



## **Biogas Association Gets Pledge For New Investments Worth ₹2,755 Cr**

**New Delhi:** New investments totalling Rs 2,755 crore have been pledged with industry body Indian Biogas Association (IBA) during the recently held Renewable Energy India Expo 2023. Talking to PTI, IBA Chairman Gaurav Kedia said "Indian Biogas Association (IBA), an industry association comprising operators, manufacturers, and planners of bioenergy plants, has received a commitment of investment worth Rs 2,755 crore during the Renewable Energy India Expo 2023."

The association has signed joint ventures (JVs), MoUs (memorandum of understanding) and received LoIs (letter of intent) commitments during the recently concluded Renewable Energy India (REI) Expo held at Greater Noida from from October 4 to 6. —PTI

## IndianOil Set to Invest ₹1,660 cr in JV with NTPC

**New Delhi:** Indian Oil Corporation, the nation's biggest oil firm, will invest Rs 1,660.15 crore as equity in a newly set up joint venture with energy major NTPC Ltd for setting up renewable power plants. In June, IOC and NTPC had formed a 50:50 joint venture company, IndianOil NTPC Green Energy Pvt Ltd, to set up renewable energy projects to meet round-the-clock power requirements of refineries of the oil company. In a stock exchanging filing, IOC said its Board in a meeting on October 13, "has accorded approval to the investment plan of the joint ven-



ture company for setting up of renewable energy power plants and approved the equity contribution of up to Rs 1,660.15 crore towards Indian Oil's share of 50 per cent in the equity share capital of the JVC." On June 2, IOC incorporated the joint venture company (JVC) with NTPC Green Energy Limited (a wholly-owned subsidiary of NTPC Limited).

"IndianOil NTPC Green Energy Private Limited will develop renewable energy-based power projects (viz. solar PV, wind, any other renewable energy, energy storage or any combination of the same), to meet the round-the-clock (RTC) power requirements of new projects of IndianOil Refineries," the firm had said at that time. The aim is to generate a minimum capacity of 650 MW of round-the-clock renewable power to fulfill the energy requirements of IOC refineries. NTPC, through its wholly-owned subsidiary, NGEL, has set an ambitious target of building a renewable generation portfolio of 60 GW over the next decade to aggressively pursue its green energy business. —PTI

# Discounts on Russian Oil Imports Double in 2 Months

Move leads to increase in Russian oil share in India's imports to 38% in Sept from 33% in Aug

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**New Delhi:** Discounts on Russian oil imported by India have nearly doubled in the past two months to \$8-10 per barrel as state refiners moun-

ted pressure on suppliers and reduced their intake from Russia for a while, according to people familiar with the matter.

Expanding discounts have boosted imports, increasing Russian oil's share in India's overall crude imports to 38% in September from 33% in August. Imports of Russian oil by state-run refiners surged a quarter in September after falling 30% in August. State refiners account for two-thirds of Russian imports.

State refiners are taking Russian oil almost entirely from non-Russian entities to extract better disco-

unts and avoid payment troubles, said the people. These suppliers are mainly resourceful traders with the ability to source oil from Russia and safely deliver to Indian ports without worrying about sanctions or logistics constraints.

Almost all purchases of Russian oil by state refiners are being made in the spot market. Russian oil accounts for about half the



**Russian oil accounts for about half the total crude purchases by Bharat Petroleum Corporation**

total crude purchases by Bharat Petroleum Corporation and a third of crude sourced by Indian Oil Corporation and Hindustan Petroleum Corporation, the people said.

State refiners are paying for Russian oil using US dollars and UAE Dirham based on the suppliers' preference, said the people. But payments in Chinese Yuan have stopped after the government conveyed its displeasure to refiners regarding this, they said. China aims to internationalise its currency and its use for oil payments can greatly help that cause.

Indian refiners are able to pay for Russian oil despite buying it at rates

much higher than the price cap of \$60 per barrel set by the G7 countries, said people in the know.

Those tasked with implementing the provisions of G7 sanctions understand that restricting Russian flows can lead to a much bigger oil price surge, something not even the G7 countries want, an industry executive said.

Brent, the international crude benchmark, has gained about \$15 per barrel in four months to \$90 per barrel. A further increase can add to the inflation the central banks in the developed world have been struggling to tame for more than a year.



