





Car Smoke Bad, Coal Smoke Not So Much?

India is world's biggest emitter of sulphur dioxide and coal-based power plants are top culprits. Odd, then, there's no official recommendation for clean-up action

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If you bought a diesel car in Delhi-NCR just five or six years ago, chances are you call a cab every time air quality slips into 'severe' zone. Your car, certified road-legal for 10 years at sale, must be stabled because it's not "clean" enough.

India jumped from Bharat Stage IV (BS IV) emission norms to BS VI on April 1, 2020, and since then only BS VI-compliant diesel cars are allowed to run under

Graded Response Action Plan (GRAP) conditions in Delhi-NCR. The rule seems unfair, but it is a price you pay for clean air.

There are other costs too. Clean technologies introduced for six sets of increasingly stringent emission norms over 25 years have made cars and bikes dearer. Fuel standards have been raised at a cost of many thousands of crores. Refinery upgrades for BS VI alone cost ₹35,000cr.

One key improvement in BS VI-compliant fuel is its negligible sulphur content. In 2010, BS III norms mandated sulphur limits of 150 parts per million (ppm) for petrol and 350 ppm for diesel. BS IV shaved both down to 50 ppm, and BS VI to 10 ppm.

But longer rope for thermal plants

Low-sulphur fuel makes even vintage cars and bikes cleaner. They emit fewer sulphate particles and less sulphur dioxide (SO2), which the UK's Health Protection Agency describes as a "toxic and

corrosive" gas. America's Environmental Protection Agency (EPA) says high concentrations of SO2 can "harm trees and plants by damaging foliage and decreasing growth", besides causing acid rain and smog.

So, why is Niti Aayog not keen on making SO2 scrubbers mandatory for coal-burning power plants? Reports in ET (http://bit.ly/415tiUc, https://bit.ly/4eNXVki) say it believes SO2 emissions from power plants don't worsen air quality. Which is odd because coal-based thermal plants and industries are known to be top SO2

emitters. In EPA's words: "The largest source of SO2 in the atmosphere is the burning of fossil fuels by power plants and other industrial facilities."

India already biggest emitter

India has been world's biggest SO2 emitter for some years. It overtook US by 2012, and China in 2017. Five years ago it was said to emit 15% of all SO2 attributable to humans. Using Nasa satellite data, scientists determined that coal-burning power plants were responsible for 43 of India's 45 SO2 hotspots.



Yale University's 2024 Environmental Performance Index also takes note of India's rising SO2 graph. It says China reduced SO2 emissions by 73% between 2013 and 2022 by desulphurising coal-based power plants, but India's emissions increased by 29%. "The primary source of emissions is coal power plants, followed by construction and manufacturing," the report says.

Rules were made, to be broken

It's not that India didn't set emission norms for power plants. The environment ministry introduced

SO2 emission limits for coal-based plants in 2015, and ordered them to install flue-gas desulphurisation (FGD) units by 2017.

Unsurprisingly, most power plants missed the deadline, which was extended to 2022, and then 2026. In Aug this year, the power ministry said only 39 coalbased power plants had installed FGDs, 238 others had awarded contracts or begun installation, and 160 were still tendering.

Coal use rising, air will get dirtier

Indian cities regularly top global dirty-air lists, but the countryside isn't particularly clean either. When Delhi-NCR breaches the 'severe' mark, the entire north Indian plain also slips into unhealthy territory. Meanwhile, despite the growth in solar energy, thermal plants account for about half of India's power generation. About 28 gigawatts (GW) of additional thermal capacity is already under construction and govt is giving out contracts for another 12.8GW. These new plants will increase India's coal-based generation capacity – 205GW in 2023 – by almost 20%. Do we want a 20% increase in SO2 emissions too?

Cost can't be a concern now

Niti Aayog's advice is seemingly based on a draft report of Council of Scientific & Industrial Research-National Environmental

Engineering Research Institute (CSIR-NEERI). But this report has not been made public and, according to Down To Earth, "even regulatory agencies lack access to it."

Some experts say the recommendation was meant to help coal-based plants save ₹96,000cr in FGD installation costs, which could push up electricity rates by 50-55 paise per unit. But if concerns about inflation didn't stop BS VI norms for trucks, which move two-thirds of India's freight, why should they be a hurdle for power plants?



