DeKalb County/Metropolitan Atlanta Alternative Fuel and Advanced Technology Vehicle Project

Don Francis  Clean Cities Atlanta  
Steve Clermont  Center for Transportation & the Environment

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ARRAVT060

This presentation does not contain any proprietary, confidential, or otherwise restricted information
Objectives/Relevance

- Increase supply of alternative fuels
  - Implement LNG-to-RNG facility at DeKalb County landfill

- Increase availability of alternative fuels
  - Implement 6 Public-Access CNG refueling stations
  - Implement EV charging stations

- Decrease demand for petroleum fuels
  - Deploy over 200 alternative fuel and alternative technology vehicles
    - Technologies: CNG, Diesel Hybrid, and Hydraulic Hybrid
    - Applications: Sanitation trucks, Delivery trucks, and Airport Shuttles

- Train users and educate the community about the benefits of alternative fuel and advanced technology vehicles and vehicle deployment strategies
  - Conduct Outreach/Marketing/Training events

- Measure success of the project
  - Collect & report vehicle and infrastructure operational data

- Create and retain jobs
  - ARRA project designed to create jobs and stimulate the economy
# Overview

## Timeline
- **Start:** March 8, 2010
- **Finish:** March 7, 2015
- 33% complete, based on budget spent

## Barriers & Risks
- Availability of 2009 technologies vs. 2011 vehicle requirements
- Delays in 2010/2011 EPA Certification
- Reengineering “Leading Edge” commercial vehicles to meet compliance and safety standards
- Availability /Location of CNG Stations
- Price of CNG vs. Petroleum Fuels
- LFG-to-CNG production efficiency and reliability
- Public and fleet demand for CNG

## Budget
- Total project funding
  - **DOE Share:** $14,983,167
  - **Recipient share:** $24,681,387

## Partners
- County & City Governments
- Local & regional businesses
- Non-profits
<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2011</td>
<td>50% of alternative fuel/technology vehicles ordered</td>
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<tr>
<td>January 2012</td>
<td>100% of alternative fuel/technology vehicles ordered</td>
</tr>
<tr>
<td>June 2012</td>
<td>100% of alternative fuel/technology vehicles deployed</td>
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<tr>
<td>July 2012</td>
<td>100% of vehicle training complete</td>
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<tr>
<td>December 2012</td>
<td>100% of vehicle Outreach/Marketing complete</td>
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<tr>
<td>July 2014</td>
<td>100% of Data Collection complete</td>
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## Approach - Infrastructure

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Milestone</th>
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<tbody>
<tr>
<td>January 2012</td>
<td>100% of infrastructure design/build contracts awarded</td>
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<tr>
<td>April 2012</td>
<td>100% of fueling infrastructure construction started</td>
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<tr>
<td>September 2012</td>
<td>100% of fueling infrastructure operational</td>
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<td>September 2012</td>
<td>100% of initial infrastructure training complete</td>
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<tr>
<td>December 2012</td>
<td>100% of Outreach/Marketing complete</td>
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<tr>
<td>September 2014</td>
<td>100% of Data Collection complete</td>
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Technical Accomplishments & Progress

• Infrastructure
  – Received NEPA Categorical Exclusions for infrastructure projects
  – Received required permits on 6 of 7 infrastructure projects
    • Eight infrastructure project permitting in progress
  – Issued solicitations for bids on all infrastructure projects
  – Selected contractors for infrastructure projects
  – Completed planning & design of American Fueling Systems CNG Station
  – Started construction on DeKalb County LFG-to-RNG Facility
  – Started construction on DeKalb County’s CNG refueling station
  – Started upgrades to DeKalb County CNG vehicle maintenance facility
  – Completed construction of four (4) PS Energy CNG Stations, all of which are operational
<table>
<thead>
<tr>
<th>Project Start</th>
<th>NEPA Complete</th>
<th>Contractor Selected</th>
<th>Design Complete</th>
<th>Permitting Complete</th>
<th>Construction Started</th>
<th>Construction Completed</th>
<th>Facility Operational</th>
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<tbody>
<tr>
<td>AFS CNG Station</td>
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<tr>
<td>DeKalb County CNG Station</td>
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<tr>
<td>DeKalb County Maintenance Facility Upgrades</td>
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<tr>
<td>DeKalb County LFG-to-RNG Conversion Facility</td>
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<tr>
<td>PS Energy CNG Station (Atlanta)</td>
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<tr>
<td>PS Energy CNG Station (East Point)</td>
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<tr>
<td>PS Energy CNG Station (Lithonia)</td>
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<tr>
<td>PS Energy CNG Station (Tucker)</td>
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Technical Accomplishments & Progress
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• Vehicles Deployed
  – City of Atlanta:
    • 18 CNG Airport Passenger Shuttles
  – The Parking Spot
    • 32 CNG Airport Passenger Shuttles
  – Atlanta Airport Marriott
    • 2 CNG Airport Passenger Shuttles
  – Coca-Cola Refreshments:
    • 30 diesel hybrid beverage delivery trucks
Technical Accomplishments & Progress

