



# PRESS RELEASE

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## Ricardo to advance next generation electric class 8 trucks

***Ricardo uses its expertise across electric motors, high-speed transmissions, power electronics and software and hardware development for the US Government's Department of Energy funded project.***

Ricardo, a global environmental, engineering and strategic consulting company, is demonstrating its commitment to decarbonising global transport by leading a programme which will advance the next generation of clean, energy efficient, electric on-highway trucks.

Funded by the US Government's Department of Energy (DOE), Ricardo is leading partners from government, academia and private industry to deliver a high power, high efficiency, silicon carbide inverter and integrated compact electronic drive unit (EDU) for a US industry benchmark Class 8 truck: a heavy duty commercial vehicle with a gross vehicle weight rating exceeding 14969 kg. The programme's priority is to have this dual axle truck in demonstration within 12 months in the Port of Long Beach: a container port in the United States, which adjoins Port of Los Angeles, in California.

Ricardo, the prime project recipient, is driving the development of the 800V, silicon carbide inverter which achieves 98.5% operating efficiency, exceeding the DOE phase 1 programme targets of 92.5%.

The core partners in the programme include FREEDM Center from North Carolina State University (providing support for power electronics design, analysis and testing), PolyCharge America (delivering their NanoLam™ capacitor technology) and Danfoss Silicon Power (supplying the SiC Power Modules aiding in delivery of a volumetric power density in excess of 50kW/L). The programme also includes globally recognized drivetrain supplier Meritor Inc, for its innovative ePowertrain™ featuring an integrated electric motor, novel three-speed gearbox and vehicle integration.

"We always view our role through the end-user, providing the right products to help customers achieve their goals," says John Bennett, Chief Technology Officer, Meritor, a leading global supplier of drivetrain, mobility and electric powertrain solutions for commercial vehicle and industrial markets. "For the electric drive unit, we're demonstrating that a three-speed transmission has better 'startability,' acceleration and shifting at high speeds. It pairs perfectly with Ricardo's development of a high-efficiency inverter that lessens the customers' carbon footprint, with direct correlation to lower operating costs."

“This high-level project required a collaboration across government, academia and private industry and the experts have aligned perfectly to accelerate innovation and hasten the time to market.”



Yansong Chen, Senior Vice President of Marketing, Technology and Strategy, Ricardo North America said: “Pressure is steadily increasing for lower greenhouse gas emissions from heavy trucks, exemplified in California’s clean energy and clean transport policy which is generally regarded as a leading indicator of global environmental policy. As the demand for cleaner propulsion solutions in trucking grows, Ricardo expertise in developing and integrating electric vehicle solutions for customers around the world will make a huge difference in setting a new standard for electrification through this significant project.”

Ends

## Notes to Editors

### Additional Information

Within phase 1 of the programme, the Ricardo 800v silicon carbide inverter delivers 250kW continuous power, is capable of greater than 300kW peak power and 1000V, achieving over 98.5% operating efficiency.

### About Ricardo

Ricardo plc is a world-class environmental, engineering, and strategic consulting company listed on the London Stock Exchange. With over 100 years of engineering excellence, we provide exceptional levels of expertise in delivering leading edge and innovative cross sector sustainable products and solutions, helping our global customers increase efficiencies, achieve growth, and create a clear and safer future. Our mission is clear -- to create a world fit for the future. For more information visit [www.ricardo.com](http://www.ricardo.com)

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