

IEW 2023 kicks in with PM launching key initiatives

The India Energy Week was borne out of PM Modi's long-standing vision for India's role in the global energy transition while ensuring energy security, affordability, and accessibility for her citizens.", said Hardeep S. Puri, Union Minister for Petroleum & Natural Gas and Housing Affairs. In his opening remarks at the inaugural event of India Energy Week 2023, being held in Bengaluru from February 6-8, he said that it captures India's dreams.

PM Narendra Modi inaugurated the India Energy Week and launched the uniforms under the 'Unbottled' initiative of Indian Oil. These uniforms are made of recycled PET bottles.



Later in the day, PM also launched E20 fuel at 84 retail outlets of Oil Marketing Companies in 11 States/UTs along the lines of the ethanol blending roadmap. He also flagged off the Green Mobility Rally where vehicles running on green energy sources will participate and help create public awareness for green fuels.

INDIA'S CRUDE IMPORTS TO RISE WITH HIGHER INFLOWS FROM RUSSIA

ENS ECONOMIC BUREAU @ New Delhi

INDIA'S crude oil imports are expected to rise, with higher inflows from Russia, said OPEC in its monthly oil market report released on Tuesday. The report also noted that India recorded bullish year-on-year oil demand growth of 0.43 million barrels per day (MMB/D) in November, up from 0.1 million barrel per day.

The November oil demand expansion was driven by diesel, which posted year-on-year growth of 0.3 mb/d. Diesel consumption surpassed a three-year high, rising 19% y-o-y in November.

"We see enormous economic growth coming from India and China. They will not only command 50% of the global economy, but also a big chunk of the energy resources consumption," said Dr Ayed S. Al-Qahtani Director, Research Division of the OPEC at the Energy India Week 2023.

As per the report, Russia was the top supplier of crude to India in November for the sixth month in a row with a share of 24%, as refiners continued to bring in discounted barrels. Saudi Arabia was second with 20%, followed by Iraq with 15%. In the first quarter of this year, India's oil demand is projected to rise by 0.2 mb/d y-o-y in 1Q of 2023. Its gasoline demand is expected to expand due to rising vehicle sales and overall steady economic growth.

"Demand for transportation fuel is anticipated to lead product demand. With projected continued healthy GDP growth, India's oil demand is forecast to expand y-o-y by 0.3 mb/d in 2Q23," reads the report.

Puri: Energy transition not at cost of poor

Sanjay.Dutta
@timesgroup.com

Bengaluru: Energy transition cannot happen overnight or without ensuring affordability and energy justice for the poor, said oil minister



Hardeep Singh Puri on Tuesday at the India Energy Week here in presence of Sultan Al Jaber, CEO of UAE's national oil company ADNOC and the man who will lead the COP28 climate talks.

"Unless we survive the present, we will not be able to go into the world of clean and green energy. We have to make sure our transition entails surviving the present and cushioning vulnerable from (energy price) volatility... We are actively conscious of the need to facilitate energy transition and in the interim insulate consumers," Puri told the ministerial session at the conference.

The transition towards net zero has to be "a wave of managed change in the global energy portfolio" rather than an "event" and will require global coordi-

nity or without ensuring affordability and energy justice for the poor, said oil minister

Russian oil flow to continue: Rosneft

Bengaluru: Western sanctions on Russian oil and gas exports have fragmented the energy market and erased the global nature of energy security, Rosneft CEO Igor Sechin said. Sechin indicated Russia believes the changes in the direction of global oil flow (Russia is India's top supplier since October) could be permanent. TNN

Essar plans steel plant in Saudi

Bengaluru: Essar Group, promoted by the Ruia family, is planning to set up steel plants in Saudi Arabia and Odisha as well as a facility to import LNG (liquefied natural gas) at Hazira in Gujarat, Essar Capital director Prashant Ruia said. TNN

• nation and access to skills, technology and financing, Puri said underlining India's position on western pressure for a more ambitious carbon reduction plan, especially for burning coal and fossil fuels, and climate funding.

Why railways around the world are ditching diesel for hydrogen

Trains Powered With Hydrogen Fuel Cells Don't Emit Noxious Gases, Not Even Carbon Dioxide. They Will Cut Down Global Diesel Consumption By Millions Of Litres A Day

Abhilash.Gaur@timesgroup.com

By the end of this year you could ride up to Shimla in an electric train. Only, it will be an electric train without a 'catenary', which is the system of overhead wires along railway tracks. The train will generate its own electricity using the cleanest fuel known to us – hydrogen.

The government plans to run 35 hydrogen trains under its 'Hydrogen for Heritage' project, railway minister Ashwini Vaishnaw recently told Rajya Sabha. Besides the Shimla trains, the Darjeeling Himalayan Railway and the Nilgiri Mountain Railway are also on its list, and trials of a prototype hydrogen train are likely to start between Jind and Sonapat in Haryana soon.

Why is this significant? Well, running trains is not rocket science but running them on hydrogen is. Fuel cells – the devices that combine pure hydrogen with oxygen to produce electricity and water – were first used on spaceships in the 1960s.

Nasa's Apollo command modules used fuel cells to generate up to 2300 watts of electricity (enough to run a microwave oven), and the astronauts used the resultant water for drinking. The fuel cell was such a crucial invention that US President Richard Nixon told its inventor Francis Thomas Bacon of Cambridge University: "Without you, we would not have gotten to the moon."

A Versatile Device

A nifty device like the fuel cell was bound to find other uses on Earth. In 1999, the First National Bank of Omaha installed a fuel cell system to power its new data centre that had faced a crippling power outage a year earlier. Each hour of downtime had cost \$6 million. An independent analysis in 2009 showed the centre never suffered a system shutdown in the 10 years

HOW A HYDROGEN TRAIN WORKS

These trains carry pure hydrogen in rooftop tanks and take oxygen from air to produce electricity in their fuel cells. The electrical energy is stored in batteries to power the motors because fuel cells cannot suddenly increase their output for acceleration. During braking, energy from the wheels is returned to the battery to increase mileage.



Alstom's Coradia iLint trains used in Lower Saxony have a top speed of 140kmph and a maximum range of 1,000km. The tanks on top of each train unit carry 130kg of hydrogen that can be filled in 15 minutes

The UK, which intends to phase out all its diesel railway engines by 2040, is using dual-mode technology called **HydroFlex** (photo left). The trains will switch from hydrogen to catenary power wherever it is available

France, too, has ordered dual-mode hydrogen trains from Alstom that can also run on catenary power wherever it is available

German firm Siemens' hydrogen trains have a range of 600km and a top speed of 160kmph



that fuel cells were used.

In April 2003, Iceland started running three hydrogen fuel cell buses in Reykjavik. When the pilot programme ended in August 2005, the buses had run 89,000km on 17,300kg of hydrogen and saved 58,000 litres of diesel.

Fuel cell cars from Toyota, Honda and Hyundai followed, and while they have been eclipsed by battery-electric vehicles, especially those from Elon Musk's Tesla, the game is far from over. Meanwhile, the fuel cell action has shifted to trains, where these cells have an edge over batteries.

Phasing Out Diesel

Europe took the lead in fuel cell trains when Germany rolled out a French-built train in September 2018. Since then, the German state of Lower Saxony has added five such trains and it intends to phase out all 126 of its diesel trains within a few years.

Frankfurt, another German city, has ordered 27 hydrogen trains for its metropolitan region. France has announced it will buy 12 and the northern Lombardy region of Italy is buying six. Canada, the US, UK, Australia, and China are

also in the race now.

Why are railways around the developed world inducting fuel cell trains? It's to cut out emissions from their diesel-powered trains. In Germany, for example, about 13,000km of railway track, which is 40% of the total, is not electrified and operates on diesel. Similarly, in France, about 45% of the railway network is not electrified and there are more than 1,200 diesel trains.

In India, which has the world's third largest railway network, 37% of the trains are pulled by diesel locomotives. Vaishnaw had told Rajya Sabha in December 2021. That's roughly 5,000 trains a day. Indian Railways used 2.3 billion litres of diesel to haul trains in FY 2019-20 – almost 6.5 million litres a day.

Electricity Unplugged

While many of these diesel locomotives could be replaced with conventional electric locomotives in the years ahead, some routes

might not have enough traffic to justify building and maintaining catenary systems. Or, the terrain might not be suitable for this infrastructure, as is the case on the Kalka-Shimla route.

That's where hydrogen-fuelled locomotives can make a difference. They are clean, efficient and powerful like electric motors but do not require a network of poles and overhead wires.

Of course, building a supply chain for hydrogen is a huge challenge, but the Alstom trains used in Germany have a range of 1,000km, so they need refuelling only once a day. And unlike battery-electric vehicles that take hours to charge, filling hydrogen takes only a few minutes. Each 130kg tank on the Alstom trains can be filled in 15 minutes.

Even though range anxiety is not a concern, news reports say the 97km Kalka-Shimla line will have hydrogen stations at Kalka, Barog and Shimla.

Long-Term Thinking

Green hydrogen, which is made with renewable energy, costs far more than diesel at present, and hydrogen locomotives are about 30% costlier than diesel locomotives. In India, the cost of converting each train to run on hydrogen will be about Rs 80 crore, minister Vaishnaw said.

Yet, Germany is likely to replace 2,500-3,000 diesel locomotives altogether. France has decided to phase out all its diesel locomotives in the next 10 years, and the UK will do so by 2040. The main reason is to reduce air pollution and global warming, but it is likely to prove economical too.

Although hydrogen is costly, 1kg of hydrogen replaces 4.5 litres of diesel. And the price of green hydrogen is expected to fall sharply by 2030. Also, the service and maintenance costs of hydrogen trains are likely to be lower, reports say.

Source: Media reports

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'Energy transition to entail huge cost'

India, the world's third largest oil consumer, on Tuesday said it is committed to energy transition but surviving the present and cushioning the vulnerable from price volatilities is essential before moving to clean and green energy. India has committed to net zero carbon emission by 2070 and has repeatedly emphasised that 'dirty' fuels like oil and coal, on which the economy is two-thirds dependent, will have to continue to be in use in the foreseeable future.

An immediate shift from low-priced coal and oil to expensive fuels of the future such as hydrogen will entail huge costs in a nation with low per capita income.

PTI

'Green energy switch must be affordable'

Press Trust of India
BENGALURU

India, the world's third largest oil consumer, on Tuesday said it is committed to energy transition but surviving the present and cushioning the vulnerable from price volatilities is essential before moving to clean and green energy.

