



BY **ANUJESH DWIVEDI**  
PARTNER,  
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## FROM GREY TO GREEN

WITH THE CLIMATE CRISIS BECOMING MORE ACUTE, GREEN HYDROGEN COULD BE AN IMPORTANT SOLUTION

**N** EARLY ONE-FIFTH OF global greenhouse gas emissions in 2022 originated from sectors like iron & steel, manufacturing, construction, etc. These sectoral greenhouse gas emissions pose a significant challenge due to technological and financial hurdles

ILLUSTRATION BY **RAJ VERMA**



and are classified as “hard-to-abate” (HTA) sectors.

Current commercially available decarbonisation technologies (renewables, energy efficiency, electrification, etc.) can only achieve 50-60% reductions—closing the gap, therefore, necessitates developing newer solutions. Particularly for HTA sectors, hydrogen has been identified as a key solution. Many of these sectors require chemical feedstocks, or heavy-duty freight solutions, and face significant barriers towards using low-carbon technologies like renewables. Clean hydrogen offers a versatile alternative, capable of direct use in fuel cells, and as feedstock for producing derivatives, making it crucial for addressing limitations of renewables and enabling deep decarbonisation. It is projected that beyond 2030, clean hydrogen demand from HTA sectors could exceed 150 million tonnes per annum (MTPA).

While ‘Clean Hydrogen’ has various production pathways, Green Hydrogen (GH<sub>2</sub>), produced through electrolysis using renewable energy (RE), is the most scalable, clean, and safe method and is likely to see the greatest adoption. This is where the opportunity lies for India to play a significant part in the global value chain. India has the fourth largest installed RE (around 5% of global capacity). The RE market in India is cost competitive with tariffs at \$30-50 per Megawatt hour (MWh), lower than countries like Australia, the US, and EU. Setting up RE is the most expensive step in GH<sub>2</sub> production with round-the-clock RE amounting to 50-70% of total project cost. India, therefore, possesses a noticeable cost

advantage. This becomes even more apparent, when compared with the landed cost of green ammonia, which is \$800-1,000 per MT for delivery from Middle East to the Far East. Industry players believe that landed cost of green ammonia exported from India to destinations like Japan or South Korea will be in a similar range, if not lower. Further, as technology matures, production costs are expected to decline and provide further impetus towards making India cost-competitive.

#### WHY THE URGENCY?

Global hydrogen ambitions, driven by stakeholders rushing to comply with regulations, creates a definitive call to action for all prospective producers of GH<sub>2</sub> worldwide. Upon reviewing global hydrogen capacities and commitments to 'Net Zero' by countries and companies, particularly in HTA sectors, it appears that 2030 will be a pivotal year with significant increases in both demand and supply. Case in point is the EU RE Directive, which mandates 42% of industrial hydrogen to be green by 2030. Other significant markets like Japan and South Korea, too, have set targets. From a supply perspective, too, significant GH<sub>2</sub> production capacity is expected to come online globally by 2030. This makes it imperative for India to invest, develop, and scale the ecosystem. While India may not be the first mover, it can establish itself as the leader by creating cost efficiencies, offering stable supply, and cementing partnerships worldwide.

#### ENABLING INDIA'S AMBITIONS

To leverage these advantages and fulfil its ambitions of becoming a global hydrogen hub, India must also implement several key enablers:

**1. Empower the Grid:** Typical transmission infrastructure construction timelines can range up to three years or more, while solar and wind projects are usually completed in under two years. As India scales RE capacity, it also needs to invest in building a robust, reliable, and climate resistant transmission network to effectively evacuate RE power.

**2. Boost Electrolyser Manufacturing:** Currently, India is short of local electrolyser manufactur-

capital subsidies to help reduce the overall cost of production. More states with GH<sub>2</sub> potential need to join the movement to further encourage investment in this space.

#### 5. Develop Cost-effective GH<sub>2</sub> Export Infra at Ports:

The Indian government has identified Kandla, Thoothukudi, and Paradip ports for development as GH<sub>2</sub> hubs for handling and shipping GH<sub>2</sub>/derivatives. As part of the Harit Sagar initia-

## Global hydrogen ambitions, driven by stakeholders, are creating a definitive call to action for all producers of green hydrogen worldwide

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ing capacity and requires 60-100 GW to meet the 5 MTPA target set by the government. The industry, hence, needs to step-up with more R&D and manufacturing capacity to bridge the gap.

#### 3. Mandate Demand to

**Ramp-up Supply:** As entrepreneurs seek to establish and scale GH<sub>2</sub> and derivatives capacity, the government can help accelerate final investment decision (FID) in these projects by assuring a minimum demand offtake through mandates.

**4. Incentives & Subsidies:** The central and some state governments have provided significant incentives for GH<sub>2</sub>/derivatives manufacturing and RE by waiving electricity duties, additional and cross-subsidy surcharges, and

tive, the government has issued guidelines for 13 major ports to establish green ammonia bunkering/refueling facilities by 2035, which will be needed as production rises.

The government has taken many initial steps to kick-start the GH<sub>2</sub> economy in India. However, competition from the EU, Middle East, and Australia is fierce. To stay ahead, we are likely to witness continued launch of concerted programmes in India encompassing regulatory policies and incentives, to drive production and cross-sector adoption as well as export of GH<sub>2</sub>.

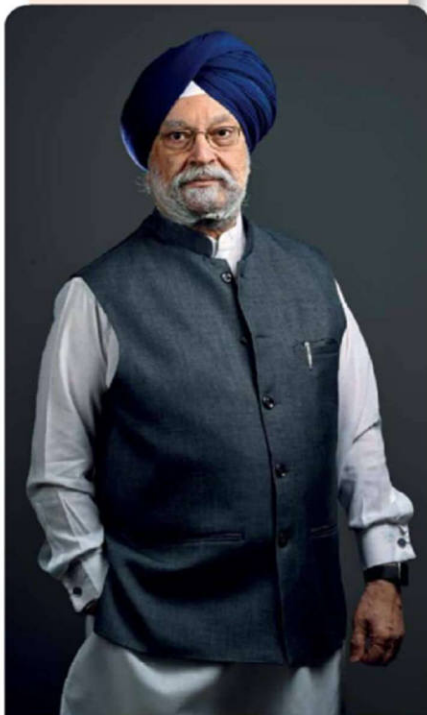
GH<sub>2</sub> offers India a golden opportunity to emerge as a global energy powerhouse—action is crucial. **BT**

