



**10th LNG Producer-Consumer Conference
Tokyo, Japan**

Natural Gas and LNG market in India

By: E.S. RANGANATHAN

Director (Marketing), GAIL (India) Limited



Global Primary Energy Basket

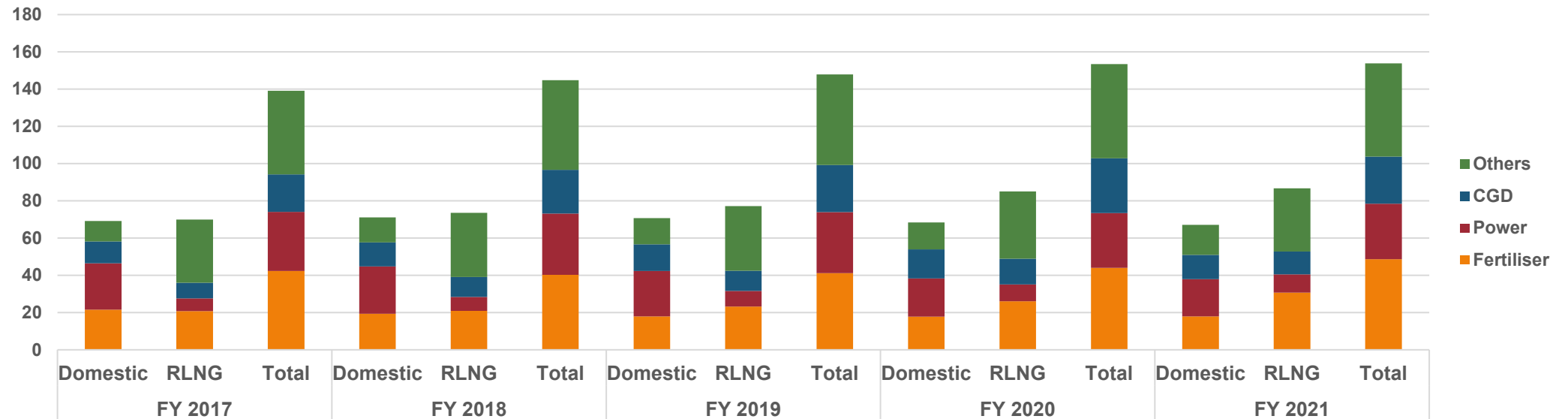
Region	Oil	Natural Gas	Coal	Nuclear Energy	Hydro electric	Renewables	TPE (MTOE)
World	34.2%	23.4%	25.4%	4.4%	6.8%	3.6%	13511.2
OECD	39.4%	25.7%	15.9%	7.9%	5.6%	5.4%	5605
Non- OECD	30.5%	21.7%	35.9%	1.9%	7.6%	2.3%	7906.1
Asia Pacific	28.6%	11.5%	48.4%	1.9%	6.5%	3.0%	5743.6
China	19.4%	6.6%	60.4%	1.8%	8.3%	3.4%	3132.2
India	29.5%	6.2%	56.3%	1.1%	4.1%	2.9%	753.7 (5.5%)

(Source: BP Statistical World Energy Review, 2018)

- India is the 3rd largest energy consumer after China and US, 2nd in Coal and 3rd in Oil.
- India has the 5th largest reserves of coal in the world
- India was the fourth largest generator of renewable energy in 2018 behind China, the US, and Germany
- Natural gas consumption in India is 6.2% (14th largest consumer)

All India natural gas sales – Historical

All India sales (in MMSCMD)

