Pittsburgh Region Clean Cities Gazette

"Driving the way toward energy independence"

Volume 04 Issue 02 March 2014

this issue

Tesla's First PA Supercharger Now Open

Tesla Motors announced the opening this week of its first Supercharger quick-charging location in the Keystone State, with the intent of connecting Pittsburgh to Philadelphia.

The Supercharger station is located in Somerset, Pa., accessed via exit 110 of the I-70/I-76 east-west turnpike, a toll road. This is the main route connecting the two major cities, with Harrisburg, the state capital, in between.

"This Somerset location will support free travel between Pittsburgh, Harrisburg, and Philadelphia for Model S owners," said Tesla in a statement. "This station also supports the Tesla cross-country route which will soon enable Model S owners to drive from Los Angeles to New York for free."

Tesla's Supercharger stations provide up to 120 kilowatts of power and replenish half a charge in as few as twenty minutes. The Somerset Supercharger is at 1030 North Center Avenue Somerset, PA 15501. It is proximal to a Wendy's, Starbucks, and Ruby Tuesday. It's open 24 hours and has six charging stalls. There are no other public charging stations nearby.

Sales of NG Vehicles to Quadruple

AM General Unit Names Five, Expects 25% CNG Sales

AM General's Mobility Ventures unit has bolstered the sales force for the MV-1 paratransit vehicle, adding a new sales and operations director, three U.S. regional specialists, and an international business development and special projects leader.

Mobility Ventures took over the MV-1 business from VPG, the now-defunct Vehicle Production Group, last year (F&F, September 5). AM General has produced the MV-1 in Mishawaka, Ind. all along.

The MV-1 "is the only American-built vehicle specifically designed from the ground up to meet or exceed the needs of wheelchair passengers and the guidelines of the Americans with Disabilities Act," sales and marketing VP (and former CEO at VPG) John Walsh said in a release Tuesday.

Tapping the VPG Brain Trust

Steve Barker, who was executive VP for sales with VPG, joins Mobility Ventures as director of sales and dealer operations.

Ed Cayer, Pam Kulhanek and Terry Bland take over as regional sales and operations directors for the northeast, central and southeast U.S. regions, respectively. Robert Legacy has charge of international business development and special projects.

Mobility Ventures says it expects the compressed natural gas version of the MV-1 to account for about 25% of overall sales.

Federal Tax Credit Update

On December 31, 2013, a number of federal tax incentives expired, including:

- Alternative Fuel Infrastructure Tax Credit
- Alternative Fuel Excise Tax Credit
- Alternative Fuel Mixture Excise Tax Credit
- Biodiesel Income Tax Credit
- Biodiesel Mixture Excise Tax Credit
- Second Generation Biofuel Producer Tax Credits
- Second Generation Plant Depreciation Deduction Allowance.

While tax incentives have been extended retroactively after their expiration date in the past, Congress has not passed legislation to do so.

Full descriptions of these incentives can be found on the AFDC Federal Laws and Incentives page (http://www.afdc.energy.gov/laws/laws/US). The descriptions will remain posted there until the federal tax filing deadline.

$6,000 Price Drop on i-MiEV

Mitsubishi Motors North America, Inc. recently announced that its 2014 Mitsubishi i-MiEV electric-powered production vehicle not only receives an expanded standard equipment package but also sees a price reduction of $6,130 over the 2012 model.

The 2014 model year Mitsubishi i-MiEV ES model, which includes CHAdeMO DC quick charge port, battery warming system and heated side view mirrors, starts at $22,995 MSRP. After factoring in the federal tax credit of $7,500, the net MSRP of the 2014 i-MiEV could drop down to only $15,495. The 2014 Mitsubishi i-MiEV also boasts a much more comprehensive standard equipment package. Newly added items that are now standard equipment at no charge to the consumer include:

- Driver and front passenger heated seats
- Rear door speakers
- 8A/12A switchable Level 1 charging cable
- Charge port lamp
- Leather-covered steering wheel and shift knob
- Passenger-side vanity mirror with lid
- Numerous decorative color/trim upgrades
- Aluminum wheels.