*Views are personal*

**HARDEEP SINGH PURI, 72 | BJP**

Minister of Petroleum & Natural Gas

➤ **FULL TANK** A former IFS officer, Puri took charge of the oil ministry in July 2021 when the country was still in the grip of the pandemic. He is credited with steering the sector through a stretched global energy crisis born out of a huge oil demand spurt when the economies recovered from Covid. The country also negotiated cheap oil from Russia after the Ukraine invasion, resisting international pressure to not do so



CHANDRADEEP KUMAR

**Minister of State**

**SURESH GOPI, 65 | BJP**

Representing Thrissur, Kerala, he is also MoS, Tourism

▶ **PETROLEUM & NATURAL GAS**

# FUELLING AMBITIONS

Puri's return signals a welcome continuity. Oil production and green fuels remain a challenge

By **M.G. ARUN**

**W**ith Hardeep Singh Puri back at the helm of the petroleum

ministry, the sector is expected to see a continuity in policy. The minister has already said that boosting domestic oil and gas production, promoting green hydrogen and increasing the use of ethanol will be key priorities for the government. He was also quick to add that profitable PSU oil companies like BPCL would not be divested, signalling that the Modi government would like to stay clear of any controversy in the beginning of its third term. He has reportedly hinted at bringing fuel under the purview of GST, although that seems like a far cry, and reducing fuel prices if crude falls sharply in the international market. ■

procedures and improve 'ease of doing business' to attract more investments in the sector

**PROMOTE GREEN FUELS**

Earlier this year, oil major ONGC received the ministry's nod to form a subsidiary company for its green energy and gas business. This is important both from the global point of view where there is a lot of thrust on green energy, as well as for ensuring a cleaner environment in the country at a time when the vehicle population of the country has been increasing at a rapid pace

**REDUCE FUEL PRICES**

Voters across the country indicated with their ballot that high prices, especially of food, were an issue that the government needed to attend to immediately. To the extent that it can, the Centre can look at reducing fuel prices, especially if they fall in the international market. This will give immediate relief to consumers as high fuel prices have a cascading effect on the prices of goods

**WHAT NEEDS TO BE DONE**

**BOOST OIL PRODUCTION**

Incentivise private participation in India's oil and gas exploration and production through tax sops. The Centre also needs to reduce the compliance burden, simplify



# BPCL may Invest ₹1,400 cr in Green Aviation Fuel Units

Co plans to set up facilities at 3 refineries, say industry officials

Kalpana.Pathak@timesgroup.com

**Mumbai:** State-run Bharat Petroleum Corp (BPCL) is planning to set up sustainable aviation fuel (SAF) units at its three refineries, according to industry officials aware of the development. This plan will help support the government's 1% blending target. The company will invest up to ₹1,400 crore in setting up these facilities.

SAF refers to aviation fuel derived from waste. It is produced from various sources such as agricultural waste, fats, used cooking oil, or non-food crops.

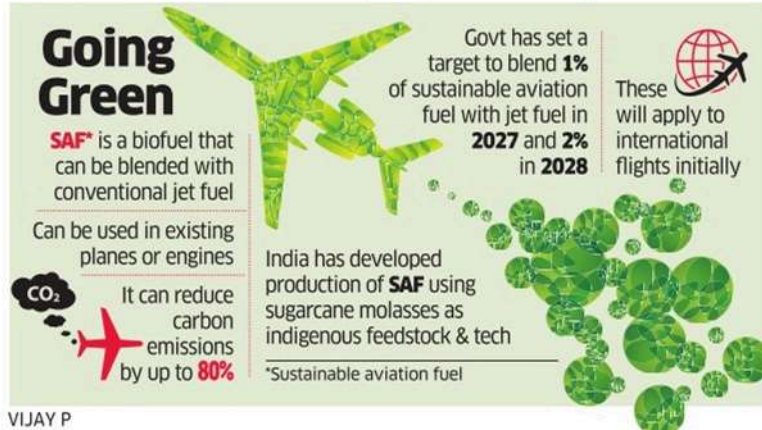
BPCL runs three refineries in Mumbai, Kochi, and Bina (Madhya Pradesh) with a combined annual refining capacity of 35.3 million metric tonnes per annum (mmtpa).

"BPCL is actively assessing multiple technologies, evaluating feedstock availability, and analysing market demand to finalise the location for its upcoming sustainable aviation fuel production facility. Based on the assessment outcome, the refinery location for the SAF plant would be finalised," BPCL said in an emailed response.

BPCL said the company will be looking to set up an SAF production facility that is capable of meeting 5% blending as per GoI notification by 2030. Based on the maturity of technology and other logistics consideration, it will chalk out further plans. "By 2027, we propose to be in a position to meet 1% SAF blending for the international sector with SAF production of around 100 tonnes per day.

Last year country's largest refiner Indian Oil Corp (IOC) signed a memorandum of understanding with LanzaJet to pursue large-capacity SAF production in India using LanzaJet's leading and proven alcohol-to-jet (ATJ) technology.

IOC plans to start the country's first commercial-scale SAF plant at Panipat by 2026. State-run



**Going Green**

SAF is a biofuel that can be blended with conventional jet fuel

Govt has set a target to blend **1%** of sustainable aviation fuel with jet fuel in **2027** and **2%** in **2028**

These will apply to international flights initially

Can be used in existing planes or engines

It can reduce carbon emissions by up to **80%**

India has developed production of SAF using sugarcane molasses as indigenous feedstock & tech

\*Sustainable aviation fuel

VIJAY P

Mangalore Refineries and Petrochemicals is also setting up a 20-kilolitre-per-day SAF plant. It is using CSIR-Indian Institute of Petroleum's single-step process that converts used cooking oil or palm waste to produce SAF.

BPCL plans to maximise the adoption of indigenous technologies wherever feasible, the company said. "BPCL is evaluating all the three major technology pathways — oil to jet co-processing in an existing facility, oil to jet green field facility, and alcohol to jet new facility. The selection will be based on comprehensive assessments of sustainability, logistical

feasibility, and economic viability. The company said it is focused on adopting the most effective technologies that maximise carbon life-cycle benefits, promoting environmental protection within the circular economy framework.

"While we recognise the presence of domestic technology that is still evolving, our initial evaluations indicate that mature technologies from international players are readily available to enable us to meet the blending mandate within the required time frame. Currently, we are engaged in discussions with multiple agencies across all three pathways," BPCL said.

