

How coal gasification can ensure energy security

Experts say it could work as a transitional bridge technology in the country's long-term energy transition strategy

bl.explainer

Richa Mishra

The buzzword now is 'surface gasification', that will help India take advantage of its massive coal reserves. It not only redefines clean coal but also works towards the nation's energy security by reducing vulnerabilities to external supply shocks and diversifying energy applications.

Surface Gasification represents turning low-value, unusable waste coal into high-value chemical 'gold'.

What is Surface Coal/Lignite Gasification?

Surface Coal/Lignite Gasification is a chemical process that converts solid coal or lignite mined from the earth into a versatile synthetic gas (Syngas) above ground.

Instead of burning the coal directly, this process uses high temperature, high pressure, steam, and limited oxygen to break down its molecular structure.

When did India first speak about it?

In 2018, the Union Government announced its first coal gasification-based fertilizer plant at Talcher. This marked the initial shift

toward clean coal technologies, which quickly evolved into a core national energy strategy.

August 2020 saw India formally declaring its massive national goal to gasify 100 million tonnes (MT) of coal by 2030, projecting investments worth over ₹4 lakh crore.

In May, the government significantly scaled up its efforts, with the Union Cabinet approving a Scheme for Promotion of Surface Coal/Lignite Gasification Projects backed by a massive ₹37,500-crore outlay.

The ground was laid for this in April, when the Coal Ministry executed Coal Mine/Block Production and Development Agreements with Reliance Industries Ltd securing the Recherla and Chintalpudi Sector A1 mines, and Axis Energy Ventures India Private Ltd bagging the Dip Extension of Belpahar and Tangardihi East coal mines — marking the first-ever tranche of commercial coal mines in India to carry embedded provisions for Underground Coal Gasification.

How will it help in bringing down import dependence?

According to industry insiders, surface coal and lignite gasification directly targets India's ₹2.77 lakh crore import bill (as of FY25) for energy feedstocks,



CBM. Eco-friendly option

industrial chemicals, and agricultural inputs. Syngas can be converted into hydrogen, urea, ammonia, liquid fuels and chemicals etc.

By turning domestic coal into Syngas, India can manufacture critical substitutes locally, bringing down its heavy dependence on volatile global supply chains.

Will it bring down energy costs?

Wars, regional tensions, and shipping disruptions frequently spike the price of imported fuels.

According to information available, Syngas produced from domestic reserves is estimated to be up to 20 times cheaper than imported natural gas once operations hit commercial scale.

Who will be the key players?

The key entities driving the country's gasification eco-system include Bharat Coal Gasification and Chemicals Ltd (BCGCL), a flagship joint venture between Coal India Ltd (CIL) and Bharat Heavy Electricals Ltd (BHEL); and Coal Gas India Ltd (CGIL), a newly operational joint venture between Coal India and GAIL (India) Ltd.

Apart from its joint ventures, CIL is the primary supplier of raw fuel. NLC India Ltd is the anchor player for the Lignite-to-Syngas segment. Indian Oil Corporation Ltd has signed MoUs with Coal India to explore downstream coal-to-chemical synthesis, aiming to utilise Syngas for refining processes and manufacturing methanol.

There are also private sector players into foray now.

How will it impact India's energy transition?

Experts say, it works as a transitional bridge technology in the country's long-term energy transition strategy. Gasification will allow users to shift away from burning polluting coal to cleaner-burning syngas, which significantly lowers the direct emission intensity of heavy manufacturing.

However, high water consumption and wastewater management can prove to be an ecological bottleneck.

Fuel prices hiked again, second time in 5 days

PIONEER NEWS SERVICE
■ New Delhi

For the second time in a span of five days, prices of petrol and diesel were hiked again on Tuesday by about 90 paise per litre across the country and across all variants.

The increase pushed petrol prices in New Delhi to ₹98.64 per litre from ₹97.77, while diesel rose to ₹91.58 from ₹90.67. Mumbai saw petrol rise by 91 paise to ₹107.59 per litre and diesel by 94 paise to ₹94.08 per litre. Kolkata recorded the steepest hike in petrol at 96 paise to ₹109.70 per litre, while diesel prices rose by 94 paise to ₹96.07 per litre. In Chennai, petrol prices



An employee refuels a vehicle at a petrol pump in New Delhi **PANKAJ KUMAR**

rose by 82 paise to ₹104.49 per litre, and diesel by 86 paise to ₹96.11 per litre.

The ₹4 per litre increase in fuel prices in two instalments is likely to have an impact on retail inflation that could soon spill over into household budgets and everyday spending.

CONTINUED ON >> P4



Fuel prices hiked again, second time in 5 days

Economists say that if the situation does not improve in the coming days, then more hikes may be in the offing. However, the approach of gradual hikes in petrol and diesel prices is to avoid an immediate inflation shock to the economy.

The fresh hike comes after State-run oil marketing companies had already increased fuel prices by around ₹3 per litre last Friday, for the first time in more than four years, as surging global crude prices following the Iran war forced State-run fuel retailers to pass on part of their mounting losses after months of holding rates steady through key State elections. Rates vary across States due to differences in value-added tax. After Tuesday's increase, petrol and diesel prices are now the highest since May 2022.

On May 15, compressed natural gas (CNG) prices were also raised by ₹2 per kg in cities, including Delhi and Mumbai. On Sunday, CNG prices were again hiked by ₹1 a kg.

The rise of global crude oil prices to above \$100 per barrel levels since the start of the US-Iran conflict has sent shockwaves across most major economies around the world. With the Strait of Hormuz still closed and a trickle of traffic flowing through it, supplies are disrupted, and there seems to be no end in sight as of now. What this has meant is that major economies around the world, including India, have been forced to raise prices of petrol and diesel as the import bill continues to rise.

Petrol, diesel prices hiked again; fuel rates up by 90 paise per litre

STATESMAN NEWS SERVICE

New Delhi, 19 May

Petrol and diesel prices were hiked again on Tuesday, with fuel rates rising by around 90 paise per litre across the country. This marks the second increase in less than a week as soaring global crude oil prices continue to put pressure on state-run oil companies.

With the latest revision, petrol price in Delhi increased to Rs 98.64 per litre from Rs 97.77, while diesel rose to Rs 91.58 per litre from Rs 90.67.

Similar increases were recorded in Mumbai, Kolkata and Chennai, pushing fuel prices higher across major cities. The latest hike comes just four days after oil marketing companies had raised petrol and diesel prices by Rs 3 per litre on May 15, which was the first major

Prices in ₹ per litre	May 14, 2026	Petrol		May 14, 2026	Diesel	
		May 15	May 19		May 15	May 19
Delhi	94.77	97.77	98.64	87.67	90.67	91.58
Kolkata	105.45	108.74	109.70	92.02	95.13	96.07
Mumbai	103.54	106.68	107.59	90.03	93.14	94.08
Chennai	100.84	103.67	104.49	92.39	95.25	96.11

Source: Petroleum Planning & Analysis Cell KBK InfoGraphics

increase in fuel prices in nearly four years. Following that revision, petrol prices in Delhi had jumped from Rs 94.77 to Rs 97.77 per litre, while diesel prices had risen from Rs 87.67 to Rs 90.67. The earlier hike was introduced amid a sharp

rise in international crude oil prices triggered by tensions in West Asia and disruptions in global oil supply routes.

Despite the Rs 3 increase, oil companies were reportedly still facing substantial losses due to the widening gap between international crude prices and domestic retail fuel rates.

Fuel stocks adequate in Mizoram; oil companies urge people against panic purchasing



UNITED NEWS OF INDIA
Aizawl, 19 May

Public sector oil marketing companies have assured that fuel supplies across Mizoram remain stable and uninterrupted, even as global uncertainties continue to affect the oil and gas sector in different parts of the world.

In a statement issued on Tuesday, Indian Oil Corporation (IOC), Bharat Petroleum Corporation Limited (BPCL) and Hindustan Petroleum Corporation Limited (HPCL) said the distribution of petrol, diesel and cooking gas is continuing normally across the state without any restriction.

The companies said their supply network, including depots, terminals, LPG bottling plants and retail fuel outlets, remains fully operational and capable of meeting public demand. Officials maintained that adequate reserves of petroleum products are available and replenishment is being carried out regularly to prevent any disruption in supply.

According to the statement,

fuel dispensing operations are functioning smoothly at retail outlets throughout Mizoram in accordance with prescribed operational and safety norms.

LPG deliveries to domestic consumers are also continuing without interruption, with distributors maintaining normal supply schedules across different districts.

Oil companies said they are closely coordinating transportation logistics, stock positioning and distribution management to ensure uninterrupted access to essential fuel supplies for consumers throughout the state.

The companies also appealed to the public not to resort to panic buying or unnecessary stockpiling of fuel and LPG cylinders, stating that the overall supply situation remains stable and under constant review.

Citizens have further been advised to rely only on official communication issued by oil marketing companies for verified information regarding fuel availability and

stock positions. Official stock data released on Tuesday morning showed that Mizoram currently has sufficient reserves of major petroleum products.

High Speed Diesel (HSD) stock in the state stood at 2,004.5 kilolitres, including 1,393.50 KL available with retail outlets and 611 KL in transit. Based on current consumption levels, the available diesel stock is expected to last for around six days.

Motor Spirit (MS), commonly known as petrol, recorded a total stock of 1,804.03 KL, including 1,159.03 KL already available within the state and another 645 KL in transit.

Officials estimated that the available petrol stock would be sufficient for approximately nine days.

Aviation Turbine Fuel (ATF) stock stood at 299 KL, comprising 214 KL currently available and 85 KL in transit, which authorities said would be adequate for nearly 20 days.

In the case of domestic LPG, the state currently has a total stock of 44,016 cylinders of 14.2-kg capacity. Of these, 15,261 cylinders are available with distributors while another 28,755 cylinders are in transit.

Officials said the existing LPG stock position is sufficient for around six days based on current demand trends.

