The new plug-in hybrid Prius. Picture credit: Toyota



PLUG-IN WITH PLATINUM

Growth in hybrid vehicle sales, especially plug-in, is sustaining automotive platinum demand, despite rising battery electric vehicle market share

The last quarter of 2023 saw the production of hybrid vehicles for the passenger market increase by 42% year-on-year, with especially strong demand coming from Europe and North America. Meanwhile, the European Automobile Manufacturers' Association (ACEA) recently reported that sales of new hybrid cars surged by 24.7% in February. In the US, Ford is expecting double digit hybrid growth this year.

Hybrid vehicles combine a gasoline or diesel engine with an electric motor. Due to their greater temperature variability, they require higher platinum loadings – typically 10% to 15% more – per vehicle to ensure effective emissions control.

The trend towards increased hybridisation was a key factor in the strong automotive platinum demand growth seen in 2023, which increased by 16% to 3,272 koz, despite a fall in internal combustion engine (ICE) non-hybrid vehicle production as battery electric vehicles (BEVs) continued to grow market share. It also supports the modest 1% automotive platinum demand growth forecast for 2024.

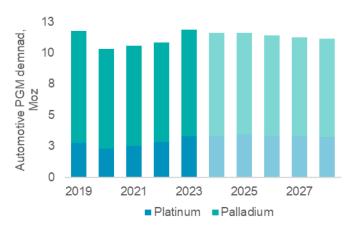
What is more, while last year appears to have been the post-COVID peak for non-hybrid ICE vehicle production, WPIC research suggests that hybrid vehicles are likely to underpin automotive demand well into the future, playing a core role in decarbonisation of the global vehicle fleet and

moderating the eventual decline in ICE-related automotive platinum demand that will come with rising BEV penetration.

Hybrid vehicle launches

A slew of recent vehicle launches highlights the growing popularity of hybrid vehicles, which are viewed as a transitional technology that enables automakers to achieve their CO₂ reduction targets, despite consumer reluctance to embrace full electrification due to concerns regarding a lack of charging infrastructure and range limitations.

Toyota is taking orders for its new plug-in hybrid Prius in the UK market, while Skoda has included mild-hybrid and plug-in hybrid versions in its secondgeneration Kodiaq line-up.



Hybridisation of the drivetrain will support automotive PGM demand despite rising BEV market share. Source: Metals Focus (Pt: 2019 to 2024f; Pd: 2019 to 2022), WPIC research



Mercedes is poised to make its plug-in hybrid variant of the 2025 GLC 350e available in the US from the second half of this year and Bentley has pushed back the launch of its new fully electric model to focus on its hybrid offering.

Further, the political and regulatory landscape has shifted in a way that is favourable towards hybrid drivetrains as governments delay or fine tune measures aimed at further reducing vehicle $\rm CO_2$ emissions. For example, the UK ban on sales of new ICE vehicles has been deferred by five years until 2035.

In the US, new emissions reduction targets, while more stringent overall, enable automakers to meet targets with a greater proportion of hybrid vehicles than originally anticipated.

In addition, due to issues around Chinese state subsidies, the prospect of further tariffs on the import of electric vehicles from China into certain regions, including the US, UK, and European Union, could prolong demand for, and availability of, hybrid vehicles.

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