

City gas distributors to gain as spot LNG prices decline

Persistently high gas prices have continued to weigh on the earnings of city gas distributors

Ujjval Jauhari
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A steep drop in spot liquefied natural gas (LNG) rates has come as a major respite for city gas distributors in India.

Spot LNG prices have fallen to about \$14-15 per metric million British thermal units (mmBtu) from average of over \$45 per mmBtu in the fiscal second quarter, and average of slightly above \$30 per mmBtu in the third quarter.

Persistently high gas prices have continued to weigh on the earnings of city gas distributors, squeezing their margins. Although these companies raised prices, this has narrowed the gap between compressed natural gas (CNG), piped natural gas (PNG), and other fuel options such as diesel, prompting concerns about volume growth.

The near-term outlook for spot gas prices remains favourable.

Ayush Agarwal, an analyst at S&P Global Commodities Insights, expects Platts JKM (Japan Korea Marker) and WIM (West India Marker) to average below \$15/mmBtu in Summer 2023 and below \$20/mmBtu for 2023.

With gas prices declining, city gas distributors are poised to reap benefits, which could be further enhanced by the anticipated cap on administered pricing mechanism (APM) prices in the upcoming fiscal year. The Kirit Parikh panel has recommended a floor of \$4 per mmBtu and a ceiling price of \$6.5 per mmBtu for APM gas. Analysts expect benefits to accrue in FY24.

Moreover, rising gas availability in the country is further likely to help CGDs receive a higher allocation of domestic gas (APM gas) to meet CNG and domestic PNG sales.

Not surprisingly, analysts at JM



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Financials Institutional Securities remain bullish on the CGD sector due to steady volume growth and strengthening pricing power due to the likely reduction in APM gas price and spot LNG price.

Lower gas prices are also likely to propel demand and benefit India's

ble for gas distributors.

Companies such as Gujarat Gas Ltd, which derive significant revenue from industrial gas supplies to the Morbi cluster in Gujarat, are likely to be key beneficiaries. As the prices of industrial PNG supplied by Gujarat Gas had risen, on the back of rising natural gas prices,

dard cubic metre per day) of gas with Gujarat Gas for the month of March compared to an average of 2 mscmd in the previous quarter, said analysts at Antique Stock Broking.

The surge in demand is being driven by a steep increase in propane prices from ₹48 per scm (standard cubic metre) in February to ₹57 per scm in March, said analysts. Further, propane prices in April are likely to be around ₹55/scm based on the announced Saudi CP contract prices, which also are higher than the spot LNG prices currently, added analysts at Antique.

This helps provide impetus to the volume outlook for Gujarat Gas. Further, the company sources significant quantities of natural gas for supplies from the spot market. Thus, declining spot gas prices will be favourable for the margin improvement of Gujarat Gas.

largest gas pipeline operator GAIL (India) Ltd. JM Financial remains positive on GAIL on a steady transmission volume growth story and likely hike in transmission tariff.

In addition to the lower spot prices, rising propane prices are also favoura-

the Morbi Cluster in Gujarat had shifted to propane usage. However, now that propane prices are rising, they may shift back to PNG supplies from Gujarat Gas.

Morbi factories have placed a demand for 6.5 mscmd (million stan-

PRICE DROP			
SPOT LNG prices have fallen to about \$14-15 per mmBtu in the fiscal second quarter	LOWER gas prices are also likely to propel demand and benefit gas pipeline operator GAIL	IN addition to the lower spot prices, rising propane prices are also favourable for gas distributors	DECLINING spot gas prices will be favourable for the margin improvement of Gujarat Gas

Domestic gas cylinder prices up by 56% in 4 years; hefty drop in subsidy

INDO-ASIAN NEWS SERVICE
NEW DELHI, 5 MARCH

While a recent hike of Rs 50 in the price of the 14.2 kg domestic liquefied petroleum gas (LPG) cylinder led to the cost of the cylinder touching Rs 1,103, data has disclosed that the price has registered a rise of nearly 56 per cent in the last four years.

The retail selling price (RSP) of a domestic LPG cylinder (14.2 Kg) on April 1, 2019 was Rs 706.50 which increased to Rs 744 in 2020, Rs 809 in 2021 and Rs 949.50 in 2022. The price increased to Rs 1,103 from Rs 1053 on March 1 this year.

While the price of the domestic LPG cylinder has recorded a substantial rise over the last few years, government data disclosed that the total subsidy on



LPG has come down significantly over the last few years.

Details of the subsidy on LPG given by the government during each of the last four years showed that it was Rs 37,209 crore in 2018-19 and came down to Rs 24,172 crore in 2019-20, Rs 11,896 crore in 2020-21 and Rs 1,811 crore in 2021-22.

As per the information from the Ministry of Petroleum, the prices of petroleum products including LPG in the country are linked to the price of respec-

tive products in the international market. "The average Saudi CP prices on which the domestic LPG prices are based, increased from US\$ 454/MT to US\$ 693/MT during 2019-20 to 2021-22."

