

Gas production in Krishna Godavari Dhirubhai 6 (KG-D6)

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In news

Recently, Reliance Industries Ltd and BP (British Petroleum) have announced the start of gas production from the R cluster, the deepest off-shore gas field in Asia.

Key highlights

- The field is the first of three deepwater gas projects in the KGD6 block jointly developed by RIL and BP to come onstream.
- Reliance Industries has a participating interest of 66.7% in the KG-D6 block and BP has a participating interest of 33.3% in the block.

Significance of the announcement

- The recent announcement by RIL is important because the R cluster, along with the Satellite Cluster and MJ gas fields in the Krishna Godavari Basin are **expected to produce around 30 MMSCMD** (Million standard cubic metres per day) of natural gas or about **15% of India's projected demand for natural gas by 2023**.
- The R cluster field alone is expected to have a peak production of 12.9 MMSCMSD or about 10% of India's current natural gas output.
 - In the Financial Year 2020, demand for natural gas in India was around 153 MMSCMD around half of which is met through imports.
- RIL and BP are jointly set to invest a total of Rs 40,000 crore on these three fields.

Natural Gas Scenario in India

Natural gas is the cleanest fossil fuels among the available fossil fuels. It is used as a feedstock in the manufacture of fertilizers, plastics and other commercially important organic chemicals as well as used as a fuel for electricity generation, heating purpose in industrial and commercial units. Natural gas is also used for cooking in domestic households and a transportation fuel for vehicles.

Gas supply sources in India:

Domestic Gas Sources:

The domestic gas in the country is being supplied from the oil & gas fields located at western and southeastern areas viz. Hazira basin, Mumbai offshore & KG basin as well as North East Region (Assam & Tripura). It is being supplied and distributed in terms of the guidelines related to pricing and utilization policies issued by the Government from time to time. In FY 2018-19, total domestic gas production was about 90.05 MMSCMD.

Import of Liquefied Natural Gas (LNG):

In order to meet the gas demand, Liquefied Natural Gas (LNG) is imported through Open General License (OGL) in the country and it is imported by the gas marketer under various Long Term, Medium Term and Spot contracts. The price and utilization of imported LNG is mutually decided by buyers and sellers. At present, country is having six (6) operational LNG regasification terminals operational with capacity of about 38.8 MTPA (~ 140 MMSCMD).

Boost to domestic natural gas production

- The R cluster, along with the Satellite Cluster and MJ gas fields projects are a key part of the plan to boost domestic production of natural gas to increase the share of natural gas in India's energy basket from 6.2% now to 15% by 2030.
 - The field (R cluster) is located about 60 kilometers from the existing KG D6 Control & Riser Platform (CRP) off the Kakinada coast and

comprises a subsea production system tied back to CRP via a subsea pipeline

- Increased domestic production of natural gas is an important aspect in reducing India's dependence on imports and improving energy security.
- The existing infrastructure could also act as a hub for production from the KG -UDW1 block which is also going to be operated by an RIL-BP JV and is geographically contiguous to the KG-D6 block.
- Reliance has a 60% participating interest in the KG-UDW1 block while BP holds a 40% participating interest.

Recent changes in the formula for gas transport tariffs

- The recent changes in the formula for gas transport tariffs made by Petroleum and Natural Gas Regulatory Board (PNGRB) are likely to benefit Reliance and BP's investments in these three fields.
- According to PNGRB, its move is aimed at reducing the cost of gas transportation for consumers further away from sources of gas, effectively seeks to levy a weighted average tariff of 14 pipelines clubbed as the national gas grid to its users, even if they use only one of these pipelines
- The regulations move away from the existing system which charges consumers based on the distance from the source of gas and the number of pipelines used to a unified gas tariff system with one tariff for gas transported within 300 kms and another tariff for gas transported beyond 300 kms from the source of the natural gas.
- The move which is aimed at making natural gas more affordable to customers in the hinterland will likely benefit Reliance as most of the customers for the gas from the fields in the KG-D6 basin would be well beyond 300 km away