The assurance from oil companies comes amid growing public concern over fuel availability in parts of the Northeast due to transportation

disruptions and uncertainty in supply chains. However, authorities reiterated that there is no immediate cause for concern in Mizoram and that supply lines are functioning normally.



Cong alleges ONGC mismanagement

OUR CORRESPONDENT

NEW DELHI: Congress leader and Rajya Sabha MP Shaktisinh Gohil on Tuesday launched a sharp attack on the Narendra Modi government, alleging systematic mismanagement at Oil and Natural Gas Corporation (ONGC) that, he claimed, led to an annual loss of 3.695 million metric tonnes in domestic oil and gas production. Gohil alleged that water injection

levels — a critical process for maintaining well health and sustaining output — had been reduced by 20 to 70 per cent across ONGC's three major fields: Mumbai High, Neelam and Heera, which together account for 59 per cent of India's domestic oil and gas production. "Water injection at Mumbai High was reduced by 53 per cent, at Neelam by 42 per cent, and at Heera by 78 per cent," he claimed.

Indian Oil assures adequate oil & LPG supply amid West Asia crisis

NEW DELHI: State-run Indian Oil Corp (IOC) on Tuesday said it has sufficient crude oil and LPG supplies despite disruptions in the Strait of Hormuz caused by tensions in West Asia, which have affected near-ly 50 per cent of India's oil and 90 per cent of LPG supplies from the Gulf region.

During a post-earnings conference call, the company said crude oil inventory for more than a month is being maintained, while LPG stocks, though lower, are sufficient to ensure nationwide availability.

IOC Director Finance Anuj Jain said all refineries are operating at full capacity and crude oil supplies re-main stable due



to diversified sourcing options. He added that LPG availability faced constraints, but the company has secured alternative supplies from Indonesia, Nigeria, Angola and Oman to manage demand across the country.

The company also expects refining margins to remain elevated over the next one to two years amid geopoliti-

cal uncertainties and disruptions to refining and upstream assets caused by conflicts such as Russia-Ukraine and US-Iran tensions.

For FY27, IOC has planned a capital expenditure of Rs 32,700 crore compared with Rs 31,401 crore spent in FY26.

The company said expansion of the Panipat refinery from 15 MMTPA to 25 MMTPA is expected to be completed by December 2026. Expansion projects at Gujarat refinery from 13.7 MMTPA to 18 MMTPA, involving an investment of Rs 19,000 crore, and Barauni refinery from 6 MMTPA to 9 MMTPA are also likely to be completed within the same timeframe. AGENCIES

KG-basin dispute: SC starts hearing on RIL's appeal against HC order

RIL operates KG-D6 with 60% stake, followed by BP at 30% & Niko with 10%

OUR CORRESPONDENT

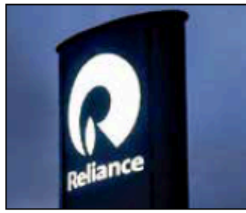
NEW DELHI: The Supreme Court on Tuesday commenced final hearing on appeals of Reliance Industries Limited (RIL) and two other foreign firms challenging a Delhi High Court verdict that set aside an arbitral award in their favour in the Krishna-Godavari Basin gas migration dispute with the Centre.

RIL, BP Exploration (Alpha) Limited and Niko (NECO) Limited have assailed the February 14, 2025 order of the high court setting aside an order of the single judge bench which had upheld the arbitral award in favour of RIL and its two partners for allegedly siphoning off gas from deposits they had no right to exploit.

In July 2018, an international arbitration tribunal rejected the Indian government's claim of \$1.55 billion against RIL and its partners for allegedly siphoning gas from deposits they had no right to exploit.

The three-member arbitral panel by a majority of 2-1 had also awarded \$8.3 million compensation to the three partners, Reliance had said in a regulatory filing.

A bench comprising Chief Justice Surya Kant and justices Joymalya Bagchi and Vipul M Pancholi heard senior advo-



In July 2018, an international arbitration tribunal rejected the Indian government's claim of \$1.55 billion against RIL

cate Abhishek Singhvi on behalf of RIL.

Singhvi, representing RIL, refuted the Centre's claim that RIL "siphoned" gas that had migrated from the neighbouring blocks of state-owned ONGC into RIL's KG-D6 block. He said that the gas flow was a purely physical phenomenon driven by pressure differentials, comparing it to "osmosis".

The senior lawyer emphasized that the "theft" allegation was technically and legally flawed. He said while the government contributed zero capital and bore no exploration risk, it remained the ultimate benefi-

Highlights

- » Delhi HC verdict set aside arbitral award in favour of RIL in the KG-Basin gas migration dispute with the Centre
- » A bench comprising Chief Justice Surya Kant & justices Joymalya Bagchi & Vipul M Pancholi heard Abhishek Singhvi on behalf of RIL
- » The senior lawyer emphasized that the 'theft' allegation was technically and legally flawed

ciary of all extracted gas.

"The gas belongs to the government. It is the same receiver," Singhvi said, adding that the government receives royalties and profit shares regardless of which block the gas originated from. He said that RIL spent \$7.4 billion on an ultra-deep-water project, a "frontier of sub-sea engineering" where other operators, including ONGC had struggled to produce for years.

He said by supplying gas to priority sectors like fertilizer and power at government-fixed prices (\$2.8 to the project saved India \$13.7 billion in subsidies).

"It is the single largest suc-

cess story in domestic gas production, contributing 30 percent of India's output. Yet, I stand accused of theft," Singhvi said.

The hearing on the pleas would commence on Wednesday.

Earlier, a division bench of the high court had allowed the appeal of the central government challenging the May 9, 2023 judgment of a single-judge which was passed in favour of Mukesh Ambani-owned RIL.

The single judge, while upholding the arbitral award, had said it was not persuaded to hold that the conclusions drawn by the arbitral tribunal were such that no reasonable person would reach. The oil ministry on November 4, 2016, slapped a demand of \$1.47 billion on Reliance-BP-Niko combine for producing in seven years ending March 31, 2016 about 338.332 million British thermal units of gas that had seeped or migrated from ONGC's blocks into their adjoining KG-D6 in the Bay of Bengal.

After deducting \$71.71 million royalty paid on the gas produced and adding an interest at the rate of LIBOR plus 2 per cent, totalling \$149.86 million, a total demand of \$1.55 billion was made on Reliance, BP and Niko. Reliance had disputed the government's demand as

being based on a "misreading and misinterpretation of key elements of the PSC", and it said that such a demand was without precedent in the oil and gas industry.

It on November 11, 2016, slapped an arbitration notice. Reliance is the operator of the KG-D6 block with 60 per cent interest while BP holds 30 per cent. The remaining 10 per cent is with Niko Resources.

The government's compensation claim flowed from the report of the Justice (ret'd) A P Shah Committee.

The Shah panel, in its August 28, 2016, report, concluded that there has been "unjust enrichment" to the contractor of the block KG-DWN-98/3 (KG-D6) due to the production of the migrated gas from ONGC's blocks KG-DWN-98/2 and Godavari PML. Originally, ONGC had sued Reliance for producing gas that had migrated from its blocks KG-DWN-98/2 (KG-D5) and Godavari PML in the KG basin to adjoining KG-D6 block of Reliance.

Under the direction of the Delhi High Court, the government had appointed a one-man committee under retired Justice A P Shah to go into the issue. Shah, however, said the compensation should go to the government as it is the owner of all unproduced natural resources.

Coal gasification push likely to ease India's energy import dependence

Commodity Desk

MUMBAI

India is aggressively pushing coal gasification as a strategic solution to reduce its growing dependence on imported coking coal and liquefied natural gas (LNG), even as concerns over higher carbon emissions continue to cloud its long-term decarbonisation roadmap, according to a report.

The report said rising geopolitical disruptions, soaring freight costs, and volatility in global commodity markets are exposing India's vulnerability to external energy shocks, making domestic resource security a top policy priority. Coal gasification converts coal into synthetic gas, or syngas, through partial oxida-

tion at high temperatures and pressure. The syngas is later used for producing cleaner fuels, fertilisers and industrial chemicals such as methanol, ammonia and urea. India's steel sector continues to remain the world's fastest-growing steel market, with demand projected to expand by 7.4% in 2026 and further accelerate to 9.2% in 2027.

The Blast Furnace-Basic Oxygen Furnace (BF-BOF) route currently accounts for nearly 45% of domestic steel production and is expected to dominate upcoming capacity additions.

The report highlighted that nearly 90% of India's coking coal requirement is imported from Australia, exposing domestic steelmakers to



supply disruptions and sharp price fluctuations. Australian premium hard coking coal prices hit a 17-month high earlier this year following floods in Queensland, while the ongoing West Asia conflict further pushed up global prices in March 2026. To reduce this dependence, the

government launched Mission Coking Coal with a target to increase domestic raw coking coal production to 140 million tonnes by 2030.

Authorities have also mandated blending 10-12% domestic coking coal with imported supplies. According to the report, coal

Rising freight costs, supply disruptions and expensive overseas fuel purchases intensify concerns across domestic manufacturing and steel sectors

gasification could partially replace imported coking coal and LNG by enabling domestic coal to produce syngas for steel manufacturing and gas-based direct reduced iron operations. India is also the world's third-largest LNG importer, with imports accounting for more than 50% of total domestic gas supply.

Recent war-led disruptions in global gas markets forced several steelmakers to cut production and manage

limited supplies carefully. Several coal gasification projects are already under development, including ventures involving Coal India Ltd and Steel Authority of India Ltd. The government has also announced incentive schemes worth ₹8,500 crore and ₹37,500 crore to support both public and private sector projects.

However, the report cautioned that coal gasification remains highly carbon intensive. Emission levels from syngas-based steel production are higher than conventional BF-BOF routes, creating a direct conflict with India's long-term decarbonisation and climate commitments despite the economic benefits of import substitution.