India has committed to net zero carbon emission by 2070 and repeatedly emphasised that 'dirty' fuels like oil and coal, on which the economy is two-thirds dependent, will have to be in use in the foreseeable future.

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Hardeep Singh Puri

drogen will entail huge costs in a nation with low per capita income.

"We have to make sure our transition entails surviving the present and cushioning vulnerable from volatility," Oil Minister Hardeep Singh Puri said at India Energy Week. "The transition has to be affordable and sustainable for vulnerable sections."

'Oil still needed while world transitions to clean energy systems'

'We can't unplug current system before we have built the new one,' says COP-28 president-designate, pushing for investment in decarbonisation

Jacob Koshy
NEW DELHI

Despite the impressive growth of wind and solar power, renewable energy by itself will not be sufficient, particularly to transition industries that are entirely dependent on fossil fuel, according to Sultan Al Jaber, the president-designate of the next UN summit on climate change.

This year's Conference of Parties (COP-28) of the UN Framework Convention on Climate Change will be hosted by the UAE, which holds one of the world's largest oil and gas reserves.

Mr. Jaber is the UAE's Minister for Industry and chief executive of the Abu Dhabi National Oil Company.

Carbon footprint

Speaking at the ongoing India Energy Week in Bengaluru on Tuesday, he pushed for more invest-



ment in minimising the carbon footprint of hydrocarbons.

"Without a breakthrough in battery storage, we must invest heavily in carbon capture, nuclear power, and the hydrogen value chain. But spending on these fundamental enablers of decarbonisation is less than 5% of what is spent on renewables. This must change. And when it comes to change, this also applies to the oil and gas industry. The world still needs hydrocarbons and will need them to bridge from the current energy system to the new one. We cannot unplug the current

 We need to get more concessional finance to vulnerable communities around the world to lower risk, attract more private finance

SULTAN AL JABER
COP-28 president-designate

energy system before we have built the new one," Mr. Al Jaber said.

He said that the world's energy transition must be inclusive and deliver a fair deal to the Global South, a term for developing countries that includes both India and the UAE.

"We need to get more concessional finance to vulnerable communities around the world to lower risk, attract more private finance and turn billions into trillions," Mr. Al Jaber said.

The COP-28 is slated to be held at Expo City Dubai between November 30 and December 12.

Energy security no longer global: Rosneft

Press Trust of India
BENGALURU

There is no unified global energy market and energy security is no longer global, Russia's powerful oil executive Igor Sechin said amid talk of countries coming together to check volatility in prices and ensure smooth transition to net zero.

Speaking at the India Energy Week here, Mr. Sechin, chief executive of Rosneft, said all principles of market trading have been destroyed and market pricing and contract law abolished.

Russia was slapped with sanctions by some Western countries following the



war in Ukraine. Some countries in Europe stopped buying contracted natural gas. Russian crude was traded at discounts as high as \$40 per barrel.

Abandoning Russian gas has already cost Europe about €1 trillion.

He said India, having become the most populous country in the world, is turning into a leader in global economic dynamics.

Cairn Seeks Further Extension for R'sthan Block

Production sharing contract extension needed to exploit things fully, else can't make it work: CEO

Kalpana.Pathak@timesgroup.com

Bengaluru: Cairn Oil & Gas, a unit of Vedanta, wants a further extension of the production sharing contract (PSC) for its Rajasthan block, Nick Walker, CEO of Cairn Oil & Gas, told ET.

"We are very pleased to get the PSC extension for 2030, but we have other opportunities to develop there. So we need to think about a further extension so we can exploit things fully. Otherwise we can't make it work," said Walker. He added though the company will invest now, most of the recovery will happen post 2030. Thus, the PSC needs an extension.

"We are asking if the PSC can be extended till the life of the field as it

happens globally," Walker said, adding there are discussions if the same (tax) regime that is applied to new exploration blocks can be applied to the older ones.

Last October, Cairn signed a 10-year PSC for its Rajasthan block, until May 2030, with the petroleum & natural gas ministry (MoPNG). The government had accorded its approval for extension of the PSC under the Pre-NELP Extension Policy.

This approval was long awaited by the company, which had been seeking a PSC extension. It had moved court after its request to the government in 2009 to extend

the PSC did not elicit any response. The government had been extending the PSC from time to time for brief periods since May 2020.

This extension, the company had said in October, paves way for investment of as much as \$5 billion over the next three years as it plans to expand oil production to almost 500,000 barrels a day.

"Today we have a

recovery of 12%, so there is a lot that needs to be done and we need to accelerate our operations," said Walker, adding that if the company brings some technology from North America to here, there is significant opportunity to develop the blocks economically.

Home to prolific fields, Cairn has earmarked extensive investment in technologies to enhance recovery. The field also carries potential for new explorations and is also home to

unconventional shale exploration.

The block, with 38 discoveries, till date has total in place hydrocarbons of 5.9 billion barrels of oil equivalent. The block has cumulatively produced more than 700 million barrels of oil equivalent (mmboe) in the last decade.

Walker added that he is trying to bring in new technologies to Cairn's fields. Cairn has tied up with Halliburton, Schlumberger and Baker Hughes to support its plans to enhance production. The company said it would also begin drilling wells in its blocks on the western coast as well as in Assam this year.

In November 2021, Cairn Oil & Gas, entered a partnership with Halliburton Company to pursue the target of increasing its recoverable reserve from offshore assets to 300 mmboe (million barrels of oil equivalent)—a 10-fold increase from the present cumulative of 30 mmboe.



Nick Walker

Today we have a recovery of 12%, so there is a lot that needs to be done and we need to accelerate our ops... if we bring some technology from North America, there is significant opportunity to develop the blocks economically

NICK WALKER
CEO, Cairn Oil & Gas,

ONGC recreates an offshore platform for IEW



At India's flagship energy event "India Energy Week 2023", Oil and Natural Gas Corporation Ltd (ONGC) recreated an offshore platform, which is employed to produce oil and gas from the high seas. The ONGC Pavilion showcased a number of cutting-edge features to engage the global audience. With an immersive anamorphic display sampling the Maharatna's offshore operations, the ONGC Pavilion has two helidecks, one of which serves as a fully functional networking station, possibly the first of its kind.



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ONGC's delayed Krishna Godavari basin KG-D5 project is likely to start crude oil production in May this year and gas output a year later, a senior company official said. It was originally to start gas production from there in June 2019. —PTI

ONGC in talks with oil giants for deepwater exploration in India

Our Bureau

Bengaluru

State-run Oil and Natural Gas Corporation (ONGC) on Tuesday said that it is in talks with global oil majors to infuse state-of-the-art technologies in its aggressive exploration push for deepwaters of India.

The Maharatna company held discussions with major operators like the US oil and gas giant ExxonMobil, Norwegian Equinor, US oil services conglomerate Baker Hughes, French re-

search organisation Institut Français du Pétrole on various issues including technology and deepwaters, ONGC said in a statement.

GEOGRAPHY IS KEY

Energy security is geography dependent. India has kept E&P investment the same, and ONGC is investing \$3.5 billion to keep up production, ONGC Chairman and CEO Arun Kumar Singh said.

Eyeing deep-water exploration, Singh highlighted that the world is now getting balanced, as Deep-Sea

investments are becoming economical. A combination of factors are there. For India and China there is one reality. However, other geographies have different realities.

Singh emphasised that investments needed are now as more renewables have come in. So, there is an issue of structural inefficiencies which have crept in.

The transition to renewables is a reality, however, oil and gas will remain in focus in the journey. It will happen eventually.

ONGC expects an increase in production in FY25



ONGC WILL THIS year reverse years of decline in production and gradually raise output thereafter, as it invests billions of dollars to produce from newer discoveries, a top company official said. In fiscal 2021-22, the firm produced 21.707 million tonne of crude oil and 21.68 billion cubic metre (bcm) of natural gas.

PTI

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ONGC to start output from KG Basin in May; gas in '24

ENSE ECONOMIC BUREAU

BENGALURU, FEBRUARY 7

AFTER NUMEROUS delays, state-owned upstream major Oil and Natural Gas Corporation (ONGC) is set to start commercial crude oil production from its prolific deep-water block KG-DWN-98/2 from May and gas output from May of next year, the oil major's director (offshore) Pankaj Kumar said at India Energy Week.

ONGC plans to start production from the Bay of Bengal block with volumes of 10,000 to 12,000 barrels per day (bpd), which will be ramped up to peak production level of 45,000 bpd in two to three months. This peak production estimate is lower than the earlier estimate of over 77,000 bpd. Kumar attributed the downward revision to geological challenges.

Along with crude oil, around 2 million standard cubic metres per day (mscmd) of natural gas will also flow, but commercial production is likely to begin only in May 2024, Kumar said. The peak gas production from the block is seen at around 10 mscmd, down from the earlier estimate of 12.75 mscmd.

As per the original timeline, gas output was to start in June 2019, while oil production was to begin from March 2020. These production timelines were initially delayed due to problems with awarding contract works, which was followed by pandemic-related global supply chain disruptions hitting the project timelines further.

ONGC eyes Bengal Basin for targeted exploration

SUBHAYAN CHAKRABORTY

Bengaluru, 7 February

India's largest energy producer ONGC has decided to open up the Bengal Basin for targeted exploration, spurred by the discovery of a gas well two months back.

Speaking on the sidelines of the India Energy Week, ONGC Director (exploration) Sushma Rawat said the well was now classified as Kankpur 1, and the reserves had initially been found to be 'substantial'.

"We are still in the delineation phase. We are trying to see what will be the extent of the reservoirs, and what will be the total volume eventually," she said.

ONGC had back in 2020 begun crude oil production from the Asokenagar-1 well, Bengal Basin in 24 Paragana district. This has made the Bengal Basin India's eighth producing basin, joining the ranks of Krishna-Godavari (KG), Mumbai Offshore, Assam Shelf, Rajasthan, Cauvery, Assam-Arakan Fold Belt, and Cambay.

The basin occupies an area of 89,000 sq. km in total about which 57,000 square km is on land while 32,000 square km offshore. The potential hydrocarbon resources in the basin are placed at 190 MMt of oil +gas equivalents.

Rawat, however, stressed that it may take a total of three-four years to assess the new wells, drill 5-6 additional wells, and create the techno economic analysis. The company has taken new acreages in the latest Open Acreage Licensing Programme rounds of bidding.

