

2. Title of Project: Fuels Technology

New project funded, Assessment of Future “Fungible” Bio-derived Fuels

Office of Biomass Programs is sponsoring ORNL to determine what bio-based fuels would be more compatible with the existing fuels infrastructure yet still be affordable and manufacturable. As an example, so-called renewable diesel fuel uses vegetable or animal fats as the feedstock for a refinery hydrotreating process that produces conventional diesel fuel that is (unlike biodiesel) fully fungible with petroleum based fuels.

Infrastructure materials for ethanol compatibility

Plans are still developing on this project with input from Underwriters Laboratory, Environmental Protection Agency (EPA), and Department of Energy (DOE).

3. Work for Others (WFO) and Partnerships

A team from Ford Motor Company visited ORNL’s FEERC team and Materials Science and Technology Division regarding an imminent Cooperative Research and Development Agreement (CRADA) project in ethanol engines. This CRADA would be with United States Council for Automotive Research (USCAR) and was originally promoted by GM. The same team reviewed WFO work on EGR systems that has been underway for about two years. A new phase of the EGR project is underway, the first activity in the recently renovated chassis dyno lab at National Transportation Research Center (NTRC).

FEERC was invited to be a partner on five industry teams preparing proposals to the “Supertruck” Request for Proposal (RFP). Several staff were very active in proposal preparation during August.

Toyota has inquired about application of the SpaciMS.

4. Laboratory Directives Research and Development (LDRD) proposals

FEERC had two LDRD proposals in the final round of this years competition, one on application of neutron imaging to study particle filters, presented by Todd Toops, and one on micro-engines for Department of Defense (DOD) use presented by Mike Kass.