



# Carolina Blue Skies & Green Jobs Initiative

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Triangle J Council of Governments  
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Project ID #  
ARRAVT064



# Overview

## Timeline

- May 1, 2010
- April 30, 2014
- 40% Federal Funds Expended as of March 15, 2012

## Budget

- Budget: \$31,536,659
- \$12,004,174 Federal (15% operating/marketing)
- \$19,532,485 Contractor

## Barriers

- Economic Downturn/Tax Credit Expirations
- Availability of EPA-Verified Technology
- Quality of Vendor/OEM Training

## Partners

- Five investigative leads
- 43 sub-recipients
- 88 vendors to date





# Objective & Impact

The *Carolina Blue Skies & Green Jobs Initiative* is a bi-state effort to create and retain **green collar jobs** & **reduce dependence on foreign oil** by increasing availability and use of alternative fuels in North and South Carolina.

## ***Impact after 18 months of Program Work***

- Over 19.3 FTE created/retained and 73 lives touched
  - (based on FederalReporting.gov allowable calculations—does not account for downstream job creation or cost shared labor)
- Over 325,000 gallons petroleum displaced
- Allowed local governments and businesses to invest in green, money-saving technologies that they would not otherwise be able to do due to the economic downturn.

***Results: increased economic activity and long-term economic growth***



# Technical Approach

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- Phase I: Execute sub-awards, obtain NEPA approval, deploy vehicles and infrastructure, train end users
  - Large number of sub-recipients required extensive coordination and clear communication
  - Sub-award execution required understanding of unique organizational approval processes, which affected timelines
  - Project partners worked closely with PI's and vendors to identify appropriate & available technology
    - Vehicle conversions require EPA-verified technology. Verification process was delayed in many cases.
    - EPA released new guidance that allowed for a broader range of vehicle conversions
    - Specific circumstances were examined to determine whether time extensions were needed to complete projects (e.g., municipal requirements for ordering vehicles vs. availability of vehicle technology)



# Technical Approach

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- **Phase II: Re-focused to include more comprehensive training for sub-recipients**
  - Primary Investigators surveyed sub-recipients to identify training needs
  - Three training categories identified: Operator, Maintenance, and First Responder
  - Primary Investigators attend all trainings in person and submit evaluations and documentation to TJCOG and DOE
  - Follow-up training and/or additional materials is sometimes required
- **Phase III: Data Collection & Monitoring**
  - Sub-recipients upload reports online by the 5<sup>th</sup> day after quarter ending
  - Primary Investigators review reports and work with sub-recipients to make corrections or fill gaps
  - Primary Investigators work with DOE to coordinate site visits



# Milestones

Project Management		Original Date	Revised Date
<u>Milestone 1.1</u> : All subcontract agreements with project partners are finalized.		May 2011	March 2012
<u>Milestone 1.2</u> : Revised PMP finalized.		June 2010	June 2010
<u>Milestone 1.3</u> : All NEPA submitted and approved.		July 2011	March 2012
Vehicles (Task 2) & Infrastructure (Task 3)			
<u>Milestone 2.1 &amp; 3.1</u> : 50% of vehicles & infrastructure deployed		August 2011	March 2012
<u>Milestone 2.2 &amp; 3.2</u> : 100% of vehicles & infrastructure deployed		April 2012	June 2012
Training			
<u>Milestone 4.1</u> : 50% of training to applicable audiences completed		October 2011	May 2012
<u>Milestone 4.2</u> : 100% of training to applicable audiences completed		October 2012	October 2012
Marketing & Outreach			
<u>Milestone 5.1</u> : Conduct first 2 workshops, complete all templates for brochures, fact sheets, and other marketing materials		Marketing materials, brochures, completed	
<u>Milestone 5.2</u> : Conduct remaining workshops, complete Drive Clean & Green Tour		Outreach workshops re-focused to training	

