



INDIA STORY... *Oil & Gas*



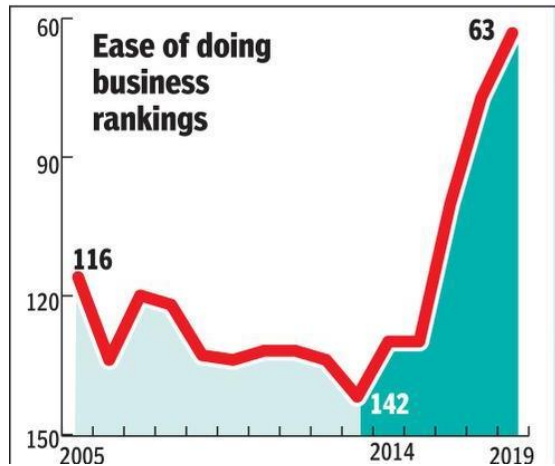
Tarun Kapoor, Secretary
Ministry of Petroleum and Natural Gas
Government of India

9th October 2020

India: A Growing Large Economy With Strong Fundamentals

Ranked 63 in EODB 2020

Jump of 79 ranks in last 5 years



7 companies in Fortune 500
(2019 list)



5th largest economy globally
By nominal GDP, 3rd largest by PPP

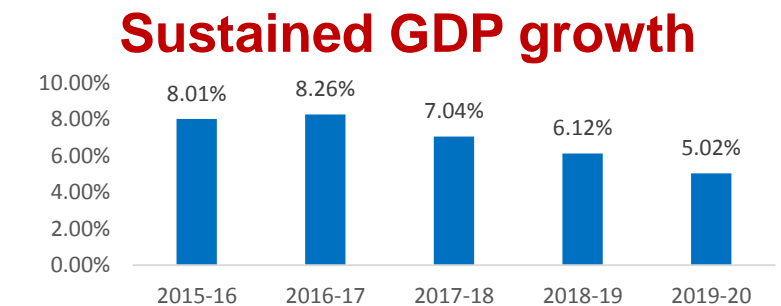
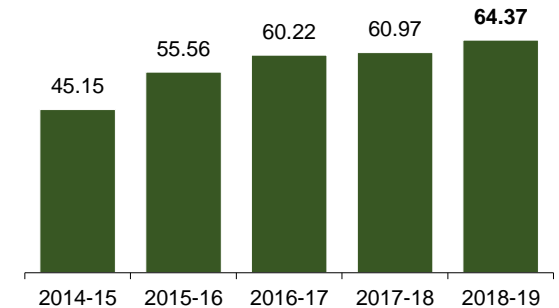


Ranked 48th in Global Innovation Index 2020



Services export hub
Contribution to GDP
Services: ~ 54%, Industry: ~ 29%
Agriculture: ~ 17%

FDI inflow of
USD ~290 billion (In last 5 years)
India 9th largest recipient in world,
largest in South Asia in 2019



India aims to become a USD 5 trillion economy by 2025

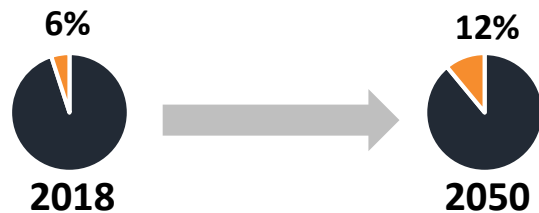
India Will Drive The Future Global Energy demand

India is the **3rd largest consumer** of primary energy and oil after USA and China

Over 100% growth in primary energy in 2018-50 with average growth per year to the tune of 2.5% - 3.0 %

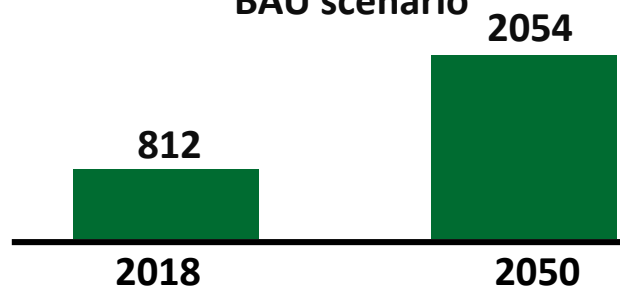
~12%

Share in global energy demand to double by 2050, accounts for over quarter of net global primary energy demand growth