# Corporate capex growth hit speed bump in FY24

**KRISHNA KANT**  
Mumbai, 17 June

After picking up pace in 2022-23 (FY23), growth in capital expenditure (capex) by the corporate sector in capacity expansion and new projects slowed in 2023-24 (FY24).

The combined fixed assets of India's top 990 listed companies, excluding banks, financial services, and insurance (BFSI), and stockbroking firms, increased by just 7.6 per cent year-on-year (Y-o-Y) in FY24, down from 12.2 per cent a year earlier.

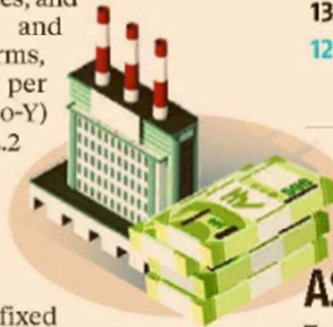
The slowdown was across the board and companies in most key sectors.

The combined fixed assets of the non-BFSI sector excluding oil and gas companies (including Reliance Industries) were up 6.3 per cent Y-o-Y in FY24, down from the 9.9 per cent a year earlier.

Similarly, the combined fixed assets of non-BFSI companies excluding oil and gas and mining and metals companies were up 5.4 per cent Y-o-Y in FY24, slowing from the 8.9 per cent a year ago. (See the adjoining charts).

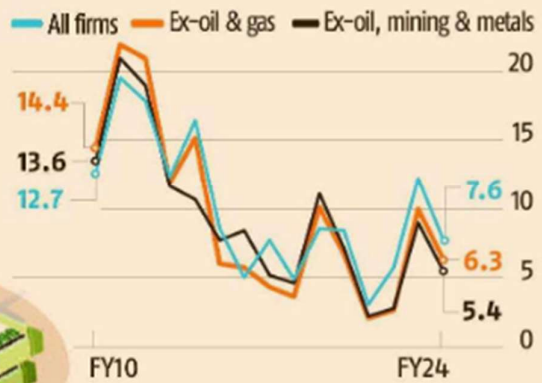
Oil and gas and mining and metal companies — such as Reliance Industries, Oil and Natural Gas Corporation, Indian Oil, Tata Steel, JSW Steel, Hindalco, and Coal India — are two of the most capital-intensive sectors in the country.

The firms in these two sectors together accounted for 30 per cent and 15 per cent of the fixed assets of all companies, respectively, in the sample in FY24.



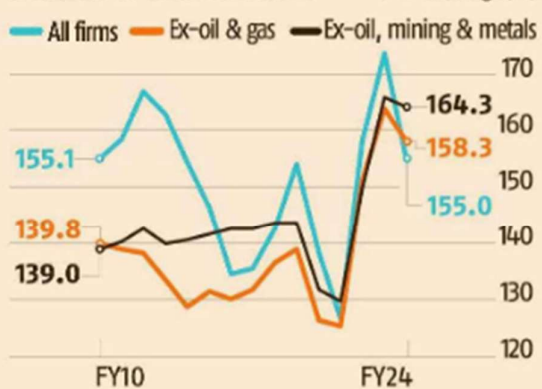
## SLOWDOWN ACROSS BOARD

Trend in capex growth of listed non-BFSI companies



## ASSET UTILISATION DECLINES

Trend in the non-BFSI companies' revenues to fixed asset ratio



Note: Based on common sample of 990 non-BFSI companies, excluding listed subsidiaries of other companies in the sample  
Source: Capitaline  
Compiled by BS Research Bureau

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# India Inc capex growth slows down in FY24

The combined fixed assets of oil and gas companies were up 10.9 per cent in FY24, slowing down from the 18.7 per cent growth reported in FY23.

Similarly, the fixed assets of mining and metals firms were up 9.8 per cent in FY24, down from the 13.9 per cent Y-o-Y growth in FY23.

Capex growth in FY23 was the highest in the last nine years and raised hopes of revival in private-sector investment. The slowdown in corporate investment last financial year has belied them. Analysts attribute that to weak demand in the economy and companies' poor sales growth.

The combined fixed assets of the 990 companies increased to ₹69.7 trillion at the end of FY24 from ₹64.74 trillion a year earlier. With this, these companies' fixed assets have increased at a compound annual growth rate (CAGR) of 7.6 per cent in the last five years (FY19-24), up from the 6.9 per cent during FY14-19 but down from 15.7 per cent during FY09-14.

The fixed assets include cumulative investment in tangible and intangible assets minus accumulated depreciation plus capital work in progress. This includes investment in plants and equipment, land and buildings, telecom spectrum patents, intellectual property, office equipment, and transport equipment.

"There is little financial imperative for private capex growth in the country right

now. Sales growth for non-financial firms was nearly flat in FY24 and companies were busy protecting their margins and profits rather than tying up capital in capacity expansion or new projects," said Dhananjay Sinha, co-head, research and equity strategy, Systematic Institutional Equity.

The combined net sales of the 990 were up just 2.1 per cent Y-o-Y in FY24, down sharply from the 23.2 per cent in FY23 and 31.9 per cent in FY22. In comparison, these companies' combined net sales grew at a compound annual rate of 6.9 per cent between FY14 and FY19 and 13.9 per cent during FY09-14. After the slowdown in FY24, these companies combined net sales have grown at a CAGR of 7.7 per cent during FY19-24.

"The capex slowdown is largely due to weak demand for manufacturing companies. FMCG (fast-moving consumer goods) companies are growing in low single digits; chemicals firms have seen a sharp decline in price realisation; capacity utilisation in cement was only 70 per cent last financial year and in the auto sector only SUV (sport utility vehicle) segment has grown while demand for commercial vehicles and tractors is flat and small cars have seen de-growth. Two-wheelers sales grew in FY24 but volumes are much lower than in the past," said G Chokkalingam, founder & chief executive officer, Equinomics Research.

**EXTREME HEAT MELTS DEMAND**

# Diesel sales fall 4% in June

**Fuel sales, which traditionally surge during polls, have defied the trend this year, falling month after month**

**OUR CORRESPONDENT**

**NEW DELHI:** India's diesel demand slumped in June as extreme heat conditions in parts of the country curtailed travel, preliminary data of state-owned firms showed on Monday.

Fuel sales, which traditionally surge during elections, have defied the trend this year, falling month after month. And the decline has now extended even after the end of the general elections.

Petrol sales of three state-owned firms, which control 90 per cent of the fuel market, at 1.42 million tonnes in the first half of June was almost the same as 1.41 million tonnes of fuel consumed in the same period last year. Month-on-month consumption dropped 4.6 per cent.

