



CENTER FOR TRANSPORTATION
AND THE ENVIRONMENT

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

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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

Approach - Vehicles

Month/Year	Milestone
July 2011	50% of alternative fuel/technology vehicles ordered
January 2012	100% of alternative fuel/technology vehicles ordered
June 2012	100% of alternative fuel/technology vehicles deployed
July 2012	100% of vehicle training complete
December 2012	100% of vehicle Outreach/Marketing complete
July 2014	100% of Data Collection complete

Approach - Infrastructure

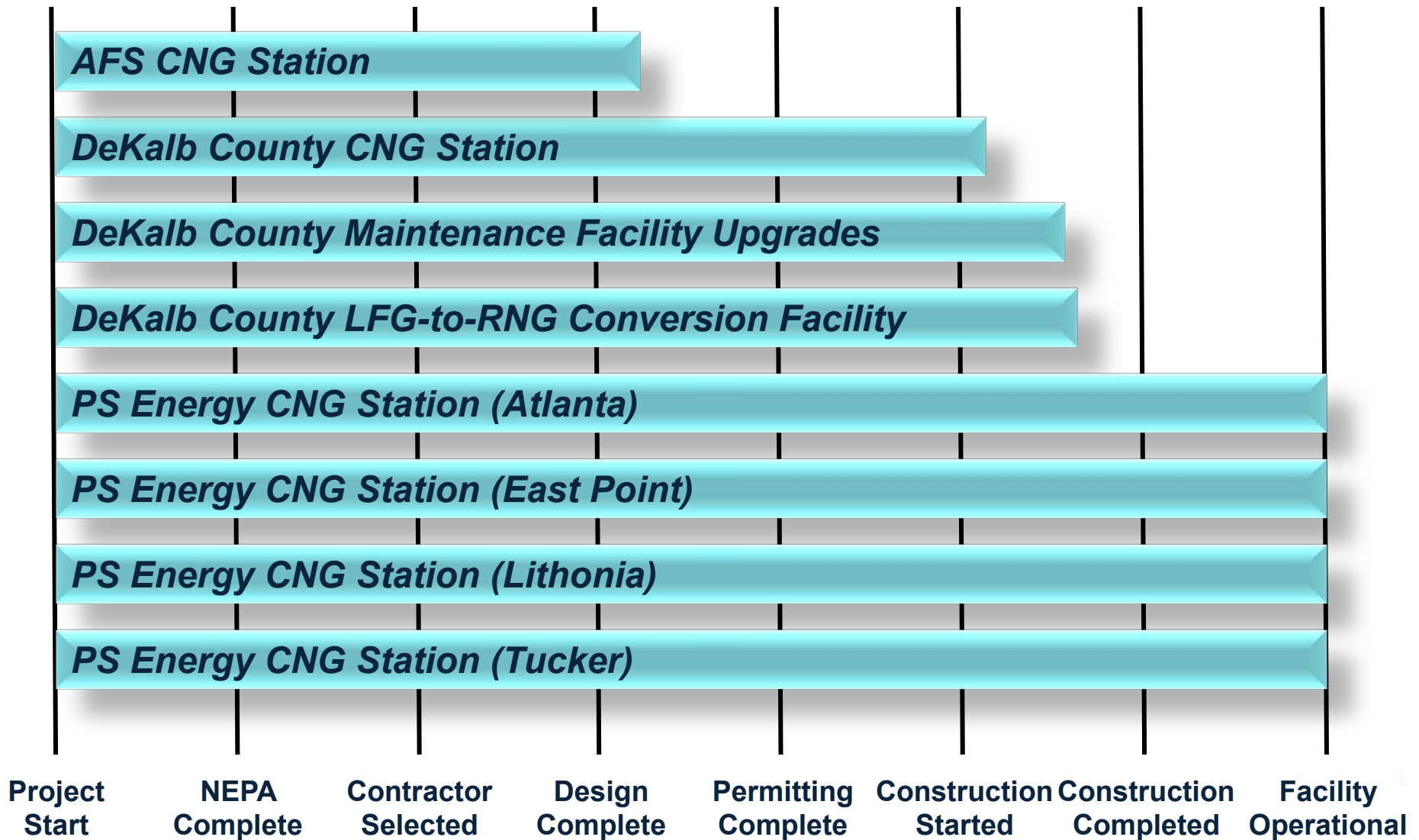
Month/Year	Milestone
January 2012	100% of infrastructure design/build contracts awarded
April 2012	100% of fueling infrastructure construction started
September 2012	100% of fueling infrastructure operational
September 2012	100% of initial infrastructure training complete
December 2012	100% of Outreach/Marketing complete
September 2014	100% of Data Collection complete