(With inputs from ANI)

BPCL Q4 net profit up 28% at ₹5,625 cr

Rishi Ranjan Kala
New Delhi

Bharat Petroleum Corporation (BPCL) reported a 28 per cent year-on-year jump in its consolidated net profit at ₹5,625 crore in Q4 FY26, aided by rising fuel demand and despite an impairment loss of ₹4,349.13 crore. Total consolidated income rose on an annual basis to roughly ₹1.36 lakh crore in Q4 FY25. On a sequential basis, the income was almost flat.

During the March quarter, the PSU oil marketing company achieved a refinery throughput of 10.40 million tonnes (mt) with a capacity utilisation of 118 per cent. Its domestic market sales stood at 13.86 mt, a growth of 3.28 per cent.

Speaking to *businessline*, BPCL CMD Sanjay Khanna emphasised that the company maintained operational



stability across its refining and marketing businesses during the fourth quarter, ensuring uninterrupted fuel supplies, while strengthening its distribution network amid a rapidly-evolving global energy environment.

On lessons from crises such as the West Asia war, he said, “One is supply-side learning. One has to explore and trade with different countries, so that if one route has disturbance, crude supply does not stop. That is the biggest learning. Then we have added more sources,

whether it is Venezuelan or Brazilian crude. We are even exploring US crude.”

WEST ASIA CRISIS

The current crisis in West Asia is a temporary phenomenon, and there will be some stress on the balance sheet, but the company will follow demand and pursue avenues to meet it, he said.

On impairment loss, BPCL, in its results filing on the BSE, said: “During FY26, Bharat Petro Resources (BPRL) has impaired investments in its subsidiary company due to change in prospects of its blocks. Accordingly, impairment testing has been carried out on equity investment made by the corporation in BPRL and an impairment loss of around ₹4,349.13 crore has been recognised based on the value in use of assets as on March 31, 2026. The accumulated impairment loss on

investments in BPRL as of March 31, 2026, is ₹11,313.83 crore.”

In Q4, BPCL reported a consolidated total expense of around ₹1.28 lakh crore, which is almost flat on a sequential basis. In Q4 FY25, BPCL incurred expenses of ₹1.22 lakh crore. BPCL posted stellar results for the entire FY26. Its consolidated net profit rose 93.78 per cent to ₹25,843 crore. It also reported its highest-ever refinery throughput of 41.15 mt in FY26 (40.51 mt) and its highest-ever total sales of 55.72 mt in FY26 (52.40 mt).

“BPCL’s performance during FY26 reflected sustained domestic energy demand, disciplined operations and continued momentum across key business segments, supported by a strong focus on supply-chain resilience, operational efficiencies and customer servicing,” Khanna said.

LPG supply disruption pulls India's March petroleum product imports to 8-year low

Rishi Ranjan Kala
New Delhi

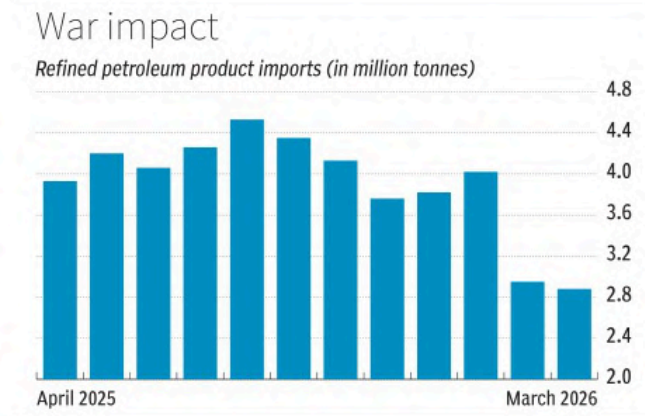
The import of refined petroleum products declined to an average of 7,65,000 barrels per day (b/d) in March 2026 as closure of the Strait of Hormuz (SoH) impacted LPG supplies, pulling down the overall import volume to its lowest since 2018.

OPEC in its May monthly oil market report (MOMR) said, "Product imports into India fell to the lowest level since 2018 due to a sharp drop in LPG, which India primarily sources from the Middle East."

According to the Petroleum Planning and Analysis Cell (PPAC), India's refined petroleum product imports fell by 25.5 per cent y-o-y in March 2026.

OPEC pointed out that India's product imports declined sharply in March, averaging 7,65,000 b/d and representing the lowest import volume since December 2018. Month-on-month, product imports were down 245,000 b/d, or 24 per cent.

"The decline was primar-



Source: PPAC

ily due to a 397,000 b/d fall in LPG imports, slightly offset by 'other products', which in the case of India generally consists of bitumen. Year-on-year, product imports were down 476,000 b/d, or 38 per cent," it added.

SUPPLY DISRUPTION

India's crude oil imports fell to an eight-month low of 4.5 mb/d in March 2026, due to trade flow disruptions and despite a temporary suspension of sanctions. Month-on-month crude imports into India declined by 7,75,000 b/d or almost 15 per cent, the OPEC MOMR said.

The International Energy Agency (IEA), in its latest commentary on the impact of the West Asia conflict on LPG flows, said, "India's LPG imports have been particularly affected, dropping by more than half over the first two months (March-April 2026) of the conflict, a loss of around 4,30,000 b/d."

The impact of supply side

disruptions on liquefied petroleum gas (LPG) imports by India also reflected in consumption of the commodity — the key cooking fuel for more than 33.50 crore households.

The OPEC report pointed out that LPG consumption witnessed the largest decline in March 2026 of about 120,000 b/d y-o-y, in March, down from a y-o-y increase of 100,000 b/d in February 2026.

As per PPAC, India's LPG consumption fell by almost 16 per cent m-o-m and 13 per cent y-o-y to 2.38 million tonne (mt) on a provisional basis — the lowest in the last 21 months.

However, India's cumulative LPG consumption in FY26 rose by 6 per cent y-o-y to 33.21 mt on a provisional basis, which is the highest annual growth in usage since FY19.



the hindu **businessline.**

WEDNESDAY - MAY 20, 2026

Coal comfort

Coal gasification opens new energy pathways

The ₹37,500-crore incentive scheme to promote surface coal gasification project in India is indeed an acknowledgement of the need to find more environmentally benign pathways to use the abundant, 400 billion tonnes of coal reserves that India is blessed with. India has long aspired to use its coal by gasification for energy self-reliance, but technology and cost have stood in the way. The incentive scheme, perhaps influenced by the Strait of Hormuz crisis, seeks to overcome these barriers.



The idea of coal gasification lives in the dark shadow of the beleaguered Talcher Project, a ₹13,000-crore multi-company effort to produce fertilizers from gasified surface coal. The project, said to be “71.24 per cent complete” after two decades — and caught in disputes with the Chinese contractor, Wuhan Engineering — has unfortunately engendered an impression that coal gasification cannot work. The truth, however, is that the project chose the wrong type of gasifier — the entrained flow gasifier — despite experts warning against it. The chemistry is simple — when burnt in the presence of limited oxygen and steam, coal becomes a mixture of carbon monoxide and hydrogen, called ‘synthesis gas’, which is a building block for many chemicals such as ammonia and methanol and has wide industrial and energy-sector applications. However, the technology needs to be finetuned to the type of feedstock coal and, to some extent, to the nature of synthesis gas expected at the other end.

This can be done for sure, but the Centre must ensure that incentives are wisely used, and there is no punting in terms of choice of technology. It would do well to carve out an enhanced incentive package for lignite gasification, as lignite is better suited for gasification than anthracite coal; it contains more moisture and less of materials that turn to ash when burnt. While the scheme announced recently pertains specifically to surface coal gasification, the government had earlier brought in another set of incentives, worth ₹8,500 crore, for coal gasification without making any distinction between surface and underground processes. While it appears that both schemes would co-exist, the new scheme suggests that the government is consciously separating surface from underground projects. Gasifying deep seam by in-situ combustion of coal is extremely difficult. There is by far only one commercial-scale UCG project, in Uzbekistan. This is not to say that India should not take a pioneering approach here. But it should approach UCG more as an R&D than a commercial exercise.

There is an important angle to coal gasification that has hardly been recognised — its capacity to produce clean hydrogen at low cost. This newspaper has reported quoting experts that coal gasification plus carbon capture and sequestration process can produce hydrogen at \$1.25 a kg, assuming a domestic coal price of \$40 a tonne. The government should look at whether this pathway could be brought under the National Green Hydrogen mission.

LPG: Ship scarcity hits U.S. imports

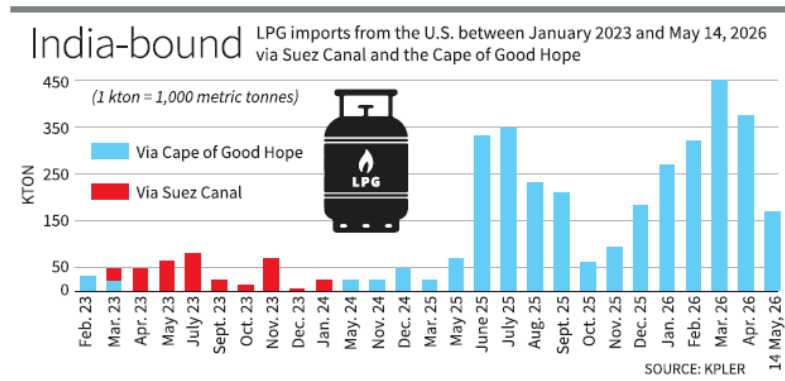
In March, 4.5 lakh LPG shipments left the U.S. for India, up from 3.2 lakh and 2.7 lakh tonnes in previous months, as per data from Kpler; subsequent months saw shipments drop to 3.72 lakh tonnes and 1.67 lakh tonnes due to less carrier availability

Kalyanaraman M. Debayan Tewari
CHENNAI

With the Persian Gulf, from where 60% of India's LPG consumption came shut, the U.S. has emerged as a major LPG supplier. In March, 4.5 lakh LPG shipments left the U.S. for India, up from 3.2 lakh and 2.7 lakh tonnes in previous months, as per data from Kpler, a source of global trade intelligence. India imported nearly 10 lakh tonnes in March.