Diesel sales dropped 3.9 per cent to 3.95 million tonnes during June 1 to 15 when compared with the year-ago period. The demand for the nation's most consumed fuel had fallen 2.3 per cent in April and 2.7 per cent in March. In May it fell 1.1 per cent.

Besides electioneering, the summer harvest season as also the scorching summer that increases the demand for air conditioning in cars, should have led to a rise in fuel consumption. However, this year has defied the trend.



**Petrol sales of three state-owned firms, which control 90 per cent of the fuel market, at 1.42 million tonnes in the first half of June was almost the same as 1.41 million tonnes of fuel consumed in the same period last year**

Petrol and diesel prices were reduced by Rs 2 per litre in mid-March, ending a nearly two-year-long hiatus in rate revision, which should have also propelled sales.

Month-on-month petrol sales fell 3.6 per cent compared to 1.47 million tonnes of consumption during May 1-15.

Diesel demand was flat month-on-month against 3.54 million tonnes in the first half of May.

Consumption of petrol during June 1-15 was 4.6 per cent lower than in the first fortnight

of June 2022, and 28.1 per cent more than in the Covid-marred same period of 2020.

Diesel demand slumped 10.5 per cent over June 1-15, 2022, and 14 per cent higher compared to June 1-15, 2020.

Jet fuel (ATF) sales rose 2.3 per cent year-on-year to 331,000 tonnes during June 1-15, 2024. But, this was 4.5 per cent lower month-on-month when compared to 346,500 tonnes in May 1-15, the data showed.

Like petrol and diesel, ATF demand, too, is now firmly above pre-Covid levels.

**Highlights**

» Diesel sales dropped 3.9 per cent to 3.95 million tonnes during June 1 to 15 when compared with the year-ago period

» The demand for nation's most consumed fuel had fallen 2.3% in April and 2.7% in March. In May it fell 1.1%

» ATF consumption was 10.1 per cent more than during June 1-15, 2022, and 6.1 per cent more than in June 1-15, 2020, as per the data

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Cooking gas LPG sales were up 0.1 per cent year-on-year to 1.24 million tonnes in June 1-15, 2024. LPG consumption dropped 0.9 per cent as compared to June 1-15, 2022 and was 32 per cent more than June 1-15, 2020. Month-on-month, LPG demand fell 5.2 per cent against 1.3 million tonnes consumption during May 1-15, the data added.



# Focus on exploration of crude to cut import bill

**SANGEETHA G**  
CHENNAI, JUNE 17

India has to provide renewed focus on crude oil exploration and improving production capacity, technology and logistics facilities of Coal India will help the country lower its energy imports, which accounts 32 per cent of its total imports.

India's rising energy imports bill is a significant challenge, with energy imports making up 32.4 per cent of the country's total merchandise imports, amounting to \$219.7 billion for FY 2024, finds GTRI.

India imported crude oil, LNG, and LPG of value \$177.3 billion for FY2024. In the 1980s, India met 85 per cent of its crude oil needs from ONGC's Bombay High offshore field, but now it imports more than 85 per cent of its requirement. The country will have to expand its strategic petroleum reserves to ensure energy security during supply disruptions.

A renewed focus on exploration of its 26 sedimentary basins, many of which have not been fully explored, will help production.

Further, the country will have to reduce coal



imports. India's coke and coal imports crossed \$42.4 billion in FY2024. Coking coal is used for steel production and thermal coal for electricity generation. While reducing coking coal imports is challenging due to the low quality of domestic reserves, thermal coal imports can be managed.

The increase in coal imports is driven by the demand from new power plants that require high-grade imported coal as India has low quality with 30-40 per cent ash content. Coal India's limited production capacity and technological constraints, and domestic transport restrictions has been one of the challenges.

India will also have to improve its power grid performance. Industries such as steel, cement, textiles, and chemicals install their own captive power plants to ensure an uninterrupted power supply due to frequent power outages.





## GRUNER PLANS TO INVEST ₹220 CR TO SET UP BIOGAS PLANT IN GUJARAT

New Delhi, June 17: Gruner Renewable Energy on Monday said it will set up a compressed biogas (CBG) plant in Gujarat at an estimated cost of ₹220 crore.

The CBG plant in Navsari is expected to produce 44 tonnes of biogas per day (TPD) using cost-effective feedstocks such as paddy, pressmud, canetrash and of municipal solid waste (MSW). This equates to an annual production of over 16,000 tonnes of biogas, Gruner Renewable Energy said in a statement.

"Gruner Renewable Energy, in collaboration with a leading business conglomerate, is all set to establish Asia's largest compressed biogas plant in Navsari, Gujarat. The estimated cost of this plant is approximately ₹220 crore," it said.

As India works towards decreasing reliance on fossil fuels, opening of plants like Navsari is going to play a critical role in meeting our goals of championing sustainable energy solutions, Gruner Renewable Energy founder and chief executive officer Utkarsh Gupta said.

The establishment of CBG plants will significantly reduce the country's crude oil import bill, he added.

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— PTI

# Heat hits diesel demand, sales drop 4% in June

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And the decline has now extended even after the end of the general elections.

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Besides electioneering, the summer harvest season as also the scorching summer that increases the demand for air conditioning in cars, should have led to a rise in fuel consumption. However, this year has defied the trend.

Petrol and diesel prices were reduced by ₹2 per litre in mid-March, ending a nearly two-year-long hiatus in rate revision, which should have also propelled sales.



Month-on-month petrol sales fell 3.6 per cent compared to 1.47 million tonnes of consumption during May 1-15. Diesel demand was flat month-on-month against 3.54 million tonnes in the first half of May.

Diesel is India's most consumed fuel, accounting for almost 40 per cent of all petroleum product consumption. The transport sector accounts for 70 per cent of all diesel sales in the country. It is also the predominant fuel used in agriculture sectors, including in harvesters and tractors.

Consumption of petrol during June 1-15 was 4.6 per cent lower than in the first fortnight of June 2022, and 28.1 per cent more than in the Covid-marred same period of 2020.

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Jet fuel (ATF) sales rose 2.3 per cent year-on-year to 3,31,000 tonnes during June 1-15, 2024. But, this was 4.5 per cent lower compared to 3,46,500 tonnes in May 1-15, the data said. ATF demand, too, is now firmly above pre-Covid levels. — PTI



# High prices may burn out India's growing LNG use

S DINAKAR  
New Delhi, 17 June

Industries and power plants using liquefied natural gas (LNG) are facing a threat from a surge in prices of the fuel abroad, especially when gas-fired thermal power generation has increased to cope with greater demand and the expanding economy requiring more gas.

