New York State-wide Alternative Fuel Vehicle Program for Vehicles and Fueling Stations

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NYSERDA
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Project ID# ARRAVT053

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Overview

Timeline
- Start: December 2009
- Finish: November 2013
- Currently 40% complete

Budget
- ARRA economic stimulus funding
- Total project funding
  - DOE: $13,299,101 (36%)
  - Cost-Share: $23,517,650 (64%)
- Funding received to date: $5,253,511.18
- Funding anticipated for next 12 months: approx. $7,500,000

Barriers Addressed
- Lack of alt fuels infrastructure
- Lack of experience with AFVs

Target deployment schedule

<table>
<thead>
<tr>
<th>Year</th>
<th>Vehicles</th>
<th>Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 (Actual)</td>
<td>100</td>
<td>4</td>
</tr>
<tr>
<td>2011</td>
<td>323</td>
<td>41</td>
</tr>
</tbody>
</table>

Partners
- 39 New York State public and private fleets
- 5 Clean Cities Coalitions
Relevance

Project Objectives

• **Spur economic growth and create jobs in New York State** through shovel-ready stimulus spending as part of ARRA
• **Demonstrate that fleets of all types** can implement and benefit from alternative fuel vehicle and infrastructure projects
• **Increase experience with AFVs** among NY’s public and private fleets, influencing future purchasing decisions
• **Create infrastructure to support future AFV deployment** in NY
• **Reduce petroleum use and GHG emissions** in the state’s transportation fleet, to help fulfill the State Energy Plan and Climate Action Plan
• **Develop innovative programs to train firefighters** to work with new alternative fuels and AFVs
Relevance

Project Sites in New York State

- Genesee Region Clean Communities
- Clean Communities of Western New York
- Clean Communities of Central New York
- Capital District Clean Communities
- New York City – Lower Hudson Valley Clean Communities
Relevance
Types of Program Participants

Program Participants (39)

- Municipalities and Counties (11)
- Private Fleets (10)
- School Districts (11)
- Universities (2)
- State Entities (3)
- Utilities (2)
Approach
Tasks for Project Completion

Task 1: Project Management and Planning
• Conduct a project kick-off meeting
• Finalize sub-recipient agreements
• Revise and update Project Management Plan

Task 2: Vehicle Deployment
• Complete vehicle NEPA process
• Purchase and take delivery of vehicles and/or convert vehicles
• Apply appropriate signage to vehicles stating that they are part of a US DOE Clean Cities Award
• Deploy vehicles

Task 3: Infrastructure Development
• Complete Infrastructure NEPA process and obtain necessary permits
• Complete actions necessary to begin construction and/or upgrades
• Install fueling Infrastructure
• Apply appropriate signage to fueling infrastructure stating that it is part of a US DOE Clean Cities Award
• Make infrastructure operational
Approach

Tasks for Project Completion

**Task 4: Training Development & Delivery**
- Identify specific training needs of those operating and maintaining vehicle and refueling infrastructure
- Develop training to address needs of those mentioned above
- Provide training to appropriate audiences
- Perform on-going identification of additional training needs and hold follow-up training

**Task 5: Outreach/Marketing**
- Provide a plan for project marketing/outreach that informs the public about this project
- Execute project marketing/outreach plan
- Document all marketing/outreach conducted

**Task 6: Documentation & Reporting**
- Monitor performance of vehicles and infrastructure for a period of 24 months after deployment
- Document all training and marketing/outreach conducted and Clean Cities involvement in project
- Provide quarterly and annual reporting of fleet data to DOE and local Clean Cities coalitions
- Provide project updates/lessons learned at merit reviews to ensure that the information and knowledge gained by project participants is shared
Approach
Milestones

2010
• Finalize all sub-recipient contracts
• Receive approval for all NEPA EQs
• Vehicle orders 70% complete
• Vehicle deployment 30% complete
• Infrastructure development 30% complete
• Trainings and outreach/marketing activities started
• Ongoing reporting

2011
• Vehicle deployment 100% complete
• Infrastructure development 100% complete
• Training and outreach/marketing activities complete
• Ongoing reporting

2012-13
• Complete reporting and data collection
• Ongoing training through programs established with ARRA funds
Technical Accomplishments
12/1/2009 to Present

• Kick-off meetings held with all sub-recipients
• Reporting protocols implemented for sub-recipients
• 86% of contracts with sub-recipients signed (38 out of 44)
• 93% of NEPA EQs submitted and approved (41 out of 44)
• 62% of vehicles ordered (263 out of 423)
• Site preparation under way for 78% of infrastructure projects (7 out of 9)
Technical Accomplishments
Types of vehicles to be deployed

Types of Vehicles to Be Deployed

Light-Duty (248 vehicles)
- CNG (211)
- LPG (9)
- Electric (11)
- Hybrid Electric (17)

Medium- and Heavy-Duty (175 vehicles)
- CNG (69)
- LPG (37)
- Plug-in Hybrid (3)
- Hybrid Electric (65)
- Hydraulic Hybrid (1)
Types of Infrastructure to Be Deployed (45 stations)

- Electric Charging Stations (38)
- LPG Fueling Stations (4)
- CNG Fueling Stations (3)
Collaborations
List of Sub-recipients

- Albany International Airport
- Ballston Spa Central School District
- Bard College
- BOCES of Rockland County
- Cayuga County
- Central Hudson Gas & Electric
- Charlotte Valley Central School District
- City of Albany
- City of Rochester
- City of Syracuse
- City of White Plains
- Coca-Cola Enterprises
- CuseCar, Inc.
- Demon Logistics, LLC
- East Greenbush Central School District
- Ferrario Ford, Inc.
- Frey Electric Construction, Inc.
- Gilboa-Conesville Central School District
- Harbec, Inc.
- Hoosic Valley Central School District
- Malone Central School District
- Manhattan Beer Distributors, Inc.
- Monroe County
- National Grid
- New York Power Authority
- NYS Department of Environmental Conservation
- NYS Division of Homeland Security and Emergency Services
- Palmyra-Macedon Central School District
- Praxair Distribution, Inc.
- Roosevelt Island Operating Corp.
- University at Albany
- Tompkins County
- Town of Dobbs Ferry
- Town of Mamaroneck
- Town of Warwick
- Trumansburg Central School District
- Verizon Communications
- Village of Minoa
- Wayne Central School District
- Westchester Ambulette, Inc.
- Capital District Clean Communities
- Clean Communities of Central New York
- Clean Communities of Western New York
- Genesee Region Clean Communities
- New York City Lower Hudson Valley Clean Communities
Proposed Future Work
Work Scheduled for Remainder of 2011

- Deployment of **remainder of vehicles and infrastructure**
- Additional **trainings and marketing/outreach**
- Possible **media events** around deployments in New York City, Syracuse, and Albany in late summer/fall
- **Firefighter trainings** around NYS on fighting liquid biofuel fires
- **Reporting** on jobs creation and expenditures
- **Reporting** on fuel usage, fuel dispensed, vehicle miles traveled, and emissions from vehicles
Summary

- NYSERDA’s Clean Cities project will create jobs and spur economic growth through the purchase and deployment of over 400 AFVs and over 40 alternative fueling stations.
- Our project is bringing together all types of fleets across New York State to build interest in and experience with alternative fuels and alternative fuel vehicles.
- New York is initiating innovative training programs to prepare stakeholders like firefighters to work with AFVs.
- The vehicles and infrastructure deployed will show significant petroleum and GHG emission reductions, in support of New York State’s energy and climate plans.