सत्यमेव जयते

नीति आयोग

National Institution for Transforming India

Hon’ble Prime Minister of India Interaction with Global Oil and Gas Leaders

9th October, 2017

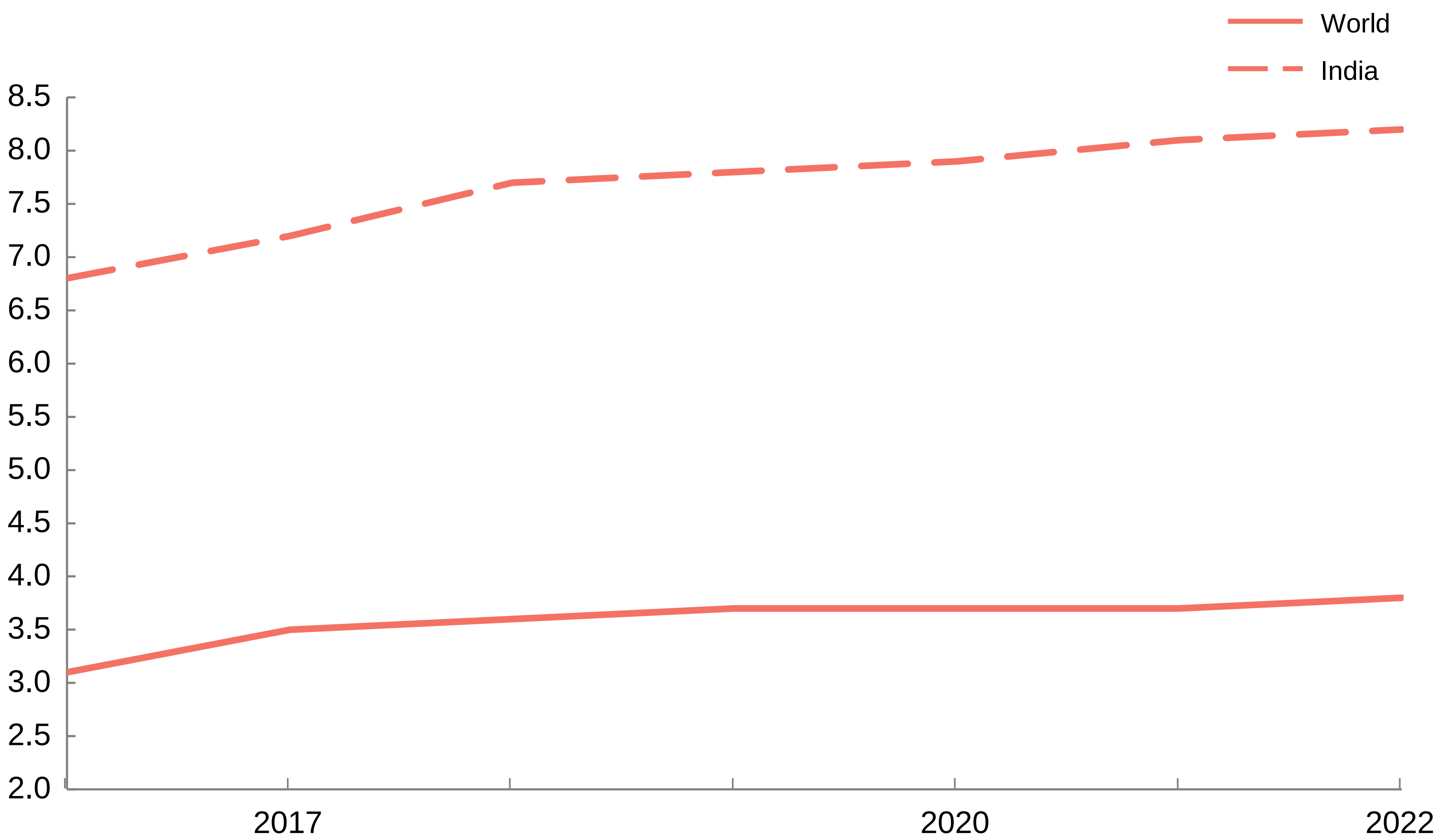
7, Lok Kalyan Marg

Action Taken Report on Decisions taken during the last meeting on 5th January, 2016