Prices of the Asian spot LNG benchmark went above the oil-indexed term contracts for the first time this week since December, with Platts' JKMM (Japan-Korea Marker) index surging more than 60 per cent since early March, driven by demand growth in Asia, said Greg Molnar, gas analyst at the International Energy Agency (IEA).

India's benchmark gas index GIXI, which belongs to the Indian Gas Exchange (IGX), was at \$13.2 per million British thermal units (MMBtu) for LNG deliveries this month and \$11.6 per MMBtu for July as on June 13.

Spot LNG prices in Northeast Asia were at \$12.20 per MMBtu, according to US market intelligence agency Energy Intelligence for deliveries four to eight weeks ahead.

Term LNG from Qatar is available at \$10-\$11 per MMBtu, a Petronet official

said. This is \$2 per MMBtu cheaper than current spot levels.

India's gas-based power generators need the fuel at \$5 per MMBtu to compete with coal-fired power, according to an NTPC official. They took five-six cargoes of spot LNG in May because of limited access to term supplies, prompting dependence on expensive spot fuels.

LNG imports in the first quarter of this year were 25 per cent higher than last year, and demand for gas in India is expected to grow 7 per cent in 2024 from a year earlier, according to the IEA.

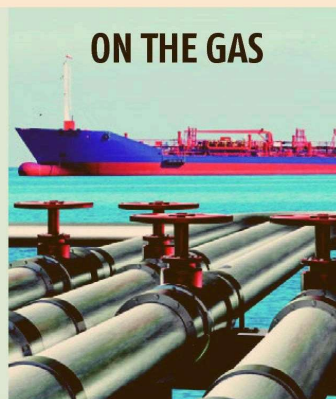
The government will have to subsidise higher generation costs to avoid disruption in power supplies, with heatwaves prevailing in northern India.

Pakistan has said it will postpone procuring spot LNG, and Bangladesh too may delay spot purchases, industry officials said.

Indian importers have made no such announcements in the hope that the government will pay for costlier LNG.

Gas volumes traded on the IGX in May rose 99 per cent, and 480 per cent in the year at 124 million cubic metres, the market making platform said in a note, attributing higher volumes to an increase in gas demand from gas-based power plants amid hot weather and directives

INDIA LNG IMPORTS  
(In billion cubic metres)



## LOWER UTILISATION

Terminal	Promoter	Capacity (mn tonnes per annum)	Utilisation in Apr-Mar '24 (%)
Dahej	Petronet LNG	17.5	95
Hazira	Shell Energy	5.2	30
Dabhol	Konkan LNG	5.0	43
Kochi	Petronet LNG	5.0	21
Ennore	Indian Oil	5.0	18
Mundra	GSPC LNG	5.0	15
Dhamra	Adani Total	5.0	27
<b>Total</b>		<b>47.7</b>	<b>35.6 avg</b>

Source: Oil ministry

from the government to maximise their output to address the growing demand for electricity.

Demand for gas-fired electricity not only in India but also other parts of Asia has sent prices of spot LNG higher, said Rajesh Mediratta, chief executive officer of the IGX. That demand may reduce once temperatures ease, and "I don't see prices going beyond current levels", he added. But Mediratta also cautioned that after demand from gas generators declined in

July and August, LNG must be affordable in India. High LNG prices will impact demand, he added.

India, the world's most price-sensitive large LNG market, is comfortable when LNG trades at \$8-\$9 per MMBtu, senior officials of Petronet LNG and the IGX said. Petronet LNG has forecast a 15 per cent increase in demand this year to as much as 27 million tonnes.

But surging LNG prices affect Indian fuel use, which in turn is reflected in lower

utilisation at Indian LNG terminals.

The Petroleum and Natural Gas Regulatory Board has expressed concern over lower utilisation—barring Petronet LNG's 95 per cent utilisation at its Dahej facility, which accounts around 30 per cent of India's LNG capacity. The rest average less than 30 per cent, with Mundra operating its facilities at around 15 per cent last financial year. Average utilisation across the roughly 48 million tonnes a year of capacity is below 50 per cent after LNG

imports declined. Two new floating regasification storage facilities of over 10 million tonnes a year, in a combined capacity in Gujarat and Maharashtra, were scrapped because of a lack of demand and pipeline connectivity. The sharp surge in spot prices also highlights the dilemma Indian consumers face.

Petronet LNG Chairman Akshay Kumar Singh told this reporter in a recent earnings call that Indian buyers must lockup 70-80 per cent under term contracts, with the rest procured from the spot market. But when LNG prices were trading at around \$2/MMBtu during the pandemic, LNG importers, including Petronet LNG, had slowed signing term deals.

There are reasons why spot LNG prices are rising (the price was as low as \$8/MMBtu in March compared to \$70/MMBtu in 2022, after Russia invaded Ukraine). A primary one is a surge in demand from China, the world's largest importer, and India. Coupled with unexpected outages at Australia's Gorgon, Wheatstone LNG, and Brunei production facilities, and an inability among Asian buyers to take US LNG because of Houthi attacks on tankers crossing the Red Sea, prices soared in the last two months, Molnar said in a post.

India imports around 45 per cent of its daily gas needs—around 185 million cubic metres per day. The country plans to increase the share of gas in its energy mix to 15 per cent by 2030.

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# K'taka Govt in 'Panic' Mode to Fulfil Poll Promises: Puri

**Our Bureau**

**New Delhi:** Petroleum and natural gas minister Hardeep Puri on Monday said Karnataka has increased taxes on petrol and diesel as the Congress government in the state must shore up resources to fulfil its tall pre-election promises.

Karnataka has increased the value-added tax on petrol to 29.84% and on diesel to 18.44%. Following this, diesel prices have risen to Rs 88.94 per litre and petrol prices to Rs 102.86.

The rates are still lower than those in Maharashtra, Madhya Pradesh, Rajasthan and Andhra Pradesh where the BJP is in power. Diesel costs Rs 92.15 per litre in Mumbai, Rs 91.84 in Bhopal, Rs 90.36 in Jaipur and Rs 97.02 in Vijayawada. Petrol costs Rs 104.21 a litre in Mumbai, Rs 106.47 in Bhopal, Rs 104.88 in Jaipur and Rs 109.15 in Vi-



jayawada.

