



## Southeast Propane Autogas Development Program

VA Department of Mines, Minerals and Energy

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Virginia Clean Cities at James Madison University

Project ID #ARRAVT065

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*This presentation does not contain any proprietary, confidential, or otherwise restricted information*

## Timeline

- December 7, 2009
- December 6, 2013
- Less than 50% Complete

## Partners

- Project Lead: DMME, Division of Energy
- Project Manager: Virginia Clean Cities at James Madison University
- Strategic Partners:
  - Alliance AutoGas
  - Municipalities & private transportation companies
  - Clean Cities Coalitions
  - Formation (formerly MSM Communications)

## Barriers and Risks

### *Barriers*

- Lack of familiarity with propane autogas as an alternative fuel
- Limited EPA certifications

### *Top Risks*

- Quality Control
- Reporting compliance
- Improper training and education
- Conversion pace

## Budget

- Total project funding
  - \$8,605,100 grant monies
  - \$21,346,311 cost-share
  - About \$30,000,000 total project value

# Relevance

## Project Objectives

- Convert over 1,200 vehicles from gasoline to propane autogas in order to reduce U.S. dependence on imported petroleum, increase fuel economy and improve emissions.
- Install propane fueling infrastructure that supports project vehicle refueling, and ultimately, general public refueling.
- Ensure that propane autogas vehicles run on propane autogas to the greatest extent possible and collect quantitative and qualitative data to document the success of the program
- Create and retain jobs in the areas of:
  - Conversion center and fleet technician personnel
  - The procurement and distribution of propane autogas
  - The administration of the integrated program of Alliance AutoGas
  - Marketing and communications specialization for alternative fuels and propane autogas fuel

## Project Objectives (continued)

- Provide appropriate education and training for partners associated with this project to ensure the vehicle conversions and maintenance are performed safely, beyond the scope of the project
- Promote individuals associated with this project and provide education in the larger community about propane autogas viability and available technology
  - Create immediate and sustainable interest in propane autogas for fleet applications from Maryland to Florida to Mississippi
  - Change the way fleet operations as well as the public view propane autogas vehicles and alternative fuels in general, from a difficult logistical challenge to a logical business decision with direct, positive economic impacts
  - Address ability to utilize existing fleet vehicles, and educate about fuel cost savings

# Approach

| Month/Year | Project Milestone   |
|------------|---|
| May-12     | 100% conversion equipment ordered                           |
|            | 90% vehicle deployment                                      |
|            | 100% infrastructure installment complete                    |
|            | 100% infrastructure NEPA EQs submitted and approved         |
|            | Continued periodic audits of conversion system installation |
|            | Continued development of fleet written case studies         |
|            | First video case study complete                             |
|            | Continue regional Roadshow Series                           |
|            | Continued online marketing campaign                         |
|            | Continued regional public relations campaign                |
| Jun-12     | 100% vehicle deployment                                     |
|            | 100% Fleet maintenance training complete                    |
| Sep-12     | Second video case study complete                            |
| Feb-13     | Begin Phase 2 of Roadshow Series                            |
|            | Begin Phase 2 of fleet written case studies                 |
| Aug-13     | 100% Roadshow Series complete                               |
| Sep-13     | 100% outreach/education activities complete                 |

# Technical Accomplishments and Progress

## Technical Accomplishments and Progress - Previous Year Activities Summary

| Month/Year | Project Milestone   | Progres To-Date as of May 15, 2012   |
|------------|---|--|
| May-11     | Vehicle conversions begin 2nd phase, with initial beta test at start        | Beta test completed and quality control measures documented and comprehensive Conversion Center training completed           |
|            | Vehicle and fueling station decals sent to all fleet partners               | Decals placed on all converted vehicles and installed fueling stations   |
|            | Public and private websites launched for Program                            | Public website (public education) and private website (track program success) launched                                       |
| Jun-11     | Completion of equipment order   | All equipment for original fleets ordered  |
|            | Begin full-scale PR campaign with press releases, media pitching and events | From June 2011 to current, efforts include weekly media pitching, securing VCCmedia interviews, distributed 8 press releases |
| Sep-11     | Final equipment order and audit   | VCC audit of remaining equipment completed   |
| Nov-11     | 100% infrastructure installment for original fleets completed               | All anticipated onsite fueling stations for original fleets installed  |
|            | Develop plan for written and video case studies                             | Identified fleets and arranged for first written and video case studies development  |
|            | Schedule Roadshow Serieswith Clean Cities in 9 states                       | 3 dates set and the others being finalized in conjunction with Clean Cities coordinators                                     |
| Dec-11     | RFP 2 fleets onboarded and subagreements signed                             | All RFP 2 fleets completed subagreements and conversion schedule developed   |
|            | Production of Roadshow Series materials                                     | All Roadshow Materials completed and distributed   |
|            | 30% vehicle deployment  | 30% vehicle deployment with aggressive conversion schedule outlined  |
| Jan-12     | Virginia fleet performance audit and maintenance assessment                 | Audit was successful; converted vehicles operating according to expectations and fleets pleased with vehicles                |
| Feb-12     | 38% vehicle deployment  | 38% vehicle deployment with aggressive conversion schedule outlined  |
| Apr-12     | First two events of Roadshow Series executed                                | Events in Atlanta, GA and Columbia, SC were successful and attracted fleets and media  |



