Idaho Petroleum Reduction Leadership Project

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## Overview

### Timeline

- **Start date** - January 2010
- **End date** - January 2014

95% of the project is complete

### Budget

**Total project funding**

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOE</td>
<td>$5,519,862</td>
</tr>
<tr>
<td>Subrecipient</td>
<td>$6,839,077 (planned)</td>
</tr>
<tr>
<td></td>
<td>$7,041,496+ (final)</td>
</tr>
</tbody>
</table>

### Barriers

- State regulations covering resale of natural gas needed revision
- New issue for local permitting authorities
- Acceptance of a new fuel
- Cost of new CNG vehicles

### Partners

- Treasure Valley Clean Cities Coalition (TVCCC) (project lead)
- Republic Services
Relevance
Project Objectives

• Introduce CNG as a viable alternative fuel in Idaho

• Raise awareness of the benefits of using CNG and its availability to fleets and to the public

• Achieve significant reductions in petroleum fuel use by vehicles and vehicle emissions in the Treasure Valley.
  • Republic Services - reduce a minimum of 254,800 dge/yr
  • Approach a minimum of 40 fleet operators
  • Conversion to CNG by a minimum of 5 fleets before the end of the project
Relevance of Project Objectives to ARRA and Vehicle Technologies Goals

<table>
<thead>
<tr>
<th>ARRA Goals</th>
<th>Introduce CNG as a viable fuel</th>
<th>Raise awareness of CNG benefits &amp; availability to fleets and the public</th>
<th>Achieve significant reductions in petroleum use by shifting to CNG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create and maintain jobs</td>
<td>X</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Spur economic activity</td>
<td>X</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Support long term economic growth</td>
<td>X</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Provide environmental benefits</td>
<td>X</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td><strong>DOE’s Vehicle Technologies Program Goals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce oil imports</td>
<td>X</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Displace oil</td>
<td>X</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Educate</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>
Relevance
How Barriers were Addressed

State regulations covering resale of natural gas needed revision
  • Assisted in obtaining a declaratory order by the Idaho Public Utilities Commission to expressly allow resale of natural gas for use in vehicles.

New issue for local permitting authorities
  • Worked through the complex local permitting processes to establish the first public CNG fueling facility in the Boise area.

Acceptance of a new fuel
  • Provided a robust outreach effort to facilitate integration of CNG into the local vehicle fuel market.

Cost of new CNG vehicles
  • Offering options such as government auction vehicles, but cost remains a significant issue.
Project Approach

**Background**

- Kept it simple - Chose a “shovel ready”, straightforward project with a good partner.
- Defined the project well enough up front to receive all site related NEPA approvals early in the process.
- Communicated with the Public Utilities Commission regarding the need for a rule revision.
Project Approach

Project Elements

1. Establish an operational CNG fleet for Republic Services in the Boise area to reduce emissions from a large diesel fleet and act as an example to other area fleets.
   - Develop facilities for fueling and maintenance of Allied Waste’s CNG refuse vehicles in the cities of Boise and Nampa
   - Purchase a minimum of 28 CNG refuse vehicles for Allied Waste’s fleet
   - Provide safety, fueling, maintenance, and tank inspection certification training for Allied staff

2. Construct public CNG fueling facilities in Boise and Nampa.

3. Conduct extensive outreach and marketing campaigns directed at fleets and residents.
# Project Approach
## Status of Milestones

<table>
<thead>
<tr>
<th>Date</th>
<th>Milestone</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep-09</td>
<td>Republic Services Boise fueling facility completed</td>
<td>Complete</td>
</tr>
<tr>
<td>Sep-09</td>
<td>First round of safety training for Republic Services personnel completed</td>
<td>Complete</td>
</tr>
<tr>
<td>May-10</td>
<td>First set of vehicles purchased by Republic Services</td>
<td>Complete</td>
</tr>
<tr>
<td>Jun-10</td>
<td>PUC issued a declaratory order allowing resale of natural gas for use in vehicles</td>
<td>Complete</td>
</tr>
<tr>
<td>Sep-10</td>
<td>Roll-out of fleet outreach and public education campaigns</td>
<td>Complete</td>
</tr>
<tr>
<td>Mar-11</td>
<td>Republic Services vehicle purchases complete (32 vehicles)</td>
<td>Complete</td>
</tr>
<tr>
<td>Aug-11</td>
<td>Grand opening of public fueling facilities in Boise and Nampa</td>
<td>Complete</td>
</tr>
<tr>
<td>Aug-11</td>
<td>Republic Services Nampa fueling facility completed</td>
<td>Complete</td>
</tr>
<tr>
<td>Oct-11</td>
<td>Cylinder inspection certification received by Republic Services personnel</td>
<td>Complete</td>
</tr>
<tr>
<td>Jan-12</td>
<td>CNG vehicle purchase assistance for other fleets</td>
<td>Complete</td>
</tr>
<tr>
<td>Feb-12</td>
<td>Outreach plan (phase 2) developed</td>
<td>New</td>
</tr>
<tr>
<td>Oct-12</td>
<td>Provide training opportunities for the public</td>
<td>New</td>
</tr>
</tbody>
</table>
Technical Accomplishments & Progress

