

INDIAN AUTOMOBILE INDUSTRY

Auto OEMs unlikely to face major challenges to comply with proposed ethanol blending norms

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Petrol is likely to remain the fuel of choice over the next few years. But the proportion of CNG, EVs and hybrid vehicles would witness sharp growth and their share is estimated at 20-30% of new vehicles sales over the next five years.

As petrol-based vehicles would account for a large share of new PV sales, it is imperative to reduce emissions to meet CAFÉ norms and strategise towards achieving carbon neutrality over the long-term.



- Dominating over 70% of the total vehicle population, petrol remains a fuel of choice in the domestic passenger vehicle (PV) market.
- The viability of diesel vehicles has sharply reduced in recent years (from 40% in FY2018 to 19% in FY2022), amidst stricter emission norms and narrowing price gap between petrol and diesel.
- CNG vehicles have also gained prominence in recent years, aided by lower emissions, favourable running cost, improving penetration of CNG dispensing stations across the country and enhanced product offerings by original equipment manufacturers (OEMs).
- Electric vehicle (EV) demand has risen exponentially in the last two years with Government's push, increasing awareness and launches. However, its share in the overall PV industry is low (~1%).



- ICRA expects the proportion of CNG, EVs and hybrid vehicles to increase to 20-30% of new vehicles sales in the next five years. Nevertheless, petrol-based vehicles will continue to account for a significant portion of new PV sales.
- This makes it imperative to reduce emissions from petrol-based vehicles to meet the Corporate Average Fuel Economy (CAFÉ) norms, besides adoption of alternate powertrains, and start the trajectory towards achieving carbon neutrality over the long-term.



- A step in this direction is ethanol blending, which would reduce vehicular emissions, apart from strengthening energy security, reducing oil imports and conserving forex reserves. Besides, other benefits include controlling excess sugar supply in the country as ~65% of the total ethanol production comes from molasses-based distilleries.
- Ethanol blending in petrol has been gradually rising in the last several years, and India achieved 10% ethanol blending in 2022. Further, the Government of India (GoI) has advanced its target for E20 (20% ethanol blended petrol) implementation to 2025 from 2030 earlier.

ICRA believes that the readiness of the auto industry and the OEMs to meet E20 blending norms is unlikely to be a major challenge.

In ICRA's view, a cohesive approach from all stakeholders will facilitate the E20 transition within the targeted timelines.



- ICRA believes that the readiness of the auto industry and the OEMs to meet E20 blending norms is unlikely to be a major challenge. No major design changes are required from a vehicle standpoint, except material recalibration.
- The overall impact on the vehicle cost is estimated at less than 1% for passenger vehicles and ~2-3% for two-wheelers. Further, no major capital spend is envisaged.



- Loss of fuel efficiency is expected as vehicles transition from the E10 to E20 compliant design and this would increase the total cost of ownership (TCO). However, OEMs are looking at technological improvements like light-weighting to offset the impact.
- Operating E10-compliant vehicles with E20 fuel would result in corrosion of certain engine components, and there would be requirements to replace the corroded parts during the vehicle lifecycle.



- Making adequate ethanol available pan-India and addressing portability challenges would be imperative.
- The GoI has been providing relatively fast environmental clearances and financial assistance in the form of interest subvention to facilitate capacity addition and ensure adequate ethanol availability for seamless transition. A few states have also announced incentives to attract investments.
- Tripartite agreements are being signed among oil marketing companies (OMCs), project proponents and banks to facilitate timely debt repayments by ethanol producers.
- Overall, in ICRA's view, a cohesive approach from all stakeholders will facilitate the E20 transition within the targeted timelines.

Agenda



Evolving Powertrain Mix in Passenger Vehicles in India



Overview of Ethanol Blending Norms in India



E20 Implementation from Auto OEM Perspective



Global Landscape



Key Takeaways



Annexure



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