"During 2022-23 the average Saudi CP has further risen to US\$ 710 /MT till February 2023. However, the government continues to modulate the effective price of domestic LPG. Public sector oil marketing companies have suffered huge losses on sale of domes-

tic LPG," said the Ministry in a recent Parliament reply.

The Pradhan Mantri Ujjwala Yojana (PMUY) was launched in 2016 to provide deposit free LPG connections to women members of poor households under which 8 crore connections were given.

Under Ujjwala 2.0, all PMUY beneficiaries are provided a free first refill and stove as well, in addition to deposit free LPG connections.

As on February 1, 2023, 1.6 crore connections have been given under Ujjwala 2.0.

The Ministry has also informed that Public Sector Oil Marketing Companies have suffered huge losses on the sale of domestic LPG. To compensate these losses, the government has recently approved a one-time compensation of Rs 22000 crores to OMCs.



India's Russian oil imports hit a record high in February

PRESS TRUST OF INDIA
New Delhi, March 5

INDIA'S IMPORTS OF crude oil from Russia soared to a record 1.6 million barrels per day in February and are now higher than combined imports from traditional suppliers Iraq and Saudi Arabia.

Russia continued to be the single largest supplier of crude oil, which is converted into petrol and diesel at refineries, for a fifth straight month by supplying more than one-third of all oil India imported, according to energy cargo tracker Vortexa.

Refiners continue to snap up plentiful Russian cargoes available at a discount to other grades.

From a market share of less than 1% in India's import basket before the start of the Russia-Ukraine conflict in February 2022, Russia's share of India's imports rose to 1.62 million barrels per day in February, taking a 35% share.

India, the world's third-largest crude importer after China and the United States, has been snapping Russian oil that was available at a discount after some in the West shunned it as a means of punishing Moscow for its invasion of Ukraine.

The rise in Russian imports have been at the expense of Saudi Arabia and United States. Oil import from Saudi fell 16% month-on-month



TOP SUPPLIER OF CRUDE OIL

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Iraq, whom Russia has topped to become the largest oil source for India, supplied 9,39,921 barrels per day (bpd) oil in February while Saudi supplied 6,47,813 bpd oil.



India's Russian oil import hits 1.6 million bpd in Feb

The crude oil import from Russia is now higher than combined imports from Iraq and Saudi Arabia

OUR CORRESPONDENT

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toppled to become the largest oil source for India, supplied 9,39,921 barrels per day (bpd) oil in February while Saudi supplied 6,47,813 bpd oil.

UAE overtook US to become the fourth largest supplier at 4,04,570 bpd. The US supplied 2,48,430 bpd, down from 3,99,914 bpd in January.

Iraq and Saudi supplies are the lowest in 16 months.

"Indian refiners are enjoying a boost in refining margins

from processing discounted Russian crude," said Vortexa's head of Asia-Pacific analysis, Serena Huang.

"Refiners' import appetite for Russian barrels are likely to remain robust as long as the economics are favourable, and financial and logistical services to support the trade are available."

Russia is selling record amounts of crude oil to India to plug the gap in its energy exports after the European Union banned imports in December.

In December, the EU banned Russian seaborne oil and imposed a \$60-per-barrel price cap, which prevents other countries from using EU shipping and insurance services, unless oil is sold below the cap.

Industry officials said Indian refiners are using UAE's dirham to pay for oil that is imported at a price lower than \$60.

"Almost a quarter of the Russian imports are now paid in dirham," an official said.

From a market share of just 0.2 per cent in India's import basket before the start of the Russia-Ukraine conflict, Russia's share in India's imports rose to 35 per cent in February 2023.

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India's Russian oil imports hit record high in Feb; now more than Iraq, Saudi put together

PTI ■ NEW DELHI

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Little gains: India saved just \$2 per barrel even after Russia's 'deep discounts'

SUKALP SHARMA
NEW DELHI, MARCH 5

THE RAMP-up in purchases of discounted Russian crude oil by India in the aftermath of Moscow's invasion of Ukraine a year ago is likely to have resulted in savings of around \$2.5 billion in the first three quarters of the current fiscal, an analysis of India's trade data for the period shows. However, the savings, while substantial for India, are far lower than what many had anticipated amid reports of deep discounts being offered by Russia.

As per the analysis, cheaper Russian oil lowered the average landed price of imported crude for India -- the world's third-largest consumer of crude oil -- by just about \$2 per barrel during the nine-month period. The average landed price of imported crude for April-December was \$99.2 per barrel. If Russian barrels are excluded from the math, the average price rises marginally to \$101.2 per bbl.

The total value of India's oil imports for the period under consideration was \$126.51 billion. The analysis suggests that had Indian refiners paid for Russian oil the average price they paid for crude from other suppliers, the oil import bill would have been almost \$129 billion, or around 2 per cent higher. The value of oil imports from Russia for the period was almost \$22 billion.