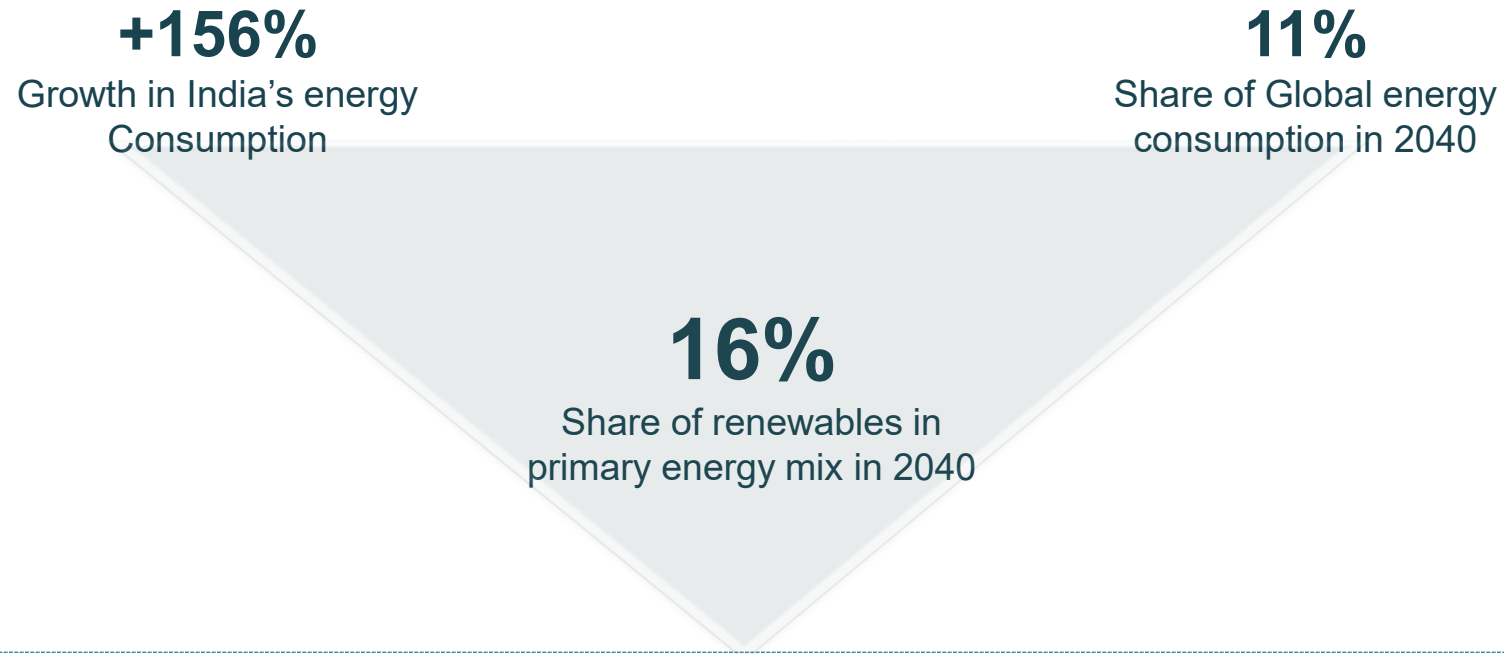


Sectors	FY 2016-17			FY 2017-18			FY 2018-19			FY 2019-20			FY 2020-21		
	Dom	RLNG	Total	Dom	RLNG	Total	Dom	RLNG	Total	Dom	RLNG	Total	Dom	RLNG	Total
Fertiliser	21.5	20.8	42.3	19.3	20.9	40.2	18.0	23.2	41.2	17.9	26.1	43.9	18.0	30.8	48.7
Power	25.0	6.8	31.8	25.5	7.5	33.0	24.3	8.4	32.7	20.4	9.1	29.5	19.9	9.8	29.7
CGD	11.7	8.4	20.1	12.8	10.7	23.5	14.4	10.9	25.3	15.7	13.7	29.4	13.1	12.2	25.3
Others	10.9	34.0	44.9	13.5	34.6	48.1	14.0	34.7	48.7	14.4	36.2	50.6	16.1	33.9	50.1
Total	69.1	70.0	139.1	71.1	73.6	144.8	70.7	77.2	147.9	68.4	85.1	153.5	67.1	86.7	153.7

CAGR of ~ 4%

Covid-19 impact

India's Energy Outlook 2040



- **India's energy consumption grows by ~4% p.a., faster than all major economies in the world**
- **India accounts for more than a quarter of net global primary energy demand growth between 2017-2040**
- **India overtakes China as the largest growth market for energy by late 2020s**

