

If the price is right...

Despite its potential, major companies have largely shied away from India's upstream sector. But they could be tempted if the government implements pricing reform. Damon Evans reports

INDIA is one of the world's fastest growing-energy markets, yet since BP's trailblazing \$7.2 billion entrance with Reliance Industries two years ago there has only been lukewarm interest in its upstream potential. But pricing reform offers a glimmer of hope.

The international oil companies (IOCs) are interested, particularly in India's deep waters, but aside from BP, they are simply not stumping up big sums of money to get through the door.

ConocoPhillips has signed a broad memorandum of understanding with state-run Oil & Natural Gas Corporation (ONGC). The US supermajor is evaluating 19 blocks picked by ONGC from its portfolio, but has made no financial commitment yet.

Shell is sniffing about too and could form an alliance with ONGC. If agreed, it could mark the Anglo-Dutch supermajor's return to exploration in India after selling its Rajasthan assets to Cairn 16 years ago.

Certainly, for the IOCs, there is no question about the demand. The International Energy Agency (IEA) forecasts Indian gas demand will triple by 2030, to more than 15 billion cubic feet per day (cf/d) – the fastest growth rate in the world.

At the same time gas production is falling. Data from energy research firm Wood Mackenzie shows it fell from 4 billion cf/d in 2011 to 3.35 billion cf/d last year.

The decline is a direct result of recovery problems at Reliance's technically tricky deep-water D6 Block in the Krishna Godavari (KG) basin off India's east coast.

At the same time, oil production is flat, rising by just 3,000 barrels per day (b/d) to 760,000 b/d in 2012 compared with 2011. This is hardly enough to meet the south Asian nation's growing appetite, which is forecast to increase by 1 million b/d to 4 million b/d by 2020.

More than four-fifths of India's oil needs are met through imports, which New Delhi hopes to cut to 50% of overall demand by 2020 and zero by 2030. This implies that oil production will expand drastically, a goal analysts say is unrealistic.

Nevertheless, India's upstream, particularly its deep waters, could hold substantial reserves of undiscovered hydrocarbons. Only seven of India's 26 sedimentary basins, spread over 3.14 million square kms, are now in production and just 22% of these areas have been explored, offering opportunities to find new reserves, ONGC told investors in February.

At the end of 2011, proved gas reserves stood at 1.1 trillion cubic metres (cm) and proved oil reserves at 5.8 billion barrels, according to the *BP Statistical Review of World Energy*.

But the government's indecisiveness is crippling its ability to harness the nation's upstream potential and slash rising import costs.

Alay Patel, an Indian specialist at Wood Mackenzie, told *Petroleum Economist* that it's the lack of clarity around policies and pricing that is deterring investors.

It's no secret that operators are wary after witnessing BP's struggles with government bureaucrats. BP and Reliance have been battling to agree higher pricing with New Delhi for gas – fetching \$4.2 per million British thermal unit (Btu) – from their KG-D6 field, which boosted domestic gas production by 26% when it came online in 2009.

At its peak the field produced more than half of India's domestic gas supply. But output fell from a high of 20

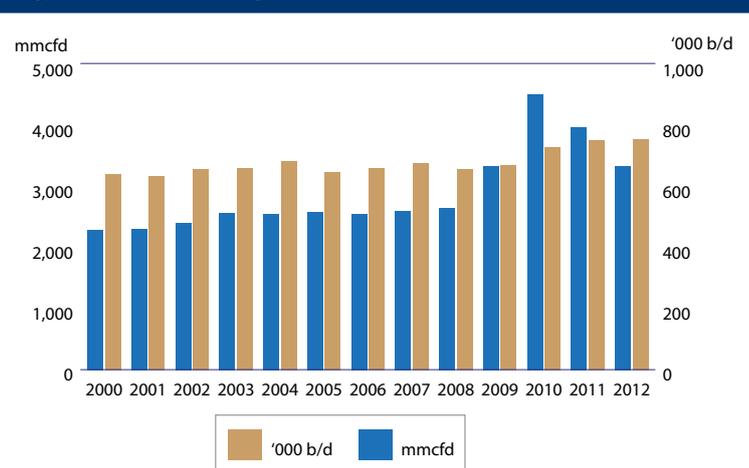
billion cm in 2010 to 11 billion cm in 2012. With the arrival of BP's technical clout, New Delhi expected the decline to be arrested, but the UK supermajor says the gas price remains too low to sign off on much-needed investment.

The Anglo-Indian venture has set aside \$5 billion to invest in a series of projects to develop around 4 trillion cf of discovered gas resources from the block. But the price is likely to rise when the production-sharing contract (PSC) is reviewed next year, if not before.

Analysts agree that gas prices remain too low to encourage new investment in upstream domestic supply, which has led to a surge in demand for liquefied natural gas (LNG), expected to rise from 14 million tonnes per year (t/y) last year – or 25-30% of domestic consumption – to 34 million t/y by 2025, says Wood Mackenzie.