The average landed price of Russian crude for India for April-December was \$90.9 per barrel, about \$10.3 lower than the average price of non-Russian barrels. It translates into an effective discount of 10.1% to the average landed price of crude imported from other countries. Though substantial, this discount is significantly lower than what had been claimed in various reports from India and abroad. According to industry insiders, the difference could be on account of relatively higher cost of freight and insurance for Russian



The average landed price of Russian crude for India for April-December was \$90.9 per barrel. *File*

oil, as compared to other traditional suppliers. With Moscow facing Western sanctions over the Ukraine war, freight and insurance costs for ferrying Russian oil have reportedly gone up considerably. Therefore, while the discounts might have been deeper on the price of oil, the discount on landed price--including freight and insurance costs--would work out to be lower.

Earlier in February, quoting Goldman Sachs, Reuters had reported that buyers in Asia might have paid more for Russian crude than what quoted prices suggest. "We argue that the resilience in production so far may partly reflect that the effective price paid for Russian oil appears significantly greater than the quoted price assessments," Goldman Sachs said in a February 10 note quoted by Reuters. Indian refiners started snapping up discounted Russian crude, irking much of the West, which wanted Russian oil to be shunned by buyers to curb Moscow's ability to finance the war in Ukraine through oil sales. So far, India has maintained that as one of the top importers of crude, it will buy oil from anywhere it can strike a good bargain. Recently, Petroleum Minister Hardeep Singh Puri had said that India will play the market card to secure oil supplies at reasonable prices. India is the world's third-largest consumer of crude oil and depends on imports to meet over 85 per cent of

its requirement. The trade data analysis shows that the effective discount on Russian crude varied significantly from one month to another over the course of April-December. The discount was the lowest in April at \$0.6 per barrel and the highest in May at \$15.1 per barrel to the average price of crude imported from the rest of the world in those months. In percentage terms, the discount varied between 0.6 per cent and almost 14 per cent.

Russian crude accounted for close to 19 per cent of India's oil imports in April-December totalling 173.93 million tonnes, or 1.27 billion barrels. From being a marginal supplier of oil to India, Russia displaced heavyweights like Saudi Arabia and United Arab Emirates to become India's second-largest supplier in April-December behind Iraq. In fact, Russia was India's oil top supplier in September-December.

The government releases commodity-wise and country-wise trade data with a lag. The latest available data covers the first nine months of the current financial year and data up to January is only expected in March.

It must be noted that the price of crude oil depends on the grade of oil and their prices can vary substantially. As grade-wise import data was not available, the average landed price of crude and import volumes from each supplying country in April-December were used for computations.



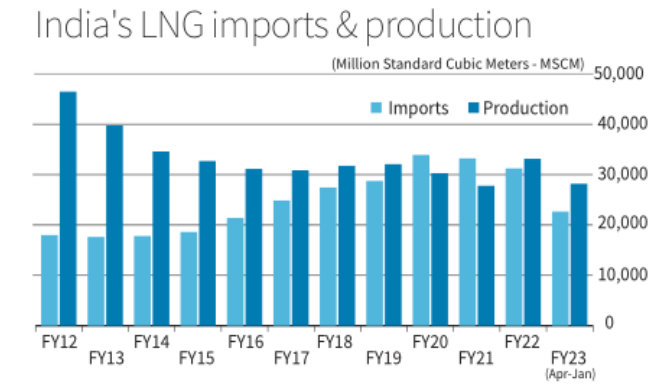
LNG imports in FY23 likely to decline to five-year low

Rishi Ranjan Kala
New Delhi

India's import of liquefied natural gas (LNG) is expected to decline to FY18-FY19 levels in the current financial year ending March 2023 as high international prices impacted domestic demand, with industries switching to cheaper alternatives.

In-bound shipments to India, the world's fourth largest LNG importer, stood at 27,439 million standard cubic meters (MSCM) and 28,740 MSCM during FY18 and FY19, respectively.

HIGH GLOBAL PRICES
"High global prices made imports costlier impacting demand, particularly for fertilisers, refineries and power. Consequently, FY23 imports are down and are likely to be around 27,500-28,500 MSCM," a senior govern-



ment official said. S&P Global Commodity Insights on Thursday said that India's LNG imports dropped 19 per cent Y-o-Y to 19.71 million tonnes in 2022, which is the lowest LNG import level since 2017.

Similarly, the International Energy Agency (IEA) on Wednesday said that imports fell 17 per cent Y-o-Y in 2022 (27,161 MSCM), the steepest fall on record and the first decline covering two

consecutive years in India's two-decade history as an LNG importer.

Asia LNG spot prices averaged at \$34 per million British thermal units (mBtu) in 2022, which is more than five times the five-year average between 2016 and 2020, as per the IEA.