# Technical Accomplishments and Progress

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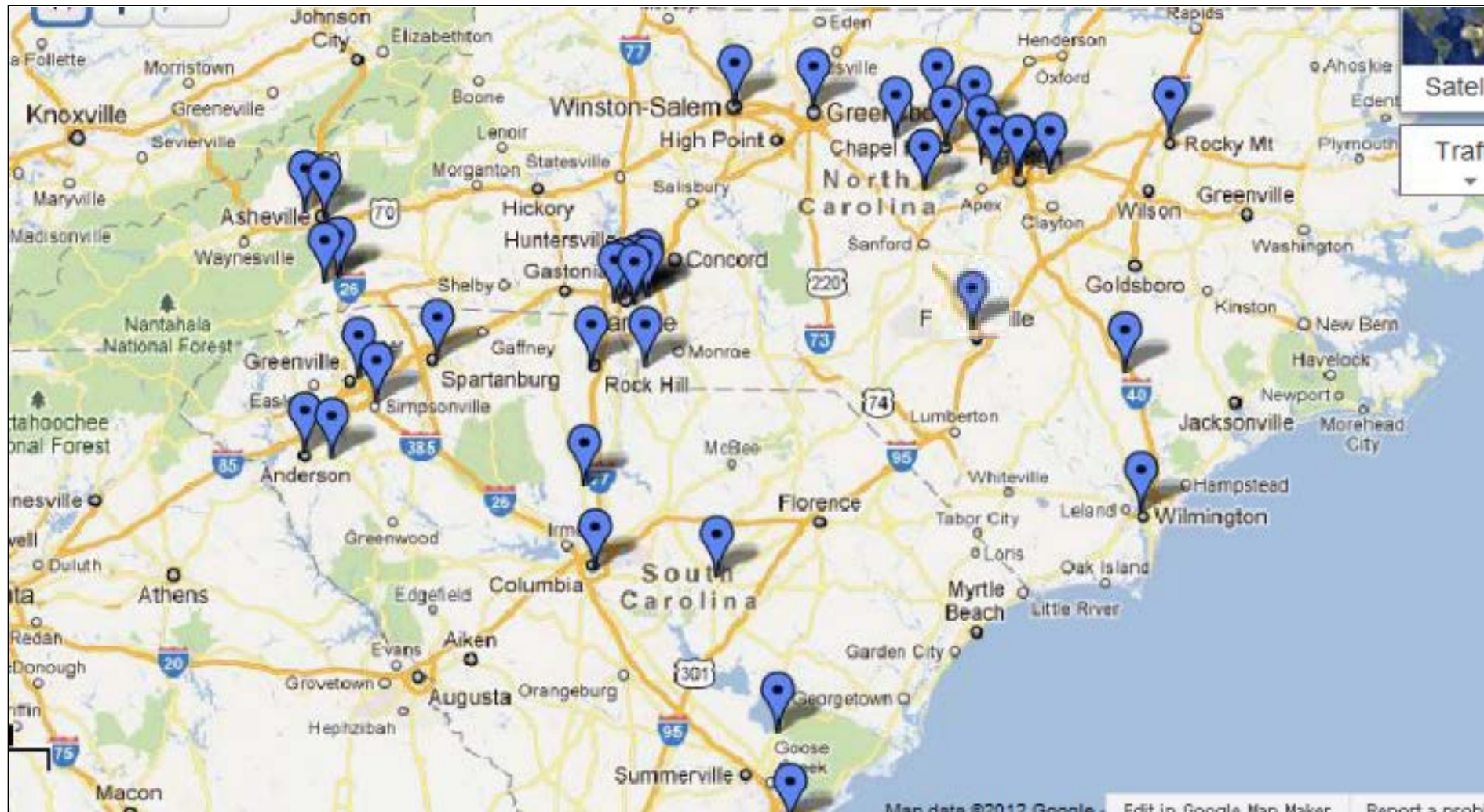
## Task 1: Project Management

In eighteen months of program work, Carolina Blue Skies has:

- Executed 43 sub-awards (12 from April 2011-March 2012)
- Negotiated change/expansion of scope with 17 project partners (9 in 2011/2012)
- Identified 20 new partners (10 in 2011/2012)
- Obtained NEPA approval for part or all of 44 projects (16 in 2011/2012)
- Retained over 20 Full-Time Equivalents and 63 lives touched through ARRA funding alone

