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## China stops imports of LNG

**CHINA'S PURCHASES OF** US liquefied natural gas plunged to zero in March after a sharp decline in the previous two months, as the trade war between the two biggest economies alters shipping routes.

Overall delivery of US LNG shipments in the first quarter of 2025 fell by 70%, according to Chinese official custom data released on Sunday.

The hiatus is the longest since

the last trade war triggered during US President Trump's first tenure, when China didn't receive cargoes for about 400 days. The geopolitical conflict is once again decoupling the world's largest LNG buyer and seller. Imports of the fuel have been lower than the previous year for five months in a row, with a 24.5% drop in March marking the biggest slump since November 2022. **BLOOMBERG**

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# Natural gas import rises 13% in FY25

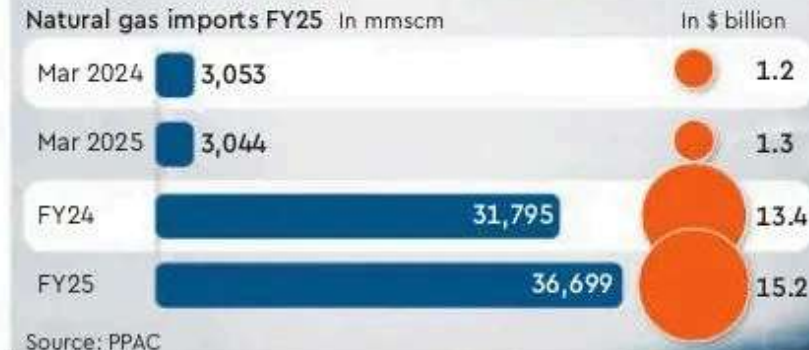
ARUNIMA BHARADWAJ  
New Delhi, April 21

**INDIA'S NATURAL GAS** import bill rose by 13% to \$15.2 billion in FY25, up from \$13.4 billion in FY24, driven by a surge in consumption, according to data from the Petroleum Planning and Analysis Cell (PPAC). In March, the import bill climbed 8.3% year-on-year to \$1.3 billion.

The country imported 36,699 million standard cubic meters (mmscm) of liquefied natural gas (LNG) during FY25, a 15.4% increase over the previous fiscal year.

Natural gas consumption also rose by 7% to 72,293 mmscm, primarily fueled by higher demand from city gas distribution (CGD), fertiliser, and power sectors. This

## INCREASED SHIPMENTS



One of the key agendas of the government has been to boost domestic production of crude oil and natural gas, and thereby reduce the country's dependency for energy. However, the domestic production of crude oil and natural gas has remained stagnant and the country's import dependency has only increased.

In 2022, the sudden outbreak of war between Russia and Ukraine had led to a sharp increase in prices of natural gas in FY23 as a result of which gas lost its cost competitiveness to the alternate fuels. Accordingly, natural gas consumption declined in FY23.

With range-bound prices, analysts expect the consumption to grow in the medium term.

uptick pushed India's reliance on imported gas to 50.8%, up from 47.1% in FY24.

Analysts attributed this growth to a combination of rising demand and stabilised global natural gas

prices, which had previously surged to record highs in FY23.

Despite the rise in imports, domestic production fell slightly by 1% to 36,113 mmscm in FY25. State-run Oil and Natural Gas Cor-

poration (ONGC) contributed 18,795 mmscm—a nearly 3% drop from 19,316 mmscm a year earlier. The production shortfall underscores the growing gap between domestic supply and consumption.





# What's holding back hydrocarbon sector reforms?

Rules are needed for the implementation of new laws and amendments, as well as for their execution



GETTY IMAGES/ISTOCKPHOTO

## CAPITAL IDEAS.



RICHA MISHRA

**O**n April 15, Hardeep Singh Puri, Minister of Petroleum and Natural Gas, said "The Indian hydrocarbon sector is entering a new era of accelerated exploration and development." He said this while addressing the Open Acreage Licensing Policy (OALP) Round-IX and Special Discovered Small Field (DSF) Signing Ceremony.

He highlighted that through investor-friendly reforms, swift approvals, scientific exploration, and a strong emphasis on sustainability, India is steadily building a resilient and future-ready energy eco-system aligned with the vision of Viksit Bharat. Yes, Indian hydrocarbon space has seen shift in policy with changing times, but the results are yet to be seen.

That India has not seen another big discovery is an matter of another debate. There is a consistency in policy reforms, but execution is the pain point.

