

Southeast Regional Alternative Fuels Market Initiatives Program

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Project ID: TI051

- **TIMELINE**

- Start: February 1, 2013
- End: January 31, 2015
- 30% Complete

- **BUDGET**

- Total Project Funding: \$ 580,900
 - DOE: \$500,000
 - Cost Share: \$80,900
- FY13 Funding \$290,000
- FY14 Funding \$210,000
- \$ 104,139 spent (18% as of 1/31/14)

- **BARRIERS ADDRESSED**

- Consumer reluctance to purchase new technologies

- **PARTNERS**

CTE (Lead)
AL Clean Fuels Coalition
Clean Cities – Georgia
City of Atlanta
Palmetto State Clean Fuels Coalition
East, Middle, & West TN Clean Fuels Coalition
Southern Company
Porter Novelli
Lawson State
Sustainable Atlanta

Objectives:

- Assess regulations and/or policies associated with AFV use
- Assess, analyze, and develop strategies to mitigate barriers and create readiness workbooks
- Identify training needs, develop training materials, and deploy training
- Outreach, education, and coordination with public and private entities

Project Supports VTP Outreach, Deployment, and Analysis Goals:

- By 2020, to achieve a petroleum reduction of over 2.5 billion gallons per year through voluntary adoption of alternative fuel vehicles and infrastructure
- To ease market introduction of alternative fuels and new electric drive vehicle technologies through voluntary efforts in partnership with local communities
- To provide technical and educational assistance to support local communities and partnerships that promote better understanding of the benefits of these new technologies

Impact:

- Identifying factors that deter the deployment of AFVs in 4-state region and collectively developing strategies to assist in overcoming these barriers

MILESTONES



| Tasks | | Original Estimated Completion Date | Revised Estimated Completion Date | Actual Completion Date |
|--------------------|---|------------------------------------|-----------------------------------|------------------------|
| Subtask 1.1 | Detailed Spend Plan | 3/3/13 | 3/3/13 | 3/1/13 |
| Subtask 1.2 | Kick-Off Meeting with DOE | 2/21/13 | 2/21/13 | 2/21/13 |
| Subtask 1.3 | Submit Materials to DOE for Review | Ongoing | 1/31/15 | |
| Subtask 1.4 | Submit Updated Schedule/Timeline to DOE | Ongoing | 1/31/15 | |
| Subtask 2.1 | Assess Regulations and/or Policies Associated with AFV Use | Oct-13 | Oct-13 | Dec-13 |
| Subtask 2.2 | Workshops to Identify, Study, and Assess Regional Policy Objectives | Aug-13 | Aug-13 | Jul-13 |
| Subtask 3.1 | Barrier Stakeholder Workshops | Aug-13 | Nov-13 | Dec-13 |
| Subtask 3.2 | Assess, Analyze, and Develop Strategies to Mitigate Barriers & Create Readiness Workbooks | Mar-14 | Apr-14 | |
| Subtask 3.3 | Training to Deployment Clusters Throughout Four-State Region | Sep-14 | Sep-14 | |
| Subtask 4.0 | Identify Training Needs, Develop Training Materials, and Deploy Training | Sep-14 | Sep-14 | |
| Subtask 5.0 | Address Outreach, Education, and Coordination with Public & Private Entities | Oct-14 | Oct-14 | |

Project Objective

- The objective of this project is to target and remedy obstacles to alternative fuel vehicle adoption and use in regional and/or statewide sectors and niche markets.

Project Initiatives

- The project will address each of the following four (4) initiatives:
 - Policies
 - Barrier Reduction
 - Safety and Training
 - Market Development/Outreach
- Through the initiatives, identify barriers that exist to alternative fuel deployment and develop and implement actions to help overcome the barriers.

SOPO Project Tasks

Task 1: Project Management and Administration

Task 2: Policy Initiatives and Activities

Task 3: Barrier Reduction Initiatives and Activities

Task 4: Safety and Training Initiatives and Activities

Task 5: Market Development/Outreach Initiatives and Activities

Unique aspect of this project is the coordination between the coalitions in the four states and the opportunities presented by this synergy.

- Under Task 2, the team completed assessment of regulations and policies in the four state region
- Team participated in Policy and Regulation SWOT Analysis
 - Identified topic areas for policy and regulation barriers
 - Availability
 - Taxing
 - Utility
 - Fire Marshal
 - Existing Policy and Regulation
- Building on foundation of Policy and Regulation Barriers, the team initiated Task 3 by developing a list of barriers to discuss with coalition stakeholders

Barrier List

- For each of the following categories of barriers, explored specific Policy and Regulation Barriers; Access Barriers; Education Barriers
 1. Availability Barriers
 - a) Fuel/Fueling Infrastructure Availability Barriers
 - b) Vehicle Availability Barriers
 2. Demand Barriers
 3. Utility Barriers
 4. Tax Barriers
 5. Other Barriers

Barrier Discussions

- Target audience included government, fleet managers, infrastructure developers, and OEMs
- Collectively, the coalitions hosted a total of 8 workshops, 8 conference calls, and participated in 10 face-to-face interviews, engaging stakeholders representing more than 50 organizations
- Identified a list of almost 30 barriers

