

DOE SuperTruck utilizes exhaust technology to boost fuel economy

April 4 2014, by Fred Strohl



This Class 8 tractor-trailer by heavy-duty manufacturers Cummins and Peterbilt reaches more than 10 miles per gallon under real world driving conditions. The truck was on display at the Energy Department today. Credit: Sarah Gerrity, Energy Department

The Department of Energy's SuperTruck, recently hailed by President Obama as the energy efficient truck of the future, uses technology from DOE's Oak Ridge National Laboratory that leads to improved fuel economy.

David Koberlein of Cummins Engines said the truck has the potential to reduce [fuel consumption](#) and decrease [greenhouse gases](#).

"We improved [fuel economy](#) with this truck by 75 percent," Koberlein said during a recent visit to Oak Ridge with the truck. "Our freight efficiency was increased by 86 percent. With heavy trucking being one of the largest consumers of national fuel, that lowers the cost structure of the fleet and it has an economic benefit to the nation."

ORNL's Bill Partridge said the lab developed an instrument that can measure internal exhaust flow, which is key to running the engine efficiently.

"We made a laser-based diagnostic that was used to assess the combustion uniformity of this engine," Partridge said. "The engine doesn't just breathe fresh air. It also breathes a mixture of fresh air and exhaust. You want that charge of intake of fresh air and exhaust to be very uniform."

Koberlein and Partridge agree the Oak Ridge technology is critical in order to achieve the enhanced energy efficiency.

More information: More information is available at [energy.gov/eere/articles/super ... eaps-fuel-efficiency](https://energy.gov/eere/articles/super-truck-exhaust-technology-boost)

Provided by Oak Ridge National Laboratory

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