



ONGC News as on 14 November 2023 (Print)



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ONGC to start oil output from \$5 bn deepsea unit this month

Oil and Natural Gas Corporation (ONGC) will kick off oil production from its much-delayed flagship deepsea project in Krishna Godavari basin in Bay of Bengal this month, helping reverse years of decline in output, ONGC Director (Production) Pankaj Kumar said. ONGC had said the estimated capital expenditure would be \$5.07 billion and operational expenditure would be \$5.12 billion. A floating production unit is already in the block. **PTI**

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ओएनजीसी केजी बेसिन से शुरू करेगी उत्पादन

सार्वजनिक क्षेत्र की कंपनी तेल एवं प्राकृतिक गैस निगम (ओएनजीसी) इस महीने बंगाल की खाड़ी में कृष्णा गोदावरी बेसिन में अपनी बहु-विलांबित गहरी समुद्री परियोजना से तेल उत्पादन शुरू कर देगी। ओएनजीसी के निदेशक (उत्पादन) पंकज कुमार ने कहा, 'हमारी योजना इस महीने केजी-डीब्ल्यूएन-98/2 ब्लॉक में क्लस्टर-2 परियोजना से उत्पादन शुरू करने और धीरे-धीरे बढ़ाने की है।' क्लस्टर-2 से उत्पादन नवंबर 2021 तक शुरू हो जाना चाहिए था, लेकिन महामारी के कारण इसमें देरी हुई। भाषा

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ONGC to begin production of oil from KG basin in Nov.

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but was delayed because of the pandemic.

Kumar said ONGC plans to start producing from 3 to 4 wells initially and slowly connect others. "Initial production could be 8,000 to 9,000 barrels per day."

Krishna Godavari basin deepsea is treacherous terrain and ONGC is mindful of not repeating mistakes of neighbouring KG-D6 block of Reliance Industries.

While gas production is not so complex in the area, sand and water ingress in wells may happen if oil valves are opened too fast, the company official further said. —PTI

ஆழ்கடலில் எண்ணெய் உற்பத்தி ஓ.என்.ஜி.சி., துவங்குகிறது

புதுடில்லி, நவ. 14-
நீண்டகாலமாக துவங்கப்படாமல் இருந்த ஓ.என்.ஜி.சி., நிறுவனத்தின் ஆழ்கடல் எண்ணெய் உற்பத்தி திட்டம் இம்மாதம் துவங்கப்பட இருப்பதாக அறிவிக்கப்பட்டு உள்ளது.

ஓ.என்.ஜி.சி.,யின் ஆழ்கடல் எண்ணெய் உற்பத்தி திட்டம், வங்காள விரிகுடாவில் கோதாவரி ஆற்றின் கரையோரத்தில் ஏற்படுத்தப்பட்டுள்ளது. இது, கிளஸ்டர் 1, 2 மற்றும் 3 என மூன்று குழுக்களாக பிரிக்கப்பட்டுள்ளது. தற்போது, கிளஸ்டர் 2 பகுதியில் முதலில் உற்பத்தி செய்யப்பட உள்ளது. கிளஸ்டர் 2 பகுதி, 2 ஏ,

2பி என இரு பகுதிகளாக பிரிக்கப்பட்டுள்ளது.

இவை, அதன் வாழ்நாளில் 2.35 கோடி மெட்ரிக் டன் எண்ணெய் மற்றும் 50.70 பி.சி.எம்., எரிவாயுவை உற்பத்தி செய்யும் என்று எதிர்பார்க்கப்படுகிறது.

கடந்த நவம்பர் 2021ல், இங்கு எண்ணெய் உற்பத்தி துவங்கியிருக்க வேண்டும். ஆனால், கொரோனா பெருந்தொற்று காரணமாக உற்பத்தி தாமதமானது. இதை தொடர்ந்து, தற்போது இங்கு எண்ணெய் உற்பத்தி துவங்க இருப்பதாக தெரிவிக்கப்பட்டுள்ளது.

இதற்குறித்து, ஓ.என்.ஜி.சி.,யின் உற்பத்தி இயக்

குனர் பங்கஜ் குமார் தெரிவித்துள்ளதாவது:

இம்மாதத்தில், கிளஸ்டர் 2 பகுதியில், எண்ணெய் உற்பத்தியை துவங்க திட்டமிட்டு உள்ளோம்.

இங்கு உள்ள 13 கிணறுகளில், முதற்கட்டமாக, மூன்று அல்லது நான்கு கிணறுகளில் இருந்து எண்ணெய் உற்பத்தி செய்து, ஒரு நாளைக்கு, எட்டு ஆயிரம் முதல் ஒன்பது ஆயிரம் பேரல்கள் உற்பத்தி செய்யப்படும்.

பிறகு, படிப்படியாக மற்ற கிணறுகளிலும் உற்பத்தியை துவக்க திட்டமிட்டு உள்ளோம்.

இவ்வாறு அவர் தெரிவித்துள்ளார்.

