

APART FROM WIND POWER AND OTHER EMERGING TECHNOLOGIES FOR ENERGY TRANSITION...

India, US likely to Join Forces on Green H2, Carbon Capture and Battery Energy Storage

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New Delhi: India and the US are likely to explore collaboration in green and clean hydrogen, carbon capture utilisation and storage (CCUS) and battery energy storage systems, ET has learnt.

The two countries could also

look to partner to accelerate cooperation in offshore and onshore wind power and other emerging technologies for energy transition, people close to the development said.

This comes in the backdrop of Prime Minister Narendra Modi's state visit to the US. The G20 Summit, under India's presidency, has also identified energy transition

as a key focus area.

"Both countries could look to collaborate on reducing the cost of green and clean hydrogen," one of the persons said.

The production of green hydrogen is currently a high-cost prospect but is expected to become viable with scale.

India has ambitious plans in the green hydrogen space. The National Green Hydro-

gen Mission aims at a production capacity of at least 5 million metric tonnes a year by 2030. The US' Hydrogen Energy Earthshot, launched in 2021, seeks to reduce the cost of clean hydrogen by 80% to \$1/kg in a decade.

India has led discussions on



the carbon capture utilisation and storage technology as part of the G20 side events and is open to conduct more pilot projects on it, another person said. The major challenges for CCUS are high cost per unit and what kind of technology to use for storage, he added.

According to a report from NITI Aayog in November, carbon capture utilisation and storage deployment has most-

ly been concentrated in the US, because of the low cost of capture from natural gas, processing facilities, carbon pipeline networks and government funding, among others.

With India's ambitious target of 500 GW of electricity from non-fossil sources, battery storage is imperative with efforts being made globally to bring its cost down.

India has been keen on battery energy storage systems, apart from pumped hydro storage. It has already announced a viability gap funding for setting up battery energy storage systems.

The partnership on battery energy storage between the two countries is likely at the industry level to speed up its viability and adoption, sources said.

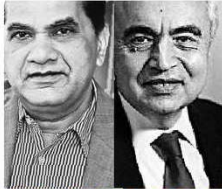


Asian Energy gets LoA worth ₹78 cr from ONGC

New Delhi: Asian Energy Services (AESL) said on Wednesday that it has received a Letter of Award (LoA) worth ₹78.24 crore for 3D seismic data acquisition services from the State-run Oil & Natural Gas Corporation (ONGC). Work on the project will take place near Nardipur village in Gujarat. OUR BUREAU

The G20 can build a global bridge to a future of sustainable energy

India's G20 presidency has led to links with the G7 forum to promote a climate agenda that could make a tangible difference



AMITABH KANT & FATIH BIROL

are, respectively, India's G20 sherpa and executive director of the International Energy Agency.

The G20 Secretariat, India and the International Energy Agency (IEA) recently held an event on 'India's Role in the Future of Energy,' focusing on energy security, the transition from fossil fuels to renewables, and fuels of the future.

The event brought together diverse perspectives on achieving a sustainable energy landscape, throwing light on a new clean energy economy that is emerging against the backdrop of an energy crisis marked by soaring prices and far-reaching supply disruptions. India is a major driving force in this new world order. The G20 can build a global bridge to a future of sustainable energy and India's G20 presidency has led to links with the G7 forum to promote a climate agenda that could make a tangible difference.

The International Energy Agency's recently released *World Energy Investment* report shows that for every dollar invested in fossil fuels today, \$1.70 goes into clean energy. Just five years ago, the ratio was 1:1. The amount of new capital flowing into energy drawn from solar photovoltaic technology is set to surpass total investments in oil production this year for the first time in history.

These trends will need to accelerate to ensure that people around the world can benefit from cleaner, more affordable and more secure energy supplies—and to prevent the worsening impacts of climate change and air pollution. The IEA estimates that global energy investments will need to almost triple by 2030 to put the world on a path towards limiting global warming to the critical target of 1.5° Celsius. Mobilizing the financial resources for these investments, especially in emerging and developing economies, is vital.

India is set to capture a wave of this investment as one of the top markets for clean technologies—and its size and influence makes it well placed to be a global leader in international cooperation that will be essential for reaching the world's energy and climate goals. This is one of the priority areas for India under its G20 presidency.