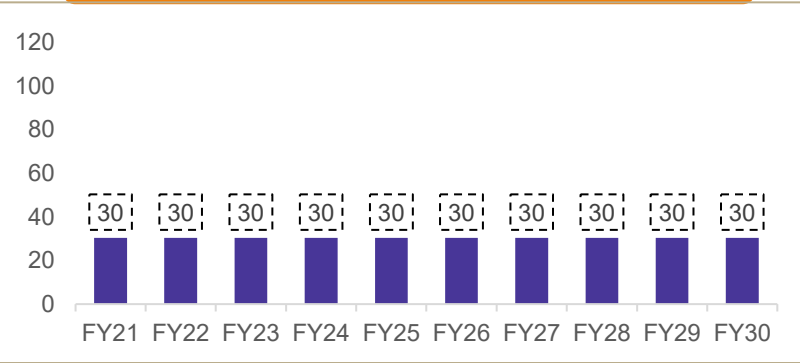


Natural gas demand under “Business as usual (BAU)” scenario

FY21 - FY2020-21

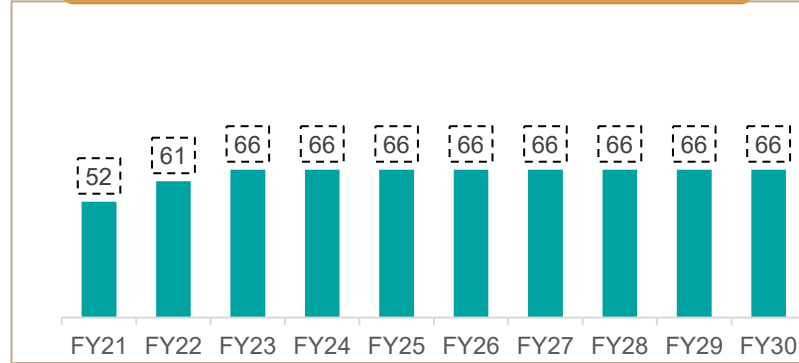
Source: KPMG

Power sector (@23% PLF static)

