

## GAIL CHIEF GUPTA IN RACE FOR IOC TOP POST



NEARLY ADOZEN CANDIDATES on Sunday appeared for interview before a search-cum-

selection panel that is looking to appoint the new chairman of Indian Oil (IOC), sources said. GAIL chairman and managing director Sandeep Gupta is being considered a wildcard. Gupta had not applied but was called for the interview, three sources aware of the matter said.



## गेल ने गैस बिजली संयंत्र के लिए हाथ मिलाया

नई दिल्ली। गेल इंडिया लिमिटेड और राजस्थान राज्य विद्युत उत्पादन निगम लिमिटेड ने राजस्थान में गैस-आधारित बिजली संयंत्रों के संचालन के लिए हाथ मिलाया है। इसके लिए समझौता ज्ञापन (एमओयू) पर राजस्थान के ऊर्जा मंत्री हीरालाल नागर, अतिरिक्त मुख्य सचिव (ऊर्जा) आलोक की उपस्थिति में हस्ताक्षर किए गए। एमओयू हस्ताक्षर समारोह के दौरान गेल के अध्यक्ष और प्रबंध निदेशक संदीप कुमार गुप्ता और निदेशक (व्यवसाय श्री राजीव कुमार सिंघल उपस्थित थे।



## **Panel interviews GAIL chief, others for IOC Chairman post**

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**New Delhi:** Nearly a dozen candidates on Sunday appeared for interview before a search-cum-selection panel that is looking to appoint the new Chairman of Indian Oil Corporation (IOC), sources said. While 10 out of the nearly 60 candidates who applied were called for interviews, GAIL Chairman and Managing Director Sandeep Gupta is being considered a wildcard. Gupta had not applied but was called for the interview, three sources said. Those interviewed included two Directors on IOC board - Satish Kumar Vaduguri (Director-Marketing) and Arvind Kumar (Director-Refineries). PTI



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# PET PROJECTS

Why state-run oil companies are spending billions on petchem capacity, amid oversupply and weak margins

S DINAKAR  
New Delhi, 11 August

In the boardrooms of Indian state refiners and in the halls of the oil ministry, there is a buzz surrounding an esoteric term: The Petrochemical Intensity Index (PII). Indian oil companies plan to produce more of value-added chemicals from processing crude oil while reducing the volume of fuels, whose demand is expected to eventually extinguish as the world shifts to cleaner energy.

Until now, many of these chemicals, the building blocks of plastics and paint used in homes, hospitals, and industries came from China. India depends on imports to meet 19 per cent and 30 per cent of polypropylene and polyethylene, respectively, the basic commoditised chemicals, and 67 per cent and 81 per cent on PVC and Toluene, which are value-added substances, shows CareEdge data.

But Indian refiners plan to catch up. By 2030, these chemicals may be shipped from Panipat, Paradip, Kochi, Barmer, Dahej, or Nagapattinam. Hindustan Petroleum's new 180,000 barrels per day Barmer refinery has a PII of above 20 per cent, the highest among state refiners, former company chairman MK Surana has said.

Fears of attrition in the fuels business and robust demand for chemicals have prompted refiners to add petchem units as a form of insurance, state-run refining officials tell *Business Standard*, despite concerns about oversupply.

The energy transition will reduce demand for oil products, but increase opportunities to capture the growing demand for petchem, McKinsey says. Refiners will need to find ways to make much less gasoline, marginally less diesel, and more jet fuel and petchem feedstocks, the US-based management consultant has said. Petchem is expected to be the most important driver of global oil demand growth over the medium term, says Paris-based International Energy Agency.

No wonder, India's state-owned oil companies are spending ₹10,851 crore on petchem projects this financial year, twice what they first budgeted in 2022-23 (FY23), according to the latest budget documents. Actual spends may be higher, if one goes by FY23's actual petchem capex by these companies, which doubled from the budgeted estimates to ₹10,500 crore.

Taken together, refiners led by Indian Oil are scheduled to spend ₹30,000 crore in the three years to March 2025.

Queries sent to state oil marketing companies were not answered by the time of going to press.

