

REQUEST FOR BOARD ACTION

**HENDERSON COUNTY
BOARD OF COMMISSIONERS**

MEETING DATE: February 18, 2009

SUBJECT: Compressed Natural Gas (CNG) Station

ATTACHMENTS: Yes
1. CNG Fueling System Presentation

SUMMARY OF REQUEST:

As a part of Strategic Plan 1.1F to Develop and Implement an Energy Policy and Plan, this agenda item proposes the implementation of a Compressed Natural Gas (CNG) Fueling System. This system will complement the existing gas and diesel system currently used by the County fleet. More information is provided in the attached presentation.

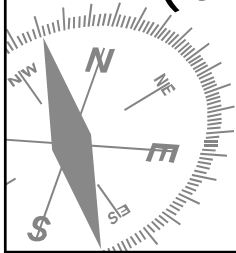
BOARD ACTION REQUESTED:

This agenda item serves as an introduction to a CNG Fueling System and to initiate Board discussion.

Suggested Motion:

No motion suggested.

Proposed Henderson County Compressed Natural Gas (CNG) Fueling System



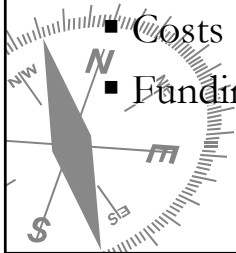
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CNG Fueling System

Presentation Overview:

- Description of CNG
- Benefits
- Costs
- Funding Options

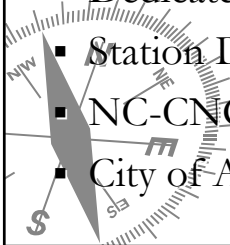


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CNG Fueling System

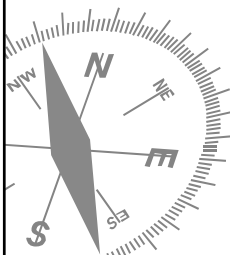
What is a CNG Fueling System:

- Similar to Conventional Fueling Systems
- Possible Conversions / OEM
- Dedicated vs. Dual Fuel
- Station Description: slow fill vs. fast fill
- NC-CNG Station in Arden (pictures follow)
- City of Asheville Station (pictures follow)



NC-CNG Commerical Station

Arden, NC







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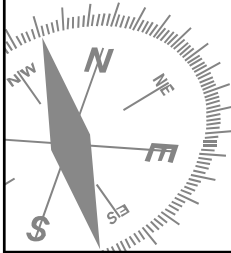


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City of Asheville

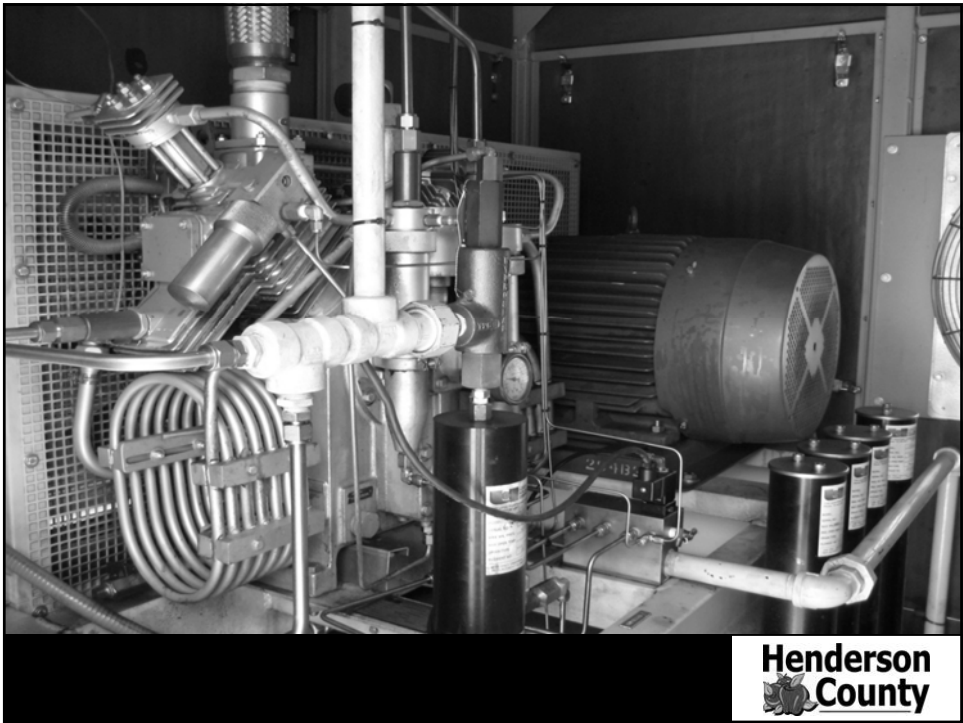
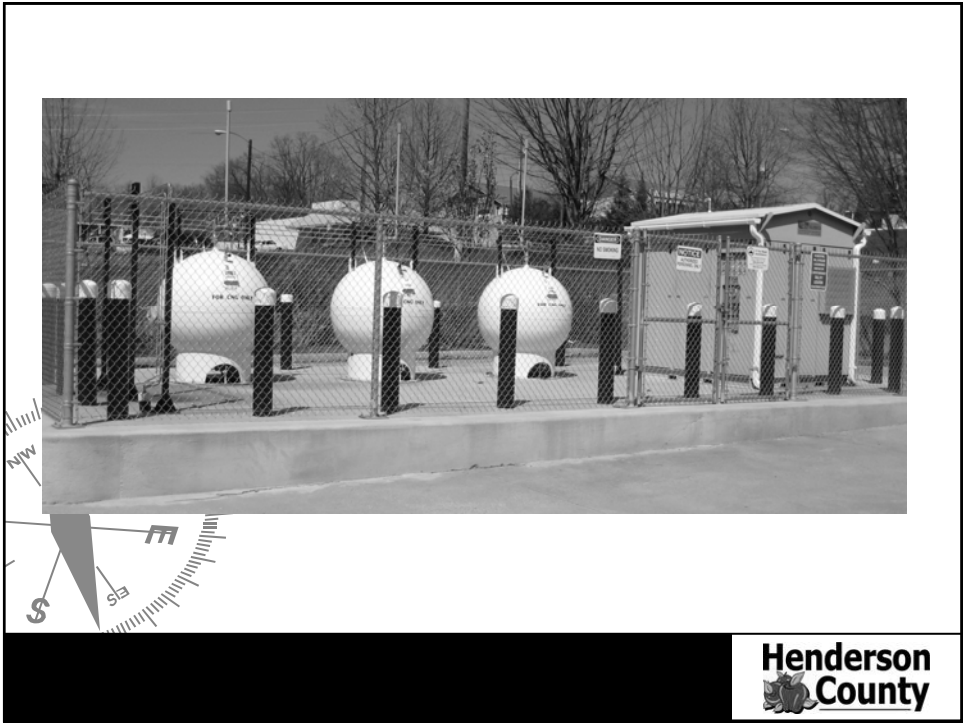
CNG System



