the pilot

Fall **2011**

A Newsletter for Customers of **Clearwater Gas System**

Clearwater Gas System unveils CNG fueling station

With the help of a $450,000 grant from the Florida State Energy Office (Federal stimulus money) Clearwater Gas System unveiled Tampa Bay's first public Compressed Natural Gas (CNG) filling station on Friday, October 7th. The station has two islands with two dispensers per island. Each dispenser has two refueling hoses, allowing eight vehicles to fuel simultaneously. The responses below will help answer some basic questions.

Clearwater Gas Managing Director, Chuck Warrington, Mayor Frank Hibbard and various Public Officials participate in the opening ceremony.

Q&A

Why are we building it?

Clearwater is looking for sensible options to advance energy and sustainability, while saving money. We want to be less dependent on foreign oil. Every gallon equivalent of natural gas used in vehicles is one less gallon of petroleum that has to be imported. Using compressed natural gas is economical, energy efficient, and eco-conscious. The station will provide a place for privately owned vehicles and city vehicles to get this fuel.

What departments/city vehicles are planning to use the CNG facility?

Solid Waste/Fleet will be one of the first departments to use the CNG facility. Currently Solid Waste has one CNG garbage truck in service. The overall plan is to have 70 CNG garbage trucks in service, saving approximately $18,000/truck/year in fuel. In addition, the City of Clearwater will convert light duty vehicles into service to use CNG when economically beneficial.

When will the public have access to it?

The public will be able to use it by the end of December.

IN THIS ISSUE

Q&A contiuned

What vehicles can the public purchase that use CNG?

The only light-duty CNG vehicles currently available for purchase in the United States is the Honda Civic GX sedan. However, any existing vehicle can be converted to use CNG. Fiat, Opel (General Motors), Peugeot, Volkswagen, Toyota and Honda sell CNG vehicles in other countries. See the conversions page at ww.afdc.energy.gov, which is the Alternative Fuels and Advanced Vehicles Data Center (AFDC) for a current list of certified installers.

What are the approximate costs for purchasing a CNG vehicle?

Light-duty NGVs cost $5,000 to $8,000 more than comparable gasoline vehicles, and heavy-duty NGVs cost more than their counterparts by about $25,000 to $30,000. The price depends on the fuel tank capacity and whether the vehicle is produced by an original equipment manufacturer or converted to run on natural gas. However, government incentives are available to offset costs. For more information, visit www.afdc.energy.gov.

What are the typical savings when operating a CNG vehicle?

The Honda Civic GX – NGV that Clearwater Gas operates has outstanding fuel economy at 24 MPG (city) and 36 MPG (highway) gasoline equivalent. You may have seen the Clearwater Gas System's Honda Civic GX - NGV which has advertising painted on it, being driven in this area. It averages about 36 miles per gallon equivalent. It costs the gasoline equivalent of about $2 per gallon to fill. NGV engines generally last longer than gasoline powered engines due to the clean burning fuel which, in turn, keeps the engine oil clean. For garbage trucks, payback is realized in less than two years.

Where would there be another fueling station if I purchased a natural gas vehicle?

The city's fueling station is the first public station in the Tampa Bay area. There are two other stations of this type in Florida. One is in Milton and the other is in Ft. Lauderdale. Other stations are in the planning stages. Tampa International Airport is also constructing a public CNG fueling station that will open in 2012.

How do CNG vehicles work?

On the vehicles, natural gas is stored in tanks as CNG, usually in the trunk area. A CNG fuel system transfers high-pressure natural gas from the storage tank to the engine while reducing the pressure of the gas to the operating pressure of the engine's fuel-management system. The natural gas is injected into the engine intake air the same way gasoline is injected into a gasoline-fueled engine. The engine functions the same way as a gasoline engine. The fuel-air mixture is compressed and ignited by a spark plug and the expanding gases produce rotation forces that propel the vehicle.

Is natural gas safe for use in vehicles?

Yes. CNG vehicles meet the same safety standards as gasoline and diesel vehicles and also meet the National Fire Protection Association's 52 Vehicular Fuels System Code. Natural gas has a narrow flammability range, and because it is lighter than air, dissipates quickly if released. Compressed natural gas is stored on board a vehicle in safe, puncture-resistant tanks.

Is it easy to fuel a CNG vehicle?

Yes. CNG vehicles are fueled with easy-to-use, pressure-sealed dispensers. CNG fueling stations can be configured to fuel vehicles at various rates. Time-fill stations fuel vehicles overnight, as opposed to fast-fill stations that fuel CNG vehicles within five minutes.

Visit Clearwater Gas System's website at clearwatergas.com and click on the recommended NGV links tab for additional CNG information.

A Tankless Job

High-Efficiency Residential Tankless Water Heaters Add Up To Big Savings.

If you're in the market for a new water heater, you've likely heard of tankless, continuous on demand natural gas water heaters. Although tankless water heaters can cost quite a bit more to purchase, their energy saving features make them a smart choice.