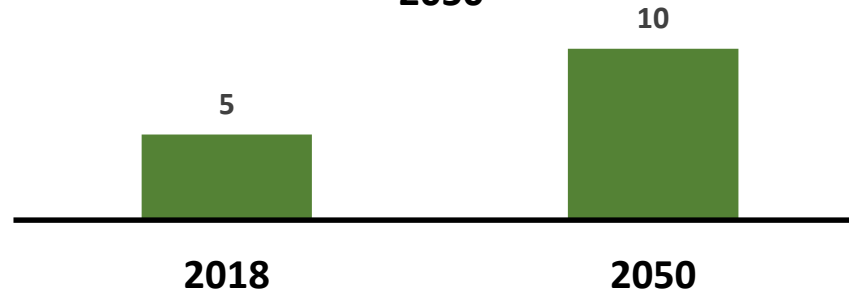
+35%

Of increase in global primary energy consumption (MMtoe) by in 2018-50 in BAU scenario



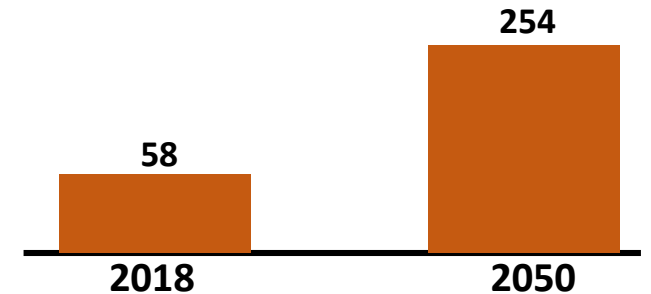
~100%

Increase in Oil Consumption (MMBD) by 2050



~338%

Increase in Natural Gas consumption (BCM) by 2050



India targets of becoming a **gas-based economy** and increasing the share of natural gas in our energy mix from existing **6.2% to 15%** by 2030

Overview of India's Oil and Gas sector...

3rd largest energy consumer

3rd largest crude oil consumer

4th largest consumer of gas

3rd largest CNG vehicle fleet

4th largest LNG importer

4th largest refiner of crude

Crude#

Production: 32.2 MMT
Import: 227 MMT



Natural Gas#

Production: 31.2 BCM
Import: 28.7 BCM



42.5 MMTPA
Of LNG capacity*



64,624
Retail outlets*

PSU: 57,944
Private: 6,680



15,960 Km
Product Pipeline*
(LPG & Petroleum)