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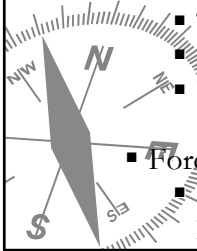
CNG Fueling System

City of Asheville CNG Fleet

- Five -2006 Chevrolet ¾-Ton Bi-Fuel Pickups
 - Incremental Cost - \$5,700
 - Used in Public Works, Fire and Water

- Honda Civic GX
 - One - 2005 Honda Civic GX: Incremental Cost \$4,200
 - Two – 2004 Honda Civic GX Demos: \$14,000 ea.
 - One – 2008 Honda Civic GX: Incremental Cost \$5,400
 - Used in Engineering, Inspections & Public Works

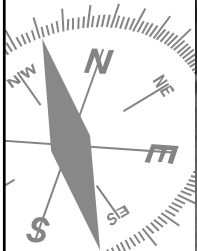
- Ford 1/2-Ton Bi-Fuel Pickup Cost \$6,000
 - Used by Fleet Management for service calls, training and promotion



CNG Fueling System

Honda Civic GX

Since put in-service average fuel cost of natural gas \$1.24 gge vs. \$2.25 gal for gasoline. Savings of 45%; \$1,340. MPG range is 27.8 - 32. No Maintenance issues related to the compressed natural gas systems.





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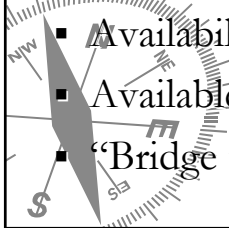
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CNG Fueling System

Benefits:

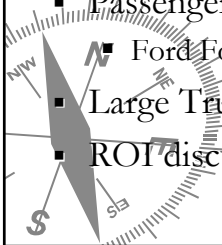
- Lower Cost than Gas / Diesel
- Greatly Reduced Emissions (Stewardship)
- 90% Domestically Produced
- Availability during Fuel Shortages
- Available to Citizens (Leadership)
- “Bridge to Hydrogen” or Next Generation Fuel



CNG Fueling System

Cost of CNG:

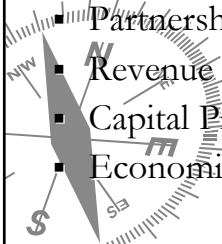
- Gas Gallon Equivalent (GGE) of CNG: varies
- Station Estimate: \$275,000
- Staff Training: \$4,000
- Passenger Vehicle Incremental: \$8,000
 - Ford Focus, Honda Civic GX, Ford F150 pending
- Large Truck Incremental or Conversion: \$40,000
- ROI discussion



CNG Fueling System

Funding Sources for CNG:

- Division of Air Quality: Mobile Source Emissions Reduction (MSER) Grant (December Application)
- Guaranteed Energy Savings Contract
- Partnership with Municipalities
- Revenue from Sale to Citizens
- Capital Project for Fueling Station Improvements
- Economic Stimulus Funding for Alternative Fuels



Questions?

Thank you

