

EXPLAINED ECONOMICS

Oil reserves in salt caverns

A Govt-owned engineering firm is studying whether petroleum reserves can be developed in Rajasthan's salt caverns. Why do countries need SPRs, and how is salt-cavern storage different from rock-caverns?

SUKALP SHARMA
NEW DELHI, JUNE 2

GOVERNMENT-OWNED engineering consultancy firm Engineers India (EIL) is studying the prospects and feasibility of developing salt cavern-based strategic oil reserves in Rajasthan, in line with the government's objective of increasing the country's strategic oil storage capacity.

If the idea comes to fruition, India could get its first salt cavern-based oil storage facility. The country's three existing strategic oil storage facilities — at Mangaluru and Padur in Karnataka, and Visakhapatnam in Andhra Pradesh — are made up of excavated rock caverns.

Countries build strategic crude oil reserves to mitigate major supply disruptions in the global supply chain. India, the world's third-largest consumer of crude, depends on imports for more than 85% of its requirement — and strategic petroleum reserves (SPR) could help ensure energy security and availability during global supply shocks and other emergencies.

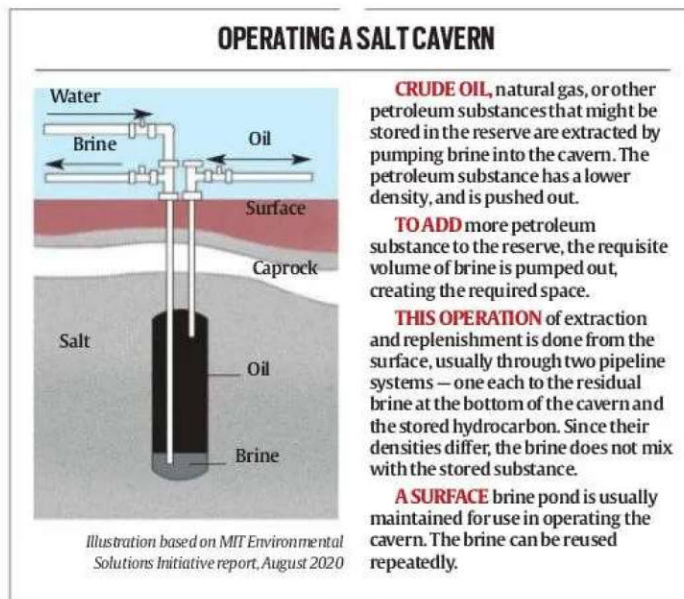
India currently has an SPR capacity of 5.33 million tonnes, or around 39 million barrels of crude, that can meet around 9.5 days of demand. The country is in the process of expanding its SPR capacity by a cumulative 6.5 million tonnes at two locations — Chandikhol in Odisha (4 million tonnes) and Padur (2.5 million tonnes).

India's strategic oil reserves come under the Petroleum Ministry's special purpose vehicle Indian Strategic Petroleum Reserve (IS-PRI). EIL was instrumental in setting up the country's existing SPR as the project management consultant.

Salt cavern-based storage, which is considered cheaper and less labour- and cost-intensive than rock caverns, could add a new, much needed chapter to India's SPR story.

Salt cavern-based reserves v. rock cavern-based reserves

Unlike underground rock caverns, which are developed through excavation, salt caverns are developed by the process of solution mining, which involves pumping water into geological formations with large salt deposits to dissolve the salt. After the brine (water with dissolved salt) is pumped out of the formation, the space can be used to store crude oil. The process is simpler, faster, and less cost-intensive than developing exca-



vated rock caverns.

Salt cavern-based oil storage facilities are also naturally well-sealed, and engineered for rapid injection and extraction of oil. This makes them a more attractive option than storing oil in other geological formations, according to a report by the Environmental Solutions Initiative at the Massachusetts Institute of Technology (MIT).

The salt that lines the inside of these caverns has extremely low oil absorbency, which creates a natural impermeable barrier against liquid and gaseous hydrocarbons, making the caverns apt for storage. Also, unlike rock caverns, salt cavern-based storages can be created and operated almost entirely from the surface.