ONGC to start oil production from USD 5 bn deep-water project this month

NEW DELHI, NOV 13 /--/ State-controlled Oil and Natural Gas Corporation (ONGC) will kick off oil production from its much-delayed flagship deepsea project in Krishna Godavari basin in Bay of Bengal this month, helping reverse years of decline in output, a senior company official said.

"We plan to start producing from the Cluster-2 project in KG-DWN-98/2 block this month and slowly ramp up," ONGC Director (Production) Pankaj Kumar told PTI here. A floating production unit, called FPSO, which will be used to produce oil, is already in the block. After several missed deadlines, ONGC has told Shapoorji Pallonji Oil & Gas (SPOG) that its floating production, storage and offloading vessel (FPSO) Armada Sterling-V should prepare to receive the first oil this month. Oil production from Cluster-2 should have begun by November 2021, but was delayed because of the pandemic. Kumar said ONGC plans to start producing from 3 to 4 wells initially and slowly connect

others. "Initial production could be 8,000 to 9,000 barrels per day."

KG deepsea is treacherous terrain and ONGC is mindful of not repeating mistakes of neighbouring KG-D6 block of Reliance Industries. While gas production is not so complex in the area, sand and water ingress in wells may happen if oil valves are opened too fast. The trick is to drill more wells and produce at the optimal quantities, not rushing in to produce bigger volumes, an official explained. Kumar said ONGC will ship the first consignment of crude oil to subsidiary Mangalore Refinery and Petrochemicals Ltd (MRPL). The crude will be tested and yields will determine its grade and pricing, he said. ONGC has hired Armada Sterling-V, owned 70 per cent by SPOG and 30 per cent by Malaysia's Bumi Armada, for producing oil from below seabed. The FPSO has been waiting to receive oil since January 2, 2023, after she was hooked up on December 27, 2022. ONGC previously set May 2023, as the first Cluster-2 oil

deadline, extended to August 2023, September 2023, and finally, October 2023.

"These are extremely complex reservoirs and we need to be sure about everything before we start production," Kumar said. The five M field wells, identified for the initial oil flow, sit in water depths of about 400 meters. Flexible hoses will connect the M field wells to the FPSO. Later, the A and P1 oilfield wells will be connected. In all, 13 wells yielding oil and oil with associated gas will eventually be connected to Armada Sterling-V. Peak oil of 45,000 barrels per day is expected sometime in 2024-25.

At peak, a tanker will berth alongside FPSO every two weeks to transport oil to a refinery where it will be turned into fuels like petrol and diesel. Kumar said some 2 mmscmd of gas would also flow with oil but actual gas output will start in May 2024, when 7-8 mmscmd production is expected. For that to happen, contractor McDermott needs to install the much-delayed Control and Process Platform (CPP)

with Living Quarters and Upstream Platform (LQUP), which Malaysia's Sapura EEnergy is manufacturing.

The giant structure is ready to sail from Malaysia and should be in Indian waters early next year. Gas production would start in the middle of 2024. The production estimates are, however, much lower than what was originally projected. When the project was conceived in April 2018, ONGC had said the estimated capital expenditure would be USD 5.07 billion and operational expenditure would be USD 5.12 billion over a field life of 16 years. Kumar said the company hopes to arrest the decline in crude oil production in the next fiscal, while natural gas output is likely to see a rise. ONGC's KG-DWN-98/2 or KG-D5 block, which sits next to Reliance Industries' KG-D6 block in the KG basin, has a number of discoveries that have been clubbed into clusters. It is situated offshore the Godavari river delta in the Bay of Bengal. It is located 35-km off the coast of Andhra Pradesh in water depths ranging from 300-

3,200 metres. The discoveries in the block are divided into three clusters - Cluster-1, 2 and 3. Cluster 2 is being put to production first.

The Cluster 2 field is divided into two blocks namely 2A and 2B, which as per the original investment decision were expected to produce 23.52 million metric tonnes of oil and 50.70 billion cubic metres (bcm) of gas over the life of the field. Cluster 2A was estimated to contain reserves of 94.26 million tonnes of crude oil and 21.75 bcm of associated gas, while Cluster 2B is estimated to host 51.98 bcm of gas reserves. Cluster 2A was anticipated to produce 77,305 barrels of oil per day (bopd) and associated gas at a rate of 3.81 million metric standard cubic metres per day (mmscmd) over 15 years. Cluster 2B is expected to produce free gas of 12.75 mmscmd from eight wells and has a 16-year life. But now the output estimate is lower - 45,000 bpd of oil and up to 2.5 mmscmd from Cluster 2A and around 9 mmscmd from Cluster 2B. (PTI)

ONGC to start production from KG basin this mth

The much-delayed project will help in reversing years of decline in output

Press Trust of India

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OUR CORRESPONDENT

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Govt to tap OFS route in rest of FY

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NEW DELHI

The government plans to tap the offer-for-sale (OFS) route for disinvestments in listed public sector enterprises during the rest of the fiscal year instead of initiating fresh strategic sales, a government official said.

