

Applicant	Location	DOE Award	Description
<b>Advanced fuels and lubricants (Area of Interest 1A, 1B, and 1C)</b>			
Alliance for Sustainable Energy, LLC – NREL	Golden, CO	\$1,506,164	This project will determine levels at which higher alcohols and other advanced oxygenated fuel components can be readily integrated into the existing fuel supply (i.e., drop-in replacement fuels).
Ford Motor Company	Dearborn, MI	\$1,500,000	This project will identify fuel properties that can be used to enable novel combustion strategies with low emissions of nitrogen oxides in an engine, and enhance existing models to capture the effect of additional key fuel properties on combustion.
Wisconsin Engine Research Consultants LLC	Madison, WI	\$1,500,000	This project will optimize fuel-based control of novel combustion strategies in light- and heavy-duty vehicles to enable diesel-like efficiencies with ultra-low engine-out emissions.
Massachusetts Institute of Technology	Cambridge, MA	\$1,497,531	This project will investigate the use of novel lubricant formulations that target differing lubrication requirements of the major engine subsystems (e.g., valve train vs. bearings).
Ford Motor Company	Dearborn, MI	\$1,200,000	This project will research, develop, and demonstrate polyalkylene glycol (PAG)-based engine oil technology which can reduce engine friction relative to conventional petroleum-based and synthetic oils.
Oak Ridge National Laboratory (dba UT-Battelle, LLC)	Oak Ridge, TN	\$1,200,000	This project will investigate the use of ionic liquids as a new class of multi-functional (anti-wear and friction modifier) lubricant additives to allow the use of lower-viscosity engine oils, to improve engine efficiency.
Massachusetts Institute of Technology	Cambridge, MA	\$962,497	This project will enable diesel-like efficiency and increased maximum power output in a gasoline engine by using a secondary fuel to suppress engine knock under high load.

UChicago Argonne LLC	Argonne, IL	\$800,000	This project will develop boron-based lubricant additives to achieve higher fuel economy, longer durability, and better environmental compatibility in future and legacy engines.
<b>Light-weighting materials (Area of Interest 2A, 2B, and 2C)</b>			
Metal Oxygen Separation Technologies Inc	Natick, MA	\$6,000,000	This project will develop a new process that enables low-cost, domestic manufacturing of magnesium. Increased availability of magnesium can enable vehicle weight reduction and improvement in fuel efficiency.
Zoltek Companies, Inc.	Bridgeton, MO	\$3,748,865	This project will develop a novel low cost route to carbon fiber using a lignin/PAN hybrid precursor and carbon fiber conversion technologies leading to high performance, low-cost carbon fiber. Increased availability of low cost carbon fiber can enable vehicle weight reduction and improvement in fuel economy.
United States Automotive Materials Partnership, LLC	Southfield, MI	\$3,500,000	This project will validate crash models for carbon-fiber composites that would enable the use of lightweight composites in primary-structural automotive crash and energy management applications.
United States Automotive Materials Partnership, LLC	Southfield, MI	\$3,000,000	This project will design, engineer, fabricate and test an integrated magnesium-intensive automotive assembly focused on a 45 percent weight reduction over currently-used steel counterpart structures.
Plasan Carbon Composites	Bennington, VT	\$2,493,000	This project will evaluate and validate models for predicting the crash behavior of carbon fiber composites by building and testing subcomponent structures.
<b>Demonstration Project for a Multi-Material Light-Weight Prototype Vehicle (Part of the Clean Energy Dialogue with Canada) (Area of Interest 3)</b>			
Vehma International of America, Inc.	Troy, MI	\$10,000,000	This project will develop and validate a “new passenger vehicle design architecture” which facilitates a 50% weight reduction through the extensive use of lightweight and high strength materials.

Chrysler Group LLC	Auburn Hills, MI	\$10,000,000	This project will develop and demonstrate a cost effective, light-weight, multi-material vehicle incorporating technologies targeting 50% weight reduction.
<b>Advanced cells and design technology for electric drive batteries (Area of Interest 4A, 4B, 4C, and 4D)</b>			
The Pennsylvania State University	University Park, PA	\$5,000,000	This project will develop a high energy density lithium-sulfur cell technology that significantly reduces battery size, and improves performance and life.
Amprius, Inc.	Menlo Park, CA	\$4,998,336	This project will develop next generation, high-energy lithium ion cells leveraging silicon anodes, doubling the capacity of state of the art vehicle batteries.
Dow Kokam, LLC	Lee's Summit, MO	\$4,986,984	This project will develop and deliver low cost, large format cells with extremely high energy density, that meet performance, life, and safety requirements of electric drive vehicles.
Applied Materials Inc.	Santa Clara, CA	\$4,902,862	The project will design and assemble a low cost, high volume manufacturing module for fabricating high capacity metal alloy anodes in a continuous roll-to-roll configuration.
Seoo, Inc	Berkeley, CA	\$4,874,391	This project will develop high-energy cells using a lithium metal anode and a proprietary solid polymer electrolyte that significantly reduces battery cost and size, and improves life and safety.
Nanosys, Inc.	Palo Alto, CA	\$4,840,781	This project will develop next generation, high-energy lithium ion cells leveraging high voltage composite cathode materials and silicon based anodes doubling the capacity of state of the art vehicle batteries.
3M Company	St. Paul, MN	\$4,577,909	This project will develop a cell, with high energy density at low cost for Lithium-ion (Li-ion) batteries for automotive applications by integrating advanced chemistries and enabling technologies related to electrode preparation.
Miltec UV International, LLC	Stevensville, MD	\$4,405,935	This project will develop and demonstrate the use of Ultraviolet (UV) and Electron Beam (EB) curing technology to reduce the cost of manufacturing Lithium ion battery electrodes more than 50%.