## Oversupply

SM Vaidya, Chairman of Indian Oil, the country's biggest refiner, aims to more than double the PII of its refineries to 15 per cent by 2030 with the focus on petrochemicals. Indian Oil plans to invest

## STATE OF OIL

Name of the company	Product	Capacity addition*	Feedstock
Numaligarh Refinery	Polypropylene	360	Naphtha-based
Hindustan Petroleum	Polypropylene	1,800	Naphtha-based
Hindustan Petroleum	HDPE	420	Naphtha
Indian Oil Corporation	Paraxylene	800	Naphtha
Indian Oil Corporation	Benzene	365	Naphtha
Indian Oil Corporation	Polypropylene	500	Naphtha-based
Bharat Petroleum	Polypropylene	400	Naphtha-based
Petronet LNG	Polypropylene	500	Propane-based
Petronet LNG	Propylene	750	LNG/Gas
GAIL (India)	Polypropylene	560	Propane-based
Nayara Energy	Polypropylene	450	Naphtha-based
Reliance Industries	PVC	1,000	Ethane-based
Adani group	PVC	1,000	Coal-based

\*Capacity addition in kilotonne per annum (ktpa)

Source: CareEdge Ratings



₹61,000 crore to build a petrochemicals complex in Paradip, Odisha.

The average PII for Indian state refiners is around 5 per cent. By comparison, China's recently commissioned Hengli petchem refinery can generate more than 40 per cent feedstock. Saudi Aramco is working on a strategy to achieve 70 to 80 per cent

chemicals for each barrel of crude. India's petchem demand is expected to grow at a compound rate of about 5 per cent till 2040, with per capita consumption at 10-12 kg, compared to the global average of 30-35 kg, leaving headroom for growth.

However, all these projects are coming up in a market facing oversupply.

"There has been oversupply in the global market, mainly because of significant capacity additions by China in the last few years, whereby China's domestic demand is not improving," said Hardik Shah, director, CareEdge Ratings.

State-run Petronet LNG's Chairman, A K Singh, who has proposed to build a ₹21,000 crore petchem plant, says chemicals are a cyclical business and it is prudent to invest in them when the margins are poor. By the time these projects are ready, the margins would surge, he said in reply to this reporter's question during an earnings call.

But profitability depends not just on cycles, but also on the cost structure and price of feedstocks such as ethane and propane, which are cheap in West Asia and the United States, two of the world's largest petroleum producers.

"The upcoming petchem projects in India are based on natural gas or ethane or propane, which are all imported. However, since the landed costs are much higher than in the US or in the Middle East, our ROCE (return on capital employed) would be in low single digits," said Swarnendu Bhushan, co-head of research, Prabhudas Lilladher.

## Advantage US, West Asia

Ethane is the preferred feedstock for

ethylene projects, something available in plenty in the US and Saudi Arabia, at \$1 per metric million British thermal unit (MMBtu) or lower, industry officials say. When you bring it to India, the cost goes up 10-fold, because you need to ship it, refrigerate, vaporise, and finally pump it to reach the refinery.

So, Saudi Arabia and the US have an advantage of virtually free gas, says R Ramachandran, an oil industry consultant and former director, refineries, at Bharat Petroleum. Complex petrochemicals like polyols, PVC and toluene are better bets, but their volumes are smaller and they need to be marketed well.

While private companies such as Reliance and Adani are venturing into higher value-added chemicals, state-run refiners are focusing on polypropylene (PP) and polyethylene (PE) facilities, which are commoditised chemicals.

State-owned oil refiners including Indian Oil, Bharat Petroleum, Hindustan Petroleum and Numaligarh Refinery are putting up a combined 3 million tonnes a year of polypropylene facilities to make use of the propylene produced in their refineries, according to data provided by CareEdge Ratings.

There are major capacity additions planned for polypropylene, with capacities being set-up or enhanced expected to come on stream from FY26 to FY29, says Shah.

"Refineries are better off manufacturing polypropylene, which adds more to the gross refining margins compared to fuels or LPG," says Prashant Vasisht, Senior Vice President and Co-group Head, Corporate Ratings, at ICRA, a Moody's affiliate.

Private sector players have built scale and ordered supersized ethane carriers years ago to ship the fuel from the US, optimising on scale and transport costs. Export earnings and incentives have helped balance the cost differentials with overseas producers.

Petronet's Singh says the government will need to protect the interests of domestic petchem makers. For instance, Manali Petrochemicals says dumping of imported materials coupled with rising raw materials prices affected its margins in the April-June quarter.

