

#### **EXPLAINER**

### GAS SECTOR NEEDS SOUND REGULATION

India's gas economy is facing severe constraints owing to stagnant domestic output. While a highlevel panel recently backed pricing freedom, issues relating to regulation of pipeline networks also need addressing. Against this backdrop, there are plans to amend the PNGRB Act. Raiat Mishra takes a look at the gas-economy norms



#### Regulation of the gas sector

THE DIRECTORATE General of Hydrocarbons monitors upstream operations. It enforces production/revenue-sharing contracts with private operators. In the downstream sector, the Petroleum and Natural Gas Regulatory Board (PNGRB), set up under the PNGRBAct, 2006, regulates the laying/expanding of transmission pipelines for gas and petroleum and city/local gas-distribution networks.

An entity that lays the pipeline will have the right offirst use, and others must pay it for use of the pipeline. Businesses must register with the PNGRB to market petro-products and natural gas, set up/operate terminals and storage beyond specified capacities. PNGRB orders can be challenged before the appellate electricity tribunal, and then courts.

#### \$40 billion

investment in gas infra in next four years

> 180 mmscmd gas consumed in India in FY22;

95 mmscmd domestically produced

MMSCMD: Million metric standard cubic metres per day

#### 11.411 km

trunk pipelines operated by GAIL India

#### PNGRB's powers & limitations

THE PNGRB can impose fines up to ₹25 crore for non-compliance, with additional fines of up to ₹10 lakh for every day of continued contravention of orders. Wilful failure to comply with appellate tribunal orders may draw a fine of up to ₹1 crore; subsequent offences will attract fines up to ₹2 crore, and continuing contravention, fines of up to ₹20 lakh/day.

The board lacks a clear mandate to ensure competitive gas markets. Gas price is regulated separately by the Centre. While many back scrutiny of costs, others say free pricing will ensure more upstream investment, and competition will foster fair play. The PNRGB also can't ensure retail service obligations. It is also argued that the pipeline tariffs fixed by it on the basis of common carrier principle don't incentivise efficiency much. The regulator is also not seen as having been effective in thwarting monopoly creation in city gas distribution.

#### Pricing and other new developments

PRICES ARE benchmarked against four international hubs -Henry Hub (USA & Mexico), Alberta (Canada), National Balancing Point (EU) and Russia. The prices are revised on a halfyearly basis. Given Russia's war against Ukraine, global LNG prices have skyrocketed and the price ceilings for domestic gas in H2FY23 hit record highs - \$8.57 for normal fields and \$12.46/mmBtu for difficult fields like those in the KG basin, off the Andhra coast (In H2FY21, the price for difficult fields was capped at \$1.79). The Kirit Parikh committee has recently proposed a lower price band of \$4-6.5 mmBtu for the short term for normal fields, but pitched for complete pricing freedom for producers by January 2027.

The Centre is mulling changes to the PNGRB Act, especially for areas of its regulation that have spurred much debate and litigation (such as the PNGRB's attempts to enforce common carrier rules).

#### What are the recent changes in regulations that the PNGRB has brought in?

ITHAS proposed to introduce unified pipeline tariffs effective FY24. The motto is One Nation. One Grid, One Tariff, It formed a committee - which also comprises industry executives to address settlement issues that may arise once the new regulations are implemented.

Analysts say the move would spur pipeline capacity expansion and completion of pending projects, thereby making piped cooking gas and city gas accessible to larger sections of the population.

According to the plan, entitylevel integrated tariffs will act as the building blocks for the

proposed unified tariffs. The number of unified tariffzones have been increased from two to three. Tariff regulations are being eased to promote faster capacity creation. New capacities will be exempt from tariff regulation for five years, new tax rates will apply only prospectively. Annual tariffadjustments will be made.

India's gas pipeline network is expected to rise from 16,000 km in FY19 to 34,600 km by early 2024. Piped gas connections will reach 60 million by 2030 from the current level of around 10 million. per one estimate. LNG terminals' capacities will cross 62 million tonne per annum (mtpa) from less than 40 mtpa now.





# Public float rule may not apply to privatised PSUs

Exemption for 'specified period' may help IDBI stake sale by govt, LIC

SHRIMI CHOUDHARY New Delhi, 3 January

rivatisation of public-sector units (PSUs) may get a boost with the government reserving the right to exempt them from the minimum public shareholding norm even after a change in ownership.

The move comes as the government prepares to sell its stake in IDBI Bank.

Following the new rule, the new owner of IDBI Bank will be exempt from the minimum 25 per cent public float requirement even after stake sale by Life Insurance Corporation (LIC) and the government.

The finance ministry has inserted a clause into the public listing norms to exempt public floats for listed PSUs for a "specified period" as required under the Securities Contracts (Regulation) Rules, 1957. "The central government may, in public interest, exempt any listed entity in which the Central Government or State Government or public sector company, either individually or in any combination with other, hold directly or indirectly, majority of the shares or voting rights or control of such listed entity, from any or all of the provisions of this rule," the fresh rule says.

The new amendment, which came into effect on January 2, will apply to these entities regardless of the government's direct or indirect holding.

"For the purposes of this rule, the exemption shall continue to be valid for the period specified therein, irrespective of any change in control of such listed entity subsequent to issuance of such exemption," according to a gazette notification issued by the Department of Economic Affairs in the finance ministry.

A senior government official told *Business Standard*: "It is an enabling provision that would facilitate strategic disinvestments proposed by the government or are in the pipeline."

The rule, according to the official, will bring clarity to public floats and encourage

#### **EASING FRAMEWORK**

- Finance ministry inserts a new clause in public listing norms
- Exemption valid for a specified period even if a change in ownership or control occurs
- Latest change will help facilitate govt's strategic stake sale plans
- It will encourage potential buyers to take govt stakes in companies put up for divestment
- LIC and govt hold 49.24% and 45.48% stake, respectively, in IDBI Bank
- Minimum public shareholding norm mandates at least 25% public float for all listed firms



ILLUSTRATION: AJAY MOHANTY

investors to buy stakes in governmentowned firms.

The government is eyeing to sell its stake in a host of firms including IDBI Bank, Shipping Corporation of India, and Container Corporation of India.

In the case of IDBI Bank, LIC and the government hold 49.24 per cent and 45.48 per cent, respectively. The public shareholding is 5.28 per cent.

The government may provide a certain time period to the new owner to comply with the norms, according to officials.

Last month, the government extended the deadline to submit preliminary bids for the lender till January 7. The successful bidder will have to make an open offer for acquiring 5.28 per cent from public shareholders.

### PSUs...

Notably, the government has sought the nod of the Securities and Exchange of Board of India (Sebi) to reclassify the residual stake in IDBI Bank as "public" shareholding after the stake sale occurs. This is because the Centre is relinquishing management control and is acting as an ordinary shareholder as to comply with corporate governance norms. The government and Sebi both are working together to facilitate the strategic sale and remove regulatory ambiguity so that it should not act as hindrance in the process," another official said.

The mandatory minimum public shareholding was raised to 25 per cent from 10 per cent in FY10 with a carve-out provided for PSUs from the norm, which was amended in 2014 to bring them on a par with private listed entities.

Listed PSUs were initially given until 2017 to comply with the norms, a deadline which was later repeatedly extended till 2021. There is no fresh deadline for complying with the norms for PSUs.



#### Crude oil slides on woes over China, IMF warning



Singapore: Crude oil prices slid on Tuesday from their highest levels in a month after Chinese economic data dampened market sentiment and the head of the IMF warned of a tougher 2023. Brent crude futures had fallen by 25 cents to \$85.66 a barrel by 0400 GMT, while U.S. West Texas Intermediate crude was at \$80.06 a barrel, down 20 cents. REUTERS



# Govt hikes windfall profit tax on crude, diesel, ATF

#### **HT Correspondent**

letters@hindustantimes.com

New Delhi: The government has raised windfall profit tax on locally produced crude oil by 23.52% to ₹2,100 per tonne from Tuesday and also increased the levy on exports of diesel and aviation turbine fuel (ATF). Both changes were made against the backdrop of firmer international oil prices.

While tax on domestically-produced crude oil was raised from  $\mathbb{E}1,700$  per tonne to  $\mathbb{E}2,100$  a tonne.

Tax on diesel exports increased from ₹5 per litre to ₹6.50 a litre, according to a government order issued late night on Monday. The tax on diesel is inclusive of ₹1.50 per litre additional excise duty.

According to the order issued by the ministry of finance, the levy on exports of ATF was also raised from ₹1.50 per litre to ₹4.50. The tax on crude and fuel are realigned with their respective international rates every fortnight.

This is the 12th revision in windfall tax after its imposition on July 1, 2022. The windfall tax was levied on petroleum items on July 1 last year to offset ballooning public expenditure on fuel, food and fertiliser subsidies even as domestic oil producers and refiners were seen to be making abnormal profits due to price volatility in international markets arising



The tax on diesel exports increased from ₹5 to ₹6.5 per litre, and that on ATF exports were raised from ₹1.50 per litre to ₹4.50.

from the Russia-Ukraine war.

The windfall levies on crude and products have been raised because of a spike in international oil rates. Benchmark Brent crude, which was trading at less than \$80 a barrel on the day the taxes were last revised (December 16, 2022), jumped to \$85.91 on Monday. On Tuesday, the price rose to \$87 a barrel.

"Windfall taxes are not just based on international crude oil prices. These levies are being reviewed on fortnightly basis and depend upon many factors such as international oil prices, exchange rate, quantity of exports," a government official said requesting anonymity. The government last revised the tax on December 16 when it slashed the levy on locally produced crude oil by 65% to ₹1,700 per tonne, reduced the tax on diesel exports by 37.5% to ₹5 per litre and cut it on exports of jet fuel by 70% at ₹1.50 per litre due to a sharp fall in average global oil prices. India's daily average crude oil purchase price on December 15 was \$77.79 a barrel.