The entire SPR programme of the United States has so far been based on salt cavern-based storage facilities. The US Strategic Petroleum Reserve, the world's largest emergency oil storage, consists of four sites with deep underground storage caverns created in salt domes along the Gulf of Mexico coast in Texas and Louisiana. The US strategic oil reserves have a cumulative capacity of around 727 million barrels.

Salt caverns are also used to store liquid fuels and natural gas in various parts of the

world. They are also considered suitable for storing compressed air and hydrogen.

Potential in India for storing crude, petroleum products

Rajasthan, which has the bulk of requisite salt formations in India, is seen as the most conducive for developing salt cavern-based strategic storage facilities. Plans over the past decade to build a strategic oil reserve in Bikaner did not take off — and EIL's Chairman and Managing Director Vartika Shukla said the exploration of the possibility of salt cavern-based strategic storage in Rajasthan can be seen as a renewal of that proposal.

A refinery is coming up in Barmer, and Rajasthan has crude pipelines as well; such infrastructure is conducive for building strategic oil reserves. However, no Indian company, including EIL, had the requisite technical know-how to build salt cavern-based strategic hydrocarbon storage. This gap in access to technology has been bridged by EIL's recent partnership with Germany's DEEPKBB GmbH — a company that specialises in cavern storage and solution mining technology — Shukla said.

However, it is still too early to identify a specific site or make an estimate of the project cost, she said.

"Once the technology or knowledge is there, only then can we have estimates as to what kind of costs will be involved, and there are so many other factors as well. There will be many steps to project approval. But it is important that India gets that technology, EIL gets that technology to...get an estimate and see how feasible it is," Shukla said.

Strategic petroleum reserves programme: story so far

India's strategic oil reserves are part of the effort to build sufficient emergency stockpiles on the lines of the reserves that the US and its Western allies set up after the first oil crisis of the 1970s. The three existing rock cavern-based facilities were built during the first phase of the programme.

Crude oil from the reserves are to be released by an empowered committee set up by the government, in the event of supply disruptions due to a natural calamity or an unforeseen global event leading to an abnormal increase in prices.

The International Energy Agency (IEA), a Paris-based autonomous intergovernmental organisation in which India is an 'Association' country, recommends that all countries should hold an emergency oil stockpile sufficient to provide 90 days of import protection.

In India, apart from the SPR that are sufficient to meet 9.5 days of oil requirement, the oil marketing companies (OMCs) have storage facilities for crude oil and petroleum products for 64.5 days — which means there is sufficient storage to meet around 74 days of the country's petroleum demand.

India has also decided to commercialise its strategic petroleum reserves, as part of which the Abu Dhabi National Oil Company (ADNOC) stored about 0.8 million tonnes of crude oil in the Mangaluru strategic reserve. In the second phase of the programme, the government wants to develop strategic reserves through public-private partnerships so as to reduce government spending and exploit the commercial potential of the reserves.

Taking advantage of low crude oil prices in April-May 2020, the government completely filled these reserves, leading to estimated savings of around Rs 5,000 crore. In late 2021, India released 5 million barrels from its strategic reserves as part of a coordinated US-led action by major oil consuming countries against the joint decision of major oil producing nations to curb output.



ONGC to maintain financial flexibility as earnings steady: S&P

PTI ■ NEW DELHI

State-owned ONGC's operating cash flows will rise over the next 12-24 months due to higher production volumes, stable earnings from domestic gas production, and the removal of a windfall tax on crude oil, S&P Global Ratings said on Friday.

"This should help the company maintain its good credit quality, despite its investment plans and healthy shareholder distributions," the rating agency said in a statement.

ONGC is India's largest oil

and gas producer.

"We estimate that ONGC's domestic production volumes will rise by 8-10 per cent for fiscal 2024 (year ending March 31). The increase is attributable to the start of oil production from its block in the Krishna Godavari basin later this year," S&P said.

At the same time, production at the Sakhalin-1 project of ONGC Videsh Ltd (OVL) should also recover to fiscal 2022 levels, after a period of disruptions because of geopolitical issues.