Rising domestic consumption in households and expanding industrial activity boosted natural gas demand in the world's third largest

Top five consuming industries in FY23 so far

Petrochemicals
Refinery
Fertilizer
Power
City Gas Distribution

Source: PPAC, Industry

energy consumer. A decade ago, gas imports accounted for roughly one-third of the domestic requirement, which has now risen to almost 50 per cent.

KEY TO WATCH

A senior official from an OMC explained that as Europe nears the end of winters, the demand for natural gas is softening coupled with gas storage inventories in the range of 60 per cent. However, the key to watch out will be US gas inventories and demand from China. Besides, Europeans will again

hit spot markets from July-August 2023 preparing for winters.

S&P Global Commodity Insights Managing Editor (APAC LNG) Kenneth Foo in a webinar said: "The market situation in India last year (2022) had seen local gas prices at a steep discount to imported LNG prices, reflecting the fact that India had been outcompeted for cargoes by buyers in Europe, North Asia and South East Asia."

International LNG prices have a significant impact on domestic gas pricing in large importing markets in Asia and Europe. With cargoes starting to shift away from Europe, Asian companies, including Indian importers, could be eyeing cheaper LNG imports this year compared to last year, he added.

On price expectations, S&P Global Commodity Insights Analyst (APAC LNG)

Ayush Agarwal said, he expects Platts JKM and WIM to average below \$15 per mBtu in summer 2023 and below \$20 for 2023, however, India's LNG imports are likely to stay flat compared to the 2022 level of 78 MSCM per day.

"Competition between Asia and Europe is expected to intensify from Q3 2023 as north-east and European countries will try to refill their LNG storages for Winter 2023, which will again push the spot LNG prices above \$20 per mBtu," Agarwal said.

The current volatility in spot LNG prices is expected to normalise after the new wave of liquefaction plants from the US, and Qatar starts to come online from 2025-26 onwards. Until then, limited growth of supply is one of the biggest risks for the global LNG market, he pointed out.

Russian oil imports hit record high in February

PTI

feedback@livemint.com

NEW DELHI

India's imports of crude oil from Russia soared to a record 1.6 million barrels per day in February and is now higher than combined imports from traditional suppliers Iraq and Saudi Arabia.

Russia continued to be the single largest supplier of crude oil, which is converted into petrol and diesel at refineries, for a fifth straight month by supplying more than one-third of all oil India imported, according to energy cargo tracker Vortexa.

Refiners continue to snap up plentiful Russian cargoes available at a discount to other grades.

From a market share of less than 1% in India's import basket before the start of the Russia-Ukraine conflict in February 2022, Russia's share of India's imports rose to 1.62 million barrels per day in February, taking a 35% share.

India, the world's third-largest crude importer after China and the United States, has been snapping Russian oil that was available at a discount after some in the West shunned it as a means of punishing Moscow for its invasion of Ukraine.

The rise in Russian imports have been at the expense of Saudi Arabia and the US. Oil import from Saudi fell 16 % month-on-month and that from the US declined 38%.

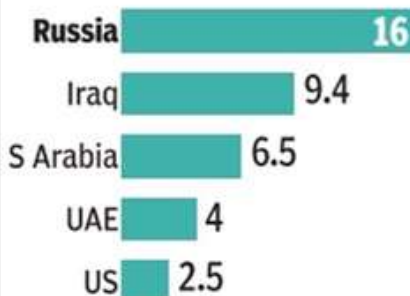
Russian oil imports jump to new high of 16L barrels/day

New Delhi: India's imports of crude oil from Russia soared to a record 16 lakh barrels per day in February and is now higher than combined imports from Iraq and Saudi Arabia. Russia continued to be the single largest supplier of crude oil, which is converted into petrol and diesel at refineries, for a fifth straight month by supplying more than a third of all oil India imported, according to energy cargo tracker Vortexa.

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BEATS IRAQ+S ARABIA

Top 5 crude oil sources in Feb
(in lakh barrels per day)



Bpd: Barrels per day (Source: Vortexa)

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king a 35% share.

India, the world's third-largest crude importer after China and the US, has been snapping up Russian oil that was available at a discount after some in the West shunned it as a means of punishing Moscow for its invasion of Ukraine. The rise in Russian imports have been at the expense of Saudi Arabia and US. Oil import from Saudi fell 16% month-on-month and that from the US declined 38%.

Russia now accounts for more than the combined oil bought from Iraq and Saudi Arabia—India's mainstay oil suppliers for decades. AGENCIES

Russian oil supply tops Iraq-Saudi

MADHUSUDAN SAHOO
NEW DELHI, MARCH 5

India's import of crude oil from embattled Russia has surged to a record 1.62 million barrels per day in February, which is estimated to be higher than the combined import from Iraq and Saudi Arabia.

The Russian government aims to plug the gap in its energy exports after it was hit badly by a trade restrictions imposed by the European Union in December following its war on Ukraine.

According to a report of energy cargo tracker Vortexa, Russia continued to be the single largest supplier of crude oil, which is converted into petrol and diesel at refineries, for the fifth straight month by supplying more than one-third of the oil that India has imported.