It is encouraging to see the linkages between the recently held G7 Summit in Hiroshima under the presidency of Japan and India's G20 presidency. The Prime Minister of India and leaders of other key emerging economies such as Brazil and Indonesia were invited by the Prime Minister of Japan to take part in the G7 Summit, enabling them to give their vital perspectives. The momentum from this open dialogue and a recognition of common goals can now carry over into the high-level G20 discussions, including the Leaders' Summit that is scheduled in New Delhi this September.

Advanced economies, together with development banks and institutional investors, have the responsibility to take the lead in massively scaling up-financing that can accelerate clean energy



progress and expand energy access in the parts of the world where it can make the biggest difference. Today, while per capita emissions in advanced economies are over as twice as high as those in emerging and developing economies, the cost of reducing emissions in emerging economies is around half the level in advanced economies. This underlines the importance and urgency of mobilizing greater international investments in clean energy projects in emerging economies.

There is still a great deal of work to be done to deliver modern energy services to a huge number of people who lack them. More than 2 billion people worldwide are unable to obtain fuels and energy for clean cooking, while nearly 800 million still do not have access to electricity. Platforms like the G20 are important to develop a coordinated approach among advanced and emerging economies in addressing these challenges.

As the G20 president, India is bridging the gap between the G7 and G20 forums. By endorsing a shared vision for sustainable development, India is also emerging as a leading voice of the Global South. With global challenges in mind, India has raised critical issues such as low-cost project financing to help get clean energy projects off the ground in regions of the world that would otherwise struggle to attract investment, universal access to clean energy, and decarbonization of

energy-intensive industries like steel and cement through 'future fuels' such as hydrogen and advanced biofuels.

Moreover, India has raised the profile of the Lifestyle for Environment (LiFE) movement and promoted the importance of behavioural change and pro-climate consumer choices to mitigate environmental damage. As estimated by an IEA study, 'LiFE lessons from India', if all countries worldwide adopt the kind of measures recommended by the LiFE initiative, it would reduce global carbon dioxide emissions by more than 2 billion tonnes by 2030. This alone would deliver around one-fifth of the emissions reductions needed this decade to put the world on a path to net zero emissions. What's more, these LiFE recommendations, if fully adopted, would also save consumers globally around \$440 billion a year on their energy bills. Given that the G20 makes up nearly 80% of global energy demand, meaningful changes by its members can make a big difference.

Ultimately, the bridge between the G7 and G20 lies in concrete international cooperation. With its economic, geographic and cultural diversity, India would be the perfect engineer to bring the international community together, fostering a meaningful global dialogue that goes beyond words and instead delivers tangible results that touch lives.



Imports of Russian oil hit a record high of about 1.95 million bpd.

AP

May sees highest oil import from Russia

India's rising imports of Russian oil hit a record high of about 1.95 million barrels per day (bpd) in May denting purchases from Iraq and Saudi Arabia, tanker data from trade and industry sources showed.

Russian oil accounted for about 40% of India's crude imports in May, cutting imports from Iraq to a three-year low and from Saudi Arabia to their lowest since September 2021, an analysis of the data showed.

India imported 801,400 bpd of Iraqi oil in May, down about 13.7% from April, while supply from Saudi fell 15% to 616,100 bpd, the data show.

India's overall May oil imports rose marginally from April to 4.8 million bpd, the data showed.

Its imports from Russia are expected to remain high, as its landed price remains far cheaper than Middle East crude.

In April the landed price of a tonne of oil from Russia was about \$500, equivalent to \$68.21/barrel using a conversion factor of 7.33, while that from Iraq cost \$570 and from Saudi Arabia was \$637.40, according to the government data.

REUTERS

India's Russian oil purchases scale new record in May

Reuters

NEW DELHI

India's rising imports of Russian oil hit a record high of about 1.95 million barrels per day (bpd) in May denting purchases from Iraq and Saudi Arabia, tanker data from sources showed.

India, the world's third biggest oil consumer and importer, buys more than 80% of its oil overseas. Its refiners have been gorging on Russian oil since the West imposed sanctions on Moscow over its invasion of Ukraine.

Russian oil accounted for about 40% of India's



crude imports in May, cutting imports from Iraq to a three-year low and from Saudi Arabia to their lowest since September 2021, an analysis of the data showed. India imported 8,01,400 bpd of Iraqi oil in May, down about 13.7% from April, while supply from Saudi declined 15% to

6,16,100 bpd.