Oil and Natural Gas

Corporation produced a total of 42.8 million tonne of oil equivalent (mmtoe) in fiscal 2023 compared with 43.4 mmtoe in fiscal 2022. OVL produced a total of 10.2 mmtoe in fiscal 2023, down from 12.3 mmtoe in fiscal 2022.

"Growth in production volumes will outstrip the impact of moderating oil prices on ONGC's earnings, in our view. We estimate the company's EBITDA at Rs 1-1.1 lakh crore over fiscals 2024 and 2025, compared with about Rs 98,700 crore in fiscal 2023," it said.

OPEC+ unlikely to agree bigger oil cuts on Sunday, say sources

VIENNA: OPEC and its allies are unlikely to decide on further oil supply cuts at a meeting on Sunday despite a fall in oil prices toward \$70 per barrel this week, two sources from the alliance said on Friday although another said the outcome was still unclear.

OPEC+, which groups the Organization of the Petroleum Exporting Countries and allies led by Russia, pumps around 40 per cent of the world's crude, meaning its policy decisions can have a major impact on oil prices.

Two OPEC+ sources said they did not expect the group to agree further output cuts on Sunday, when OPEC+ ministers gather at 2 p m in Vienna (1200 GMT).

Before then, OPEC ministers will meet at 11 a.m. on Saturday.

Saudi Energy Minis-



ter Prince Abdulaziz bin Salman and his counterparts from Algeria and the United Arab Emirates are among those expected to arrive in Vienna later on Friday, sources said.

As the economic outlook worsened, several members of OPEC+ in April pledged voluntary cuts starting from May, adding to a 2 million barrels per day (bpd) reduction agreed last year, *Reuters* reported.

Another source said it was too soon to be sure of the outcome on Sunday, with bilateral talks between ministers expected ahead of

the meeting.

A fourth source said the idea of formalising the voluntary cuts as an OPEC+ decision was being looked at.

The surprise announcement in April helped drive oil prices about \$9 per barrel higher to above \$87 before retreating to trade around \$75 on Friday, under pressure from concerns about global economic growth and demand.

Last week, Prince Abdulaziz told investors he said were shorting the oil price to "watch out", which many market watchers interpreted as a warning of additional supply cuts.

But Russian Deputy Prime Minister Alexander Novak subsequently said he did not expect any new steps from OPEC+ in Vienna, Russian media reported.

AGENCIES

OPEC+ challenge is fixing an internal squabble

Saudi-UAE tension on production quotas could determine fate of the crude market for months

While Russia, Iran and Venezuela are pumping more oil than expected right now, despite Western sanctions, the key country to watch going into 2024 is the United Arab Emirates, the fourth-largest producer within the OPEC+ alliance. For several years, the UAE has fought an unsuccessful campaign for a higher quota, commensurate with its rising production capacity. The Emirati push erupted into public in July 2021, when Riyadh and Abu Dhabi clashed at an OPEC+ meeting, forcing the group to adjourn the gathering. The meeting didn't re-start until after the UAE several days later backed off from its demands under Saudi pressure.

Almost two years later, the market has largely forgotten about that episode. But the feud hasn't gone away, and it could become central in the next few months as OPEC+ starts to plot its 2024 production policy. The difference from 2021 is that Riyadh appears to be ready to oblige its neighbour. The tensions have been expressed in a series of off-the-record briefings by both sides, with some Emirati diplomats even questioning the value of its OPEC membership. My belief is that those briefings were more a tool in the campaign to secure a quota increase than a real threat. If Riyadh allows Abu Dhabi to pump more oil in 2024, as it seems the deal is, I believe the UAE will be happy to stay at OPEC.



**JAVIER
BLAS**

Bloomberg

With the oil market already in surplus, largely due to Russian production, it's difficult to see how committing to add supply would be anything but bearish. Oil prices have fallen to nearly \$70 a barrel, down almost 30% from late last year.

