

OIL & GAS

India is the world's third-largest oil consuming nation as consumption grew by 5.31 per cent to 204.992 MMT in 2018 from 194.597 MMT in FY17. In future, India is expected to be one of the largest contributors to non-OECD petroleum consumption growth globally. Wherein, India imported 18.05 MMT of LNG during 2017-18, in comparison to 18.63 MMT in 2016-17.

The high economic growth in the past few years and increasing industrialization coupled with an escalating population have created a lot of concern for India's energy scenario. India remains heavily dependent on the import of the crude oil and natural gas. India's failure to make any major breakthroughs in the field of renewable sources of energy, oil and natural gas would continue to hold a place of key importance in India's economy.

Indian oil refining capacity stood at 247.6 million tonnes (as of September, 2018), making it the second largest refiner in Asia, of which private companies own about 35.62 per cent of the total refining capacity.

Oil consumption in India grew at a CAGR of 4.78 per cent during 2007-17 and reached 4.69 mbpd in 2017. Natural gas is forecasted to increase at a CAGR of 4.31 per cent to 143.08 MT by 2040 from 54.2 MT in 2017.

The global energy demand is expected to grow by 70 per cent by 2035 which is estimated to be met by gas and renewable combined, with natural gas supplying more than 40 per cent of the additional demand and major LNG importing countries like China and India are putting policies in place which drive preference for gas over coal.

The Government has declared its commitment to transform India into a gas-based economy with the ambitious target of increasing the share of gas in the energy basket from the current 6 per cent to 15 per cent by 2030. Also conforming policies have been adopted to increase the refining capacity to 667 MTPA and make India a refinery hub by 2030.

The Department is headed by **Ms Soma Mukherjee**

OIL & GAS (SECTOR BRIEF)

CURRENT SCENARIO

Growing economy and surging population are the driving factors behind the rising demand of oil and gas in the country. However, domestic production has not been able to keep pace with demand. To meet its needs, India's crude oil imports increased at a CAGR of 4.17 per cent from 189.2 MT in 2013-14 to 202 MT in 2017-18 and similarly there has been a rise in India's LNG imports which rose from 17191 mmscm in 2013-14 to 22531 mmscm in 2017-18.

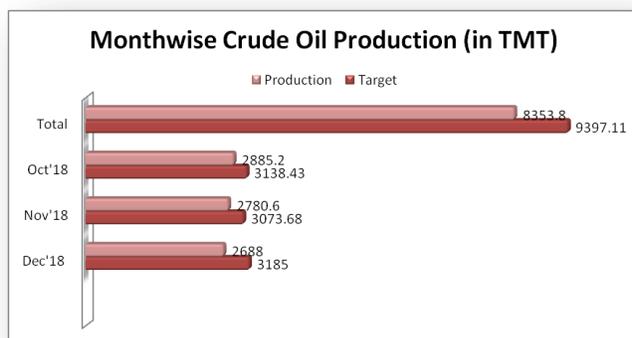
India is the one of the largest exporters of refinery products due to the presence of various refineries, holding the fourth largest oil refinery capacity in the world. Total value of exported petroleum products stood at USD 34.89 billion in FY18.

At present, 31 companies are developing City gas distribution networks across 81 geographical locations in 21 states and Union territories, supplying clean cooking fuel in the form of piped natural gas (PNG) to about four million households. The government, which plans to provide 10 million PNG connections, has introduced stringent emission levels for vehicles and plans to develop green corridors to reduce India's carbon footprint. About 46.5 lakh households and 32 lakh CNG vehicles are availing the benefit of clean fuel through existing CGD networks. This massive infrastructure expansion will unleash great potential for automobile sector to manufacture CNG-LNG vehicles.

The 2017 Amendment to the Central Motor Vehicles Rules, to include LNG as a fuel for automobiles, is the first giant step forward to revolutionize the use of LNG in the transport sector in India. The inclusion of LNG as an auto fuel legitimizes its use and subjects it to Government emission standards and regulation. Further, the amendment to the Petroleum and Natural Gas Regulatory Board (Authorising Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008 has included LNG fuel stations under the definition of natural gas stations. All of these regulatory changes exhibit the Government's intent to support LNG as an economically viable transportation fuel.

According to DIPP data, the petroleum and natural gas sector attracted FDI worth USD 7 billion between April 2000 and June 2018.

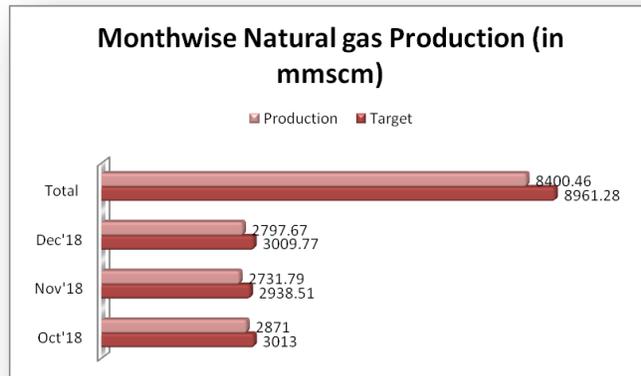
CRUDE OIL



Crude oil production during the months of October, November and December, 2018 was lower than the target. Cumulative crude oil production during Oct-Dec, 2018 was 8353.8 TMT which is 11.10 per cent lower than target for the period.

As of Sep 1, 2018, India had a network of 10,328 km of crude pipeline having a capacity of 143.5 mmtpa.

NATURAL GAS



Natural gas production during the months of October, November and December, 2018 was lower than the target. Cumulative natural gas production during Oct-Dec, 2018 was 5602.79 TMT which is 6.25 per cent lower than target for the period.

Source: <http://www.petroleum.nic.in>

The length of Onshore Natural Gas Pipelines have observed a growth of 0.43 per cent to 16765.697 Kms as on 31st March 2017, as against 16693.397 Kms as on 31st March 2016. The length of Offshore Natural Gas Pipelines is 987 Kms in India on 31st March 2017.

FUTURE OUTLOOK

- The country's gas production is expected to touch 90 billion cubic metres in 2040.
- The demand for crude oil is estimated to reach 10.1 million tonnes per day by 2040, while the demand for natural gas is expected to reach 143.08 million tonnes by 2040 as against a demand of 54.20 million tonnes in 2017.
- Central Government has planned an investment of Rs 70,000 crore to spread gas pipelines across the country, and is working out plans to expand gas network to Myanmar through Bangladesh.
- The attractive oil and gas industry is expected to attract USD 25 billion investment in exploration and production by 2022.
- Refining capacity in the country is expected to increase to 667 MTPA by 2040.
- India targets USD 100 billion worth investments in gas infrastructure by 2022, including an addition of another 228 cities to city gas distribution (CGD) network. This would include setting up of RLNG terminals, pipeline projects, completion of the gas grid and setting up of CGD network in more cities.

KEY POLICY INITIATIVES

Oil and Gas is one of the 25 key areas identified under the Government's 'Make in India' initiative besides being among 8 core sectors in India. Currently, the Indian Government has launched a new Biofuel Policy to incentivize the production of clean alternative fuels in the country. When implemented, it will provide more than Rs 10,000 crore of investment in the entire value chain and meet the target of reducing crude oil imports by 10 per cent by 2022.

The Government has also launched Hydrocarbon Exploration Licensing Policy (HELP) which aims to provide for a uniform licensing system to cover all hydrocarbons such as oil, gas, coal bed methane etc. under a single licensing framework.