Initially, the levy on indigenously-produced crude was ₹23,250 per tonne, ₹6 per litre each on petrol and ATF and ₹13 a litre on diesel. The tax on petrol was removed in the first revision itself (from July 20, 2022).



# Windfall tax on domestic crude, diesel exports up

New Delhi: The government has raised windfall profit tax on domestic crude by over 23% to Rs 2,100 per tonne following an uptick in global oil prices.

The windfall tax on jet fuel has also been increased to Rs 4.5 per litre from Rs 1.5 per litre. The special additional excise duty, similar to windfall tax, on diesel has been increased to Rs 7.5 per litre from Rs 5 per litre. The benchmark prices of both fuels have risen recently, raising margins of refiners. TNN



# Govt hikes windfall tax on crude, diesel

he government has increased windfall tax on the sale of locally produced crude oil to ₹2,100 per tonne from ₹1,700 per tonne after a gap of two weeks.

Special additional excise duty on the export of diesel also has been raised to  ${\mathfrak T}6.5$  per litre with effect from Tuesday from  ${\mathfrak T}5$  a litre. This also includes the cess of  ${\mathfrak T}1.5$  per litre.

Additional excise duty on the export of aviation turbine fuel (ATF) has been increased to ₹4.5 per litre from ₹1.5 a litre. The windfall tax on export of petrol continues to be 'nil'.

The development comes at a time when the global oil market has been largely volatile amid supply concerns from Russia and worries of fading demand in China with surging covid cases. Brent crude prices are now around \$85 per barrel, as against \$80 per barrel two weeks ago. At 11.30 am, the March contract on the Intercontinental Exchange was trading at \$85.78 per barrel, lower by 0.15% from its previous close.



# Windfall tax on crude oil, exports of diesel, ATF

#### NEW DELHI, JANUARY 3

The government has raised windfall profit tax levied on domestically produced crude oil and on the export of diesel and ATF, in line with firming international oil prices, according to an official order.

The levy on crude oil produced by companies such as Oil and Natural Gas Corporation (ONGC) has been increased to Rs 2,100 per tonne from Rs 1,700 per tonne, the order dated January 2, said.

Crude oil pumped out of the ground and from below the seabed is refined and converted into fuel like petrol, diesel and aviation turbine fuel (ATF).

The government has also raised the tax on the export of diesel to Rs 6.5 per litre, from Rs 5 and the same on overseas shipments of ATF to Rs 4.5 a litre, from Rs 1.5 a litre.

The new tax rates are effective from January 3.

Tax rates were cut at the last fortnightly review on December 16, following a



#### **NEW LEVIES**

- The levy on crude oil produced by companies such as ONGC has been increased to ₹2,100 per tonne from ₹1,700 pertonne
- The government has also raised the tax on the export of diesel to ₹6.5 per litre, from ₹5 and the same on overseas shipments of ATF to ₹4.5 a litre, from ₹1.5 a litre

decline in global crude oil prices. International oil prices have since then firmed up, necessitating the raising of windfall tax.

India first imposed windfall profit taxes on July 1, joining a growing number of nations that tax super normal profits of energy companies. At that time, export duties of Rs 6 per litre (\$12 per barrel) each

were levied on petrol and ATF and Rs 13 a litre (\$26 a barrel) on diesel.

A Rs 23,250 per tonne windfall profit tax on domestic crude production was also levied.

The export tax on petrol has since been scrapped.

The tax rates are reviewed every fortnight based on average oil prices in the previous two weeks.

Reliance Industries Ltd. which operates India's largest only-for-export oil refinery at Jamnagar in Gujarat, and Rosneftbacked Nayara Energy are primary exporters of fuel in the country.

The government levies tax on windfall profits made by oil producers on any price they get above a threshold of \$75 per barrel.

The levy on fuel exports is based on cracks or margins that refiners earn on overseas shipments. These margins are primarily a difference between the international oil price realised and the cost. - PTI

Wed, 04 January 2023

The Tribune https://epaper.tribuneindia.com/c/71318589





## Centre hikes windfall taxes on crude, ATF, diesel exports



#### IN LINE WITH GLOBAL SPIKE

- The windfall tax on locally produced crude oil has been hiked to ₹2,100 per tonne from ₹1,700 per tonne
- The tax on aviation turbine fuel has been hiked to ₹4.5 per litre from the earlier ₹1.5 per litre
- The windfall tax on high-speed diesel meant for exports has also been hiked to ₹6.5 per litre from ₹5 per litre

#### SURABHI New Delhi, January 3

THE CENTRE HAS hiked the windfall tax on locally produced crude oil, aviation turbine fuel and export of diesel with effect from Tuesday.

The wind fall tax on locally produced crude oil has been hiked to ₹2,100 per tonne from ₹1,700 per tonne, according to a notification by the Central Board of Indirect Taxes and Customs.

In the latest fortnightly review, the government has also hiked the windfall tax on aviation turbine fuel to ₹4.5 per litre from the earlier ₹1.5 per litre. The windfall tax on high-speed diesel meant for exports has also been hiked to ₹6.5 per litre from the previous ₹5 per litre.

The hike in tax rates is in line with the recent firming up of global crude oil prices. In its previous fortnightly review on December 16, the government had slashed the taxes following a drop in global crude oil prices. Crude oil price for the Indian basket was at ₹79.38 per barrel as on December 30, 2022 while the average for December 2022 was \$78.1 per bar-

rel, according to PPAC data.

The Centre had imposed special additional excise duty of ₹23,250/ tonne on crude and export taxes on petrol, diesel and ATF at ₹6/litre, ₹13/litre and ₹6/litre, respectively from July 1, 2022. It subsequently removed the tax on petrol.

The rates are reviewed every fortnight to keep them in sync with the global crude oil prices.

"Since the implementation of the windfall taxes had no fixed expiry, we had assumed that these would last only until December 2022. However, it looks unlikely that the government is going to unwind it any time sooner," Motilal Oswal said in a recent company update on ONGC.

It has kept its Brent forecast unchanged at \$90 per barrel for the fiscal year 2023-24. The windfall levy on domestic crude is aimed at producers like state owned ONGC and Vedanta controlled Cairn.

Private refiners Reliance Industries and Rosneft-backed Nayara Energy are the principal exporters of diesel and ATF.



#### Windfall tax on crude oil, export of diesel, ATF hiked



New Delhi: The government has raised the windfall profit tax levied on domestically produced crude oil as well as on the export of diesel and ATF, in line with firming international oil prices, according to an official order. The levy on crude oil produced by companies such as ONGC has been increased to ₹2,100 per tonne from ₹1,700 per tonne, the order said. The government has also raised the tax on the export of diesel to ₹6.5 per litre, from ₹5 and the same on overseas shipments of ATF to ₹4.5 a litre, from ₹1.5 a litre. PTI



# Windfall tax on crude oil, export of diesel, ATF hiked

#### **MPOST BUREAU**

**NEW DELHI:** The government has raised the windfall profit tax levied on domestically produced crude oil as well as on the export of diesel and ATF, in line with firming international oil prices, according to an official order.

The levy on crude oil produced by companies such as Oil and Natural Gas Corporation (ONGC) has been increased to Rs 2,100 per tonne, the order, dated January 2, said. Crude oil pumped out of the ground and from below the seabed is refined and converted into fuel like petrol, diesel and aviation turbine fuel (ATF).

The government has also raised the tax on the export of diesel to Rs 6.5 per litre, from Rs 5 and the same on overseas shipments of ATF to Rs 4.5 a litre, from Rs 1.5 a litre.

The new tax rates are effective from January 3.

Tax rates were cut at the last fortnightly review on December 16, following a decline in global crude oil prices. International oil prices have since then firmed up, necessitating the raising of windfall tax.

India first imposed windfall profit taxes on July 1, joining a growing number of nations that tax super normal prof-

its of energy companies. At that time, export duties of Rs 6 per litre (\$12 per barrel) each were levied on petrol and ATF and Rs 13 a litre (\$26 a barrel) on diesel. A Rs 23,250 per tonne (\$40 per barrel) windfall profit tax on domestic crude production was also levied.

The export tax on petrol has since been scrapped.

The tax rates are reviewed every fortnight based on average oil prices in the previous two weeks.



# EIL executes MoA with NRL for Collaborative Technology Development



Engineers India Limited (EIL) and Numaligarh Refinery Limited (NRL) have inked a Memorandum of Agreement (MoA) to jointly develop technology for 'Production of aqueous Ammonia from Ammonia rich sour gases' and demonstrate at NRL site. The collaboration agreement was executed on 29th December, 2022 by authorised representatives of EIL and NRL in New Delhi in presence of Ms. Vartika Shukla, CMD, EIL, Dr. Ranjit Rath, Chairman, NRL & CMD, Oil India Limited and Mr. Bhaskar Jyoti Phukan, MD, NRL. This MoA shall pave the way for demonstration technologies developed by EIL and NRL. This endeavour will generate a win-win scenario for both EIL, with a rich experience in the knowhow in development, design & engineering, and NRL, having vast experience in the operation of SRU towards commercialisation of indigenous technologies.



# Govt. raises windtall tax on crude oil, export of diesel, ATF

#### Press Trust of India

NEW DELHI

The government has raised the windfall profit tax levied on domestically-produced crude oil as well as on the export of diesel and ATF, in line with firming international oil prices, according to an official order.