"Russia's market share

CHINA'S REOPENING SET TO SPOIL PARTY FOR OIL IMPORTING NATIONS

Vienna, March 5: As Covid-19 lockdowns gripped the world in 2020, oil demand was never expected return to its pre-pandemic peak. But recently, Looney has done an about-face.

Oil consumption is heading for a record this year, according to the International Energy Agency.

It all comes down to China: The world's second-biggest oil consumer is snapping up crude after reversing its

strict Covid-19 policies. Against a backdrop of tight supply, the demand boost has everyone from Goldman Sachs Group Inc. to trading powerhouse Vitol Group predicting a rally to \$100 a barrel later this year.

"The demand from China is very strong," Amin Nasser, CEO of Saudi Aramco said in a March 1 interview.

By the second half of the year, analysts say, the market will face a shortage. — *Bloomberg*

of India's import basket rose to 1.62 million barrels per day in February, taking a 35 per cent share from less than one per cent before the start of the

Russia-Ukraine conflict in February 2022," it said.

India, being the world's third-largest crude importer after China and the United States, has

been snapping the Russian oil that was available at a discount rate after some nations in the West shunned it to punish Moscow for its invasion of Ukraine. "Russia now accounts for more than the combined oil bought from Iraq and Saudi Arabia — India's mainstay oil suppliers for decades," Vortexa said.

As per the energy tracker, the rise in Russian imports have been at the expense of Saudi Arabia and the United States.

The oil imports from Saudi Arabia fell 16 per cent month-on-month and that from the US declined 38 per cent. "Iraq, whom Russia has toppled to become the largest oil source for India, supplied 9,39,921 barrels per day (bpd) oil in February while Saudi Arabia supplied 6,47,813 bpd oil," it said.

Wild card for prospectors

For greater energy security, there is no alternative to stepping up domestic oil production

AS GLOBAL CRUDE prices continue to be high and volatile, India must make determined efforts to increase the levels of relative self-sufficiency. There is a need to boost domestic production that has been steadily declining. With a high import dependence of 86%, the country has been diversifying its supplies, including relying on discounted crude from Russia that reached the highest levels in February. The imperative of greater energy security entails stepping up indigenous oil production over the medium-term by incentivising domestic producers and global giants for exploration and production (E&P). In this regard, the good news is that the policy regime seeks to encourage more offshore exploration with plans to double the current net area being explored for oil and gas to 500,000 sq km by 2025 by reducing the prohibited or no-go areas in India's exclusive economic zones by 99% and incentivising the discovery of potential basins like in the Andamans, Kutch-Saurashtra, and Mahanadi at the government's cost. Other reforms include royalty discounts, zero-revenue and windfall revenue sharing and speeded up environment approvals. According to a report by the consultancy group Wood and Mackenzie, there is also alignment and agreement between the Prime Minister's Office and the Director General of Hydrocarbons on these objectives. India is now a licensing "wild card" for prospectors as the "balance of risk/reward" is sufficiently tempting to bring in the big players.

While the policy establishment is excited by the interest shown by ExxonMobil, Chevron, and TotalEnergies, little is known about their commitments, although TotalEnergies has inked a deal with the Adani Group for green hydrogen production. Whether ExxonMobil and Chevron are investors or just providers of technological services is far from clear. The fact is that the interest of global oil majors in exploring for oil has so far been constrained by the challenging investment environment including concerns regarding arbitration and compensation in case of expropriation. Foreign direct investment inflows in petroleum and natural gas account for only 1.3% of total inflows from April 2000 to September 2022. ExxonMobil and Chevron have signed MoUs with the state-owned giant Oil and Natural Gas Corporation (ONGC) for joint and individual technical studies to enable E&P in deep waters off the east and west coasts. Exxon's study is expected to end by March and Chevron's by December.

While more FDI in petroleum and natural gas is expected, the moves by domestic majors to step up exploration are to be welcomed. ONGC plans to spend \$4 billion to increase exploration from FY22 to FY25. So, too, does the Vedanta Group to triple its production and account for 50% of India's oil production. The state-owned major plans to drill for oil and gas in the Cauvery ultra-deep waters in FY24 according to its director (exploration) in an article in the *Business Line*. As it has a good idea of the availability of oil and gas on the eastern and western offshore, ONGC plans to acquire 1 lakh sq km of acreage offshore every year so that it has over 5 lakh sq km in the next three years. Such efforts are necessary to increase levels of relative self-sufficiency and energy security at a time costlier energy prices are contributing to higher inflation and straining the current account, which is the broadest measure of the country's goods and services transactions with the rest of the world.

