Clearwater Gas System Natural Gas Vehicle - 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 dump 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 fueling station should be complete at the end of September with a grand opening in October. The public will be able to use it by the end of December.

What vehicles can the public purchase that use CNG?
The only light-duty CNG vehicle 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 www.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 (OEM) 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 is usually filled once every other week. 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 will be the first public/private 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 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 onboard 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.

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