The levy on crude oil produced by companies such as Oil and Natural Gas Corporation (ONGC) has been increased to ₹2,100 per tonne from ₹1,700 per tonne, according to the order dated January 2.



The government has also raised the tax on the export of diesel to ₹6.5 per litre, from ₹5 and the same on overseas shipments of ATF to ₹4.5 a litre, from ₹1.5 a litre.

The new tax rates are effective from January 3.



Oil explorers to pay ₹2,100 per tonne levy on windfall gains

# Centre hikes windfall tax on Indian crude oil

MADHUSUDAN SAHOO NEW DELHI, JAN. 3

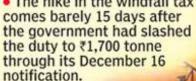
In line with the firming international oil prices, the Centre has hiked the windfall tax on domestically-produced crude oil. aviation turbine fuel and high-speed diesel. After this hike, the levy on crude oil produced by companies such as Oil and Natural Gas Corporation (ONGC) would stand at ₹2,100 per tonne as against previous from ₹1,700 per tonne, according to an order issued by Central Board of Indirect Taxes and Customs on Monday late evening.

The global oil market has been largely volatile amid supply concerns from Russia and worries of fading demand in China with surging Covid cases.

The hike in the windfall tax comes barely 15 days after the government had

#### EQUALISER

• After the hike, the levy on crude oil produced by companies such as ONGC and Reliance Industries would be ₹2,100 per tonne as against previous from ₹1,700 per tonne
• The hike in the windfall tax



slashed the duty to ₹1,700 tonne through its notification dated December 16.

The government levies tax on windfall profits made by oil producers on any price they get above a threshold of \$75-76 per barrel. The new rates come into effect from Tuesday, i.e. January 3. According to the revised order, the rates of windfall tax on crude oil has been raised to ₹2,100 per tonne. "In addition to this, the government has also hiked the windfall tax on aviation fuel to ₹4.5 per litre from the existing rate of ₹1.5 per litre. However, it must be noted that the

special additional excise duty on petrol continues the same i.e., unchanged and nil," the notification said.

As far as the export of diesel is concerned, it also mentioned that the windfall tax on high-speed diesel for exports has also been increased as well.

"The hike reads to ₹7.5 per litre from the existing ₹5 per litre. Previously, even this commodity went through a rate cut when the centre revised the rate to ₹5 a litre from ₹8 a litre." it added.

to ₹5 a litre from ₹8 a litre," it added.

In July this year, the Centre imposed the windfall tax on crude oil producers and levies on exports of gasoline, diesel and aviation fuel after private refiners sought overseas markets to gain from robust refining margins, instead of selling at lowerthan-market rates in the country.







## ONGC's 'Sagar Samrat' starts oil, gas output in Arabian Sea

It will handle up to 20,000 barrels crude oil per day, with a maximum export gas capacity of 2.36 mn cubic metres per day

#### **OUR CORRESPONDENT**

**NEW DELHI:** State-owned ONGC's vintage offshore drilling rig 'Sagar Samrat' has a new role -- as a mobile production unit that started doing its job last month, the company said on Tuesday.

The rig, which had outlived its sell-by date, was refurbished into a mobile offshore production unit (MOPU), capable of bringing to surface oil and gas found below the seabed.

Sagar Samrat MOPU, which was commissioned on December 23 last year, will handle up to 20,000 barrels per day of crude oil, with a maximum export gas capacity of 2.36 million cubic metres per day and is expected to add 6,000 barrels per day of oil to ONGC's production in the coming days.

"The first oil from the WO-16 cluster flowed into the processing system of MOPU and dispatch to onshore terminal commenced," Oil and Natural Gas Corporation (ONGC) said in a statement.

WO-16 is a cluster of four marginal fields in the Arabian Sea at a water depth of 75-80 metres and 130 kilometers from Mumbai.

"Since no nearby facility



exists to produce from this field, it was planned to install a MOPU for production, processing and transportation of oil and gas from WO-16 Cluster," it said. The project to convert jack-up rig Sagar Samrat into a MOPU was awarded to a consortium of Mercator Oil & Gas Ltd, Mercator Offshore (P)

Ltd and Gulf Piping Company (GPC) on November 17, 2011.

"After several hurdles like the legal challenges and Covid-19, the MOPU was transported to India, on a Heavy Lift Vessel and post statutory clearances, successfully installed close to the WO-16 wellhead platform on April 16, 2022," the statement said.

The Sagar Samrat conversion is one of the most complex projects executed by ONGC.

"The MOPU stands tall in the Arabian Sea, as a testimony, to narrate the stories of several tough decisions taken during its execution and the excellent stakeholder consultation by ONGC which eventually yielded results," it added.

Sagar Samrat is a jack-up drilling rig built in 1973. The rig was instrumental in the discovery of India's biggest oil field, Mumbai High in 1974.

Over the years, it has drilled over 125 wells and has been involved with 14 key offshore oil and gas discoveries.

After serving its life as a jackup rig, it was decided to convert it into a MOPU for production from the WO-16 cluster. Later, this will be shifted to other locations for monetisation of other



# ONGC, Indian Oil, Power Grid top profit making PSUs in FY22

PTI NEW DELHI

The net profit of operating public sector enterprises jumped 50.87 per cent to Rs 2.49 lakh crore during 2021-22, with ONGC, Indian Oil Corp, Power Grid, NTPC and SAIL emerging as the top five performers, according to a government survey.

The net profit of operating central public sector enterprises (CPSEs) stood at Rs 1.65 lakh crore in the previous fiscal.

The Public Enterprises Survey 2021-22 also revealed that the net loss of loss-making CPSEs narrowed to Rs 0.15 lakh crore in FY 2021-22 from Rs 0.23 lakh crore in FY 2020-21, showing a decrease of 37.82 per cent.

Major loss-making CPSEs include Bharat Sanchar Nigam Ltd (BSNL), Mahanagar Telecom Nigam Ltd (MTNL), Air India Assets Holding Ltd, Eastern Coalfields Ltd and Alliance Air Aviation Ltd.

"Total gross revenue from the operations of operating CPSEs during FY 2021-22 was Rs 31.95 lakh crore as against Rs



24.08 lakh crore in FY 2020-21, showing an increase of 32.65 per cent," it said.

Dividend declared by operating CPSEs in FY 2021-22 stood at Rs 1.15 lakh crore, as against Rs 0.73 lakh crore in FY21, up 57.58 per cent.

The survey attributed the revenue rise in FY 2021-22 to better performance by the petroleum (refinery and marketing), crude oil and transport, and logistics segments.

Among the sectors, manufacturing, processing and generation sector continues to command the highest share, followed by services, and mining and exploration.

Three cognate groups -petroleum (refinery and marketing), trading and marketing, and power generation -- together contributed 69.08 per cent to the gross revenues in FY 2021-22.

The net profit of profit-making CPSEs stood at Rs 2.64 lakh crore in FY 2021-22 against Rs 1.89 lakh crore in the previous fiscal, up 39.85 per cent. The top five CPSEs with the highest net profits were ONGC, Indian Oil Corporation, Power Grid Corporation of India, NTPC and Steel Authority of India Ltd (SAIL), the survey said.

The contribution of all CPSEs to the central exchequer by way of excise duty, custom duty, GST, corporate tax, interest on central government loans, dividend, and other duties and taxes stood at Rs 5.07 lakh crore in FY 2021-22, as against Rs 4.97 lakh crore in FY 2020-21, showing an increase of 2.14 per cent.

The top five CPSEs contributing to the central exchequer were Indian Oil Corporation, Bharat Petroleum Corporation Ltd, Hindustan Petroleum Corporation Ltd, Bharat Oman Refineries Ltd and Chennai Petroleum Corporation Ltd.



# NTPC starts 1st green hydrogen blending ops in PNG network

The National Thermal Power Corporation (NTPC) on Tuesday said it started India's first green hydrogen blending operation in the piped natural gas (PNG) network of its township in Kawas, Surat. "The project is a joint effort of NTPC and Gujarat Gas Limited (GGL). The first molecule of green hydrogen from the project was set in motion by P Ram Prasad, head of project, Kawas, in presence of other senior executives of NTPC Kawas and GGL," a company statement said.



## EU import of Russian oil 6x India's: Jaishankar

PRESS TRUST OF INDIA

Vienna, 3 January

External Affairs Minister S Jaishankar has defended India's move to import crude oil from Russia, notwithstanding the growing disquiet over it by Western powers, saying that Europe has imported 6x the fossil fuel energy from Russia since February 2022.

Jaishankar, who arrived from Cyprus on the second leg of his two-nation tour, also said that if

the European political leadership would like to soften the impact of the ongoing Russia-Ukraine conflict to their population, it's a privilege they should extend to other political leaderships as well

derships as well. "Europe has managed reduce its imports while doing it in a manner that is comfortable. If at a (per capita income) of 60,000 euros, you are so caring about your population, I have a population at \$2,000. I also need energy, and I am not in a position to pay high prices oil,"



"IF AT A (PER CAPITA INCOME) OF 60,000 EUROS, YOU ARE SO CARING ABOUT YOUR POPULATION, I HAVE A POPULATION AT \$2,000. I ALSO NEED ENERGY, AND I AM NOT IN A POSITION TO PAY HIGH PRICES FOR OIL"

**S Jaishankar,** External Affairs Minister

Jaishankar said during an interview to Austria's national public broadcaster ORF on Monday.

"Essentially, if it was a matter of principle, why didn't Europe cut off energy from Moscow on February 25," he asked while replying to a question. India's appetite for Russian oil has swelled ever since it started trading on discount as the West shunned it to punish Moscow for its invasion of Ukraine. The government has been vehemently defending its oil trade with Russia..



#### BUSINESS STANDARD, Delhi, 4.1.2023

Page No. 4, Size:(51.88)cms X (17.98)cms.

