

# Welcome to the APRF Test Driving the Future

## Did you know...

A vehicle's fuel economy and emissions are tested using two standard driving cycles created by the U.S. Environmental Protection Agency to simulate city and highway driving conditions. Though testing procedures have been revised in recent years, the two driving cycles have remained the same for more than 25 years.

### Opportunity

As the U.S. strives to lessen our dependence on foreign oil, automakers are rapidly developing a new breed of advanced technology vehicles. These new technologies need to be tested for performance, fuel economy, and emissions so automakers can assess their efficiency and feasibility before moving forward with production.

### Argonne's Solution

Argonne's Advanced Powertrain Research Facility (APRF) is a one-stop shop for advanced vehicle testing. With an expert staff and state-of-the-art equipment, this facility is capable of evaluating conventional, hybrid, and electrical powertrains using a wide variety of fuels, including alternative fuels and hydrogen.

Using this driving simulator, researchers take vehicles through city and highway driving cycles so they can measure fuel economy and emissions.



The APRF's dynamometers allow researchers to simulate real-world driving conditions in a controlled laboratory environment.



Tire on dynamometer rollers

### Potential Benefits

As the "go-to" vehicle testing center for both government and industry, the APRF is critical to advancing the development of the automobiles of the future. Research results are used to:

- ▶ Assist the auto industry in the development and optimization of their advanced technologies
- ▶ Help the DOE benchmark petroleum displacement, current technologies and future transportation goals

### Industry Partnerships

Argonne often works with the major U.S. auto companies — Ford, General Motors, and Chrysler — and their suppliers to evaluate the performance of new technologies.

Visit [www.transportation.anl.gov](http://www.transportation.anl.gov) to learn more!



INVENTING THE FUTURE. *efficient. clean. safe.*



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