

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

\$2.35m

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

Modeling & Simulation

\$4.575m

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

Lab & Field Evaluations

\$10.475m

- Performance benchmarking
- Accelerated reliability data
- Modeling tool validation

Stakeholders & Partners

\$20.5m

Industry Grant Recipients
Original Equip. Manufacturers
Utilities
Consumers & Fleet Owners
VTP Sub Programs
DOE Programs
Policy Makers

Vehicle Systems Optimization

\$3.82m

- Reduce auxiliary and parasitic loads
- Enabling Technologies

PEV Codes & Standards

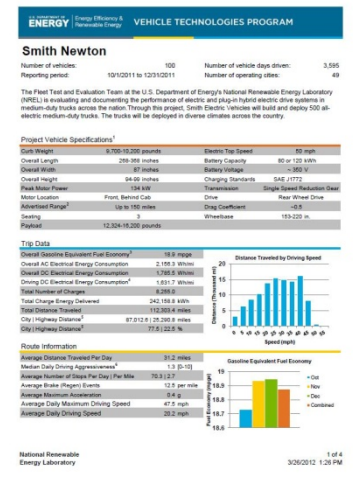
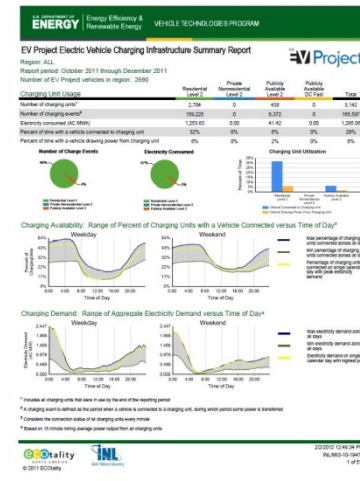
\$2.565m

- Standards Committee Participation
- Develop and Validate
- Technology Development

Recovery Act: Transportation Electrification Initiative

Largest U.S. Electric Vehicle & Infrastructure Deployment Ever

- Approximately \$400 million in federal funding to:
 - Automotive and Charging Industry
 - Educational Institutions
- Deploys over 20,000 charging stations to support 13,000 plug-in vehicles
 - Approximately 10,000 EVSEs and over 6100 vehicles as of April 30, 2012
- Collection of detailed data:
 - 113,000 PEV test miles, 4,430 charge events per day
 - LDV: <http://avt.inl.gov/>
 - M/HD: www.nrel.gov/vehiclesandfuels/fleettest/



FY 2012 Emphasis

- Support Electric Drive Vehicle (EDV) Market Transformation
 - Fund industry wireless charging RD&D
 - DE-FOA-0000667, “*Wireless Charging for Electric Vehicles*”
 - Issued 04/05/2012; Closes 05/31/2012
 - Fund Zero Emission Cargo Transport RD&D
 - DE-FOA-0000669, “*Zero Emission Cargo Transport Demonstration*”
 - Issued 03/20/2012; Closed 05/15/2012
 - Expand Evaluations for EDV AVTE & Transportation Electrification Recovery Act
 - Enhance component/system capabilities
 - Common platform for on-road evaluations
 - Climate extremes testing
 - HIL Studies of Advanced Powertrains
 - Expand EDV Codes & Standards to address key vehicle/infrastructure concerns
- Validate and enhance Autonomie models and capability

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