For exploration, the company has decided to go alone in the onland area where other operators like Oil India and Vedanta are also operating. "In the offshore deep and ultra-deep waters, we are looking for oil and gas majors of international repute who can help us in exploration in such areas," Rawat said.



“ WE ARE STILL IN THE DELINEATION PHASE. WE ARE TRYING TO SEE WHAT WILL BE THE EXTENT OF THE RESERVOIRS, AND WHAT WILL BE THE TOTAL VOLUME EVENTUALLY ”

SUSHMA RAWAT

Director (Exploration), ONGC

Multiple projects worth \$3.5 billion are set to come online in the next 3-4 years in the western offshore area, in the Arabian sea, another company official said.

Calling foreign players

At the IEW, the company has held discussions with American oil and gas major ExxonMobil, Norwegian energy multinational Equinor, American oil services conglomerate Baker Hughes, and French research organisation Institut Français du Pétrole on various issues like technology and deepwaters.

ONGC aims to raise output over next two fiscals: In what may come as relief amid growing uncertainty over availability of petroleum products across the world in the aftermath of Russia-Ukraine war, India's largest explorer ONGC plans to raise its output over the next two fiscals from 2023-24 onwards. According to ONGC's Director, Exploration, Sushma Rawat, the company's long standing efforts of raising output from KG Basin are likely to show results from 2023-24 onwards. Rawat told IANS on the sidelines of India Energy Week here that in the next two years, production from KG basin is expected to double. India's dependency on crude imports had risen to 87 per cent in recent years, owing to falling output of ONGC. In fact, some time back, the Parliamentary panel on petroleum had expressed concern over the Maharatna company's falling output. Owing to its ageing fields, ONGC's output has been gradually declining for almost 10-years now. In 2022-23, ONGC's crude oil production is expected to rise to 22.823 million tonnes, while gas output is set to go up to 22.099 bcm.

INDIA ENERGY WEEK

ONGC eyes partners for deepwater oil and gas explorations

OUR CORRESPONDENT

BENGALURU: The Oil and Natural Gas Corporation (ONGC) confirmed that the Maharatna is in talks with global oil giants to infuse state-of-the-art technologies in its aggressive exploration push in the deepwater of India. It held discussions with major operators during the India Energy Week in Bengaluru.

ONGC held discussions with the American oil and gas major ExxonMobil, the Norwegian energy multinational Equinor, the American oil services conglomerate Baker Hughes, the French research organization Institut Français du Pétrole on various issues like technology, and Deepwater, officials informed on Tuesday. Chairman and CEO of ONGC, Arun Kumar Singh mentioned, "The importance of continued investment in Exploration and Production... Energy security is geography dependent. India has kept E&P investment the same, and ONGC invests \$ 3.5 billion to keep up production."

India, the world's third-biggest oil importer and consumer, wants its companies to quickly monetise their oil and gas reserves to cut its import bill. Eyeing deep-water exploration, Singh highlighted that "The world is now getting balanced, as Deep-Sea investments are becoming economical. A combination of factors is there. For India and China there is one Reality. However, other geographies have different realities."

Under its Energy Strategy 2040, he said that "Now, the investments needed are more as renewables have come in. So, there is an issue of structural inefficiencies which have crept in. The transition to renewables is a reality, however, oil and gas



will remain in focus in the journey. It will happen eventually."

Reportedly, the CEO, ONGC also confirmed that India's largest oil and gas producer is pivoting a four-pronged strategy of ramping up exploration efforts, quickly bringing discovered resources to production, raising recovery from existing fields, and increasing collaborations with experts to reverse years of decline in output.

ONGC contributes around 71 per cent of India's domestic production. However, it has reported a gradual decline in output for over a decade now primarily because its fields are old and aging. The company produced 21.707 million tonnes of crude oil and 21.68 billion cubic meters of natural gas. However, officials informed the media persons here that there are few enterprising projects that will be kicking off soon. Delayed Krishna Godavari basin KG-D5 project is likely to start crude oil production in May, 2023 and gas output by 2024. "We will start with 10000 - 12000 barrels per day and reach the peak of 45000 barrels per day (bpd) in a couple of months," Pankaj Kumar, head of offshore assets, informed. He further added that 2 million cubic meters (mmscmd) of gas would also flow with oil but actual gas output will start in May 2024 when 7-8 mmscmd production is expected.

ONGC to reverse oil, gas output decline; sees 18% jump in production in FY25



PTI ■ BENGALURU

India's largest oil and gas producer ONGC will this year reverse years of decline in production and gradually raise output thereafter, as it invests billions of dollars to produce from newer discoveries, a top company official said.

Oil and Natural Gas Corporation (ONGC) in fiscal 2021-22 produced 21.707 million tonne of crude oil, which is refined to produce petroleum products like petrol and diesel, and 21.68 billion cubic metre (bcm) of natural gas, which is used to produce electricity, manufacture fertiliser and as CNG in automobiles.

"We are definitely looking forward to increasing production of oil and gas in 2023-24 and even in the current year," ONGC chairman Arun Kumar Singh told PTI.

In the current fiscal year (2022-23), crude oil production is slated to rise to 22.823 million tonnes and gas to 22.099 bcm. In the following fiscal year, oil production will climb to 24.636 million tonnes and 25.689 million tonnes in 2024-25.

Natural gas production is

slated to rise to 25.685 bcm in 2023-24 and 27.529 bcm in the following year.

ONGC, which contributes around 71 per cent to India's domestic production, has reported a gradual decline in output for over a decade now primarily because its fields are old and ageing.

The government has considered giving away ONGC's biggest oil and gas fields to private and foreign companies in an attempt to boost output but this has faced internal resistance.

Singh said the company is open to partnerships in technical difficult fields.

ONGC is investing ₹59,000 crore in 20 major projects, including in bringing to production oil and gas reserves found in deepsea KG block KG-DWN-98/2 (KG-D5) and the fourth phase redevelopment of mainstay Mumbai High fields.

While investment in KG-D5 will bring additional output, spending on the redevelopment of currently producing Mumbai High and other fields would help arrest the natural decline that has set in the ageing fields.

Essar may Set Up 200 LNG Stations

Our Bureau

Bengaluru: Essar group plans to set up at least 200 liquefied natural gas (LNG) fuelling stations and serve small gas consumers in the country, Prashant Ruia, a top group executive, said on Tuesday.



Essar also plans to manufacture green ammonia in India, with an aim to export it to the UK where it can be used in its refinery. The group has launched decarbonisation efforts at its refinery while also aiming to serve other customers seeking green fuels.

The planned distribution network of LNG fuelling stations aims to help build an ecosystem for LNG-powered trucks. Several state-run companies are looking at setting up LNG fuelling stations but extreme volatility in LNG prices in the past year has blocked those efforts.

Rosneft CEO: Sanctions on Russia Hurting Europe, Profitable for US

'Move destroyed all principles of market trading and severed logistics chains'

Our Bureau

Bengaluru: The unprecedented western sanctions have resulted in a loss of a unified global energy market and Europe's access to cheap and reliable energy while encouraging a transfer of capital and production to the US, the chief executive of Russian energy giant Rosneft has said.

"As a result of those actions, all the principles of market trading have been destroyed,



Europe's gas market has been reformatted, says Rosneft chief executive Igor Sechin

in fact, market pricing and contract law have been abolished, and logistics chains built up for decades have been severed," Rosneft CEO Igor Sechin said, referring to the western

sanctions and pressure on Russia and its energy exports.

The US, Europe and allies imposed sanctions on Moscow following the invasion of Ukraine a year ago.

The European gas market has been 'reformatted' due to the western action, Sechin said, adding that Europe was forced to abandon long-term contracts and switch to spot pricing. He blamed "the forced green transition and underinvestment in conventional energy" for the unprecedented gas price increase last year.

"And when the Russian competitor was driven out of the European market by sanctions and pressure, the Americans proposed to return to long-term contracts that would guarantee a return on investment," said Sechin.

‘India, China to be key drivers of global energy demand’

ENORMOUS POTENTIAL. OECD World Oil Outlook projects global oil demand to rise close to 13 million barrels per day, hitting almost 110 mbd by 2045

Rishi Ranjan Kala
Bengaluru

India and China will control 37 per cent of the global GDP by 2045, and will also account for a major share of the world’s energy resources, including crude oil, the Organisation of the Petroleum Exporting Countries (OPEC) said on Tuesday.

Speaking to *businessline*, OPEC Director (Research Division), Ayed S Al-Qahtani said, “We see enormous economic growth coming from India and China. Going forward, they will constitute the bulk of the oil demand growth. Not only will they command north of 30 per cent of the global economy, but also a big chunk of the energy resources consumption, including (crude) oil.”

The global oil demand is projected to increase to 13 million barrels per day (mbd), hitting almost 110 mbd by 2045, OPEC’s World Oil Outlook 2045 report released on Tuesday said, adding that the largest incremental demand is likely to be observed in India at 6.3 mbd, followed by Other Asia (4.7 mbd), the Middle East (3.7 mbd) and Africa (3.6 mbd).

The OPEC report was released at the India Energy Week 2023 here.

OIL DEMAND GROWTH

The OPEC report projected that non-OECD demand prospects are marked by a strong oil demand growth. In the initial years of the forecast period, this growth will be driven by China.

In the later period, India will take the leading role with demand growth in



ENERGY TALK. Union Minister for Housing and Urban Affairs Hardeep Singh Puri flanked by UAE Minister and COP28 President-Designate Sultan Al Jaber (left) and International Energy Agency Secretary-General Joseph McMonigle at the India Energy Week 2023 in Bengaluru on Tuesday.

China slowing significantly and even turning to a marginal decline over the last

five years of the forecast period.

Besides India, fairly ro-

bust growth during this period is also projected for Africa and other Asian

countries where economic progress, urbanisation, industrialisation and vehicle fleet expansion will be fastest among all regions.

“This will result in respective demand increases of around 1.4 mbd, 0.8 mbd and 0.7 mbd, for India, Africa and Other Asia, during the 2040–2045 period. Even by 2045, oil demand will still grow at a rate of more than 2 per cent per annum in India and Africa and 1 per cent per annum in Other Asia,” it added.

WORLD OIL DEMAND

Al Mahtani, who is also the Editor-in-Chief of OPEC’s World Oil Outlook 2045 report, in a panel discussion said that growth in non-OECD countries is expected to hit more than 23.6 mbd, which will be partially offset by declines of 10.7 mbd in the OECD.

