Centre eyes advanced EVs in major green mobility push

ROAD AHEAD. Inter-ministerial exercise to follow after consultation with the industry

S Ronendra Singh
New Delhi

The government is considering a new umbrella category — advanced electrified vehicles (AEVs) — for passenger cars with large batteries, as it moves towards a multi-powertrain approach to green mobility that goes beyond pure electric vehicles (EVs).

The proposed category will bring together EVs, range-extended electric vehicles (REEVs) and plug-in hybrid electric vehicles (PHEVs). The idea emerged after the notification of the third phase of the Corporate Average Fuel Economy (CAFE-III) norms on September 29.

MISMATCH SEEN

Government sources told *businessline* that an inter-ministerial exercise to discuss the proposal would follow after consultations with the industry.

At the heart of the exercise is a mismatch. CAFE-III recognises REEVs and PHEVs, but the Central Motor Vehicles Rules (CMVR), 1989, do not define them clearly. "Only EVs have a clear definition in the CMVR. There is no clear definition of REEVs and PHEVs. REEVs are defined within the definition of PHEVs, which is an anomaly that needs correction. PHEVs are also clubbed with the strong hybrids category, even though the latter run on a small battery pack (less than 2 kWh)," said sources.

An REEV is driven by an electric motor powered by a large battery, with a small petrol engine that only recharges it.

A PHEV has both an engine and a sizeable battery that can be charged from a socket; so it can run on electricity for a stretch before switching to petrol. A strong hybrid, by contrast, has a small battery that cannot be plugged in and simply helps the engine save fuel.

BATTERY POWER

Rather than classifying cars by the type of engine, the proposal aims to label them based on how much they rely on the battery.

Under the proposal being considered, AEVs would be vehicles with a battery of at least 15 kWh that can run meaningfully on electric power in large cities and are chargable from outside the vehicle. "These are vehicles with battery sizes upwards of 15 kWh and offer sufficient run on electric mode in large cities and metros, while also having a provision for off-board charging," said an official. The revised definitions will be aligned with CAFE-III, said sources.

CAFE-III NORMS

The CAFE-III norms nudge carmakers towards cleaner fleets or face penalties. Under the norms, EVs and REEVs have been placed under the same volume derogation factor of 3, the highest in the category. PHEVs follow at 2.5.

"The government believes that clean energy vehicles with a credible battery size as the bedrock should be recognised as the future of green mobility in India. The inter-ministerial discussions will focus on this aspect, and accordingly give recognition to PHEVs and REEVs," said the official.

PHEVs are sold by Mercedes-Benz India (Maybach S 580e) and JSW MG Motor (Hector Tomahawk). JSW Motors is expected to launch one soon.

ALL CHARGED UP

- Govt begins discussions on grouping EVs, REEVs and PHEVs under a new AEV category
- Mercedes-Benz and JSW MG Motor already sell PHEVs, and JSW Motors plans to debut with one
- Tata Motors, M&M and Hyundai Motor India are also working on REEVs to reduce their reliance on large, expensive battery packs

