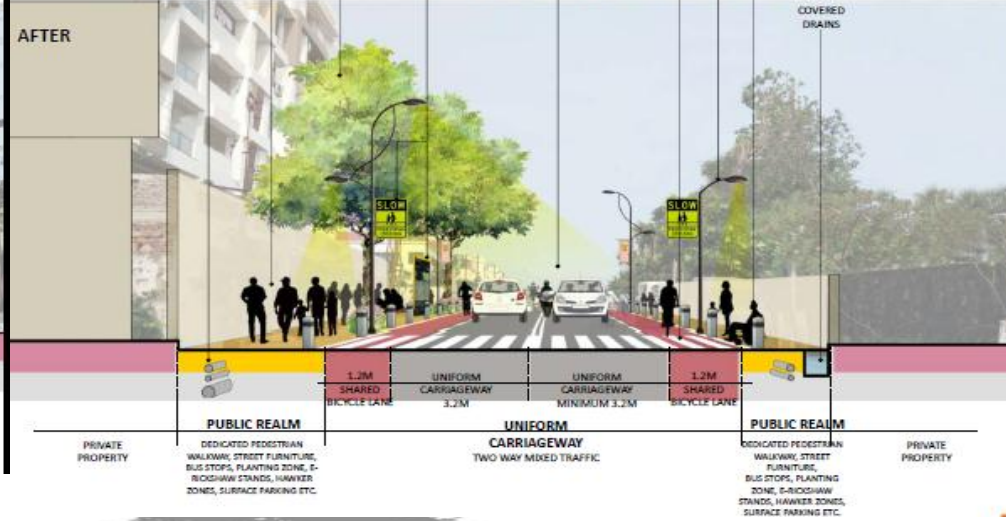
Howroji Road- Existing

- ABOVE GROUND UTILITIES & HANGING WIRES
- NO PLACE FOR PEDESTRANS TO WALK AND CROSS SAFELY
- LACK OF DEDICATED STREET VENDING ZONES
- NON-UNIFORM CARRIAGEWAY WIDTH VARYING FROM 8M TO 18M
- UN-REGULATED PARKING
- UNCOVERED DRAINS



Howroji Road- Proposed

- TREES FOR SHADED WALKWAYS
- UNDERGROUNDING OVERHEAD CABLING (CONVERGENCE)
- DEDICATED, PEDESTRIAN WALKWAY
- WAY FINDING/INFORMATIONAL / DIRECTIONAL SIGNAGES
- UNIFORM CARRIAGEWAY WIDTH WITH SHOULDER / SHARED BICYCLE LANE ON EITHER SIDE
- STREET LIGHTS
- PEDESTRIAN CROSSINGS
- UNIVERSAL ACCESSIBLE DESIGN
- COVERED DRAINS



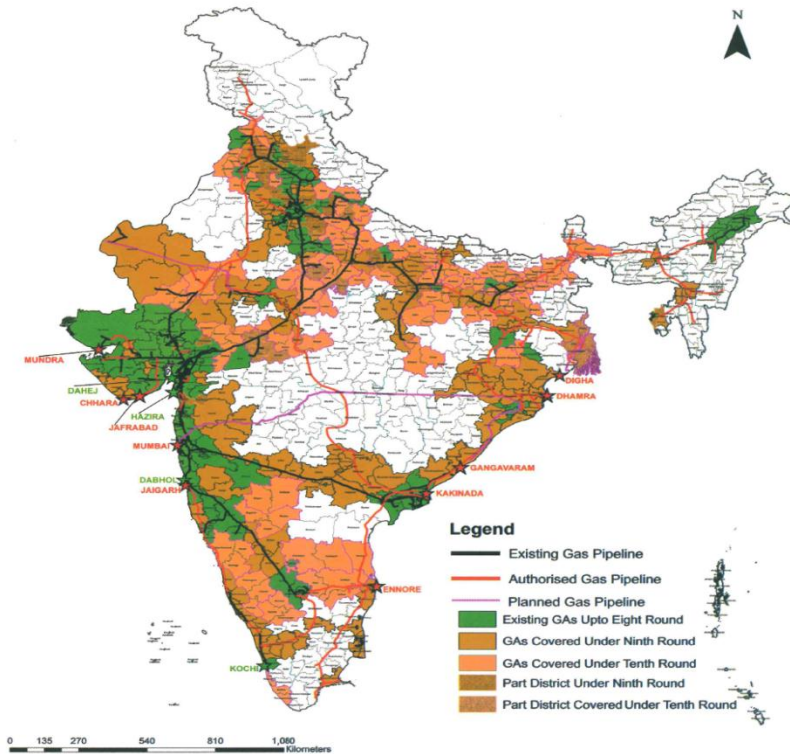
SATELLITE LCNG STATION AT BHUBANESWAR



**India's First
Satellite
LCNG Station**



Enablers : Increasing NGV Foot Print



- **Demand Creation**
 - CNG Stations : Being Set up Aggressively
 - Affordability to be ensured (Delhi, Gwalior)
 - Price varies from Rs.45.70/Kg to Rs.68/Kg
- **Administrative Issues**
 - Mandating CNG
 - Phase-wise Ban on Diesel run Vehicles where GA is declared
 - CNG Training & Research Institute
- **Fiscal Incentives**
 - Reduction of taxes on OEM fitted CNG vehicle
 - Abolishing excise duty of 14% from CNG