Puri said the Congress government in Karnataka is in "panic" mode after voters started demanding the party fulfil its poll promises. "And they decided that they needed the revenue because there was an issue of credibility as it is they (who) have made bus rides free. They have done this. They've done that. So, then they decided they will increase petrol and diesel rates," he said in an interaction with media persons.



## LNG Imports Down 7.2% in May on Stagnant Demand

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**New Delhi:** LNG imports fell 7.2% year-on-year in May as domestic demand stagnated and local production expanded.

India imported 2,650 million metric standard cubic meters (MMSCM) of LNG in May, lower than 2,854 MMSCM a year earlier, according to the oil ministry data. The country consumed 5,708 MMSCM of natural gas in May, 0.3% higher than in the same month a year earlier.

The data showed that a sizzling summer, which has boosted electricity demand across the country, had no significant impact on gas demand. An executive at a gas marketing company found it hard to explain the decline in LNG imports and stagnation in demand. He said the power sector has increased the use of gas for generation. And the only explanation could be that some other sectors cut down on gas use. Domestic production of natural gas expanded 6.7% in May from a year earlier to 3,105 MMSCM, helping offset the decline in imports. LNG prices have risen in recent months. JKM, the Asian spot LNG benchmark, averaged \$11.9 per mmbtu in May, higher than \$8.4 in February and \$9.3 in May 2023. In June, it rose above \$12 per mmbtu.

LNG prices are increasing on demand from Asia with intense summer requiring energy for cooling. Summer is a good time for India's idle gas-fired generators to make money as buyers are willing to pay more for power. In other seasons, gas is unable to compete with other fuels.

**OIL SPILL** } DESPITE CONTAINMENT EFFORTS, TIDES SPREAD TREATED SPILLED OIL ALONG THE SHORELINE

# Singapore says dredger that hit a stationary cargo tanker lost control due to engine failure

**Associated Press**

letters@hindustantimes.com

**KUALA LUMPUR:** Singapore authorities said on Monday a dredger boat reported a sudden loss in engine and steering control that led it to hit a stationary cargo tanker, causing an oil spill that has blackened part of the city-island's southern shores.

The Netherlands-flagged dredger Vox Maxima struck the Singaporean fuel supply ship Marine Honour on Friday. It ruptured one of the cargo tanks on the Marine Honour, which leaked low-sulphur oil into the sea.

Although the leak has been contained, tides washed the spilled oil that had been treated with dispersants further along the shoreline, including to the



**Workers clear the oil slick on Sentosa island's Tanjong Beach in Singapore, on Sunday.**

AFP

popular resort island of Sentosa. Singapore's Maritime and Port Authority, in a joint statement with the National Environment Agency, the National Parks

Board and Sentosa Development Corporation said the master and crew members of Vox Maxima are assisting in the ongoing investigations.

Part of the beachfront at a public park, beaches at three southern islands and a nature reserve have been closed to facilitate cleanup efforts.

Sentosa beaches remain open to the public but sea activities and swimming are prohibited.

Oil Spill Response Limited will deploy floating devices and skimmer craft to contain and collect the spill into storage tanks, involving over 250 workers in cleanup efforts.

Currently, 1.5 kilometre of containment booms are in place, with an additional 1.6 kilometre to be installed to halt further oil spread, according to the statement. The National Parks Board also deployed oil-absorbing booms to protect mangroves at another park that hasn't been affected so far.





## ग्रूनर रिन्यूएबल गुजरात में 220 करोड़ रुपए के निवेश से बायोगैस संयंत्र लगाएगी

ग्रूनर रिन्यूएबल एनर्जी ने कहा कि वह गुजरात में 220 करोड़ रुपए की अनुमानित लागत से एक संपीडित बायोगैस (सी.बी.जी.) संयंत्र लगाएगी। कंपनी ने बयान में कहा कि गुजरात के नवसारी में लगाने वाले सी.बी.जी. संयंत्र से किफायती कच्चे माल का उपयोग करके प्रतिदिन 44 टन बायोगैस (टी.पी.डी.) का उत्पादन होने की उम्मीद है। यह सालाना 16,000 टन से अधिक बायोगैस के उत्पादन के बराबर है।

नवीकरणीय ऊर्जा के क्षेत्र में सक्रिय कंपनी ने कहा कि इस संयंत्र में कच्चे माल के तौर पर धान, चीनी कारखाने से निकलने वाले अवशिष्ट (प्रेसमड), पिराई के बाद गन्ने का सूखा हुआ अवशिष्ट (खोई) और शहरी क्षेत्र से निकलने वाले ठोस अवशिष्ट (एम.एस.डब्ल्यू.) का इस्तेमाल किया जाएगा।



## ग्रूनर रिन्यूएबल गुजरात में निवेश से बायोगैस संयंत्र लगाएगी



एजेंसी ■ नई दिल्ली

ग्रूनर रिन्यूएबल एनर्जी ने सोमवार को कहा कि वह गुजरात में 220 करोड़ रुपए की अनुमानित लागत से एक संपीडित बायोगैस (सीबीजी) संयंत्र लगाएगी। कंपनी ने बयान में कहा कि गुजरात के नवसारी में लगने वाले सीबीजी संयंत्र से किफायती कच्चे माल का उपयोग करके प्रतिदिन 44 टन बायोगैस (टीपीडी) का उत्पादन होने की उम्मीद है। यह सालाना 16,000 टन से अधिक बायोगैस के उत्पादन के बराबर है। नवीकरणीय ऊर्जा के क्षेत्र में सक्रिय कंपनी ने कहा कि इस संयंत्र में कच्चे माल के तौर पर धान, चीनी कारखाने से निकलने वाले अवशिष्ट (प्रेसमड), पेरई के बाद गन्ने का सूखा हुआ अवशिष्ट

(खोई) और शहरी क्षेत्र से निकलने वाले ठोस अवशिष्ट (एमएसडब्ल्यू) का इस्तेमाल किया जाएगा। कंपनी ने कहा, एक प्रमुख कारोबारी समूह के साथ मिलकर हम गुजरात के नवसारी में एशिया का सबसे बड़ा संपीडित बायोगैस संयंत्र स्थापित करने के लिए पूरी तरह तैयार हैं। उन्होंने बताया कि इस संयंत्र की अनुमानित लागत लगभग 220 करोड़ रुपए है। ग्रूनर रिन्यूएबल एनर्जी के संस्थापक और मुख्य कार्यपालक अधिकारी (सीईओ) उत्कर्ष गुप्ता ने कहा कि नवसारी जैसे सीबीजी संयंत्रों की स्थापना से देश के कच्चे तेल के आयात बिल में उल्लेखनीय कमी आएगी। इससे जीवाश्म ईंधन पर निर्भरता कम करने की दिशा में मदद मिलेगी।