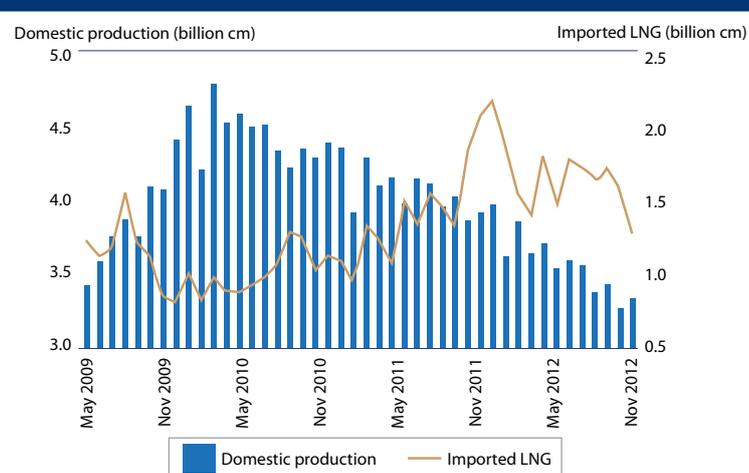
Although plans are afoot to double LNG import capacity over the next five years, it makes more sense to raise the

Figure 1: Gas and oil production



Source: Wood Mackenzie Upstream Service

Figure 2: Domestic gas production versus imported LNG



Source: Bloomberg, MoPNG, Bernstein Research estimates

price of domestic gas so that reserves that are now uneconomic can be developed, particularly discovered but not developed deep-water gas off India's east coast, says Neil Beveridge, an Asia-focused analyst at Bernstein Research.

Beveridge adds that with realised gas prices at just over \$4/million Btu or rather 25% of imported LNG prices, India's policies are unsustainable.

With its fiscal deficit ballooning he argues India will be forced to reform pricing. However, how quickly the government can implement proposed reforms remains to be seen.

Moving in the right direction?

With the formation of the Rangarajan committee last year, set up to review pricing and fiscal terms, it seemed the government was serious about finding a solution to attract much needed investment from technically savvy IOCs.

But that optimism faded earlier this year, when the committee's proposals, which included lifting gas prices to around \$8/million Btu, stalled, following protests from producers and consumers, as well as various government ministries.

The proposed pricing formula takes the average netback price of imported LNG at the wellhead of exporting countries over a 12-month period coupled with prices from three international pricing hubs, the US Henry Hub, UK National Balancing Point and netback prices at source of LNG supplies into Japan, to arrive at the final price of gas in India. Critics say that the overly complex formula has no relevance to domestic gas pricing.

While the Confederation of Indian Industry (CII), whose members include Reliance, ONGC, Cairn, BP and Shell, want prices to be benchmarked to imported LNG, currently selling at around \$16/million Btu into India on a spot basis.

Sashi Mukundan, head of BP in India, said the proposed pricing mechanism did not deliver a market price as promised in the New Exploration and Licensing Policy (Nelp) and that it would be unlikely to incentivise investments in technically challenging areas or high-risk exploration.

"Ultimately, what is critically important is, over the next five years, to have a clear transition plan to either a free-market pricing system or to LNG parity in the absence of gas-on-gas competition," Mukundan said in response to the Rangarajan proposals in February.

This stance is understandable. BP has a 30% stake in at least 10 mostly deep-water blocks, while its downstream joint venture with Reliance will source and market natural gas. On the other hand, consumers from the fertiliser and power generation sectors, which pay around \$4/million Btu for gas, say the proposed price is unaffordable.

Subsequently, a new committee has been formed to review the Rangarajan findings with a final decision not expected until the end of the year.

For Patel, it's now a question of intent. "Is the government really taking prudent steps or simply just delaying the reforms, which were expected to take effect earlier this year".

Analysts say the market can absorb prices of around \$8-9/million Btu without the government shouldering heavy subsidies.

But aside from pricing, proposed changes to the fiscal structure have also drawn criticism from producers.

New Delhi is proposing to remove cost recovery terms from PSCs in favour of a more complicated system based



Money matters: Economic policy is holding back the Indian upstream sector

on revenue sharing and production. The government believes Reliance has inflated costs at D6, which eroded the government take. Consequently the oil ministry is backing the fiscal proposal, which would maximise its revenues.

But Patel, says that by trying to protect itself the government might do even more damage to the industry and its coffers.

The move is widely seen as counter productive, as a cost recovery element is crucial to lure operators, especially in the deep waters where risks are higher.

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For now though, action in the deep waters remains stagnant. Aside from fiscal uncertainty deterring new entrants, much of the licensed deep-water acreage is yet to be explored, largely due to a complex web of bureaucracy.

BG Group and BHP have both seen their operations stalled in the Western basins as the ministry of defence has raised objections. BP has also been affected to a lesser extent.

Eni is present too, but the Italian major is seeking to relinquish its deep-water Andaman basin blocks, mostly because of poor prospectivity.

For now it's far from clear just how prospective India's deep-waters are or when its discovered gas, deemed uneconomic for the time being will be developed. But streamlining policy, as well as offering stability in the decision making process, would go a long way to encouraging existing investors and new entrants alike.

Until such time, India will continue paying the price for costly energy imports. ●