## Sugar companies look to retail green fuel from own premises

SANJEEB MUKHERJEE

New Delhi, 3 January

To boost ethanol consumption and build an additional revenue stream, sugar factories are working on a plan to convert their manufacturing units into "green energy hubs" that will retail fuel doped with ethanol, produce and sell bio-CNG to meet local needs, and act as centres of multi-point access to energy for local consumers, a significant section of whom are likely to be farmers.

A basic blueprint of the proposal has been discussed among top industry officials and associations such as the Indian Sugar Mills Association (ISMA) and the National Federation of Cooperative Sugar Factories (NFCSF), officials said.

The ISMA is even looking at appointing a professional agency to conduct a feasibility and cost-benefit analysis of the proposal before approaching the Central government for financial assis-



#### THE PLAN

- ISMA and Cooperative Sugar Factories working on a proposal to start fuel retailing on company premises
- Bio-CNG could be sold through the same factories directly to consumers as well
- ■The proposals are part

of the plan to convert sugar companies as 'energy hubs'

■ Plans afoot to appoint a dedicated agency to undertake a comprehensive analysis of the plan and prepare a proper project report

blended petrol, that could be a good revenue source for companies and even save them the cost of transporting ethanol to depots operated by oil-marketing companies (OMCs)," Jhunjhunwala told Business Standard.

He said retailing and other services could be of great help to farmers within the catchment area of each sugar factory, which is 30-40 km.

Prakash Naiknavare, director general

of the NFCSF, said blending now done at OMCs' depots could happen at sugar factories, which would provide an additional revenue stream for the companies.

"We in the NFCSF are fully in support of the idea, which has also been backed by Road Transport Minister Nitin Gadkari in several interactions with the industry," Naiknavare said.

Jhunjhunwala said if each of the sugar factories set up at least five fuelretailing pumps on their premises it would mean 2,500 petrol pumps that could dispense petrol which has higher than a 20 per cent blend with ethanol.

"In Brazil there are vehicles that can run on 100 per cent ethanol and we have started talks with vehicle makers on developing tractors and other items that can do so," Jhunjhunwala said.

He said when demand rose, the sugar sector could look at producing 10 billion litres of ethanol by diverting 10 million tonnes of sugar from its annual production.

#### Oct-Dec sugar output up 3.7% at 12 mt: ISMA

The country's sugar production rose 3.69 percent to 12.07 million tonnes (mt) in the October-December quarter of the ongoing marketing year, according to the industry body Indian Sugar Mills Association (ISMA).

Sugar production stood at 11.64 mt in the same period of the previous marketing year. Sugar marketing year runs from October to September. According to the ISMA, about 509 mills were operating as against 500 mills in the said period.

Sugar production in Uttar Pradesh reached the year-ago level of 3.09 mt, while in Maharashtra it rose to 4.68 mt during October - December of the 2022 - 23 marketing year, as against 4.58 mt in the year-ago period, it said. ISMA has projected production to be 36.5 mt in the 2022-23 marketing year, an increase of 2 per cent compared to 35.8 mt in the 2021-22 marketing year.





tric vehicle-charging stations.

tance and other clearances.

The plan, according to ISMA

President Aditya Jhunjhunwala, is to

enable the 500-odd sugar mills across

the country, located deep in rural areas,

to set up fuel-retailing pumps that can

dispense petrol mixed with ethanol, pro-

duce and sell bio-CNG for domestic con-

sumers, and even provide fuel for elec-

The pumps can dispense petrol







blended with even more than 20 per

cent ethanol if such flex-fuel vehicles

makers of irrigation pumps to

manufacture ethanol-based pump sets,

which can source fuel from the plants

"Each year we have thousands of

tractors coming to our plants to deliver

sugarcane. If they could get ethanol-

Talks have even started with leading

are readily available in rural areas.











## 'Hydrogen-run Trains on Heritage Routes by Dec'

New Delhi: The Railways will roll out hydrogenpowered trains on its narrow gauge heritage routes by December, making them "completely green". Railway minister Ashwini Vaishnaw said Tuesday the trains will be on the lines of those running in China and Germany. As a pilot project, the railways is manufacturing a prototype of hydrogen fuel-based train at the Northern Railway workshop. It would be test-run on the Sonipat-Jind section in Haryana.



"We will roll out the hydrogen trains on the heritage routes from December. This will mean that these heritage routes will go completely green," said

Vaishnaw.

Worldwide, there is a bid to replace diesel-powered locomotives with hydrogen-propelled engines wherever full electrification is difficult or too expensive as it offers an emissionfree, quiet alternative that can be economically competitive.

Germany's Coradia iLint is the world's first passenger train powered by hydrogen fuel cell, which produces power for traction.

This zero-emission train emits low levels of noise, with exhaust being only steam and condensed water. This train can run 1000 km at a speed of 140kmph at one go. This train was being tested in Germany since 2018–PTI



### Green hydrogen mixed in PNG network



NTPC ON TUESDAY said it has started India's first green hydrogen blending operation in

the PNG network of its township in Kawas, Surat. PTI





# ONGC, Power Grid, IOC top profit-making CPSEs in FY22

**FE BUREAU** New Delhi, January 3

THE CENTRAL PUBLIC sector enterprises (CPSEs) posted a whopping 51% annual growth in aggregate net profit at ₹2.49 trillion in FY22, with ONGC, Indian Oil and Power Grid emerging as the top profit-making CPSEs.

The top five CPSEs accounted for 41.57% and the top 10 accounted for 60.91% of the aggregate net profit in FY22, according to the Public Enterprises Survey 2021-22.

Oil & Natural Gas Corporation (ONGC) contributed the highest net profit at ₹40,306 crore in FY22, up 258% on-year. IOC

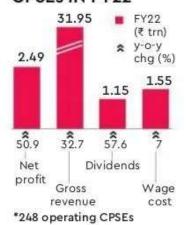
reported a net profit of ₹24,184 crore while Power Grid's profit stood ₹17,094 crore in FY22.

As many as 22 CPSEs returned to profit from a loss in FY22 by reporting a

total profit of ₹7,201 crore in FY22 in comparison to a total loss of ₹8,099 crore in FY21. These include Mangalore Refinery & Petrochemicals Ltd and Rashtriya Ispat Nigam Ltd.

Bharat Sanchar Nigam Ltd (BSNL) was the top loss-making CPSEs with a loss of ₹6,982 crore in





Dividends declared by operating **CPSEs (112) in** FY22 stood at ₹1.15 trillion, up 57.58% on-year

FY22, followed by Mahanagar Telephone Nigam Ltd at ₹2,603 crore and Air India Assets Holding Ltd at ₹1,417 crore.

Total gross revenue from the operations of 248 operating CPSEs

during FY22 was ₹31.95 trillion as against ₹24.08 trillion in FY21, showing an increase of 32.65%. The top five CPSEs having the highest revenue during FY22 were Indian Oil Corporation Ltd, Bharat Petroleum Corporation Ltd, Hindustan Petroleum Corporation Ltd, Food Corporation of India and NTPC Ltd.





# ONGC, Indian Oil, Power Grid top profit making PSUs in FY22

#### PRESSTRUSTOFINDIA

NEW DELHI, JANUARY 3

THE NET profit of operating public sector enterprises jumped 50.87 per cent to Rs 2,49 lakh crore during 2021-22, with ONGC, Indian Oil Corp, Power Grid, NTPC and SAIL emerging as the top five performers, according to a government survey.

The net profit of operating central public sector enterprises (CPSEs) stood at Rs 1.65 lakh crore in the previous fiscal.

The Public Enterprises Survey 2021-22 also revealed that the net loss of loss-making CPSEs narrowed to Rs 0.15 lakh crore in FY 2021-22 from Rs 0.23 lakh crore

in FY 2020-21, showing a decrease of 37.82 per cent.

Major loss-making CPSEs include Bharat Sanchar Nigam Ltd (BSNL), Mahanagar Telecom Nigam Ltd (MTNL), Air India Assets Holding Ltd, Eastern Coalfields Ltd and Alliance Air Aviation Ltd.

"Total gross revenue from the operations of operating CPSEs during FY 2021-22 was Rs 31.95 lakh crore as against Rs 24.08 lakh crore in FY 2020-21, showing an increase of 32.65 percent," it said.

Dividend declared by operating CPSEs in FY 2021-22 stood at Rs 1.15 lakh crore, as against Rs 0.73 lakh crore in FY21, up 57.58 per cent.

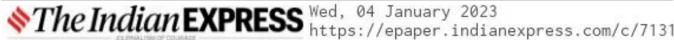
The survey attributed the rev-

enue rise in FY 2021-22 to better performance by the petroleum (refinery and marketing), crude oil and transport, and logistics seg-

Among the sectors, manufacturing, processing and generation sector continues to command the highest share, followed by services, and mining and exploration.

Three cognate groups -- petroleum (refinery and marketing), trading and marketing, and power generation -- together contributed 69.08 per cent to the gross revenues in FY 2021-22.

The net profit of profit-making CPSEs stood at Rs 2.64 lakh crorein FY 2021-22 against Rs 1.89 lakh crore in the previous fiscal, up 39.85 per cent.







# Trains on hydrogen fuel cells by end of year: Govt

#### Neha LM Tripathi

neha.tripathi@htlive.com

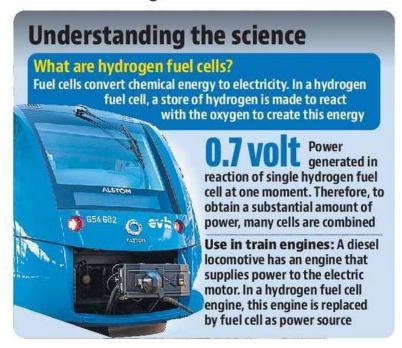
**NEW DELHI:** India will roll out trains running on hydrogen fuel cells on some of its tourist services by the end of the year, Union railways minister Ashwini Vaishnaw said on Tuesday, announcing the names of eight heritage route services that "will go green".