कचरे से जगमगाएंगे देश के कई शहर

■ संजय टुटेजा

नई दिल्ली। एसएनबी

देश में कचरे की समस्या से जूझ रहे शहरों के लिये अब कचरा ही वरदान साबित होगा। दिन प्रतिदिन बढ़ रहा कचरा अब शहरों को जगमगाहट देने के साथ साथ नई ऊर्जा प्रदान करेगा। कचरे से मिलने वाली ऊर्जा बायो सीएनजी तथा बिजली के रूप में होगी जिससे पेट्रोलियम पदार्थों की खपत में भी कमी आयेगी। कुल 75 शहरों में इस तरह के कचरे पर आधारित प्लांट लगाने का प्रस्ताव है जिनमें से प्रथम चरण में 25 शहरों में यह प्लांट लगाये जायेंगे।

देश में शहरों ही नहीं बल्कि गांव स्तर पर अब कचरे की समस्या दिन प्रतिदिन बढ़ रही है, जिस गति से कचरे का उत्पादन हो रहा है, उस गति से कचरे का निस्तारण नहीं हो रहा है यही कारण है कि शहरों में

■ बायो सीएनजी से बदलेगी देश के शहरों की तस्वीर

■ 59 शहरों में कचरे से सीएनजी व बिजली बनाने के प्लांट लगाने का प्रस्ताव



कचरे के पहाड़ दिन प्रतिदिन ऊंचे होते जा रहे हैं।

देश में लगभग 26 हजार टन कचरे का उत्पादन प्रतिदिन होता है जो एक समस्या बनता जा रहा है, इसी समस्या के समाधान के लिये शहरों की तस्वीर अब कचरे से ही बदलने की योजना बनाई गई है। इस योजना के अनुसार फिलहाल कुल 59 शहरों में कचरे पर आधारित बायो गैस प्लांट लगाये जायेंगे जिनसे बायो सीएनजी व बिजली उत्पन्न होगी। केन्द्रीय शहरी

कार्य व आवासन मंत्रालय के एक अधिकारी ने बताया कि दूसरी व तीसरी श्रेणी के सभी शहरों में ठोस कचरे का प्रबंधन करने का

रोड मैप बनाया जा रहा

है, इसी रोड मैप के तहत पहले चरण में 25 शहरों में इस तरह के प्लांट लगाये जायेंगे।

देश में स्वच्छ भारत मिशन शहरी 2.0 में ठोस कचरे के प्रबंधन पर ही जोर दिया गया है और स्वच्छ भारत मिशन 1 की तरह इस पूरे मिशन को भी पूरी ताकत से चलाये जाने की योजना है ताकि कचरा मुक्त शहरों का सपना साकार हो सके। योजना के

अनुसार दूसरी व तीसरी श्रेणी के शहरों में मिशन मोड में ठोस कचरा प्रबंधन की सुविधाएं स्थापित की जायेंगी। हालांकि अभी भी कई शहरों में वेस्ट टू एनर्जी प्लांट काम कर रहे हैं जिनमें कचरे से बिजली बनाई जा रही है लेकिन इन सभी प्लांटों में सूखे कचरे का ही प्रयोग किया जाता है। नई योजना के तहत जो प्लांट लगाये जायेंगे उनमें गीले कचरे का भी उपयोग हो सकेगा और गीले कचरे का प्रबंधन भी बड़े पैमाने पर शुरू होगा।

केन्द्रीय शहरी कार्य मंत्रालय के देश में उत्पन्न होने वाले कचरे का शतप्रतिशत निस्तारण करने की योजना पर काम कर रहा है और कचरे का उपयोग वेस्ट टू एनर्जी व बायो गैस प्लांट में करने के साथ साथ कुछ इस तरह की लैंड फिल डंपिंग साइट भी विकसित करने का प्रस्ताव है जहां मौके पर ही कचरे का निस्तारण हो जाये।

चिंताजनक : रसोई गैस से सांस की बीमारी का खतरा

मीथेन गैस जलाने पर बनता है जहरीला नाइट्रो ऑक्साइड

मेलबर्न, एजेंसी। रसोई गैस सेहत के लिए खतरनाक है। ऑस्ट्रेलिया की न्यू साउथ वेल्स यूनिवर्सिटी में हुए एक अध्ययन में यह जानकारी सामने आई है। अध्ययन में शोधकर्ताओं ने कहा कि अब एलपीजी गैस का विकल्प खोजने का वक्त आ गया है। लगातार ऐसे सबूत सामने आ रहे हैं कि खाना बनाने का यह तरीका सेहत के लिए ठीक नहीं है और पर्यावरण के लिए भी हानिकारक है।

अध्ययन की लेखक प्रोफेसर डोना ग्रीन कहती हैं कि रसोई गैस से होने वाले प्रदूषण को लेकर चिंतित होना जायज है। प्रोफेसर ग्रीन के मुताबिक जब आप गैस जलाते हैं तो असल में आप मीथेन गैस को जला रहे होते हैं जिससे जहरीले यौगिक बनते हैं। रसोई गैस में मीथेन मुख्य अवयव होता है, जो जलने पर ऊष्मा यानी गर्मी पैदा करता है। इससे नाइट्रोजन और ऑक्सीजन मिलकर नाइट्रो ऑक्साइड बनते हैं। प्रोफेसर ग्रीन कहती हैं कि इससे दमा और अन्य श्वास संबंधी समस्याएं शामिल हैं।

