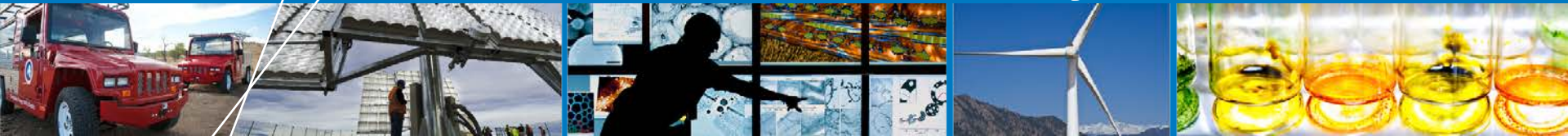


# Fuel Economy Improvements from a Hybrid-Electric/Diesel Powertrain in a Class 4 Parcel Delivery Vehicle



**The 17th Directions in Engine-  
Efficiency and Emissions  
Research (DEER) Conference**

**Matthew Thornton,** Petr Sindler, Mike  
Lammert, and Kevin Walkowicz

**October 4<sup>th</sup> 2011, Detroit MI**

- Fuel economy testing of a parallel hybrid-electric diesel delivery van propulsion system currently being operated by United Parcel Service (UPS)
- A P100H hybrid and a P100D standard diesel were tested at NREL's Renewable Fuels and Lubricants (ReFUEL) research laboratory. Testing was performed over multiple standard drive cycles to evaluate the fuel economy gained through hybridization.
- Hybrids demonstrated a statistically significant 13% to 36% improvement in fuel economy