Puri had also pointed out that India is currently reliant on imports for 88 per cent of its crude oil and 50 per cent of its natural gas needs, and that the urgency for domestic exploration and production has never been greater. The Minister reiterated, "In the next two decades, 25 per cent of the world's incremental energy demand growth will come from India."

Reflecting on the past, he said Indian upstream sector between 2006 and 2016 went through a "dull decade" marred by policy paralysis and procedural delays, leading to the exit of global energy giants like BG, ENI, and Santos. "We were determined to unlock India's untapped

energy potential, estimated at approximately 42 billion tonnes of oil and oil equivalent of gas," he added.

The Minister's confidence stems from the reforms introduced by the government — the amended Oilfields (Regulation and Development) Act, 1948 (ORDA), which came into effect from April 15. Terming it as a "landmark reform", he had said that it modernises India's upstream regulatory framework and aligns it with international best practices.

### SEEKING FEEDBACK

In a move towards inclusive governance and legal clarity, the Minister also launched the draft PNG Rules Public Consultation Portal, encouraging industry and public stakeholders to share feedback. These rules will help shape future Model Revenue Sharing Contracts and streamline sectoral regulations, he had said.

While rules are needed for the implementation of new laws and amendments, rules for their execution must also be clearly defined.

The draft Rules Portal is to facilitate the same for ORDA amendments.

Some of the key elements that were part of the ORDA amendments include — change in mineral oil definition, replacement of mining lease with petroleum lease, further clarity on data sharing, huge financial penalty for, and not imprisonment, for Violation of Act/Rules among others.

The draft rules stipulate the norms that will ensure no hindrance in mineral oil operation. It also clearly defines the terms for petroleum lease and explains in detail how migration issues remain to

**The draft rules talk about conditions under which a lease can be cancelled**

be the bone of contention between two key players Reliance Industries and ONGC. The draft rules also talk about conditions under which a lease can be cancelled and extension of rights under existing contract, lease or license to conduct all mineral oil operations. It also talks about central repository and aggregation of data.

While many nuances have been picked up from the existing production sharing contracts (PSCs), there's nothing much in the draft rules about the role of Directorate General of Hydrocarbons. Does this mean "downsizing" or will everything be centralised under Ministry for Petroleum & Natural Gas, critics question.

Also are the draft rules substituting the contractual framework, as there is too much detailing and takes away the flexibility in administering the contracts? Lastly, these proposals in the draft rules give an opportunity to the government to remove some of the open provisions such as terms of extension in leases on same terms. It still leaves it open for the government to negotiate changes. So is the government moving back to having a traditional framework? Not really, because the draft rules proposals do address some of the existing pain points such as migration and data sharing.

### GOVT INITIATIVES

But policy consistency has been the hallmark. Minister of State in Ministry of Petroleum and Natural Gas Suresh Gopi had informed Rajya Sabha on March 24 about the various steps the government has been taking to boost domestic oil and gas production, which include:

- (i) Policy under PSC regime for early monetization of hydrocarbon discoveries, 2014.
- (ii) Discovered Small Field Policy, 2015.

(iii) Hydrocarbon Exploration and Licensing Policy (HELP), 2016.

(iv) Policy for Extension of PSCs, 2016 and 2017.

(v) Policy for early monetization of Coal Bed Methane, 2017.

(vi) Setting up of National Data Repository, 2017.

(vii) Appraisal of Un-appraised areas in Sedimentary Basins under National Seismic Programme, 2017.

(viii) Policy framework for extension of PSCs for Discovered Fields and Exploration Blocks under Pre-New Exploration Licensing Policy (Pre-NELP), 2016 and 2017.

(ix) Policy to Promote and Incentivize Enhanced Recovery Methods for Oil and Gas, 2018.

(x) Policy Framework for exploration and exploitation of Unconventional Hydrocarbons under Existing Production Sharing Contracts (PSCs), Coal Bed Methane (CBM) Contracts and Nomination Fields, 2018.

(xi) Natural Gas Marketing Reforms, 2020.

(xii) Lower Royalty Rates, Zero Revenue Share (till Windfall Gain) and no drilling commitment in Phase-I in OALP Blocks under Category II and III basins to attract bidders.

(xiii) Release of about 1 million sq. km. (SKM) 'No-Go' area in offshore which were blocked for exploration for decades.