"Towards the end of the fiscal year, there are usually a few OFS," the official said, adding this would not be done with the aim of meeting budget targets. "Some PSUs (public sector undertakings), where the minimum shareholding norms have to be met, may be considered," the official said on condition of anonymity.

The government decided against strategic disinvest-



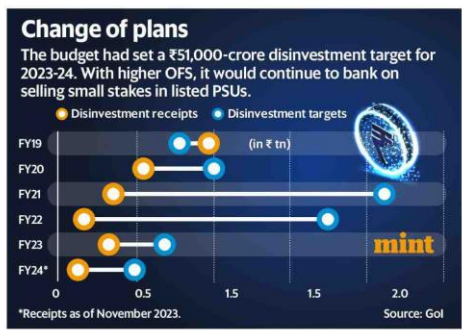
Due to a weak market, the Centre decided against strategic sales.

ments given weak market conditions, the official said. It is also averse to strategic divestments in PSUs that operate in states going into elections.

Governments go easy on disinvestments ahead of elections

TURN TO PAGE 6

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Date : 14 November 2023	Page : 1, 6



SARVESH KUMAR SHARMA/MINT

Govt may tap OFS for disinvestments in rest of FY24

FROM PAGE 1

since many investors are wary of possible political changes, a senior economist said on condition of anonymity.

Queries to the finance ministry remained unanswered.

The government had started work on large strategic disinvestments in IDBI Bank Ltd, Shipping Corp. of India Ltd, BEML Ltd, Projects and Development India Ltd and HLL Lifecare Ltd, and was also considering Container Corp. of India Ltd; however, none of these transactions are likely to be concluded this year.

Till November, the government raised ₹8,000 crore from disinvestments, with more than half of it coming from a 3% stake sale in Coal India Ltd through an OFS. About ₹3,700 crore came from selling 5.36% in Rail Vikas Nigam Ltd, 4.92% in SJVN Ltd and 7% in Housing And Urban Development Corp. Ltd (Hudco) last month, all through the OFS route. Meanwhile, the plan to sell 5-10% of Hindustan Zinc Ltd through an OFS is hanging fire.

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The Union budget had set a target of ₹51,000 crore from disinvestments in 2023-24. With higher OFS, the government would be continuing with the trend of banking on selling small stakes in listed PSUs, similar to sales in the past three to four years. Against a disinvestment target of ₹65,000 crore in 2022-23, the government raised ₹31,106 crore, with the bulk of it— ₹20,516.12 crore—

coming from the initial public offering of Life Insurance Corp. of India Ltd. Separately, OFS in ONGC Ltd and Indian Railway Catering and Tourism Corp. Ltd (IRCTC) fetched ₹3,026.23 crore and ₹2,723.73 crore, respectively.

In 2021-22, OFS in NMDC Ltd, Hudco and Hindustan Chemicals Ltd fetched ₹5,112 crore, of the total proceeds of ₹13,530 crore. Its target in the fiscal year was ₹1.75 trillion.

In 2020-21, it conducted OFS in Hindustan Aeronautics, Bharat Dynamics, IRCTC, Steel Authority of India, Iroon International, Tata Communications Ltd and Rail Vikas Nigam.

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Date : 14 November 2023	Page : 5

KG basin oil production to begin in Nov: ONGC

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Date : 14 November 2023	Page : 8

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PTI / Mumbai

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A floating production unit, called FPSO, which will be used to produce oil, is already in the block. After several missed deadlines, ONGC has told Shapoorji Pallonji Oil & Gas (SPOG) that its floating production, storage and offloading vessel (FPSO) Armada Sterling-V should prepare to receive the first oil this month.

Oil production from Cluster-2 should have begun by November 2021, but was delayed because of the pandemic.

Kumar said ONGC plans to start producing from 3 to 4 wells initially and slowly connect others. "Initial production could be 8,000 to 9,000 barrels per day."

KG deepsea is treacherous terrain and ONGC is mindful of not repeating mistakes of neighbouring KG-D6 block of Reliance Industries.

ONGC to pump crude from \$5bn project off Andhra coast

Sanjay.Dutta@timesgroup.com

New Delhi: State-run ONGC will start pumping crude from its \$5-billion project off the Andhra coast in the next fortnight, bringing on stream the delayed project that is pivotal for reversing the company's declining fortunes as a result of maturing fields.

Output from the KG-DWN 98/2, the second deep-sea project in the east coast after RIL-BP's KG-D6 acreage, will give a fillip to domestic oil production at a time when dependence on imports is rising on the back of expanding oil demand.

The additional volumes will raise the company's profitability, director (finance)

Pamila Jaspal said after lower production due to natural decline from existing fields contributed to a 20% drop in Q2 profit.

Production was to start in Nov 2021 but construction was delayed due to Covid, among other issues

The \$1.6-billion infrastructure being built for the block is India's largest sub-sea development project. Director (production) Pankaj Kumar said ONGC is opting for a slow start with three-four wells being put into production initially. This is to av-

oid mistakes that led to disastrous consequences in the D1/D3 gas fields in RIL-BP's KG-D6 block. A high-volume production launch could lead to a drop in well pressure and result in sand or water ingress choking the wells.