# Technical Accomplishments and Progress

## Technical Accomplishments and Progress – Current Year

| Month/Year | Project Milestone   | Progres To-Date as of May 15, 2012                                |
|------------|---|---|
| May-12     | 100% conversion equipment ordered                           | Aggressive conversion schedule outlined                           |
|            | 90% vehicle deployment                                      | Working with new fleet locations on infrastructure                |
|            | 100% infrastructure installment complete                    | Outlined plan for roadshows to be held in new states              |
|            | 100% infrastructure NEPA EQs submitted and approved         | Maintenance trainings executed and training video to be developed |
|            | Continued periodic audits of conversion system installation | Extensive PR national and regional PR efforts outlined            |
|            | Continued development of fleet written case studies         | Plan developed for online marketing campaign                      |
|            | First video case study complete                             |   |
|            | Continue regional Roadshow Series                           |   |
|            | Continued online marketing campaign                         |   |
|            | Continued regional public relations campaign                |   |
| Jun-12     | 100% vehicle deployment                                     |   |
|            | 100% Fleet maintenance training complete                    |   |
| Sep-12     | Second video case study complete                            |   |
| Feb-13     | Begin Phase 2 of Roadshow Series                            |   |
|            | Begin Phase 2 of fleet written case studies                 |   |
| Aug-13     | 100% Roadshow Series complete                               |   |
| Sep-13     | 100% outreach/education activities complete                 |   |

# Partners and Collaborators





# Partners and Collaborators

## Top-level Partners



# Partners and Collaborators

## Conversion Center Partners



**Greenville County**

**FORCE 911**

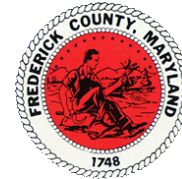


*Brooks Motors* LLC

**Peninsula Propane**

# Partners and Collaborators

## Fleet Partners



**Peninsula Propane**



**Greenville County**



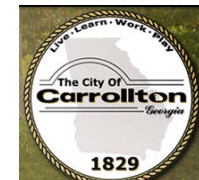
**Newport News**  
Where Great Things Are Happening

# Partners and Collaborators

## Fleet Partners

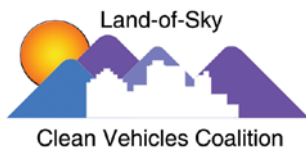


Augusta County, VA



# Partners and Collaborators

## Clean Cities Coalitions participating in regional Roadshow Series



# Media Coverage



See the entire SPADP media archive at: <http://www.usepropaneautogas.com/media-archives/>



# Muscogee County Video Case Study

# Newport News Case Study

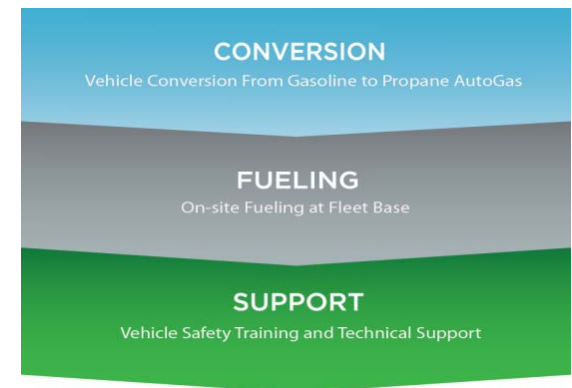
# Future Work for 2012

- Install remaining infrastructure for new fleets
- Complete vehicle conversions by target completion date (June 2012)
- Work with fleets to review options for transition private fueling stations to publicly accessible fueling stations
- Promote Program and partner successes to generate wide-scale interest in alternative fuels
  - Continue aggressive marketing and PR efforts, including press releases and media events
  - Execute Phase 1 of Roadshow Series in 10 Southeast states
  - Collect detailed information regarding ROI and impact of project
  - Develop and distribute numerous case studies about fleet successes with autogas

