

Cooperative Agreement Between EPA's Office of Transportation and Air Quality and The University of Toledo

Title: Collaborative Effort to Refine Hydraulic Hybrid Drivetrains to Optimize Fuel Economy, Emissions, and Performance

Purpose: Improve and optimize the components of hybrid hydraulic systems for maximizing fuel economy and simultaneously minimizing pollutant emissions. This collaborative effort is applicable to both light- and heavy-duty vehicles with high-efficiency hydraulic hybrid systems.

Background: Under its Clean Automotive Technology program, EPA's Office of Transportation and Air Quality (OTAQ) conducts research in advanced engine and drivetrain technologies to:

- Reduce greenhouse gases
- Increase fuel efficiency
- Achieve low regulated pollutants

The Clean Automotive Technology Program develops new advanced technologies for personal and commercial vehicles that are clean, fuel efficient, and cost effective. The program intends to encourage manufacturers to produce cleaner and more fuel efficient vehicles by overcoming technical obstacles in their development.

EPA partners with universities and industry to further development and to facilitate the commercialization of promising technologies. Through these partnerships, EPA actively pursues the transfer of EPA's technologies into the private sector for commercial production.

Currently Proposed Tasks for the Cooperative Agreement:

- Improving efficiency of hydraulic hybrid drivetrain components
- Refining hydraulic hybrid drivetrains for smooth and quiet operation
- Modeling improvements to hydraulic hybrid operation
- Training a new generation of engineers with knowledge and skills in advanced automotive technology

Duration & Funding Level of the Cooperative Agreement: The total EPA commitment for 3 years is up to \$449,998. The University of Toledo will provide cost-sharing funds to contribute to advancing hydraulic hybrid technology.