Kumar said 2 McMillan (million cubic meters per day) of associated gas will also flow with oil but actual gas output will start in May 2024, when 7-8 mmscmd production is expected. Peak oil of 45,000 barrels/day is expected sometime in 2024-25. At peak, a tanker will berth alongside floating storage facility every two weeks to transport crude. Oil production was to start in November 2021 but construction was delayed.

Publication : The Times of India	Editions : Ahmedabad
Date :14 November 2023	Page : 8

ONGC to start oil output from KG basin



The move will help reverse years of decline in output

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KG deepsea is treacherous terrain and ONGC is mindful of not repeating mistakes of neighbouring KG-D6 block of Reliance Industries.

While gas production is not so complex in the area, sand and water ingress in wells may happen if oil valves are opened too fast. The trick is to drill more wells and produce at the optimal quantities, not rushing in to produce bigger volumes, an official explained.

Kumar said ONGC will ship the first consignment of crude oil to subsidiary Mangalore Refinery and Petrochemicals Ltd (MRPL). The crude will be tested and yields will determine its grade and pricing, he said.

ONGC has hired Armada Sterling-V, owned 70% by SPOG and 30% by Malaysia's Bumi Armada, for producing oil from below seabed.

The FPSO has been waiting to receive oil since January 2, 2023, after she was hooked up on December 27, 2022. ONGC previously set May 2023, as the first Cluster-2 oil deadline, extended to August 2023, September 2023, and finally, October 2023.

"These are extremely complex reservoirs and we need to be sure about everything before we start production," Kumar said. The five M field wells, identified for the initial oil flow, sit in water depths of about 400 meters. Flexible hoses will connect the M field wells to the FPSO. Later, the A and P1 oilfield wells will be connected. 71



Publication : Business Standard	Editions : Mumbai
Date :14 November 2023	Page : 6

WORLD'S 1ST STS LNG TRANSFER DONE BY GAIL

The country's top gas firm GAIL (India) has done the world's first ship-to-ship liquefied natural gas (LNG) transfer to save on shipping costs and cut emissions as the state-owned entity looks at innovative ways as a pivot to boost business, company officials said.

GAIL has contracted 5.8 million tonnes per annum of LNG (natural gas super-cooled to liq-

uid form) from the US. The company brings this volume to India via LNG ships. The ship typically travels a distance of about 19,554 nautical miles for a round trip to transport LNG from Sabine Pass in the US to India via the Suez Canal and Gibraltar. This journey takes approximately 54 days and emits about 15,600 tonnes of CO₂.

PTI



Publication : Financial Express	Editions : Mumbai
Date :14 November 2023	Page : 4

GAIL DOES WORLD'S FIRST SHIP-TO-SHIP LNG TRANSFER



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CO TARGETS 14,273 NEW OUTLETS

BPCL may Expand Fuel Retail Network by Two-thirds

Oil PSU seeks to increase its share in rapidly growing domestic fuel market

Sanjeev.Choudhary
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New Delhi: Bharat Petroleum Corporation (BPCL) is planning to expand its fuel retail network by 14,273 pumps or nearly two-thirds to enhance its share in the rapidly growing domestic fuel market.

The company, which operates a quarter of the country's petrol pumps, has reported a profit of ₹19,052 crore for the April-September period, a half-yearly record for the company. It is pressing ahead with fuel network expansion as the demand for petrol and diesel continues to grow on new vehicle sales and expanding



FILE PHOTO

economy. National consumption of both diesel and petrol has grown 6% this financial year.

"We have recently issued an advertisement for 14,273 new retail outlets spread across the country for capturing more market and increasing our presence," said VRK Gupta, director (finance) at BPCL.

Advertising only shows the intention of the company and the actual buildout will depend on dealers' interest and the commercial viability

of the sites.

India's fuel retail network has grown by nearly 40% to about 88,000 pumps in the past five years, driven mainly by aggressive expansion by state-run companies as private players have remained cautious. Indian Oil Corporation alone operates about 36,700 pumps, or about 42% of the total. BPCL and HPCL operate a similar number of pumps, around 21,300. BPCL, however, sells more diesel and petrol on average from its

pumps than HPCL.

BPCL's bumper profit this year has been driven by a mix of cheaper Russian crude oil, higher refining margins and a freeze on domestic pump prices. The company's increased capacity to process cheaper crude and the flexibility to make big switches between different products have helped boost refining margins. Russian crude comprised about 30-40% of the total crude it processed in the second quarter.

Increased profits have helped cut borrowings at state refiners.

BPCL's gross borrowings have fallen by ₹5,000 crore sequentially to ₹22,500 crore. Borrowings will rise over the next few years when capital expenditure expands significantly. It plans to spend ₹1,50,000 crore in five years. This year, it plans to spend ₹10,000 crore. A third of the ₹150,000 crore capex will go into adding refining and petrochemicals capacity. About 26,000 crore each will go into upstream, city gas and marketing infrastructure.

