

Advanced Electric Drive Vehicle Education Program

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Overview

Timeline

- Start: 12/18/09
- End: 12/17/12
- Percent Complete: 9%

Budget

- \$8.6 million
 - \$6.9 federal
 - \$1.7 cost share

Barriers

- Constant advances in technology

Partners

- Innovation Drive
 - Sabre Engineering
 - Big Fish Advertising
- MotorWeek
- Advanced Vehicle Research Center
- AutoExposure
- WV and SC Dept of Education
- Greater New Haven Clean Cities Coalition
- Northeast Utilities

Relevance

Objectives/Goals

- Create external advisory committee
- Develop and provide teaching materials to secondary and post secondary schools
- Training for in-service and pre-service personnel, automotive technicians, and first responders to work with AEDs
- Educate consumers on Advanced Electric Drive Vehicles
 - Spur economic growth within field
- Conduct National AFV Day Odyssey to help educate current and future consumers

Jobs

- This project will retain 20.5 Full Time Employment (FTE) jobs.
- Will create 17.5 FTE jobs

Relevance

Milestones

Completed:

May/June 2010

- Creation of External Advisory Committee
- First Responder curricula

Milestones in progress:

October 2009-October 2010

- Develop teaching materials for secondary schools
- Train In-service and pre-service personnel, first responders
- Educate Consumers ongoing
 - (Completion of website, etc.)
- National AFV Day Odyssey 2010

Approach

Creation of Advisory Committee

- Industry, government and other organizations will provide input on project

Develop secondary education materials

- Provide educational opportunities

Create teaching materials and conduct trainings/workshops for Automotive Technicians and First Responders

- Develop skills, knowledge and abilities to diagnose, repair and maintain vehicles
- Train First Responders how to safely respond to accidents involving Electric Drive Vehicles

Educate consumers on Advanced Electric Drive Vehicles

- Develop and disseminate items to promote project and activities

Conduct AFV Day Odyssey

- Marketing materials: online coordinator's notebook, website
- Disseminate project materials and activities
- Add new audience - secondary schools and other sites

Technical Progress

October 2009-Present

Goal 1: Creation of External Advisory Committee

- Members identified
- 1st meeting held 3rd Quarter 2010

Goal 2: Develop teaching materials for Career and Technology Education in secondary schools

- Conducted meetings with Departments of Education in WV and SC
- Develop goals
- Initiated learning objectives

Technical Progress

October 2009-Present

Goal 3: Curricula/Trainings for In-Service, Personnel and Automotive Mechanics (and First Responders)

- First Responder Safety Training Curricula completed June 2010
 - Electric Vehicles
 - Hybrid Electric Vehicles
 - Plug-In Hybrid Electric Vehicles
 - Fuel Cell Vehicles
 - Beta testing of all four modules

Technical Progress

October 2009-Present

Goal 4: Consumer Education

- Project identity finalized
 - Branding and logo created
- Online Toolkit planning initiated
- Advanced Electric Drive Vehicles 101 Video underway
- Website created
 - Template established
 - Content under development
- MotorWeek television segment under development
- Project Marketing
 - Conferences Attendance/Promotion
 - Promotional Materials Developed
 - Press Releases

Technical Progress

October 2009-Present

- Goal 5: National AFV Day Odyssey
 - Planning underway and ongoing
 - Recruitment of 25 secondary school underway
 - Recruitment of 50 sites underway
 - Development of media and marketing campaign underway and ongoing
 - Establishing partnerships underway
 - Materials developed
 - Online site coordinator notebook complete
 - Various marketing materials developed

Collaboration

Project Partners

- Innovation Drive (Industry): assisting with overall communication and outreach efforts and assisting with team collaborations
- Sabre Engineering (Industry): Develop and design Vehicle Simulation & Demonstration software tool
- Big Fish Advertising and PR: Assists with project marketing and outreach efforts
- AVRC (Industry): creating curricula and providing technical assistance and subject matter expertise
- MotorWeek (Industry): Film, produce and air television segment on AED vehicles
- AutoExposure: Developing education and outreach videos

Collaboration (cont.)

Project Partners

- WV and SC Departments of Education: providing focus group to guide CTE curricula development, piloting CTE teaching materials
- Greater New Haven Clean Cities Coalition
- NAFTC National Training Centers (50)
- USDOE Clean Cities program/coordinators
- Northeast Utilities: providing subject matter expertise for infrastructure technician curricula

Other Collaborations

- State Fire Marshal Offices and Fire Departments
- Federal, State and Local Government Agencies
- Industry Partners (OEMs, Utilities, etc.)

Technology Transfer

Technology Transfer

- Curricula and additional training on AED vehicles provided to secondary and post-secondary schools upon completion of project
 - Train-the-Trainer workshops (CTE instructors and secondary teachers)
 - » Training for secondary schools
 - Training provided to post-secondary schools
 - » Train-the-Trainer trainings for NAFTC NTCs
 - Training provided to First Responder Organizations
 - » Train-the-Trainer trainings for FR Organizations
 - Training provided for Infrastructure Technicians
 - » Train-the-Trainer trainings for Utility Companies

Proposed Future Work

Activities for June 2010-September 2010 (PY1)

- Conduct First Responder Safety Training Train-the-Trainer trainings and end-user workshops
- Complete key aspects of AED website
- Complete recruitment of schools and sites for Odyssey 2010
- Complete all activities for Odyssey 2010 developed
- Continue on-going marketing and outreach activities for project

Proposed Future Work

Activities for October 2010-September 2011 (PY2)

- Continue development Electric Drive toolkit
- Completion of MotorWeek segment
- Completion of Vehicle Demonstration and Simulation tool
- Completion of online CTE curriculum
- Completion of AED curriculum
- Dissemination of Train-the-Trainer workshops
- Conduct Odyssey 2010
 - Begin planning Odyssey 2012

Proposed Future Work

- October 2011-December 2012 (PY3)
 - Completion of all technician curricula and training
 - Completion of Electric Vehicle Infrastructure Curricula
 - Conduct National AFV Day Odyssey 2012
 - Completion of NAFTC National Training Center Courses and Workshops
 - Pilot HEV, PHEV, EV, and FCV teaching materials for CTE curricula

Summary

Relevance: The AED program increases and accelerates the development of AED vehicles within industry and among consumers through an extensive education and outreach program

Approach: The AED project will accomplish this through a combination of trainings, workshops, and an extensive outreach and education program

Technical Accomplishments: Utilization of the External Advisory Committee and completion of First Responder Safety Training curricula.

Technical Progress: Recruitment of sites, site coordinator materials and marketing complete for Odyssey 2010. First Responder Safety training curricula developed and Train-the-Trainer training classes scheduled

Collaboration: Extensive collaboration with State Departments of Education, Industry Partners; Post-Secondary Educational Institutions; Federal, State and Local Government Agencies; and First Responder Organizations

Future: Continue development of remaining curricula, conduct Odyssey in 2010 and 2012, complete toolkit, simulation tool and videos. A total 98 trainings and workshops will be completed over the duration of the project.