



### **Crude oil steadies on Middle East ceasefire**

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Crude oil prices ticked up in early trade after falling in the previous session as investors took stock of a potential ceasefire between Israel and Hezbollah, weighing on oil's risk premium. Brent crude futures rose 29 cents to \$73.2 a barrel as 0430 GMT while US WTI crude futures were at \$69.2 a barrel, up 26 cents. Both benchmarks settled down \$2 a barrel on Monday following reports that Lebanon and Israel had agreed to the terms of a deal to end the Israel-Hezbollah conflict, which triggered a crude oil sell-off. For the time being, markets are eyeing Trump's plan to increase US oil production. REUTERS

## India's transport future balances fossil fuels and clean tech

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New Delhi, 26 November

Fossil fuels will continue to play an important role in India's transportation sector, even as alternative fuel technologies see multifold growth. A study titled 'Road map for Indian Transition in the Transport Sector', released by TERI — The Energy and Resources Institute, concludes that fossil fuel demand for transportation, even in the most ambitious decarbonisation scenario, will begin to decline after 2050-51 and fall below FY31 levels by FY71.

The study says that natural gas will dominate fossil fuel demand, gradually replacing petroleum products. In the highly ambitious decarbonisation scenario, fossil fuel demand is projected to reach between 188 and 206 million tonnes of oil equivalent (Mtoe) by FY71, with natural gas accounting for 99 to 157 Mtoe.

This study is especially relevant as numerous countries, including India, have committed to achieving net-zero emissions by 2070.

According to the projections, the number of on-road vehicles in India will increase fivefold, from 204 million in 2019-20 to 966 million by FY71. However, the dominance of two-wheelers will decrease as the adoption of four-wheelers grows. By FY31, two-wheelers will account for 72 per cent of all on-road vehicles (down from 74 per cent in 2019-20), but this share will decline further to 58 per cent by FY51 and 53 per cent by FY71.

In contrast, the share of four-wheelers will rise from 21 per cent in FY31 to 33 per cent in FY51 and 36 per cent by FY71.

This shift is also evident in the EV market. The study outlines four potential scenarios for EV adoption, ranging from a baseline scenario to a highly ambitious one. Projections for the number of EVs in FY71 vary considerably, from 220 million in a conservative decarbonisation approach to 858 million in the ambitious scenario. EV battery demand will also vary widely, ranging from 4.5 terawatt-hour (TWh) to 23.5 TWh.



- IndianOil's Pipelines Division donated two 10-seater Vehicle Mounted Toilets to Gautam Buddha Nagar Police Commissionerate, handed over by Senthil Kumar N, Director (Pipelines), to Commissioner Laxmi Singh, IPS. These facilities aim to enhance public hygiene, especially for women.

# Maha set to lose out on mega refinery, talks on with Gujarat & Andhra

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**New Delhi:** Virtually ruling out a mega oil refinery in Maharashtra's Ratnagiri, the govt is holding talks with Saudi authorities for two refineries in Gujarat and Andhra Pradesh, each with an annual capacity of 10-15 million tonnes, along with petrochemical facilities.

While ONGC has been proposed to partner Saudi Aramco for the refinery in Gujarat, BPCL will be roped in for the one planned in Andhra. For the Saudis, the refineries will enable the sale of crude to India, given that the share of oil from the Gulf nation in the Indian basket has decreased over the years.

The discussions, which are in advanced stages, come

## 4TH IN GUJARAT

- Land acquisition in Maha's Ratnagiri has been slow due to **resistance from locals**
- Gujarat, which already has refineries in Jamnagar and Vadodara, is likely to get a 4th
- Andhra oil refinery was **proposed during bifurcation**, CM Naidu wants Centre to deliver on promise

ahead of PM Modi's meeting with the Saudi leadership next month to tap into the oil-rich nation's earlier promise to invest \$100 billion in India, which has been slow to come by despite the govt identifying railways, ports and waterways as areas of interest.

► **Refinery idea, P 24**



# Refinery idea 1st floated during AP bifurcation

► Continued from P 1

While the refinery in Ratnagiri was among the identified projects, progress on land acquisition has been slow due to resistance from locals.