IN 5 INSTANCES, MONEY ISSUED AFTER COURT ORDERS

Green cess collected by Delhi govt spent 7 times in 8 years

JATIN ANAND
NEW DELHI, NOVEMBER 13

OVER THE eight years that it collected the Environment Compensation Charge (ECC), the Delhi government only disbursed funds from the green cess on seven occasions of which five instances were the consequence of court orders, data accessed by *The Indian Express* shows.

According to government records related to ECC collection and usage, of the approximately Rs 1,491 crore collected by the government from November 2015 till July 2023, as much as around Rs 780 crore was sanctioned after court directions for large infrastructural projects.

While just around Rs 60 lakh was disbursed for expenses at the request of other departments in Delhi from the corpus, an estimated balance of Rs 709 crore, which constitutes the rest of it, is lying unutilised.

The Delhi government did not offer a response on the matter.

The ECC has been collected since the midnight of November 6, 2015, and is imposed on commercial vehicles entering the city

BALANCE SHEET

■ ECC collected from Nov 2015 till July 2023:

₹ 1,491 CR (APPROX.)

■ No. of times it was utilised till date: 7

■ Total amount utilised till date:

₹ 781 CR (APPROX.)

■ Total amount utilised at court directions:

₹ 780 CR (APPROX.)

■ Total amount utilised at requests from other departments:

₹ 60 LAKH (APPROX.)

■ Balance amount:

₹ 709 CR (APPROX.)

alongside toll tax. The decision to implement the charge was taken after it was found that emissions from automobiles were responsible for the bulk of the particulate matter (PM) load that pollutes Delhi's air.

According to government

data, the first disbursement from the corpus was for an amount of over 90 lakh for creation of Radio Frequency Identification (RFID) infrastructure in the city in 2016.

After this, Rs 15 lakh and Rs 43 lakh were sanctioned for the improvement of road infrastructure and deployment of civil defence volunteers at the Sardar Patel Marg in the years 2018 and 2019, respectively.

The first large payment made from the fund, amounting to around Rs 6 crore, was for the Hydrogen-enriched Compressed Natural Gas (HCNG) project in the capital to the Indian Oil Corporation in 2019 to which another installment of Rs 9 crore was sanctioned in 2020 — both as per court orders.

Payments of Rs 265 crore in 2019 and Rs 500 crore in 2023 were made to the National Capital Region Transport Corporation (NCRTC) for the implementation of the Regional Rapid Transit System project. Apart from the expenses related to SPM Marg, the others were at court directions.

As part of the measure, light commercial vehicles are charged Rs 700 while three-axle vehicles and above are charged Rs 1,300.

Publication : Business Standard	Editions : New Delhi
Date :14 November 2023	Page : 16

Adani Electricity taps renewable source



Adani Electricity on Monday said it relied solely on renewable sources for supply of power to Mumbai for four hours on Diwali. The power utility firm supplied 1,200 Mw from renewable sources to its 3 million subscribers between 10 am and 2 pm, which meant that over 40 per cent of the city's power needs were derived from green energy. The peak demand of Mumbai on Sunday morning was over 2,500 Mw, which went up to 2,776 Mw in the evening. Mumbai is currently struggling to check pollution level and improve air quality.

PTI



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Date :14 November 2023	Page : 4

Puri asks Opec to ensure oil market stability

India, the world's third largest oil consumer, has asked the oil producers cartel Organization of the Petroleum Exporting Countries (Opec) to maintain and ensure market stability for the benefit of consumers, producers and global economy. Oil Minister Hardeep Singh Puri said this at the 6th India-OPEC Energy Dialogue that took place on November 9 in Vienna, a statement said on Monday. **PTI**



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Date :14 November 2023	Page : 1, 4

ECONOMY & PUBLIC AFFAIRS P4

India to back hydrocarbon extraction at COP28 meet

India should stick to its position that further investment in developing and extracting oil and gas resources is needed in tandem with the exploration of carbon-free alternatives at the upcoming global COP28 climate change summit in the UAE, Petroleum Ministry officials said.

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COP28: India to oppose curbs on hydrocarbon investments

SUBHAYAN CHAKRABORTY
New Delhi, 13 November

India should stick to its position that further investments in developing, and extracting oil and gas resources are needed in tandem with the exploration of carbon-free alternatives at the upcoming global COP28 climate change summit in the UAE, a senior official from the Petroleum ministry has said.

The 2023 United Nations Climate Change Conference, more commonly referred to as COP28, will be held from November 30 to December 12 in Dubai.

The curbing of further investments in traditional fossil fuels has become a major issue in the past few years. In May 2022, the G7 countries agreed to end taxpayer funding for oil, gas and coal projects overseas.

"The argument is in line with Prime Minister Narendra Modi's call to ensure major investments into India's oil and gas exploration and production (E&P) sector, even as we remain committed to boosting renewable energy and phasing out carbon emissions," the senior official said.