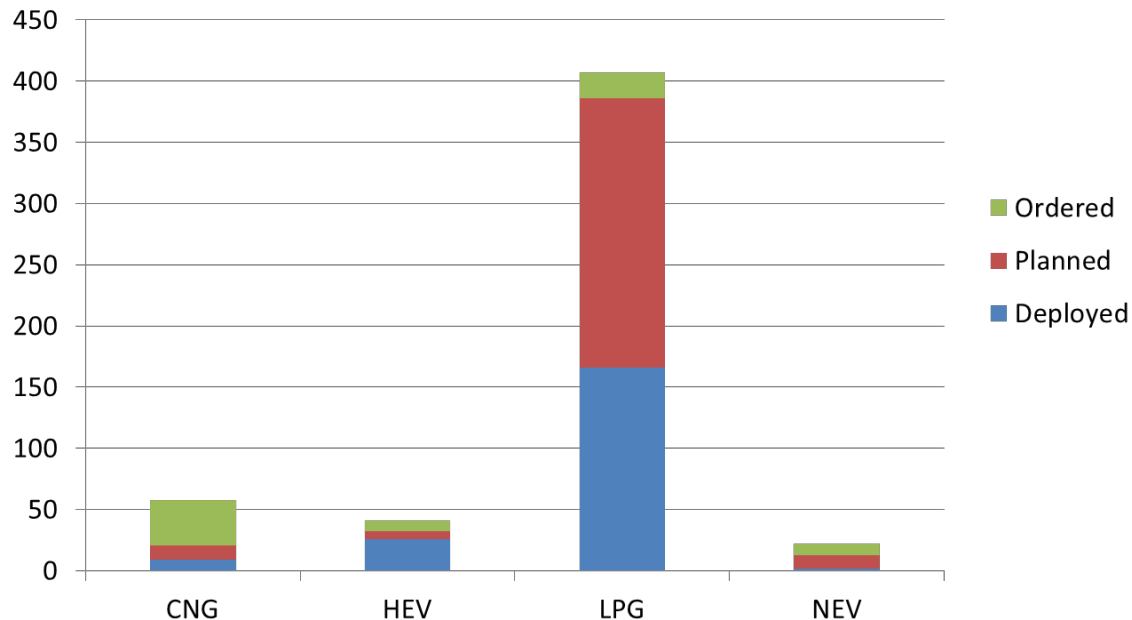


# Technical Accomplishments and Progress





# Technical Accomplishments and Progress



## Task 2: Vehicle Deployment

	Year 1	Year 2
Deployed	38	203
Planned	465	249
Ordered	0	76
Total	503	528

*Additional vehicles resulted from lower costs than expected and re-allocated funding*

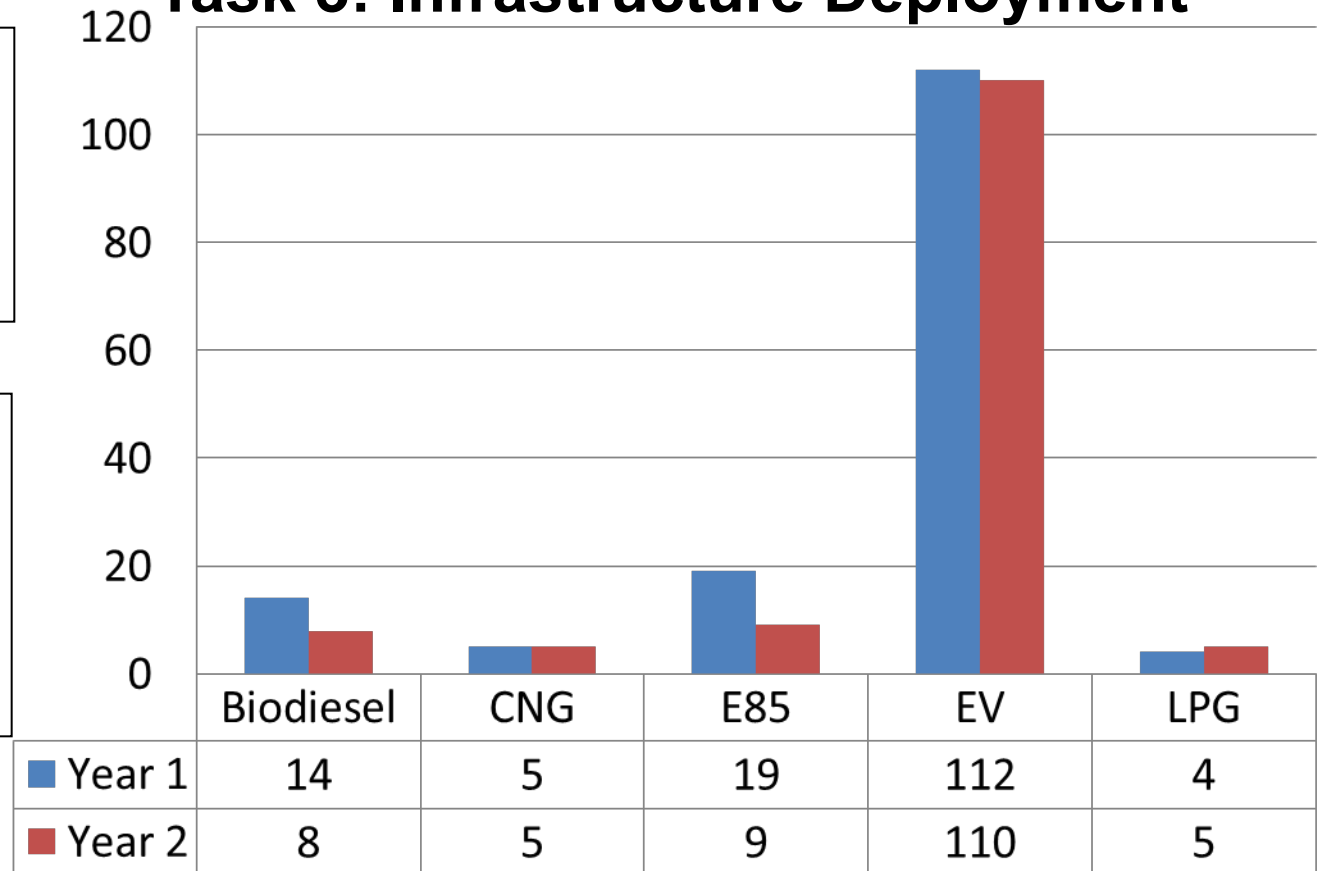
# Technical Accomplishments and Progress



