

Kenworth and UPS Collaborate on DOE SuperTruck II Program

KIRKLAND, Wash., and ATLANTA, Ga. – Kenworth is developing important advancements in Class 8 truck aerodynamics, engine and powertrain efficiencies under the \$8 million SuperTruck II program funded by the Vehicle Technologies Office of the U.S. Department of Energy (DOE). Goals for the program include the demonstration of greater than 100 percent improvement in freight efficiency* over 2009 equivalent product, and a 55 percent engine increase in brake thermal efficiency performance.

The project will utilize the flagship on-highway Kenworth T680 tractor and an industry leading PACCAR MX engine.

"UPS deploys advanced technology to efficiently manage the transportation of packages and freight. For the SuperTruck II project, UPS will provide guidance on their drive and duty cycles to drive SuperTruck II performance. UPS will also offer advice on the commercial feasibility and driver acceptance of technologies developed under SuperTruck II," said Mike Dozier, Kenworth general manager and PACCAR vice president. "This important program is designed to produce advancements that will benefit fleets and truck operators with future reductions in fuel usage and emissions."

"The UPS collaboration with Kenworth is an opportunity to study cutting-edge technologies in our real-world truck applications, expand the boundaries beyond what is possible today, and further enhance performance and efficiency," said Bill Brentar, UPS Director of Maintenance and Engineering for Transportation Equipment at the company's headquarters in Atlanta, Georgia. "This initiative will also help support UPS's sustainability commitment to reduce its absolute greenhouse gas (GHG) emissions from global ground operations 12 percent by 2025."

PACCAR joins four other SuperTruck II teams working to develop such innovative technologies designed to more than double the freight efficiency of Class 8 trucks. Up to \$12 million in additional funding could be awarded for the Kenworth T680 and PACCAR MX engine project over the next three years, subject to annual appropriations by Congress, which has been very supportive of the SuperTruck II initiative. Kenworth also is working closely with the PACCAR Technical Center and DAF Trucks NV, a subsidiary of PACCAR, Eaton, National Renewable Energy Laboratory (NREL), Mississippi State University, and AVL.

According to the DOE, trucks haul 80 percent of goods in the United States and use about 28 billion gallons of fuel per year. This accounts for approximately 22 percent of total transportation energy usage and presents a significant opportunity to increase efficiency and reduce cost for a key segment of the nation's transportation sector.

The Department's Vehicle Technologies Office in the Office of Energy Efficiency and Renewable Energy invests in early-stage research to spur privatesector research, development and commercialization of more energy efficient and affordable transportation technologies that increase energy security and economic growth. To learn more about the Department's work with industry, academia, and other partners on advanced vehicle technologies, please visit the Vehicle Technologies Office website (www.energy.gov/eere/vehicles/vehicletechnologies-office).

About UPS

UPS (NYSE: UPS) is a global leader in logistics, offering a broad range of solutions including transporting packages and freight; facilitating international trade. and deploying advanced technology to more efficiently manage the world of business. Headquartered in Atlanta, UPS serves more than 220 countries and territories worldwide. The company be found the can on web at ups.com or pressroom.ups.com and its corporate blog can be found at longitudes.ups.com. To get UPS news direct, follow @UPS News on Twitter.

About Kenworth

Kenworth is The Driver's Truck^{$^{\text{TM}}$}. See what drivers are saying at <u>www.kenworth.com/drivers</u>. Kenworth Truck Company is the manufacturer of The World's Best[®] heavy and medium duty trucks. Kenworth's Internet home page is at <u>www.kenworth.com</u>. Kenworth is a PACCAR company.

*Freight Efficiency is (Ton-Mile)/Gallon