"We can't have a situation where such investments are capped globally, since our developmental needs and energy security can't be compromised," the official added last week.

According to the International Energy Agency (IEA), India's share in global oil demand is 5.5 per cent in 2023, much below the United States' 20 per cent and China's 16.1 per cent. However, it is rising and is set to hit 6.6 per cent over the next 5 years.

India has strongly advocated for the reduction of all fossil fuels, including oil and gas. At COP27 held in Sharm El Sheikh Egypt, New Delhi pitched for expanding the scope of a proposal on phasing down of coal to all fossil fuels.

The same request was made at the G20 summit in New Delhi for the group's carbon emissions reduction plan. However, the host nation conceded to the requests of major hydrocarbon-producing nations, espe-



BALANCING INTERESTS

- Govt recommends India should continue developing oil and gas resources along with the exploration of carbon-free alternatives
- Curbing of investments in fossil fuels has been a major issue at COPs
- In May 2022, the G7 countries agreed to end taxpayer funding for oil, gas and coal projects overseas
- At COP27, India advocated a phase down of fossil fuels
- India's share in global oil demand is 5.5% in 2023, set to reach 6.6% in 5 years

cially Saudi Arabia, to limit the reduction to coal.

Higher domestic production

The government is currently aiming to achieve the target of 1 million square kilometres under exploration by 2030, and reduce the 'No-Go' areas in the Indian offshore sedimentary basins by 99 per cent.

The Centre has rolled out a series of measures to make oil and gas exploration easier for companies.

This includes providing pre-approved clearances of blocks, permitting self-certification to cut the application process and granting companies the freedom to carve out operational areas from within the blocks.

The government is expected to open the 9th round of bidding under the Open Acreage Licensing Policy (OALP IX) in November. Business Standard reported last month.

The 26 blocks earmarked by the Directorate General of Hydrocarbons (DGH) for exploration and development of oil and gas under OALP IX, make up the largest area ever offered by the government.

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Date :14 November 2023	Page : 4

Centre to seek bids for ₹8,000 cr battery production programme



The Centre is planning to invite bids for an ₹8,000 crore (\$960 million) incentive program for production of electric vehicle batteries, according to people familiar with the matter. The program will require winning bidders to set up advanced chemistry battery plants with a total output of 20 gigawatt hour, said the people, declining to be named as the plans are private. The government will seek bids from potential investors next month, they said. Companies including Korea's LG Energy Solution, and local heavyweights such as Mahindra & Mahindra, Amara Raja Energy & Mobility, Exide Industries and Larsen & Toubro showed interest during a consultation meeting held with government officials. The companies will get incentives for a period of five years on the sale of batteries manufactured locally. **BLOOMBERG**

Publication : Financial Express	Editions : Mumbai
Date : 14 November 2023	Page : 28

ADVERTORIAL

An initiative by **ONGC**
Noida, Gurgaon, Coimbatore

India's Biofuel Revolution: Driving Sustainable Growth and Global Leadership in Circular Economy Initiatives

THE Indian Express Roundtable Conference on October 10 served as a significant platform for industry figures and policymakers to discuss the potential of biofuels as a viable alternative to conventional fossil fuels. The event highlighted their capacity to reduce greenhouse gas emissions and improve air quality, showcasing India's rapid growth as a global biofuel market. The government's ambitious targets of achieving a 20% ethanol blend in petrol and a 5% biodiesel blend in diesel by 2030 were central to the discussion.

"BIO-BASED CIRCULAR ECONOMY: ROAD TO PROSPERITY FOR INDIA"

Mr. Sukalp Sharma, Senior Assistant Editor, The Indian Express, moderated the session with very distinguished panelists, including Dr. Jatinder Kaur Arora, Director, Punjab State Council for Science and Technology, Member Secretary, Punjab Biodiversity Board, Mr. A. Veeraprasad, former Special Chief Secretary to the CM, Chairman and Managing Director, State Transmission Corporation Limited, Mr. Anurathi Tiwari, Director General, Mahatma Gandhi State Institute of Public Administration, Mr. Vivek Verma, Managing Director, Savay Engineering Devices, Mr. Biswajit Dutta, VP, Corporate Affairs, SAEI.

Mr. Sukalp Sharma discussed the concept of a bio-based circular economy, highlighting its role in the sustainable utilization of biological waste resources for the production of valuable products such as food, feed, bio-based items, and bioenergy. He emphasized the significance of this model in reducing the reliance on non-renewable energy sources, particularly fossil fuels, and addressing environmental concerns. He suggested that this approach could potentially reduce CO₂ emissions by 10-15% in India and other countries in the global south. Mr. Arora emphasized the importance of India's circular bioeconomy in achieving net-zero emissions and invited panelists to share their views on India's progress in this area and the necessary steps to meet desired goals or emission targets.