Economic downturn and tax credits expiring resulted in reduction in biofuels stations in early 2012

Staff worked quickly to expand scope of existing partners and identify new partners

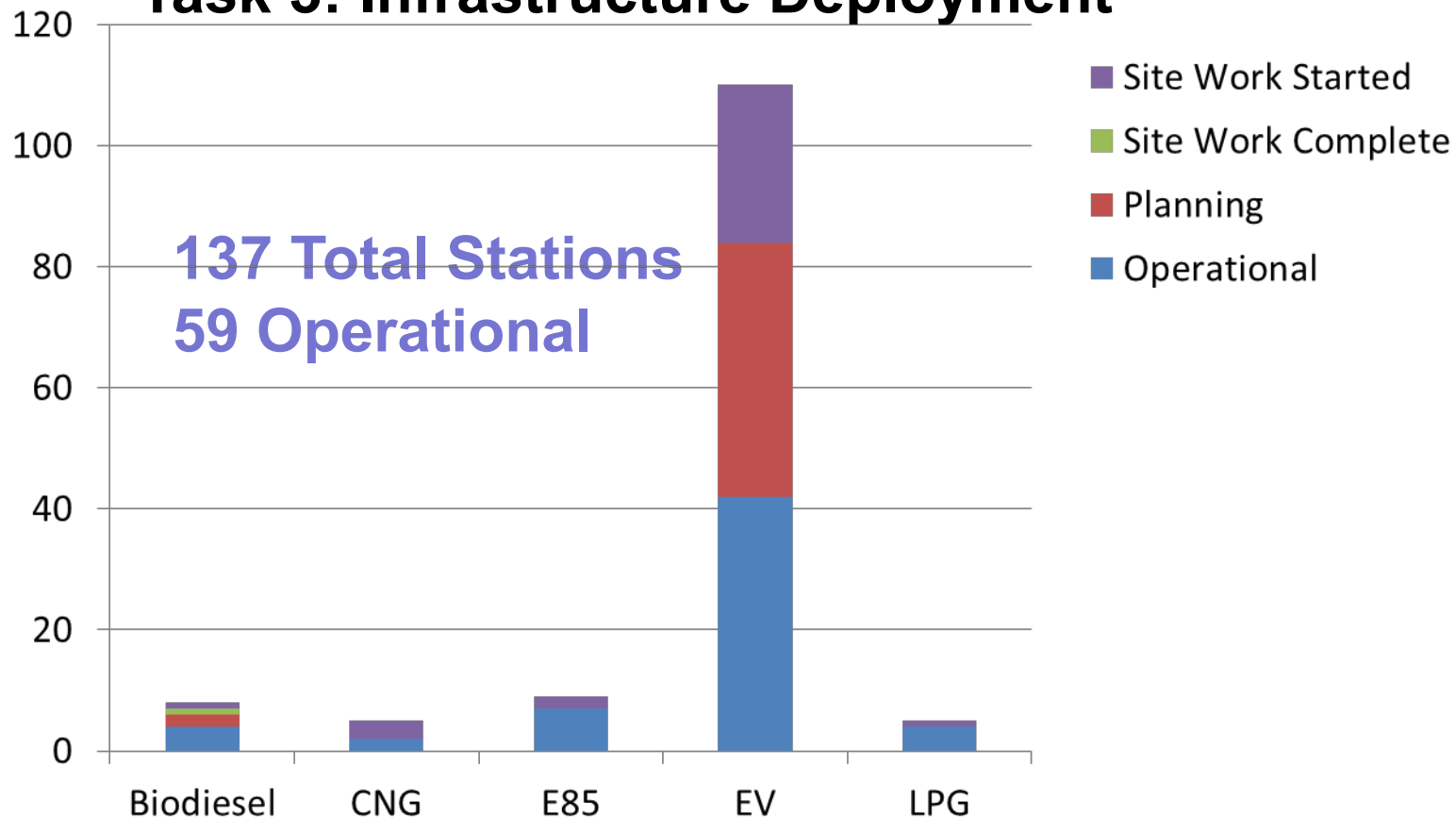
## Task 3: Infrastructure Deployment



# Technical Accomplishments and Progress



## Task 3: Infrastructure Deployment





# Technical Accomplishments and Progress: Sub-recipient Spotlights

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## City of Asheville

- Doubled capacity of the CNG station
  - Support hospital, AT&T and university
- Upgraded 25 vehicles to convert to CNG
  - In all they'll have 33 vehicles
  - The grant took them from 1% CNG to 4% of total fleet

## Midlands Biofuels

- Recovery Act funds significantly increased Midlands Biofuels capacity
  - Staff has increased from 3 full time to 10 full time employees
  - B100 distribution has displaced 34,000 gallons of petroleum

# Technical Accomplishments and Progress



*NC Propane Gas Association F150*

*City of Hendersonville Street Sweeper*



*City of Fayetteville Hybrid Bucket Truck*



*City of Asheville CNG Upgrade*





# Technical Accomplishments and Progress



*Midlands Biofuels  
biodiesel distribution  
infrastructure (above)*



*OM Biofuels biodiesel  
infrastructure  
(left/below)*





# Technical Accomplishments and Progress



*Raleigh deploys  
10 propane police vehicles*



*Biogen Idec deploys 10 charging stations*





# Technical Accomplishments and Progress: Training Spotlight

## Charlotte Airport / DesignLine

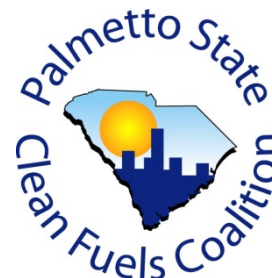
- DesignLine manufactured five hybrid buses for Charlotte Airport
- Equipment malfunctions revealed operator, maintenance, and first responder training needs
- After initial training review, DesignLine made extensive improvements to materials and training protocol
- Charlotte Airport & DesignLine will conduct periodic standardized training for all operators, mechanics, and first responders





# Collaborations/Partnerships

- Investigative Leads
  - Provide technical and administrative support to primary lead
  - Organize & participate in training activities
  - Review invoices
  - Serve as liaison to project partners in respective regions
