



Clean Start

Development of National Liquid Propane (Autogas) Refueling Network, Clean School Bus/Vehicle Incentive & Green Jobs Outreach Program

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June 9, 2010

Project ID #

ARRAVT059

OVERVIEW



TIMELINE

Start Jan 2010
End Dec 2011
5% complete

BARRIERS

- Site Incompatibility
- Delay in Site Permitting
- Equipment/Construction Delay

BUDGET

-DOE	- \$12.3M
-Cost Share	- \$24.5M
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-Total	- \$36.8M

PARTNERS

- CleanFUEL Holdings, Inc.
- Public Solutions Group, Ltd.
- Rush Truck Centers
- Qty. 17 Clean Cities Coalitions



OBJECTIVES

- Increase use of Autogas AFVs, reduce dependence on imported petroleum, improve emissions
- Install infrastructure to support alternative fuels
- Ensure support to Autogas vehicles
- Provide program training & benefits analysis
- Measure success through implementation of vehicle deployment, infrastructure creation and alternative fuel technician training efforts



Project Scope

- Develop nationwide Liquid Propane refueling network
- Provide “green” job training for U.S. military veterans and “at-risk” service technicians
- Incremental cost support for LP school buses
- State-of-the-Art training/maintenance facility in 16 major metropolitan areas
- Educate public of economic and environmental benefits of using Autogas



Develop Refueling Network

- Develop a total of 184 public accessible Autogas refueling stations in the following targeted cities:
 - Atlanta, Chicago, Houston, Denver, Sacramento, Los Angeles, Dallas, Phoenix, Indianapolis, Seattle, Orlando, San Diego, St. Louis, San Antonio, Oklahoma City, Austin and southwest Louisiana



Training

- Train U.S. Veteran and “At Risk” service technicians
 - Identify trainee personnel through Clean City Coalitions
 - Use marketing and outreach to identify potential trainees
 - Target metropolitan areas for training ASE technician in Alternative Fuels certification



Cost Support for New Autogas Buses & Vehicles

- Los Angeles Unified School District (LAUSD)
 - Purchase 90 LP buses in Los Angeles Fleet
- LPG Utility Trucks/Shuttles
 - Delta Liquid Energy (Qty. 4 trucks)
 - Van Unen (Qty. 3 trucks)
 - Anaheim Resort (Qty. 8 shuttles)
 - City of Torrence, CA (Qty. 4 trucks)
 - Eastern Municipal Water District (Qty. 1 truck)
 - Nehring Gas Company (Qty. 1 truck)
 - Kamps (Qty. 2 trucks)



State-of-the-Art Training

- Training at Texas State Technical College
- Training in partner cities:
 - Atlanta, Chicago, Houston, Denver, Sacramento, Los Angeles, Dallas, Phoenix, Indianapolis, Seattle, Orlando, San Diego, St. Louis, San Antonio, Oklahoma City, Austin and southwest Louisiana



Marketing & Outreach

- Program Announcements
- Station Grand Opening Events
- LPG Vehicle & Fuel Education
- Vehicle Signage
- Participating Clean Cities Partners
 1. Central Texas Clean Cities
 2. Alamo Area Council of Governments
 3. North Central Texas Clean Cities
 4. Atlanta Clean Cities
 5. Middle Georgia Clean Cities
 6. Chicago Area Clean Cities
 7. Houston-Galveston Area Council
 8. Greater Sacramento Clean Air Coalition
 9. St. Louis Regional Clean Cities
 10. Central Indiana Clean Cities
 11. Greater Baton Rouge Clean Cities
 12. SE Louisiana Clean Fuel Partnership
 13. Central Oklahoma Clean Cities
 14. Florida Space Coast Clean Cities
 15. Puget Sound Clean Cities
 16. Southern California Association of Governments
 17. San Diego Regional Clean Cities



Collaboration

- Project Partners:
 - CleanFUEL Holdings, Inc.
 - Public Solutions Group, Ltd.
 - Rush Truck Centers
 - Propane Education & Research Council
 - 17 Clean Cities Coalitions



Future Work

- Develop 184 public accessible refueling stations
- Los Angeles Unified School District (LAUSD)
 - Purchase 90 LP buses in Los Angeles Fleet
- LPG Utility Trucks/Shuttles
 - Delta Liquid Energy (Qty. 4 trucks)
 - Van Unen (Qty. 3 trucks)
 - Anaheim Resort (Qty. 8 shuttles)
 - City of Torrance, CA (Qty. 4 trucks)
 - Eastern Municipal Water District (Qty. 1 truck)
 - Nehring Gas Company (Qty. 1 truck)
 - Kamps (Qty. 2 trucks)



Summary

- Promote widespread use of domestic, alternative fuel
- Build public awareness through Clean Cities Coalitions
- Build infrastructure for public access of Autogas refueling stations
- Train ASE certified technicians to service LP vehicles
- Reduce toxic emissions
- Reduce nation's dependency on foreign sources of oil