

# Electric vehicles: Why and how

There are three key reasons why countries need to electrify their vehicle fleet. One is climate change. The transport sector guzzles massive amounts of oil (petrol and diesel) and globally contributes roughly 15 per cent of annual carbon dioxide emissions. Zero-emission vehicles, or electric vehicles (EVs), replace oil with electricity, which is ideally generated in renewable-energy plants, and are seen as the solution. The second reason, which is more important for Indian cities, is that replacing petrol and diesel vehicles with zero-emission ones will reduce local pollution. And third: It will save us valuable foreign exchange because oil consumption will lessen.

All of these are valid reasons to act. But these alone cannot usher in the change that is needed. We need a reset: A review of what we are doing and why, so that we can move not just the vehicle electrification agenda but get the benefits that are so desperately required.

Let us take our cities first, where electrification coalesces into multiplier benefits by reducing toxic air pollution, saving on foreign exchange, and mitigating greenhouse emissions. All good, but only if we are clear about the intent of the policy and then drive its outcome — deliberately and at scale. It was in 2019 that the NITI Aayog laid out India's EV ambition: By 2030, the penetration of EV sales would be 70 per cent of all new commercial cars, 30 per cent of private cars, 40 per cent of buses, and 80 per cent of two- and three-wheelers. We are still far from this — as of mid-2025, the only segment that is surging is three-wheelers, with close to 60 per cent of new registration being EVs. These are mostly non-branded, locally built

vehicles that crowd roads but provide an affordable commute. The rest of the EV fleet transition is too little to speak about; 5-6 per cent of the new registrations of cars, two-wheelers, or even buses are EVs. This makes no dent at all in reducing pollution, oil imports or decarbonisation.

This is when we know that vehicles are the top contributors to the toxins we breathe. The problem is not

just with the different categories of vehicles that add to pollution, but also with their numbers on the road that add to congestion and in turn to pollution. So, the twin action agenda for air pollution control is to make the transition to clean vehicles and to reduce the overall numbers. When Delhi transitioned to compressed natural gas (CNG) in the early 2000s, it targeted gross polluting vehicles such as buses, taxis, and auto-rickshaws. This category of public and commercial vehicles has the highest mileage of travel in any city, particularly Delhi, and the science of pollution is clear that the longer the travel, the greater the emissions. In addition, a public subsidy given for replacing old vehicles with newer CNG models was directed towards upgrading the mass transit system — providing space for people to move, not vehicles.

But Delhi's story went wrong — a policy mistake we must not repeat because it negates the gains of clean air and wastes public investment. Delhi, in the two decades after its CNG revolution, has not been able to sufficiently improve its public transport so that it restricts the growth of vehicles on the road. Delhi adds some 1,800 new personal vehicles each day. Of those over 500 are private cars. The country

on the whole adds over 10,000 private cars on to its roads every day. This implosion of vehicles on our roads, despite all the new flyovers and road networks, has meant that we are stuck in traffic, speeding down. My colleagues at the Centre for Science and Environment (CSE) analysed hourly travel time data, extracted using Google application programming interfaces (APIs), and found that during weekdays, Delhi witnesses an average speed reduction of 41 per cent during morning peak hours and 56 per cent during the evening rush. The correlation between hours spent in traffic and growing air pollution is well established. But the story gets worse: Another study by my colleagues found that buses were stuck in the same traffic and these chronic delays meant that ridership goes down as people shift to more dependable private transport. The Delhi Metro, which has an incredible reach now, is also losing because of the lack of last-mile connectivity, its cost and other hassles.

So, the way ahead is to be focused and deliberate on our policy. The National Clean Air Plan (NCAP), which targets all cities with high air pollution, must target the convergence of the twin goals of cleaner vehicles and fewer vehicles. It is not enough to count only the number of new electric buses — which is crucial — but also its modal share in traffic so that each city plans to scale up public transport and make it possible for us to spend less time and money on commute, more quality time at home, and most critically, breathe air that does not make us ill. This is not all. The question is: Do we really need private EVs in India and the rest of the world? I will discuss this next time.

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**DOWN TO EARTH**  
**SUNITA NARAIN**

# Russia to drive India's crude imports in H2, but intensity may wane

**MORE SUPPLIES.** West Asia is also prepping to ship more cargoes, as voluntary production cuts are wound up

**Rishi Ranjan Kala**  
New Delhi

A combination of discounts, operational ease and geopolitical leeway is aiding Russia retain its position as India's top crude oil supplier in the second half of the current financial year as it continues to account for over one-third of the cargoes procured by the world's third largest importer.

However, India's traditional suppliers in West Asia are also prepping to ship more cargoes, as more supplies come online due to gradual winding up of the voluntary production cuts.

