

COVER STORY
SECURING OIL

THE GAME PLAN

INDIA'S ENERGY PUSH

AMID THE GLOBAL CLASH BETWEEN SAUDI - LED OPEC & US SHALE OIL PRODUCERS, INDIA IS CRAFTING A BALANCED STRATEGY TO MINIMISE THE ECONOMIC SHOCKS OF RISING OIL PRICES.

By Anilesh S. Mahajan
Illustration by Nilanjan Das

THIS BRIEF IS CLEARLY SPELT OUT.

Dinesh Kumar Sarraf, appointed Chairman of the beleaguered Petroleum Natural Gas Regulatory Board, or PNGRB, in December, has to debottleneck and ensure a ramp-up of the infrastructure required for gas transportation in the country. Sarraf is central to Petroleum Minister Dharmendra Pradhan's plans to reduce India's consumption of oil and scale-up the gas component in the energy basket – from the existing 6.2 per cent to 15 per cent over the next decade.

The attempt to empower PNGRB signals that Pradhan means business.

India is diversifying its basket of oil resources, going as far as the western hemisphere

Deepening relations with oil-rich West Asian countries

Focus on debottlenecking the nuclear sector

Big thrust on building gas infrastructure

India is trying to build a parallel oil and gas buyers club along with China and Japan

Tapping renewable resources with emphasis on solar energy

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Along with Sarraf, the government appointed former director at Oil India Ltd. (OIL), S. Rath, and legal expert S.S. Chahar as its other members. Earlier, Sarraf's former colleague at ONGC, S.K. Garg, was alone on the board that was defunct for all practical purposes. Sarraf, who retired as CMD of ONGC recently, is the first non-bureaucrat to head PNGRB and, being an insider, this is an extension of his previous job.

Just five years ago, gas was 11 per cent of the energy portfolio but a slump in domestic production came as a body blow. This time, the plan is well thought out. In the past, there were efforts to replace coal with gas but, since coal is domestically produced and its price is capped, there was hardly an economic rationale for the move. India also aims at taking renewables to 19 per cent of the energy mix, from a mere three per cent now, paring oil consumption for generating electricity.

India consumes oil largely for transportation, heating purposes in industries and generation of electricity off-grid – a large portion of this can shift to gas. The handicap was inadequate infrastructure and regulatory support. And that's why Sarraf has a pivotal role to play. Meanwhile, Railway Minister Piyush Goyal has indicated the phasing out of the bulk of

