Is bullish Indian gas demand just a mirage?

A pivot towards coal in the absence of concrete plans for gas-price reform could see bullish projections for Indian gas demand growth evaporate. Damon Evans reports

GLOBAL gas trade is widely tipped to balloon in the coming decades on the back of surging demand from Asia. Specifically, both China and India are frequently singled out as major drivers expanding the market for internationally traded gas.

There is no denying that China is the fastest growing major market for liquefied natural gas (LNG). India, for its part, is often tipped to pick up the baton from China. India's potential demand for LNG imports is forecast at around 100 billion cubic metres (cm) – or roughly 72.5 million tonnes – by 2030, up from around 14 million tonnes in 2013. This signals that India will rival both Japan and China as a driver of global LNG trade within the next 15 years.

But there is considerable ambiguity over the assumptions underpinning bullish gas demand projections, particularly in relation to India, a new report *Gas Pricing Reform in India* from the Oxford Institute For Energy Studies concludes.

The share of gas in India's primary energy consumption will rise from 7-9% but will be nowhere near enough to displace either coal or oil (44% and 25% respectively) by 2035, the International Energy Agency (IEA) forecasts in its New Policies Scenario. These projections suggest that India's contribution to world gas demand will be lower than is generally perceived, said Anupama Sen, a senior fellow at the institute.

Future demand

Rather optimistic official government estimates put potential domestic gas demand in 2035 at nearly 400 billion cm, while the IEA and US Energy Information Administration (EIA) forecast a more conservative range of 90 billion to 200 billion cm. In comparison demand in 2013 was roughly 48 billion cm, while waning domestic production dropped to 34 billion cm. The gap was filled by imports of LNG, which have been steadily rising since 2003.

Still, as Sen points out, there is a great deal of uncertainty relating to India's push on coal for power. Some form of carbon pricing to make coal less competitive and regulatory reforms are needed to encourage the uptick in gas for power – the main driver of future gas demand growth. But given India's drive to universal electrification by 2019, coal is unlikely to be discouraged, implying a rather limited role for gas in power, reckons Sen.

And if international coal prices soften further – from the backing out of coal in Europe, China and the US – then India's bias to coal could rise even more.

For the gas markets, the crux of the problem is India's lack of clear pricing signals, which makes it difficult to come up with a confident and accurate assessment of India's potential as a major Asian gas market, added Sen.

Last November, India's newly elected Modi-led government took a bold step by deregulating oil prices and removing subsidies up to $60 per barrel of crude.

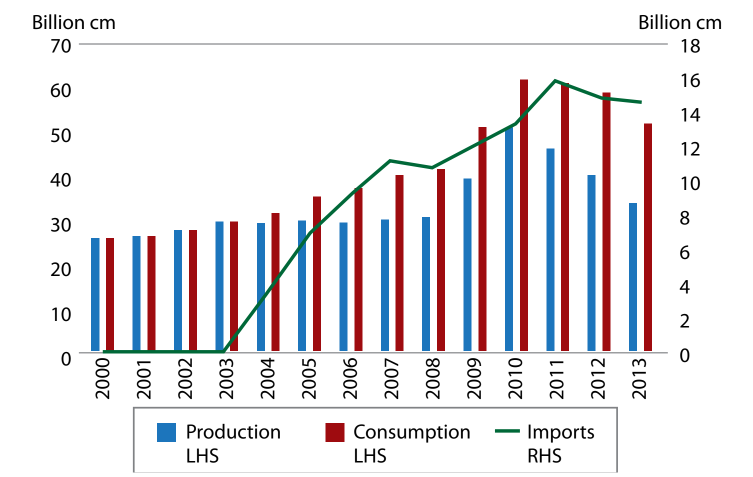
Many expected the brave step to be followed on the gas front, but it never happened. The outgoing government had agreed to a complicated formula that would have resulted in a gas price of $8.40 per million British thermal units (Btu), but it was never finalised.

The new government, which swept to power in May 2014, changed the formula to a basket of US, Canadian, UK and Russian domestic gas prices, essentially bringing the price up from $4.20 to around $4.66/million Btu – too low to incentivise new supplies – as of 1 April 2015.

Effectively, the domestic gas price in these gas supplier/exporter countries became the focus of gas prices in India.

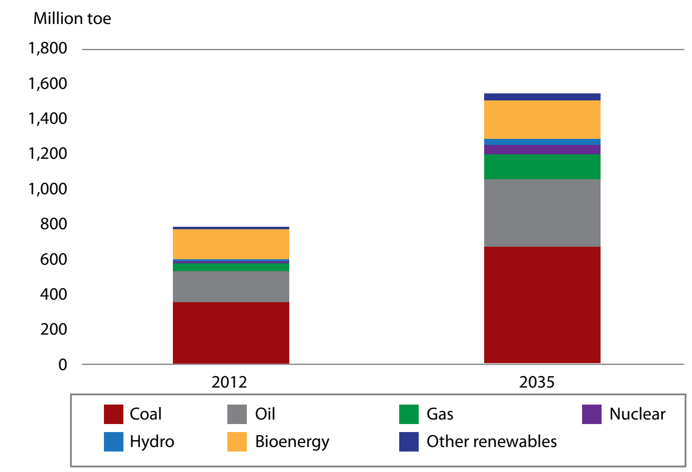
"In India, often prices are determined politically first, then a formula is found to fit the price," remarked, Fereidun Fesharaki, chief executive of consultancy Facts

Figure 1: Indian gas consumption, production and imports



Source: BP, PPAC

Figure 2: India's primary energy consumption



Source: IEA

Supply and demand: India's commitment to gas is in doubt

Global Energy (FGE). The Modi government was faced with a dilemma: whether to reform gas prices to encourage domestic exploration and production, whilst risking price increases downstream, economic knock-on effects on the agricultural sector and the potential loss of electoral support; or to continue to control gas prices whilst importing LNG at two or three times the price of the domestic price to make up the deficit between production and consumption.