Decision/ Points	Action Taken
Formulation of Attractive investment regime, fiscal terms and regulatory environment, Ease of Doing Business	Hydrocarbon Exploration Licensing Policy (HELP)
Quality and Accessibility of Data	National Data Repository (NDR)
Rigorous technical assessment of Indian Basins	ONGC, OIL and DGH are carrying out re-assessment of Indian Basin
Pricing Issues	Marketing and pricing freedom under HELP and Deep water High Pressure High Temp wells
Creation of Gas Infrastructure	Laying out of 15000 km of pipeline infrastructure for national gas grid, Urja Ganga Scheme for providing gas access to Eastern India

India's GDP growing strongly

Annual GDP growth (percent)



SOURCE: IMF Database

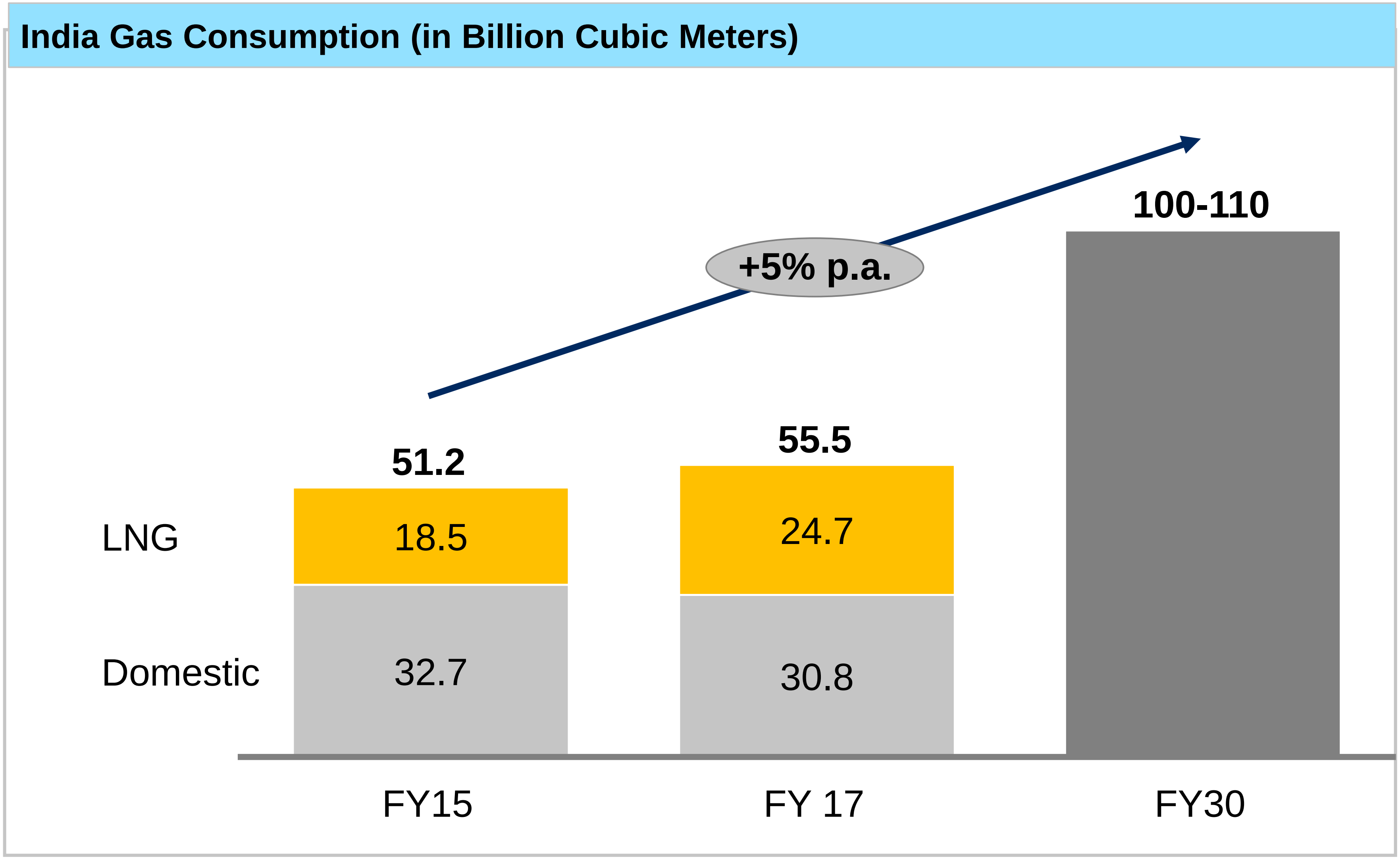
India is expected to be a major driver of oil demand growth (Million Barrels/ Per Day)