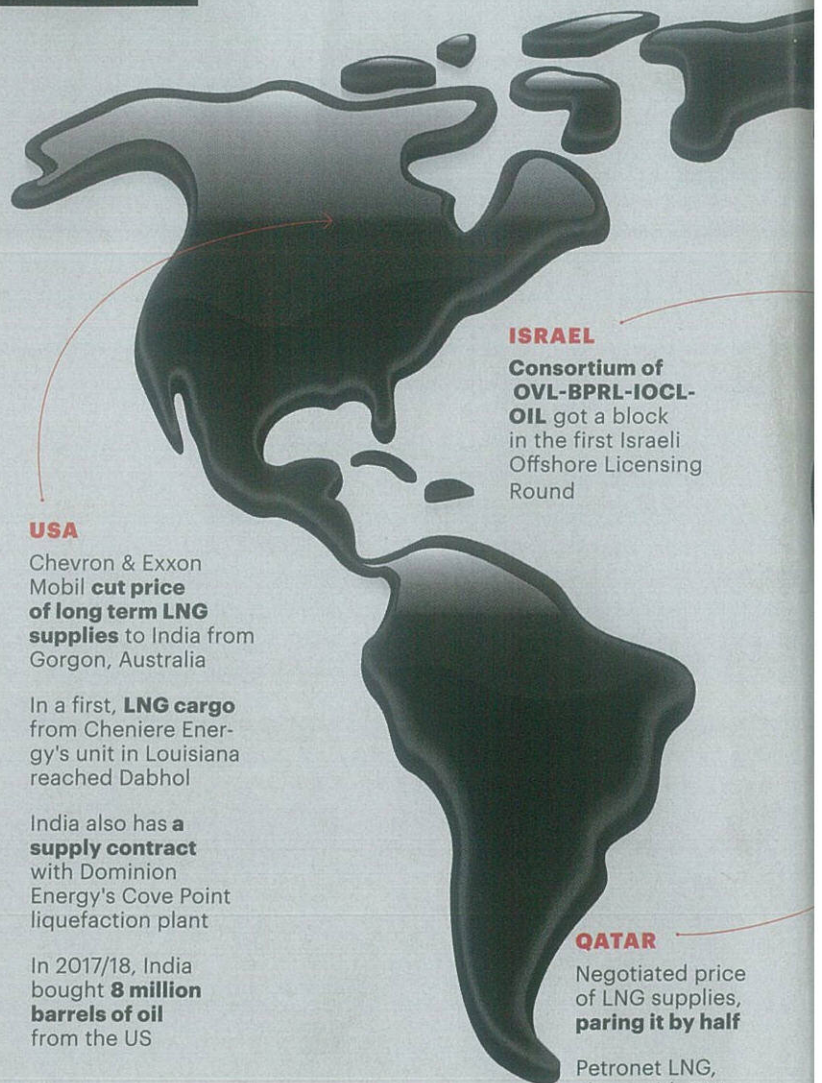


THE OPEC OIL
EMBARGO IS LIKELY
TO EXTEND WELL
INTO 2019.

MOHAMMED BARKINDO
Secretary General, OPEC

FRIENDS
INDEED

INDIA IS
TAPPING OIL
AND GAS
RESOURCES
ACROSS
THE GLOBE,
BUILDING
BRIDGES WITH
OLD AND NEW
FRIENDS



UAE

Abu Dhabi National Oil Co agreed to store about **6 million barrels of oil** at **Mangalore petroleum strategic reserve**

ISRAEL

Consortium of **OVL-BPRL-IOCL-OIL** got a block in the first Israeli Offshore Licensing Round

USA

Chevron & Exxon Mobil **cut price of long term LNG supplies** to India from Gorgon, Australia

In a first, **LNG cargo** from Cheniere Energy's unit in Louisiana reached Dabhol

India also has a **supply contract** with Dominion Energy's Cove Point liquefaction plant

In 2017/18, India bought **8 million barrels of oil** from the US

QATAR

Negotiated price of LNG supplies, **paring it by half**

Petronet LNG, along with OVL, is in talks with Qatar Gas to **buy equity in its gas asset and LNG facility.**



COVER STORY
SECURING OIL

SHEIKH VS SHALE

OPEC is worried that US shale oil and gas would erode the dominance of crude oil in the global energy mix

In January 2017, OPEC countries decided to cut oil production to prevent the slide of oil below \$40 a barrel

The continuous rise in US shale production last year offset part of the OPEC-Russia production cuts and capped oil price gains

Saudi Arabia along with Qatar, Angola and Kuwait is pushing for a further cut in oil supplies along with non-OPEC countries like Sudan, Brunei and Mexico

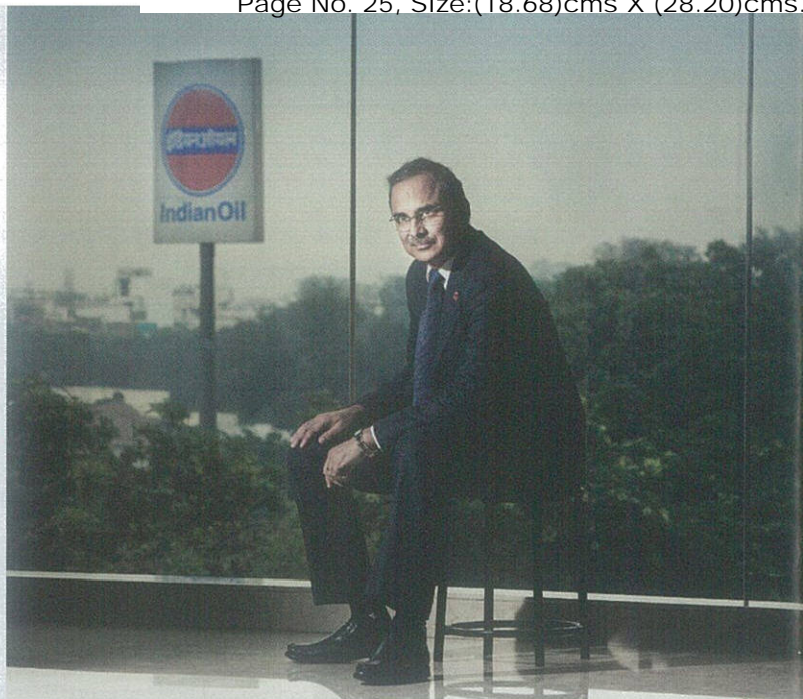
diesel locomotives in the next few years, replacing them with electric ones.

Still, securing its oil needs remains the primary concern of India at the moment. At over \$70 a barrel, oil prices have risen substantially from the 13-year low of \$26.55 in January 2016.