## प्राकृतिक गैस और सार्वजनिक परिवहन से सुधरेगी दिल्ली की हवा

नई दिल्ली, प्रेटर : दिल्ली की हवा बद से बदतर हो गई है। विश्वभर की राजधानियों में अकेले दिल्ली में ही वायु प्रदूषण सर्वाधिक है। पर्यावरणविद और सेंटर फार साइंस एंड एनवायरमेंट की महानिदेशक सुनीता नारायण ने कहा कि दिल्ली को स्माग में लपेटने वाले प्रदूषण में सबसे बड़ा हाथ पराली से ज्यादा शहर के अंदर ही है जो परिवहन और उद्योगों के कारण दिन-ब-दिन और घातक होता जा रहा है। उन्होंने सरकार से इस समस्या को समय रहते सीमित करने के लिए दिल्ली के अमीर लोगों के प्रति कुछ कड़े फैसले लेने को कहा है। साथ ही कहा कि नई केंद्र सरकार को प्राकृतिक गैस को जीएसटी के दायरे में

लाना चाहिए ताकि अधिकाधिक लोग कोयले और अन्य जीवाश्म ईंधन के बजाय प्राकृतिक गैस का ही उपयोग करें। इसके अलावा, पब्लिक ट्रांसपोर्ट की स्थिति बेहतर करके यातायात से होने वाले प्रदूषण को कम किए जाने की जरूरत है।

एनर्जी पालिसी इंस्टीट्यूट एट द यूनिवर्सिटी आफ शिकागो (एपिक) के अनुसार वायु प्रदूषण के कारण दिल्ली में सर्वाधिक वायु प्रदूषण के कारण लोगों की आयु 12 साल तक कम हो गई है। यह रिपोर्ट बताती है कि दिल्ली में वायु प्रदूषण की स्थिति कितनी गंभीर हो चुकी है जो कुछ हद तक ग्लोबल वार्मिंग का भी असर है।

# भीषण गर्मी से डीजल की मांग घटी, जून में बिक्री में चार प्रतिशत की गिरावट

एजेंसी ■ नई दिल्ली

देश के कुछ हिस्सों में भीषण गर्मी के कारण यात्रा में कमी आने से जून में डीजल की मांग में गिरावट आई है। ईंधन की बिक्री, जो परंपरागत रूप से चुनाव के दौरान बढ़ जाती है, इस वर्ष प्रवृत्ति के विपरीत रही है तथा मासिक आधार पर इसमें गिरावट आ रही है। यह गिरावट अब आम चुनाव के समाप्त होने के बाद भी जारी है। डीजल की बिक्री एक से 15 जून के दौरान पिछले साल की समान अवधि की तुलना में 3.9 प्रतिशत की गिरावट आई है और यह 39.5 लाख टन रह गई है। देश में सबसे ज्यादा खपत वाले ईंधन की मांग में अप्रैल में 2.3 प्रतिशत और मार्च में 2.7 प्रतिशत की गिरावट आई थी। मई में इसमें 1.1 प्रतिशत की गिरावट आई



थी। चुनाव प्रचार के अलावा, गर्मी की फसल कटाई के मौसम तथा चिलचिलाती गर्मी के कारण कारों में एयर कंडीशनिंग की मांग बढ़ जाती है, जिससे ईंधन की खपत बढ़नी चाहिए

थी। हालांकि इस साल यह रुझान उलट गया है। पेट्रोल और डीजल की कीमतों में मार्च के मध्य में दो स्पष्ट प्रति लीटर की कमी की गईं, जिससे दरों में संशोधन का करीब दो साल

लंबा अंतराल समाप्त हो गया, जिससे बिक्री में भी तेजी आनी चाहिए थी। पेट्रोल की बिक्री एक से 15 मई के दौरान 14.7 लाख टन खपत की तुलना में मासिक आधार पर 3.6

प्रतिशत की गिरावट आई। मई के पहले पखवाड़े में 35.4 लाख टन के मुकाबले डीजल की मांग मासिक आधार पर स्थिर रही। उन्होंने बताया कि डीजल भारत में सबसे अधिक खपत वाला ईंधन है, जो सभी पेट्रोलियम उत्पादों की खपत का लगभग 40 प्रतिशत है। उन्होंने बताया कि देश में कुल डीजल बिक्री में परिवहन क्षेत्र की हिस्सेदारी 70 प्रतिशत है। यह हार्वेस्टर और ट्रैक्टर सहित कृषि क्षेत्रों में उपयोग किया जाने वाला प्रमुख ईंधन है। विमान ईंधन की मांग एक से 15 जून 2024 के बीच सालाना आधार पर 2.3 प्रतिशत बढ़कर 331,000 टन हो गई। स्टीरॉइड गैस एलपीजी की मांग एक से 15 जून के दौरान की सालाना आधार पर 0.1 प्रतिशत बढ़कर 12.4 लाख टन हो गई।



# भीषण गर्मी से यात्राएं टलीं तो डीजल की मांग में आई कमी

नई दिल्ली (भाषा)।

देश के कुछ हिस्सों में भीषण गर्मी के कारण यात्रा में कमी आने से जून में डीजल की मांग में गिरावट आई है। ईंधन की विक्री, जो परंपरागत रूप से चुनाव के दौरान बढ़ जाती है, इस वर्ष प्रवृत्ति के विपरीत रही है तथा मासिक आधार पर इसमें गिरावट आ रही है। यह गिरावट अब आम चुनाव के समाप्त होने के बाद भी जारी है।

डीजल की विक्री एक से 15 जून के दौरान पिछले साल की समान अवधि की तुलना में 3.9 प्रतिशत की गिरावट आई है और यह 39.5 लाख

टन रह गई है। देश में सबसे ज्यादा खपत वाले ईंधन की मांग में अप्रैल में 2.3 प्रतिशत और मार्च में 2.7 प्रतिशत की गिरावट आई थी। मई में इसमें 1.1 प्रतिशत की गिरावट आई थी।

चुनाव प्रचार के अलावा, गर्मी को फसल कटाई के मौसम तथा चिलचिलाती गर्मी के कारण कारों में एयर कंडीशनिंग की मांग बढ़ जाती है, जिससे ईंधन की खपत बढ़ती चाहिए