	2011	2016	2030	CAGR (2016-30)
India	3.5	4.5	7.5	4%
China	9.8	12.4	17.0	2.5%
United States	18.9	19.6	16.8	-1%
Europe and Eurasia [1]	19.1	18.8	14.4	-2%
Total World	90	96.6	110	1%

1 Europe, Russia and Ex-USSR states

SOURCE: World Oil Outlook, BP Energy Outlook

India emerging as a major demand center for Natural Gas



SOURCE: PPAC, Energy Insights, Global Gas Model

Drivers of oil and gas demand growth (1/2)

Chemicals & Petrochemicals

- Rapid growth of end markets e.g., construction, auto, textiles, packaging
- High growth in consumption (Polymer consumption at CAGR 14 % for 2000-2015[1])

Transportation

- Rising passenger car fleet size due to increasing affordability (Passenger Cars/ 1000 people – India 19, China 76, US 360[2])
- Increase in Heavy Duty vehicles to fulfil demand for road freight

Commercial

- Increasing share of manufacturing in GDP
- “Make in India” boost
- Steel Industry (Production 101 MMT in 2016-17, 240 MMT by 2031[3])

1 IOCL, 2 Road Transport year book 2014-15 (MoRTH), 3 Indian Steel Association

Drivers of oil and gas demand growth (2/2)

Residential

- Improved LPG/PNG access
- Rising middle-class (267 million individuals in 2016, 547 million individuals in 2026[1]); growth in energy consuming equipment