And that decline is even worse when adjusted for inflation. Currently, the purchasing power of a barrel of oil, in real terms, is back to where it was in 2005. If supply and demand behave in the second half of the year as OPEC currently expects, tightening the market in late 2023 and early 2024, allowing the UAE to boost its production could be easy. The increase would be soaked up by demand for extra oil. But if the market remains loose, any increase could put pressure on prices.

Based on the latest deal among a handful of OPEC nations in late April, the UAE has a "voluntary" production level of 2.875 million barrels a day. But the country says it can produce more than 4 million. As such, nearly a third of its pumping capability is going unused.

What new output target would satisfy the UAE? If you believe the chatter of Middle East-based diplomats, Abu Dhabi and Riyadh have already agreed in private to a compromise increase. The midpoint, around 3.5 million barrels a day, is probably a good bet. Both sides could claim victory. If, as I expect, the UAE wins a higher quota in 2024, it's likely to be the first step in a series of increases. Last year, Abu Dhabi brought forward its plan to reach a production capacity of 5 million barrels a day to 2027, from an initial target of 2030.

Politically, it won't be easy for OPEC+ to redraw its individual quotas. The last time, it was during the depths of the Covid-19 pandemic, when demand for oil evaporated. The group was under pressure and agreeing to new national targets become easier. But admitting that one can't pump as much as OPEC allows is rather difficult politically.

OPEC+ is fighting low oil prices right now. Its attention—and that of the market—is on the next few weeks.

But looking ahead, into 2024, if the UAE gets its way at OPEC+, we could see more downward pressure on oil prices.



Output growth to outstrip fall in oil prices for ONGC: S&P

MANISH GUPTA
New Delhi, June 2

GROWTH IN PRODUCTION volumes will outstrip the impact of moderating oil prices on Oil & Natural Gas Corporation's (ONGC) earnings in the current fiscal, S&P Global Ratings said in a statement on Friday.

"We estimate the company's Ebitda at ₹1 trillion-1.1 trillion over fiscals 2024 and 2025, compared with about ₹987 billion in fiscal 2023," the rating agency said about India's largest oil & gas producer.

ONGC's operating cash flows will rise over the next 12-24 months thanks to higher production volumes, stable earnings from domestic gas production and the removal of a windfall tax on crude oil, it said.

"We estimate that ONGC's domestic production volumes will rise by 8-10% for fiscal 2024. The increase is attributable to the start of oil production from its block in the Krishna Godavari basin later this year. At the same time, production at the Sakhalin-1 project of ONGC Videsh (OVL) should also recover to fiscal 2022 levels, after a period of disruptions because of geopolitical issues," S&P said.

ONGC produced a total of 42.8 million metric tonne of oil equivalent (mmtoe) in fiscal 2023 com-



S&P Global Ratings forecasts that the Brent crude oil price will be \$90 per barrel for the rest of 2023 and \$85 per barrel for 2024 and 2025

pared with 43.4 mmtoe in fiscal 2022. OVL produced a total of 10.2 mmtoe in fiscal 2023, down from 12.3 mmtoe in fiscal 2022.

S&P Global Ratings forecasts that the Brent crude oil price will be \$90 per barrel for the rest of 2023 and \$85 per barrel for 2024 and 2025.

In its view, the average realisation on domestic gas production will be \$6.5 per metric million British thermal unit (mmbtu) in FY24, compared with \$7.5 per mmbtu in FY23. The realisation rate is in line with India's new gas price formula, calcu-

lated at 10% of the average price of the crude basket in the preceding month, but capped at \$6.5 per mmbtu.

"We expect ONGC to continue to direct 55%-60% of its operating cash flows for capital investments over the next 12-24 months. In fiscal 2024, it will spend about ₹32,000 crore at the stand-alone level and about ₹14,000 crore at its subsidiary, Hindustan Petroleum Corp," it said, adding that it estimates ONGC to invest about ₹47,500 crore in total over the year.

Investments on exploration and production in existing onshore and offshore fields are critical for ONGC because production volumes have declined consistently since fiscal 2020, it added.

The state-run company has a sufficient cushion to undertake additional investments and maintain healthy shareholder distributions, said the rating agency. It will step up its investments in renewables and diversify its petrochemicals business starting fiscal 2025.