“Global primary energy demand is expected to increase from 286 million barrels of oil equivalent a day (mboe/d) in 2021 to 351 mboe/d in 2045, a rise of 23 per cent. The drivers of global energy demand are exclusively non-OECD countries, increasing by 69 mboe/d in the outlook period. India alone accounts for 28 per cent, or roughly 19.32 mboe/d, of this expansion,” the report said.

The OPEC report estimates that \$12.1 trillion is required over the long term of which \$9.5 trillion is needed in the upstream sector, while \$1.6 trillion and \$1 trillion will be required in the downstream and mid-stream sectors, respectively.

The writer is at the India Energy Week 2023 at the invitation of Indian Oil Corporation.

AMID WESTERN PRICE CAP AND EMBARGO ON RUSSIAN REFINED PRODUCTS

India will Benefit From Oil Trade Reshuffle: IEA Chief

Says twin objectives of reducing Russia's energy revenue while avoiding trade distortion met with imposition of price cap

Sanjeev.Choudhary@timesgroup.com

Bengaluru: India will profit from the global oil trade reshuffle as its refineries will likely export more to Europe this year due to the western price cap and embargo on Russian refined products, International Energy Agency (IEA) chief Fatih Birol told ET in an interview.

He also warned against overreliance on natural gas as it would translate into greater dependence on imports, and suggested India rely more on domestic sources for electricity production.

"Europe was the main buyer of the Russian products and now Europe must find a new source of import, and India appears to be a favourable candidate. As a result of the reshuffle of this trade, the markets may favour Indian refiners," Birol said. "And I expect India will sell more oil to Europe now than it did before."

India has been a net exporter of refined products for years and, after the outbreak of the Ukraine war, its exports have been shifting more toward



the West where buyers are willing to pay higher prices. After the beginning of the war, the US and a few other western nations stopped taking Russian refined products but the biggest setback for Russian products has come this month with the European Union placing an embargo. Before the war, the EU absorbed 75% of the Russian export of gas and 50% of its oil.

The US and its allies placed a price cap on Russian crude in December with the twin objectives of reducing Russia's energy revenue while avoiding trade distortion. "Both of these targets, at least for now, seem to be met," Birol said.

Russia's oil and gas revenues have dropped by \$8 billion, or 30%, in a year, he said, due to market developments in-

IMPORT DEPENDENCE

Gas will definitely be part of the Indian energy mix but overreliance on gas would mean overreliance on imports. So... electricity generation should be met by domestic energy sources

FATIH BIROL

International Energy Agency chief

cluding the price cap. The volume of oil exports remained roughly the same, but the volume of gas has dropped while the price for oil has fallen, resulting in lower overall revenues for Russia.

A rebound in the Chinese economy would push up prices of both oil and liquefied natural gas (LNG) in the global market, Birol said. China is the world's top oil importer.

"Gas will definitely be part of the Indian energy mix but overreliance on gas would mean overreliance on imports from other countries," Birol said. "So, my preference will be that as much as possible the electricity generation should be met by domestic energy sources such as renewables, nuclear power and coal with carbon capture," Birol said.



FAST & DELICIOUS

COMBINING THE government's push for millets and clean energy, Union Minister for Petroleum and Natural Gas Hardeep Singh Puri took part in a novel demonstration during the ministry's India Energy Week in Bengaluru on Tuesday. Celebrity chef Ranveer Brar cooked a barnyard millet 'khichdi' on an indoor solar cooktop developed by Indian Oil. The chef pointed out that it was a myth that millets take too long to cook, instead, he said, the dish was ready in seven minutes, which was "faster than pasta". The solar cook-top, too, got the chef's stamp of approval as he found it ideal for cooking stews, 'khichdis' and other one-pot dishes. The end result, according to Puri, was a delicious 'khichdi'.



The Indian EXPRESS

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Use of Green Hydro Needs a Mandate: ReNew Chief

Shilpa Samant
@timegroup.com

Bengaluru: The obligation for use of green hydrogen is important to create demand in India and without that it will be hard to get such capacities operational, said Sumant Sinha, CEO of ReNew Power.

"There is no market right now for green hydrogen [in India]. We need a mandate for that," Sinha said on the sidelines of the India Energy Week.

Export of green hydro from India is going to be harder because there will be competition, he added.

A decision on mandating use of green hydrogen by industries is likely to be taken at a future group of secys meet

As for the renewable energy company, it doesn't have any target for green hydrogen yet because "there are too many unknowns at this point", he said.

India launched a green hydrogen mission in January aimed at bolstering and providing financial support to the manufacturing of electrolyzers and green hydrogen.

The government has not put any mandate on use of green hydrogen by industries yet. The decision on it is likely to be taken in the future meeting of a group of secretaries. "We are looking at mandates. Our plans will depend on what the obligations are," Sinha said.

The company is already in a JV with Indian Oil Corp and Larsen & Toubro Ltd to develop a green hydrogen business.

Scrapped Govt Vehicles will be Replaced with Green Options for Lowering Oil Bill: Gadkari

Our Bureau

New Delhi: Government vehicles to be scrapped under the Centre's vehicle scrappage policy will be replaced with cleaner mobility technology vehicles, road transport and highways minister Nitin Gadkari said Tuesday while speaking at the 7th edition of the ET Auto EV Conclave in the city.

Finance minister Nirmala Sitharaman said while unveiling the union budget that all state and central government-owned vehicles including buses owned by transport corporations and public sector undertakings that have been on the road for over 15 years would



India faces two major challenges pertaining to the auto industry – the import of fossil fuels worth ₹17 L cr and the increasing pollution. If we can save fossil fuel imports, we can make India green and create employment

NITIN GADKARI, Road minister

be scrapped.

Gadkari said about 900,000 government vehicles would be replaced by electric or alternative fuel vehicles to reduce the country's crude oil import bill as well as cut down on pollution.

There is also a demand for about 1 million buses which should be converted to electric buses as they offer a far superior operating cost while also

reducing pollution, he said. "We are planning a sky bus in Bengaluru as a cheaper alternative to the metro," he added.

India faces two major challenges pertaining to the auto industry, he said — the import of fossil fuels worth over ₹17 lakh crore and the increasing levels of pollution. "If we can save fossil fuel imports, we can make India green and create

employment."

There are about 1 million electric vehicles registered in India, he said, and the government is aiming for 10 million units by 2030.

The minister said two philosophies were required to move towards green mobility: investment in new technology and avoiding material waste. "Technology is all about converting knowledge to wealth," he said.

"Convert rice straw, barley to bio bitumen. India requires 80 lakh tonnes of bitumen out of which 30 lakh tonnes is imported at the moment," he said, adding: "NHAI (National Highways Authority of India) is ready to buy bio-bitumen from farmers produced locally."

'Conscious of energy transition, must insulate consumers from price shocks'

SUKALP SHARMA

BENGALURU, FEBRUARY 7

INDIA IS "actively conscious" of the need to facilitate energy transition to new and renewable energy, but it also has to insulate consumers from energy price shocks in the interim, Petroleum Minister Hardeep Singh Puri on Tuesday said, signalling that India is in favour of a gradual energy transition and not a sudden shift.

Puri emphasised the importance of conventional energy sources—oil, gas, and coal—particularly for the developing world. He said affordable traditional energy sources are essential for meeting base load requirements, while new and innovative energy sources are critical for combating climate change.

"Unless we survive the present, we will not be able to go into the world of clean and green energy. We have to make sure our

The energy transition needs to be sustainable and affordable, particularly for the vulnerable sections

transition entails surviving the present and cushioning the vulnerable from volatility," the minister said at India Energy Week.

Referring to the energy crisis the world has witnessed over the past year or so, Puri said emerging economies have been hit hard and face the "daunting task" of safeguarding their energy security, affordability, and accessibility. According to Puri, these challenges will likely get more acute.

"The energy crisis has a ripple effect on other sectors as well. The unprecedentedly high level of gas prices has created a fertiliser crisis, creating food security concerns. Further, the high energy

and commodity prices have raised inflationary concerns, and many countries are facing recessionary fears," the minister said.

India has set itself a target to achieve net zero carbon emissions by 2070.

The minister said that while the country is moving rapidly in this direction, the energy transition needs to be "sustainable and affordable", particularly for the vulnerable sections of society.

"The energy transition will be more of a wave of managed change in the global energy portfolio versus an event, ensuring energy access and security whilst progressing to net zero," Puri said.

India has planned an energy transition path that includes advanced biofuels, green hydrogen, renewables, and nuclear energy. The Union minister believes it could also offer a blueprint to other developing nations.

Full report on
www.indianexpress.com



Turning India into a green mobility hub

VIPIN SONDHI

Through Budget 2023, the government has given a clear direction to a zero-carbon strategy for the economy. It has also been consistent in its push towards green mobility over the last few years. A significant change is already underway in the auto industry's energy mix with environment-friendly fuels like CNG, ethanol, electric and hydrogen coming to the fore.

India is the world's third-largest auto manufacturing hub after the US and China. It contributes significantly to India's GDP, foreign exchange earnings and employment. With the PLI scheme for the auto industry focussed on green technology already rolled out, the stage is set for the industry to consolidate India's position as a global green mobility hub.

The conventional auto industry, as we are well aware, is however currently being disrupted globally like never before, primarily by regulation, driven by climate change, and technology driven by IoT, software and infotainment. The technology disruption is being caused by companies that had until recently comparatively little to do with the conventional auto industry.

Disruptions, while causing chaos, can also bring immense opportunities. The recent auto and components show in Delhi gave many of us tremendous confidence that we are on the right track to take these opportunities. The government, by being proactive, has shown its deep commitment as policy maker, enabler and risk mitigator for the cause of the industry.

I recommend six steps for the consideration of all stakeholders — policy makers and regulators, OEMs, component manufacturers, technology

companies including start-ups, and industry associations — to ensure that we consolidate this position.

First, an imperative for close and calibrated collaboration amongst all stakeholders: This is because change is taking place so rapidly; the environment has to be protected; the safety of consumers and pedestrians is paramount; and the transport systems of future cities need to be designed appropriately.

Second, the need to invest far more significantly in technology, innovation and research, especially by large companies: For this, large companies must bring together academia and start-ups, so that ideas do not fall off at the proverbial "technological valley of death", but are carried through after due research to commercialisation.