  - Serve on Program Committee





# Collaborations/Partnerships

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- Piedmont Biofuels
- Forest Foundation
- Chatham County
- Orange County
- NC Propane Gas Association
- Mainor Legacy
- City of Fayetteville
- Town of Knightdale
- Advanced Energy
- City of Raleigh
- Durham County
- Greenwood County
- City of Rock Hill
- Midlands Biofuels
- OM Biofuels LLC
- North Carolina State University
- Biogen Idec
- Charlotte/Mecklenburg Utilities
- Glaxo-Smith Kline
- BuildSense
- Frito-Lay
- City of Hendersonville
- Henderson County
- Mission Hospital System
- City of Asheville
- City of Winston-Salem
- City of Greensboro
- City of Rocky Mount
- Guilford County
- City of Charlotte (Charlotte Airport)
- Duke Energy
- Time Warner Cable
- Monroe Oil
- God Bless America
- Palmetto Gas (plus 6 subs)
- Plug In Carolina
- Spinx Company
- University of South Carolina
- Innovation Drive (consultant)
- Charlotte/Mecklenburg Solid Waste
- City of Simpsonville
- Town of Cary
- Cleveland Petroleum



# Future Work: April 2012-2013

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- Deploy all vehicles and infrastructure by June 30, 2012
- Complete invoicing for vehicles and infrastructure
- Continue to organize ribbon-cuttings and media outreach for completed projects
- Complete training of all sub-recipients
- Organize regular calls with investigative leads
- Continue to ensure compliance with all grant requirements
  - Davis Bacon Wage Compliance
  - Quarterly reporting to [FederalReporting.gov](http://FederalReporting.gov)
  - Quarterly mileage and fuel dispensing reports
  - Special status reports as needed, including equipment malfunctions and repairs





# Program Summary

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The Carolina Blue Skies & Green Jobs Initiative is *projected* to:

- Create/retain over 120 jobs from ARRA funds by 2014
- Displace over 3.7 million gallons per year of gasoline gallon equivalents at project completion

Progress as of March 2012 (18 months of program work):

- 203 vehicles and 59 alternative fuel stations operational
- Millions reached via media, education, and online exposure
- Jobs created and retained with Federal funding