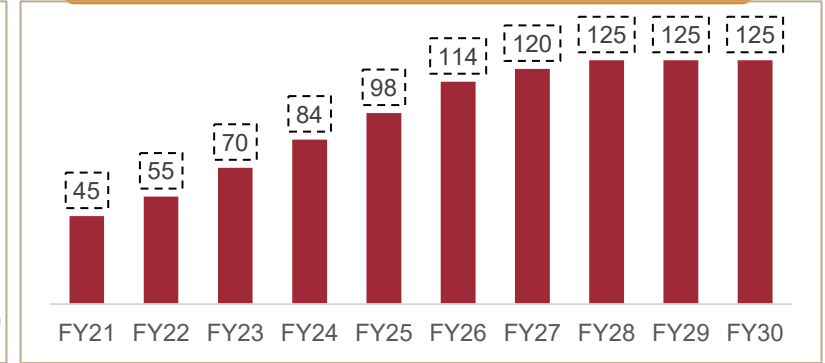


All Demand in MMSCMD

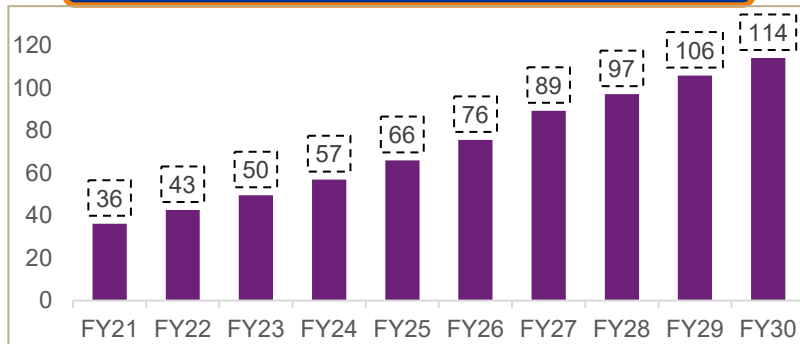
Fertilizer



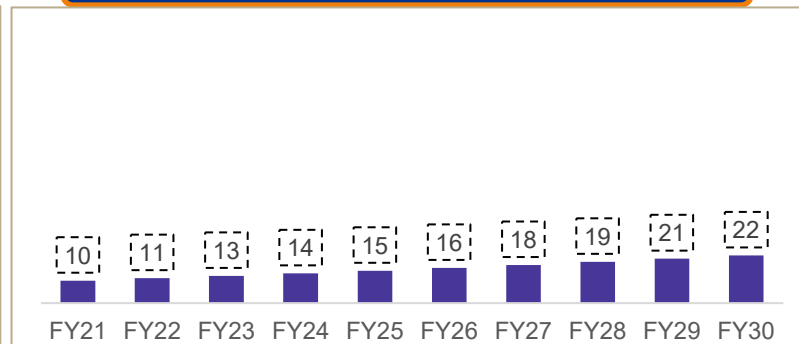
Refinery and Petro-chemicals



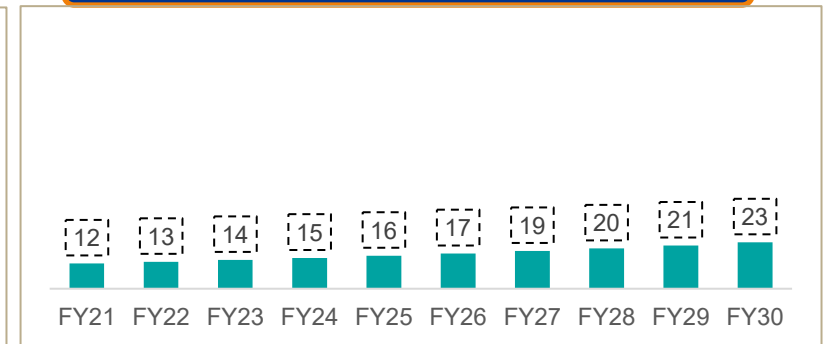
City Gas Distribution



Iron and Steel



Other Industrial sectors



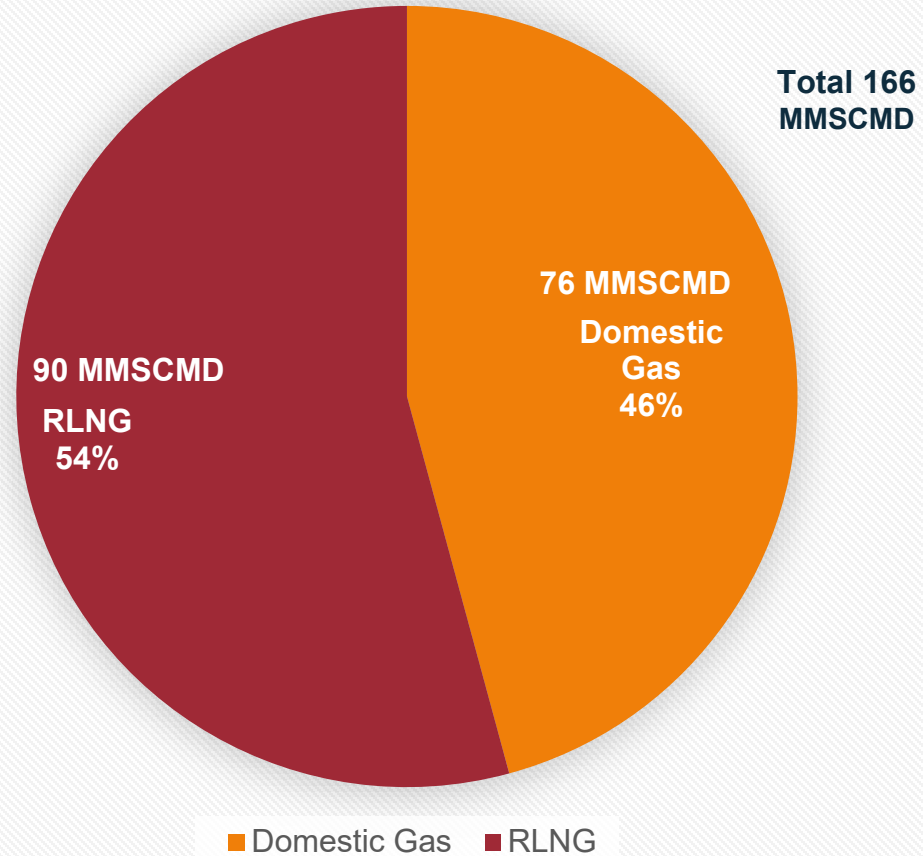
**Current Scenario (FY'21) – 160 MMSCMD (~6.2% of Primary Energy Mix)
to BAU Scenario (FY'30) – 380 MMSCMD (~10% of Primary Energy Mix)**

