

Vehicle & Systems Simulation & Testing

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Vehicle & Systems Simulation & Testing Missions

Focus Area activities provide direct and indirect support for evolution of high efficiency vehicles as real world product offerings

Component /Systems Evaluation

\$1.95m

- Virtual vehicle environment
- Energy management development/practices
- Systems benchmarking/evaluations

Modeling & Simulation

\$5.25m

- Develop & use modeling tools
- Assess technology potential
- Component Interactions
- Goal setting for R&D

Lab & Field Evaluations

\$25.69m

- Performance benchmarking
- Accelerated reliability data
- Modeling tool validation

Stakeholders & Partners

Original Equip. Manufacturers
Utilities
Consumers
Fleet Owners
VTP Sub Programs
DOE Programs
Policy Makers

Vehicle Systems Optimization

\$2.225m

- Reduce auxiliary and parasitic loads
- Enabling Technologies

PEV Codes & Standards

\$3.56m

- Standards Committee Participation
- Develop and Validate
- Technology Development

Recovery Act: Transportation Electrification Initiative

Largest U.S. Electric Vehicle & Charger Deployment Ever

- Approximately \$400 million in federal funding to
 - Automotive and Charging Industry
 - Educational Institutions
- Deploys over 13,000 electric-drive vehicles & 22,000 charging stations
- Collect detailed data
- Two EVSE specific projects



- Recovery Act – Initiated data collection on hundreds of vehicles & EVSE units placed in service to date
- 15 million PHEV/EV test miles accumulated on 1,600 Light Duty electric drive vehicles representing 107 different models
- 3.3 million MD/HD HEV test miles accumulated on 85 different vehicles since 2006
- Full release of Autonomie modeling and simulation platform validated and deployed (Argonne National Lab-General Motors CRADA)
- Supported development and validation of PEV connectivity and communications standards

FY 2011 Emphasis

- Support Electric Drive Vehicle (EDV) Market Transformation
 - Fund industry PHEV RD&D
 - Expand Evaluations for PHEV TADA & Transportation Electrification Recovery Act
 - Enhance component/system capabilities
 - Common platform for on-road evaluations
 - Climate extremes testing
 - HIL Studies of Advanced Powertrains
 - Expand AEDV Codes & Standards to address key concerns
- Validate and deploy “Autonomie”

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