Fertilizers

- Self-sufficiency for fertilizer demand

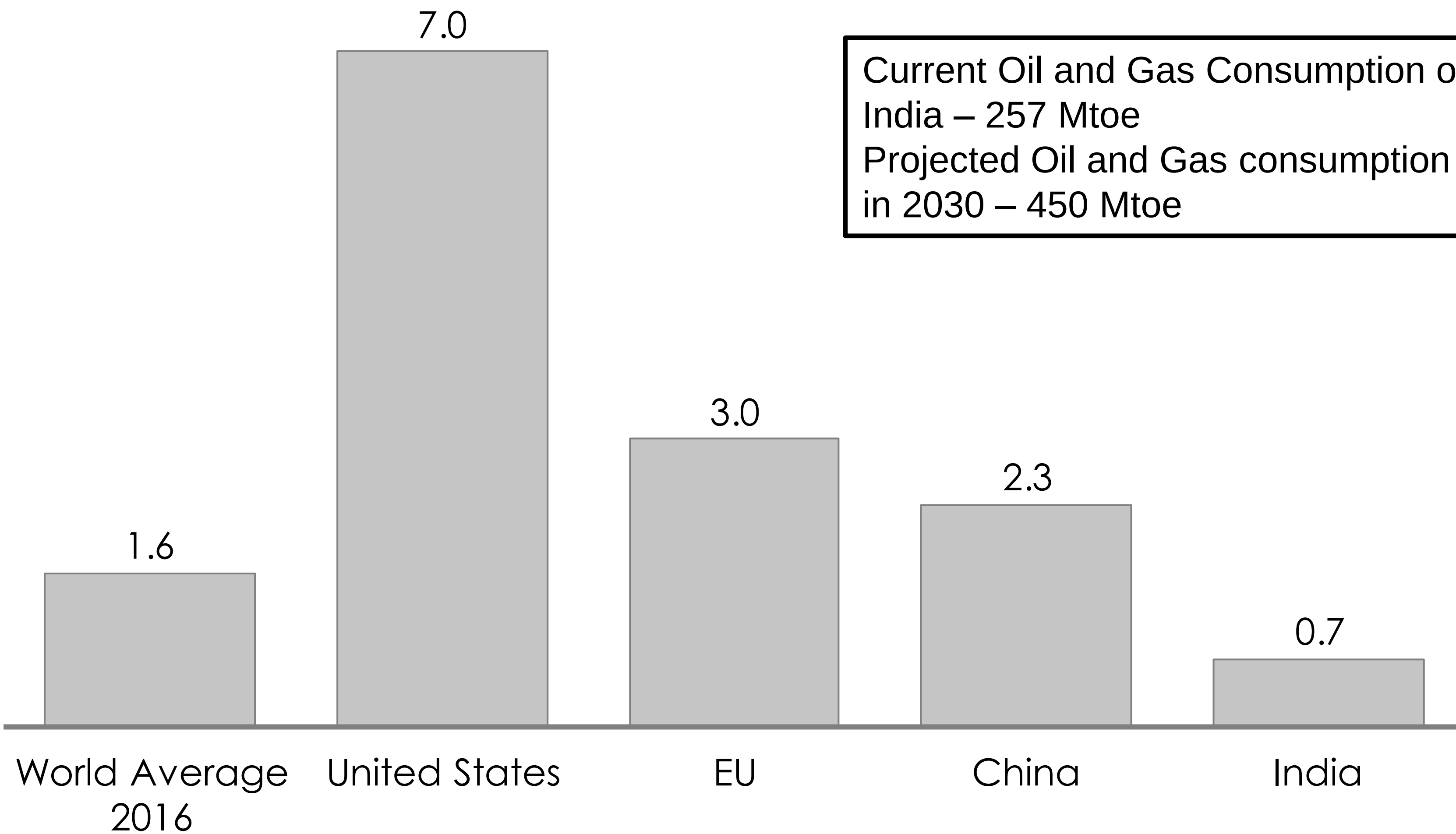
Power

- Requirement of gas based power plants
  - For balancing the grid for renewable power projection of 175 GW
  - For peaking power

1 NCAER

Strong potential for energy consumption growth

Per capita energy consumption (toe – tonnes of oil equivalent)



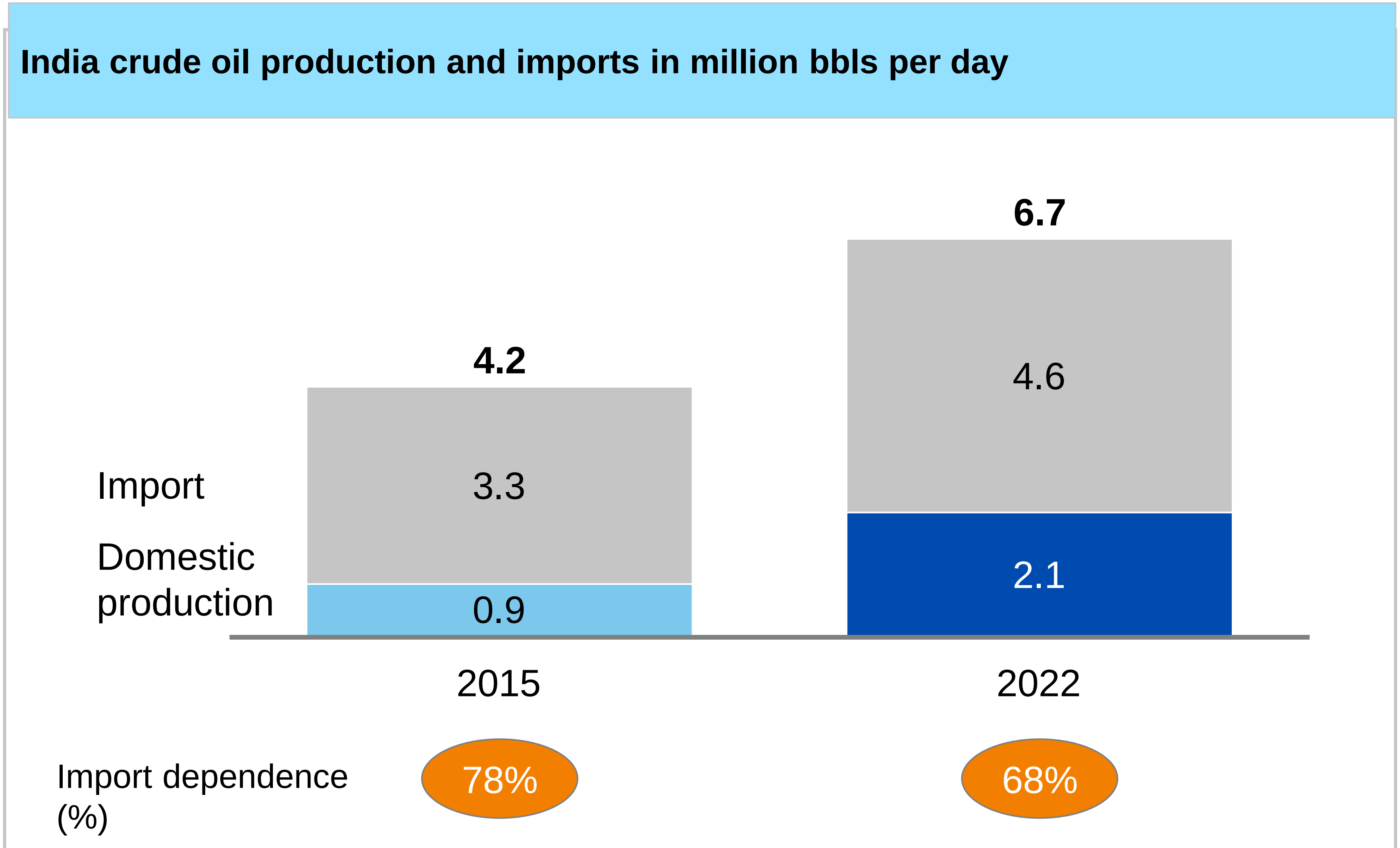
Current Oil and Gas Consumption of India – 257 Mtoe
Projected Oil and Gas consumption in 2030 – 450 Mtoe