ONGC plans to spend ₹1 trillion to achieve its 10-gigawatt in green energy goal by 2030. Currently, it has renewable energy capacity of 340 MW, and it has committed to net zero for scope 1 and 2 emissions by 2038.



Relaxed Impact Regime Sought to Scale Up 'Green Hydrogen'

MNRE seeks 'white' list status, green impact exemption for fledgling industry

Anubhuti.Vishnoi
@timesgroup.com

New Delhi: A relaxed environmental impact regime is being sought and considered to facilitate a scale up of the emission-cutting Green Hydrogen projects in India.

The Ministry of New & Renewable energy (MNRE) has asked the green ministry to shift Green Hydrogen projects, industry from 'red' list to 'white' list, spare it from the tougher environmental scrutiny which it has to undergo currently and help converge financial schemes to help boost the upcoming green hyd-

rogen project ecosystem in India, ET has learnt. The discussions come amid a growing governmental focus on 'Green Hydrogen' as a key approach towards decarbonisation amid increased industrial growth and overall infrastructure development in the country.

The Union Cabinet approved a ₹19,774 crore Green Hydrogen Mission in January and the government has already announced production target of 5MT green Hydrogen by 2030.

Accordingly, the Centre is working on an incentive and facilitation regime to encourage setting up of Green Hydrogen industry in India.

The MNRE is expected to soon float

out Green Hydrogen bids and will also roll out an incentive framework

prior to the same.

Accordingly, it has flagged off some of the key concerns raised by industry to the Ministry of Environ-

ment, Forests and Climate Change (MoEF & CC) for consideration, ET has learnt. As per the 2016 categorisation of industry by the Central Pollution Control Board (CPCB), industry sectors with pollution score of above 60 are categorised as 'Red' while those with a score below 20 are in the 'white' category. White category industries do not require the 'consent to operate' and only need to intimate the State Pollution Control Board/ Pollution Control Committee.

The CPCB placed all RE projects in the 'white' category in March 2016. The MNRE has sought that similar 'white' category status be awarded to green hydrogen/ammonia projects, industry as well.

Currently, Green Hydrogen/Ammonia is in the 'red list' as per the pollution index score.

The industry has represented that 'Green Ammonia' /Green Hydrogen involves use of renewable energy sources – solar or wind power etc- for splitting of water to gain 'green' hydrogen which is then combined with nitrogen to create the more easily transportable 'green ammonia'. This is quite unlike the conventional method which involved use of natural gas for the purpose, generating high carbon emissions in the process of generating ammonia. Accordingly, a re-categorisation has been sought keeping in mind lowered emissions expected from 'green' ammonia production.



GDP 2022-23 में 7.2% की दर से बढ़ी, जो दुनिया में सबसे तेज इकॉनमी में आया कैसा बदलाव



अखिलेश झा

विश्व-बाजार में कच्चे तेल के बढ़ते दाम और उस बाजार की अस्थिरता ने हमेशा से भारतीय अर्थव्यवस्था को नकारात्मक रूप से प्रभावित किया है। चाहे वह मुद्रास्फीति के रूप में हो या राजकोषीय और व्यापारिक घाटे के रूप में। ये नकारात्मक पहलू ही आगे चलकर विकास दर, ब्याज दरों और भारतीय मुद्रा की कमजोरी का कारण बनते हैं। लेकिन, भारतीय अर्थव्यवस्था ने रूस-यूक्रेन युद्ध के बाद पहली बार कच्चे तेल के बाजार की उथलपुथल से प्रभावित न होते हुए अपनी रफ्तार न सिर्फ बनाए रखी, बल्कि उसमें नई धार भी ला दी।