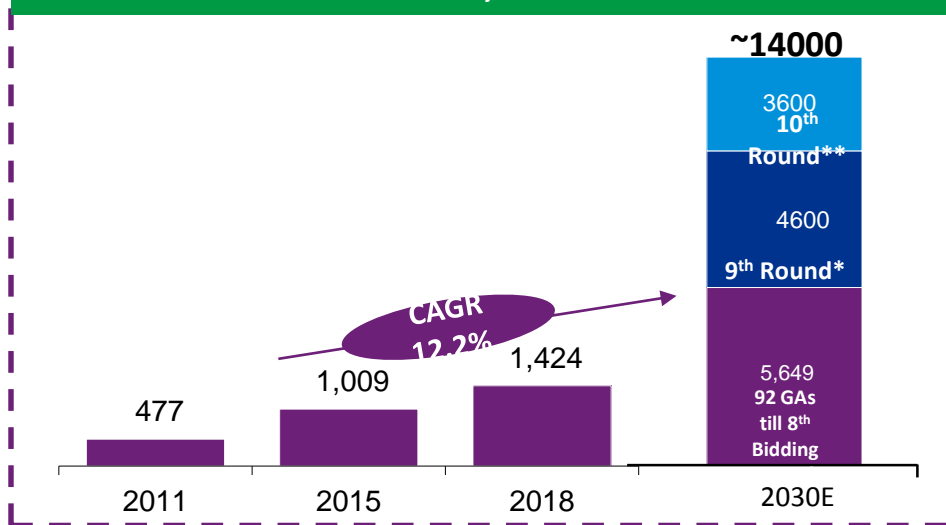


Support Provided by Central / State Govt.

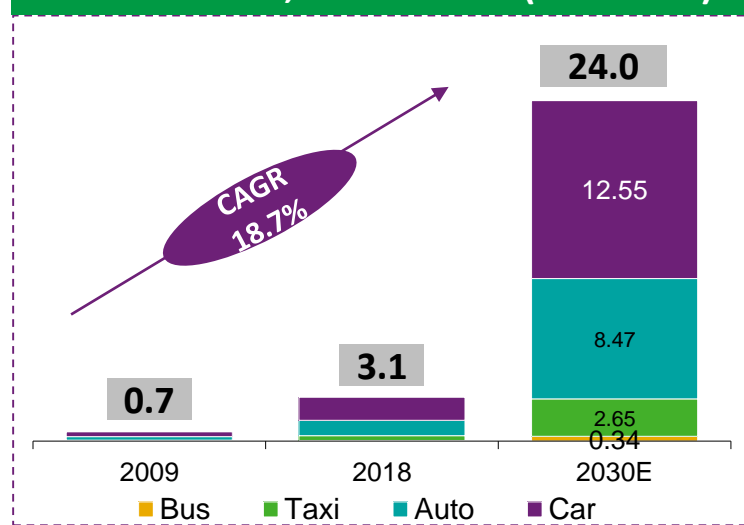
- **Allocation of Domestic Gas** to CGD sector under no cut category
- **Public Utility Status** granted to CGD Projects
- Supply of domestic gas to Non Domestic Exempted Category (NDEC)
- **Timely Permissions and Exorbitant Charges:** MoP&NG has taken initiative to sort out the issues faced by CGD entities with various State/Local authorities.
- **Piped gas supply in all smart cities** – MoUD has advised all the States / Union Territories to ensure provision of piped gas supply in all smart cities
- Ministry of Defense issued guidelines for use of PNG in its residential areas/unit lines
- **Non-mandating DM NoC** for setting up CNG stations at existing OMC ROs
- **Nodal officers appointed** by most of the states for time bound permission to CGD entities
- 0% VAT on CNG in Delhi, 5.25 % in Haryana; UP has reduced VAT from 14.5% to 12.5% on CNG and 26 % to 10% on PNG

India is poised to witness a CNG Revolution

CNG Stations, 2011-2030E



CNG Vehicles, 2009-2030E (in million)