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## गेल और आरआरवीयूएनएल ने किया समझौता

नई दिल्ली। गेल ( इंडिया ) लिमिटेड और राजस्थान राज्य विद्युत उत्पादन निगम लिमिटेड ( आरआरवीयूएनएल ) ने राजस्थान में आरआरवीयूएनएल के गैस-आधारित बिजली संयंत्रों के संचालन



को अनुकूलित करने के लिए हाथ मिलाया है। इसके लिए एक गैर-बाध्यकारी समझौता ज्ञापन ( एमओयू ) पर राजस्थान के

ऊर्जा मंत्री हीरालाल नागर और राजस्थान सरकार के अतिरिक्त मुख्य सचिव ( ऊर्जा ) आलोक की उपस्थिति में हस्ताक्षर किए गए। एमओयू हस्ताक्षर समारोह के दौरान गेल के अध्यक्ष और प्रबंध निदेशक संदीप कुमार गुप्ता और गेल के निदेशक ( व्यवसाय विकास ) राजीव कुमार सिंघल उपस्थित रहे। व्यूरी

# 5 फीसदी बायोडीजल मिश्रण के लिए एथनॉल की किल्लत

शुभायन चक्रवर्ती  
नई दिल्ली, 11 अगस्त

सरकार 2030 तक देश में बिकने वाले डीजल में 5 फीसदी बायोडीजल मिश्रण के अपने लक्ष्य को पूरा करने के लिए एथनॉल का उपयोग करने की योजना बना रही थी मगर एथनॉल के उत्पादन में उतार-चढ़ाव को देखते हुए उसे अपनी योजना स्थगित करनी पड़ी। एक अधिकारी ने इसकी जानकारी दी।

अधिकारियों ने कहा कि इसके बजाय यह अब यूज्ड कुकिंग ऑयल या उपयोग किए जा चुके खाद्य तेल (यूसीओ) के उपयोग को दोगुना किया जा रहा है और इसके लिए 2019 में शुरू की गई कुकिंग ऑयल के पुनः इस्तेमाल (आरयूसीओ) पहल का विस्तार करने की योजना है।

यूरोप में व्यापक रूप से उपयोग किया जाने वाला बायोडीजल का संदर्भ पारंपरिक रूप से वनस्पति तेल, पशु वसा या रेस्तरांओं के रीसाइकल ग्रीस से

तैयार बायोडिग्रेडेबल ईंधन से है। लेकिन सरकार द्वारा बायोडीजल उत्पादन के लिए अधिसूचित फीडस्टॉक की सीमित उपलब्धता की वजह से भारत में बड़े पैमाने पर मिश्रण करने की राह में कई बाधाएं आई हैं। इनमें गैर-खाद्य तेल, पशु वसा, एसिड ऑयल और यूज्ड कुकिंग ऑयल की सीमित उपलब्धता शामिल हैं।

पेट्रोलियम मंत्रालय ने लोक सभा को बताया था कि अगस्त 2021 में बायोडीजल मिश्रित डीजल की हिस्सेदारी 0.1 फीसदी से भी कम थी।

एक तेल मार्केटिंग कंपनी के एक वरिष्ठ अधिकारी ने कहा कि वित्त वर्ष 2016 से तेल मार्केटिंग कंपनियों ने मिश्रण के लिए 98 करोड़ लीटर से ज्यादा बायो-डीजल का उत्पादन किया मगर वित्त वर्ष 2024 के अंत तक बायोडीजल मिश्रित डीजल की हिस्सेदारी 0.8 फीसदी रही।

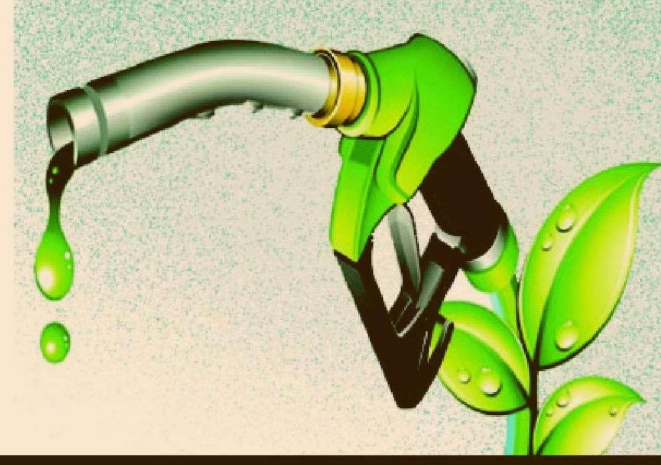
हालांकि, केंद्र का पेट्रोल के लिए एथनॉल मिश्रण कार्यक्रम काफी सफल

## योजना स्थगित

■ सरकार ने 2030 तक 5 फीसदी बायोडीजल मिश्रण के लिए एथनॉल के इस्तेमाल की योजना बनाई थी

■ मगर एथनॉल की कमी के कारण अब सरकार उपयोग किए गए खाद्य तेलों में संभावना तलाश रही है