Traditional storage tank water heaters are always "on" – heating and reheating the tank of water, despite the fact that most of us only use hot water for a few hours each day. Tankless units heat the water when the hot water tap is turned on. The water heats up to the desired temperature and stays there until the tap is turned off, which means an endless supply of hot water for many households to enjoy.

A tankless water heater designed for residential use can support up to three hot water uses simultaneously and maintain adequate water pressure.

According to the U.S. Department of Energy, homes that use 41 gallons or less of hot water daily can become 24 to 34 percent more energy efficient with the addition of a demand water heater. Homes that use more hot water will gain a smaller efficiency edge over standard tank heaters.

Before You Buy

If you're thinking about purchasing a tankless water heater, here are some points you'll want to consider:

The appropriate size for your household needs.

To ensure your unit will deliver enough hot water, determine the flow rate and temperature rise you'll need or consult a plumbing professional. Make sure the unit you purchase can deliver the most common temperature rise of 70 degrees Fahrenheit (39 degrees Celsius) at the desired flow rate. A trained professional can help you determine the right size unit for your home.

Minimum flow rate. Tankless water heaters require a minimum flow of water – typically around a half gallon per minute – through the heating system. To avoid problems associated with not meeting the minimum flow requirement, make sure the flow rates at outlets connected to the heater exceed the unit's minimum requirements.

Compatibility with gas and water supplies.

Tankless water heaters can use three to four times the British Thermal Units (BTUs) of a conventional tank water heater. Be sure to ask your plumber to verify that your current gas and water lines are sized properly for the tankless water heater to operate efficiently.

Article reprint, approved by Eric Burgis, Energy Solutions Center

NATURAL BENEFITS

When evaluating the specific needs of your household, consider the benefits of a tankless natural gas water heating system:

- Units are smaller than traditional tank water heaters.
- Water is heated when you need it; there is no tank of water to "run out".
- Tankless water heaters typically last for 20 years or more and have easily replaceable parts.
- Tankless water heaters can save your household more than $200 per year compared to a standard storage tank water heater.
- There is no pilot light constantly running and standby heat loss from stored water, meaning greater energy savings.

Offices Will be Closed:

Friday, Nov. 11 – Veterans' Day
Thursday, Nov. 24 – Thanksgiving Day
Friday, Nov. 25 – Day After Thanksgiving
Monday, Dec. 26 – Christmas Holiday Observed

Find us on Facebook
Visit us online at ***myclearwater.com***

Contact Us:

(727) 562-4980	Gas Sales Center
(727) 562-4900	Gas Administration
(727) 562-4900 x7419	Service and Repair
(727) 562-4900 x7444	Warehouse
(727) 562-4600	Customer Service
(727) 462-6633	24-Hour Emergency Line

For email inquiries, please visit *www.clearwatergas.com*

Call 8-1-1 Before You Dig, It's The Law!

Gas Industry News Update

News, trends and current events affecting the gas industry nationwide

NATURAL GAS PIPELINE PROJECT IN GULF FORCED TO ADAPT TO ECONOMIC REALITY

Ships carrying liquefied natural gas will anchor in the Gulf of Mexico 28 miles southwest of Tampa Bay, in water 100 feet deep. The ships will hook into a pipeline buried under the ocean bottom and unload the gas. The pipeline will carry the gas past Egmont Key at the mouth of Tampa Bay to come ashore at Port Manatee and hook into an existing pipeline to route it to power plants around the state. Source: St. Petersburg Times

U.S. DEPARTMENT OF ENERGY ADOPTS FULL-FUEL-CYCLE ANALYSES INTO ENERGY CONSERVATION

After a long-standing position of support for a source based energy standard, the American Public Gas Association (APGA) strongly supports the Department of Energy's (DOE) Final Policy adopting full-fuel-cycle (FFC) analyses to estimate the likely impacts of energy conservation standards for consumer products and certain commercial and industrial equipment. Specifically, DOE intends to use FFC measures of energy use and emissions, rather than the primary (or site) energy measures it currently uses. Source: American Public Gas Association

PEOPLES GAS INSTALLS NATURAL GAS HEAT PUMPS

The Orlando division of Peoples Gas recently installed new Nextaire multizone heat pumps at the Orlando facility. The new system includes three 15-ton Variable Refrigerant Flow (VRF) units, each with a 4-cylinder natural gas powered Toyota motor. The Nextaire multizone GHP is specifically engineered to be environmentally friendly using natural gas as its primary fuel. Source: Florida Natural Gas Association

For additional gas energy information, visit *www. clearwatergas.com* or contact Clearwater Gas Sales at (727) 562-4980.

Executive Editor
Chuck Warrington

Managing Editor
Kristi Cheatham

Editor
Lisa Brown

Clearwater Gas System
PO Box 4748
Clearwater, FL 33755-4748