Oil imports from Russia are expected to remain high, as its landed price remains far cheaper than West Asian crude. In April, the landed price of a tonne of oil from Russia was about \$500, equivalent to \$68.21/barrel using a conversion factor of 7.33, while that from Iraq cost \$570 and from Saudi Arabia was \$637.40, according to the government data.

Due to higher purchases of discounted Russian oil, the share of imports from West Asia – traditionally its top source – fell to an all-time low of about 39% in May, from 44% in April.

Steady prices of fuel despite cheaper oil lift OMC margins

Marketing margins of state-run fuel retailers in June were ₹13 a litre for petrol, ₹11 for diesel

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Indian oil marketing companies (OMCs) have rebounded from periods of high under-recoveries, and are making profits on retail fuel sales over the past five months. The refiners are gaining from stable domestic retail prices of petrol and diesel for more than a year, despite a sharp decline in global crude oil prices.

Data provided by ratings agency ICRA showed that so far in June, marketing margins of oil marketing companies—Indian Oil Corp. Ltd, Bharat Petroleum Corp. Ltd and Hindustan Petroleum Corp. Ltd—was at ₹13 and ₹11 a litre for petrol and diesel, respectively.

In the same month last year, margins were either in the negative territory or there were under-recoveries of ₹16 and ₹23 a litre for petrol and diesel, respectively. Although margins for petrol turned positive in July 2022, it happened only in February for diesel.

"As diesel sales are much higher than the sale of other products, it cannot be immediately ascertained whether the recovery over the past few months has offset the previous under-recoveries. Diesel cracks have come down and that is why marketing margins have risen," said Prashant Vashisht, vice-president of corporate ratings at ICRA.

Retail fuel prices have remained flat since the central government reduced excise duty on petrol by ₹8 per litre and diesel by ₹6 per litre on 21 May, 2022, which led to a commensurate decline in fuel prices the following day.

Crude prices have fallen more than 30% since May last year when the retail prices were last revised. Brent futures averaged at \$115.60 in May 2022, while so far in June, it has averaged \$75 per barrel. The August contract of Brent on the Intercontinental Exchange was



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trading at \$75.95 a barrel on Wednesday, higher by just 0.07% from its previous close.

Every dollar decline in crude should result in a commensurate fall of 45-50 paise per litre in both petrol and diesel prices.

Union minister for petroleum and

in a report that given retail margins are hovering at more than ₹9 per litre for the past two months, over three times the normalized levels, and futures prices of crude oil and fuel product prices imply that the weakness will persist in the medium term, the argument in favour of retail price cuts gains merit.

up since Apr'22," it said.

Assuming that a price cut of ₹5-7 per litre is pushed through some time in Q2 of the current fiscal year, the report said estimated blended retail margins are still likely to be at ₹4-5 per litre.

Following high demand for petroleum products in FY23, public sector OMCs recorded major rise in sales. Indian Oil reported 28.3% growth in operating revenue to ₹9.34 trillion, against ₹7.28 trillion in FY22. Likewise, BPCL and HPCL posted 23.3% and 24.9% rise to ₹5.33 trillion and ₹4.64 trillion, respectively.

Petroleum Planning and Analysis Cell data showed consumption of petroleum products was at a record high of 222.30 million tonnes in FY23 up 10.2% from a year ago, surpassing the previous high of 214.13 million tonnes in FY20. Demand was hit in FY21 due to covid. In FY23, demand for most products crossed pre-covid levels.

FUELLING DEMAND

FUEL prices have been flat since duty on petrol and diesel was reduced on 21 May, 2022

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FOLLOWING high demand for petroleum products in FY23, public sector OMCs saw major sales rise

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natural gas Hardeep Singh Puri said recently that if global oil prices remain stable and the oil marketing companies report robust earnings for one more quarter, then they might lower retail fuel prices.

Brokerage firm ICICI Securities said

"Average retail margins for FY23 (of ₹1.5 a litre for petrol and loss of ₹8.5 a litre for diesel) were the lowest seen in the past five years. However, starting Q4FY23, margins have surged owing to softness in crude and product prices and no change in retail prices in India (held

Diesel mafia makes a comeback, but police officers refuse to file FIR

Video shows suction pipes being used to siphon off diesel outside BPCL's Sewri installation

ATEEQ SHAIKH / MUMBAI

Fuel mafia have regrouped and returned to action in Wadala-Sewri area, where oil marketing companies have their terminal installations.