India imported 213.9 million tonnes (MT) of crude last fiscal, about 78 per cent of its demand. Indeed, in 2017/18, India spent \$87.72 billion to buy oil from the international market, making it the bulkiest item on the country's import bill of \$417.57 billion. Oil and gold are the two commodities that have kept the trade deficit high – in the last fiscal, trade deficit was more than \$13.7 billion. Obviously, soaring oil prices make life of the country's economic planners difficult. Chief Economic Advisor Arvind Subramanian in his latest economic survey counted this as a big risk to the Indian economy, pointing out that every \$10 a barrel rise in crude prices slows growth by 0.2-0.3 percentage points and fuels WPI inflation by 1.7 per cent.

Pradhan is keen on tapping energy resources across the globe.

PHOTOGRAPH BY VIVAN MEHRA



OIL COMPANIES HAVE TO TRANSFORM INTO INTEGRATED ENERGY COMPANIES

SANJIV SINGH, CMD, IOCL

CAUGHT IN THE CROSSFIRE

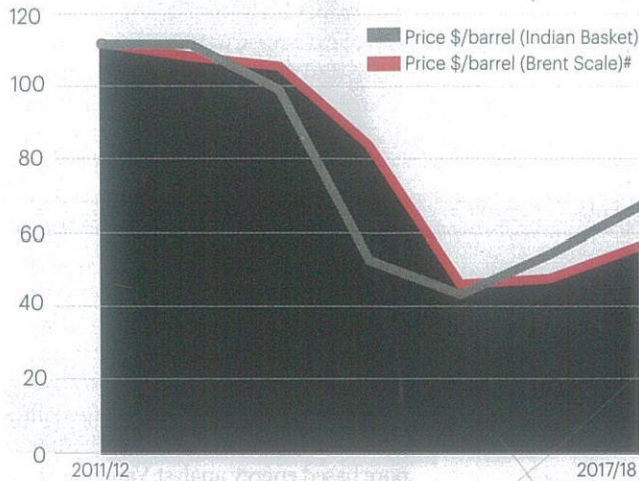
The global war between Saudi Arabia-led OPEC and the US shale producers is seen as the biggest event in the global energy market after the oil shock of the 1970s. India has been dealt a double whammy. The steady rise in US shale production has offset part of the OPEC-Russia production cuts and capped oil price gains last year. Soft oil prices make investments in domestic exploration unviable. Spurt in prices, meanwhile, send import bills soaring.

International Energy Agency's Executive Director Fatih Boroli and OPEC Secretary General Mohammed Barkindo didn't indicate any easy and near-term solution to *Business Today*. In this situation, Pradhan's job becomes much more complex. Barkindo is confident that the oil embargo will extend into 2019. Countering this, US Under Secretary for Energy, Mark Wesley Menezes & other pro-US analysts said that two-third of this cut can be filled by enhanced shale output in North America. The only option for Pradhan is to spread the risk. "Diversification means nothing but finding new partners in West Asia, which is nearer to India and reaching out to old friends," says former diplomat Talmiz Ahmad. India has actually increased the share of West Asia in the crude oil basket, from 58 per cent to 64 per cent, in two years, along with getting more oil from Africa.

Meanwhile, on March 30, India's import facility at Dabhol received the first cargo of LNG from Cheniere Energy's unit in Louisiana. GAIL already has a 3.5 MTPA contract with the company, along with a 2.3 MTPA agreement with Dominion Energy's Cove Point liquefaction plant. Amos Hochstein, former special envoy of the US President Barack Obama on International Energy, explains that LNG from the US is competitively priced for Indian importers. "Spot cargoes are

CRUDE PRICES

Surging on geopolitical concerns



Calendar year Budget 2018/19 estimates: average crude oil price at Indian basket will be \$57.50.

THE ENERGY MIX

Renewables to rise as coal slides

FUEL	2013	2016	2030	2030#
Oil	23	23	23	23
Gas	7	6.2	7	15
Coal	44	48	34	27
Bio-fuel and waste	24	20	12	10
Nuclear	1	1	3	5
Renewable	2	3	19	20

#: Government of India estimates; Figures in per cent
Source: BP Statistical Review 2016, industry & government estimates

available for \$3-\$3.5 per unit, if you add another \$1.5 for transportation to reach India. These are good deals," he said. Last year, India became an associate member of the US-led International Energy Agency, or IEA, a buyers group. On April 12, after the culmination of 16th edition of International Energy Forum in New Delhi, Pradhan joined hands with arch rival China to buy oil cargoes together. Bulk deals can attract additional discounts. Together these two countries consume 17 per cent of crude. India hosted this biannual event after 22 years, where company heads, ministers and key diplomats of buyers, suppliers and producers of oil and gas sit together to iron out challenges.