IOCL: 8,247 km
HPCL: 3,735 km
GAIL: 2,032 km
BPCL: 1,948 km



~16,324 Km
Operational Gas
pipeline*

GAIL: 11,411 km
GSPL: 2,692 km
RIL: 1,784 km
IOCL: 140 km
AGCL, DNPL: 297 Km

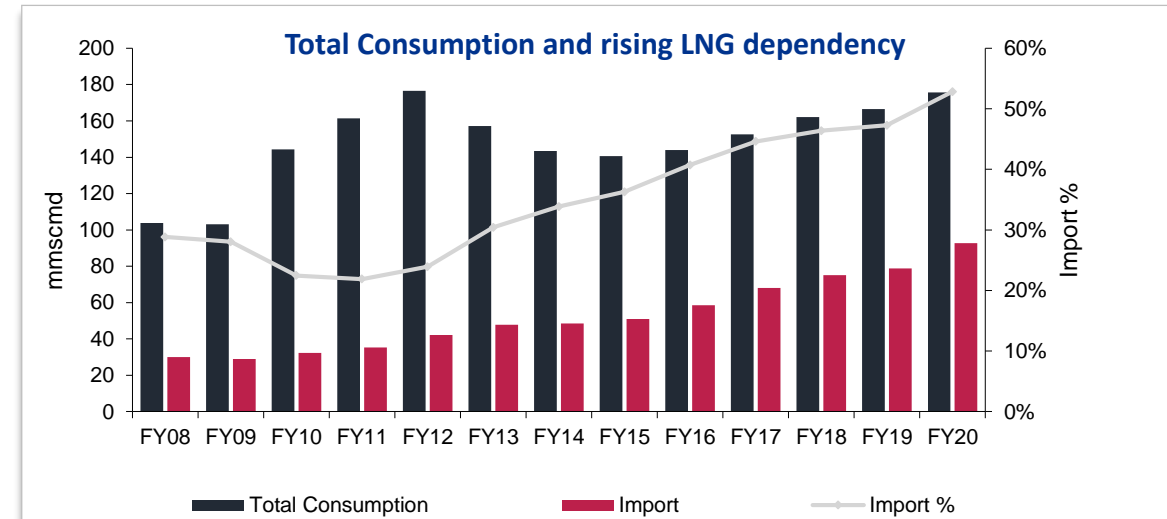
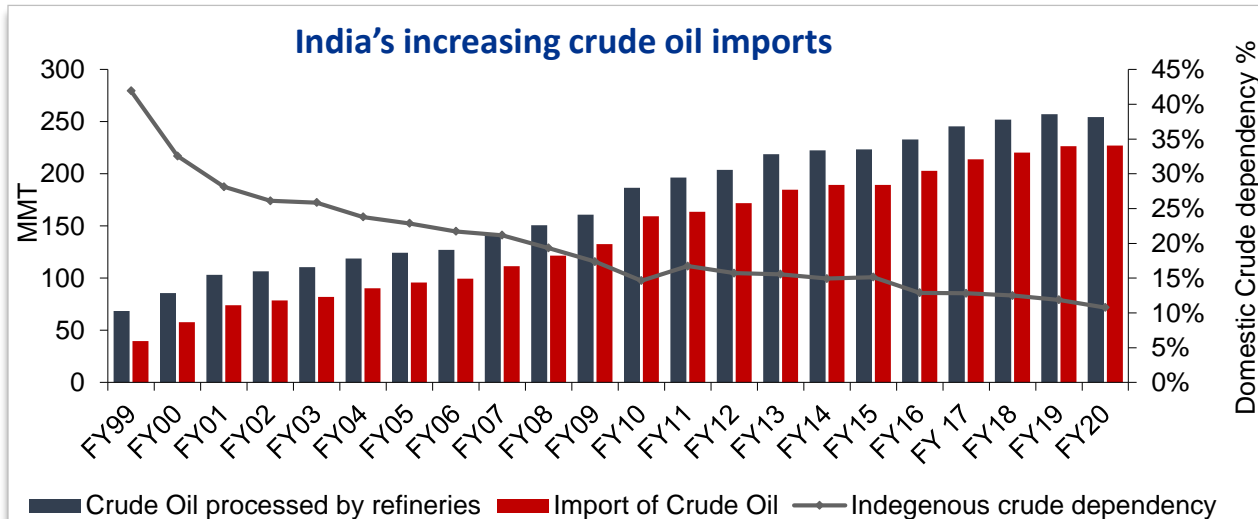
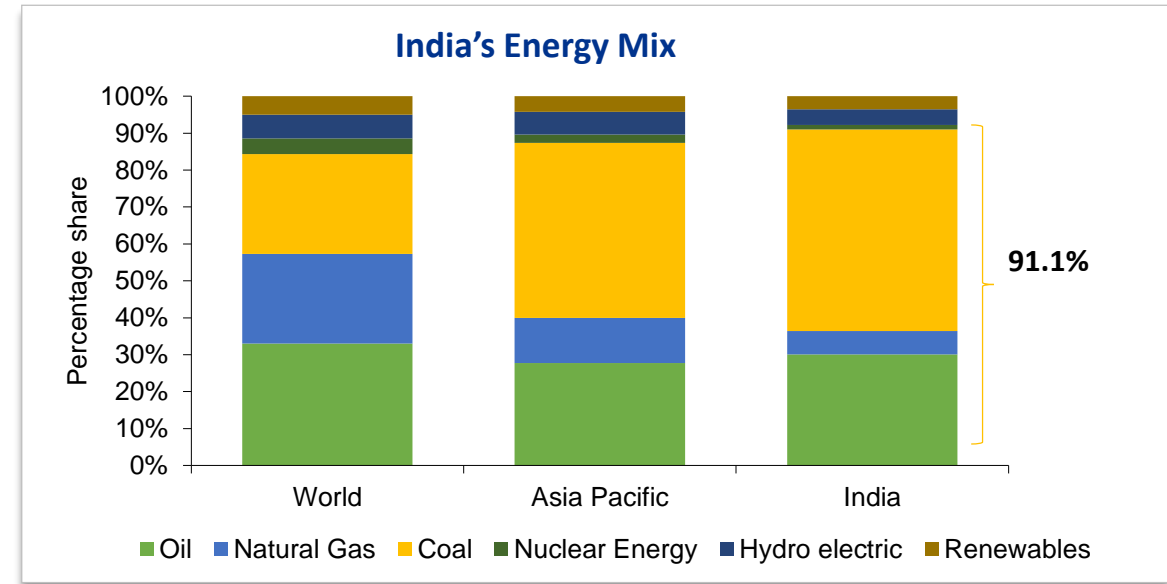


26 refineries*
with **249.9 MMTPA capacity**



India imports ~88% of crude oil and ~53% of natural gas...