The Free Press Journal has an exclusive video of fuel theft taking place on Wednesday morning right outside Bharat Petroleum Corporation Limited's (BPCL) Sewri installation.

In the video, at least three people can be seen stealing fuel from an oil tanker.

Cotton Green-based Gill Auto Service had placed an order for 10,000 litres of Motor Spirit (petrol) and another 10,000 litres of High Speed Diesel (HSD) and the tanker went inside the company's premises at 8.30am and came out by 11am. It is alleged that the tanker immediately took a turn into one of the lanes close to the oil depot.

As the tankers are installed with GPS, the drivers park them close to the oil terminal to give the impression that the vehicles did not stop midway.



**THE FPJ
EXCLUSIVE**

In December 2020 six people were arrested for selling diesel at a discount to trucks and buses

In June 2022, Mumbai Crime Branch busted a diesel theft racket and seized 44,000 litres of fuel and arrested two people

The video shows two people atop the tanker breaking open the electromechanical locking system in a few seconds. "It takes us at least 10-15 minutes to unlock this supposedly hi-tech and high

security system. We are charged every month for this lock mechanism," said Fatima Khan, joint secretary, Petrol Dealers Association (PDA).

These locks are Bluetooth-

enabled and can be unlocked only by entering the one-time password.

After the locks were opened, suction pipes were put into compartments to siphon off HSD.

"This trend of shortage in fuel getting delivered started in April. The oil marketing company has

capped up to 0.20% as acceptable loss while the fuel is in transit and until the delivery. The difference is reimbursed. However, we have been observing as much as 0.60% loss, which is way above acceptable standards. Now, multiply this with, for example, three-four tankers every week. Cumulatively, the loss runs into several thousands of rupees," said Niranjana Singh Gill of Gill Auto Service.

Later, Gill claimed that BPCL representatives visited his fuel station and on inspection of the tanker acknowledged that a theft was suspected, as certain traces of diesel were found on the

vehicle's exterior. The tanker is owned and operated by a third party transport firm.

Gill's visited Kalachowkie Police Station but the police refused to lodge a first information report. He plans to pursue the case with higher authorities within the police.

An email was sent to BPCL spokesperson for clarification, but they did not respond.

For years now, a mafia has been operating in Wadala-Sewri areas selling fuel to the public at heavily discounted rates. In June 2022, Mumbai Crime Branch had busted a diesel theft racket and seized 44,000 litres of fuel and arrested two people. Likewise, six people were arrested back in December 2020 for selling diesel at a discount to trucks and buses.

After each of the arrests, the police claimed that they suspected the involvement of some employees of oil marketing companies as well as transport operators who were hand-in-gloves with the mafia.

Wet scrubbers to control air pollution at crematoriums

There are 14 crematoriums in the twin-city having wood-based, electric and LPG-powered pyres



SURESH GOLANI /
Mira-Bhayandar

People staying in the vicinity of crematoriums can now breathe easy as the Mira Bhayandar Municipal Corporation (MBMC) in order to control air pollution has attached wet scrubber (purifier) machines at Liquefied Petroleum Gas (LPG) powered pyres at five crematoriums in the twin-city.

Wet scrubbing works by sucking air through a damp filter to trap free-floating contaminants and particulate matter. The smoke passes through the water-based solvent helping in controlling the amount of smoke particles and carbon monoxide which is treated and released in the air from the giant chimney perched at a height of 100 feet.

The LPG-powered eco-friendly pyres use less fuel and time generate lesser smoke during cremation as compared to conventional furnaces.

"While each wet scrubber machine is priced at Rs19.50 lakh, the purchases have been made on the virtue of grants received from the

Central government under the National Clean Air Programme (NCAP) and backed by the 15th finance commission," said city engineer Deepak Khambit.

There are a total of 14 civic-run crematoriums in the twin city having wood-based, electric and LPG-powered pyres. Most of the crematoriums are located amidst densely populated areas.

"The wet scrubber apparatus supported by the heightened chimney will bring permanent relief for people living in surrounding areas of crematoriums from smoke-related issues," said Municipal Commissioner Dilip Dhole.

The NCAP grant is aimed at funding the improvement of air quality measures, including capacity-building of the local bodies through various measures and air quality monitoring. Apart from rolling out five mist spray cannons, the civic administration has also inducted two truck-mounted mist spray cannons into the fleet to reduce dust and air pollution levels in the twin city.