

Diesel-to-hydrogen conversion solution for commercial vehicles to be showcased by MAHLE Powertrain and Metier Technologies

By [Zahra Awan](#) August 14, 2025



[Metier Technologies](#) and [MAHLE Powertrain](#) will demonstrate a hydrogen-powered commercial vehicle at CENEX Expo 2025 in the first week of September.

The vehicle, the companies say, illustrates how their combined technologies can enable the conversion of existing diesel trucks to operate on 100% hydrogen fuel.

The demonstration model is based on a DAF LF220 platform with a 6.7-liter, six-cylinder engine, and has been adapted to hydrogen power.

“This project will demonstrate what can be achieved when engineering expertise meets urgent environmental needs,” said [James Budgett](#), managing director of [Metier Technologies](#). “Working with MAHLE Powertrain’s established control technology, we’ve proven that existing diesel trucks can be rapidly converted to hydrogen power, offering depot-based fleet operators a practical, commercially viable pathway to zero-emission transport without waiting for entirely new vehicle platforms.”

The Metier project leverages MAHLE Powertrain’s Flexible ECU (MFE) engine control software platform, which has been developed for a wide range of internal combustion engine applications and provides the foundation for rapid hydrogen conversion. The MAHLE Powertrain control system enables the precise mapping and calibration required for hydrogen combustion, while its ECU technology ensures optimal performance and safety.

Metier’s hydrogen internal combustion engine solution is designed to offer a lower total cost of ownership than battery-electric and fuel cell alternatives, while supporting longer duty cycles, heavier payloads and zero-emissions operation to support access to urban downtown locations.

The company says it is focusing on regions with established hydrogen ecosystems, such as Scotland and the southwest of England, partnering with selected hydrogen providers and aligning its plans with government hydrogen production commitments through 2030.

The transformation process involves integration of specialized hydrogen injectors, comprehensive engine mapping using MAHLE Powertrain's MFE platform, and new safety systems.

MAHLE Powertrain's latest heavy-duty hydrogen test bed facility in Northampton has enabled the engine mapping and performance optimization to be completed ahead of the CENEX Expo, proving the vehicle's reliability and the optimal hydrogen combustion management enabled by the company's control technology.

Metier plans proof-of-concept work with targeted fleets by mid-2026, with volume deployment scheduled for early 2027.

<https://www.automotivepowertraintechologyinternational.com/news/new-powertrain/diesel-to-hydrogen-conversion-solution-for-commercial-vehicles-to-be-showcased-by-mahle-powertrain-and-metier-technologies.html>