- Coal, oil and natural gas dominate India's primary energy consumption (~91.1%)
- LNG import has increased from 13.6 MMT in 2011-12 to 25.6 MMT in 2019-20, a **jump of ~47%**
- Import of crude oil increased from 164 MMT in 2011-12 to 227 MMT in 2019-20, a **jump of ~38%.**



Efforts to increase prospectivity perception and enhance production

India has huge untapped hydrocarbon potential with ~ 29,792 MMTOE* in 26 sedimentary basins covering an area of ~3.36 Million sq. km

*Undiscovered hydrocarbons

Data initiatives

National Data Repository

Hydrocarbon Resource reassessment

National Seismic Programme

Policy reforms

Hydrocarbon Exploration and Licensing Policy

DSF Rounds

Production Enhancement Contracts

IOR/EOR Policy



Unified license for all types of hydrocarbons



Revenue sharing model with focus on work programme



Open Acreage Licensing Programme

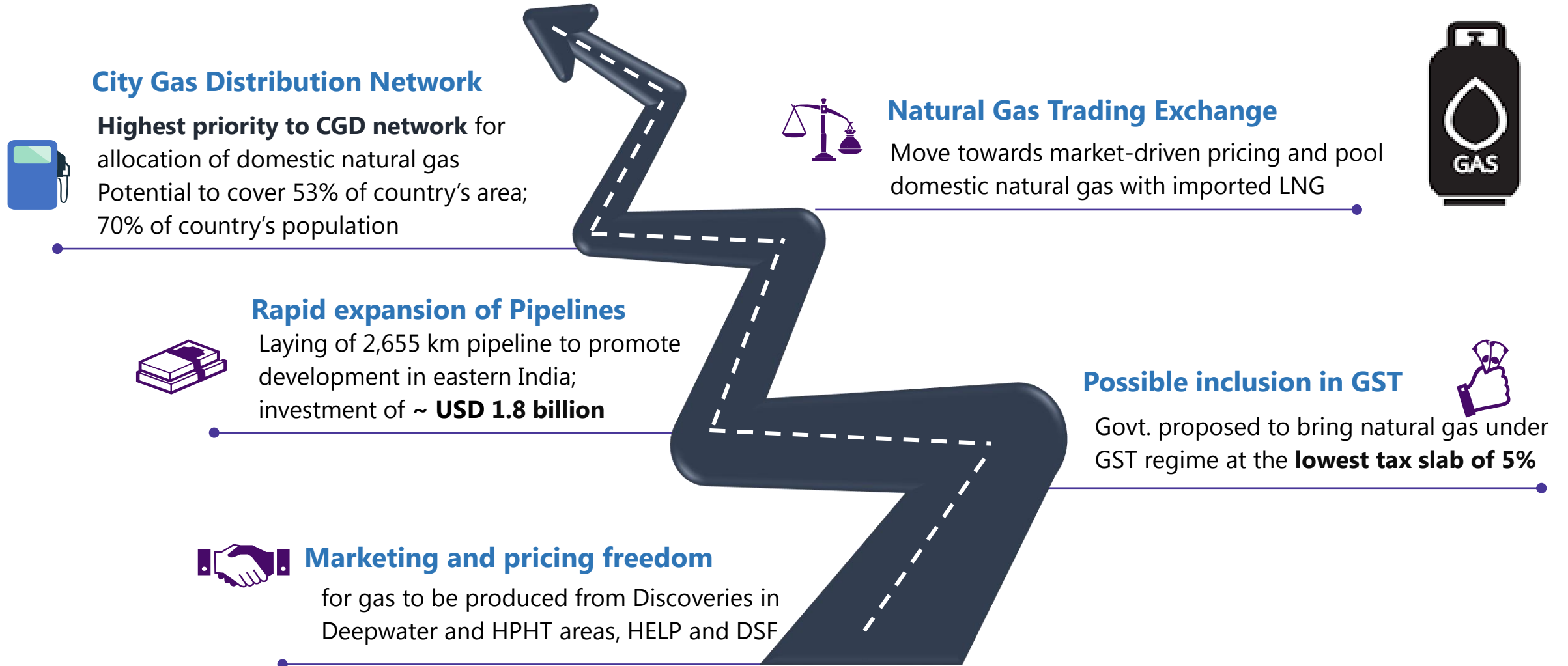


Full marketing and pricing freedom of gas

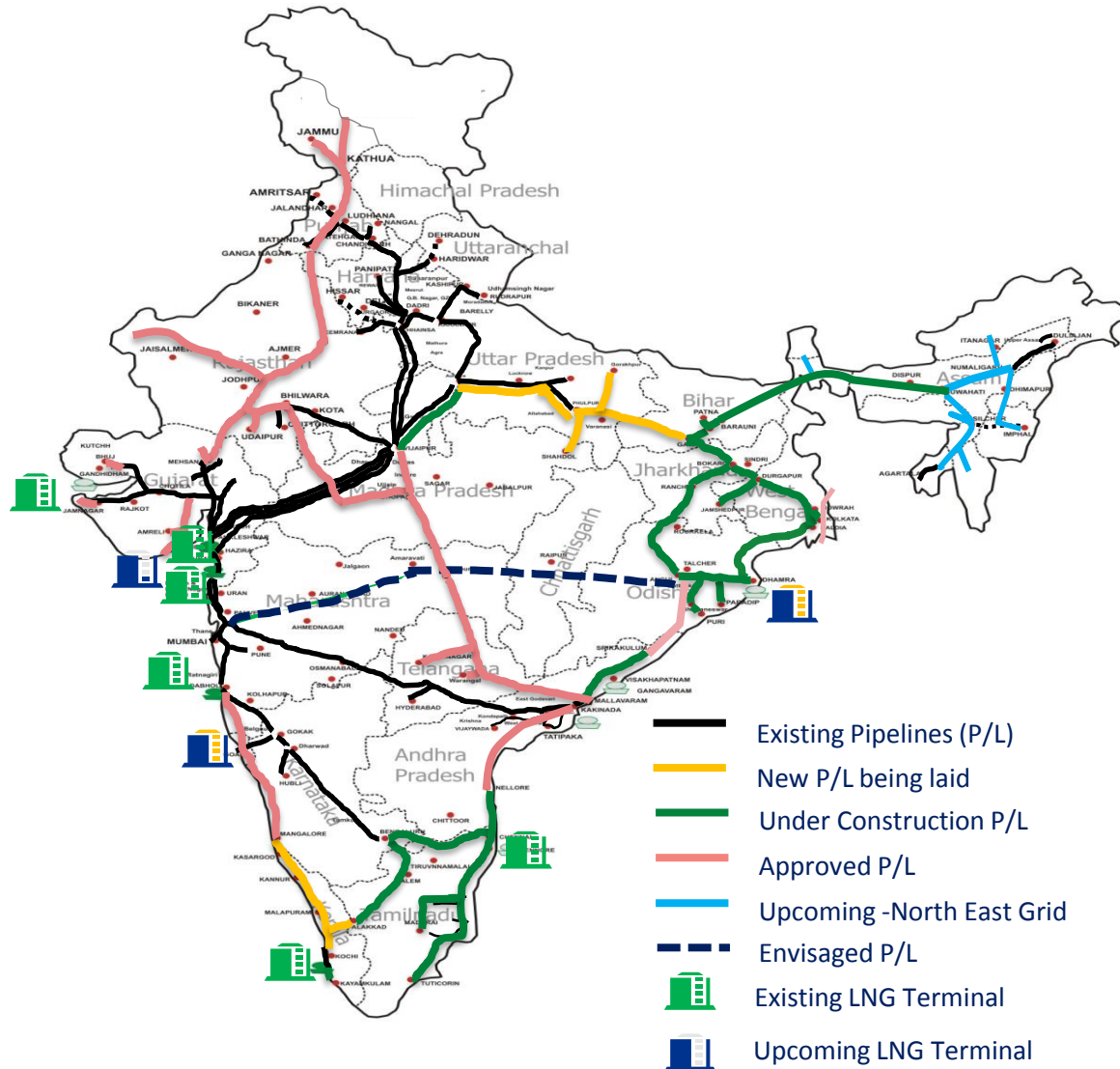


Reduced and graded royalty rates

Focused reforms to boost gas sector...