Contribution of fossil fuel to India's PM 2.5 pollution

Emissions from residential heating, power generation, and industries contribute up to 60% of India's PM 2.5 pollution, with about 80% of this coming from fossil fuel combustion, a new study has found. The study said biomass burning contributed less than 3% to annual PM 2.5 levels. PTI



Govt Moves to Fill 59% Vacant Indp Director Posts at CPSEs

Appointments needed for 441 posts; focus on filling 200 positions in listed CPSEs

Banikinkar Pattanayak

New Delhi: About three in five independent director positions on the boards of various central public sector enterprises (CPSEs) are lying vacant, prompting the Centre to step up efforts to fill in the posts, people aware of the details said.

As many as 441 of 750 independent or non-official director positions on the CPSE boards were vacant at the end of October, showed the latest official data. The vacancies surged from 392 at the end of September, as the tenures of many of the incumbents ended last month.

The focus is on filling the 200 vacancies on the boards of listed CPSEs, said the people.

CPSEs and their administrative ministries are engaged in talks with the departments of personnel and training (DoPT) and public enterprises and corporate affairs ministry to fill in the positions urgently so that corporate governance isn't hampered, they added.



"The government is fully seized of the matter. Fresh appointments will be made soon; it's an ongoing process," said a senior official.

In many cases, the tenure of the non-official directors is proposed to be extended, he added.

As per norms, at least one-third of a listed company's directors must be independent ones. Similarly, an unlisted public company, beyond a stipulated size, needs at least two. There are 389 CPSEs, including subsidiaries, in India, of which 70 are listed. The listed CPSEs account for just over 10% of the total market capitalisation of BSE firms.

Filling in the vacancies assumes significance, as independent directors act as custodians of the most exacting standards of corporate governance and protectors of stakeholders' interests. The audit committees of companies, which oversee their statutory audit compliances, comprise mostly independent directors.

Such directors are usually appointed for a period of three years, with a provision for an extension of three years in the same CPSE. Beyond that, the directors can't serve on the board of the same CPSE.

In many cases, tenure of non-official directors is proposed to be extended, said an official Usually, the proposals for the appointment of non-official directors on the CPSE boards are initiated by the relevant administrative ministries or departments.

They are sup-

posed to recommend at least three eligible persons for each position and the selection is made by a search committee headed by the DoPT secretary.

The panel also includes the secretaries of public enterprises and the administrative departments concerned and non-official members. The relevant administrative ministry or department then appoints the non-official directors based on the search committee's recommendations.



Must cut fossil fuel imports to combat pollution: Gadkari

PRESS TRUST OF INDIA

New Delhi, 27 November

India cannot address the problem of pollution without reducing import of fossil fuels, Union Minister of Road Transport and Highways of India Nitin Gadkari said on Wednesday. Addressing 'Times Drive Green Conclave & Awards 2024' event, Gadkari further said a bio-fuel economy is very important today and it is in good position in India.

He said 40 per cent of air pollution in the country is because of the transport sector. "Pollution is a big concern in India.. without reducing import of fossil fuels, we cannot reduce pollution in the country. In the transport sector, we need to find out alternative for fossils fuels... We need to develop sustainable development model," Gadkari said.

He also noted that India is facing problems in the agriculture Nitin Gadkari said a sector due to surplus production of wheat, rice and sugar.

In this context, he said the in good position in India government has taken decision



bio-fuel economy was important today and it was

to diversify agriculture into energy sector. "Today there are 400 projects in Punjab, Haryana, and Maharashtra where they are making bio-CNG from rice straw." In most cases, due to burning of rice straw in Punjab and Haryana, Delhi is facing pollution, the minister said.



AT \$73.49 A BARREL

Oil Steady, Focus on Hezbollah -Israel Ceasefire

Reuters



Brent crude futures rose 33 cents, or 0.45%, to \$73.49 a barrel by 1300 GMT and U.S. West Texas Intermediate crude was up 37 cents, or 0.54%, at \$69.14.

Both benchmarks settled lower on Tuesday after Israel agreed to a ceasefire deal with Lebanon's Hezbollah.



ONGC in Talks with Domestic Shipyards for 2 Offshore Rigs

Sanjeev Choudhary

New Delhi: Oil and Natural Gas Corp (ONGC) is in exploratory talks with domestic shipyards to build two offshore jack-up drilling rigs worth about \$500-550 million, said a senior executive at the staterun explorer.