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

Technical Accomplishments & Progress

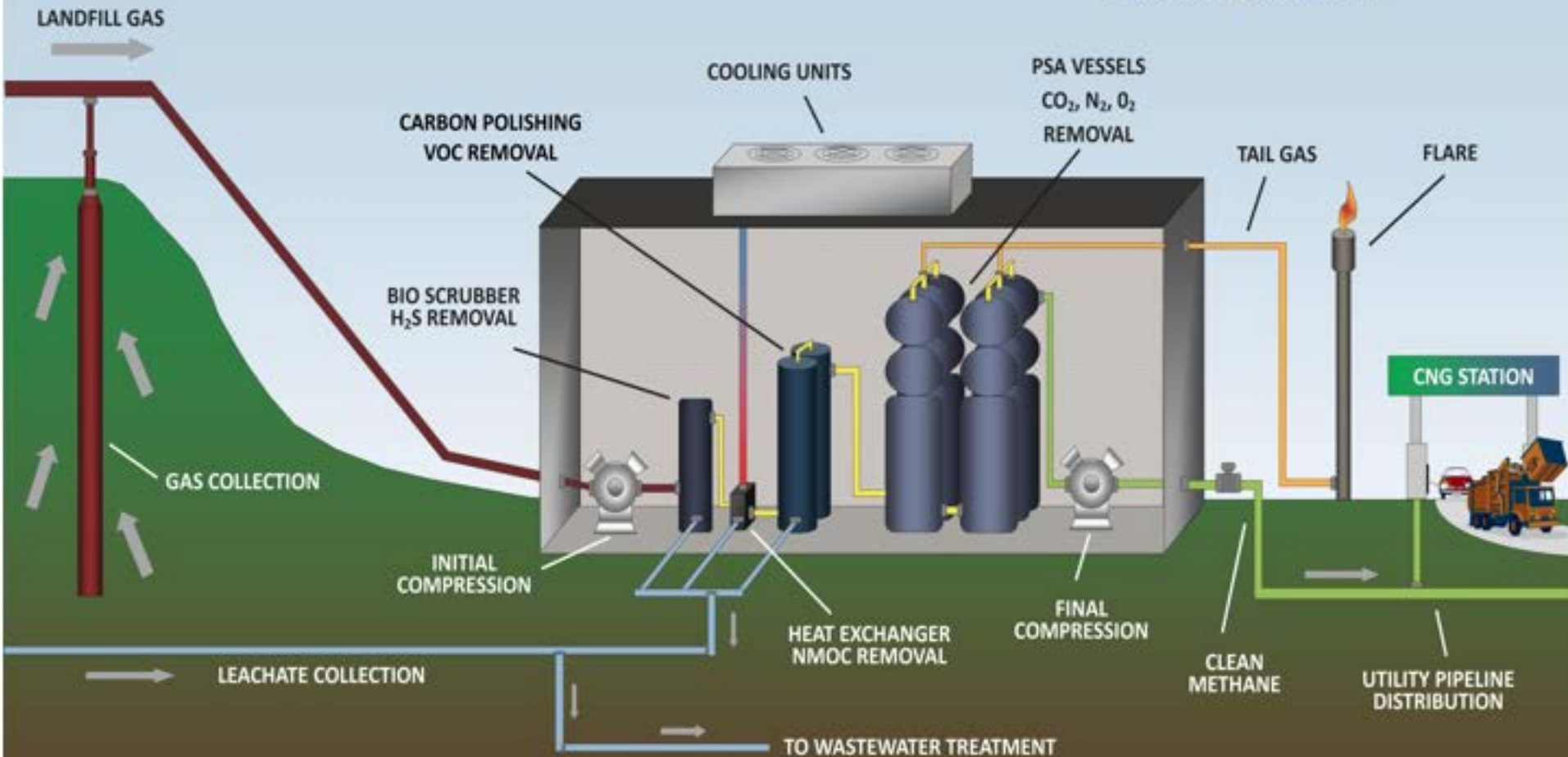


Technical Accomplishments & Progress



Landfill Gas to Renewable Natural Gas

HIGH BTU FACILITY



ESG ENERGY SYSTEMS GROUP

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Technical Accomplishments & Progress