RETURN OF THE PERSIAN FRIEND

In mid-February, Iranian president Hassan Rouhani came to New Delhi with his oil minister Bijan Zanganeh to deepen strategic relations. The Persian country is becoming critical to reach Central Asia and Afghanistan bypassing Pakistan. India, a major buyer of oil from Iran, began reducing economic relations with it after the United Nations imposed sanctions against the country for pursuing its nuclear programme. The two countries are building bridges again. In 2017/18, India imported 19.8 MT, on an average 396,000 barrels a day, from Iran. To sweeten the deal, Iran reduced the freight charges by nearly \$1 a barrel, which was backed by a commitment from India to increase imports to nearly 500,000 barrels a day.

This is in addition to India spending its resources to build two berths at Chabahar port and laying a railway line connecting the port with Zahedan on the Afghanistan border. Iran is a critical part of India's strategy to curtail Pakistan and China's influence in the region. Iran is a part of OPEC but has still refused to adhere to the diktat of cutting down oil production. The Chinese are the biggest oil buyers from Iran.

Pradhan, however, is playing his cards smartly. In the first week of April, Iran agreed to take the gas produced from the Farzad-B field, discovered by ONGC Videsh Ltd. (OVL), in the Persian Gulf. This means that India will now not have to develop an LNG export terminal to ship the gas. The OVL-led consortium was finding it economically difficult. Pradhan, in turn, has offered to buy equity in the South Azadegan oil field.

COVER STORY
SECURING OIL**BRIDGING THE GULF**

Some 20 days before hosting Rouhani, India had United Arab Emirates' (UAE) crown prince Mohammed bin Zayed bin Sultan Al-Nahyan as chief guest on Republic Day. UAE has already committed investment of \$75 billion for modernisation of Indian infrastructure. This doesn't include Abu Dhabi National Oil Company's (ADNOC) agreement to fill half of the strategic oil reserves in Mangalore.

Various diplomats told *Business Today* that, in the last three years, India has understood the needs of West Asia like never before. The biggest takeaway of this is 'de-hyphenated' relations. "Today, you do business with Saudi sheikhs as well as with Israel, US and Iran. Your relationship is not dependent on their mutual relationships," says a senior bureaucrat. Christof Ruhl, former chief economist at British multinational BP and current Global Head of Research at Abu Dhabi Investment Authority, explains this as a new takeaway, where the relationships are graduating, from being mere buyers and sellers, to a partnership. Pradhan needs to tread cautiously. In 2016, he convinced Qatar's RasGas to renegotiate the gas supply contract and change the formula. As a result, the price of LNG from their biggest seller became half. Now, he is sending Petronet LNG and OVL team to consider picking stakes in



WE'LL BUILD AN ANNUITY BASED BUSINESS MODEL FOR (GAS) PIPELINES.

D.K. SARRAF
Chairman, PNGRB

GAS PAINS...

Eight big cross country pipeline projects are stuck

15,000 km Gas Grid is still a pipedream

City Gas Distribution Project planned in **174 districts** but there are teething troubles

Domestic **gas production not expected to improve** in the next five years

About **25 GW of gas-based power plants face shutdown** because of pricing issues

...BUT A MAJOR CLEAN UP IS UNDER WAY

Field Development Plan (FDP) and investments cleared for ONGC's KG block along with Reliance's KG D6 and satellite fields

GAIL restructuring - separating the marketing and infrastructure divisions - will ensure a more level playing field

The new City Gas Distributor (CGD) policy is liberal, allowing operators to import their own gas

LNG import terminals should reserve **20 per cent** of the capacity for third-party access

India plans its **first gas trading exchange**, similar to the online platforms that trade in power

Qatar Gas' assets. "The conversation is in a preliminary stage, but we are sending the team to understand the assets and see the data," says Prabhat Kumar, MD of Petronet LNG, confirming the development. Then, Kuwait Oil is hoping to sign a deal to buy a stake in an Indian refinery. "India is an important destination to us, and we are at final stages of negotiations," says Nabeel Bourisli, CEO of Kuwait Oil's international arm.

Meanwhile, an Indian consortium signed an MoU with Saudi Aramco for their 50 per cent investment in a mega-refinery along the country's west coast. "This is more beneficial for Gulf countries. They are looking at assured buyers and the petro-chemical complexes will further add to their margins," says Singapore based energy analyst Vandana Hari.