In April, however, shipments that left the U.S. for India dropped to 3.72 lakh tonnes and for the half-month in May, it was 1.67 lakh tonnes, as per Kpler.

The reason for less lifting in subsequent months, shipping experts say, is less gas carrier availability due in-part to ships taking the Cape of Good Hope route around Africa rather than the shorter Suez Canal



route. "U.S-India voyages via Suez Canal have been absent since January 2024, dropping in the aftermath of the increase in Houthi attacks on commercial shipping in the Red Sea waterway since end of 2023.

The preference for the Cape of Good Hope route is more likely driven by risk management, avoiding any elevated risk insurance premiums and the potential for renewed security threats in the Red Sea/Bab

el-Mandeb area, where commercial shipping has previously faced disruptions," says a Kpler statement mailed to *The Hindu*.

LPG ships are being re-routed to the U.S. which is much farther away from Persian Gulf for major markets such as India, Japan and China. "Around 40% of US-Asia LPG cargoes are now being re-routed via the Cape of Good Hope. This has materially increased tonne-mile de-

mand, adding 20 days or more to voyage durations, effectively tightening vessel availability and pushing freight rates sharply higher across all major routes," says Manish Sejwal, senior vice president for commodity markets at Rystad Energy.

'More priority for LNG'
Mr. Sejwal talks of Panama Canal congestion as well. The reason for that is increased Liquefied Natural

Gas ship crossings. LNG ships have more priority than LPG ships at the canal, resulting in LPG carrier congestion.

India had built a conveyor belt of ships serving the Persian Gulf with some 20 Indian-flagged ships it could command at will.

This number was sufficient for round-trips from Qatar to Mumbai that would take some 10 days, and 20 days for Kolkata. But for 90-day U.S. voyage round trips, India needs several times more Indian-flagged LPG carriers to serve Indian needs smoothly.

While India has sent four of its Very Large Gas Carriers (VLGC) that returned from Persian Gulf after the war started to the U.S., it has had to ramp up its command of foreign-flagged ships, too. India is picking up more spot cargoes and hence the drop in arrivals from United States Gulf Coast, say experts.

OIL to ramp up exploration capex: CMD

Rituraj Baruah

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NEW DELHI

State-run Oil India Ltd (OIL) plans to raise its exploration and production capital expenditure (capex) by over 10% to ₹10,000 crore this fiscal year, chairman and managing director Ranjit Rath said, as the country grapples with an energy shock amid the West Asia war.

The Maharatna company, which traces its origin to India's first commercial crude oil discovery in Digboi (Assam), expects to produce about 4 million tonnes (mt) of crude oil this fiscal year, compared with 3.45mt in FY26. He added that work on the \$20-billion Mozambique LNG project has resumed. Oil India, part of an Indian consortium comprising ONGC Videsh Ltd (OVL) and Bharat Petroleum Corp. Ltd (BPCL), has a 4% stake in the project, which is expected to start production by late 2028 or early 2029.

"Last year (FY26), we did a capex of about ₹8,900 crore. Going forward, we are looking to cross ₹10,000 crore. This is the projected capex of Oil India for the purpose of explo-



Ranjit Rath, chairman and managing director, Oil India.

ration, which includes seismic, 2-D and 3-D, and drilling and workover," Rath told *Mint* in an interview.

Seismic exploration is used to locate oil and gas reserves beneath the earth's surface by sending sound waves and studying how they bounce back. In 2-D (two-dimensional) surveys, both the sound source and sound detector are moved along a single line to obtain a basic view of subsurface structures, while 3-D surveys cover a larger area, using multiple sensors to create a more detailed image of potential reserves. Workover refers

to the maintenance and repair of existing oil wells.

After drilling a record 74 wells in FY26, including 22 exploratory and 55 development wells, Oil India now plans to drill over 100 wells in the ratio of 60:40 for exploratory and development wells.

Exploratory wells are drilled to locate proven reserves of recoverable oil and gas, while development wells are drilled in a proven producing area for the production of oil or gas.

OIL, India's second-largest exploration and production company after Oil and Natural Gas Corp. (ONGC), operates

about 28 rigs and has recently mobilised two charter-hired rigs, with plans to add two more.

Rath said that the company has made changes in its rig deployment plans, wherein it has allowed rig suppliers a longer time period for transportation or mobilization of rigs, but has sought new rigs instead of the usually supplied old or used rigs.

"Now, we are deploying it

for a long-term tenure. So, we are now deploying for four year plus. Earlier it was three plus one or two plus one. So, the charter hire rig suppliers are having a longer time horizon. Second, we have brought in a construct called new rig deployment. Earlier these people, they were deploying 30-year-old rigs, scavenged rig and all that. So, the turn-around time for the rig was

very high. So, we brought in the concept that we will give you a tenure of six years and you take a longer time for mobilization, but bring a new rig," he said.

Last week, OIL reported a 62% year-on-year increase in consolidated net profit to ₹2,424 crore in Q4FY26. Its revenue from operations rose 4.4% to ₹10,012.77 crore in the quarter from ₹9,588 crore a year ago.

Rath added that the company is in talks with global energy majors to explore blocks secured under the OALP-IX round.

For an extended version of this story, go to livemint.com.

OIL expects to produce about 4 million tonnes of crude oil this fiscal year, compared with 3.45mt in FY26

Second in a week: Petrol, diesel prices raised again

Rajeev Jayaswal

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NEW DELHI: State-run oil companies raised petrol and diesel prices by nearly ₹1 per litre each on Tuesday — the second increase in less than a week — taking the total increase to just under ₹4 per litre since May 15.

In Delhi, petrol now costs ₹98.64 per litre, up 87 paise, and diesel ₹91.58, up 91 paise. Variations in local levies mean the increase differs by city: petrol has risen to ₹109.70 in Kolkata (up 96 paise), ₹107.59 in Mumbai (up 91 paise), and ₹104.49 in Chennai (up 82 paise).

Diesel is now ₹96.07 in Kolkata, ₹94.08 in Mumbai, and ₹96.11 in Chennai, with increases of 94 paise, 94 paise, and 86 paise respectively. The three state-run OMCs — Indian Oil Corporation, Bharat Petroleum, and Hindustan Petroleum — together control over 90% of domestic fuel retail and revise prices simultaneously.

Despite both hikes, industry executives and sector analysts say the three companies are still losing ₹9-12 per litre on petrol and diesel. After the first

continued on →17

Oil firms still in the red

NEW FUEL RATES (per litre)

DELHI
 Petrol: ₹98.64
 Diesel: ₹91.58

MUMBAI
 Petrol: ₹107.59
 Diesel: ₹94.08

CHENNAI
 Petrol: ₹104.49
 Diesel: ₹96.11

KOLKATA
 Petrol: ₹109.70
 Diesel: ₹96.07



Experts say the three OMCs are still losing ₹9-12 per litre on petrol and diesel.

After the first ₹3 hike on May 15, spurred by what the government said were daily revenue losses of ₹1,000 crore across the OMCs, combined losses fell to ₹750 crore on Monday.

A third hike is expected if international crude prices do not ease.

FUEL PRICE HIKE

₹3 hike on May 15 — spurred by what the government said were daily revenue losses of ₹1,000 crore across the three OMCs — combined losses fell to ₹750 crore on Monday. A third hike is expected if international crude prices do not ease.

The increase in fuel's retail rate on Friday was the first since April 2022, when prices were raised in the aftermath of Russia's war in Ukraine. Between end of March and April 6, pump prices rose by roughly ₹9 per litre, often through daily increments of 80 paise.

News agency Reuters reported dealers and analysts as saying they expected a staggered increase in prices, similar to April 2022.

The pressure on OMCs reflects the scale of India's exposure to the West Asia crisis. India imports over 88% of the crude it processes and pays in dollars, making it doubly vulnerable to both oil price surges and currency depreciation. Benchmark Brent crude was trading at \$111 a barrel on Tuesday — up nearly 52% from \$72.87 the day before the conflict broke out on February 28, and having touched nearly \$120 a barrel on March 9.

The rupee has fallen 6% against the dollar since the start of the year and was at ₹96.71 per dollar on Tuesday.

The Indian basket — the average price at which India actually purchases crude — averaged \$63.08 per barrel in January 2026 and \$69.01 in February. It soared to \$113.49 in March, the first full month of the war, and \$114.48 in April. It has eased slightly to \$106.69 as of May 18, but remains well above the full-year 2025-26 average of \$70.99.

Bank of America's commodities and derivatives research chief Francisco Blanch told Bloomberg his best-case scenario is Brent averaging \$90 for the rest of the year — and cautioned that prices could go higher if the Iran stalemate persists or fresh fighting breaks out.

Political criticism similar to last week poured in on Tuesday. The Congress demanded India take control of its "energy sovereignty" and called for a clear government action plan on fuel prices. Rahul Gandhi, speaking in his Lok Sabha constituency of Rae Bareilly, warned of a "severe economic storm coming, which no one can stop, which we have never experienced in our lives." Congress president Mallikarjun Kharge, KC Venugopal, and Shaktisinh Gohil also criticised the government over the impact on ordinary consumers.

Punjab chief minister and Aam Aadmi Party's Bhagwant Mann said the Centre would now blame the West Asia conflict for all its "failures" and accused it of pushing the country into an "undeclared lockdown" while concealing the true state of the economy. "They will increase it many times. Modi ji will now blame the war for everything," he said.

The BJP defended the hike. The party's IT cell head Amit Malviya said fuel prices had risen by only about 4% in India cumulatively — "among the lowest increases anywhere in the world outside heavily subsidised Gulf economies" — against a backdrop of Brent crude staying above \$100 a barrel.