Dr. Jatinder Kaur Arora highlighted Punjab's effective management of agriculture, including in-situ mulching and biomass-based power plants, and discussed the necessary policy interventions at the national level, such as co-firing biochar, to reduce methane emissions.

Mr. Biswajit Dutta from SAEI Limited discussed his company's role in collecting municipal and industrial waste, reducing carbon emissions. He underscored the carbon neutrality of biomass and the company's focus on using paddy straw for power plants. Mr. A. Veeraprasad stressed the significance of the circular economy in reducing emissions, emphasizing the importance of utilizing biomass effectively to reduce emissions. He discussed the Biomass and Biofuel Policy 2023 and initiatives in bioethanol production and waste management.

Mr. Anurathi Tiwari highlighted the circular bioeconomy's role in achieving sustainability and mitigating climate change. He emphasized the economic potential of converting by-products into higher-value products.

"BIOFUELS AND INDIA: OPPORTUNITIES AND CHALLENGES"

Mr. Sukalp Sharma moderated the second panel discussion on India's strategic integration of biofuels into its circular economy.

With a focus on reducing the nation's heavy reliance on crude oil imports, the panel emphasized the importance of sustainable energy transitions and the significant impact of the transportation sector on global greenhouse gas emissions. The discussion delved into technical aspects, including the potential of 2C ethanol and its production challenges, as well as the challenges associated with biomass management and supply chain logistics.

Mr. Sanjeev Nagpal, MD, Sanjeev Agri Ventures Ltd., highlighted the evolution of agriculture in India and its transition from a food-deficit to a food-surplus nation. He emphasized soil health and the role of initiatives such as the CGIAR Mission and PM-PANAM in supporting bio-CNG projects, underscoring the potential of biofuels in transforming agriculture and promoting a sustainable food system.

Dr. Navinda Gupta, Principal Scientist at ICAR, advocated for biogas technology and fermented organic manure (FOM) in sustainable agriculture, emphasizing their positive impact on resource efficiency and soil health. His work with CGIAR Mission focuses on the practical application of these principles, promoting sustainable agricultural practices that prioritize environmental sustainability.

Mr. Kunal Yadav, MD, Chairman of Yashu Corp, emphasized the economic and environmental benefits of biofuels, particularly ethanol, in reducing dependence on imported crude oil. He underscored the potential socio-economic impact of biofuel development, including job creation and support for farmers, highlighting its significance for



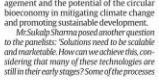
MR. A. VEERAPRASAD, Former Special Chief Secretary to CM, Punjab Biodiversity Board



MR. ANURATHI TIWARI, Director General, Mahatma Gandhi State Institute of Public Administration



DR. JATINDER KAUR ARORA, Executive Director, Punjab State Council for Science & Tech.



MR. ANURATHI TIWARI, Director General, Mahatma Gandhi State Institute of Public Administration



MR. BISWAJIT DUTTA, VP, Corporate Affairs, SAEI



MR. SANJEEV NAGPAL, MD, Sanjeev Agri Ventures Pvt. Ltd.



MR. VIVEK VERMA, Managing Director, Savay Engineering Devices



MR. SUKALP SHARMA, Senior Assistant Editor, The Indian Express



product creation and indigenous technology development. He advocated for increased subsidies for knowledge and technology development and increased funding for research institutes, emphasizing India's unique position in the bio-based economy.

These panelists emphasized the importance of integrating innovative technologies, implementing effective policies, and fostering collaboration between the government and the private sector to achieve scalability and competitiveness in India's circular bioeconomy.

Mr. Sukalp Sharma stressed the need for a comprehensive nationwide approach to the circular bioeconomy and biofuels, highlighting the lack of integration at the national level. He queried the panelists about the necessity for increased collaboration between the central government, state governments, and industries and any programs made in this regard.

Mr. Arora highlighted the need for involvement in the state action plan on climate change, emphasizing the importance of a holistic government approach and effective resource utilization, with over 20 departments and research institutions involved in the process.

Mr. Anurathi Tiwari emphasized the government's role in endorsing biofuel initiatives and the growth of the biotechnology sector, showcasing the formation of the Global Biofuel Alliance and the increased participation of startups in the field.

Mr. Biswajit Dutta stressed the need for coordination between the central and state government, advocating for policies that increase land usage between agricultural cultivation and solar plant establishments.

Mr. A. Veeraprasad highlighted the need for solar power tender, emphasizing the differentiation in pricing structure between in-state and out-of-state bids and the active consideration of private sector proposals to maximize the state's utility.

The panel agreed on the importance of effective coordination and collaboration between different government levels and industries, emphasizing the need for balanced resource utilization and the potential for increased participation in the biofuel and solar energy sectors.

Mr. Sukalp Sharma highlighted the importance of addressing mindset challenges in adopting circular bioeconomy. He highlighted the need to persuade consumers to pay a little more for sustainable products and discussed the significance of convincing farmers and waste generators to participate in waste segregation and resource management.

Mr. Vivek Verma emphasized the importance of technological advancements in resource utilization and the need for collaborative efforts between sectors to achieve economic goals efficiently, drawing parallels from the sugar industry's approach.