Recently, both Kuwait and Saudi Arabia cut production owing to their OPEC commitments but they are significantly losing market share to rivals Iran and Iraq, in India and beyond. "These refineries will ensure that there is enough space for them to bounce back once embargo goes" says Deepak Mahurkar of global consultancy PwC's India chapter.

ALL THAT GAS

Back home, Pradhan in mid-January triggered an uproar, when he expressed his intention of splitting the marketing and construction wings of the pipeline business of the government backed gas monopoly GAIL. His logic was that GAIL should focus entirely on construction of pipelines, not marketing. "This can be done by anyone (oil & gas marketing company), country needs a robust infrastructure," the minister said.

This was not a comment made without context. He sees India ready for a surge in gas consumption. The fall in production from KG D6 has hamstrung India's plans to turn to gas as an alternative to oil. About 25 GW of gas based power plants are more or less stranded with near to no hope of revival. This time Pradhan is creating a market and infrastructure first before opening up gas supplies.

Here, the appointment of Sarraf and split of GAIL fits really well into the



PHOTOGRAPH BY SHEKHAR GHOSH

WE HAVE RENTED 10 NEW RIGS TO SPEED UP EXPLORATION ACTIVITY

SUDHIR MATHUR, CEO, Cairn India

story. The slide in gas supplies also means that some eight trunk pipelines have not been constructed. "We can't blame the developers alone. We are planning to change the business model to annuity based, similar to highways, to speed up construction of pipelines," Sarraf told *Business Today*. Together, these pipelines will cover 16,000 km.

A senior official in petroleum ministry told *Business Today* that the need of the hour is to take the pipelines to the eastern part of the country. In the last Union Budget, an amount of ₹5,176 crore was kept aside for the Jagdishpur-Bokaro-Haldia-Dhamra pipeline. This was 40 per cent of the project cost. Similarly, Gujarat State Petronet Ltd (GSPC) is seeking budgetary support of ₹6,600 crore for completion of the Mehsana to Bathinda-Jammu-Kathua-Srinagar pipeline. "These pipelines are national assets, you can't succeed in spreading gas and cutting down oil without them," says Dilip Khanna of EY. B.S. Negi, former member of PNGRB, says that the 15 per cent target is possible but he recommends a policy and regulatory overhaul. This includes a more liberal use of infrastructure and more availability of gas. Against the demand of 377 mmscmd, India can currently supply only 161 mmscmd and has to import the rest. Sarraf is convincing importers to reserve 20 per cent of the capacity for third-party access. "Only then India can set up trading hubs," says A.K. Balyan, former MD of Petronet LNG & current CEO of Reliance ADAG's oil vertical.

Sarraf is expected to make pipeline construction and CGD more business friendly and easier to seek finance. Just before his joining, PNGRB rolled out the seventh round of bidding for 11 cities, but got only a single response. The eighth round was a flop show too. Sarraf-led PNGRB made changes in the bid criteria with more weightage to the work programme—like the number of connections, CNG stations, etc.

He plans to roll out CGD in 174 districts covering 86 geographical areas. To put things in context, right now CGD is available in less than 100 cities. This along with nearly five crore new LPG connections under the PM Ujjwala Yojna is already cutting down on the contribution of bio-fuel and waste in the energy mix. "The future of every oil company is in transforming itself into an integrated energy company," remarks Sanjiv Singh of IOCL.

BIG PLANS

Sitting in his office at Gurgaon's plush Cyber City, Cairn India's CEO Sudhir Mathur explains his plans to revive investments in their blocks, including Barmer & gas fields of Krishna Godavari basins in the eastern coast of India. Two factors will work for him: Pradhan's cleaned up domestic oil and gas production policy, with a more liberal Hydrocarbon Exploration and Licensing Policy (HELP) and Open Acreage Licensing Policy (OALP) along with the recent upswing in oil prices. The new policy allows marketing and pricing freedom for the gas producers. The OALP also allows carving out the block by the operator instead of waiting for the Directorate General Of Hydrocarbons or DGH—the watchdog of the petroleum ministry. Mathur is hoping to extract more than 225,000 barrels of oil a day from the Barmer block over the next one year. "We have rented 10 new rigs to speed up the exploration activity," says Mathur. Similarly, others too have stepped up to produce more gas and oil in the mid-term. Sarraf, before joining PNGRB, fast-tracked investments at the iconic KG-DWN-98/2 block. Reliance Industries and its partner BP plc carried on with their plans of developing satellite fields to produce more gas from the KG basin. There are other smaller discoveries on the western coast by ONGC that are expected to come up over three years.

Pradhan's initiatives might take some time to bear fruit but a fresh beginning has been made. A new dawn is in the offing. **BT**

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