He said the opposition was politicising a global crisis that had driven steep fuel price increases across the world.

Carmakers seek flex-fuel sops amid blending drive

Manas Pimpalkhare & Dhirendra Kumar

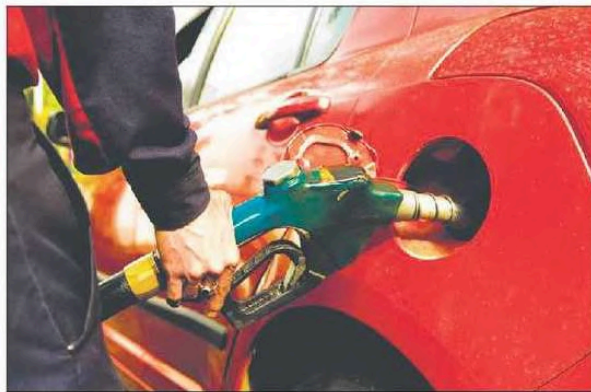
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NEW DELHI: Automakers have told the government that consumers are unlikely to adopt flex-fuel vehicles unless high-ethanol fuels such as E85 and E100 are priced significantly below petrol, according to two people aware of discussions between the petroleum ministry, oil marketing companies, and auto lobby group Society of Indian Automobile Manufacturers (SIAM).

In Brazil, where most vehicles can run on E85 or E100 fuels, high-ethanol blends are priced lower than the standard E27, according to the country's national agency of petroleum, natural gas, and biofuels. E85 and E100 fuels require dedicated flex-fuel-compatible engines, unlike E20 petrol currently used in regular vehicles in India.

"The incentives sought include a reduction in the GST (goods and services tax) rate on flex-fuel vehicles as well as some benefit for consumers on opting to use high-ethanol blends," one of the people cited above said on condition of anonymity.

Currently, flex-fuel vehicles—even though there are none available commercially in India as of today—are taxed at the



Currently, flex-fuel vehicles are taxed at the same rates as petrol- and diesel-driven vehicles. HT

same rates as petrol- and diesel-driven vehicles, ranging from 18% for smaller cars to as high as 40% for larger models.

However, according to the second person, the proposal for GST rationalization has so far been limited to two-wheelers, since lowering taxes on cars would place flex-fuel vehicles closer to electric vehicles, which attract 5% GST.

Hero MotoCorp is actively developing flex-fuel vehicles, a spokesperson said, adding some form of demand-side support and incentives would be important during the initial scale-up phase to drive consumer adoption in the price-sensitive two-

wheeler segment.

"Policy measures that help offset the higher upfront technology costs for original equipment manufacturers and improve consumer affordability like lower pricing for E85 can accelerate the adoption of alternative fuel vehicles in the country," the spokesperson said.

According to the second person, lowering prices of E85 and E100 fuels is critical to attract customers, who would otherwise opt for lower ethanol blends such as E20 because of their higher energy content. Since ethanol contains less energy per litre than petrol, vehicles running on higher ethanol

blends typically deliver lower fuel economy.

Queries emailed to the ministries of petroleum and natural gas and finance, the GST secretariat, IOC, HPCL, BPCL, SIAM, Maruti Suzuki, Toyota Kirloskar Motor, Tata Motors, Mahindra & Mahindra, Honda Motorcycle and Scooter India (HMSI), and Bajaj Auto on 18 May remained unanswered.

The focus on petrol blending is because roughly 95–98% of India's petrol demand comes from vehicles, while for diesel it is about 65–70%, with the rest used in agriculture, industry, railways, and power generation. In FY26, India consumed 42.58 million tonnes of petrol and 94.70 million tonnes of diesel in FY26, PPAC data showed.

As part of the transition to higher ethanol blends, the Bureau of Indian Standards on 18 May notified technical standards for higher ethanol-blended petrol including E22, E25, E27 and E30, creating a fresh specification category beyond the current E20 fuel.

The norms, effective from 15 May 2026, set technical requirements for higher ethanol blends including octane levels, sulphur limits, vapour pressure, corrosion resistance and fuel stability to ensure compatibility with vehicle engines and fuel systems.

Russia oil waiver extension a huge relief, say experts

SHUBHANGI MATHUR
New Delhi, 19 May

In a relief to refiners in India, the United States (US) has extended its waiver from sanctions on purchasing Russian crude oil and petroleum products for a month to temporarily provide “the most vulnerable nations” access to fuel produced in the Eurasian country and stranded at sea.

According to an order by the US Department of the Treasury’s Office of Foreign Assets Control (Ofac), countries are authorised to procure Russian oil loaded on or before April 17. This can be done until June 17.

“This extension will provide additional flexibility and we will work with these nations to provide specific licenses as needed. This general licence will help stabilise the physical crude market and ensure oil reaches the most energy-vulnerable countries,” US Treasury Secretary Scott Bessent said in a post on X.

Bessent said the 30-day window would help reroute existing supplies to countries most in need. This will be by reducing China’s ability to stockpile discounted oil.

The earlier US waiver lapsed on May 16.

A government official said on May 18 that Indian refiners would continue buying crude oil from Russia even in the absence of a US waiver.

“I would like to emphasise that we have been purchasing (crude oil) from Russia before and during the waiver. We are buying even now. There should be commercial sense for oil-marketing companies to purchase (Russian oil),” said

INDIA HAS PURCHASED 1.87 MILLION BPD OF RUSSIAN OIL IN MAY SO FAR, NEARLY 40% OF TOTAL IMPORTS

Sujata Sharma, joint secretary at the Ministry of Petroleum and Natural Gas (MoPNG).

Experts say the US waiver has enabled Indian oil firms to buy crude oil from sanctioned Russian entities, ensuring fuel availability.

“Oil companies in India will have to scale back purchases (of Russian oil) if the US waiver is not renewed, given the payment constraints and other related issues,” Prashant

Vashisht, senior vice-president and co-group head, corporate ratings, ICRA, had said on May 15.

India has ramped up purchases from Russia, primarily on the back of the US waiver, since the war

started in West Asia. The country bought 1.87 million barrels of Russian oil per day (bpd) in May so far, meeting approximately 40 per cent of its oil imports, showed the data from maritime intelligence firm Kpler.

Under the US sanctions, countries are allowed to purchase Russian oil from sanctioned entities, including Rosneft and Lukoil, which Washington had previously sanctioned.

Prior to the sanctions, the two oil producers supplied around 60 per cent of India’s purchase of Russian oil.

As supply from India’s traditional suppliers in West Asia, such as Iraq, Saudi Arabia and Qatar, remains constrained, refiners have increased reliance on Russian crude oil.



Ready to Flex Ethanol Muscle, E100 Gets Road Map to Cut Oil Imports

Auto cos, OMCs apprised; 5,000 dispensing stations planned over next two years

Sharmistha Mukherjee & Prashant Mukherjee

New Delhi: The Centre is working on fast-tracking availability of E100 flex fuel, or 100% ethanol, by putting in place 5,000 dispensing stations across the country over the next two years, to reduce crude imports, people aware of the development told ET.

The government, for the first time, apprised representatives from automobile and oil marketing companies (OMCs) of the road map for establishment of infrastructure to run flex fuel vehicles (FFVs) on May 4, they said.

All major four-wheeler and two-wheeler makers in the country, including Maruti Suzuki, Hyundai, Tata Motors, Mahindra & Mahindra, Hero MotoCorp and TVS Motor Company, have readied prototypes of FFVs.

They have not yet launched these vehicles due to lack of E100 fuel pumps and clarity over pricing of E100, industry insiders said.


As per the plan outlined by the

Future Fuel

5,000 E100 dispensing stations planned in next 2 years

Auto majors ready with flex-fuel vehicle (FFV) prototypes

E100 rollout aimed at reducing **₹10.9 lakh cr** crude import bill



E100 ETHANOL FLEX FUEL

Ethanol blending saved **₹1.44 lakh cr** in forex since 2014

Ministry of Petroleum and Natural Gas, 150 retail outlets for E100 fuel will be made operational in the next one month across Delhi, Mumbai, Pune and Nagpur.

In the next 6-12 months, in addition to deeper penetration in Delhi-NCR and Maharashtra, infrastructure would be expanded to Bengaluru, Chennai, Kolkata and Hyderabad. The Centre is targeting commissioning 500 retail outlets for E100 in this period. Thereafter, 5,000 retail outlets will be made functional mid-term, within 24 months, people cited above said.

Flex fuel vehicles will help India

save forex from crude imports, which totalled ₹10.9 lakh crore in FY26. These vehicles not only enable higher ethanol blends, but also give customers the flexibility to put whatever fuel is available.

“FFVs offer a major opportunity for India,” said Deepak Ballani, director general of Indian Sugar & Bioenergy Manufacturing Association (ISMA). “While nearly 85-90% of crude oil is imported, 100% of ethanol is produced in India, supporting nearly 70-80 million farmers and stakeholders linked to the ethanol ecosystem.”

Ballani, however, said tax incen-

tives like lower GST will be key for mass adoption of FFVs.

Society of Indian Automobile Manufacturers (SIAM) had earlier suggested that E100 be priced 30% lower than normal petrol to compensate for lower fuel efficiency of FFVs. It also urged the government to extend fiscal support to ensure adoption of FFVs.

A senior official at Indian Oil Corporation (IOC) said the state-owned oil marketer had rolled out E100 fuel at close to 400 outlets as a pilot, but the offtake was negligible. “We’ve since scaled back sharply,” the person said. “The core issue is structural as India has an extremely limited base of flex-fuel vehicles and E100 also delivers lower fuel efficiency compared to regular petrol, making it unattractive for consumers.”

The official added that E100 currently accounts for an insignificant share of retail fuel sales, not even 0.5%, with flex-fuel vehicle penetration still at a nascent stage in India.

India currently blends 20% ethanol in petrol.