■ लक्ष्य को हासिल करने के लिए यूसीओ के उपयोग को दोगुना किया जाएगा



रहा है। 2024 में ई20 पेट्रोल (पेट्रोल में एथनॉल का 20 फीसदी मिश्रण) देश भर के पेट्रोल पंपों पर बिकी के लिए उपलब्ध है। वर्तमान एथनॉल आपूर्ति वर्ष 2023-24 के दौरान पेट्रोल में मिश्रण का प्रतिशत 13 फीसदी के पार पहुंच गया है। यह केंद्र सरकार के

2025-26 तक पेट्रोल में 20 फीसदी एथनॉल मिश्रण हासिल करने की योजना के अनुरूप है। इसके लिए 10.16 अरब लीटर एथनॉल की जरूरत होगी।

अंतरराष्ट्रीय एनर्जी एजेंसी के अनुसार अमेरिका और ब्राजील के बाद

भारत दुनिया का सबसे बड़ा एथनॉल उत्पादक देश है। हालांकि पेट्रोल पर ज्यादा ध्यान दिए जाने से डीजल के वैकल्पिक मिश्रण के रूप में एथनॉल को अलग रखा गया है। पेट्रोलियम एवं प्राकृतिक गैस मंत्रालय के एक अधिकारी ने कहा, 'पारंपरिक घरेलू

फीडस्टॉक का उपयोग शुरू में पहले कुछ वर्षों के लिए करने का लक्ष्य था। इसके बाद एथनॉल को आजमाया गया और यह भी सफल रहा। मगर एथनॉल की निर्बाध आपूर्ति बड़ी चुनौती है।'

सार्वजनिक क्षेत्र की बीपीसीएल और एचपीसीएल ने एथनॉल मिश्रित डीजल से वाहनों को चलाने का परीक्षण पूरा किया है। अधिकारी ने कहा, 'शुरुआत में यह धारणा थी कि बायोडीजल की आपूर्ति बढ़ेगी और घरेलू बाजार में फ्लेक्स ईंधन वाले वाहनों की उपलब्धता कम हो जाएगी। मगर अब ऐसी समस्या नहीं है।'

5 फीसदी बायोडीजल मिश्रण के लक्ष्य की घोषणा बायोफ्यूल पर राष्ट्रीय नीति, 2018 में की गई थी। बायोडीजल पर वस्तु एवं सेवा कर की दर भी घटाई गई थी और खरीद के लिए आकर्षक कीमत की पेशकश की गई थी। 2022 में नीति को संशोधित किया गया था और सरकार ने 2030 की समयसीमा बरकरार रखी।



## Govt moves to ready ground for 5% ethanol mix in diesel

**New Delhi:** Govt is looking at a new plan of 5% blending of ethanol in diesel (ED-5) as it moves closer to achieving the target of 20% blending in petrol in the next two years, reports **Dipak Dash**.

The PMO last week held a meeting on the new proposal with all ministries concerned, sources said.

In June, ethanol blending with petrol touched 15.9%. Sources said govt wants to get the ground ready for ethanol blending in diesel. "Though ethanol blending in diesel will mean that we have to produce more of this green fuel, it will be good for the environment and cut our crude oil imports and save foreign exchange," said an official.

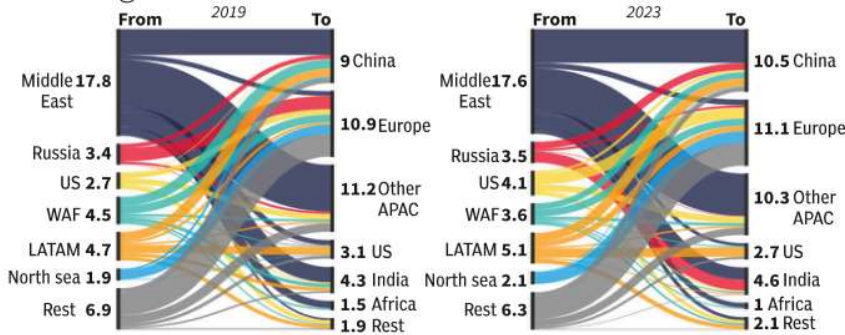
**TOI** has learned that Automotive Research Association of India (ARAI) had done a trial run in 2018-19. The trial was done on BS-III and BS-VI buses to assess vehicular performance, emission and durability. The test was conducted for 500 hours and no major failure was recorded. Sources said the pilot project found fuel consumption was slightly lower than normal diesel.

However, the trial of ethanol-blended diesel has so far not been done on BS-VI vehicles. One of the oil PSUs is likely to undertake a trial of the fuel on a heavy-duty vehicle for assessment.