Third, to build world-class products with a focus on elegant design: Made-in-India mobility systems, whose performance must be a given, must be aesthetically appealing. Emotions are not reasonable and often play a dominant role in the selection of brands. This will also help us build global brands from India, especially if we design for specific global markets.

Fourth, to enhance collaboration with entrepreneurs including handholding and re-skilling MSMEs for the new technology imperatives: This is necessary to build a deep, local, resilient, eco-friendly and world-class supply chain. Given the environment of geopolitical uncertainty, I do not think there is any other option.

Fifth, enable global suppliers to invest in India as a part of their global value chain: These act as a multiplier on many fronts, ultimately enhancing technological competitiveness. The timing is opportune with

India providing an alternative investment destination to China and even Europe. The PLI scheme and the globally competitive tax rates for new manufacturing companies can be a great attraction.

Finally, and perhaps most importantly, the mobility industry will become a hi-tech industry and must aim to attract the best talent: Design, software, electronics, AR and VR, Industry 4.0 are all going to play a huge part in the success of the industry. There is so much for young people to contribute to, in developing the mobility ecosystem over the next few decades. Disruption will be continual and so will the adrenaline rush. The company that is able to synthesise often unconnected technologies into a useful whole most imaginatively will win!

To conclude, the government has articulated its encouragement for India to transition to a green economy. Through policy, it has indicated its support. The auto industry has delivered in the past by becoming globally competitive. It is now readying itself for a green future. It has to importantly sell the vision of "Technology in Mobility" to young people, so that the best talent is attracted to spend their most productive years working within it. If it is able to do this successfully, then I have no doubt that the most vital building block will also fall into position. This will ensure that the auto industry's transformation into a global green mobility hub, providing hundreds of thousands of jobs of all skills during Amrit Kaal all the way to India @100, will be extremely successful!

The writer is chairman, CII National Committee on Future Mobility and Battery Storage, and former MD and CEO, Ashok Leyland and JCB India

bp slows transition to renewable energy as oil bonanza continues

Announces further \$2.75 bn in share buybacks; annual profit more than doubles to a record \$28 bn

AGENCIES
7 February

bp on Tuesday reported a record profit of \$28 billion for 2022 while boosting its dividend in a sign of confidence as it sharply raised overall spending plans and scaled back ambitions to reduce oil and gas output by 2030.

The blockbuster profit follows similar reports from rivals Shell, Exxon Mobil and Chevron last week after energy prices surged in the wake of Russia's invasion of Ukraine, prompting new calls to further tax the sector as households struggle to pay energy bills.

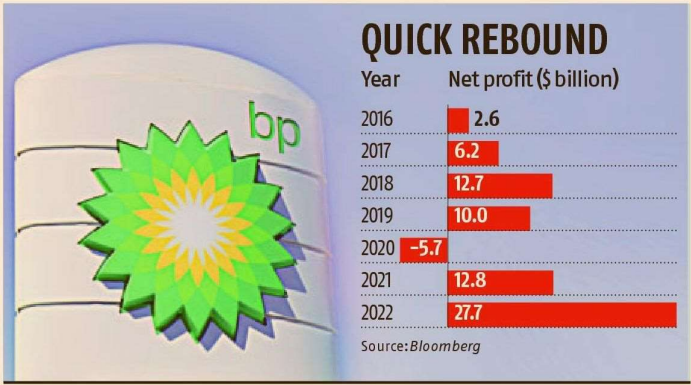
Three years after Chief Executive Bernard Looney took the helm with an ambitious plan to pivot bp away from oil and gas towards renewables and low-carbon energy, the firm said it will increase annual spending in both sectors by \$1 billion with a

sharper focus on developing low-carbon biofuels and hydrogen.

But it scaled back plans to cut oil output, now aiming to produce 2 million barrels of oil equivalent per day by 2030, down just 25 per cent from 2019 levels compared with previous plans for a 40 per cent cut.

While many investors backed Looney's strategy, which he told *Reuters* "is working", bp's shares have been the worst performers among top Western energy companies since the CEO took office, remaining largely flat compared with a 17 per cent gain for Shell and a nearly 80 per cent gain in Exxon shares.

bp's \$4.8 billion fourth-quarter underlying replacement cost profit, the company's definition of net income, narrowly missed a \$5 billion forecast in a company-provided survey of analysts and compared with \$4 billion a year earlier and \$8.2 billion in Q3.



The results were impacted by weaker gas trading activity after an "exceptional" third quarter, higher refinery maintenance and lower oil and gas prices. But for the year, bp's \$27.6 billion profit exceeded its previous record of \$26 billion in 2008 despite a \$25 billion writedown of its

Russian assets.

That allowed it to boost its dividend by 10 per cent to 6.61 cents per share, after halving it in the wake of the pandemic, and announce plans to repurchase \$2.75 billion worth of shares over the next three months after buying \$11.7 billion in 2022.

World still needs fossil fuel: Next COP28 chief

SUBHAYAN CHAKRABORTY

Bengaluru, 7 February

The world needs hydrocarbons as a bridge from the current energy system to the new one, said COP28 president designate Sultan al Jaber, in his first major public address,

“We cannot unplug the current energy system before we have built the new one,” Jaber said at India Energy Week in Bengaluru on Tuesday. He pitched for the need to invest only in the least carbon-intensive barrels and continue reducing their intensity.

Jaber’s appointment at the COP28, an annual global conference for finding climate change solutions, has been controversial since he is also the head of Abu Dhabi National Oil Company (ADNOC), one of the world’s largest oil companies.

“A responsible and reliable supplier of energy, promoting inclusive sustainable development has been a core principle for the UAE. And, as we prepare to host COP 28 later this year, this principle will guide our approach to seek global consensus for transformational progress- for our climate and our economies,” Jaber said.

India focus

Jaber assured all support for India in his first global engagement tour aimed at listening to various national standpoints.

“We will actively listen to and engage with the entire world. And I am delighted that the first stop on this listening tour is this great country. India is critical to the transformational progress we need.” India is the fastest-growing

major economy, and will soon be the third largest in the world, he stressed, Jaber said. He said India’s aim for 500GW of clean energy by 2030 is very ambitious, but also achievable.

Addressing a host of Asian Ministers at India Energy Week, Jaber pushed for a pro-climate, pro-growth agenda for inclusive energy transition that ‘leaves no one behind’.

In line with existing foreign policy, Jaber said UAE will keep a firm focus on Asia as well. “Despite an ongoing war, fears of recession and a world still recovering from Covid, annual global investment in clean energy exceeded 1 trillion dollars for the first time.

And the trajectory is only going up. Most of this new growth will be driven by the dynamic economies of Asia,” he said.

Global South

Jaber stressed that UAE would push to uphold the rights of the Global South, a term referring to technically and socially less-developed countries, basically located in Africa and Asia.. “To succeed, when the debate around climate change only

seems to be getting more divisive, we must act in solidarity. We must empower the Global South, where almost 800 million people have no electricity, in an inclusive energy transition. We must eliminate energy poverty, while keeping 1.5 alive. And we need to move from talking about goals, to getting the job done,” he said.

He also argued that renewables alone are not enough, particularly in hard-to-abate sectors.

“Without a breakthrough in battery storage, we must invest heavily in carbon capture, nuclear power and the hydrogen value chain,” he added.

“ WE MUST EMPOWER THE GLOBAL SOUTH, WHERE ALMOST 800 MILLION PEOPLE HAVE NO ELECTRICITY, IN AN INCLUSIVE ENERGY TRANSITION ”

SULTAN AL JABER

President-designate, COP28

Price and supply volatility: Addressing global energy security needs

AGENCIES

BENGALURU, 7 FEBRUARY

Prime Minister Narendra Modi inaugurated the India Energy Week (IEW) 2023 on Monday. Participants from different countries gathered to discuss the most pressing energy issues. Rosneft Chief Executive Officer Igor Sechin also visited India Energy Week.

Sechin participated in a meeting with Prime Minister Narendra Modi and the heads of global energy companies, and in the ministerial session on price and supply volatility. He also discussed energy cooperation between Russia and India.

According to the IMF's recent estimates, India and its neighbours will account for half of global economic growth this year. In contrast, the con-

tribution of the US and the Eurozone will amount to only 10 per cent. And India's "enlightened national interest" principles are highly respected.

Based on these principles, the government implements an independent, pressure-free economic policy in harmony with its partners. Cooperation opens up new horizons.

According to Sechin, India, as the world's most populous nation, has become a leader in global economic dynamics, demonstrating rapid improvements in the lives of its people. It is a big country with a young, ambitious population, where dynamics are of the utmost importance.

It is no coincidence that analysts and experts predict growth rates of up to 7 per cent per

annum for India. In turn, Russia achieved a result more significant than many of the world's leading economies in the face of unprecedented sanctions, pressure, and confrontation with almost the entire Western world, the Rosneft CEO noted.

"Despite the evolving situation around us, implementing major economic programmes has already proven to be a tremendous psychological victory. This will determine our success in other spheres," Sechin emphasised.

According to the Rosneft CEO, the actions of the world hegemon, in an attempt to preserve its hegemony by all means, destroyed the single energy market. To date, there is no single global energy market. Energy security is no



longer a global concern.

"As a result of these actions, all the principles of market trading have been destroyed," Sechin underlined. "Market pricing, contract law and, in general, the possibilities of legal protection of market

participants have been abolished. In addition, logistics chains built up for decades have been forcibly severed. The blown-up Nord Stream project serves as an illustrative example."

He cited the reformatting

of the European gas market as an example.

At first, contrary to common sense, Europe was first made to abandon long-term contracts and switch to spot pricing, which led to an unprecedented price increase before the events in Ukraine in the midst of the forced green transition and underinvestment in conventional energy. After eliminating Russian competition from the European market through sanctions and pressure, the Americans offered to return to long-term contracts that guarantee a return on investment.

"This is a banal case of unfair competition," Sechin said. "Consequently, Europe has lost its key competitive advantage -- access to cheap and reliable Russian energy car-

riers -- and is forced to pay three to five times higher prices for gas." According to Bloomberg, the rejection of Russian gas has already cost Europe about 1 trillion euros. Sechin said the main beneficiaries of the crisis are the US oil majors, which, as a result of their reasonable rejection of the accelerated energy transition, have focused on producing conventional hydrocarbons and become the leaders in terms of capitalisation.