Besides, there was a growing view that it would be tough to have a 60-million-tonne refinery, for which Indian Oil, Hindustan Petroleum Corporation Ltd (HPCL) and Bharat Petroleum Corporation Ltd (BPCL) had signed a preliminary agreement with Saudi Aramco, with Adnoc joining in later.

Gujarat, which already boasts of refineries in Jamnagar (Reliance and Nyara Energy) and Vadodara (Indian Oil), is likely to get a fourth one. In case of Andhra Pradesh, an oil refinery was proposed at the time of bifurcation of the state, and the govt led by N Chandrababu Naidu, who is now part of NDA, is seeking that Centre delivers on its promise.

While the configuration and other details have not been worked out, sources indicated that the projects are at discussion stage, along with



In Ratnagiri, progress on land acquisition has been slow due to resistance from locals

other proposals, some of which will be faster to implement. "Oil refineries take time, and the two proposed projects will require more detailed work before we progress on them," a source told **TOI**.

The Saudi side is also seeking comfort in investment promotion through a revised bilateral investment treaty, an issue on which finance ministry has had concerns. "It could be an added sweetener, but since the deal will be at the level of two govts, there may be some other way out," another source said.





AK BALYAN

In order to ensure abundant availability of natural gas at affordable prices, the government has introduced various policies and measures to increase its share of the fuel in the country's primary energy mix from present level of about 6 per cent to 15 per cent by 2030. This plan is part of a broader strategy to diversify energy sources and cut down dependence on fossil fuels.

Yet, a critical challenge in boosting the share of natural gas in the energy economy lies in the removal of certain policy bottlenecks and opening up to make it more competitive, particularly with respect to current framework for the fuel's transportation. At present, pipeline owners also act as operators, controlling not just the infrastructure but also access to it. This dual role leads to conflict of interest that undermines fair competition and transparency within the sector. Addressing this structural issue is essential for ensuring the success of India's energy transition. The establishment of an Independent Gas System Operator (IGSO) offers a viable solution, as it would create a level-playing field for all market participants. By separating ownership from operation, an IGSO could significantly enhance the efficiency, transparency, and reliability of gas delivery, contributing to a more robust and equitable energy market and, thereby, enhancing gas contribution in the primary energy mix.

**PIPELINE OPERATIONS**

India's natural gas infrastructure is extensive, with pipeline network criss-crossing the country, ensuring gas can be delivered from sellers to buyers. However, the process of accessing these pipelines is far from straightforward. Unlike in other matured and developed gas markets of the world, the same entities that own the pipelines also manage their transportation and marketing operations which has led to issues like delayed responses, selective approvals and lack of transparency in how capacity is allocated. For instance, while pipeline operators may quickly approve capacity request for their own trade, they can delay or even deny access to third parties, citing technical reasons or taking more than the required time to respond.

In addition to delayed responses, there is often a lack of clarity around penalties and capacity overflows. When third-party users exceed their booked capacity, they may face penalties that are not uniformly applied across the board.

# Natural gas delivery system must improve

**CHANGE TACK.** Having an independent operator will ensure greater efficiency and transparency, which will help increase the share of gas in the energy mix



JOTHI RAMALINGAM S

For the pipeline owners' transactions, these penalties are often waived or reduced, adding another layer of complexity. This lack of transparency creates an uneven playing field, where neither third-party participants nor regulators have full visibility on capacity allocation or the methodology behind levy of imbalance charges.

An independent Transmission System Operator (TSO) can address these issues by acting as a neutral party responsible for the allocation and management of pipeline capacity. The TSO model has been successfully implemented and accepted globally, where it has reduced conflicts of interest and ensured a fairer distribution of resources. In the Indian context, a TSO would offer the following advantages:

**Ensure non-discriminatory access:** An independent GSO would guarantee that all market participants have equal access to the pipeline network, whether they own pipelines or not. This would prevent pipeline owners from giving preferential treatment to their transactions and ensure that the market operates on the principle of equity.

**Increase transparency:** The GSO would provide clear, real-time

**India's natural gas sector needs to move towards a more transparent and equitable system for pipeline access**

information about capacity availability, bookings, and penalties by separating pipeline ownership from operations. This approach would also streamline operations. Capacity seekers would benefit from a single-window, one-click system to book capacities across multiple pipelines, eliminating the need to approach each individual pipeline owner along their route. This would significantly simplify the process and improve overall efficiency for market participants.