Recently, while replying to a question in RS, petroleum minister Hardeep Singh Puri said blending of ethanol with diesel was at an experimental stage and initial tests showed the formation of deposits in fuel tanks and other implications.

# Indian refiners secure over one-third of Russia's crude oil exports in first half

Shift in global crude trade flows *mb/d*



Notes: Seaborne only Source: Kpler, OIES

**Rishi Ranjan Kala**  
New Delhi

India, the world's third largest crude oil consumer, accounted for more than one-third of Russia's cumulative crude oil exports in the first half of the current calendar year.

Besides, India coupled with China and Turkey bought more than 90 per cent of the crude oil shipped out of the erstwhile Soviet Union during January-June 2024. According to the Energy Comment series by the Oxford Institute for Energy Studies (OIES), Russian crude exports to China, India and Turkey accounted for 93 per cent of the total in H1 2024 calendar year (CY).

India and China accounted for the lion's share at 48 per cent and 34 per cent, respectively, the commentary, by Bassam Fattouh and Andreas Economou, added.

As per the data from energy intelligence firm Vortexa, India's crude oil imports from Russia during H1 2024 averaged at around 1.6 million barrels per day (mb/d) compared to roughly 1.7 mb/d imported in the year-to-date period.

### TRADE DYNAMICS

Particularly for India, the Energy Comment pointed out that the transformation has been "phenomenal". Prior to the 2022 sanctions

on Russian oil, India's largest annual intake of Russian crude was 52,000 barrels per day (b/d) in 2017.

In 2023, India's imports of Russian crude averaged nearly 1.8 mb/d accounting for nearly 40 per cent of the country's total imports, while on a monthly basis, they reached as high as 2.2 mb/d," it added.

### LONG-TERM PACTS

There are reports that India's state-owned refineries are considering entering into long-term oil supply agreements with Russia. But this has not been without its challenges, the Energy Comment said. For instance, it said that "payment issues" have caused the diversion of some Russian cargoes away from India.

"Russia has recently announced that it has accumulated billions of rupees that it hasn't yet found a use for. Also, the US and its allies have stepped up the enforcement of sanctions creating difficulties for buyers of Russian oil and idling many tankers used in the transport of Russian oil," it added.

### PRICE TRENDS

After the price spike above \$100 per barrel sparked by the Russia-Ukraine war, Brent has mostly traded in a relatively narrow range between \$75 and \$85 a barrel in last two years, defying uncertainty and shocks, the

commentary pointed out.

It also highlighted some key trends currently shaping the oil market and their implications in terms of oil price behaviour, oil pricing, trade flows, and players' responses.

"Despite the rise in uncertainty, geopolitical tensions and the various geopolitical shocks hitting the oil market, volatility in oil prices has been low and oil prices remain range bound, with the oil market exhibiting strong resiliency," it said.

Though sanctions and geopolitical shocks did not result in large oil supply losses, they have transformed oil and products trade flows, reduced transparency, created more segmented markets, lengthened trade routes and supply chains, increased costs and logistical complexity and resulted in more constrained optimisation for the various players.

The crude oil pricing system has already seen key structural transformations especially with the inclusion of WTI Midland into the Brent basket. As WTI increasingly sets the price of Brent, larger volumes of oil traded globally priced off Brent are now linked to trading activities and the various physical and financial layers around WTI. This shift will only accelerate as US crude exports continue to break record levels.

# Used cooking oil over ethanol: Govt's new route to 5% biodiesel blending

**SUBHAYAN CHAKRABORTY**

New Delhi, 11 August

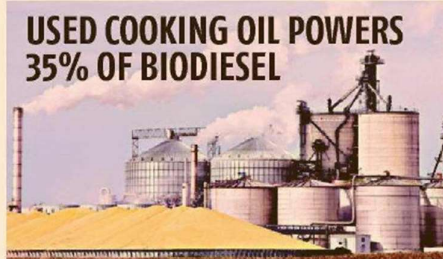
The government had been planning to use ethanol to meet its target of blending 5 per cent biodiesel in diesel sales by 2030, but the volatility in ethanol production volumes has forced it to shelve the plan, officials said. Instead, it is now focusing on used cooking oil (Uco), with plans to expand the repurpose used cooking oil (Ruco) initiative launched in 2019, officials said.

Widely used in Europe, biodiesel refers to biodegradable fuel traditionally manufactured from vegetable oils, animal fats, or recycled restaurant grease. However, large-scale blending has faced multiple hurdles in India due to the limited availability of feedstock notified for biodiesel production by the government. This

includes non-edible oilseeds, animal tallow, acid oil, and most importantly, Uco.