आर्थिक मजबूती

मॉर्गन स्टैनली रिसर्च ने पिछले सप्ताह एक रिपोर्ट प्रकाशित की, जिसमें भारतीय अर्थव्यवस्था की इस अप्रत्याशित उपलब्धि की ओर ध्यान दिलाया गया है। इसी रिपोर्ट में इस बात का संकेत भी है कि भारतीय अर्थव्यवस्था ने अमेरिका की आर्थिक मंदी की चपेट में आ जाने की परिपाटी से भी एक हद तक मुक्ति पा ली है। ये दो अहम बिंदु न सिर्फ भारतीय बाजार की बढ़ती ताकत के संकेतक हैं, बल्कि भारत की कूटनीतिक सक्रियता और उसे भारतीय आर्थिक हितों के अनुरूप दिशा देने के सशक्त प्रयासों को भी रेखांकित करते हैं।

- पिछले एक दशक में कॉरपोरेट टैक्स में लगभग दस प्रतिशत की कमी आई है और प्रभावी टैक्स की दर के 25% के स्तर पर यह एशिया की प्रमुख अर्थव्यवस्थाओं से प्रतिस्पर्धा करने में सक्षम है। आकर्षक टैक्स दरों की वजह से विदेशी निवेश बढ़ाने में मदद मिलती है।
- इन्फ्रास्ट्रक्चर से जुड़े हर क्षेत्र में जिस गति से विकास हो रहा है, उसने बाजार को न सिर्फ प्रोत्साहित किया है, बल्कि उसकी उत्पादकता और उसमें लाभ के अवसरों को भी बढ़ाया है। पिछले 9 वर्षों में भारत के राष्ट्रीय राजमार्ग की लंबाई दोगुनी हुई। इसी अवधि में रेलवे में सात गुना से भी अधिक विद्युतीकरण हुआ है और गैर-परंपरागत ऊर्जा का उत्पादन लगभग चार गुना बढ़ा है।

मॉर्गन स्टैनली रिसर्च का अनुमान है कि अगर भारत में इन्फ्रास्ट्रक्चर के क्षेत्र में इसी गति से विकास होता रहा, तो बहुत जल्द ही रसद लागत, जो अभी जीडीपी के 14-15% तक आती है, घटकर लगभग 8% के आसपास रह जाएगी। यह वही स्तर है, जिसमें कोई अर्थव्यवस्था विकासशील से निकलकर विकसित की श्रेणी में आकर खड़ी हो जाती है।

- भारतीय बाजार में नगद को डिजिटल लेन-देन बहुत तेजी से पकड़े छोड़ रहा है। यह न सिर्फ अर्थव्यवस्था में पारदर्शिता बढ़ा रहा है, बल्कि उसे गतिशील भी कर रहा है।
- जीडीपी के सापेक्ष डिजिटल लेन-देन 2015-16 में महज 4.4% थी, जो साल 2022-23 में 76.01% हो गई है।



दुनिया की सुस्त होती रफ्तार के बीच ग्रेक है भारतीय अर्थव्यवस्था की तेजी



रूस से कच्चे तेल की सप्लाई अहम रही

इस बदलाव का एक बहुत बड़ा कारण भारत सरकार की वित्तीय समावेशी नीतियां हैं, जिसने समाज के हर वर्ग और देश के हर कोने को इस बदलाव के लिए मानसिक रूप से और कौशल के साथ तैयार किया।

भारतीय अर्थव्यवस्था की पिछले नौ वर्ष की उपलब्धियों का एक और महत्वपूर्ण पहलू है- प्रत्यक्ष लाभान्वित (डीबीटी)।

- चाहे मनरेगा का भुगतान हो, वृद्धावस्था पेंशन हो, किसान-सम्मान-निधि हो या छात्रवृत्ति हो, सबमें लाभ सीधे लाभार्थी के बैंक या पोस्ट ऑफिस के खाते में पहुंचाया गया।
- पिछले नौ सालों में लगभग 29.4 खरब मूल्य का प्रत्यक्ष लाभान्वित लाभार्थियों के खातों में पहुंचा। 2020-21 में ऐसे लाभार्थियों की संख्या लगभग दस करोड़ तक पहुंच गई थी।
- बाजार की जरूरत के अनुरूप रोजगार के अवसर बनाने और बाजार एवं श्रम के बीच एक कारगर पुल बनाने के लिए ई-श्रम एवं श्रम-सुविधा जैसे पोर्टल बनाए गए हैं, जिन पर लगभग तीन करोड़ लोगों ने रजिस्ट्रेशन कराया है और उनमें आधे से अधिक महिलाएं हैं।