Barrier List

1. Lack of incentives to support deployment of vehicles
2. Lack of incentives to support deployment of infrastructure
3. High cost of infrastructure
4. Lack of HOV access legislation for AFVs in all states
5. Leasing companies not interested in offering AFVs to fleet customers
6. EPA certification requirements are burdensome
7. Lack of infrastructure
8. Procurement/purchasing requirements
9. Access to maintenance facilities
10. Fleet management policies
11. Lack of knowledge of available vehicles/appropriate applications
12. Lack of understanding of economics through cost of ownership
13. Lack of engagement from utility partners
14. Inconsistency in prices reported to AFDC (particularly LPG)

Barrier List

15. Weight exemptions/inconsistent policies
16. Bid processes
17. Lack of eligibility for existing low interest loan programs
18. Utility rate structures
19. EVSE regulations
20. Fees on EVs to collect fuel tax
21. Fire marshal/fire marshal education
22. Planning and permitting
23. Lack of coordination during deployment
24. Myths/bad publicity
25. Lack of user testimonials
26. Lack of organization in LPG industry
27. Tax policies not predictable/stable
28. Lack of available vehicles
29. OEM sales reps are not AFV experts

Developing Actions to Overcome Barriers (Efforts continuing this year)

- Natural Gas and Propane Workbook Sections
- Policy Maker Workbook Section
- Outreach Strategy

Readiness Workbooks (Efforts continuing this year)

- Develop workbooks by fuel type to assist fleets interested in deploying alternative fuels
 - Stand alone document that can be one-stop-shop resource
 - Complement efforts from EV Readiness Project and workbook developed for Community EV Readiness
 - Drafted Natural Gas Workbook and developing Propane Workbook
 - Incorporating sections to address identified barriers from assessment activities
 - Drafting a series of case studies from 4-state region
 - Including a Policy Maker Workbook Section

- **Clean Cities Coalitions**
 - Alabama Clean Fuels Coalition
 - Clean Cities-Atlanta
 - Palmetto State Clean Fuels Coalition
 - East Tennessee Clean Fuels Coalition
 - Middle Tennessee Clean Fuels Coalition
 - West Tennessee Clean Fuels Coalition
- **Local Governments/Agencies**
 - City of Atlanta
- **Utilities**
 - Alabama Power Company
 - Georgia Power Company
 - Southern Company
- **Stakeholder Engagement**
 - AGL Resources
 - Air Components & Systems LTD
 - Alabama Propane Gas Assoc
 - Alliance Autogas
 - Altech Eco
 - Amerigas
 - Blu
 - Blue Bird
 - City of Covington (GA)
 - City of Kingsport (TN)
 - City of Knoxville - Office of Sustainability (TN)
 - City of Rock Hill (SC)
 - City of Sevierville – Fleet Manager (TN)
 - City of Sevierville – Public Works (TN)
 - Clean Energy
 - Clean Energy Fuels
 - Common Grounds Landscaping
 - Cynergy
 - DeKalb County (GA)
 - Dept of Administrative Services (GA)
 - e-Energy
 - Eastman Chemical Company
 - EcoDual
 - GA Environmental Protection Division
 - Ferrell Gas
 - Force 911
 - Gain Fuel
 - GA Public Service Commission
 - GA Dept of Transportation
 - ICOM North America
 - IMPCO
 - Knox County – Fleet Maintenance (TN)
 - Knoxville Utilities Board
 - Loves
 - Mach Fuels
 - Mapco, Delk US Holdings
 - NGVMotori
 - ORNL
 - Palmetto Gas
 - Palmetto Propane
 - PBG Energy
 - Phoenix Energy
 - Piedmont Natural Gas
 - Roush
 - SC Truck Cents
 - SCE&G
 - Scott Appalachian Industries
 - Trillium
 - Westport
 - WW Williams
 - Yancey Brothers

- Activities planned include:
 - Completing Workbooks and deploying through outreach activities
 - Developing a overarching outreach strategy that takes identified barriers into consideration that can be tailored for deployment by each coalition
 - Offer First Responder Training
 - Train-the-Trainer
 - “Pay it Forward” approach

- Challenges/barriers to meeting project objectives
 - Engaging stakeholders
 - Effectively demonstrating the economic viability of AFV deployment despite up-front cost through cost of ownership analysis
 - Overcoming past experiences/demonstrating successes of more advanced technology
- Contributions to date
 - Better understanding of stakeholders' perceptions of barriers
 - Validation of barriers

- Replication Potential
 - Developing one-stop-shop reference tools in workbooks
 - Implementing a regional approach to outreach with an overarching strategy that can be tailored for each coalition
 - Leverage broader efforts through 4 states
 - Lessons learned from each coalition

- The objective of this project is to target and remedy obstacles to alternative fuel vehicle adoption and use in a 4-state region.
 - Relevance
 - By gaining a better understanding of the barriers to AFV adoption, we can adopt and implement strategies to ease market introduction and promote better understanding of the benefits of AFVs
 - Approach/Potential
 - Leveraging the expertise within a 4-state region and developing tools that will be applicable beyond project period
 - Project Accomplishments
 - Developed a list of barriers that reflect both coalition and stakeholder perspectives
 - Collaborations
 - Sought input from a broad range of stakeholders including fleet managers, fuel providers, infrastructure developers, and OEMs