

Highlights of Natural Gas Demand in India

1. Natural Gas is going to play an important role globally. It would be the only fossil fuel whose share in energy mix globally would rise by 2040.
 - The share of coal would decline to 23% in 2040 from 29% in 2014.
 - The share of crude oil would come down to 26% in 2040 from 31% in 2014.
 - The share of natural gas would rise to 24% in 2040 from 21% in 2014.
2. India is set to absorb more natural gas – City Gas Distribution (CGD) network would expand from 67 cities presently to 326 by 2022 which would create demand from:
 - Cooking – Piped Natural Gas (PNG) - as a clean cooking initiative
 - Increased penetration of compressed natural gas (CNG) vehicles to address air quality concerns. And increased demand from commercial and industrial sectors would also rise.
3. Natural Gas based capacity would be required for balancing of renewables and it is also used as a feedstock for steel and fertilizer sector.
4. Two Methodologies were used to calculate the likely natural gas demand for India.
 - India Energy Security Scenarios (IESS) model developed by NITI Aayog – Results till 2047.
 - World Energy Projection Systems (WEPS) model developed by EIA in US – Results till 2040.

Modeling Results - Natural Gas Demand for India

- IESS – 2 scenarios were created i.e. Business as Usual (BAU) and High Gas Scenario.
- WEPS – 6 scenarios were created i.e. Base Case, Immediate Market Driven, Long Term Market Driven, High Gas Price, Low Gas Price and Low RE scenario.

Parameter	2015	2040 (Ranges)
Natural Gas Demand (BCM) – IESS	50	191-267
Natural Gas Demand (BCM) – WEPS*	50	181-257
Share of natural gas in energy mix	6.5%	9%-12%

*There are 2 outliers in the WEPS – Low gas price and long term market driven scenario. As the natural gas prices in 2040 for these two scenarios (\$8-9/mmbtu) are significantly lower than other scenarios (\$14-18/mmbtu), demand for natural gas in low gas price and long term market driven scenario is quite high (378-418 BCM), so is the share in energy mix – 17%-18% respectively. We do not show these extreme results here.