Note: MNRE's proposed mandate for usage of green hydrogen in sectors such as refinery, fertilizers and steel industry to meet energy requirements (refinery 10% & fertilizers 5-10%) as per National Hydrogen Energy Mission may shrink natural gas demand by 30-50 MMSCMD

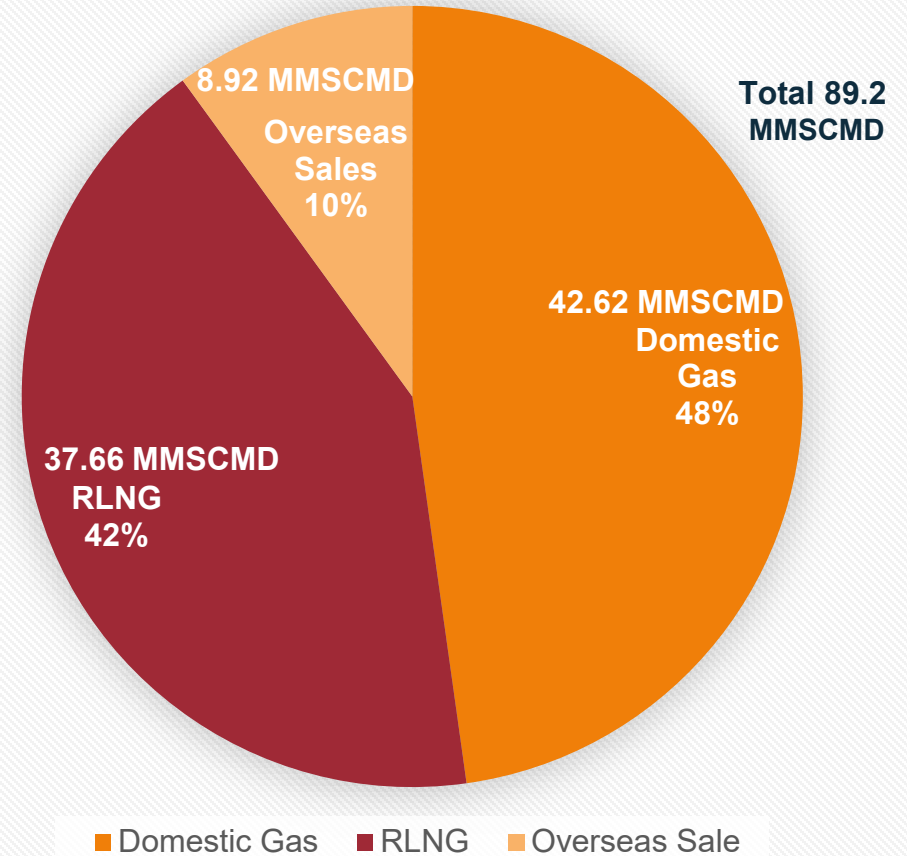


Breakup of Gas Consumption – Domestic Gas & RLNG

All India Gas Consumption, FY 20-21



Gas Marketing by GAIL, FY 20-21





Thank You