By the way, BP, the leader of the green agenda, demonstrated a different approach. They could not, like their competitors, take advantage of the current situation.

Based on the results published in its annual reports, we could reasonably assume that BP may announce a return to

the strategy of conventional production and a reduction in green investments that generate losses. The total amount of announced write-offs is \$38 billion.

"It is also observed in the audited annual reports that BP, Rosneft's 20 per cent shareholder, has revised the value of Rosneft's stake to \$24 billion based on Rosneft's results," Sechin noted. "BP is still with us, and I take this opportunity to send greetings to our friends and partners.... I would like to assure you we will work hard to justify the confidence of our shareholders."

The answer to the destruction of the global market and the severance of logistics chains is regionalisation of markets, and the development of new safe logistics.

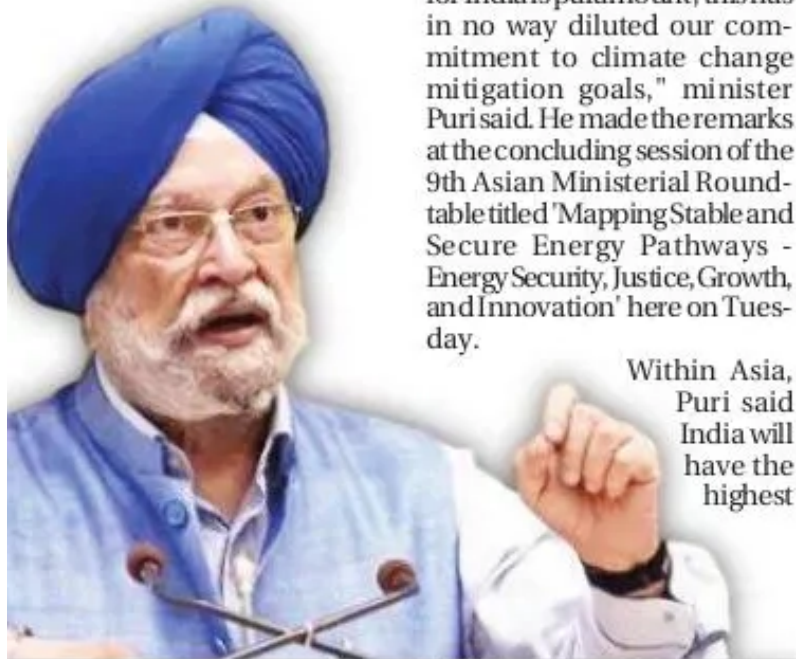


Energy security for India paramount, but not at cost of climate change goals: Petroleum Minister

AGENCIES

BENGALURU, 7 FEBRUARY

Energy security for India is paramount though it has by no means diluted the country's commitment to climate change



mitigation goals, said Union petroleum minister Hardeep Singh Puri.

"India's growth will propel global growth, as it is the world's fastest-growing economy. While energy security for India is paramount, this has in no way diluted our commitment to climate change mitigation goals," minister Puri said. He made the remarks at the concluding session of the 9th Asian Ministerial Roundtable titled 'Mapping Stable and Secure Energy Pathways - Energy Security, Justice, Growth, and Innovation' here on Tuesday.

Within Asia, Puri said India will have the highest

energy demand growth in the coming decades. The Indian energy demand is projected to increase from 18.6 million barrels per day of oil in 2021 to 37.7 million barrels per day in 2045.

"The centre of gravity of the energy world is gradually but certainly shifting to Asia and Asia will have to decarbonize while its energy demands are still growing. While our situation is very different to that faced by the developed countries, we owe it to the planet and successive generations to honour our environmental commitments," Puri said in his remarks at the roundtable.

He also outlined India's focus on developing a gas-based economy, cleaner use of fossil fuels, achieving the renewable energy target of 450 gigawatts by 2030, greater reliance on biofuels, increasing the contribution of electricity, and moving into emerg-

ing fuels like hydrogen.

He also mentioned India's "Panchamrit" commitment made during COP26 at Glasgow.

At the COP26 summit in Glasgow in late 2021, Prime Minister Narendra Modi committed to an ambitious five-part "Panchamrit" pledge, including reaching 500 GW of non-fossil electricity capacity, to generate half of all energy requirements from renewables, to reduce emissions by 1 billion tons by 2030.

India also aims to reduce the emissions intensity of GDP by 45 per cent. Finally, India commits to net-zero emissions by 2070.

"Green Growth has been highlighted as one of the Sap-tarishi (seven priorities) for the country in the recent union budget. We have allocated Rs. 35,000 crores for priority capital investments towards ener-

gy transition and net zero objectives, and energy security, and made significant policy changes for accelerating outcomes," he said referring to the recent Budget presentation for 2023-24 financial year.

Talking about the energy transition, he said where Asia is unarguably the biggest pivot must be guided by trust and inclusivity and the circumstances and priorities of each country must be considered.

"Most economies in Asia are yet to reach their full potential and it becomes imperative for us here to ensure that our laws, rules, policies, and regulatory environment are geared towards ensuring that every joule of energy enables the upliftment of the poor, and the development of individually, our respective economies and collectively, Asia," he added.



PM round table: Green H2, finance & tech top agenda

Need for transitional measures and the capital required to harness them also discussed

SUBHAYAN CHAKRABORTY
Bengaluru, 7 February

Transitional measures like green hydrogen, along with issues of technology (tech) transfer and financing, were among the major issues discussed at the energy round table held by Prime Minister (PM) Narendra Modi on the sidelines of India Energy Week 2023 on Monday, informed sources.

The round table was attended by chief executive officers of domestic and foreign oil and gas companies, global experts, and chiefs of multi-lateral institutions.

The annual round table was organised for the first time after the pandemic. All participants made presentations to the PM, who made the closing remarks.

The main focus was on the need for transitional measures, the capital and tech needed to harness them, and the ways to finance them, said sources.



industry source present at the meeting.

Transitional measures, such as green hydrogen, are in a sweet spot, he added.

Participants flagged the need for a stable policy architecture. Most said that the ease of doing business has improved in the past few years.

The PM emphasised the need for major investments in the energy sector. He asked companies to invest in both traditional hydrocarbons and new emerging technologies.

Arguing that India's energy demand growth would be growing at 3x the rest of the world's, he said investing in India would have a 'best rate of return' for companies.



Union Minister for Petroleum and Natural Gas Hardeep Singh Puri (right) with COP28 president-designate Sultan al Jaber in Bengaluru

PHOTO: TWITTER

Big Russia presence signals stronger ties

Just a day after western powers slapped new sanctions on Russia, top executives from the OPEC+ producers' oil and gas industry rushed to its biggest potential customer – India.

From the head of Rosneft Igor Sechin to the chairman of Novatek Leonid Mikhelson, the Russian delegation was out in force in Bengaluru for India

EnergyWeek. The summit, the nation's first major event organized under its G-20 presidency, saw delegates from foreign producers rub shoulders with Indian importers as the country highlighted its buying and negotiating power.

Russia, which has plenty of resources, is increasingly

focused on countries like India and China for revenue.

Russia has quickly risen from a very small presence in early 2022 to become India's largest crude seller, with volumes climbing further after the \$60-a-barrel price cap on Russian shipments was implemented in early December.

BLOOMBERG

Foreign partnerships in focus

The heads of Indian public sector oil-marketing companies (OMCs), who were at the meeting, said they were actively looking to pursue a foreign partnership.

A sector like oil and gas has long had restrictions on foreign entrants in select sub-industries. However, the government had recently asked

OMCs to utilise tech and market expertise.

"The move is part of the government's plan to set up India as a key hub for hydrocarbons. While we have consistently been the second largest importer of crude oil in the world, we are now working to vastly expand our refining capabilities and industry-led services," said a senior executive from an OMC.

Puri: Some economies exacerbating fuel poverty

PRESS TRUST OF INDIA

Bengaluru, 7 February

India, the world's third largest oil consumer, on Tuesday said it is committed to energy transition but surviving the present and cushioning the vulnerable from price volatilities is essential before moving to clean and green energy.

India has committed to net zero carbon emission by 2070 and has repeatedly emphasised that 'dirty' fuels like oil and coal, on which the economy is two-thirds dependent, will have to continue to be in use in the foreseeable future.

An immediate shift from low-priced coal and oil to expensive fuels of the future such as hydrogen will entail huge costs in a nation with low per capita income.

"Unless we survive the present, we will not be able to go into the world of clean and green energy," Oil Minister Hardeep Singh Puri said.

India is 85 per cent dependent on imports to meet its oil needs and roughly half of its gas requirement too comes from overseas. And the spike in global energy prices meant it had to shell out more for imports. To insulate domestic consumers, it had to cut taxes as well as ask oil companies to hold prices.

"Affordable energy is a vital ingredient to achieving inclusive economic growth and energy justice," he said, adding economies worldwide, particularly the emerging economies, are facing the daunting task of safeguarding energy security, affordability and accessibility which has created the cost-of-living crisis. On one hand, advanced economies committed over \$500 billion in funds to support and shield consumers and secure alternative fuel supplies by temporarily reverting to nuclear and higher carbon intensity (coal, oil) to fill the energy supply gap, on the other hand some economies have continued to exacerbate fuel poverty and food insecurity, he said.

India has committed to net zero carbon emission by 2070

VIVAD SE VISHWAS-II

Centre aims to settle 500 cases involving about ₹1 trn

SHRIMI CHOUDHARY

New Delhi, 7 February

The Central government is aiming to resolve about 500 cases, involving an estimated ₹1 trillion, under the new voluntary settlement scheme, which has been proposed to bring an end to its contractual disputes with private parties, according to officials.

The Budget this year has proposed the Vivad se Vishwas-2 scheme to settle long-pending litigation in cases where an arbitration order has been challenged in any Indian court.

Government-held entities such as Oil and Natural Gas Corporation (ONGC) and National Highways Authority of India (NHAI) have many disputes with private

contractors.

“The government will be soon putting out a draft scheme, seeking comments from all stakeholders. After getting the relevant feedback and comments, the final terms of the settlement scheme will be introduced,” a senior government official told *Business Standard*.

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► FROM PAGE 1

Centre aims...

According to him, an initial estimate shows in about 500 cases the arbitration award has been contested in court. The locked value in these cases is significant, he said. The settlement scheme intends to offer resolution and reduce litigation, he added. "The terms of the scheme might put a minimum threshold of the disputed amount for taking it," another official privy to the plan said. The claims raised by private contractors in disputes in highway projects undertaken by the NHAI were estimated at around ₹88,000 crore and the NHAI's counterclaims are worth about ₹39,221 crore, according to a parliamentary standing committee report released in March last year.