**Simplify contracts and reduce conflicts:** In the current system, some pipeline operators bundle gas sales and transportation contracts which can make it difficult for third-party sellers to compete.

With an independent TSO in place, these contracts would be separated, making it easier for different market players to participate. One contract would cover the purchase of gas while a separate contract would govern its transportation. This separation would reduce conflicts and ensure that the rules of the market are applied uniformly.

**Improve efficiency:** Currently, delays in accessing pipeline capacity can slow down the trading process, affecting the timely delivery of gas. An independent TSO would help avoid bottlenecks and ensure that gas reaches its destination on time by managing the flow of gas across all pipelines in a coordinated way.

**Level-playing field:** Pipeline imbalances are not treated equally

between contract and common carrier, giving advantage to pipeline owners. An independent TSO would treat all imbalances equally and would ensure a level-playing field.

**Hub operations:** System operators can also operate specially designed physical hubs for creating liquidity at few area/points.

**THE PATH FORWARD**

India's natural gas sector needs to move towards a more transparent and equitable system for pipeline access. An independent TSO could be the key to solving many of the current challenges, from discriminatory practices to delays and lack of transparency. The government is said to be already considering establishing an independent GSO, in line with Grid India, the electricity system operator. When implemented, this move would be a significant step towards ensuring seamless availability of pipeline capacity for carrying natural gas and reducing carbon footprint in the economy. An independent GSO would help make India's natural gas market more competitive, efficient, and reliable as it would remove conflicts of interest and ensure that pipeline capacity is managed fairly and transparently.

This shift would also align with India's broader goal of increasing the share of gas in energy mix.

The writer was former CMD of Petronet LNG and former Director, HR, ONGC



## भारत में एलपीजी सिलेंडर की कीमतें दुनिया भर से सबसे कम हैं: पुरी

नई दिल्ली, (पंजाब केसरी): एफआईपीआई तेल एवं गैस पुरस्कार



हरदीप सिंह पुरी

2023 समारोह को संबोधित करते हुए पेट्रोलियम और प्राकृतिक गैस मंत्री हरदीप सिंह पुरी ने कहा कि

भारत में एलपीजी सिलेंडर की कीमतें दुनिया भर में सबसे कम हैं। उन्होंने कहा कि पीएमयूवाई परिवारों के लिए इसकी कीमत छह रुपये प्रतिदिन और गैर-पीएमयूवाई परिवारों के लिए 14 रुपये प्रतिदिन है, जो कि दुनिया में सबसे कम है। इस दौरान अपने संबोधन में पुरी ने कहा कि भारत सरकार ने देश में हाइड्रोकार्बन उद्योग के अपस्ट्रीम, मिडस्ट्रीम और डाउनस्ट्रीम क्षेत्रों में ऐतिहासिक सुधार किए हैं। इन

सुधारों, जिनमें कच्चे तेल की आपूर्ति का विविधीकरण, गैस मूल्य निर्धारण सुधार और नो-गो क्षेत्रों को खोलना शामिल है। समारोह के दौरान 20 से अधिक पुरस्कार श्रेणियों में उत्कृष्टता, नवाचार और नेतृत्व को सम्मानित किया गया। जिसमें "डिजिटल रूप से उन्नत कंपनी ऑफ द ईयर", "सतत रूप से बढ़ती कॉर्पोरेट ऑफ द ईयर", "इनोवेटिव ऑफ द ईयर" और "ऊर्जा क्षेत्र में सर्वश्रेष्ठ स्टार्टअप" जैसे पुरस्कार शामिल हैं। पुरुष और महिला दोनों श्रेणियों में "यंग अचीवर ऑफ द ईयर" जैसे पुरस्कार दिए गए। सम्मानित किया गया को भी मान्यता दी। कार्यक्रम में पेट्रोलियम एवं प्राकृतिक गैस और पर्यटन राज्य मंत्री सुरेश गोपी, पेट्रोलियम एवं प्राकृतिक गैस मंत्रालय के सचिव पंकज जैन और विभिन्न तेल/गैस सार्वजनिक उपक्रमों के सीएमडी भी मौजूद रहे।