

# Idaho Petroleum Reduction Leadership Project

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Project ID #  
ARRAVT041

# Overview

## Timeline

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

95% of the project is complete

## Budget

### Total project funding

- DOE \$5,519,862
- Subrecipient \$6,839,077 (planned)  
\$7,041,496+ (final)

## 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

	<b>Introduce CNG as a viable fuel</b>	<b>Raise awareness of CNG benefits &amp; availability to fleets and the public</b>	<b>Achieve significant reductions in petroleum use by shifting to CNG</b>
<b>ARRA Goals</b>			
<b>Create and maintain jobs</b>	<b>X</b>	<b>x</b>	<b>x</b>
<b>Spur economic activity</b>	<b>X</b>	<b>x</b>	<b>x</b>
<b>Support long term economic growth</b>	<b>X</b>	<b>x</b>	<b>x</b>
<b>Provide environmental benefits</b>	<b>X</b>	<b>x</b>	<b>X</b>
<b>DOE's Vehicle Technologies Program Goals</b>			
<b>Reduce oil imports</b>	<b>X</b>	<b>x</b>	<b>X</b>
<b>Displace oil</b>	<b>X</b>	<b>x</b>	<b>X</b>
<b>Educate</b>		<b>X</b>	

# 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”, straight forward 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

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

# 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**



# Technical Accomplishments & Progress

## 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

**5. Successfully executed outreach campaigns for fleets and the public began in Sept 2010 and ran thru Jan 2012.**

## **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--

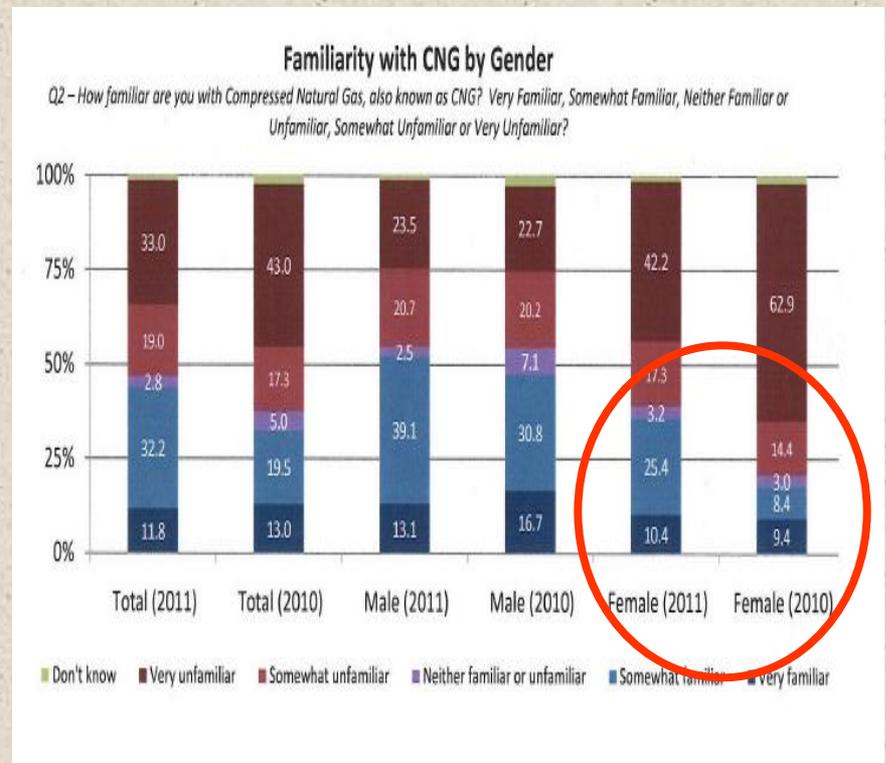
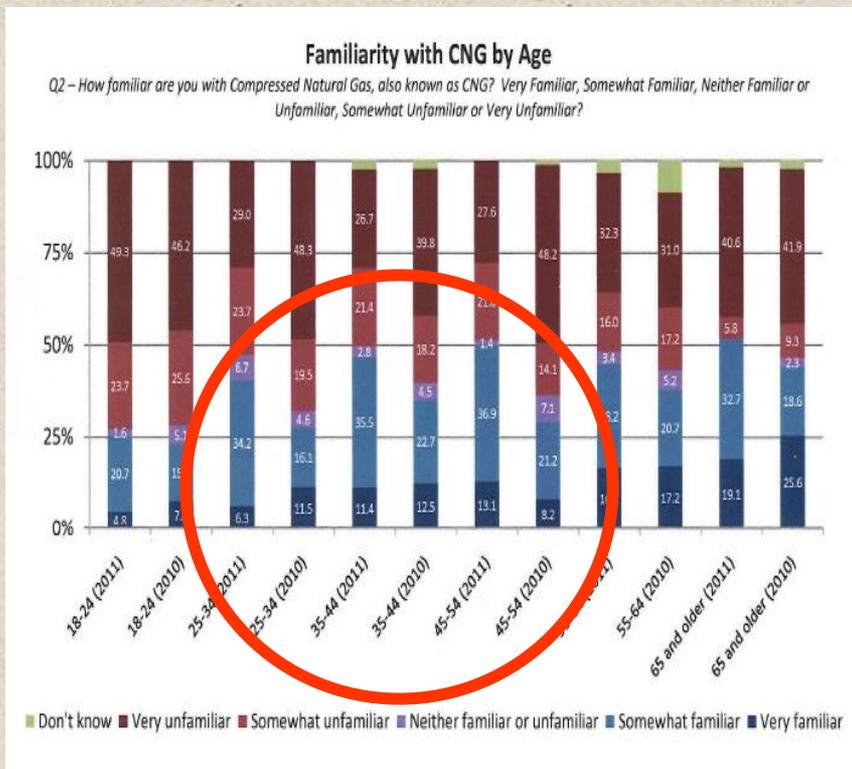
### Public Education

- 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.



# Technical Accomplishments and Progress

## 6. Exceeded diesel fuel reduction estimates.

(Scope of Work goal - 254,800 dge/yr )

	<u>4<sup>th</sup> Quarter 2011 Use</u>	<u>Est. Annual Use</u>
Republic Services	136,134 dge	544,536 dge
Public pumps	5,239 dge	20,956 dge

## 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

<b>2012 activities</b>	<ul style="list-style-type: none"><li>• <b>Complete site work at Republic Services facilities</b></li><li>• <b>Continue to provide information and conduct outreach to area fleets, vehicle dealers and the public</b></li><li>• <b>Provide training opportunities to local businesses</b></li><li>• <b>Collaborate with College of Western Idaho on longer term CNG vehicle maintenance training</b></li></ul>
<b>2013 activities</b>	<ul style="list-style-type: none"><li>• <b>Continue to provide information and conduct outreach to area fleets, vehicle dealers, and the public</b></li><li>• <b>Continue all required monitoring and reporting</b></li></ul>

# 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



# Project Summary

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.