ONGC's claims on contractors as regards its own operations stood at about ₹17,000 crore, according to the oil firm's Annual Report last year.

As for those related to its joint operations, the claims stood at ₹1,069 crore. "Two major advantages of the current scheme are (a) boosting

developer and investor confidence and (b) freeing up financial resources locked in disputes. However, over the medium term, the infra sector particularly needs a framework for contract renegotiations that can minimise disputes," said Arindam Guha, leader (government and public services), Deloitte India. The scheme is likely to offer a settlement mechanism by which the government entity and the private one can settle the matter by signing standardised terms. This will be done by offering graded settlement terms, depending on the pendency level of the dispute, one of the officials cited above said.

Petronet wants to secure additional 12 m tonne LNG supply

India plans long-term LNG deals to cut usage of coal

New Delhi, Feb. 7: India is looking to sign many more long-term deals to buy liquefied natural gas to help power its economic growth.

Petronet LNG, India's biggest gas importer, wants to secure 12 million tonnes a year of additional supply under long-term contracts, managing director Akshay Kumar Singh said Tuesday in Bengaluru at India Energy Week. That's equivalent to about 60 per cent of the nation's deliveries last year, according to ship-tracking data.

"We are seeking an additional 0.75 to 1 mtpa on top of existing 8.5 mtpa contact," Chief Executive A.K. Singh told reporters on the sidelines of the Indian Energy Week conference.

Petronet, which is currently purchasing LNG

RENEW ENERGY, ENGINEERS INDIA BET ON AFRICA, WEST ASIA BIZ

New Delhi, Feb. 7: ReNew Energy Global Plc and Engineers India Ltd. are among India companies advancing energy projects in Africa and the West Asia amid rising demand in those regions.

State-run energy consultant Engineers India expects to finalise a nearly \$25 million order for a chemicals and fertiliser plant in Nigeria, and is actively review-

ing opportunities in oil refining projects across Africa, chairperson Vartika Shukla told *Bloomberg Television* in an interview in Bengaluru. ReNew Energy, among India's largest renewable power companies, expects to complete feasibility studies on an \$8 billion green hydrogen project in Egypt and to finalise a customer in 12 to 18 months. — *Bloomberg*

from Qatar at \$16 per million British thermal unit (mmbtu), has until the end of this year to renew its deal.

India's LNG imports fell

for the second straight year in 2022, mainly due to fewer imports by utilities as the country ramped up coal-fired power production at the expense of nat-

ural gas.

The energy-hungry nation expects deeper penetration of city gas distribution to drive LNG demand in the coming years.

New Delhi is trying to boost its LNG import capacity to increase the share of natural gas in its coal-heavy electricity mix to 15 per cent by 2030 from about six per cent now, Prime Minister Narendra Modi said Monday.

India will face competition from other importers eager to sign long-term deals to reduce their exposure to the kind of volatility that saw spot prices soar to a record last year. The LNG market will remain tight until 2026, Satinder Pal Singh, chief executive officer of Adani Total Private Ltd., said at the conference.

— *Bloomberg, Reuters*

9TH ASIAN MINISTERIAL ENERGY ROUNDTABLE

India's energy transition path involve a variety of solutions to support economic growth: Puri

SIMONTINI BHATTACHARJEE

BENGALURU: Union Petroleum and Natural Gas Minister Hardeep Singh Puri said that advanced bio fuels, green hydrogen, renewable and nuclear will play a critical role in the energy mix as India charts its path to the energy transition. While addressing the 9th Asian Ministerial Energy Roundtable on Tuesday at the India Energy Week in Bengaluru, the minister also mentioned, "India's energy transition path will involve a variety of energy solutions to support energy and economic growth."

India's target of reaching 40 per cent of the installed capacity from non-fossil energy sources by 2030 has already been achieved in November 2021. The country's installed Renewable Energy (RE) capacity by October 2022 stands at 166 GWh while its nuclear energy-based installed electricity capacity stands at 6.78 GWh. The minister added that India is also setting up 2G refineries utilizing agricultural waste and bamboo to make ethanol, using

indigenous technology. "This contributes to achieving rural prosperity and also goes a long way in reducing pollution along with achieving energy security goals," Puri added.

Meanwhile, the Indian government claims that the energy transition will be more of a wave of managed change in the global energy portfolio versus an event, ensuring energy access and security, progressing to net zero. Whereas, this requires global coordination and access to skills, technology, and global financing. Moreover, the petroleum and natural gas minister feels that the incumbent government's effort and policies on energy involve a variety of energy solutions to drive to net zero - drawing on renewables, nuclear, and advanced biofuels, as well as the critical role of gas in the energy transition, whether from current supplies of natural gas, LNG and LPG or into a future shaped by their low carbon alternatives in the form of hydrogen, ammonia and green LPG.

"India's energy transition, therefore, is extraordinary not



Petroleum and Natural Gas Minister Hardeep Singh Puri

just in terms of scale and coverage but also creates hope and a blueprint for the world's developing nations who are facing similar challenges. India is undertaking an ambitious journey of energy transition to achieve net carbon zero by 2070. However, this transition has to be stable and just to ensure that it is sustainable," Puri asserted.

On the other hand, climate change is a global concern now-the stakes are particularly high for the Asia region with the temperature rising two times faster than the global average and a low carbon emission pathway for development is the key to mitigating climate change. The

minister added that "However, the reality is more complex because the starting point and the capacity of each country and region to transition from a reliance on conventional hydrocarbons to low-carbon energy are different across the globe. This is demonstrated by major differences in the level of detail and ambition of nationally declared commitments (NDCs) in the pursuit of net zero at the country and regional levels."

"The economies world over, particularly the emerging economies, are facing the daunting task of safeguarding energy security, affordability and accessibility which has created the cost-of-living crisis," Puri added further. At the same time, the minister also warned that the energy crisis has a ripple effect on other sectors as well. The unprecedentedly high level of gas prices has created a fertilizer crisis which in turn has created food security concerns across the world. Further, the high energy and commodity prices have raised inflationary concerns and many countries are facing recessionary fears.

PM FLAGS OFF OIL'S HYDROGEN BUS



Prime Minister Narendra Modi flagged off Oil India Limited's (OIL) indigenously developed hydrogen fuel cell based e-bus at the India Energy Week (IEW) in Bengaluru on February 6, 2023. The bus is a hybrid of an Electric Drive and a Fuel Cell, the Fuel Cell uses hydrogen to produce electricity which drives the electric motor & also charges the auxiliary battery that provides for back-up power during acceleration and braking. The 60 KW capacity fuel cell uses Proton Exchange Membrane (PEM) technology to produce electricity. Bus has the tank capacity of 21.9 Kg at 350 bar pressure. The bus is designed to accommodate 32 persons including the driver and is provided with wheel chair facility

यूएई के क्लाइमेट चेंज अम्बेसडर ने कहा, भारत की अर्थव्यवस्था सबसे आगे होगी

‘भारत तय करेगा ईंधन का भविष्य’

मनोज कुमार मनु

बेंगलुरु, (पंजाब केसरी): ऊर्जा और ईंधन के क्षेत्रों में भारत आने वाले दिनों में दुनिया में नंबर वन होगा। सभी को इसकी जरूरत के लिए भारत की ओर देखना होगा। भारत दुनिया में सबसे तेजी से भारतीय अर्थव्यवस्था है आने वाले दिनों में ईंधन का भविष्य तय करने में भारत की भूमिका निर्णायक होगी। भारत की अर्थव्यवस्था के बारे में यह सकारात्मक बातें यूएई के उद्योग और तकनीक मंत्री एवं क्लाइमेट चेंज के विशेष दूत डॉ. सुल्तान अहमद अलजबर ने कही। उन्होंने कहा कि भारत संभावनाओं से भरा एक विशाल बाजार है जो इसे खास बनाता है ईंधन और ऊर्जा की खपत के मामले में भारत सबसे आगे होगा। इसीलिए इस क्षेत्र में भारत की भूमिका निर्णायक होगी। ग्रीन एनर्जी के क्षेत्र में भी भारत तेजी से आगे बढ़ रहा है। एनर्जी ट्रांजिशन का काम यहां द्रुतगति से हो रहा है गैर नवीकरणीय ऊर्जा पर निर्भरता कम कर नवीकरणीय ऊर्जा के उत्पादन पर विशेष जोर दिया जा रहा है। भारत का ऊर्जा परिवर्तन न केवल पैमाने और कवरेज के मामले में असाधारण है, बल्कि समान चुनौतियों



का सामना कर रहे दुनिया के विकासशील देशों के लिए आशा और एक खाका भी बनाता है। भारत 2070 तक शुद्ध कार्बन शून्य हासिल करने के लिए ऊर्जा परिवर्तन की एक महत्वाकांक्षी यात्रा शुरू कर रहा है। हालांकि, यह संक्रमण स्थिर होना चाहिए और यह सुनिश्चित करने के लिए कि यह टिकाऊ है।

इस प्रकार भारत ऊर्जा के क्षेत्र में लाएगा क्रांति..केंद्रीय पेट्रोलियम मंत्री हरदीप सिंह पुरी ने कहा कि आने वाले दिनों में भारत के ऊर्जा परिवर्तन (एनर्जी ट्रांजिशन) के मार्ग में ऊर्जा और आर्थिक विकास का समर्थन करने के लिए विभिन्न प्रकार के ऊर्जा समाधान शामिल होंगे। उन्नत जैव ईंधन, हरित

हाइड्रोजन, नवीकरणीय और परमाणु ऊर्जा मिश्रण में महत्वपूर्ण भूमिका निभाएंगे, क्योंकि भारत तेजी से ऊर्जा परिवर्तन के लिए अपना मार्ग प्रशस्त कर रहा है। भारत ने 2030 नवंबर 2021 तक गैर-जीवाश्म ऊर्जा स्रोतों से अपनी स्थापित बिजली क्षमता के 40% की अपनी प्रतिबद्धता को पूरा किया है। अक्टूबर 2022 तक देश की स्थापित नवीकरणीय ऊर्जा (आरई) क्षमता 166 गीगा वाट है, जबकि इसकी परमाणु ऊर्जा आधारित स्थापित बिजली की क्षमता 6.78 गीगा वाट है। इंजीनियरिंग कौशल के साथ संयुक्त रूप से सौर ऊर्जा के लिए सबसे कम लागत की उपलब्धता भारत को ग्रीन हाइड्रोजन उत्पादन केंद्र के लिए एक आदर्श स्थान बनाती है।