Hydrogen fuel cells are increasingly being tried as a clean energy technology in the transportation sector, with several countries having already begun running light capacity services that leave no emission apart from water.

"The first train under 'Hydrogen for Heritage' will commence operations from December 2023, implying that trains in the heritage routes will go green," Vaishnaw said, adding that the locomotives will still retain the look of a steam engine to stick to its heritage ethos.

The routes on which these trains will be rolled out are Kal-ka-Shimla, Matheran Hill, Darjeeling Himalayan, Kangra valley, Bilmora-Waghai, Mhow-Patalpani, Nilgiri Mountain and Marwar-Devgarh Madriya. Currently, trains on these routes largely run on diesel.

Under the appearance, the new will be a completely different technology. Each of the coaches in the trains, which run on narrow gauges and are meant for leisure instead of transportation, will be powered by their



own hydrogen cell motor, the minister explained.

Vaishnaw said each of the trains will have four coaches.

A prototype of these trains is being made at the Northern Railways' workshop, and trial runs will be conducted in Sonipat section in Haryana. Officials did not say by when they expect the trials to complete.

An official, who spoke on condition of anonymity, said finessing such clean technology is routinely challenging because some 500kw of power will be needed for these light trains, and hydrogen fuel cells typically produce very low amounts.

"To begin with, we will be operating one such train on all heritage routes and will gradually add more," a railways official said, asking not to be named. He clarified that these trains will only operate on narrow gauge (narrower than the standard 1,435-mm tracks) as most of the rail network is electrified.

Prime Minister Narendra Modi, had, on August 15, 2021, announced the launch of a National Hydrogen Mission to accelerate plans to generate the carbon-free fuel from renewables and had set a target of 2047 for India to achieve self-reliance in energy.

The transport sector is one of the largest sources of emissions of greenhouse gases, and efforts are underway globally to include clean fuels such as hydrogen fuel cells.



# Oil slips 1% after IMF warning on growth

Staff Writer feedback@livemint.com NEW DELHI

lobal crude oil prices fell nearly 1% on Tuesday after the managing director of the International Monetary Fund (IMF), Kristalina Georgieva, said that the outlook for global economy is grim for 2023.

Around 7.25 pm, the March contract of Brent on the Intercontinental Exchange was trading at \$85.01 per barrel, lower by 1.05% from its previous close. The February contract of West Texas Intermediate (WTI) on the NYMEX fell below the \$80 per barrel mark and was trading 1.08% lower at \$79.39 per barrel.

The IMF MD on Sunday said that 2023 will be tougher than 2022 for the global economy as major economies the US, Europe, and China would be witnessing an economic slow-down. "For the first time in 40 years, China's growth in 2022 is likely to be at or below global growth," Georgieva was quoted by media reports.

"For the next couple of months, it would be tough for China, and the impact on Chinese growth would be negative, the impact on the region will be negative, the impact on global growth will be negative," she added.

The concerns of global slowdown have raised fears of a muted demand for oil. The US and China are the top two importers of crude oil.

"Both WTI and Brent crude traded lower as IMF warning



March contract of Brent was trading at \$85.01/barrel MINT

of slowing economic growth in major global economies in 2023 weighed on demand outlook," said a report by Kotak Securities. Further, slowing manufacturing data from China has accentuated the demand fears. Chinese manufacturing activity witnessed a contraction for a fifth straight month in December, amid rising covid-19 cases in the country. The Caixin Manufacturing Purchasing Managers Index (PMI) stood at 49.0 in December, weaker than last month's reading of 49.4. A reading below 50 indicates contraction. China's manufacturing sector is a major indicator for the economic condition of the country, as it is related to the country's massive exports. Production slowed substantially in 2022 amid strict zero covid policy and the surge in covid cases later in the year.

Going ahead, investors would wait for minutes of the US Federal Reserve's December policy meet. The minutes are scheduled to be released on 4 January.



# Volatile taxation

The government has increased its windfall tax on crude oil and aviation turbine fuel (ATF) and also its export tax on diesel. With Russian oil reportedly being purchased well below the \$60 per barrel cap set by the West's sanctions regime, even as global market prices rule much higher, producers would be making exceptional profits. Given its heavy spending needs, the Centre was understandably tempted to take some of it to keep its fiscal deficit in better control. Many other countries have also levied such a tax. But hydrocarbon markets are volatile, and the frequency of windfall tax shifts has been disconcerting. It has not even been a month since India's windfall levies were slashed as world prices softened. The trouble with a tax-driven by conditions of volatility is that it's in perpetual need of adjustment. This keeps businesses on edge, their calculations hostage to ever-shifting liabilities. This is a major put-off for investors. Tax stability has its value. Taxation regimes that vary their burdens too often are taken as signallers of high policy risk. One-off taxes found legitimacy under the rare circumstances of covid followed by a commodity surge. But they must be wielded with care.



# Raise resources to produce, import fuels



SUSHMA RAMACHANDRAN SENIOR FINANCIAL JOURNALIST

HE New Year is upon us but it looks like past redux. A war that was predicted to be over within a few weeks has dragged on for nearly an entire year. China continues to be a troubled spot on the planet, moving from the disastrous zero-Covid policy to an even more disastrous relaxation of movement curbs. For India, the continuing adverse geopolitical environment has brought mounting challenges. The biggest right now is energy security. Not only are oil prices volatile, natural gas prices have shot up. Seasonal shortages in the availability of the most critical fuel used both by industry and for power production coal - have also become endemic.

This is even as international pressure is growing to eliminate it in global environmental conferences like COP 27. Calls to phase it out have been criticised by emerging economies like India and China while developed countries are frowning on the resistance to such pleas. As for renewable energy, progress is undoubtedly being made but not fast enough to resolve the immediate crises.

There has been much western criticism of India's reliance on coal for 72 per cent of its electricity requirements even though changes in the energy

mix are not an easy option for the emerging economies.

But coal availability is now turning into a problem. With most of the country's power plants dependent on coal supplies, it is essential to ensure that the logistics of transport from pitheads to power plants are seamless. Quite the reverse has been happening in recent times as battles between the railways, coal producers and power companies over mismatch in demand and availability are recurring. This happened again last year when extreme summer heat caused the demand to rise beyond expectations and domestic coal supplies fell short of the requirements. The only solution possible has been to raise coal imports while ramping up domestic coal output by the state-owned Coal India.

The higher demand for coal comes at a time when there had been a move towards reducing dependence on this fossil fuel. The power ministry had even directed states last year to cut down generation at 81 coal-based power utilities as a precursor to moving towards green energy.

At the same time, western nations began facing shortages of natural gas supplies from Russia. It is ironic that the same countries which have been demanding that India and China cut down on coal use are now reverting to the same fossil fuel owing to gas shortfalls. The consequent hike in global demand has meant that prices soared to record levels in 2022, making India's coal purchases more expensive.

On the oil front, India was blindsided in February last year when the prices reached stratospheric levels after the war began in Ukraine. These moderat-



Policymakers in India are in a bind over the growing oil import bill which is putting pressure on the current account deficit. It has risen to an all-time high of 4.4 per cent of the GDP in the second quarter of the current fiscal. Natural gas prices are also rising rapidly owing to the higher demand from the European countries.

WAR EFFECT: The countries asking India to cut down on coal use are now reverting to this fossil fuel. PTI

ed the rest of the year but the economy has had to grapple with prices ranging far higher than ever in the recent past. Oil markets are likely to remain volatile in the coming year, given the interplay of pressures on oil producers and consumers. This has prompted investment agencies to predict a return to \$100 per barrel in 2023 despite oil prices having softened to a range of \$80 to \$90 in the past two months.

The biggest role in this context will be played by OPEC plus countries which have already cut production quotas by two million barrels per day from last November in a bid to push up the prices. As for the western nations' efforts to impose a cap on Russian crude prices, it is not likely to be a success. One big reason is that Russia has threatened to stop supplying to countries involved in this plan, thus removing its oil from the market and pushing up the prices.

The only loser in this battle will be the emerging economies like India. Already, policymakers here are in a bind over the growing oil import bill which is putting pressure on the current account deficit. There is cause for concern as it has risen to an all-time high of 4.4 per cent of the GDP in the second quarter (July to September) of the current fiscal.

Natural gas prices are also rising rapidly owing to the higher demand from the European countries. With the reduction in Russian supplies from the two Nordstream pipelines, inventories are being filled by raising purchases of liquefied natural gas (LNG) from countries like the US. Though gas currently accounts for only about 7 per cent of India's energy mix, the aim has been to double this to 15 per cent by 2030. LNG prices have shot up by nearly 50

per cent since the Ukraine war began so this target may be a far cry.

High prices are thus one of the biggest short-term problems for the energy sector. In the long term, however, renewable energy sources are expanding rapidly. Solar energy, for instance, accounts for about 7 per cent of the country's power generation, with 60 GW of installed capacity. An ambitious target has been set of ensuring that half of the country's electricity generation comes from renewable sources by 2030. This would mean that the installed capacity for solar power would need to rise to 370 GW, which is indeed a tall order.

Other renewables, including wind power, geothermal power and green hydrogen, also have tremendous potential. A national mission has been launched for the last one but technology is opening the doors to unconventional areas like tidal energy and offshore wind power. Electric batteries to power vehicles are also gaining ground in the marketplace.