(xiv) Government is also spending about ₹7,500 crore for acquisition of seismic data in onland and offshore areas and drilling of stratigraphic wells to make quality data of Indian Sedimentary Basins available to bidders.

Clearly, consistently policy structure has been refined, but the problem again lies in execution, which is a legacy issue. The challenge for Puri and his team will be to ensure smooth implementation of the reforms.



# Core sector output grows 3.8% in March, highest in two months

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**T**he output of eight core infrastructure sectors, which account for two-fifths of India's industrial output, expanded by 3.8% annually in March—the highest in the last two months. A year ago, in March 2024, core sector output expanded by 6.3%.

However, only three of the eight core industries—electricity, cement and steel—reported a monthly rise in production during March, according to the provisional data released by the ministry of commerce and industry on Monday.

India's industrial production slowed to a six-month low of 2.9% in February 2025, driven by weak manufacturing and mining output, according to the estimates released by the ministry of statistics and programme implementation earlier this month.

The previous low, recorded in August 2024, was zero.

Cement, steel and electricity output boosted the core sector output in March. Cement and

## Output growth

Cement, steel and electricity boosted the core sector output in March. Year-on-year growth in output in eight core industries (in %)



\*provisional, #revised; The eight core sectors are: Coal, crude oil, natural gas, refinery products, fertilizers, steel, cement, and electricity.

Source: Ministry of commerce and industry

ANIL KUMAR/MINT

steel output grew by 11.6% and 7.1%, respectively, in March, higher than the 10.8% and 6.9% annual growth reported in the previous month.

Electricity output reported a 6.2% annual growth in March, up from 3.6% in February, due to the advent of summer in large parts of the country.

Fertilizer output dropped to 8.8% annual growth in March, down from 10.2% in the previous month, driven by a low base effect and lower production due to higher stocks last year.

Refinery products output

also dropped to 0.2% from 0.8%, while coal output dropped 1.6% from 1.7%, during the above-mentioned period.

Meanwhile, the output of natural gas and crude oil contracted by 12.7% and 1.9%, respectively, during March, compared to the 6% and 5.2% contraction reported in February. Crude oil production declined due to low international prices, while natural gas output fell as higher imports replaced domestic production.

For an extended version of this story, go to [livemint.com](https://livemint.com).

# Astoli to get bio-CNG plant for treating 300 tonnes of daily waste

**Vinod Rajput**

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**GREATER NOIDA:** The Greater Noida authority has decided to set up a bio-CNG plant in Astoli village to treat 300 tonnes of wet waste every day and turn it into eco-friendly fuel that can be used in vehicles. The plant will be set up by Reliance Bioenergy on 11.5 acres of land, which the firm has taken on lease for 25 years at a rate of ₹1 per square metre per year.

Construction began on April 11 and the project is expected to be completed in one-and-a-half years, officials said. Reliance will operate the plant using technology that processes kitchen and food waste through a method called bio-methanation, which produces Bio-CNG gas that can be used in vehicles such as buses. "Reliance will pay the Greater Noida authority ₹225 for every tonne of waste processed. Reliance will be allowed to sell the gas and other by-products. The plant will receive benefits from carbon credit revenue and solve the city's waste disposal problem," said Ravi Kumar NG, chief executive officer of the Greater



**The plant will help turn wet waste into clean fuel** HT ARCHIVE

Noida authority.

The plant will help turn wet waste into clean fuel, said additional chief executive officer of Greater Noida authority, Sri-lakshmi VS. Greater Noida produces around 800 tonnes of waste daily. Once operational, the plant will help in treating a major portion of that waste the same day it is collected, reducing pollution and keeping the city clean.

The authority plans to have similar arrangements for treating garbage at Astoli.



हर महीने 71 हजार रुपए का रेवेन्यू मिलेगा, आम लोग भी कटे पेड़-पौधे दे सकेंगे

## ग्रीन वेस्ट से ईको फ्यूल बनाकर नगर निगम करेगा कमाई, इंदौर की कंपनी लगाएगी प्लांट

अनूप दुबे | भोपाल

भोपाल में भरपूर हरियाली है। यह शहर को सुंदर और खूबसूरत बनाती है। लेकिन नगर निगम के लिए यही ग्रीन वेस्ट सबसे बड़ी चुनौती थी। अब निगम इसी ग्रीन वेस्ट से ईको फ्यूल बनाकर कमाई करेगा। इंदौर की कंपनी को टेंडर दिया गया है, जो यहां पर बायो ब्रिकेट प्लांट लगाएगी। अगले महीने से इसका काम शुरू हो जाएगा।