भारत सहित एशियाई देशों के लिए सऊदी ने क्रूड के दाम 2 डॉलर प्रति बैरल बढ़ाए



शैरोन चो | रियाद

सऊदी अरब ने डिमांड में तेजी की उम्मीद में भारत सहित एशियाई देशों के लिए मार्च से कच्चे तेल के दाम बढ़ाने का ऐलान किया है। यह मूल्यवृद्धि ऐसे समय की जा रही है जब इस साल क्रूड की वायदा

कीमतों में करीब 5% की गिरावट आई है। क्रूड में यह नरमी बढ़ती ब्याज दरों से खपत और चीन की आर्थिक गतिविधियां मंद पड़ने की आशंका में आई है। देश की सरकारी तेल कंपनी सऊदी अरामको ने अपने फ्लैगशिप अरब लाइट ग्रेड क्रूड के दाम रीजनल बेंचमार्क से 2 डॉलर (165.4 रु.) प्रति बैरल बढ़ाए हैं। यह सितंबर के बाद पहली बढ़ोतरी है। सऊदी अरब दुनिया की सबसे बड़ा ऑयल एक्सपोर्टर है।

ओ.एन.जी.सी. तोड़ने जा रही बरसों पुरानी परम्परा नई खोजों से उत्पादन शुरू करने के लिए निवेश करेगी अरबों डॉलर

बेंगलूरु, 7 फरवरी (एजेंसी) : देश की सबसे बड़ी तेल एवं गैस उत्पादक कंपनी ऑयल एंड नैचुरल गैस कॉर्पोरेशन (ओ.एन.जी.सी.) इस साल उत्पादन में गिरावट की बरसों पुरानी परम्परा को बदल देगी और उसके बाद धीरे-धीरे उत्पादन बढ़ाएगी। इससे देश में आई तेल की कमी से उबरने में मदद मिलेगी।

कंपनी के एक शीर्ष अधिकारी ने यह जानकारी देते हुए कहा कि ओ.एन.जी.सी. नई खोजों से उत्पादन शुरू करने के लिए अरबों डॉलर का निवेश कर रही है।

ओ.एन.जी.सी. ने वित्त वर्ष 2021-22 में 2.17 करोड़ टन से अधिक कच्चे तेल का उत्पादन किया था। कच्चे तेल का शोधन कर इसे पेट्रोल और डीजल जैसे पेट्रोलियम उत्पादों में बदला जाता है।

बीते वित्त वर्ष के दौरान कंपनी



का प्राकृतिक गैस उत्पादन 21.68 अरब घनमीटर रहा। प्राकृतिक गैस का इस्तेमाल बिजली उत्पादन, उर्वरक विनिर्माण और वाहनों के लिए सी.एन.जी. के रूप में किया जाता है।

कंपनी के तरफ से दी गई जानकारी

ओ.एन.जी.सी. के चेयरमैन अरुण कुमार सिंह ने कहा कि हम निश्चित तौर पर 2023-24 और यहां तक कि चालू वर्ष में भी तेल एवं गैस उत्पादन में बढ़ोतरी की उम्मीद कर रहे हैं।

चालू वित्त वर्ष (2022-23) में कंपनी का कच्चे तेल का उत्पादन बढ़कर 2.28 करोड़ टन पर पहुंचने का अनुमान है। वहीं गैस का उत्पादन 22.09 अरब घनमीटर रहने का अनुमान है। अगले वित्त वर्ष में कच्चे तेल का उत्पादन 2.46 करोड़ टन और गैस उत्पादन 25.68 अरब घनमीटर रहने का अनुमान है। ओ.एन.जी.सी. का घरेलू उत्पादन में 71 प्रतिशत का हिस्सा है।

एक दशक से लगातार आ रही गिरावट

एक दशक से अधिक से कंपनी के क्षेत्रों से उत्पादन में धीरे-धीरे कमी आ रही है। इसकी वजह यह है कि कंपनी के क्षेत्र काफी पुराने हो चुके हैं। सरकार ने उत्पादन को बढ़ावा देने के प्रयास में ओ.एन.जी.सी. के बड़े तेल और गैस क्षेत्रों को निजी

और विदेशी कंपनियों को देने पर विचार किया था, लेकिन इस मामले में उसे आंतरिक विरोध का सामना करना पड़ा था। सिंह ने कहा कि कंपनी तकनीकी रूप से मुश्किल क्षेत्रों में भागीदारी के लिए तैयार है।

ओ.एन.जी.सी. 20 प्रमुख परियोजनाओं में 59,000 करोड़ रुपए का निवेश कर रही है। इनमें गहरे समुद्र में केजी ब्लॉक केजी-डीडीब्ल्यूएन-98/2 (केजी-डी5) में पाए गए तेल और गैस के भंडार को उत्पादन में लाना और मुम्बई हाई फील्ड का चौथे चरण का पुनर्विकास शामिल है।

केजी-डी5 में निवेश से कंपनी अतिरिक्त उत्पादन हासिल कर पाएगी जबकि मुम्बई हाई के पुनर्विकास पर निवेश से कंपनी पुराने पड़ चुके क्षेत्रों के उत्पादन में आ रही गिरावट को थाम सकेगी।

जहां से वाजिब दाम पर तेल मिलेगा, वहीं से की जाएगी खरीद : पुरी

आयात पर निर्भरता घटाने के लिए 2025 तक पेट्रोल में 20 फीसदी एथेनाल मिलाने का लक्ष्य

एजेसी ► नई दिल्ली

केंद्रीय पेट्रोलियम और प्राकृतिक गैस मंत्री हरदीप सिंह पुरी ने कहा कि दुनिया का तीसरा बड़ा ऊर्जा उपभोक्ता देश भारत है और भारत को जिस जगह से भी वाजिब

■ भारत अब 39 देशों से करता है अपने लिए तेल आयात

दाम पर तेल मिल सकता है वहां से खरीदेगा। पुरी ने कहा कि देश अपनी कुल तेल जरूरतों का 85 प्रतिशत और प्राकृतिक गैस का 50 प्रतिशत आयात के जरिए पूरा

करता है। गन्ने और अन्य कृषि उपज से प्राप्त एथनॉल को पेट्रोल में मिलाया जा रहा है ताकि आयात पर निर्भरता को कम किया जा सके। पुरी ने कहा कि वर्ष 2025 तक पेट्रोल में 20 प्रतिशत एथनॉल मिलाने का

लक्ष्य है। पुरी ने भारत ऊर्जा सप्ताह सम्मेलन के दौरान कहा कि भारत तेल खरीद के मामले में अपने बड़े बाजार का इस्तेमाल करेगा। उन्होंने कहा हम मार्केट कार्ड का



इस्तेमाल करेंगे। हमें जहां से भी वाजिब दाम पर तेल उपलब्ध होगा, हम वहीं से आयात करेंगे। भारत 2006-07 में 27 देशों से तेल आयात करता था। यह संख्या 2021-22 में

बढ़कर 39 हो गई। नए आपूर्तिकर्ताओं में कोलंबिया, रूस, लीबिया, गैबन और इक्वेटोरियल गिनी शामिल हैं। वहीं, रूस भारत का सबसे बड़ा तेल आपूर्तिकर्ता देश बन चुका है।

ऊर्जा बदलाव के पहले कीमतों में उठापटक से सुरक्षा जरूरी: पुरी

वैभव न्यूज ■ बेंगलुरु

पेट्रोलियम एवं प्राकृतिक गैस मंत्री हरदीप सिंह पुरी ने मंगलवार को ऊर्जा बदलाव के लिए भारत की प्रतिबद्धता जताने के साथ ही कहा कि हरित ऊर्जा की तरफ कदम बढ़ाने से पहले देश को कीमतों में मौजूदा उतार-चढ़ाव से सुरक्षित रखना जरूरी है। भारत ने वर्ष 2070 तक शुद्ध-शून्य उत्सर्जन का लक्ष्य रखा हुआ है। इसके साथ ही उसने बार-बार कहा है कि वह अपनी ऊर्जा जरूरतों को पूरा करने के लिए तेल एवं कोयला जैसे खराब ईंधन का भी इस्तेमाल निकट भविष्य में जारी रखेगा। हरदीप सिंह पुरी ने यहां आयोजित भारत ऊर्जा सप्ताह सम्मेलन को संबोधित करते हुए कहा कि ऊर्जा संसाधनों के मौजूदा उतार-चढ़ाव के दौर में खुद को बचाकर न



ख खाने की स्थिति में भारत स्वच्छ एवं हरित ऊर्जा की दुनिया में कदम नहीं रख पाएगा। उन्होंने कहा, किफायती परंपरागत ऊर्जा संसाधन बुनियादी जरूरतों को पूरा करने के

लिए जरूरी हैं जबकि अधिक स्वच्छ, टिकाऊ एवं नवाचारी नवीन ऊर्जा स्रोत जलवायु परिवर्तन के खतरे से लड़ने के लिए महत्वपूर्ण हैं। पिछले साल यूक्रेन पर रूस के हमले के बाद बदले

हुए भू-राजनीतिक हालात में कच्चे तेल और प्राकृतिक गैस की कीमतों में काफी उतार-चढ़ाव देखने को मिला। ऐसी स्थिति में स्वच्छ ऊर्जा के हिमायती रहे यूरोपीय देशों ने फिर से जीवाश्म ईंधनों का इस्तेमाल बढ़ा दिया। उन्होंने बताया कि भारत अपनी 85 प्रतिशत कच्चे तेल की जरूरत को आयात से पूरा करता है जबकि आधी गैस भी विदेश से मंगानी पड़ती है। इस तरह भारत का ऊर्जा आयात बिल काफी बढ़ गया था। ऐसी स्थिति में भारत ने आत्मनिर्भर होने के लिए वैकल्पिक ऊर्जा स्रोतों पर ध्यान देना शुरू कर दिया है। पुरी ने कहा, हम ऊर्जा बदलाव को मुमकिन बनाने की जरूरत को लेकर सजग हैं। हमें यह सुनिश्चित करना है कि इस बदलाव के दौरान हम कीमतों में उतार-चढ़ाव से सुरक्षित बने रहें।