## FACING PRESSURE

The volume will largely be shaped by seasonal refinery maintenance in India and the growing competition for barrels between Russia, West Asia and the US, trade sources said. However, Russian volumes could face pressure in the coming months,

particularly post June, as some refineries that were hit by drone attacks may come back online, thereby absorbing additional barrels from the market.

Sumit Ritolia, Kpler's Lead Research Analyst for Refining & Modelling, emphasises that refining economics and operational margins drive buying decisions. Whether oil comes from Russia, the US, or Gulf, if economics align and logistics are viable, Indian refiners will seize the opportunity.

Ritolia pointed out that Russia holds a significant pricing advantage that is aiding exports.

For instance, India's imports in June are on track to reach 2 million barrels per day (mbpd).

"Russia offers crude at consistent discounts compared to global benchmarks like Brent and Dubai, and even more so against Middle Eastern grades on a landed-cost basis.

This economic edge, com-



**PRICE BREACH.** A key driver has been the Urals grade, which, though not deeply discounted, averaged around \$50 per barrel free on board in May, well below the \$60 price cap imposed by Western allies REUTERS

bined with operational ease and geopolitical leeway, has made Russian barrels an attractive proposition for Indian refiners," he explained.

A key driver has been the Urals grade, which, though not deeply discounted, averaged around \$50 per barrel FOB (free on board) in May, well below the \$60 price cap imposed by Western allies.

These favourable econom-

ics have not only improved refinery gross margins but also drawn in substantial shipping capacity; over 20 tankers previously tied to non-sanctioned trades were repurposed for Urals delivery, boosting export flows, Ritolia pointed out.

## ONGOING SANCTIONS

"Despite ongoing sanctions, lax enforcement has allowed

steady trade to continue. Looking forward, Russian crude is expected to maintain a 35-40 per cent share in India's crude mix, assuming margins stay healthy, FOB pricing remains competitive, and sanctions remain loosely applied," he added. However, modest headwinds are emerging, Ritolia warned.

Kpler data indicate Russian refinery throughput may rise by 100,000-300,000 bpd in the coming months, potentially trimming available export volumes and softening flows to India beyond May.

A trade source said that West Asia barrels will compete to some extent with the US WTI during the remainder of the current calendar year.

"Murban is currently cheaper than WTI for August. With the winding back of production cuts, availability will increase. We expect Iraq and UAE to continue to challenge American barrels," the source added.

# बहराइच में विस्फोटक का जखीरा मिला, हड़कंप मचा

बहराइच, संवाददाता। मुख्यमंत्री योगी आदित्यनाथ के मंगलवार को भ्रमण से दो दिन पूर्व विस्फोटक का जखीरा मिलने से हड़कंप मचा गया। विस्फोटक अमोनियम नाइट्रेट है।

पुलिस ने इसे फिलहाल जब्त करके लगभग 70 लोगों को बाहर निकाला। एक तेल कंपनी जिले में प्राकृतिक गैस की खोज के लिए उत्खनन कर रही है। विस्फोटक उसी कंपनी का बताया जा

रहा है। महसी के विधायक सुरेश्वर सिंह ने मुख्यमंत्री का दौरा रद्द करने के लिए फोन पर उच्चाधिकारियों से बात की है।

पुलिस अधीक्षक मीडिया प्रकोष्ठ की ओर से जारी बयान में कहा गया है कि भारतीय पेट्रोलियम और नेचुरल गैस मंत्रालय द्वारा हाइड्रोकार्बन संसाधनों की खोज हेतु मिशन अन्वेषण के अंतर्गत आयल इंडिया लिमिटेड को अधिकृत किया गया है।



## हाइड्रोजन के उत्पादन में विविधता लाने की योजना

नई दिल्ली (भाषा)।

इंजीनियरिंग समाधान प्रदाता डीईई डेवलपमेंट इंजीनियर्स लिमिटेड हाइड्रोजन उत्पादन में विविधता लाने की योजना बना रही है। कंपनी को इस क्षेत्र में बड़े व्यावसायिक अवसरों की उम्मीद है।

डीईई डेवलपमेंट इंजीनियर्स के चेयरमैन और प्रबंध निदेशक (सीएमडी) कृष्ण ललित बंसल ने कहा, 'हमने हाल ही में कुछ छोटे गैस/रासायनिक संयंत्रों के उत्पादन में कदम रखा है। हमने मालदीव डिजाइन लिमिटेड नामक एक कंपनी में 70 प्रतिशत हिस्सेदारी हासिल की है, जो नाइट्रोजन और ऑक्सीजन संयंत्रों, हाइड्रोजन शुद्धिकरण संयंत्रों और अमोनिया क्रैकर्स के निर्माण में विशेषज्ञ है।'