- 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

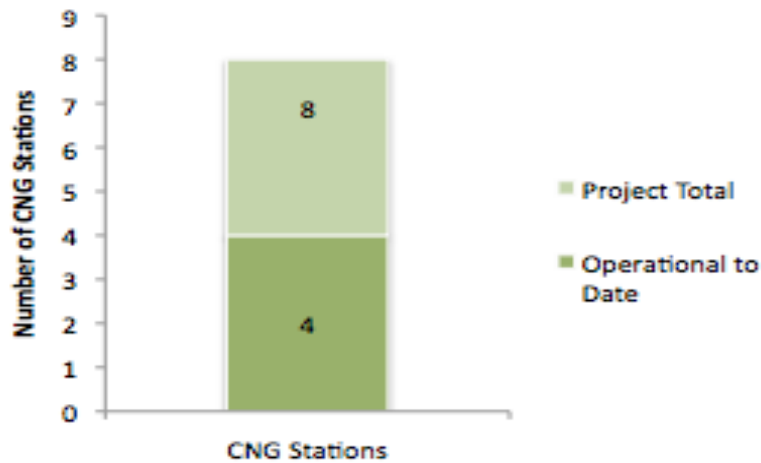
PS Energy
CNG Station Opening (1:51)

Footage provided courtesy of WGCL-TV

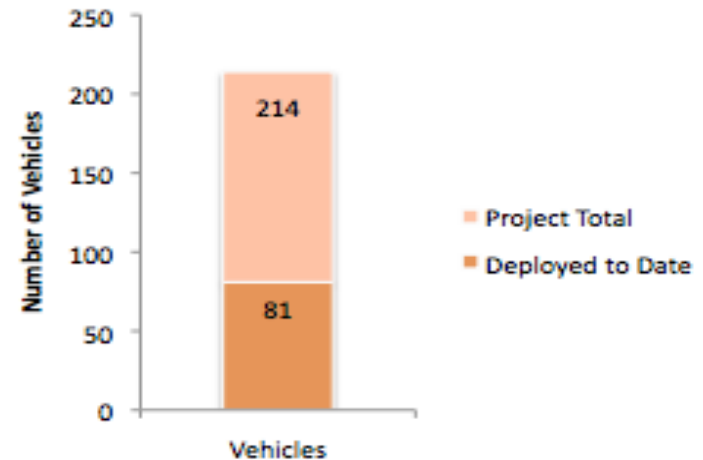


Dashboard

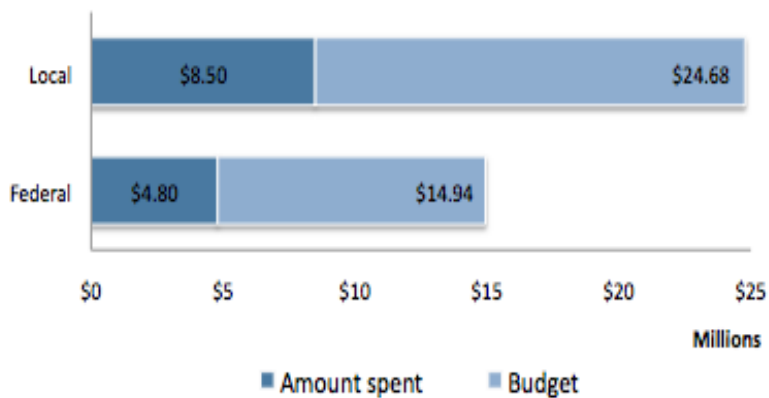
Number of Operational Infrastructure



Number of Vehicles Deployed



Budget vs. Actuals through 01/31/2012



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 (PM_{2.5}) and ozone, including its precursors nitrogen oxides (NO_x) 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.