नगर निगम कमिश्नर हरेंद्र नारायण ने बताया कि शहर में हर दिन टनों ग्रीन वेस्ट निकलता है। बारिश और सर्दी के मौसम में यह बहुत ज्यादा बढ़ जाता है। इसके लिए ईदगाह हिल्स में ग्रीन वेस्ट हॉर्टिकल्चर वेस्ट का प्लांट लगाया जा रहा है। इंदौर की कंपनी ने पीपीपी मोड पर टेंडर लिया है। इसमें शहर से जमा ग्रीन वेस्ट को प्रोसेस कर ईको फ्यूल बनाया जाएगा। इसकी क्षमता 50 टन प्रतिदिन रखी गई है। प्रतिदिन आने वाले वेस्ट को देखते हुए इसे बढ़ाया जा सकेगा। कंपनी हर महीने नगर निगम को 71 हजार रुपए रॉयल्टी देगी। नगर निगम कंपनी को जमीन और शेड बनाकर देगा। बिजली से लेकर मशीन और कर्मचारी तक कंपनी के रहेंगे।

### बड़ी समस्या- कहां ले जाएं ग्रीन वेस्ट

भोपाल में ग्रीन वेस्ट एक सबसे बड़ी समस्या है। यहां पर बारिश और सर्दी में टनों ग्रीन वेस्ट निकलता है। इसके अलावा लोग भी घरों और गार्डन में लगे पेड़-पौधों का ग्रीन वेस्ट सार्वजनिक जगह पर फेंक देते हैं। बिजली कंपनी द्वारा भी बड़े पैमाने पर पेड़ों की कटाई की जाती है। सबसे बड़ी समस्या कि इसे कहां ले जाएंगे। नगर निगम के कैप्सूल में यह फंस जाते थे। अब यह सभी प्रोसेस के बाद ईको फ्यूल बन जाएगा। इसका उपयोग फैक्ट्रियों में किया जा सकेगा। कई कंपनियों ने इसे लेने में रूचि भी दिखाई है।

**यह भी बन रहे...** सीएनजी प्लांट से प्रतिदिन 400 टन गैले कचरे से 15 टन बायो जीएनजी गैस का उत्पादन होगा। इससे निगम को 1.66 करोड़ प्रति वर्ष की रॉयल्टी मिलेगी। वहीं टोरीफाइड चारकोल प्लांट से प्रतिदिन 400 टन सूखे कचरे से टोरीफाइड चारकोल बनाया जा सकेगा। यह देश में वाराणसी के बाद इस तरह का दूसरा प्लांट होगा। सीएनजी के बाद इस तरह का दूसरा प्लांट होगा। सीएनजी पर 120 करोड़ रुपए और चारकोल प्लांट पर 250 करोड़ रुपए खर्च किए जा रहे हैं। दोनों ही पीपीपी मॉडल पर बनाए जा रहे हैं। नगर निगम का दावा है कि सीएनजी इसी साल 1 अगस्त और चारकोल प्लांट सितंबर तक पूरी तरह शुरू हो जाएंगे।

### बायो ब्रिकेट के लाभ

- पर्यावरण फ्रेंडली होने के कारण धुआं, कार्बन, कार्बन व उत्सर्जन नहीं होता है।
- ईंधन और प्राकृतिक गैस जैसे अन्य ऊर्जा स्रोतों की तुलना में बायो ब्रिकेट सस्ता होता है।
- बनाने, उपयोग करने और भंडारण में आसान है। छोटे आकार के कारण इनका उपयोग आसान होता है।

### ऐसे बनता है बायो ब्रिकेट

- बायो अपशिष्ट जैसे पेड़ और झाड़ियों से बनता है।
- इसे ग्राइंडर की मदद से छोटे-छोटे टुकड़ों में काटकर बारीक बुरादा बना लिया जाता है।
- ब्रिकेट बनाने के लिए उच्च दबाव और तापमान पर सामग्री को कंप्रेस किया जाता है। अन्य चीजें भी मिलाई जाती हैं।
- उपयोग:** बायो ब्रिकेट का उपयोग औद्योगिक बॉयलर में किया जाता है। ताप बिजली संयंत्रों में बायो ब्रिकेट का उपयोग किया जा सकेगा।