# Biofuels hold promise as alternative to fossil fuels

The govt should consider making a budgetary allocation to implement measures to promote wasteland for the cultivation of energy crops and impart technical know-how to farmers. Increasing the allocation and extending the term of the PM JIVAN Yojana, and bringing more biofuel projects within its ambit are imperative for sustainable energy production. Bringing energy crops, particularly trees, under the production-linked incentive scheme can also simultaneously mitigate the climate-related risks.

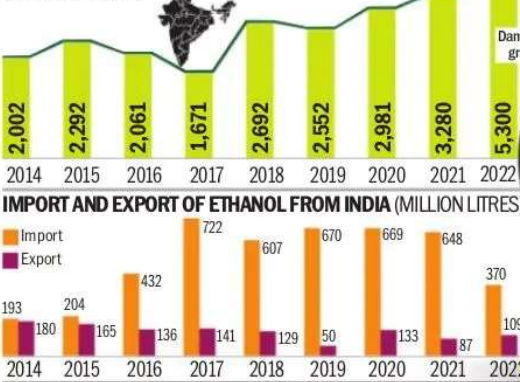
PITAMBARA AND BISHWA  
BHASKAR CHOUDHARY

**T**HE establishment of the Global Biofuel Alliance (GBA) at last month's G20 Summit has major implications for global sustainability and energy security. This alliance signifies a collective commitment among the world's leading economies to accelerate the transition towards cleaner and more sustainable energy sources. Biofuels, derived from renewable biomass, offer a promising alternative to fossil fuels, contributing significantly to reducing greenhouse gas (GHG) emissions and mitigating climate change. They also enhance energy diversification and reduce dependence on volatile oil markets, bolstering energy security for member nations. By fostering international cooperation and knowledge-sharing, this alliance is poised to promote research and development, investment and the adoption of advanced biofuel technologies.

The Government of India has been fostering the growth of the biofuel industry through proactive policies since 2001, when the country initiated the 5 per cent Ethanol Blending (E5) Programme. These policies are focused on giving a fillip to various categories of biofuels by providing essential financial support, establishing a robust feedstock supply chain, promoting research and innovation in biofuel production technologies for both existing and new feed stocks, and encouraging the exploration of locally available feedstock resources, given India's rich biodiversity. The government has also introduced other significant initiatives to support the biofuel sector's development, such as the



ETHANOL PRODUCTION IN INDIA  
(MILLION LITRES)



SOURCE: MINISTRY OF PETROLEUM AND NATURAL GAS, GOVERNMENT OF INDIA

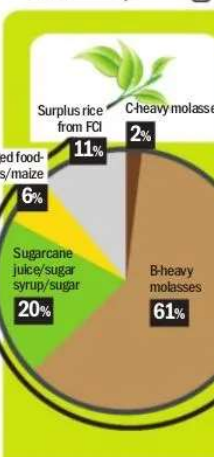
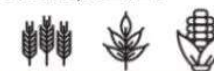
SATAT (Sustainable Alternative Towards Affordable Transportation) scheme aimed at boosting the production of compressed biogas, the provision of viable gap funding for second-generation (2G) bioethanol through the Pradhan Mantri JI-VAN Yojana and grants to facilitate research and development in bioenergy. Despite the new policies and mandates, the average level of bioethanol blending in India has reached around 11%, with a lot of ground to cover to achieve the tar-

get of 20% by 2025-26.

India has augmented its ethanol production capacity from around 2 billion litres in 2014 to 5.3 billion litres in 2022; the target is to produce 15 billion litres by 2025. Currently, sugarcane-derived molasses, broken rice and other damaged foodgrains are primarily used to generate ethanol. With only surplus sugarcane and rice being diverted to fuel production, this option may not be sustainable in the long run.

Climate-related risks such as

ETHANOL  
CONTRIBUTION (%)  
FROM DIFFERENT FEED  
STOCKS, 2021-22



rising temperatures and erratic monsoon are already threatening surplus foodgrain production and thus may pose a challenge to sustaining an ambitious ethanol blending policy for the future. Moreover, India is currently a net importer of ethanol, which means that it is yet to contribute to an increase in energy security. Empirical studies have indicated that the production of about 165 lakh metric tonnes of grains and 60 lakh metric tonnes of sugar will be required by 2025 for

ethanol utilisation. The required quantity of foodgrains for meeting the target is roughly 220 times greater than the amount of rice allocated by the Food Corporation of India for biofuel production in 2020-21. Moreover, an additional 19 million hectares of land will have to be dedicated to sugarcane cultivation.