Reliance Industries-led consortium stole ONGC's share of gas: Govt to SC

Pressure movement, not theft: Singhvi counters AG before 3-judge bench

Ananthkrishnan G
New Delhi, May 19

IN A dispute with a Reliance Industries Limited-led consortium over gas migration in the Krishna Godavari (KG) basin, located off the Andhra Pradesh coast, the Centre Tuesday accused the consortium of stealing the Oil and Natural Gas Corporation's share of natural gas.

Attorney General R Venkataramani, who appeared for the Centre, told a three-judge bench of Chief Justice of India Surya Kant and Justices Joydalya Bagchi and Vipul M. Pancholi: "There were two blocks. ONGC had a block, they had a block. Gas migrated. You (RIL-led consortium) virtually committed a

theft of my gas and you are accountable for that."

Venkataramani said this as Senior Advocate A M Singhvi, appearing for the RIL, commenced his arguments on its appeal challenging the February 14, 2025 order of the Delhi High Court order which overturned a 2018 international arbitration tribunal ruling and an order of a High Court single-judge bench in favour of the RIL-led consortium.

Singhvi told the bench about the "huge risk and huge investment" in the project, and said "ONGC did nothing at the time they got" their blocks.

Countering the allegations of gas theft, he said it was only a natural phenomenon due to pressure differences beneath

the sea and cannot be termed something done deliberately.

"When you extract by a natural process of pressure, from the nearby sea block, some oil will always flow and migrate. That has nothing to do with voluntariness, deliberation, intent. That becomes a bugbear with them to add it to what they call stolen gas. There is nothing, it is a pressure movement," Singhvi told the bench.

Justice Bagchi asked, "So no artificial barrier is there between the true definition of blocks right? Only coordinates as per the longitude and latitude." Singhvi said there cannot be any such barrier. "No. It cannot be, by definition. It's not an enclave. The seabed is 2,000 feet below." He said the government is the ultimate beneficiary through royalty, taxation etc irrespective of where the gas came from.

The case has its origins in a

production-sharing contract (PSC) signed by an RIL-led consortium with the Centre in 2000, securing rights to explore and extract natural gas from the KG basin. The contract covered various entitlements, responsibilities and revenue-sharing arrangements.

The RIL-led consortium commenced commercial production from the assets situated adjacent to ONGC's Godavari petroleum and mining lease and the KG-DWN-98/2 block, in April, 2009. The RIL then held 60% stake in the relevant KG-D6 block, BPPIC 30% and Niko Resources 10%.

The conflict arose in 2013 when ONGC claimed that RIL had illegally extracted natural gas from its blocks. The state-run company accused RIL of drilling wells near the boundaries of its hydrocarbon blocks which allowed gas to flow from ONGC's fields to RIL's KG-D6

block between 2009 and 2013, leading to "unjust enrichment" for the latter.

The government then sought disgorgement from RIL and its partners BP Plc and Niko Resources, demanding around \$1.5 billion, and additional \$174 million in interest. The RIL invoked the arbitration clause. In July 2018, the arbitral tribunal ruled in favour of RIL, rejecting the government's claims and stating that the PSC did not prohibit contractors from extracting and selling gas that had migrated from an external source.

The Centre challenged this in the Delhi High Court where a single-judge bench dismissed it in May 2024. Following an appeal, the High Court division bench set aside the single-judge bench's order and the arbitral award, saying they were contrary to the settled position of law.



Australia Urgently ‘Needs a Lot More Gas,’ Energy Executives Say

By Keira Wright

May 19, 2026 at 8:00 AM GMT+5:30

Australia must invest in producing more natural gas to avoid a domestic shortfall later this decade, fossil fuel executives said.

“Our nation needs a lot more gas, and we need it urgently,” Cecile Wake, Shell Plc’s Australia chair, said at the Australia Energy Producers Conference 2026 in Adelaide on Tuesday. “The impact of the conflict in the Middle East on global energy markets has brought into stark focus the world’s dependence on oil and gas.”

Despite being one of the world’s biggest liquefied natural gas exporters, Australia faces a shortfall on its more densely populated eastern coast toward the end of this decade. To help address the deficit, and to shield domestic consumers from high international prices, the government this month approved a policy that will require producers to set aside a fifth of new production in a move widely opposed by the industry.

The so-called domestic gas reservation scheme will drive prices down for a short period, but will kill investment and supply, Kevin Gallagher, Santos Ltd.’s chief executive officer, said at the conference.

“I think that the industry needs to get back to attracting that capital into Australia,” he said. “But be under no mistake, it definitely goes where it feels safe.”

In Australia, environmental groups have turned to courts and regulators in an effort to block new production to offset declining output from fields in the southeast. Even at the Adelaide conference, police maintained a heavy presence amid concerns that protests by a few dozen people outside the convention center could escalate.

Activists have for years disrupted the annual general meeting of Woodside Energy Group Ltd., the nation’s biggest LNG shipper. There has also been a public backlash against Australia taxing exporters at significantly lower rates than rivals such as Qatar and Norway, although the government ruled out new levies.

Australia’s self-sufficiency in natural gas means that the country remains insulated from the worst of the current crisis, Shell’s Wake said. The war in the Middle East has cut off about a fifth of the world’s LNG from Qatar and, to a lesser extent, the United Arab Emirates, raising international prices.

“For Australia, the crisis has underscored the enormous advantage that we have in having a strong domestic gas and strong LNG industry,” she said.

Standards for fuel blends up to E30 notified

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New Delhi: Govt has notified a new standard for higher ethanol-petrol blends — E22, E25, E27 and E30 fuels — paving the way for blending of ethanol in petrol beyond the current 20% level. The govt push to increase ethanol blending comes amid reports of availability of surplus ethanol and to reduce crude imports due to the conflict in West Asia, which has impacted the energy supply chain.

The new BIS standard, published on May 15, has laid down specifications for fuel blends made by mixing completely free-of-water (anhydrous) ethanol with motor gasoline for use in “positive ignition engine-powered vehicles”, or petrol-powered vehicles. The standard has defined techni-



iStock

AIDA described govt move as a ‘significant and timely step’ towards advancing India’s ethanol blending programme and reducing dependence on crude oil imports

cal and quality parameters, such as composition, blending requirements, permissible impurity levels, testing methods and safety norms.

Meanwhile, amid concerns over the impact that use of E25 (25% blending in petrol) may have on existing vehi-

cles with regard to mileage and engine life, the petroleum ministry has tasked the Automotive Research Association of India (ARAI) to carry out a detailed study on vehicles that are currently compliant with E10 and E20. Most existing vehicles are fully compliant with E10, as fully E20-compliant vehicles will hit the market only after April 2025.

The notified fuel norms for different grades of ethanol and the ARAI study for E25 may provide the govt with elbow room to push blending beyond 20%, though less than 25%, in the near future to utilise the surplus availability of ethanol, experts said.

TOI has learnt that at a meeting of an inter-ministerial group last week, BIS said adding 1% extra ethanol to petrol beyond the current

20% won’t be an issue. “But considering that increasing blending to 25% will be a significant jump, ARAI will now conduct the study using vehicles that are E10 and E20 compliant,” said an official.

All India Distillers’ Association (AIDA) has described the govt move as a “significant and timely step” towards advancing India’s ethanol blending programme and reducing dependence on crude oil imports.

People aware of the developments said there is a need to assess engine life and performance (mileage) of vehicles not designed for higher ethanol blending, their emissions, and upfront and recurring costs. As per best practices, samples of vehicles should be run for 60,000-70,000 km for proper assessment.

MOVE TO FAST-TRACK USE OF BIOFUEL FOR TRANSPORT

Standards framed for petrol blended with 30% ethanol

SAURAV ANAND
New Delhi, May 19

INDIA HAS LAID the regulatory and technical groundwork for petrol blended with up to 30% ethanol, signalling a likely acceleration of the country's biofuel programme.

If implemented, the move will help raise the capacity utilisation in ethanol manufacturing units and salvage huge investments made in the sector.

Currently, units that manufacture ethanol from grains — rice and maize — are operating at 40-90% across states and are a potential source of bad loans in the banking system. Of nearly 400 ethanol manufacturers, around 250 units are grain-based, and the rest are sugarcane-based.

In a notification dated May 18, the Bureau of Indian Standards (BIS) notified specifications for E22, E25, E27 and E30 fuel blends, extending India's ethanol road map beyond the ongoing nationwide E20 rollout. The BIS notification, effective from May 15, creates a new technical specification framework for higher ethanol blends and is expected to support future deployment of flex-fuel and higher ethanol-compatible vehicles in the country.

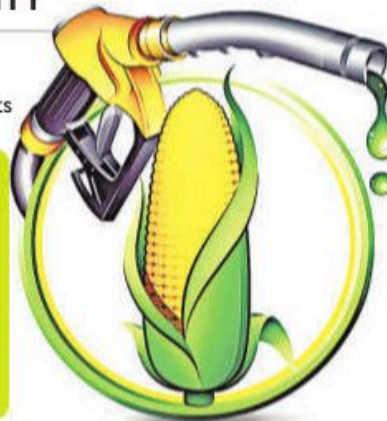
The standards define technical parameters for higher

CLEANER MOBILITY

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■ Industry body called the move a 'forward-looking step' towards reducing crude oil dependence and strengthening India's cleaner mobility ecosystem

ethanol-blended petrol, including ethanol percentage, octane levels, sulphur limits, vapour pressure, corrosion resistance, water content and fuel stability requirements. The norms are aimed at ensuring compatibility of higher ethanol blends with engines, fuel injection systems and vehicle components as India gradually expands flex-fuel mobility.

The development assumes significance as India intensifies efforts to reduce dependence on imported crude amid rising geopolitical risks.

Industry bodies and ethanol manufacturers have increasingly pushed for movement towards E22 and higher blends

citing surplus ethanol availability, underutilised capacities and the need for faster substitution of imported fossil fuels.