But these are all in the future. For the short run, India has to focus on the conventional sources that make up the current energy matrix. Coal is clearly not the best option for the long run, given its potential to damage the environment. Yet, it will take time to shift to other fuels for power generation and even developed economies have had no compunction in using it as a fallback in the present era of energy shortages. Oil and gas may also be destined for a phase-out in the foreseeable future.

Right now, however, the country has no option but to find the resources to produce and import enough of these fossil fuels to keep the wheels of the economy running as fast as possible.



## EAM defends Russian crude import, takes jibe at Europe

New Delhi: Europe imported six times the fossil fuel energy from Russia than what India has done since February 2022, when Russia launched its military operation in Ukraine, foreign minister S Jaishankar said as he again defended India's decision to ramp up crude imports from Russia.

In an interview to an Austrian broadcaster, Jaishankar attacked Europe for complaining about India's rising energy imports from Russia as he said if the European political leadership wanted to soften the impact of the conflict on their population, they should extend the same privilege to other political leaderships as well.

"Europe has managed to reduce its imports while doing it in a manner that is comfortable. If at a (per capita income) of 60,000 euros, you are so caring about your population, I have a population at \$2,000. I also need energy, and I am not in a position to pay high prices for oil," he said.

Jaishankar also pointed out that Europe has imported six times the energy from Russia than India has done since February 2022.

"Essentially, if it was a matter of principle, why didn't Europe cut off energy from Moscow on February 25," he asked, responding to a question.

On the Russia-Ukraine conflict, Jaishankar reiterated India's position, saying it was on the side of peace and New Delhi's efforts have been to return to dialogue and diplomacy as differences cannot be settled through violence. "The countries concerned should resolve their issues through the path of peace and diplomacy," he explained. TNN



# 1st hydrogen trains on heritage routes by Dec

New Delhi: The railways will roll out the first hydrogen-powered train on its narrow gauge heritage routes by December 2023 as a part of its "green train" initiative, said railway minister Ashwini Vaishnaw on Tuesday.

Railways has eight heritage routes, which primarily run on diesel: Darjeeling Himalayan Railway, Nilgiri Mountain Railway, Kalka Shimla Railway, Matheran Hill Railway, Kangra Valley, Bilmora Waghai and Marwar-Devgarh Madriya. All are narrow gauge. TNN



# ONGC's iconic rig starts new life

TIMES NEWS NETWORK

New Delhi: Old, it seems, is gold for ONGC. The staterun explorer has put into operation its first mobile offshore production unit (MOPU) built by converting 'Sagar Samrat', the iconic 1973 jack-up rig that helped discover the Mumbai High field in 1974 and was well past its use-by date.

Sagar Samrat was given its new avatar at a cost of Rs 1,800 crore. It started production from the WO-16 cluster of marginal offshore fields, 130 kms from the Mumbai coast, on December 29 and will add 6,000 barrels of oil to the company's output from current location, the company said on Tuesday.

#### MAKEOVER OF ₹1,800CR

"Sagar Samrat MOPU will handle up to 20,000 barrels per day of crude, with a maximum export gas capacity of 2.4 million cubic metres per day," it said.

This is a unique initiative and one of the most complex

projects for ONGC. In its earlier avatar, Sagar Samrat had been involved in 14 key offshore discoveries and drilling of 125 wells.

The conversion was awarded to a consortium of Mercator Oil & Gas Ltd, Mercator Offshore (P) Ltd and Gulf Piping Company on November 17, 2011.

Though the conversion was undertaken with the WO-16 cluster in mind, the company said the converted rig will be shifted to other locations for monetisation of other discoveries.



#### बीते वित्त वर्ष में ओएनजीसी, इंडियन ऑयल सबसे ज्यादा मुनाफा कमाने वाले सार्वजनिक उपक्रम

नई दिल्ली, भाषा। सार्वजिनक क्षेत्र के उपक्रमों (पीएसयू) का शुद्ध परिचालन लाभ वित्त वर्ष 2021-22 के दौरान 50.87 प्रतिशत बढ़कर 2.49 लाख करोड़ रुपये हो गया। इस दौरान ओएनजीसी, इंडियन ऑयल, पावरिपड़, एनटीपीसी और सेल का प्रदर्शन काफी अच्छा रहा। केंद्र सरकार की तरफ से जारी सार्वजिनक उद्यम सर्वेक्षण 2021-22 में केंद्रीय पीएसयू के प्रदर्शन के आकलन से यह जानकारी सामने आई है। वित्त वर्ष 2020-21 में इन सार्वजिनक उपक्रमों का शुद्ध परिचालन लाभ 1.65 लाख करोड़ रुपये रहा था। सर्वेक्षण से यह भी पता चलता है कि पिछले वित्त वर्ष में केंद्रीय सार्वजिनक उपक्रमों का शुद्ध घाटा कम होकर 15,000 करोड़ रुपये पर आ गया जो वर्ष 2020-21 में 23,000 करोड़ रुपये रहा था। इस तरह केंद्रीय उपक्रमों के शुद्ध घाटे में 37.82 प्रतिशत की भारी गिरावट दर्ज की गई। ज्यादा घाटे में रहने वाली कंपनियों में भारत संचार निगम लिमिटेड (बीएसएनएल), महानगर टेलीफोन निगम लिमिटेड (एमटीएनएल), एयर इंडिया एसेट्स होल्डिंग लिमिटेड, इंस्टर्न कोलफील्ड्स लिमिटेड और अलायंस एयर एविएशन लिमिटेड शामिल हैं। वहीं ओएनजीसी, इंडियन ऑयल लिमिटेड (आईओसी), पावरिप्रड, एनटीपीसी और स्टील अथॉरिटी ऑफ इंडिया लिमिटेड (सेल) वित्त वर्ष 2021-22 में सर्वाधिक लाभ कमाने वाले केंद्रीय उपक्रमों में शामिल रहे।





अर्थात् अंशुमान तिवारी मनी-९ के एडिटर anshuman.tiwari@tv9.com

2022 में कोयले का आयात बंद करने का लक्ष्य था। लेकिन सब उलट गया। तेल के लिए तो मोहताज थे, कोयला-गैस की आपूर्ति भी टूट गई।

# भारत की ऊर्जा सुरक्षा के लिए अब और कौन-सी नसीहत चाहिए?

नहीं मरता। अतीत तो नसीहतों का ऐसा कांटा है, जो वक्त के पांव में चुभकर टूट जाता है। उसके बाद वर्तमान लम्बे समय तक लंगड़ाता है। 2022 ने भारतीय अर्थव्यवस्था के पैर में नसीहत की ऐसी कील चुभा दी है, जिसका इलाज किए बगैर दौड़ना तो क्या चलना भी मुश्किल होगा। 2022 भारत की ऊर्जा-सुरक्षा के लिए सबसे निराशाजनक साल था। पता नहीं कितनी नसीहतें ली गईं. मगर हकीकत बडी जालिम है। 2015 में सरकार ने दावा किया था कि आयातित कच्चे तेल पर निर्भरता को 2022 में 10% घटा दिया जाएगा। 2022 ही वह साल था जब बिजली के लिए कोयले के आयात को बंद करने का लक्ष्य रखा गया था, लेकिन सब उलट-पुलट गया। तेल के लिए तो आयात के मोहताज थे ही, कोयला, गैस की आपूर्ति भी टूट गई। यह सब उस साल हुआ जब विदेशों मुद्रा भंडार में तेज गिरावट दर्ज की गई। नतीजतन रुपया तलहटी से जा लगा। अगर आप भारत के ऊर्जा संकट का ठीकरा रूस-यूक्रेन युद्ध पर फोड़ना चाहते हैं तो जरा ठहरिए। सच कुछ और ही है शायद। तेल में यह क्या हुआ : अप्रैल से सितम्बर 2022 के बीच भारत में कच्चे तेल के आयात का बिल 90 अरब डॉलर पर पहुंच गया। मार्च 2022 तक भारत का तेल आयात 2021 के मुकाबले दोगुना बढ़कर 119 अरब डॉलर हो गया था। 2015 में सरकार ने लक्ष्य रखा था कि 2022 तक तेल आयात पर निर्भरता ८७% से घटाकर ७७% और 2030 तक 50% कर दी जाएगी। लेकिन 2015 से ही निर्भरता बढ़ने लगी। सरकारी आंकड़ों के अनुसार जून 2022 में भारत अपनी जरूरत का 87% तेल आयात करने लगा। वह भी ऊंची कीमतों पर।

तेल का खलनायक युद्ध नहीं देश के भीतर है। कच्चे तेल का घरेल उत्पादन वित्त

वर्ष 2022 में 28 साल के न्यनतम स्तर पर आ गया। बुनियादी उद्योगों के एक सुचकांक के आधार पर बीते चार बरस से भारत का कच्चा तेल उत्पादन लगातार गिर रहा है। सरकारी कंपनियों यानी ओएनजीसी और ऑइल इंडिया घरेलू उत्पादन का दारोमदार है। ओएनजीसी का तेल उत्पादन बीते चार साल में 10 से 16% गिरा है। नए रिजर्व जोड़ने की रफ्तार 35% टूटी है। देश की शीर्ष तेल कंपनी आवंटित पंजी खर्च का इस्तेमाल भी नहीं कर पा रही है। निजी क्षेत्र के कच्चे तेल उत्पादन में भी गिरावट आ रही है। तेल कुएं सुख रहे हैं। तेल की खोज में नया निवेश नहीं हुआ है। जितने भंडार थे, निचोड़े जा चुके हैं। बीते वर्षों में आई तेल खोज नीति यानी एनईएलपी और एचईएलपी असफलता का बड़ा स्मारक बन चुकी हैं। 1999 से 2018 के बीच तमाम कोशिशों के बावजूद कोई बड़ी विदेशी तेल कम्पनी नहीं आई। जिन कम्पनियों ने लाइसेंस लिए भी, वे तेल ब्लॉक लौटाकर निकल गईं। इंटरनेशनल एनर्जी एजेंसी के अनुसार 2040 तक भारत में क्रूड ऑइल की मांग 7 मिलियन बैरल प्रतिदिन के हिसाब से बढ़ेगी अर्थात महंगे तेल का और ज्यादा आयात!

