

## **Highlights of Natural Gas Demand in Japan**

- Japan is the World's largest importer of LNG. Although, it retained its position in 2015, the LNG imports declined by 4% in 2015 to 85 MTPA from 88.5 MTPA in 2014. This is the first decline after Fukushima disaster in 2011 and lowest imports since then.
- Japan seeks to replace coal and oil fired power plants with gas based capacity in order to meet its environmental targets.
- 70% of Natural Gas is consumed for electricity generation and the trend is likely to follow till 2040.
- CAGR of primary energy demand – 0.45% from 2012-40, suggesting the same to be almost constant as Japan is a highly energy efficient and developed economy.
- Japan has an open gas market with no interference by Government on pricing.

### **Modeling Results for Natural Gas demand in Japan**

WEPS model developed by EIA is used to calculate the likely natural gas demand by 2040. 5 scenarios have been created – Base Case, High Nuclear Share, Low Gas Price, High Gas Price and Low RE scenario.

- Natural Gas demand lies in the range of 196-218 BCM. The gas consumption is lowest in high gas price scenario with 196 BCM and high nuclear scenario with 197 BCM, whereas it is highest in low gas price scenario – 218 BCM.

<b>Parameter</b>	<b>2015</b>	<b>2040 (Ranges)</b>
Natural Gas Demand (BCM)	132	196-218
Share of natural gas in energy mix	26%	31%-34%
Share of natural gas in electricity mix	39%	47%-53%

- The share of oil and coal in energy mix would decline from 41% and 23% in 2015 to 29%-30% and 16%-17% in 2040 respectively depending upon different scenarios.
- The key takeaway is that the natural gas demand, its share in energy and electricity mix does not vary much with change in natural gas prices as Japan's primary energy demand is likely to remain almost static.