जीवाश्म की तरह प्रदूषक तत्वों का होता है उत्सर्जन : अध्ययन में शामिल पर्यावरण रोगों की विशेषज्ञ डॉ. क्रिस्टीन कोवी कहती हैं कि रसोई गैस से दूरी जरूरी है। हमें जीवाश्म ईंधनों को जलाने को रोकना चाहिए और गैस भी उनमें शामिल है। इससे जीवाश्म ईंधनों की तरह के प्रदूषक तत्वों का उत्सर्जन होता है।

बार-बार चक्कर और सिरदर्द हो सकता है: डॉ. कोवी बताती हैं कि जब गैस चूल्हा जलता है तो असल में आप जीवाश्म ईंधन ही जला रहे हैं जिससे कार्बन मोनो ऑक्साइड, नाइट्रस ऑक्साइड और फारमैल्डीहाइड भी बन सकते हैं। कार्बन



08 में से एक अमेरिकी बच्चे को दमा की वजह रसोई गैस

05 लाख कारों के प्रदूषण के बराबर है अमेरिका में गैस का उत्सर्जन

■ भारत दूसरा सबसे बड़ा एलपीजी उपभोक्ता देश

भारत में ये है स्थिति

भारत में दुनिया का दूसरा सबसे बड़ा एलपीजी उपभोक्ता देश है। यहां 2021 तक करीब 28 करोड़ एलपीजी कनेक्शन थे। इनमें हर साल 15 फीसदी की बढ़ोतरी हो रही है। पेट्रोलियम मंत्रालय के अनुमान के अनुसार 2040 तक एलपीजी उपभोग बढ़कर 4.06 करोड़ टन पहुंच जाएगा। भारत में एलपीजी में प्रोपेन गैस का प्रयोग होता है। इसके जलने से खतरनाक बेंजीन गैस निकलती तो है, लेकिन इसकी मात्रा अमेरिका और यूरोप में प्राकृतिक गैस से निकलने वाली बेंजीन के मुकाबले कम रहती है।

यह विकल्प अपनाएं

द गार्जियन में छपे एक शोध के अनुसार गैस में खाना बनाने से घर की हवा पांच गुनी तक ज्यादा प्रदूषित होती है। ऐसे में इससे जुड़े सभी जोखिमों से बचने के लिए अच्छा वेंटिलेशन जरूरी है। इसके लिए चिमनी या फिर एरजॉस्ट फैन का किचन में प्रयोग करें। इससे श्वसन संबंधी बीमारियों का खतरा लगभग पूरी तरह से समाप्त हो जाता है। इसके अलावा अध्ययन में सलाह दी गई है कि इंडक्शन चूल्हे और बिजली के चूल्हों को इसके विकल्प के रूप में देखा जा रहा है। इंडक्शन चूल्हों में इलेक्ट्रोमैग्नेटिक प्रभाव से गर्मी पैदा की जाती है। इसे कुकिंग गैस के सबसे सक्षम विकल्प के रूप में देखा जा रहा है।

मोनो ऑक्साइड के उत्सर्जन से हवा में ऑक्सीजन कम होती है और खून में भी ऑक्सीजन नष्ट होती है। इससे आपको सिर दर्द और चक्कर आने जैसी समस्याएं हो सकती हैं।

अमेरिका में बढ़ रहे दमे के मामले: इंवायरमेंट साइंस और टेक्नोलॉजी जर्नल में छपे अध्ययन में पाया गया कि

अमेरिका में में बच्चों में दमा होने के मामले से 12.7 फीसदी, यानी हर आठ में से एक मामले में वजह रसोई गैस से हुआ उत्सर्जन है। वहीं, 2022 में हुए एक अध्ययन में कहा गया था कि अमेरिका में रसोई गैस से जितना कार्बन उत्सर्जन होता है वह पांच लाख कारों से होने वाले उत्सर्जन के बराबर है।

तेल आयात

अमेरिका से तेल आयात में 38 फीसद कमी

भारत का रूस से कच्चा तेल आयात रिकॉर्ड स्तर पर

एजेंसी ■ नई दिल्ली

भारत का रूस से कच्चे तेल का आयात फरवरी में बढ़कर रिकॉर्ड 16 लाख बैरल प्रतिदिन हो गया है जो उसके परंपरागत आपूर्तिकर्ताओं इराक एवं सऊदी अरब के संयुक्त तेल आयात से भी अधिक है तेल के आयात-निर्यात पर नजर रखने वाली संस्था वॉट्ससा ने बताया कि भारत जितनी मात्रा में तेल आयात करता है उसकी एक तिहाई से अधिक आपूर्ति अकेले रूस ने की है और वह लगातार पांचवें महीने भारत को कच्चे तेल का इकलौता सबसे बड़ा आपूर्तिकर्ता बना हुआ है। रूस और यूक्रेन के बीच