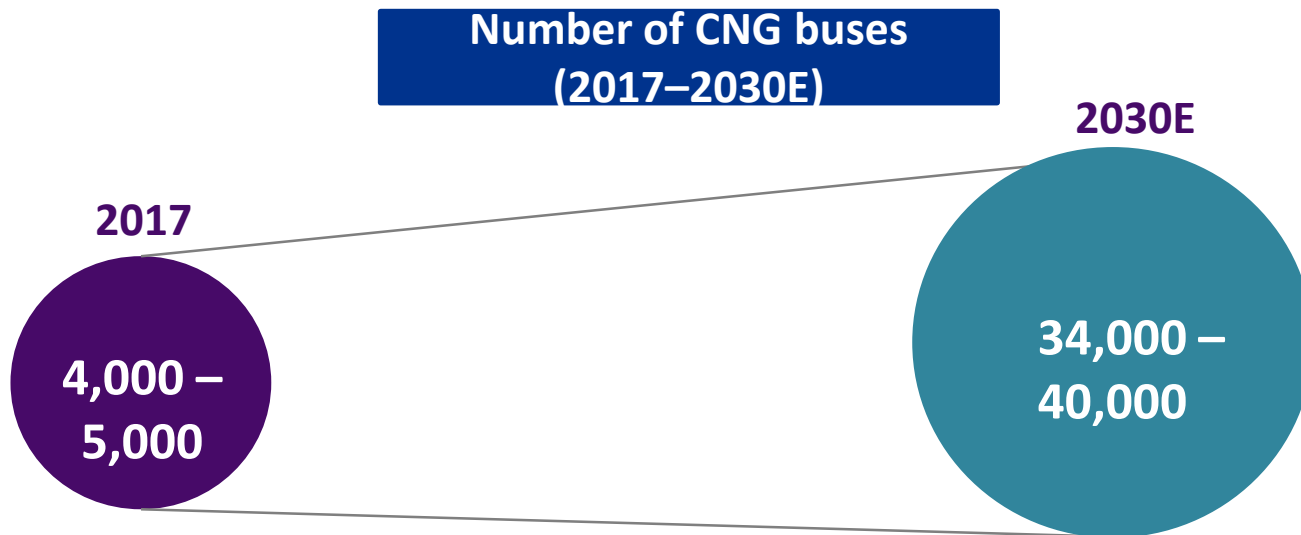
- Over **10,000 new CNG stations** to be set up in next 10 years
- CNG vehicles to increase drastically over the period of 2018-30 owing to **increasing environmental concerns and government push to promote CNG**

*Committed CNG stations across 86 GAs under Round 9

**Estimated for 50-60 GAs

Source : KPMG Study

Huge market for CNG buses in India



With expansion of CGD network in new states/districts and increasing focus of government to convert diesel-petrol vehicles to CNG, ~0.34-0.40 lakh state transport buses may switch to CNG



Current Challenges

- **Launch of Electric Autos / Cars & Hybrid Cars**
 - Need standardization of Batteries
 - PESO approval “Not” granted for co-locating EV Charging facility with CNG dispensing facility
 - Minimal infrastructure (Battery Storage, Charging Stations)
- **Limited models of factory fitted CNG cars.**
 - Major OEMs manufacturing CNG fitted Cars : Maruti, Hyundai, Ford
 - Discussion being held with Hyundai & Maruti to launch more variants of CNG cars
- **Low price of Furnace Oil**
 - Banning of Furnace Oil by Court / Pollution Control Board
- **Very high Restoration Charges and Permission Charges**
- **Non-Uniformity in Taxes in different states & Exclusion from GST**
- **Availability of domestic gas**



Unique Dichotomy

❖ Transportation Sector: Electric Vehicles vis-à-vis CNG/Petrol/Diesel Vehicles

- ✓ Government's Mass-Scale Thrust on EVs & Solar Power.
- ✓ Plans to add ~200 CNG Stations every year (Investment by CGDs ~Rs.1000 Cr.)
- ✓ Adoption towards BS-VI fuel norms by 2020

(Investment in Refineries ~Rs.60,000 Cr.; Automobile Companies : ~Rs.40,000 Cr.)

❖ Industrial Sector: Polluting Fuels vis-à-vis Clean Natural Gas

- ✓ **Polluting Fuels** like Coal, Naphtha, FO and Pet coke are **more affordable** making customer's preferable choice in absence of clear mandate (*SC's Order banning FO and Pet Coke-Positive Step*)
- ✓ Natural Gas does not get Input Tax Credits being out of GST ambit unlike Naphtha, LPG etc.

Conclusion

- ❖ **Clear and un-ambiguous policy framework for share of Natural Gas in Energy Basket (15% by 2025).**
- ❖ **Natural Gas to be brought under ambit of GST**
- ❖ **Working committee involving members from Power, Oil & Gas sector, Coal and Heavy Industries to prepare a roadmap for co-existence of all sectors**



Thank You