कोयले की ट्रेजेडी: कोयले की त्रासदी, क्रूड ऑइल से बिल्कुल फर्क है। भारत ने 2022 की पहली छमाही में 131 मिलियन टन कोयले का रिकार्ड आयात किया, इस पर 28 अरब डॉलर खर्च हुए। भारत दुनिया का दूसरा सबसे कोयला खनन वाला देश है। पांचवां सबसे बड़ा कोयला भंडार है। भारत की 90% बिजली थर्मल यानी कोयला आधारित है। इसके बावजूद इस साल कोयले का आयात करीब 40% बढ़ा है, वह भी हाल के वर्षों में कोयले की सबसे महंगी कीमत पर। 2021 अक्टूबर में सरकार ने दावा किया था कि देश में भरपूर उत्पादन है, 2022 से थर्मल कोल का आयात बंद हो

1970 में अमेरिका की ऊर्जा नीति बदल गई थी, 2022 में यूरोप की। अरब देशों ने तेल निर्यात बंद कर किया तो अमेरिका ने नए स्रोतों, शेल और गैस में निवेश किया। भारत की ऊर्जा सुरक्षा के लिए अब कौन-सी नसीहत चाहिए?

जाएगा लेकिन 2022 जनवरी के बाद कोयले की कमी से बिजलीघर बंद होने लगे। कोल इंडिया यानी देश की सबसे बड़ी कोयला उत्पादक कंपनी खुद ही इम्पोर्टर हो गई। भारत की मांग का 80% कोयला निकालने वाली कोल इंडिया नई खदानें नहीं जोड़ पा रही है। बीते पांच बरस में कोयला खदानों के निजीकरण की कोशिश भी सफल नहीं हुई। कोयला कम नहीं है मगर बिजलीघरों तक पहुंच नहीं पाता। कोल इंडिया को अगले एक साल कोयला ढुलाई की क्षमताओं में करीब 14000 करोड़ रुपए का निवेश करना होगा **गैस तो है ही नहीं** : नेचरल गैस कीमतों को आग लग गई। 2021 में गैस 70% और 2022 में 40% महंगी हुई। कई जगह सीएनजी की कीमत डीजल के बराबर हो गई। इतनी महंगी गैस कभी नहीं थी। लक्ष्य तो यह था कि ऊर्जा आपर्ति में गैस का हिस्सा आज के 6.4% से बढ़ाकर 2030 तक 15% किया जाएगा, लेकिन बीते एक दशक में भारत में नेचरल गैस का उत्पादन बढने के बजाय गिरता गया। 2013 में यह ३९ एमएमएससीएम था, जो अब ३३ एमएमएससीएम है जबिक मांग बढ़कर 63 पर पहुंच गई। ओनएनजीसी ही मांग का करीब 61% उत्पादन करती है।

(ये लेखक के अपने विचार हैं।)



# बीते वित्त वर्ष में ओएनजीसी, इंडियन ऑयल सबसे ज्यादा मुनाफा कमाने वाले सार्वजनिक उपक्रम

नई दिल्ली, (भाषा)। सार्वजनिक क्षेत्र के उपक्रमों (पीएसयू) का शुद्ध परिचालन लाभ वित्त वर्ष 2021-22 के दौरान 50.87 प्रतिशत बढ़कर 2.49 लाख करोड़ रुपये हो गया। इस दौरान ओएनजीसी, इंडियन ऑयल, पावरग्रिड, एनटीपीसी और सेल का प्रदर्शन काफी अच्छा रहा। केंद्र सरकार की तरफ से जारी सार्वजनिक उद्यम सर्वेक्षण 2021-22 में केंद्रीय पीएसयू के प्रदर्शन के आकलन से यह जानकारी सामने आई है। वित्त वर्ष 2020-21 में इन सार्वजनिक उपक्रमों का शुद्ध परिचालन लाभ 1.65 लाख करोड़ रुपये रहा था। सर्वेक्षण से यह भी पता

चलता है कि पिछले वित्त वर्ष में केंद्रीय सार्वजिनक उपक्रमों का शुद्ध घाटा कम होकर 15,000 करोड़ रूपये पर आ गया जो वर्ष 2020-21 में 23,000 करोड़ रूपये रहा था। इस तरह केंद्रीय उपक्रमों के शुद्ध घाटे में 37.82 प्रतिशत की भारी गिरावट दर्ज की गई। ज्यादा घाटे में रहने वाली कंपनियों में भारत संचार निगम लिमिटेड (बीएसएनएल), महानगर टेलीफोन निगम लिमिटेड (एमटीएनएल), एयर इंडिया एसेट्स होल्डिंग लिमिटेड, ईस्टर्न कोलफील्ड्स लिमिटेड शामिल हैं।



### एनटीपीसी ने हरित हाइड्रोजन सम्मिश्रण परियोजना शुरू की

नई दिल्ली (वि)। एनटीपीसी लिमिटेड ने भारत की पहली हरित हाइड्रोजन सिम्मश्रण परियोजना (ग्रीन हाइड्रोजन ब्लेंडिंग प्रोजेक्ट) शुरू की है। परियोजना को सूरत के एनटीपीसी कवास टाउनिशप के पाइण्ड नेचुरल गैस (पीएनजी) नेटवर्क में एनटीपीसी और गुजरात गैस लिमिटेड (जीजीएल) के संयुक्त तत्वावधान में चालू किया गया है। कवास परियोजना के प्रमुख पी राम प्रसाद और जीजीएल के अन्य विरष्ठ अधिकारियों की उपस्थिति में इसे गितमान किया गया था। ब्लेंडिंग आपरेशन के बाद टाउनिशप में जागरूकता कार्यशाला का आयोजन किया गया।



## सरकार ने घरेलू कच्चे तेल, डीजल, एटीएफ के निर्यात पर अप्रत्याशित लाभ कर बढ़ाया



वैभव न्यूज 🖩 नई दिल्ली

सरकार ने वैश्विक स्तर पर कच्चे तेल की कीमतों में तेजी के बीच घरेल स्तर पर उत्पादित कच्चे तेल के साथ-साथ डीजल और विमान ईंधन (एटीएफ) के निर्यात पर लगाए जाने वाले अप्रत्याशित लाभ कर में बढ़ोतरी की है। सरकार की ओर से दो जनवरी को जारी आदेश में कहा गया है कि ऑयल एंड नैचुरल गैस कॉरपोरेशन (ओएनजीसी) जैसी कंपनियों द्वारा उत्पादित कच्चे तेल पर अप्रत्याशित लाभ कर को।,700 रुपए प्रति टन से बढ़ाकर 2,100 रुपए प्रति टन कर दिया गया है। कच्चे तेल को परिष्कृत कर पेट्रोल, डीजल और एटीएफ जैसे

ईंधन में बदला जाता है। सरकार ने डीजल के निर्यात पर भी कर पांच उन कुछ देशों में शामिल हो गया था रुपए प्रति लीटर से बढाकर 6.5 रुपए प्रति लीटर कर दिया है। इसी तरह एटीएफ के निर्यात पर इसे 1.5 रूपए प्रति लीटर को बढ़ाकर 4.5 रुपए प्रति लीटर किया गया है।

कर की नई दरें तीन जनवरी से प्रभावी हैं। इससे पहले, 16 दिसंबर को गया था। घरेलु कच्चे तेल के उत्पादन पिछली समीक्षा में, वैश्विक स्तर पर पर 23,250 रुपए प्रति टन (40 कच्चे तेल की कीमतों में गिरावट आने डॉलर प्रति बैरल) का अप्रत्याशित के मद्देनजर कर की दरों में कटौती लाभ कर लगाया गया था। पेट्रोल पर की गई थी। लेकिन इसके बाद से निर्यात कर को समाप्त कर दिया गया अंतरराष्ट्रीय स्तर पर तेल के दामों में तेजी आई है जिसके चलते संस्कार की औसत कीमत के आधार पर कर को कर बढ़ाना पड़ा। भारत ने पहली बार एक जुलाई को अप्रत्याशित लाभ

कर लगाया था। इसके साथ ही यह जो ऊर्जा कंपनियों के अत्यधिक लाभ पर कर वसूलते हैं। उस समय पेट्रोल और एटीएफ पर छह रूपए प्रति लीटर (12 डॉलर प्रति बैरल) और डीजल पर 13 रूपए प्रति लीटर (26 डॉलर प्रति बैरल) का निर्यात शुल्क लगाया है। कच्चे तेल की पिछले दो सप्ताह दरों की प्रत्एक पखवाड़े समीक्षा की जाती है।



## ONGC, IOCL सबसे ज्यादा मुनाफा कमाने वाले PSU में

■ पीटीआई, नई दिल्लीः पब्लिक सेक्टर की कंपनियों (PSU) का नेट ऑपरेटिंग प्रॉफिट वित्त वर्ष 2021-22 के दौरान 50.87% बढ़कर 2.49 लाख करोड़ रुपये हो गया। इस दौरान ONGC, इंडियन ऑयल (IOCL), पावरग्रिड, NTPC और सेल का प्रदर्शन काफी अच्छा रहा। सरकार की तरफ से जारी पब्लिक एंटरपाइजेज सर्वे 2021-22 में PSU के प्रदर्शन के आकलन से यह जानकारी सामने आई है। वित्त वर्ष 2020-21 में इनका नेट ऑपरेटिंग प्रॉफिट 1.65 लाख करोड़ रहा था।