ONGC's board recently approved the plan to build the offshore drilling rigs.

These rigs will replace some of the company's ageing rigs operational for more than 4 decades, which will be retired over the next few years, said Om Prakash Singh, director, technology & field services at ONGC.

ONGC's move will also help



Indian shipyards develop capabilities for manufacturing advanced offshore rigs, he added.

Offshore drilling rigs have not been built in India since 1990. Prior to that, two jack-up rigs and one floater were built at local shipyards for use by ONGC.

ONGC currently has 113 drilling rigs, including 38 offshore rigs with more being added. It also has about 90 workover rigs.

The company owns about a fifth of the drilling rigs it currently uses offshore with the rest charter-hired. For onshore drilling, only about a fifth is hired while the remainder is owned.

Singh said company-owned rigs are also a training ground for ONGC executives, who eventually use these skills to manage chartered rigs. It takes about 3-3.5 years to build a jack-up rig.



हर रोज छह रुपए की LPG से बनता है गरीब परिवार का भोजन

■ विनोद श्रीवास्तव नई दिल्ली। एसएनबी

दुनिया का शायद ही कोई ऐसा देश होगा जहां किसी गरीब की रसोई में मात्र छह रुपये के एलपीजी खर्च पर पूरे दिन का भोजन तैयार होता है। यह केवल भारत में ही संभव है जहां एलपीजी सिलेंडरों की कीमतें दुनिया में सबसे कम है। इसमें भी सरकार की प्रधानमंत्री उज्जवला योजना में गरीब



■ दुनिया में भारत से सस्ती एलपीजी रसोई गैस कहीं और नहीं

परिवारों को रसोई के लिए सस्ती एलपीजी गैस आपूर्ति की जा रही है।

पेट्रोलियम एवं प्राकृतिक गैस मंत्री हरदीप सिंह का कहना है कि मोदी सरकार उज्जवला योजना के तहत लाख से अधिक गरीब परिवारों की रसोई के लिए एलपीजी गैस का कनेक्शन दिया है, जिन्हें सस्ती एलपीजी गैस सिलेंडर की आपूर्ति की जा रही है। इसका परिणाम यह है कि भारत में एलपीजी सिलेंडर की कीमतों के कारण प्रधानमंत्री उज्ज्वला योजना के लाभार्थी परिवारों के लिए छह रुपये प्रतिदिन और गैर

इंडिया एनर्जी वीक अब दिल्ली में

इंडिया एनर्जी वीक-2025 का आयोजन बार दिल्ली के द्वारका स्थित यशोभूमि में 11-14 फरवरी के बीच किया जाएगा। इसमें 700 से अधिक प्रदर्शक भाग लेंगे। इस आयोजन के दौरान 105 सम्मेलनों में 70,000 से अधिक प्रतिनिधि भाग लेंगे। वर्ष 2024 गोवा में आयोजित इंडिया एनर्जी वी में 600 से अधिक प्रदर्शकों और 45 रणनीतिक भाग लिया था। इसमें 46 तकनीकी सम्मेलनों की का आयोजन किया गया था। यशोभूमि में दस से अधिक देश अपने मंडप लगाएंगे।

लाभार्थी परिवारों के लिए 14 रुपये प्रतिदिन पर उनके रसोई में भोजन तैयार हो रहा है। इसकी मुख्य वजह ऊर्जा क्षेत्र में देश की प्रगति और बीते तीन वर्षों की अवधि में ईंधन की कीमतों में कमी जैसी प्रमुख उपलब्धि है। रिफाइनरी क्षमता में वर्ष 2014 में 215 एमएमटीपीए से वर्ष 2024 में 256.8 एमएमटीपीए हो गयी है। इसका लक्ष्य वर्ष 2028 तक 310 एमएमटीपीए तक पहुंचना है। भारत वर्ष 2030 तक तेल और गैस क्षेत्र को एक मिलियन वर्ग किलोमीटर तक बढ़ाने की दिशा में काम चल रहा है। इससे वर्ष 2025 तक 16 प्रतिशत वृद्धि की उम्मीद है। इसका सीधा लाभ ऊर्जा क्षेत्र और उपभोक्ताओं को मिलेगा।