Blending of biodiesel in diesel stood at less than 0.1 per cent in August 2021, the petroleum ministry had informed the Lok Sabha. Despite more than 980 million litres of biodiesel having been procured by the oil-marketing companies (OMCs) for blending with diesel since 2015-16, this had reached 0.8 per cent by the end of 2023-24, a senior official from an OMC said.

The Centre's ethanol blending programme has been a major success for petrol, with E20 (20 per cent ethanol-blended) petrol being sold at all retail fuel outlets across the country in 2024. During the current Ethanol Supply Year 2023-24, which runs until October, the blending percentage in petrol has already crossed 13 per cent. **Turn to Page 6 ▶**



**USED COOKING OIL POWERS 35% OF BIODIESEL**

- ▶ Volatile ethanol supply and high petrol demand restrict ethanol use for diesel blending
- ▶ Government turned to ethanol due to a shortage of traditional biodiesel feedstock
- ▶ Oil-marketing companies may expand from 200 locations to source used cooking oil
- ▶ India produced 200 million litres of biodiesel in 2023
- ▶ 35% of this biodiesel was derived from used cooking oil

## Pet projects

**TAKE TWO 13 ▶**

Why state-run oil companies are spending billions on petchem capacity, amid oversupply and weak margins, writes **S DINAKAR**

## 3 OMCs may float EoIs for biodiesel from more locations

This is in line with the Centre's plan to achieve 20 per cent blending in petrol by 2025-26, which will require up to 10.16 billion litres of ethanol.

After the US and Brazil, India is the world's third-largest producer of ethanol, according to the International Energy Agency. However, the focus on petrol has kept ethanol away as an alternative blend for diesel.

"The usage of traditional domestic feedstock was initially aimed at for the first few years. Then ethanol was tried, and that too successfully. But securing a sustained supply (of ethanol) has been a challenge," a petroleum and natural gas ministry official said.

State-owned OMCs Bharat Petroleum Corporation and Hindustan Petroleum Corporation have also completed pilot projects to run vehicles on diesel mixed with ethanol.

"Initially, the sense was that biodiesel supply would rise, outstripping the availability of flexible-fuel vehi-

cles in the domestic market. But now that is not a problem anymore," the official added.

The current 5 per cent biodiesel blending target was announced in the National Policy on Biofuels, 2018. It also reduced the goods and services tax rate for biodiesel and offered remunerative prices for procurement. An amendment to the policy in 2022 saw the government stick to the 2030 deadline, which is when the Centre plans to tentatively begin direct sales of biodiesel in the country as well.

An exercise to tune the existing national biodiesel policy with more incentives saw the expansion of the Ruco scheme being accepted as the most viable way forward, officials said. The scheme involves the collection of Uco for conversion into biodiesel. "As a result, the three OMCs are expected to float expressions of interest for the supply of biodiesel from Uco from more locations in the coming months," an official said.

# चीनी मिलें एथनॉल के कच्चे माल में विविधता लाएं : शाह



## वैभव न्यूज ■ नई दिल्ली

सहकारिता मंत्री अमित शाह ने शनिवार को चीनी मिलों से एथनॉल उत्पादन के लिए गन्ने का विकल्प तलाशने को कहा और जैव ईंधन विनिर्माण के लिए बहुआयामी दृष्टिकोण अपनाने पर जोर दिया। राष्ट्रीय सहकारी चीनी कारखाना महासंघ (एनएफसीएसएफ) द्वारा आयोजित एक कार्यक्रम में बोलते हुए शाह ने कहा, बीस प्रतिशत एथनॉल मिश्रण का लक्ष्य 2030 स्थापित किया है। हम 2025-26 में लक्ष्य हासिल कर लेंगे। मंत्री ने कहा कि सरकार के एथनॉल समिश्रण कार्यक्रम से देश के कच्चे तेल के आयात बिल को कम करने और पर्यावरण संबंधी चिंताओं को दूर करने में मदद मिली है। शाह ने चीनी मिलों के लिए दूरदर्शी दृष्टिकोण अपनाने की आवश्यकता पर बल देते हुए कहा, आपको