## केंद्र सरकार की तरफ से सार्वजनिक उद्यम सर्वेक्षण रिपोर्ट जारी

# नजीसी, इंडियन ऑयल सबसे ज्यादा कमाने वाले सार्वजनिक उपक्र

हरिमूमि न्यूज 🕪 नई दिल्ली

सार्वजनिक क्षेत्र के उपक्रमों (पीएसयू) का शुद्ध परिचालन लाभ वित्त वर्ष 2021-22 के दौरान 50.87 प्रतिशत बढ़कर 2.49 लाख करोड़ रुपये हो गया। इस दौरान ओएनजीसी, इंडियन

चालू वित्त वर्ष में परिचालन लाभ 51 फीसदी बढा

ऑ य ल, पावरग्रिड. एनटीपीसी और सेल का प्रदर्शन काफी अच्छा रहा। कें द्र सरकार की तरफ से जारी

सार्वजनिक उद्यम सर्वेक्षण 2021-22 में केंद्रीय पीएसयू के प्रदर्शन के आकलन से यह जानकारी सामने आई है। वित्त वर्ष 2020-21 में इन सार्वजनिक उपक्रमों का शृद्ध परिचालन लाभ 1.65 लाख करोड़ रुपये शुद्ध परिचालन लाभ बढ़कर हुआ २.४९ लाख करोड़

#### शुद्ध घाटे में 38 फीसदी की गिरावट

सर्वेक्षण से यह भी पता चलता है कि पिछले वित वर्ष में केंद्रीय सार्वजनिक उपक्रमों का शब्द घाटा कम होकर 15,000 करोड़ रुपये पर आ गया जो वर्ष 2020-21 में 23,000 करोड़ रुपये रहा था। इस तरह केंद्रीय उपक्रमों के शुद्ध घाटे में 37.82 प्रतिशत की भारी गिरावट दर्ज की गई।



#### लामांश के तौर पर मिले १.१५ लाख करोड

इस तरह परिचालन राजस्व में 32.65 प्रतिशत की भारी बढ़ोतरी दर्ज की गई। इन उपक्रमों ने वर्ष 2021-22 में लामांश के तौर पर कुल 1.15 लाख करोड़ रुपये दिए, जो उसके एक साल पहले के 73,000 करोड़ रुपये की तुलना में 57.58 प्रतिशत अधिक है।

ये रहे सर्वाधिक लाभ कमाने वाले उपक्रम

वहीं ओएनजीसी, इंडियन ऑयल लिमिटेड (आईओसी), पावरविड, एनटीपीसी और स्टील अथॉरिटी ऑफ इंडिया लिमिटेड (सेल) वित्त वर्ष 2021-22 में सर्वाधिक लाभ कमाने वाले केंद्रीय उपक्रमों में शामिल रहे। सर्वेक्षण के मुताबिक, पिछले वित्त वर्ष में केंद्रीय उपक्रमों का कुल सकल परिचालन राजस्व ३१.९५ लाख करोड़ रुपये रहा जो उसके एक साल पहले 24.08 लाख करोड़ रुपये रहा था।

#### केंद्र को मिला अंशदान बढकर ५.०७ लाख करोड

इस दौरान सभी उपक्रमों की तरफ से केंद्र सरकार को किया गया कुल अंशदान मामूली रूप से बदकर 5.07 लाख करोड़ रुपये हो गया जो एक साल पहले 4.97 लाख करोड़ रूपये था। वहीं केंद्र सरकार को सर्वाधिक अंशदान देने के मामले में आईओ, भी बीपीसीएल एचपीसीएल भारत ओमान रिफाइनरीज लिमिटेड और चेळाई पेट्रोलियम कॉरपोरेशन लिमिटेड शीर्ष पांच उपक्रमों में शामिल रहीं।

कंपनियों में भारत संचार निगम

महानगर टेलीफोन निगम

एयर इंडिया एसेट्स होल्डिंग

कोलफोल्इस लिमिटेड और

अलायंस एयर एविएशन

लिमिटेड शामिल हैं।

#### राजस्व में उछाल के पीछे पेटोलियम रिफाइनरी का योगदान

सर्वेक्षण में कहा गया है कि वित्त वर्ष 2021-22 में केंद्रीय उपक्रमों के राजस्व में आए उछाल के पीछे पेट्रोलियम रिफाइनरी एवं विपणन कत्ता तेल और परिवहन एवं लॉजिस्टिक क्षेत्रों के बेहतर प्रदर्शन का योगदान रहा है। लाभ में चलने वाली सार्वजनिक कंपनियों का शुद्ध लाभ ३९.८५ प्रतिशत बढकर २.६४ लाख करोड़ रुपये हो गया जबकि वर्ष 2020-21 में यह १.८९ लाख करोड़ रुपये था।



# क्रूड आयल, एटीएफ और डीजल के निर्यात पर अप्रत्याशित लाभ कर बढ़ा

#### नई दिल्ली (भाषा)।

सरकार ने वैश्विक स्तर पर कच्चे तेल की कीमतों में तेजी के बीच घरेलू स्तर पर उत्पादित कच्चे तेल के साथ-साथ डीजल और विमान ईंघन (एटीएफ) के निर्यात पर लगाए जाने वाले अप्रत्याशित लाभ कर में बढोतरी की है।

सरकार की ओर से दो जनवरी को जारी आदेश में कहा गया है कि आयल एंड नैचुरल गैस कारपोरेशन (ओएनजीसी) जैसी कंपनियों द्वारा उत्पादित कच्चे तेल पर अप्रत्याशित लाभ कर को 1,700 रुपए प्रति टन से बढ़ाकर 2,100 रुपए प्रति टन कर दिया गया है। कच्चे तेल को परिच्कृत कर पेट्रोल, डीजल और एटीएफ जैसे ईंधन में बदला जाता है। सरकार ने डीजल के निर्यात पर भी कर पांच रुपए प्रति लीटर से बढ़ाकर 6.5 रुपए प्रति लीटर कर दिया है। इसी तरह एटीएफ के निर्यात पर इसे 1.5 रुपए प्रति लीटर को बढ़ाकर 4.5 रुपए प्रति लीटर किया गया है।

कर की नई दरें तीन जनवरी से प्रभावी है। इससे पहले, 16 दिसम्बर को फिछली ■ कच्चे तेल पर
अप्रत्याशित लाभ कर
1700 रुपए से
बढ़ाकर 2100 रुपए
प्रति टन किया गया
■ डीजल के निर्यात पर
यह टैक्स पांच रुपए प्रति
लीटर किया गया
■ एटीएफ के निर्यात
पर इसे 1.5 रुपए प्रति
वढ़ाकर 4.5 रुपए प्रति

लीटर किया गया समीक्षा में, वैश्विक स्तर पर कच्चे तेल की कीमतों में गिरावट आने के महेनजर कर की दरों में कटौती की गई थी। लेकिन इसके बाद से अंतरराष्ट्रीय स्तर पर तेल के दामों में तेजी आई है जिसके चलते सरकार को कर बढ़ाना

भारत ने पहली बार एक जुलाई को अप्रत्याशित लाभ कर लगाया था। इसके साथ ही यह उन कछ देशों में शामिल हो गया था जो ऊर्जा कंपनियों के अत्यधिक लाभ पर कर वस्लते हैं। उस समय पेट्रोल और एटीएफ पर छह रुपए प्रति लीटर (12 डालर प्रति बैरल) और डीजल पर 13 रुपए प्रति लीटर (26 डालर प्रति बैरल) का निर्यात शुल्क लगाया गया था। घरेलू कच्चे तेल के उत्पादन पर 23,250 रुपए प्रति टन (40 डालर प्रति बैरल) का अप्रत्याशित लाभ कर लगाया गया था।





## एनटीपीसी ने पीएनजी में ग्रीन हाइड्रोजन का मिश्रण शुरू किया

नई दिल्ली, प्रेट्रः सार्वजिनक क्षेत्र की बिजली निर्माता कंपनी एनटीपीसी ने पीएनजी (पाइण्ड नेचुरल गैस) नेटवर्क में ग्रीन हाइड्रोजन का मिश्रण शुरू कर दिया है। पीएनजी में ग्रीन हाइड्रोजन मिश्रण का यह देश का पहला प्रोजेक्ट है और एनटीपीसी ने सूरत के कवास स्थित टाउनिशप से इसकी शुरूआत की है। यह एनटीपीसी और गुजरात गैस लिमिटेड का संयुक्त उपक्रम है।

पेट्रोलियम एवं प्राकृतिक गैस विनियामक बोर्ड ने शरुआत में पीएनजी में पांच प्रतिशत ग्रीन हाइड्रोजन मिश्रण की अनुमति दी है. जिससे चरणबद्ध तरीके से 20 प्रतिशत तक किया जा सकता है। प्राकृतिक गैस में ग्रीन हाइड्रोजन के मिश्रण से कार्बन उत्सर्जन में कमी आएगी, जबकि इसका शुद्ध ताप बिना मिश्रण के मुकाबले समान बना रहेगा। अभी तक ब्रिटेन, जर्मनी और आस्ट्रेलिया जैसे चुनिंदा देशों में पीएनजी में ग्रीन हाइड्रोजन का मिश्रण किया जा रहा है। इससे भारत को वैश्विक हाइड्रोजन अर्थव्यवस्था का केंद्र बनने में भी मदद मिलेगी।