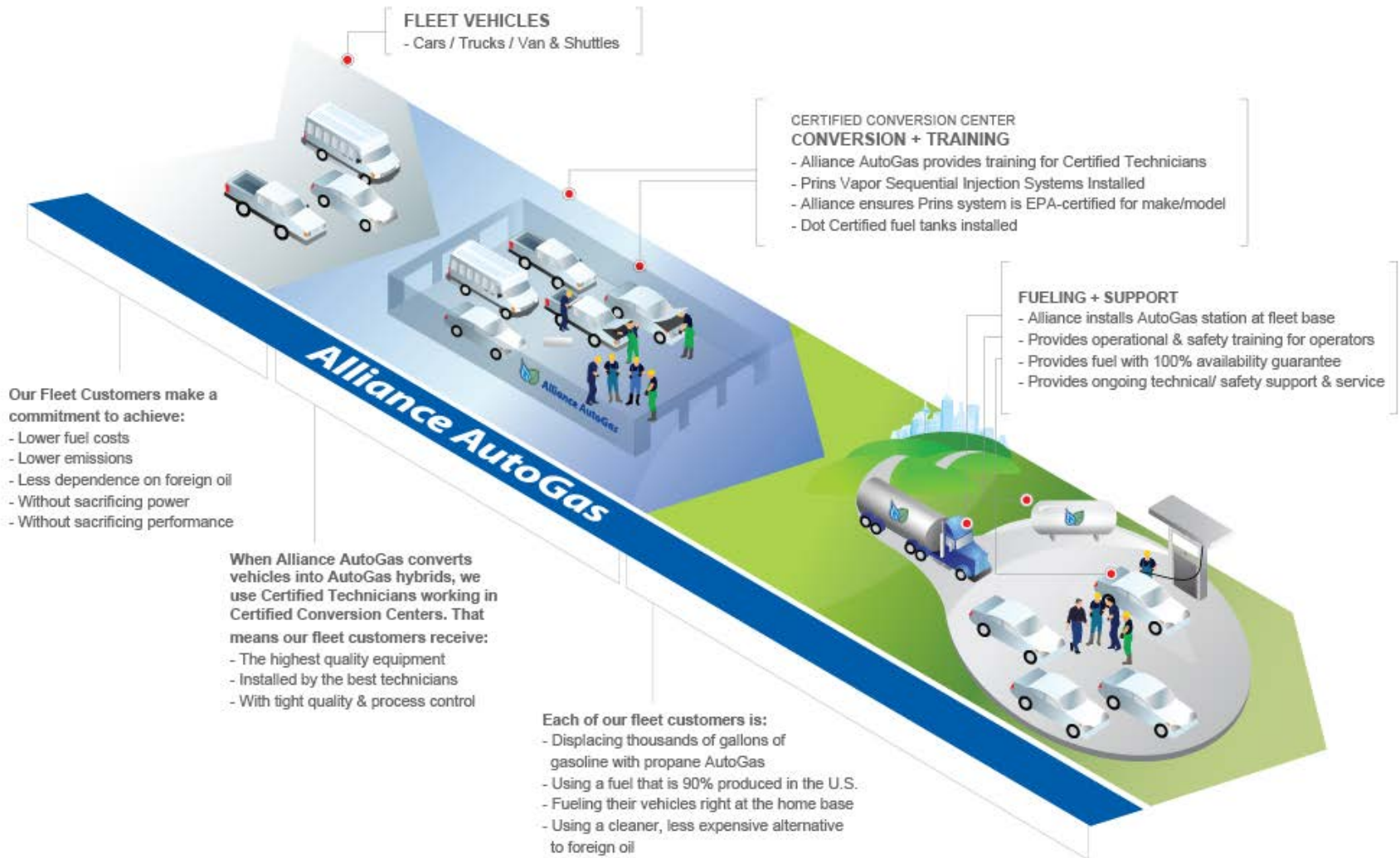


# Summary

- This is the largest Department of Energy-funded propane autogas conversion deployment Program in U.S. history
- 1,201 vehicles from public and private fleets are being converted using the same equipment provided by one technology supplier organization
- Detailed, comprehensive data on all 1,201 propane autogas vehicles is being collected and widely distributed to highlight the impact of the funds
- Project teams brings unique ability to leverage program far beyond proposed objectives by marketing the program throughout the Southeast U.S. using a number of mediums – media, Internet, video, and roadshow events
- An estimated 4 million gallons of gasoline and 4,000 tons of air pollutants will be displaced each year of the program that all of the propane autogas vehicles are on the roads
- To date, this program has funded more than 32,000 hours of work, creating and retaining jobs



# The Alliance AutoGas Chain



# Program Statistics - March 2012