Johnson Controls, Inc.	Milwaukee, WI	\$3,673,132	This project will develop and demonstrate a portfolio of advanced manufacturing process improvements to significantly reduce the manufacturing cost of large format Li-ion cells by 50%.
A123 Systems, Inc.	Watertown, MA	\$2,992,744	This project will develop and demonstrate dry process electrode fabrication to reduce cost of EV and PHEV's innovations in lithium ion battery production.
DENSO International America, Inc.	Southfield, MI	\$2,610,555	This project will develop and demonstrate an innovative battery thermal management system that will allow vehicle OEM's to reduce the size of PHEV & EV battery packs or increase the drive range.
Optodot Corporation	Watertown, MA	\$2,249,127	This project will conduct research and development to reduce the cost of manufacturing lithium ion batteries by 40% by incorporating new inactive components and by utilizing a simpler and faster battery assembly process.
<b>Advanced power electronics and electric motor technology (Area of Interest 5A and 5B)</b>			
General Motors LLC	Pontiac, MI	\$6,000,000	This project will develop high performance, low-cost power module and inverter switching technologies that lead to the design and fabrication of the next generation of power inverters.
General Electric	Niskayuna, NY	\$5,967,114	This project will develop high-performance motors with non-rare earth materials by concurrently engineering advanced motor designs, materials, thermal management, and motor controls.
Azure Dynamics, Incorporated	Woburn, MA	\$5,355,625	This project will develop an inverter with improved thermal performance with focus on materials and technology innovations to improve efficiency and reduce cost to enable vehicle electrification.
UQM Technologies, Inc.	Longmont, CO	\$3,024,592	This project will develop a non-rare-earth permanent magnet motor architecture that will enable the use of low energy magnet technology.
<b>Solid State Thermoelectric Energy Conversion Devices (Area of Interest 6A)</b>			
Amerigon Incorporated	Irwindale, CA	\$8,000,000	This project will improve passenger car fuel efficiency by 5% through the conversion of exhaust gas waste heat to electric power using a thermoelectric generator.

General Motors, LLC	Warren, MI	\$8,000,000	This project will develop a thermoelectric generator (TEG) system to convert waste heat to electric power, with the control systems necessary to utilize that power in a vehicle.
GMZ Energy, Inc	Waltham, MA	\$8,000,000	This project will demonstrate a robust thermoelectric exhaust waste heat recovery system that provides >5% fuel efficiency improvement for a light-duty vehicle.
<b>Fleet Efficiency (Area of Interest 7A and 7B)</b>			
Cooper Tire & Rubber Company	Findlay, OH	\$1,500,000	This project will develop and demonstrate a new class of fuel efficient tires, focused on the replacement market, using innovative materials technology and tire design concepts to improve overall fuel efficiency by 3%.
The Goodyear Tire & Rubber Company	Akron, OH	\$1,499,771	This project will develop and demonstrate an in-tire system for automatically maintaining a set pressure in a commercial truck tire.
PPG Industries, Inc. Monroeville Technical Center	Monroeville, PA	\$1,485,851	This project will research, develop, and validate a modified silica-based tire tread material to reduce tire rolling resistance and a barrier coating to provide extended tire pressure retention.
The Regents of the University of California, Riverside	Riverside, CA	\$1,210,237	This project will develop and demonstrate driver feedback technology that will improve fuel efficiency of passenger cars and commercial vehicles.
Eaton Corporation (Milwaukee, WI)	Milwaukee, WI	\$914,551	This project will develop a simple and inexpensive driver feedback and powertrain management technology to reduce driver-bias on commercial fleets and improve average fleet fuel economy by at least 2 percent.
<b>Advanced Vehicle Testing and Evaluation (Area of Interest 8)</b>			
Electric Transportation Engineering Corp.	Phoenix, AZ	\$26,420,018	This project will test and evaluate early production, and pre-production light-, medium-, and heavy-duty advanced technology vehicles using a variety of fuels, energy storage systems, and propulsion systems.