- कर्मचारी भविष्य निधि में योगदान करने वालों की बढ़ती संख्या इस बात की ओर इशारा करती है कि संगठित क्षेत्र में रोजगार के अवसर बढ़ रहे हैं। 2022-23 में ऐसे कर्मचारियों की संख्या 11.50 करोड़ हो गई थी, जो 2020-21 तक महज 8.5 करोड़ ही थी।

इन बदलावों से एक बात साफ होती है कि अब असंगठित क्षेत्र सिकुड़ रहा है और संगठित क्षेत्र का विस्तार हो रहा है। यह इससे साबित भी हो रहा है कि भारत दुनिया की दूसरी सबसे तेजी से बढ़ रही अर्थव्यवस्था है। मॉर्गन स्टैनली रिसर्च के भारतीय अर्थव्यवस्था पर किए अनुमानों की पुष्टि 31 मई को राष्ट्रीय सांख्यिकीय संगठन के आंकड़ों से भी होती है। भारत का सकल घरेलू उत्पाद 2022-23 में 7.2% की दर से बढ़ा, जो पूरी दुनिया में सबसे अधिक दर रही। भारत ने राजकोषीय घाटे का अपना 6.4% का लक्ष्य भी पूरा किया।

हाथी नहीं, चीता

पिछले नौ सालों में भारतीय अर्थव्यवस्था के कार्यालय और संभावनाओं को मॉर्गन स्टैनली रिसर्च ने ग्राफिक्स से दिखाया है। उसमें विशालकाय हाथी को चीता में रूपांतरित होते और लंबी छलांग लगाते हुए दिखाया है। हम इस बात की पूरी उम्मीद कर सकते हैं कि मौजूदा आर्थिक नीतियों और उसकी हितपोषक कूटनीतिक प्रयासों की निरंतरता से भारत न सिर्फ अर्थव्यवस्था के आधारभूत मानकों और अपनी लोककल्याणकारी योजनाओं से जनता की उम्मीदों पर खरा उतरेगा, बल्कि निवेशकों एवं उद्योगों का पसंदीदा लक्ष्य भी बनेगा।

(लेखक भारतीय सिविल लेखा सेवा के अधिकारी हैं और सम्प्रति ग्रामीण विकास एवं पंचायतराज मंत्रालय में कार्यरत हैं)



वर्मा ने एमआरपीएल के एमडी का पदभार संभाला

पेट्रोलियम और प्राकृतिक गैस मंत्रालय के आदेश के बाद संजय वर्मा ने यहां मैंगलोर रिफाइनरी एंड पेट्रोकेमिकल्स लिमिटेड (एमआरपीएल) के प्रबंध निदेशक (अतिरिक्त प्रभार) का पदभार संभाला है। वह जून 2020 से एमआरपीएल के बोर्ड में निदेशक (रिफाइनरी) के रूप में शामिल हैं। कंपनी ने गुरुवार को बयान में कहा कि उन्होंने एमएसटीपीएल, ओएनजीसी मैंगलोर पेट्रोकेमिकल्स लिमिटेड और शेल-एमआरपीएल एविएशन के बोर्ड में रहकर बेहतरीन प्रदर्शन किया है।

भाषा



**संजय वर्मा ने
एमआरपीएल के
प्रबंध निदेशक का
पदभार संभाला**

मंगलुरु। पेट्रोलियम और प्राकृतिक गैस मंत्रालय के एक आदेश के बाद संजय वर्मा ने यहां मैंगलोर रिफ़ाइनरी एंड पेट्रोकेमिकल्स लिमिटेड (एमआरपीएल) के प्रबंध निदेशक (अतिरिक्त प्रभार) का पदभार संभाला है। वह जून 2020 से एमआरपीएल के बोर्ड में निदेशक (रिफ़ाइनरी) के रूप में शामिल हैं। कंपनी ने कहा कि उन्होंने एमएसटीपीएल, ओएनजीसी मैंगलोर पेट्रोकेमिकल्स लिमिटेड और शेल-एमआरपीएल एविएशन के बोर्ड में रहकर बेहतरीन प्रदर्शन दिखाया है।