Source: IEA

Four areas of focus to secure India’s energy future

1. **Increase domestic production -** aspiration of 10% reduction in imports by 2022
2. **Build infrastructure –** Greenfield and brownfield refineries, petrochemical plants, pipelines, LNG terminals
3. **Secure overseas supply –** Equity; long term contracts
4. **Attracting FDI & technical expertise**

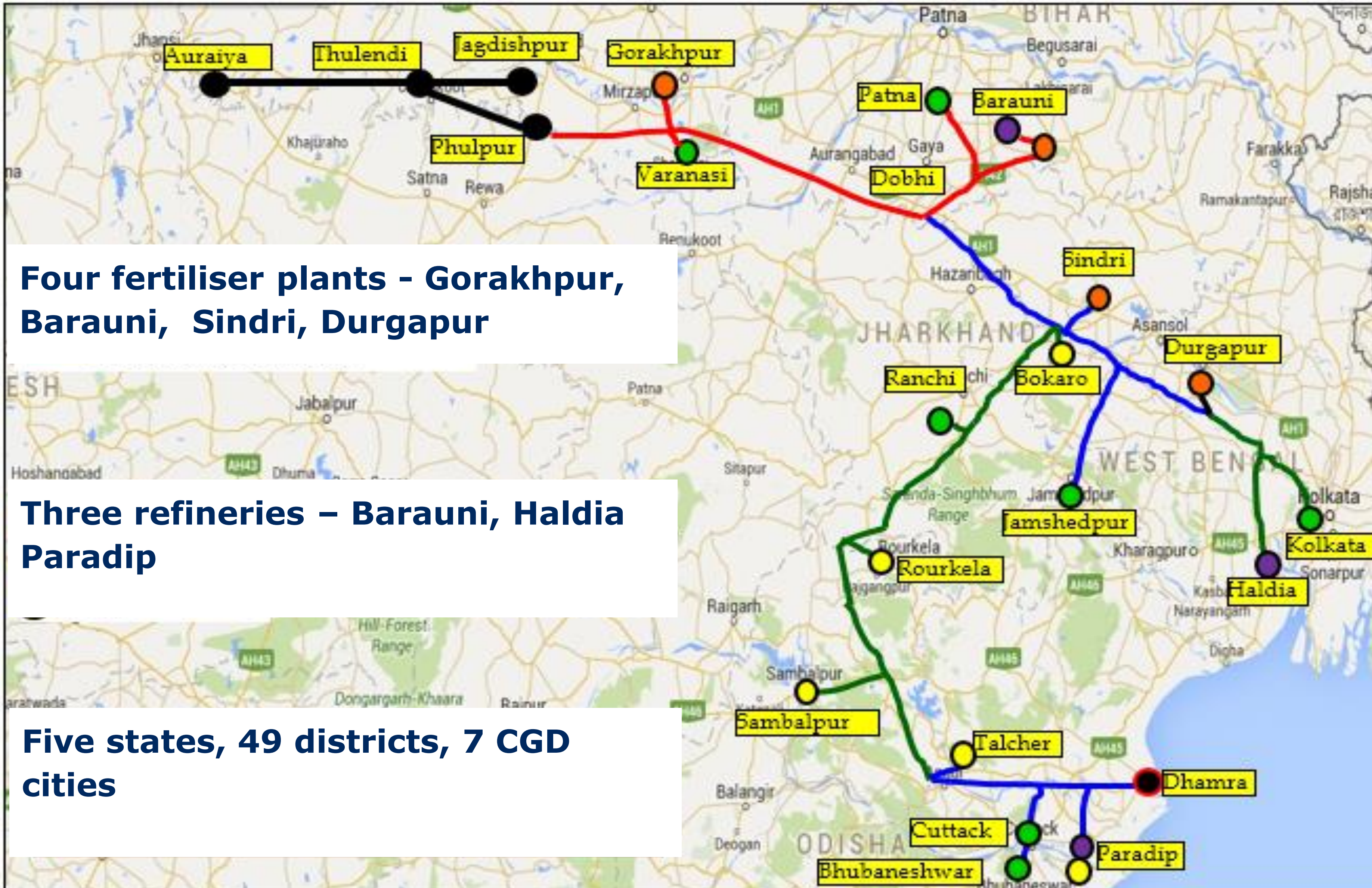
Aspiration to double domestic oil production