Therefore, expanding first-generation (1G) biofuel production may have unintended consequences for agriculture and food security. Besides the 'food versus fuel' debate, the move will significantly increase the water footprint. More importantly, incentives for sugarcane/maize-based production for ethanol will be difficult to withdraw once introduced, given the strength of agricultural lobbies in most of the states.

Therefore, by supporting policy initiatives that promote 2G biofuel production and embracing sustainable agricultural practices, India can strike a balance between its energy needs and the imperative of ensuring food security for its growing population. India is the second-largest producer of agricultural waste in the world after China and generates about 500 million tonnes of it per year, of which more than half is discarded or burned. Inappropriate management of this agricultural waste generates greenhouse gases such as methane, carbon dioxide and nitrous oxide, endangering the health of the people and the environment. The biochemical conversion of agri-waste into biofuels is a well-proven sustainable way of bioenergy production. Researchers have harnessed the power of

genetic engineering to develop strains of bacteria and yeast that can break down lignocellulosic material found in agricultural residue, wood chips and various forms of waste biomass. These genetically modified organisms (GMOs) produce enzymes, such as cellulases and hemicellulases, that can efficiently degrade cellulose and hemicellulose into simpler sugars. This enzymatic hydrolysis process is a critical step in the conversion of biomass into biofuels as it releases fermentable sugars that can be further metabolised into bioethanol or other advanced biofuels. However, a well-developed infrastructure network is pivotal for the collection, transportation and storage of agricultural waste, ensuring a consistent supply of feedstock for biofuel production.

The government should consider making a budgetary allocation to implement measures to promote wasteland for the cultivation of energy crops and organise training sessions to impart technical know-how to farmers. Increasing the allocation and extending the term of the JI-VAN Yojana (2018-19 to 2023-24) and bringing more biofuel projects within its ambit are imperative for sustainable energy production. Further, bringing energy crops, particularly trees, under the production-linked incentive scheme and priority sector lending can ensure the sustainability of energy production, while simultaneously mitigating climate-related risks.

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## REC inks 3 MoUs of over ₹40K cr to support and finance various power projects in Odisha

**GURUGRAM:** REC Ltd signed three MoUs totalling Rs 40,358 crore to support and finance various projects in the vibrant state of Odisha. The signing ceremony took place in the presence of Vivek Kumar Dewangan, CMD of REC Ltd, Nikunj B Dhall, ACS Energy of the Govt of Odisha, Hemant Kumar, Principal Secretary Industries, and other senior officials from both REC and the Govt of Odisha.

The MoUs signed on Sunday exemplify REC's commitment to fostering development and sustainability in the region. The key highlights of the agreements are as follows:

**OPGC Partnership:** REC and Odisha Power Genera-



tion Corporation (OPGC) have joined forces to finance Rs 9,358 crore for the development of Unit 5&6, a 660 MW x 2 thermal power project in Jharsuguda, Odisha. This col-

laboration will contribute significantly to the state's power generation capacity and energy infrastructure.

**Acme Group Collaboration:** A groundbreaking partnership

between REC and the Acme Group will provide funding of Rs 16,000 crore for an ambitious Green Hydrogen and Ammonia facility in Gopalpur, Odisha. This initiative underscores the importance of sustainable and clean energy solutions for the future.

**Avaada Group Alliance:** In another stride towards sustainability, REC has entered into an agreement with the Avaada Group, pledging Rs 15,000 crore for an upcoming Green Hydrogen and Ammonia facility in Gopalpur, Odisha.

These MoUs collectively represent a financial commitment of Rs 40,358 crore over the coming years in the state of Odisha. MPOST



## ‘Q2 earnings, geopolitics and oil prices to drive markets this week’

**NEW DELHI:** The ongoing second quarter earnings, movement of oil benchmark Brent crude and the uncertainty in the Middle East would dictate terms in the domestic markets this week, analysts said.

Furthermore, the activities of Foreign Institutional Investors (FIIs) will also influence trading in the markets.

“A slew of earnings reports from heavyweights expected this week will significantly impact market direction. The activities of Foreign Institutional Investors (FIIs) will be important, given their recent consistent selling streak,” Santosh Meena, Head of Research, Swastika Investmart Ltd.