Mr. Anurathi Tiwari highlighted the feasibility of changing behaviors, citing examples of waste segregation in Chandigarh and cleanliness in the Delhi Metro. He stressed the importance of employing economic models and awareness campaigns to persuade communities while Mr. Veeraprasad underscored the significance of education, nudging, and awareness in driving behavioral change, referencing his experience in Jeju Island in South Korea.

Mr. Biswajit Dutta emphasized the importance of collaboration between academia and industry, inviting scholars to visit their plant for a deeper understanding of their operations and to provide insights on enhancing their processes and initiatives.

These experts collectively emphasized the importance of technological advancements, education, and collaboration in driving behavioral change and fostering a sustainable circular bioeconomy.

Mr. Anurathi Tiwari emphasized the need for scalable bio-CNG and biomass-to-power projects, discussing strategies implemented in Punjab, including prior regulation and the integration of solar and biomass power plants. He stressed the importance of public-private collaboration in achieving scalability.

Mr. Biswajit Dutta highlighted Punjab's progress with the biomass policy and the hybrid policy, emphasizing the need for improved technology and reduced prices. He proposed integrating solar and biomass power from neighboring states to increase the scale of operations.

Dr. Jatinder Kaur Arora showcased Punjab's advancements in biomass utilization, emphasizing the state's end-to-end solutions, such as ash utilization in brick kilns and the incorporation of circular economy principles. She underscored the importance of sustainable living at an individual level and aligning with India's Nationally Determined Contributions (NDCs).

Mr. Vivek Verma emphasized India's potential of a robust bio-based economy, stressing the importance of value-added

bon plummeting from an average of 3.4% in the 1960s to less than 0.1% due to intensive chemical-based cultivation, contributing to greenhouse gas emissions. Agriculture accounts for 60% of these emissions, primarily from input production, logistics, farm operations, and methane release. Addressing methane emissions, a leading cause of global warming, has become a global priority, with a 30% reduction target set for 2030. Utilizing methane as biofuel can aid in mitigating global warming as the soil's capacity to sustain agriculture diminishes. A crucial step toward sustainable agriculture involves regenerating soil organic carbon and rebuilding the soil ecosystem, with each 1% increase in soil organic carbon reducing 2.5 tons of greenhouse gases per square foot. Successful implementation initiatives like the CORPACRAN and PIMPANAM, spearheaded by the Government of India, necessitate public awareness about global warming, healthy environments, and nutritious food. Educating the public about the causes of global warming and methane emissions, the global commitment to reduce methane emissions, and the impact of sector-based decisions is imperative. Integrated organic farming promotes eco-friendly and nutritious food, underpins the country's environmental friendliness, commercial viability, and social responsibility. This process generates effluents and creates employment opportunities, particularly in remote areas, contributing to sustainable agriculture and promoting sustainable production of carbon-neutral food can aid in climate change mitigation.

Overall, the discussion highlighted the potential of biofuels in transforming India's energy landscape and promoting sustainable agricultural practices while addressing various challenges and concerns associated with their production and adoption.

both the Indian economy and international trade opportunities.

Mr. Nitin Saluja, Founder of GFF Innovations, presented an innovative machine, Mukha, developed by Chitkara University Research and Innovation Network, to address agricultural waste management and the issue of rice stubble burning.

The panel discussion also addressed challenges in bioethanol production in India, with second-generation (2G) ethanol production, with Dr. Navinda Gupta emphasizing the economic infeasibility of ethanol pro-

Nagpal emphasized the multiset utility of CO₂ as a byproduct of biogas purification, highlighting its various applications and the potential of microalgae as a sustainable solution for reducing CO₂ emissions. The discussion also touched upon concerns related to the effective utilization of digested residue in the production of compressed biogas (CBG).

Furthermore, the conversation explored the challenges and drawbacks associated with second-generation (2G) ethanol production, with Dr. Navinda Gupta emphasizing the economic infeasibility of ethanol pro-

duction and advocating for the promotion of CBG plants and FOM in urban areas. Mr. Sanjeev Nagpal highlighted the advantages of sugarcane in ethanol production, underlining its market demand and role in securing farmers' livelihoods.

Mr. Sanjeev Nagpal mentioned that the Green Revolution, which commenced in 1965, propelled India to food self-sufficiency; however, the rampant use of chemicals has resulted in adverse consequences. Presently, our cultivated food lacks vital nutrients and is occasionally tainted with harmful chemical and

pesticides, rendering it unsuitable for the global market. Unsustainable farming practices have significantly impacted water tables and the quality of sub-soil water. Despite the surplus food, 20% of Indians suffer from nutritional deficiencies, with one-third of the country's agriculture under stress, thus affecting public health. The efficiency of NPK use has plummeted to 20%, compared to 80% of grain produced per kg of NPK in 1966-67, decreasing to 16 kg by 2021. Soil health has significantly deteriorated since the introduction of the green revolution, with soil organic car-