Strong pipeline of projects

Upstream	▪ Expected future investment of $ 25 billion under various E & P regimes – ONGC spending $10 billion in KG basin to develop fields such as 98x2 – BP and Reliance investing $6 billion to explore gas fields KG-D6 – Cairn India to invest $4+ bn for E&P across Rajasthan, Ravva, Cambay
Downstream	▪ $40 bn investments by Oil Marketing companies in brownfield expansion (60 MTPA) and on fuel upgradation to BS-VI ▪ 70 MTPA of greenfield investment
Petchem	▪ $8 bn investment in petroleum/ petrochemical integrated cluster
Natural Gas	▪ 15,000 km of gas trunk pipelines underway to double capacity ▪ LNG regasification capacity expansion from 22 to 47.5 MTPA by 2022 ▪ City Gas Distribution networks in 326 cities (up from 75) by 2022

JHBDPL Pipeline will catalyse gas development of the East



Four fertiliser plants - Gorakhpur, Barauni, Sindri, Durgapur

Three refineries – Barauni, Haldia Paradip

Five states, 49 districts, 7 CGD cities

Enabling policy regime in Oil & Gas sector

Financial and policy incentives

- **100 percent FDI** in E&P and refining through the automatic route
- Financial incentives – Customs exemption, accelerated depreciation amongst others

Improving the 'ease of doing business'

- Single-window clearance
- Online process for environment and forest clearances

Promotion of Petroleum/ Petrochemical Integrated Cluster

- Currently approved in 5 states; **$ 8 billion** investment
- Located in Paradeep, Vishakhapatnam, Kocchi, Dahej and Vidarbha (proposed)

Recently, several steps taken to increase attractiveness

Resolution of historical concerns

- Hydrocarbon Exploration & Licensing Policy (HELP) regime to reduce administrative oversight
- Open Acreage Licensing Policy (OALP) for freedom of block selection
- Policies for extension to PSCs to maximize hydrocarbon recoveries

Movement towards market based pricing

- Marketing and pricing freedom for new gas production: Gas Exchange
- Deregulation of petroleum product pricing; “every-day” pricing for petrol & diesel

Thank You

4 Key Features of Hydrocarbon Exploration Licensing Policy (HELP)

Uniform Licensing for exploration and production of all forms of hydrocarbon

- ✓ Enables contractors to explore conventional and unconventional oil and gas resources (Coal Bed Methane, Shale oil/ Gas, Tight Gas and Gay Hydrates) under single license

Open Acreage Licensing Policy (OALP)

- ✓ Year-round bidding
- ✓ Enable E&P companies to choose blocks from designated area based on their interest
- ✓ National data repository (Inaugurated on 29th June, 2017) to facilitate OALP

Revenue sharing model

- ✓ Earlier contracts were based on profit sharing between government and the contractor after cost recovery that caused delay and disputes due to government scrutiny of cost details of private parties
- ✓ In new policy, Gov. will not be concerned with cost incurred and will receive a share of gross revenue from sale of oil and gas

Attractive Fiscal Regime

- ✓ Marketing and pricing freedom for crude oil and gas
- ✓ Lower royalty rates from difficult areas such as offshore, deep-water and ultra deep-water blocks