30 सितंबर तक पीएनजी में बदलवाए जा सकेंगे औद्योगिक इकाइयों के डीजी सेट

सीएक्यूएम ने कई श्रेणियों में दी छूट, ग्रेप लागू होने पर भी कर सकेंगे इस्तेमाल

संजीव गुप्ता • नई दिल्ली

अब इस तरह से संचालित हो सकेंगे डीजी सेट

डीजी सेट के इस्तेमाल को लेकर वायु गुणवत्ता प्रबंधन आयोग (सीएक्यूएम) ने एनसीआर की औद्योगिक इकाइयों को बड़ी राहत दी है। अब नए नियम एक जुलाई से नहीं, एक अक्टूबर से लागू होंगे। उद्यमियों को डीजी (डीजल जेनरेटर) सेट में रेट्रोफिटिंग कराने के लिए भी 30 सितंबर तक का समय दे दिया गया है। यही नहीं, कई श्रेणियों में प्रतिबंध या तो कम कर दिए गए हैं या हटा दिए गए हैं।

10 फरवरी को जारी आदेश में सीएक्यूएम ने कहा था कि जिन औद्योगिक व व्यावसायिक क्षेत्रों में प्राकृतिक गैस की पाइप लाइन मौजूद है, वहां 15 मई के बाद दोहरे ईंधन से चलने वाले डीजी सेट का

जेनरेटर अगर वह प्राकृतिक गैस, एसपीजी, बायोगैस, प्रोपेन या बूटेन पर चलता है, तो उसमें किसी बदलाव की जरूरत नहीं है। ऐसे जेनरेटर ग्रेप अवधि सहित वर्ष भर चल सकेंगे।

125 से 800 किलोवाट क्षमता के डीजी सेट भी दोहरे ईंधन पर चल सकेंगे। इनमें धुआं नियंत्रण उपकरण (ईसीडी) भी लगवाना होगा। इन्हें वर्ष भर चलाने की अनुमति होगी।

ही इस्तेमाल हो सकेगा। इसके तहत डीजी सेट में 70 प्रतिशत प्राकृतिक गैस और 30 प्रतिशत ही डीजल इस्तेमाल की स्वीकृति होगी। कुछ अन्य प्रतिबंध भी लगाए गए थे।

19 किलोवाट से कम क्षमता वाले डीजी सेट में भी कोई बदलाव नहीं करना होगा। इनका संचालन ग्रेप अवधि के अलावा वर्ष भर किया जा सकेगा।

800 किलोवाट से अधिक क्षमता वाले डीजी सेट दोहरे ईंधन पर और नियंत्रित प्रदूषण व्यवस्था के साथ ही चल सकेंगे। ग्रेप अवधि में दो घंटे ही चला सकेंगे।

लेकिन, इन प्रतिबंधों को लेकर उद्यमियों और व्यवसायियों द्वारा सीएक्यूएम से अपनी परेशानियां बताकर राहत की मांग की गई थी। आदेश सीएक्यूएम के सदस्य

19 से 125 किलोवाट क्षमता के डीजी सेट दोहरे ईंधन (70 प्रतिशत प्राकृतिक गैस और 30 प्रतिशत डीजल) पर ही चल सकेंगे। ग्रेप अवधि में दो घंटे के लिए छूट रहेगी।

नवंबर 2022 में सीपीसीबी द्वारा तय नए मानकों के अनुसार बनाए गए जेनरेटर के लिए न कोई प्रतिबंध है और न ही बदलाव की शर्त। वह हमेशा चलाए जा सकते हैं।

सचिव अरविंद नौटियाल की ओर से जारी किया गया है। 800 किलोवाट या इससे अधिक क्षमता वाले जेनरेटरों के धुआं नियंत्रण मानक भी तय कर दिए गए हैं।