भविष्यदर्शी होने और अवसरों को देखने तथा विस्तार करने की आवश्यकता है। ... एथनॉल कई स्रोतों से बनाया जा सकता है। शाह ने सहकारी चीनी मिलों से आग्रह किया कि वे अपना रूढ़िवादी दृष्टिकोण त्यागें और मक्का तथा बांस जैसे वैकल्पिक कच्चे माल का उपयोग करें। शाह ने कहा कि मिश्रण के लिए लगभग 1,000 करोड़ लीटर एथनॉल की आवश्यकता है और इस लक्ष्य को प्राप्त करने के लिए आवश्यक बुनियादी ढांचा मौजूद है। उन्होंने चीनी मिलों के आधुनिकीकरण और नई प्रौद्योगिकियों को अपनाने की आवश्यकता पर बल दिया। केंद्रीय मंत्री ने वैश्विक जैव ईंधन गठबंधन की स्थापना के बाद संभावित निर्यात अवसरों का हवाला दिया। मंत्री ने एनएफसीएसएफ को अपने परिचालन का विस्तार करने के लिए कहा तथा महासंघ को एक वर्ष के

भीतर चार राज्यों के प्रत्येक तीन जिलों में एक सहकारी चीनी मिल स्थापित करने का सुझाव दिया। शाह ने एनएफसीएसएफ को घाटे में चल रही सहकारी समितियों का मार्गदर्शन करने के लिए पेशेवरों को नियुक्त करने तथा दो वर्षों में मिलों के वार्षिक कारोबार को 25 प्रतिशत बढ़ाने का लक्ष्य निर्धारित करने की भी सलाह दी। उन्होंने कहा, 'हमें अकुशलता से काम करने और सरकार से मदद मांगने की आदत है। अगर आप कुशलता से काम करेंगे तो सरकार आपकी अधिक मदद करने को तैयार होगी। ... एक गतिशील संघ बनाएं, मांग-आधारित संघ नहीं। विविधीकरण के लिए यह प्रयास ऐसे समय में किया जा रहा है जब भारत जीवाश्म ईंधन पर अपनी निर्भरता कम करना चाहता है और पर्यावरण अनुकूल ऊर्जा विकल्पों को बढ़ावा देना चाहता है।

## भास्कर खास • हिंदुस्तान पेट्रोलियम कार्पोरेशन लिमिटेड की टीम ने किया सर्वे पटियाला में बनेगा 100 टन क्षमता वाला प्लांट... बायोगैस से चलेंगे वाहन, तेल पर निर्भरता घटेगी

राणा रणधीर | पटियाला

नगर निगम अब कूड़े से खाद तैयार करने के बाद कूड़े से गैस बनाने जा रहा है। जो हॉ, गांव दुधड़ में 20 एकड़ जमीन में पहला कंप्रेसड बायो गैस (सीबीजी) प्लांट लगने जा रहा है। शनिवार को हिंदुस्तान पेट्रोलियम कार्पोरेशन लिमिटेड की टीम ने दुधड़ में जमीन का सर्वे कर निगम को मंजूरी दे दी है। इसकी पुष्टि निगम कमिश्नर आदित्य डेचवाल ने की। उन्होंने बताया कि यहां 100 टन कैपेसिटी वाला प्लांट लगेगा, जिसमें कूड़े से बायोगैस तैयार होगी। इससे लोगों को दो फायदे मिलेंगे। पहला रोज

शहर से निकलने वाले 140 टन कूड़े का निस्तारण होगा और दूसरा कूड़े से बायोगैस मिलेगी। यहां तैयार हुई बायोगैस से पटियाला के वाहन चलेंगे। इससे पेट्रोल-डीजल पर निर्भरता कम होगी। नगर निगम और हिंदुस्तान पेट्रोलियम के बीच एमओयू भी साइन होगा। माना जा रहा है कि प्लांट शुरू होने के बाद निगम सॉलिड वेस्ट मैनेजमेंट में कार्बन क्रेडिट्स का शत-प्रतिशत दावा करेगा, जिससे स्वच्छता सर्वेक्षण में ज्यादा नंबर मिलेंगे और प्रदूषण (एन्यूआई) भी घटेगा। रोज किचन के कचरे जैसे सब्जी के छिलके या अन्य वस्तुओं का उपयोग भी होगा।

**दो फायदे... कूड़े का निस्तारण होगा, स्वच्छता में मिलेंगे नंबर**

प्लांट सौ टन कैपेसिटी का होगा, इसलिए प्लांट को देने के लिए निगम को गीले कचरे की जरूरत पड़ेगी। निगम 60 वाडों से गीला-सूखा कूड़ा कलेक्शन पर सख्ती कर सकता है। हालांकि अभी कुछेक वाडों में ही गीला-सूखा कूड़ा अलग-अलग उठाया जा रहा है, लेकिन नियम लागू करने में सख्ती होनी तय है। गौर हो कि निगम ने शहर से रोजाना निकलने वाले 140 टन कूड़े से खाद तैयार करने का प्रोजेक्ट चलाया हुआ है। इसके लिए एमआरएफ सेंटर (बिशन नगर, सनौरी अड्डा, फोकल प्वाइंट, झिल, सरकारी प्रेस के साथ, 21 नंबर फाटक के साथ