Clearly, the policy is unsustainable in the long term as the revised formula will not allow new production to enter the gas-short market, said Fesharaki.

A decline in domestic production is unlikely to be fully reversed, but with prices at $8-9/million Btu production could be increased.

Gas prices of $8/million Btu could potentially incentivise 30 trillion cubic feet of additional reserves to be brought into production, if the fiscal regime for exploration is reformed too, estimated Sen.

But gas is uncompetitive with domestic or imported coal at gas prices above $5.20-6.20/million Btu, meaning the design of the power generation sector will need to be overhauled.

"India cannot afford to go all the way to use coal for everything. As in the case of China, there must be ways to limit coal use and allow gas to enter the energy mix," Fesharaki said in a note to clients.

Sen's most important observation from her analysis is that India has no clear long-term goal on the role of gas in its economy.

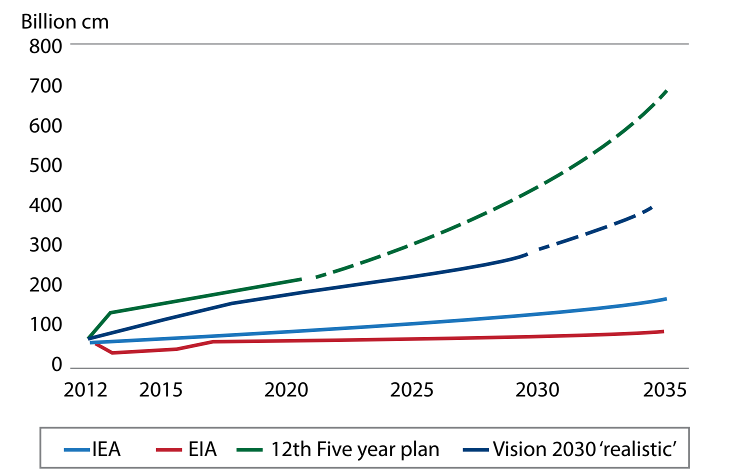
Unlike other big economies, such as China and Russia, that are making clear time-defined transitions towards a specific goal in gas pricing reform.

In India, although the government has pledged to review the pricing formula every six months – which is significant given long periods of inactivity in the past, it is yet unclear what the long-term or medium-term goal of reform is – for instance, to make gas competitive with coal for environmental reasons, to replace other fuels, such as oil, with gas for fiscal and budgetary reasons, or to retain a proportion of gas as backup generation in the pursuit of renewable energy, said Sen.

India has no choice but to deregulate gas prices one way or the other, reckons Fesharaki. And the sooner it does, the better it is for Indian energy security and Indian consumers. "Generations will applaud the government for fixing the problem once and for all," he added.

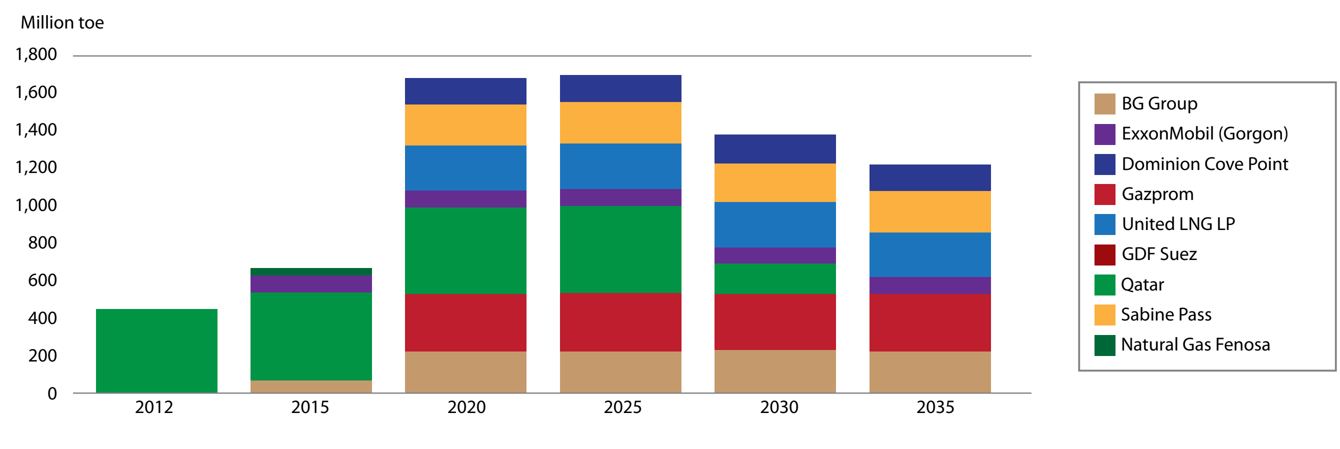
Whether they will or not remains to be seen. ●

Figure 3: Projections of India's demand/use of gas



Source: IEA, EIA, GoI, PNGRB

Figure 4: India's long-term LNG commitments



Source: The Oxford Institute For Energy Studies