फरवरी 2022 में युद्ध शुरू होने से पहले तक भारत के तेल आयात में रूस की हिस्सेदारी एक फीसदी से भी कम होती थी। लेकिन पिछले महीने फरवरी में यह 35 फीसदी बढ़कर

16.20 लाख बैरल प्रतिदिन हो गई। रूस से भारत का आयात बढ़ने का असर सऊदी अरब और अमेरिका से होने वाले तेल आयात पर पड़ा है। सऊदी अरब से आयात किया जाने

वाला तेल मासिक आधार पर 16 फीसदी घट गया जबकि अमेरिका से होने वाले तेल आयात में 38 फीसदी की कमी आई है। वॉट्ससा के मुताबिक, अब रूस से भारत जितना तेल आयात करता है वह दशकों से उसके आपूर्तिकर्ता रहे इराक और सऊदी अरब से किए जाने वाले कुल आयात से भी अधिक है। इराक ने फरवरी के महीने में 9,39,921 बैरल प्रतिदिन तेल की आपूर्ति की जबकि सऊदी अरब ने 6,47,813 बैरल प्रतिदिन की आपूर्ति की। यह बीते 16 महीनों में इराक और सऊदी अरब से हुई सबसे कम आपूर्ति है। फरवरी, 2023 में संयुक्त अरब अमीरात ने

भारत को 4,04,570 बैरल प्रतिदिन की आपूर्ति कर अमेरिका को पीछे छोड़ दिया। अमेरिका ने 2,48,430 बैरल तेल प्रतिदिन की आपूर्ति की जो जनवरी की आपूर्ति 3,99,914 बैरल प्रतिदिन से कम है। रूस से आने वाले सस्ते कच्चे तेल के शोधन से भारतीय तेलशोधक कंपनियों को अधिक मार्जिन मिल रहा है। आने वाले समय में भी यह सिलसिला बने रहने की उम्मीद है। रूस यूक्रेन पर हमले के बाद से पश्चिमी देशों की तरफ से लगाई गई आर्थिक पाबंदियों से निपटने के लिए इस समय भारत को रिकॉर्ड मात्रा में कच्चे तेल की बिक्री कर रहा है।

Activate Windows

भारत जितना तेल आयात करता है, अकेले रूस ने की उसकी एक तिहाई से अधिक आपूर्ति

एजेसी ► नई दिल्ली

भारत का रूस से कच्चे तेल का आयात फरवरी में बढ़कर रिकार्ड 16 लाख बैरल प्रतिदिन हो गया है। यह आंकड़ा परंपरागत आपूर्तिकर्ताओं इराक और सऊदी अरब के संयुक्त तेल आयात से भी अधिक है। तेल के आयात-निर्यात पर नजर रखने वाली संस्था वर्टेक्सा ने बताया कि भारत जितनी मात्रा में तेल आयात करता है, उसकी एक तिहाई से अधिक आपूर्ति अकेले रूस ने की है और वह लगातार पांचवे महीने भारत को कच्चे तेल का इकलौता सबसे बड़ा आपूर्तिकर्ता बना हुआ है। रूस और यूक्रेन के बीच फरवरी

2022 में युद्ध शुरू होने से पहले तक भारत के तेल आयात में रूस की हिस्सेदारी एक प्रतिशत से भी कम होती थी। हालांकि पिछले महीने फरवरी में यह 35 प्रतिशत बढ़कर 16.20 लाख बैरल प्रतिदिन हो गई। रूस से भारत का आयात बढ़ने का असर सऊदी अरब और अमेरिका से होने वाले तेल आयात पर पड़ा है। सऊदी अरब से आयात किया जाने वाला तेल मासिक आधार पर 16 प्रतिशत घट गया जबकि अमेरिका से होने वाले तेल आयात में 38 प्रतिशत की कमी आई है। इराक ने फरवरी में 9,39,921 बैरल प्रतिदिन तेल की आपूर्ति की जबकि सऊदी अरब ने 6,47,813 बैरल प्रतिदिन

की आपूर्ति की।

यह बीते 16 महीनों में इराक और सऊदी अरब से हुई सबसे कम आपूर्ति है। फरवरी में संयुक्त अरब अमीरात ने भारत को 4,04,570 बैरल प्रतिदिन की आपूर्ति कर अमेरिका को पीछे छोड़ दिया। अमेरिका ने 2,48,430 बैरल तेल प्रतिदिन की आपूर्ति की जो जनवरी की आपूर्ति 3,99,914 बैरल प्रतिदिन से कम है। सेरेना हुआंग, वर्टेक्सा की प्रमुख (एशिया-प्रशांत विश्लेषण) ने कहा कि रूस से आने वाले सस्ते कच्चे तेल को रिफाइन करने से भारतीय रिफाइनिंग कंपनियों को अधिक मार्जिन मिल रहा है।