थी। हालांकि इस साल यह रद्दान उलट गया है।

पेट्रोल और डीजल की कीमतों में मार्च के मध्य में दो रुपये प्रति

लीटर की कमी की गई, जिससे दलों में संशोधन का करीब दो साल लंबा अंतराल समाप्त हो गया, जिससे विक्री में भी तेजी आनी चाहिए थी।

पेट्रोल की विक्री एक से 15 मई के दौरान 14.7 लाख टन खपत की तुलना में मासिक आधार पर 3.6 प्रतिशत की गिरावट आई। मई के पहले पखवाड़े में 35.4 लाख टन के मुकाबले डीजल की मांग मासिक

आधार पर स्थिर रही। डीजल भारत में सबसे अधिक खपत वाला ईंधन है, जो सभी पेट्रोलियम उत्पादों की खपत का लगभग 40 प्रतिशत है। देश में कुल डीजल विक्री में परिवहन क्षेत्र की हिस्सेदारी 70 प्रतिशत है। यह हावैस्टर और ट्रैक्टर सहित कृषि क्षेत्रों में उपयोग किया जाने वाला प्रमुख ईंधन है। विमान ईंधन की मांग एक से 15 जून 2024 के बीच सालाना आधार पर 2.3 प्रतिशत बढ़कर 331,000 टन हो गई।

रसोई गैस एलपीजी की मांग एक से 15 जून के दौरान की सालाना आधार पर 0.1 प्रतिशत बढ़कर 12.4 लाख टन हो गई।

## वेदांता की 10 अरब डॉलर की पूर्व आय हासिल करने की योजना

नई दिल्ली, (भाषा)। खनन क्षेत्र की दिग्गज कंपनी वेदांता समूह की निकट भविष्य में 10 अरब अमेरिकी डॉलर की कर पूर्व आय हासिल करने के लक्ष्य को 50 से अधिक उच्च प्रभाव वाली वृद्धि परियोजनाओं के समय पर क्रियान्वयन से बल मिलेगा। इनमें जस्ता, एल्युमीनियम, तेल एवं गैस तथा बिजली कारोबार शामिल हैं। वेदांता समूह द्वारा आयोजित साइट विजिट पर आए 45 से अधिक कोष प्रबंधकों और विश्लेषकों के समक्ष प्रस्तुत की गई पावरपॉइंट प्रेजेंटेशन के अनुसार ये परियोजनाएं पूरी होने के अग्रिम चरण में हैं। इस प्रस्तुति के अनुसार वेदांता समूह इन मौजूदा वृद्धि परियोजनाओं में करीब आठ अरब डॉलर निवेश कर रहा है। कंपनी की इस वर्ष के अंत तक सभी विनियामक अनुमोदन प्राप्त करने के बाद पांच अतिरिक्त संस्थाओं को बाजार में सूचीबद्ध करने की भी योजना है।



# सीएनजी लाइन की खोदाई में कटी केबल, 32 घंटे गुल रही बिजली

भीषण गर्मी में बिलबिलाए लोग, जेनरेटर से बिजली आपूर्ति में फूंक दिया 17 लाख का डीजल

संवाद न्यूज एजेंसी

गुरुग्राम। सीएनजी लाइन खोदाई के दौरान बिजली का अंडरग्राउंड केबल कट जाने से सेक्टर 81 स्थित बेस्टेक आनंदा और ग्रैंड स्पा सोसाइटी के निवासियों को रविवार और सोमवार शाम तक 32 घंटे बिजली कटौती का सामना करना पड़ा। इससे सोसाइटी में रहने वाले 1200 परिवारों को भारी परेशानी उठानी पड़ी। रविवार सुबह करीब 10 बजे लोगों के घरों की बिजली गुल हो गई।

सोसाइटी में बिजली व्यवस्था बहाल रखने के लिए डीजल आधारित जेनसेट चलाया गया। सोमवार सात बजे तक मरम्मत कार्य पूरा किया जा सकेगा। इस दौरान करीब 25 लाख रुपये खर्च हुए। भीषण गर्मी में विद्युत आपूर्ति के लिए 32 घंटों तक जेनसेट चलाना पड़ा। इसमें करीब 18 हजार लीटर डीजल फूंक गया। इसकी कीमत



बेस्टक सोसाइटी में अंडरग्राउंड केबल की खोदाई करते कर्मी। अरडब्ल्यू

करीब 17 लाख रुपये बताई जाती है। सोसाइटी के अरडब्ल्यू अध्यक्ष कुमार अशोक ने बताया कि अंडरग्राउंड केबल का फॉल्ट तलाशने के लिए जेसीबी की मदद से सड़क खोदी गई। एक जगह पहले फॉल्ट मिला तो उसे ठीक किया गया। इसके बावजूद विद्युत आपूर्ति नहीं हो पाई। इसके बाद दूसरी जगह फॉल्ट तलाश किया गया। उन्होंने बताया कि भीषण गर्मी में करीब 32 घंटे बिजली के लिए

जेनसेट के प्रयोग में तकरीबन 25 लाख रुपये डीजल, जेसीबी और मरम्मत पर खर्च हो गए हैं। इसके अलावा भी खर्च हो सकते हैं।

उन्होंने बताया कि न्यू गुरुग्राम की सोसाइटियों के लोगों को इस इलाके में निर्माण कार्य होने और जेसीबी आदि से अंडर ग्राउंड केबल के क्षतिग्रस्त होने के कारण इस तरह की दिक्कतें आम हैं। इसका खामियाजा निवासियों को आर्थिक नुकसान के साथ ही उठाना पड़ रहा है।

सेक्टर 81 स्थित बेस्टेक आनंदा और ग्रैंड स्पा सोसाइटी में केबल टूटने के कारण बिजली हुई गुल

## 4.3 मेगावाट बिजली की रोजाना जरूरत

हाईराइज पॉश सोसाइटी बेस्टेक पार्क व्यू और ग्रैंड स्पा में बिजली की जरूरत पूरी करने के लिए 4.3 मेगावाट बिजली की जरूरत होती है। अरडब्ल्यू प्रतिनिधियों ने बताया कि केबल फॉल्ट के बाद से सोसाइटी में 18,000 लीटर डीजल खर्च किया गया। करीब 17 लाख रुपये डीजल की खरीदारी में लगे। इसके अलावा जेसीबी की मदद से सड़क की खोदाई, मजदूर, टेक्नीशियन, नया केबल डालने और दोबारा सड़क की मरम्मत आदि मिलाकर करीब 25 लाख रुपये के खर्च का अनुमान है। दोबारा सड़क को बनाने में खर्च की राशि और बढ़ सकती है।