Foreign investors have pulled out nearly Rs 9,800 crore from Indian equities this month so far owing to a sustained rise in US bond yields and the uncertain environ-



ment resulting from the Israel-Hamas conflict.

It was a tumultuous week in the market, marked by significant events and high volatility. Despite this, the market closed on a positive note, largely attributed to strong domestic liquidity.

Last week, the BSE benchmark climbed 287.11 points or 0.43 per cent.

“The Indian market rebounded from the sluggish start, propelled by positive expectations on Q2 earnings

and moderation in global bond yield despite concerns over the Middle East conflict continues to hover.

“However, the release of higher-than-anticipated US inflation data and resulting increase in treasury yields marginally offset the positive trend by the end of the week,” Vinod Nair, Head of Research at Geojit Financial Services, said.

On the macroeconomic front, domestic factors such as a significant drop in Consumer Price Index (CPI) data and impressive industrial production helped to sustain the broad optimism, Nair added.

According to official data, the country’s retail inflation rates moderated to a three-month low of 5 per cent in September while factory output soared to a 14-month high of 10.4 per cent.

PTI

## INDIAN BIOGAS GETS ₹ 2,755 CR NEW INVESTMENT COMMITMENT

New Delhi, Oct. 15: New investments totalling ₹2,755 crore have been pledged with industry body Indian Biogas Association (IBA) during the recently held Renewable Energy India Expo 2023.

IBA chairman Gaurav Kedia said, "Indian Biogas Association has received a commitment of investment worth ₹2,755 crore during the Renewable Energy India Expo 2023."

The association has signed joint ventures, memorandum of understandings, and received letter of intent commitments. These are expected to be realised in next three years, Kedia said.

Kedia informed that there was a huge interest from companies from various countries like Germany, Sweden and Italy.

"We have signed several MoUs amounting to more than ₹1,000 cr of JVs and could get an interest for an additional 54 LoIs for setting up of compressed biogas plants in the country," he stated.

The IBA is the first biogas association for operators, manufacturers and planners of biogas plants, and representatives from public policy, science and research in India.

It is working with many international organisations like the German Biogas Association and other stakeholders to foster the Bio-energy sector in India.

—PTI

## इंडियन बायोगैस एसोसिएशन को निवेश की प्रतिबद्धताएं मिलीं



एजेंसी ■ नई दिल्ली

हाल ही में आयोजित रिन्यूएबल एनर्जी इंडिया एक्सपो-2023 के दौरान उद्योग संगठन इंडियन बायोगैस एसोसिएशन (आईबीए) को नए निवेश की कुल 2,755 करोड़ रुपए की प्रतिबद्धताएं मिली हैं। आईबीए के चेयरमैन गौरव केडिया ने कहा, जैव ऊर्जा संयंत्रों के परिचालकों, विनिर्माताओं और योजनाकारों के इंडियन बायोगैस एसोसिएशन को इस एक्सपो के दौरान कुल 2,755 करोड़ रुपए के निवेश की प्रतिबद्धताएं मिली हैं। रिन्यूएबल एनर्जी इंडिया (आईई) का आयोजन चार से छह अक्टूबर के दौरान ग्रेटर नोएडा में किया गया था। इस दौरान एसोसिएशन ने कई संयुक्त उद्यम (जेवी) समझौते किए। इसके अलावा उसने कुछ समझौता ज्ञापन (एमओयू) पर

हस्ताक्षर किए और उसे आशय पत्र (एलओआई) भी मिले। केडिया ने बताया कि उद्योग जगत ने जो वादा किया है उसके तीन साल में पूरा होने की उम्मीद है। केडिया ने बताया कि जर्मनी, स्वीडन और इटली जैसे विभिन्न देशों की कंपनियों ने इसमें भारी रुचि दिखाई है। उन्होंने कहा, हमने 1,000 करोड़ रुपए से अधिक के संयुक्त उद्यम समझौते किए। इसके अलावा हमें देश में कंप्रेस्ड बायोगैस संयंत्रों की स्थापना के लिए 54 और एलओआई मिल सकते हैं। आईबीए भारत में बायोगैस संयंत्र के परिचालकों, विनिर्माताओं और योजनाकारों का पहला राष्ट्रीय स्तर का पेशेवर बायोगैस संघ है। एसोसिएशन की स्थापना 2011 में हुई थी और बायोगैस के माध्यम से हस्ति भविष्य को बढ़ावा देने के लिए 2015 में इसे नया रूप दिया गया।