National Hydrocarbon Infrastructure Network



- 16,800 Km of existing cross-country natural gas pipeline
- Additional **18,000** Km pipeline (under construction, upcoming and proposed) in next 5 years
- Potential for investment of **~USD 12.7 Billion**

- Existing LNG import capacity of 39.2 MMTA
- Additional **16 MMTA** LNG capacity to be developed at an investment of **~USD 2.2 billion**



- Existing Refining capacity of ~249 MMTA
- Target to increase to **438 MMTA** in 2030.

Pro-business Reforms & Foreign Investors in Hydrocarbon Sector



FDI Facts



100% FDI allowed in

- E&P activities of oil and natural gas under automatic route
- Infrastructure related to marketing of petroleum products and natural gas
- LNG in regasification infrastructure, market study, formulation and petroleum refining in private sector



49% FDI allowed in petroleum refining by PSU



Recent and upcoming investments

- Rosneft acquired 49.1% stake in Essar Oil for **USD 12.9 billion**
- British Petroleum and Reliance Industries Ltd. to invest **USD 5 billion** in 3 gas development projects in KG basin by 2022
- Total S.A. acquired 37.4% stake in Adani Gas for **USD 0.8 billion**
- Saudi Aramco in talks with Reliance for **USD 15 billion deal** for 20% stake in refining and chemical business
- Exxon Mobil & Equinor signed an MoU with ONGC for joint study
- Shell opened new state-of-the-art technology centre in Bangalore

Opportunities for Russia: across oil and gas value chain in India...



Upstream

- **230 bn bbls potential O+OEG** in ~ 3.36 million sq.km basins
 - 1.72 million sq. km yet to be appraised
- Acquire **large acreages under Open Acreage Licensing Programme**
- Bid for **Discovered Small Field Round III**
- **Technology transfer** including for **Enhanced Recovery**, Digital Monitoring, Shale Oil & Gas
- **USD 100 billion** investment in next 10 years in oil field equipment and services



Midstream/Downstream

- Petrochemical industry to grow at **10% CAGR**; reach a size of **USD 100 billion by 2022**
- Investments in Petrochemicals of ~ **USD 110 billion**
- Investment of ~**USD 150 billion** in refining infrastructure by 2030
- Marketing/Retail sale of gasoline and diesel
- Investment to create **12 MMT Strategic Petroleum Reserves** on PPP basis



Gas & Biofuels

- Additional Regasification capacity of **56 MMTPA** by 2025 with **USD 25 billion** investment
- Pan India rollout of **gas distribution network**.
- Technology for gas distribution business
- Technology for advanced biofuels **Production - 9 billion litres ethanol by 2030**
- **Multitude of Refinery & Petrochemical projects** in offing

India will invest **USD 100 Billion** in oil and gas infrastructure by 2024

Opportunities for Russia: participation modes across the value chain



Large EPC Contracts

EPC Contracts in Refining, Petrochem, LNG, Gas Processing, Gas Transmission and Distribution, Upstream Project Development



Processing and Manufacturing: Make in India

Invest in Oil to Chemicals manufacturing. LNG and manufacturing components for the entire Oil & Gas industry



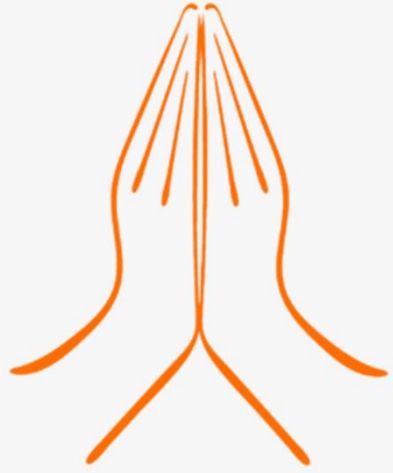
Exploration and Production

Invest alone or in JV with Indian partners for OALP and DSF blocks for greenfield exploration and brownfield development projects



Technology, Services and Consulting

Provide technology, services and consulting to Upstream, Midstream and Downstream companies



Thank You.

