

Philadelphia Gas Works

Promoting, Educating
and Facilitating the Use
of NGVs

April 18, 2013

Philadelphia Gas Works



PGW at a Glance

- Owned by the City of Philadelphia
- Largest municipally owned gas utility in the country
- 6,000 miles of mains & services
- Service area is restricted to the City of Philadelphia
- Provide service to over 500,000 customers
- Three LNG tanks provide 4 Bcf of storage

Promotion

CASE STUDY

TEMPLE UNIVERSITY COMPRESSED NATURAL GAS PROJECT

Temple University, located on North Broad Street just blocks away from Philadelphia Gas Works' main headquarters, is always looking for ways to save money and reduce their overall carbon footprint. That's why they decided to trade in some of their traditional gasoline vehicles for compressed natural gas (CNG) vehicles.

In 2001, Temple acquired six CNG passenger vans as part of the U.S. Department of Energy's Clean Cities Program. Mark Gottlieb, superintendent of Service Operations at Temple University, was pleased about the addition of the CNG vehicles to its fleet.

When it comes down to cost, the CNG vehicles are a lot cheaper to fuel than traditional gasoline vehicles. According to Gottlieb, it costs about \$20 to fill up a CNG vehicle, and close to \$40 to fill up a comparable sized tank of a vehicle using gasoline. In 2007, Temple decided to add more CNG vehicles to its fleet, partly due to the fact that the University wanted to become a more sustainable campus.

"The main campus is partaking in the sustainability movement. We're trying to direct our overall carbon footprint to a carbon neutral stance," Gottlieb said. "We decided to use an alternative fuel (CNG) because it was less expensive and we're reducing our dependence on petroleum."

Even though Temple was already taking steps to become more sustainable, they needed to focus on their efficiency. Temple's first CNG fueling station used low-capacity fuel pumps taking up to eight hours to fill the vehicles. Recognizing the advantages of using CNG vehicles, they knew they had to do something to reduce their refueling time. In 2009, Temple bought a fast fill system, giving them the ability to pump 15 gallons of CNG/hr. This system has since been upgraded to pump 30 gallons of CNG/hr to accommodate the fleet expansion. Furthermore, with the addition of four, 100 gallon GGE transit buses, and the need for additional pumping capacity, the University installed two Fuelmaker slow fill pumps. These are now located at the Ambler Campus and the Main Campus to support the student shuttle bus program that is operated by Gottlieb's department.

Currently, 25 of Temple's 70-vehicle fleet run on natural gas, and this number is continuing to increase. In 2001 they used 300 gallons of CNG per year, in FY 2012 they used over 24,000 gallons, and in 2013 Gottlieb expects to use at least 30,000 gallons of CNG. Two of their vehicles are multi-fuel for CNG or gasoline and the rest are designated CNG. Their CNG fleet consists of 12 cargo vans, five buses, three pick-up trucks, one bucket truck, two cars and two passenger vans. Under EPA's Standard Compliance, the University will be purchasing CNG vehicles going forward.

"They require less maintenance and go for longer periods of time without repairs and end up being as efficient as regular gasoline models."

**- Mark Gottlieb,
Superintendent of
Service Operations,
Temple University**



Philadelphia Gas Works - Marketing & Corporate Communications
800 West Montgomery Avenue | Philadelphia, Pa 19122 | www.pgworks.com



- PGW is using case studies to promote the use of NGVs.
- NGVs are highlighted in PGW's latest marketing efforts and commercial.
- PGW created the website WinningCombo.net that lists the benefits and uses of natural gas.
- Case studies and information related to NGVs are available on PGW's website.

Education & Market Development

- PGW hosted a CNG focused event in January to educate customers about the benefits of CNG vehicles and available grants and resources.
- On-going targeted meetings with:
 - Government and Transit Agencies
 - Local Universities
 - Refuse and Hauling Companies
- PGW has incentive money available for station developers and customers to offset the installation costs to bring new gas mains and services to fueling stations and the incremental costs to purchase NGV vehicles.

CNG: Pennsylvania's Natural Choice

January 8, 2013
7:30 a.m. - 10:00 a.m.

PGW Headquarters
800 West Montgomery Ave. Philadelphia, PA 19122

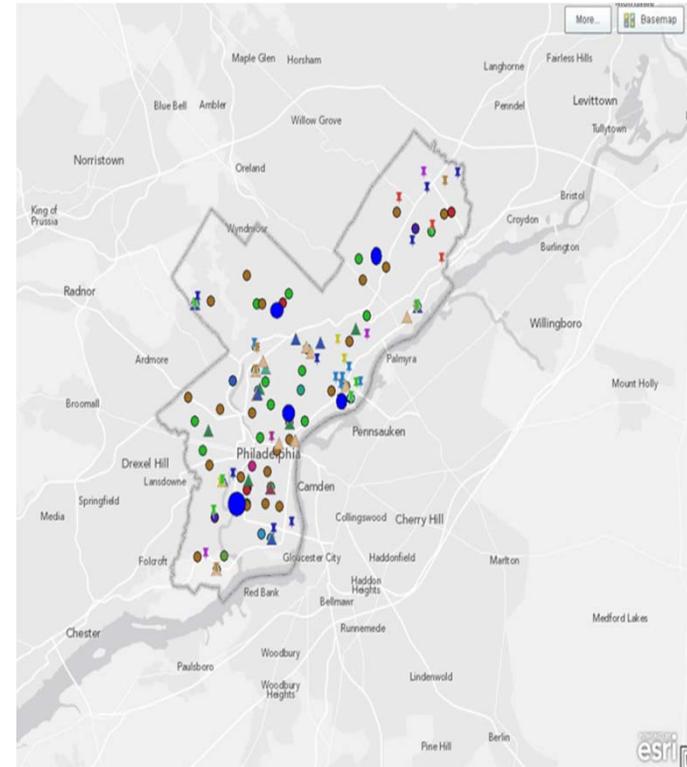
Want to learn more about what's happening with CNG vehicles in Philadelphia and the surrounding area? Join us for a networking breakfast with industry experts, discussions on the DEP grant and a local CNG success story.

For more information please contact John Murray
(215) 684-6333 or John.Murray@pgworks.com



Education & Market Development (continued)

- PGW is working with PECO to help educate customers in the Philadelphia metropolitan region on the benefits and availability of natural gas as a transportation fuel.
- PGW has created a GIS based tool to plot station developer's site options and identify nearby fleets.
 - This tool allows PGW staff to instantly communicate available pressure and proximity to existing PGW infrastructure and potential fleets.



Market Facilitation – PGW’s Plan



- In order to help grow the NGV market in Philadelphia, PGW has preliminary plans to purchase 69 CNG vehicles by the end of the year.
 - 45 Vans / 24 Sedans
 - Fueling options under consideration are a combination of on-site fuel pumps and 3rd party stations.
 - Future plans to add 10-20 vehicles per year over next several years in locations where 3rd party station developers are putting in facilities.
 - As the market grows, we grow with them.

Facilitation – External Marketing Development

- PGW is serving as intermediary between customers interested in CNG and the station and infrastructure developers.
- PGW is helping to identify funding opportunities available for customers in collaboration with the Greater Philadelphia Clean Cities Coalition.



800 Montgomery Avenue, Philadelphia, PA 19122
www.pgworks.com

Maryanne Campbell

Director, Strategic Initiatives

(215) 684-6724

Maryanne.Campbell@pgworks.com

Philadelphia Gas Works