और डीएमडब्ल्यू (यह एमआरएफ सेंटर वहां का प्रशासन खुद ऑपरेट करता है) चलाए जा रहे हैं। निगम के रिकॉर्ड मुताबिक 10 टन सूखा कूड़ा एमआरएफ सेंटर्स पर पहुंच रहा है, जहां खाद तैयार हो रही है। इसके अलावा 60 वाडों में 1 लाख 6 हजार यूनिट्स हैं, जिनसे रोजाना कूड़ा एकत्र किया जाता है। इसके अलावा 22 हजार यूनिट्स ऐसे हैं जो कूड़े की बल्क जनरेशन (जहां रोज बड़ी मात्रा में कूड़ा निकलता है जैसे होटल-रेस्टोरेंट वगैरह) होती है। यहां से रोज निकलने वाले कूड़े की मात्रा 140 टन अनुमानित की गई।

# रसोई गैस सिलेंडर का बोझ कम करने को पीएनजी पर जोर

■ विनोद श्रीवास्तव

नई दिल्ली। एसएनबी

भारी-भरकम एलपीजी गैस सिलेंडर के बोझ को काम करने के लिए पीएनजी पर व्यापक जोर है। लिहाजा केंद्र सरकार ने देश भर पीएनजी की उपलब्धता बढ़ाने के लिए बड़ा लक्ष्य निर्धारित किया है। न्यूनतम कार्य योजना के तहत अगले आठ वर्ष में 12.63 करोड़ घरों तक पीएनजी पहुंचाया जाएगा। इससे घरों की रसोई से एलपीजी सिलेंडर बाहर होंगे और रसोई में खाना पकाने के लिए बाधारहित गैस आपूर्ति की सुविधा मिलेगी।

देशभर में आज करीब 32 करोड़ एलपीजी गैस कनेक्शन है, जिनके लिए प्रतिदिन हजारों की संख्या में गैस सिलेंडर की आपूर्ति घरों तक की जाती है। इन सिलेंडरों में गैस फिलिंग, परिवहन और

■ आठ वर्ष में

12.63 करोड़

घरों तक

होगी पीएनजी

की पहुंच

■ अभी तक

1.31 करोड़

कनेक्शन ही पहुंचे

हैं घरों तक



वितरण का बोझ कम नहीं है। इस प्रक्रिया में उपभोक्ताओं को भी घरों में सिलेंडर रखने, उन्हें बुकिंग करने और बार-बार रेगुलेटर बदलने को लेकर भी और सुविधा होती है। लिहाजा जहां तक

पीएनजी की पहुंच हो रही है वहां उपभोक्ता इसे अपनाने में आगे आ रहे हैं। सिटी गैस डिस्ट्रीब्यूशन नेटवर्क के तहत घरों तक पीएनजी कनेक्शन पहुंचाने का कार्यक्रम तेजी से चल रहा है। यह नेटवर्क विकास पेट्रोलियम एवं प्राकृतिक गैस विनियामक बोर्ड

की ओर से किया जा रहा है। पीएनजीआरबी ने देश के कुल भौगोलिक क्षेत्र के लगभग 100 प्रतिशत भाग को कवर करने वाले 307 भौगोलिक क्षेत्रों को सीजीडी नेटवर्क के विकास के लिए अधिकृत किया है। यह 34 राज्यों के लगभग 733 जिलों तक है। न्यूनतम कार्य योजना का लक्ष्य वर्ष 2032 तक पूरे देश में लगभग 12.63 करोड़ पीएनजी कनेक्शन स्थापित करना है। मई 2024 तक सीजीडी संस्थाओं की ओर 1.31 करोड़ पीएनजी कनेक्शन दिए गए हैं।

## एलपीजी की तुलना में पीएनजी के फायदे

पाइप लाइन से आपूर्ति की जाने वाली पाइपड प्राकृतिक गैस (पीएनजी) से तरलीकृत पेट्रोलियम गैस (एलपीजी) सिलेंडर की बुकिंग, हैंडलिंग, भंडारण और मापन की समस्या से छुटकारा मिलता है। इसके अलावा भार में हवा से हल्की होने के कारण पीएनजी खाना पकाने के लिए एक सुरक्षित ईंधन है। प्रति यूनिट ऊर्जा सामग्री (किलो कैलोरी/किग्रा) के बारे में पीएनजी तुलनात्मक रूप से एलपीजी की तुलना में बेहतर है।