• Vehicles Ordered
  – United Parcel Service
    • 20 Hydraulic Hybrid delivery trucks
    • 50 CNG delivery trucks
  – City of Atlanta
    • 18 CNG Airport Passenger Shuttles
  – DeKalb County
    • 20 CNG Rear-end Loader Sanitation Trucks
    • 7 CNG Front-end Loader Sanitation Trucks
    • 2 CNG Road Tractors
    • 2 CNG Roll-Off Sanitation Trucks
    • 1 CNG Crane Truck
    • 3 CNG Utility/Mowing Trucks
    • 1 CNG Passenger Van
    • 4 Honda GX CNG Sedans
Technical Accomplishments & Progress

• Public Relations/Outreach
  – Press Releases
  – Local Event Presentations
  – Internet Radio Interviews
  – TV News Coverage

Click to launch videos

DeKalb County LFG-to-RNG Groundbreaking (4:56)
Footage provided courtesy of DeKalb County Television-DCTV Channel 23

DeKalb County LFG-to-RNG Groundbreaking (1:29)
Footage provided courtesy of WSB-TV

PS Energy CNG Station Opening (1:51)
Footage provided courtesy of WGCL-TV
Dashboard

**Number of Operational Infrastructure**

- Number of CNG Stations
  - Project Total: 8
  - Operational to Date: 4

**Number of Vehicles Deployed**

- Number of Vehicles
  - Project Total: 214
  - Deployed to Date: 81

**Petroleum Fuels Reduced**

239,642 gal

**Impact of PR/Outreach**

125,258 People
Collaborations/Partnerships

- Clean Cities Atlanta
- DeKalb County
- City of Atlanta - Atlanta Airport
- Coca-Cola Enterprises
- PS Energy Group
- United Parcel Service
- The Parking Spot
- Sustainable Atlanta
- Clean Energy
- American Fueling Systems
- Atlanta Airport Marriott
- Allison & Partners
- Center for Transportation & the Environment
Future Work

• 2012
  – Complete Vehicle Deployments
  – Complete construction on LFG-to-RNG conversion facility
  – Complete construction on CNG refueling stations
  – Continue Data Collection & Reporting on vehicles and infrastructure
  – Complete Training and PR/Outreach Efforts
  – Federal Spending: $12.4mm, Local Spending $22.3mm

• 2013
  – Continue Data Collection & Reporting on vehicles and infrastructure
  – Federal Spending: $112k, Local Spending: $468k

• 2014
  – Complete Data Collection & Reporting on vehicles and infrastructure
  – Produce Final Report
  – Federal Spending: $100k, Local Spending: $90k

• 2015
  – Close-Out Project
  – Federal Spending: $27k, Local Spending: $0
Summary

The Clean Cities Atlanta Coalition has established a program goal of expanding the use of alternative fuels and advanced technology vehicles in the metropolitan Atlanta region. Deemed a non-attainment area for particulate matter (PM2.5) and ozone, including its precursors nitrogen oxides (NOx) and volatile organic compounds (VOCs), by the Environmental Protection Agency, the Atlanta region will achieve significant public health benefits from emissions reduction. This collaborative will provide a template for the expanded use of locally produced renewable transportation fuel in support of energy independence. Finally, this project will demonstrate the viability of alternative fuel vehicles and advanced technology vehicles in a variety of applications.