According to the Indian Sugar & Bio-Energy Manufacturers Association (ISMA) data, India's ethanol production capacity currently stands at around 2 billion litres, while procurement by oil marketing companies has so far remained around 1 billion litres, implying capacity utilisation of nearly 50%. Industry executives said the newly notified standards could help improve ethanol off-take and support future blending expansion. "The publication of BIS standards for E22 to E30 fuels is a significant and timely

step towards advancing India's ethanol blending road map," said Vijendra Singh, president, All India Distillers' Association.

Calling it a "forward-looking step" towards reducing crude oil dependence and strengthening India's cleaner mobility ecosystem, Singh said the introduction of E25 standards could help absorb surplus sugar and ethanol production capacities while preparing the industry for higher blending adoption. He, however, said the long-term road map should increasingly move towards significantly higher ethanol blends such as E85 and E100 through rapid expansion of flex-fuel vehicle ecosystems.



Govt slaps gas theft charge on RIL-led consortium in SC

ANANTHAKRISHNAN G
New Delhi, May 19

IN A DISPUTE with a Reliance Industries-led consortium over gas migration in the Krishna Godavari (KG) basin, located off the Andhra Pradesh coast, the Centre on Tuesday accused the consortium of stealing the Oil and Natural Gas Corporation's share of natural gas.

Attorney General R Venkataramani, who appeared for the Centre, told a three-judge bench of Chief Justice of India

Surya Kant and Justices Joymalya Bagchi and Vipul M. Pancholi: "There were two blocks. ONGC had a block, they had a block. Gas migrated. You (RIL-led consortium) virtually committed a theft of my gas and you are accountable for that."

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tribunal ruling and an order of a high court single-judge bench in favour of the RIL-led consortium.

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Continued on Page 7



Govt slaps gas theft charge on RIL-led...

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April crude imports dip 4.3% year-on-year, but oil bill jumps over 50% on price surge

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New Delhi: The volume of crude purchased by India in April this year fell by 4.3% compared with the same period last year, but the import bill surged by more than 50% due to a sharp rise in global oil prices, provisional data compiled by govt's Petroleum Planning and Analysis Cell showed.

India imported 20.1 million tonnes (MT) of crude in April this year and paid \$16.3 billion for it, compared with 21 MT purchased for \$10.7 billion in the same month last year. Crude prices



File photo

Crude prices surged nearly 70% between April 2025 & April 2026

surged nearly 70% between April 2025 and April 2026, with the Indian oil basket averaging \$114.48 per barrel this year against \$67.72 per barrel in 2025.

As LPG supplies from

West Asia remained restricted due to the war and disruption in the key trade route through the Strait of Hormuz, Indian refineries ramped up production by 30% — from one million tonne (MT) in April 2025 to 1.3 MT in the first month of this fiscal. Consumption, however, declined from 2.5 MT to 2.2 MT during the period, as supply was regulated through delivery authentication codes, or OTPs, and the booking period for refills was increased to 25 days in urban areas and 45 days in rural areas.

Imports of liquefied nat-

ural gas (LNG), which is used to produce automobile fuel CNG and cooking gas PNG, fell by nearly 30% — from 2,778 million metric standard cubic metres (mmscm) in April 2025 to 1,954 mmscm this year. Domestic production also declined from 2,908 mmscm to 2,787 mmscm.

With LNG supplies constrained, companies sourced cargoes from Nigeria, Angola, Oman and Indonesia. Total natural gas consumption in April 2026 stood at 4,703 mmscm, 16.7% lower than in the corresponding month of the previous year.

पश्चिम एशिया संकट का असर

रूसी तेल पर प्रतिबंध से छूट बढ़ाना बड़ी राहत

शुभांगी माथुर
नई दिल्ली, 19 मई

अमेरिका ने रूसी कच्चे तेल और पेट्रोलियम उत्पादों की खरीद पर प्रतिबंध की छूट को एक महीने के लिए बढ़ा दिया है ताकि 'सबसे कमजोर देशों' को समुद्र में फंसे रूसी तेल तक अस्थायी पहुंच मिल सके। विशेषज्ञों के अनुसार यह अमेरिकी फैसला भारत के लिए बड़ी राहत है।

अमेरिकी वित्त विभाग के विदेशी संपत्ति नियंत्रण कार्यालय के आदेश के अनुसार देशों को 17 अप्रैल या उससे पहले जहाजों पर लोड किए गए रूसी कच्चे तेल को 17 जून तक खरीदने की अनुमति है।

अमेरिकी वित्त मंत्री स्कॉट बेसेंट ने एक्स प्रोस्ट में कहा, 'यह विस्तार अतिरिक्त मजबूती प्रदान करेगा और हम इन देशों के साथ आवश्यकतानुसार विशिष्ट लाइसेंस प्रदान करने के लिए काम करेंगे। यह सामान्य लाइसेंस कच्चे तेल के भौतिक बाजार को स्थिर करने। इसके अलावा यह सुनिश्चित करने में मदद करेगा कि तेल सबसे अधिक ऊर्जा-संवेदनशील देशों तक पहुंचे।' बेसेंट ने कहा कि 30 दिनों का अस्थायी सामान्य लाइसेंस चीन की रियायती तेल का भंडारण करने की क्षमता को कम करके मौजूदा आपूर्ति को सबसे जरूरतमंद देशों तक पहुंचाने में भी मदद करेगा। इससे पहले दी गई अमेरिकी छूट 16 मई को समाप्त हो गई थी।

वरिष्ठ सरकारी अधिकारी ने 18 मई को कहा कि अमेरिकी छूट के अभाव में भी भारतीय रिफाइनर रूस से कच्चा तेल खरीदना जारी रखेंगे। पेट्रोलियम और प्राकृतिक गैस मंत्रालय की संयुक्त सचिव सुजाता शर्मा ने कहा, 'मैं इस बात



पर जोर देना चाहूंगी कि हम छूट से पहले और उसके दौरान भी रूस से (कच्चा तेल) खरीदते रहे हैं। हम अभी भी खरीद रहे हैं। तेल कंपनियों के लिए (रूसी तेल) खरीदना व्यावसायिक दृष्टि से उचित होना चाहिए।'

विशेषज्ञों का कहना है कि अमेरिकी छूट ने भारतीय तेल कंपनियों को प्रतिबंधित रूसी कंपनियों से कच्चा तेल खरीदने में सक्षम बनाया है, जिससे ईंधन की उपलब्धता तय हुई है। इक्रा के वरिष्ठ उपाध्यक्ष व कॉर्पोरेट रेटिंग्स के सह-समूह प्रमुख प्रशांत वशिष्ठ ने 15 मई को कहा, 'भुगतान संबंधी बाधाओं और अन्य संबंधित मुद्दों को देखते हुए यदि अमेरिकी छूट का नवीनीकरण नहीं होता है तो भारतीय तेल कंपनियों को रूसी तेल की खरीद कम करनी होगी।' भारत ने अमेरिका से छूट के कारण पश्चिम एशिया संघर्ष की शुरुआत से ही रूस से

रूस की बड़ी हिस्सेदारी

■ देशों को 17 अप्रैल या उससे पहले जहाजों पर लोड किए गए रूसी कच्चे तेल को 17 जून तक खरीदने की अनुमति

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■ भारत ने मई में अब तक रोजाना 18.7 लाख बैरल रूसी तेल खरीदा है और यह कुल आयात का 40 प्रतिशत है

कच्चे तेल की खरीद बढ़ा दी है ताकि देश में ईंधन की उपलब्धता सुनिश्चित हो सके। मेरीटाइम इंटेलिजेंस फर्म केप्लर के आंकड़ों के अनुसार भारत ने मई में अब तक प्रतिदिन 18.7 लाख बैरल (बीपीडी) रूसी तेल खरीदा है जो उसके कुल तेल आयात का लगभग 40 प्रतिशत है।

अमेरिकी प्रतिबंधों के तहत देशों को रोसनेफ्ट और लुकऑयल सहित प्रतिबंधित कंपनियों से रूसी तेल खरीदने की अनुमति है। इन कंपनियों पर अमेरिका ने पहले प्रतिबंध लगा रखा था। अमेरिकी प्रतिबंधों से पहले ये दोनों तेल उत्पादक भारत की कुल रूसी तेल खरीद का लगभग 60 प्रतिशत आपूर्ति करते थे। दरअसल पश्चिम एशिया में भारत के पारंपरिक आपूर्तिकर्ताओं जैसे इराक, सऊदी अरब और कतर से आपूर्ति सीमित बनी हुई है, इसलिए रिफाइनर रूसी कच्चे तेल पर अधिक निर्भर हो गए हैं।

कोयले से गैस बनाने की योजनाओं को प्राथमिकता

दशकों तक भारत में कोयले की एक ही भूमिका रही कि इसे जलाकर बिजली बनाई जाए। आज वही कोयला उर्वरक, इस्पात के कच्चे माल, परिवहन ईंधन और हाइड्रोजन में बदल सकता है। इसे अब सिर्फ ऊर्जा स्रोत के रूप में नहीं बल्कि एक रणनीतिक औद्योगिक कच्चे माल के रूप में देखा जा रहा है। यह बदलाव कोयले से गैस बनाने के कारण ही संभव हुआ है और यह प्रक्रिया अब केवल प्रयोगात्मक नहीं रही बल्कि यह राष्ट्रीय प्राथमिकता भी बनती जा रही है।

गैस बनाने की मूल प्रक्रिया रासायनिक है न कि उष्मीय। इसमें कोयले को 700-1,500 डिग्री सेल्सियस तापमान पर कम ऑक्सीजन वाले वातावरण में गर्म किया जाता है, जिससे सिंथेसिस गैस बनती है जो हाइड्रोजन और कार्बन मोनोऑक्साइड का मिश्रण होती है। यही मध्यवर्ती उत्पाद एक पूरी मूल्य श्रृंखला को तैयार करता है जैसे कि अमोनिया, यूरिया, मेथनॉल, सिंथेटिक प्राकृतिक गैस और पेट्रोकेमिकल कच्चे माल। किसी सीमित संसाधन वाली अर्थव्यवस्था में यह सिर्फ तकनीक में विविधता नहीं बल्कि मूल्य को उच्चतम सीमा तक ले जाने का माध्यम भी है।

