



Indian petroleum and natural gas minister Dharmendra Pradhan

### **Craig Guthrie**

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# Indian LNG moves beyond pipe dream

New Delhi needs more than big spending promises to ensure the competitiveness of gas against cheap incumbent alternatives

The Indian government has reassured energy majors over the future trajectory of natural gas demand by pledging \$60bn for a national pipeline network that would link all mainland states and union territories over the next five years.

"India will be connected by a pipeline grid that will transport gas from anywhere in the country" to demand centres by the end of 2024, said Indian petroleum and natural gas minister Dharmendra Pradhan on 13 October. "The role of the private sector—both domestic and from overseas—will remain crucial for investment and innovations for the future energy landscape."

Distribution remains a critical obstacle to government plans to increase the share of gas in the energy mix from 6pc to 15pc by 2030. Gas imports rose from 26.7bn m<sup>3</sup> in 2017 to 30.9bn m<sup>3</sup> last year, but its transport is constrained as four of the country's five LNG import terminals are on its west coast. The government wants another 11 LNG terminals to be built before 2026.

While c.16,800km of pipeline is in operation, c.14,300km more will be needed to complete the national network, according to the Ministry of Petroleum and Natural Gas. However, delays to projects under construction underline the challenge. A 550km pipeline being built by state-owned natural gas processing and distribution firm Gail from Kochi to Mangaluru-Bengaluru is 10 months beyond its December 2018 completion date, due to a combination of indigenous protests, severe weather and engineering problems. A Gail-led consortium developing the 656km north-east gas grid has blamed a lack of state support for a 11-month delay on that project.

"Gas will struggle to displace cheaper fuels such as coal and petroleum coke" Poorna Rajendran, FGE

"History has shown that, in India, investment alone is not sufficient to develop pipeline infrastructure," says Poorna Rajendran, consultant at Facts Global Energy. "Gail has struggled to make substantial progress in building its Kochi pipeline for years."

### **Total confidence**

French major Total expressed belief in the future of India's import capacity with an announcement on 13 October that it will buy 37.4pc of Adani Gas—the gas distribution business of Indian conglomerate Adani Group—for \$600mn. Through its stake, Total will be able to access two LNG regassification terminals that Adani Gas is developing, Mundra in west India and Dhamra in the east.

"Total's investment in Adani [Gas] is undoubtedly a show of faith in India's gas demand growth," says Wood Mackenzie research director Nicholas Browne, adding that his consultancy expects India's LNG demand to double from 37bn m³ in 2018 to 75 bn m³ by 2030, equivalent to 7pc of the energy mix.

"The development of the Mundra and Dhamra regasification terminals provides Total with market access for LNG. Developing a standalone gas marketing and distribution business in India would have taken several years. Working with Adani [Gas] will accelerate the process," adds Browne.

## **Entrenched opposition**

New Delhi's enthusiasm for gas faces opposition from several sources. The incumbent coal industry is deeply woven into the fabric of India's politics and economy, contributing 72pc to the energy mix. It is expected to still contribute 50pc in 2030, which would mean coal-related  $\rm CO_2$  emissions increase 2.8pc annually until 2050, despite international and domestic pressure to act on carbon emissions and air pollution.

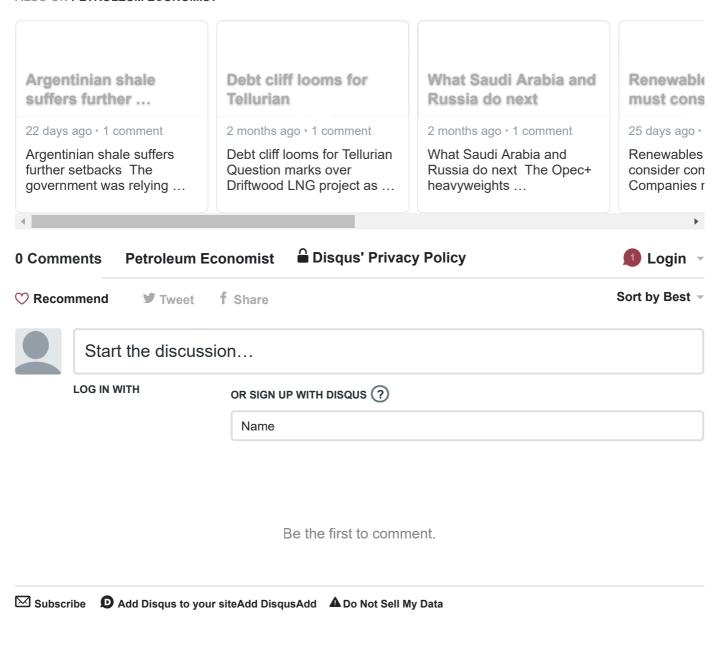
### 2.8pc Annual CO2 emissions increase rate

Gas has historically been taxed at a higher rate than coal—for example, LNG imports face a 26pc levy in Uttar Pradesh—making it more costly for power generation. A study by Wood Mackenzie in July found that the levelised cost of generating electricity using solar photovoltaic has fallen to \$38MWh, the cheapest in Asia-Pacific and 14pc lower than coal-fired power. Increasing the use of gas therefore runs counter to ambitions for affordable electricity and poverty alleviation.

"Gas will struggle to displace cheaper fuels such as coal and petroleum coke," says FGE's Rajendran. "Policy changes, to improve air quality, are necessary to encourage users to switch away from high sulphur fuels to cleaner fuels such as gas, thereby unlocking India's LNG demand potential. India is yet to introduce a binding national policy with sufficient fiscal support."

Despite the lack of central government action, the Gujarat and Chhattisgarh state governments announced in 2019 that no new coal power plants will be built in their regions. Data compiled by the Global Coal Plant Tracker also shows that in India 491GW of planned coal capacity additions have been cancelled since 2011.

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