1. 4 CNG fueling facilities installed
   (4 originally planned in the Scope of Work)
   • Installation of one fleet facility in 2009
   • Installation of the remaining fleet facility in August 2011
   • Installation of the two public facilities in August 2011

2. 33 CNG vehicle purchases completed
   (28 originally planned in the Scope of Work)
   • 24 CNG trash trucks purchased and deployed in 2009 and 2010
   • 5 CNG trash trucks purchased and deployed in 2011
   • 3 CNG F150s purchased by Republic Services in 2010
   • 1 CNG mid-duty truck purchased by the City of Boise in 2011
3. Training for Republic Services
   • CNG fueling and safety began in 2009 and continues as needed
   • Maintenance shop training began in 2009 and continues as needed
   • Tank inspection certification training in Oct 2011

4. Shop improvements at Republic Services
   • Boise shop modification for CNG completed in 2009
   • Additional shop bays modified in January 2012
   • Nampa shop modification is in progress
Technical Accomplishments & Progress


**Fleet Outreach**

- **Hired a marketing coordinator**
  - Answered calls and on-line information requests
  - Cold called and met with local fleet operators regarding a Shift to CNG
  - Offered assistance with fleet cost/benefit calculations

- **Provided a packet of materials**
  - Short video for decision makers
  - Printed materials including FAQs, environmental benefits, available incentives

- **Held workshops and special events**
Technical Accomplishments & Progress

Scope of Work - minimum of 40 fleet contacts & 5 fleet conversions

**Fleet contacts**
- 2010 - 30 meetings/calls
- 2011 - 111 meetings/calls

**Fleet conversions since the August 2011 opening of public stations**
- Valley Regional Transit (VRT)
- Idaho Inflatables
- Eggers Transportation
- Williams Pipeline
- Fleet Street
- Lemley Construction
- Boise City Taxi
- City of Boise
Technical Accomplishments & Progress

5. Outreach continued--

Public Education

- Billboards and bus boards
- Radio PSAs
- “Fresh Air” wraps on Republic Services trucks
- Advertising at local sports events
- Booths at local fairs and other events
- Website
- Phone hotline and on-line information service
Technical Accomplishments & Progress

Pre- and post-public campaign surveys indicate significantly increased public awareness.
(Scope of Work goal - 254,800 dge/yr )

<table>
<thead>
<tr>
<th></th>
<th>4th Quarter 2011 Use</th>
<th>Est. Annual Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Republic Services</td>
<td>136,134 dge</td>
<td>544,536 dge</td>
</tr>
<tr>
<td>Public pumps</td>
<td>5,239 dge</td>
<td>20,956 dge</td>
</tr>
</tbody>
</table>

7. Facilitated the wide scale use of CNG by Republic Services, one of the largest waste haulers in the country.

- Republic Services is currently installing CNG facilities at 14 additional locations across the US and purchasing about 800 CNG refuse vehicles in 2012.
- Unanticipated results, but significantly reducing diesel fuel use and emissions, as well as increasing the use of a domestic fuel and creating jobs around the country.
Technical Accomplishments & Progress Collaborations/Partnerships

Grant partners
• Treasure Valley Clean Cities Coalition - recipient
• Allied Waste - subrecipient
In addition to installing fueling facilities and buying vehicles, Republic Services has greatly assisted with outreach and is providing technical assistance to other fleets.

Other organizations have stepped up
• City of Boise - assistance with grant administration
• Cronin & Assoc. - assistance with marketing and outreach
• Valley Regional Transit - assistance with outreach and purchase of new CNG buses
• Intermountain Gas Company - assistance with outreach
## Future Work

| 2012 activities | • Complete site work at Republic Services facilities  
• Continue to provide information and conduct outreach to area fleets, vehicle dealers and the public  
• Provide training opportunities to local businesses  
• Collaborate with College of Western Idaho on longer term CNG vehicle maintenance training |
|-----------------|----------------------------------------------------------------------------------------------------------|
| 2013 activities | • Continue to provide information and conduct outreach to area fleets, vehicle dealers, and the public  
• Continue all required monitoring and reporting |
Project Summary

1. All key grant activities are completed at or beyond the original scope of work
   - 4 CNG fueling facilities installed
   - 33 CNG vehicle purchases completed, more than the expected number in the scope of work
   - Robust outreach campaigns directed to fleets and the public have heightening local awareness about CNG as a clean, and cheaper alternative to gasoline or diesel fuel.

2. CNG fuel use has exceeded the original goal by over 100%.
Project Summary

3. Republic Services, one of the region’s largest fleets, has significantly reduced diesel use. Within 5 years, Republic Services local fleet of over 120 vehicles will be operating entirely on CNG.  
   -- an excellent example for other fleets
4. This project has led to wide scale use of CNG by Republic Services across the US; reducing diesel use and creating jobs far exceeding expectations.

5. The commitment to this project by the partners is significantly contributing to its success.