भारत के हाल के कदम स्पष्ट संकेत देते हैं कि अब हिचकिचाहट नहीं बल्कि ठोस इरादा है। भूमिगत कोयले से गैस बनाने का प्रायोगिक परीक्षण झारखंड में चल रहा है, जिसमें कोयले का खनन किए बिना ही उसे रूपांतरित किया जाता है। भारत हेवी इलेक्ट्रिकल्स लिमिटेड (बीएचईएल) ने भारत के अधिक राख वाले कोयले के लिए उपयुक्त देसी गैस बनाने वाली तकनीक विकसित की है, जिससे अधिक मूल्य वाले मेथनॉल का उत्पादन संभव हो। साथ ही, निजी क्षेत्र भी अब इस क्षेत्र में पूरी गंभीरता से शामिल हो रहा है।

भारत ने वित्त वर्ष 2025 में 104.7 करोड़ टन से अधिक कोयला उत्पादन किया। देश के पास लगभग 199 अरब टन प्रमाणित भंडार और 401 अरब टन कुल भूवैज्ञानिक भंडार हैं जो वैश्विक स्तर पर इसे विश्व के सबसे बड़े कोयला संपन्न देशों में से एक बनाते हैं। फिर भी, लगभग 80 फीसदी कोयला अब भी

बिजली के लिए जलाया जा रहा है। यह हमारे प्राकृतिक संसाधन का क्षमता से कम उपयोग है। आयात पर अधिक निर्भरता की वजह से आवश्यकता और भी बढ़ जाती है। हर भू-राजनीतिक संकट, चाहे वह होर्मुज स्ट्रेट हो या टैरिफ-नीतियां, सीधे महंगाई में बदल जाता है। इस तरह की परिस्थितियों के बीच कोयला से गैस बनाना वास्तव में एक घरेलू रणनीतिक सुरक्षा उपाय करना है।

अनुमान है कि यदि गैस बनाने की योजना का पैमाना बढ़ाया जाए तब यह आयात में सालाना 15 अरब डॉलर की बचत कर सकता है और घरेलू उर्वरक व रासायनिक उत्पादन का माध्यम से 60,000 से 90,000 करोड़ रुपये की बचत संभव है। यह सिर्फ ऊर्जा बदलाव ही नहीं बल्कि समग्र अर्थव्यवस्था में स्थिरता का भी साधन है। नीति और निवेश की गति भी इस बदलाव को दर्शाती है। करीब 8,500 करोड़ रुपये की व्यवहार्यता अंतर से जुड़ी फंडिंग योजना (2024) वर्ष 2030 तक 10 करोड़ टन गैस बनाने की क्षमता के लक्ष्य से जुड़ा है जिसमें 4,050 करोड़ रुपये सार्वजनिक क्षेत्र के लिए और 4,450 करोड़ रुपये निजी खिलाड़ियों के लिए हैं। बुधवार को मंत्रिमंडल ने 37,500 करोड़ रुपये की एकिकृत प्रोत्साहन योजना को मंजूरी दी, जिसमें हरेक परियोजना के लिए अधिकतम समर्थन 3,000 करोड़ रुपये है जिसका लक्ष्य तरलीकृत प्राकृतिक गैस (एलएनजी) यूरिया, अमोनिया, मेथनॉल और डायरेक्ट रिड्यूसड आयरन में आत्मनिर्भरता है। इसके साथ ही 50,000 करोड़ रुपये की योजना भी प्रस्तावित है ताकि 20,000 मेगावॉट की निष्क्रिय गैस आधारित क्षमता को फिर से उभारा जा सके। महाराष्ट्र, ओडिशा और पश्चिम बंगाल में पहले से ही 64,000 करोड़ रुपये की सात बड़ी गैस बनाने वाली परियोजनाएं चल रही हैं। विशेषज्ञों का अनुमान है कि वर्ष 2026 और 2030 के बीच 15-20 बड़े

कॉम्प्लेक्स की आवश्यकता होगी ताकि 10 करोड़ टन का लक्ष्य हासिल किया जा सके। परियोजना पाइपलाइन वास्तव में एक ठोस पारिस्थितिकी तंत्र को दर्शाती है जिसमें नीति, तकनीक, पूंजी और क्रियान्वयन एक साथ आ रहे हैं। इसके तहत प्रमुख गतिविधियां कुछ इस तरह की हैं-मसलन कोल इंडिया लिमिटेड और बीएचईएल का संयुक्त उद्यम (11,782 करोड़ रुपये की लागत वाला) ओडिशा के लखनपुर में, कोल इंडिया और गेल (इंडिया) का पश्चिम बंगाल के सोनपुर बाजारी में संयुक्त उद्यम (13,052 करोड़ रुपये), दुर्गापुर स्टील संयंत्र में सीआईएल-स्टील अथॉरिटी ऑफ इंडिया लिमिटेड का संयुक्त उद्यम जो वित्त वर्ष 2029 में शुरू होने वाला है। इसके अलावा ओडिशा में 13,000 करोड़ रुपये की तलचर उर्वरक

परियोजना जो भारत की पहली कोयले से गैस पर आधारित यूरिया परियोजना है जिसकी वार्षिक उत्पादन क्षमता 12.7 लाख टन है। यह गेल, कोल इंडिया, राष्ट्रीय केमिकल्स एंड फर्टिलाइजर्स लिमिटेड और फर्टिलाइजर कॉरपोरेशन ऑफ इंडिया लिमिटेड का संयुक्त उद्यम है और इसका उद्घाटन सितंबर 2018 में प्रधानमंत्री ने किया था।

निजी क्षेत्र की पहल भी उतनी ही महत्त्वपूर्ण हैं जैसे जिंदल स्टील का अंगुल संयंत्र काम कर रहा है जो दुनिया के सबसे बड़े सिंथेसिस गैस आधारित इस्पात संयंत्रों में से एक है। इसके अलावा महाराष्ट्र के रायगढ़ में नई परियोजनाएं शुरू हो रही हैं। न्यू एरा क्लीनटेक का 2.5 अरब डॉलर का कोयले से एथनॉल बनाने की प्रक्रिया में निवेश और एनएलसी इंडिया की लिम्नाइट से मेथनॉल बनाने वाली परियोजना इस पारिस्थितिकी तंत्र में और भी विस्तार कर रही हैं। हाल के घटनाक्रम यह संकेत देते हैं कि इंजीनियरिंग और क्रियान्वयन क्षमता भी गहराई से बढ़ रही है। कुल परियोजना पाइपलाइन अब

85,000 करोड़ रुपये से अधिक हो चुकी है। मौजूदा समय को पांच अनुकूल परिस्थितियां विशेष बनाती हैं, जैसे कि घरेलू कोयले को प्रचुर आपूर्ति, भारत के अनुकूल तकनीक, मजबूत नीति समर्थन, बढ़ती निजी भागीदारी और ऐसा भू-राजनीतिक माहौल जो आयात पर निर्भरता को हतोत्साहित करता है। इसके आर्थिक तर्क भी मजबूत हैं। घरेलू कोयले से मिली सिंथेसिस गैस आयातित एलएनजी का विकल्प बन सकती है, किसानों को घर में तैयार यूरिया उपलब्ध करा सकती है, इस्पात क्षेत्र में कोकिंग कोल के आयात को कम कर सकती है और हाइड्रोजन पर आधारित अर्थव्यवस्था में बदलाव के लिए सेतु का काम कर सकती है। लेकिन यहीं सावधानी की आवश्यकता भी है। गैस बनाने की परियोजनाओं में काफी पूंजी की दरकार होती है, ये तकनीकी रूप से जटिल और वैश्विक मूल्य चक्रों के प्रति संवेदनशील होती हैं। भारत इससे पहले भी इस चुनौती का सामना कर चुका है। जब पहले तेल की कीमतें कम थीं तब गैस बनाने में दिलचस्पी कम हो जाती थी। हालांकि चीन ने इसे बरकरार रखा। दोनों देशों ने एक साथ इस पर पहल की। हालांकि इसके विपरीत, चीन ने इसे रणनीतिक प्राथमिकता के रूप में अपनाया और धैर्यपूर्वक पूंजी निवेश किया। आज चीन सालाना 8 करोड़ टन से अधिक गैस बनाता है और यह कोयले से मिले सिंथेसिस गैस के माध्यम से वैश्विक मेथनॉल और अमोनिया उत्पादन में प्रमुख है। भारत का उत्पादन इस पैमाने का केवल 3 से 5 फीसदी है।

भारत अब एक निर्णायक मोड़ पर खड़ा है। कोयले पर बहस अक्सर इसे जारी रखने और बदलाव के बीच सीमित हो जाती है। गैस बनाने की प्रक्रिया इसे पूरी तरह से नया रूप देता है। कोयले को जलाने के बजाय उसका सही इस्तेमाल किया जाए, तो यह सिर्फ ईंधन नहीं बल्कि काम का कच्चा माल बन सकता है, बड़े अवसर तैयार कर सकता है और स्वच्छ ऊर्जा में भी तब्दील हो सकता है और हमारे ऊर्जा सुरक्षा, औद्योगिक नीति और आर्थिक एवं पर्यावरणीय लचीलेपन को फिर से परिभाषित कर सकता है। लेकिन सवाल यह है कि यह बदलाव दशकों तक क्यों रुका रहा।

(लेखक बुनियादी ढांचे के विशेषज्ञ हैं और इन्फ्राविजन फाउंडेशन के संस्थापक तथा प्रबंध न्यासी हैं। शोध में डॉ. मुत्तुम चाओबिसाना का भी योगदान है।)



बुनियादी ढांचा

विनायक चटर्जी