CCAC to Provide Alt. Fuels Training

Pittsburgh Region Clean Cities (PRCC) and the Community College of Allegheny County-West Hills Center (CCAC) have an agreement to teach alternative fuel classes to try to educate as many people as they can about alternative fuels and alternative technologies.

Remember Sustainable Members of PRCC are eligible for scholarships as part of their membership dues.

Light Duty Natural Gas Vehicles – Day Classes on April 1st and 2nd from 8:30am to 4:30pm and Evening Classes on April 2nd, 3rd, 9th and 10th from 6:30pm to 10:30pm at CCAC-West Hills Center.

Introduction to Hybrid Electric Vehicles – Day Classes from 8:30am to 4:30pm on April 22nd and 23rd at CCAC West Hills Center.

Servicing Hybrid Electric Vehicles – Day Classes from 8:30am to 4:30pm on April 29th and 30th at CCAC West Hills Center.

Fyda converts vehicles into NG guzzlers

This article first appeared on the Tribune Review and is written by Timothy Puko. A link to this news

At Fyda Energy Solutions LLC in North Strabane on Friday, more trucks were parked outside the garage than came in for business during 2009.

Tractors, dump trucks, snow plows, garbage trucks, and even a few vans — about 50 total — were waiting for a spot to open up in company's busy garage. The draw? A chance to be able to fill their tanks at less than $2 a gallon.

The local unit of the Columbus-based truck dealer Fyda Freightliner Inc. was established five years ago as an outpost to get in on the Marcellus shale rush. It converts trucks, buses and vans to run on the very gas sitting 5,000 feet below their tires.

The garage is so busy that company executives say they have had to turn down business. They say appointments are booked through March, and the operation is on track to convert 400 to 500 vehicles in 2014, a tenfold increase from 2009 when it started.

“We're walking right now. Two years ago we were crawling,” said Tim Hooker, director of business development. “This is the energy capital. So it makes sense to be right here.”

The shale boom has pushed natural-gas motor fuel down to as low as half the price of gasoline, but oil's long hold has limited natural gas to less than 3 percent of that market.

That's where Fyda envisions its opportunity. It is lobbying groups that own a lot of vehicles — shippers, trash haulers, contractors and other fleet owners — to switch to a fuel that's cheaper, cleaner and comes from close to home.

“We're trying to do the right thing for our business and for our country at the same time,” Hooker added.

To get those long-term benefits, Fyda's customers pay anywhere from $7,000 to $60,000 per vehicle for the tanks, engines and systems that make it work, Hooker said.

The company has been using its successful dealership business to fund an expansion, said Tim Fyda, president of the parent company. That business gives Fyda Energy Solutions more advantages than just financial stability, said Rick Price, executive director of Pittsburgh Region Clean Cities, a nonprofit that promotes alternative fuels.

Several local companies, including startups, are trying to move into this market, Price said. Fyda has long-standing relationships with fleet owners and local maintenance that many others can't match, he added. The company prides itself on the ability to work on any type of vehicle and with any type of natural-gas fuel — compressed, liquid or

Fyda NG conversions (cont.)

propane — which isn't common, Price said.

“They're way out ahead of everyone else,” he added. “It'll really help our region.”

The McCandless Township Sanitary Authority spent 18 months researching, and then picked Fyda to convert five mid-sized trucks to run on both gasoline and propane. The authority in November won a $21,374 state grant, a little less than half the cost for a project to prove whether propane can be a viable option for municipal fleets. Hooker was the one who introduced authority officials to propane, which is about $4,000 cheaper per conversion and saves them from building a $500,000 fueling station, said Dennis Blakley, the authority's director of operations.

“They were very knowledgeable,” Blakley said. That was “pivotal, with that and the grant option it made the choice to move ahead easy.”

Fyda won a state grant last fall, $375,000, to help figure out how to transform newer, more efficient gasoline engines to run on natural gas. It's one of several initiatives the company is working on to help improve the technology behind natural-gas motor fuels. It works with several universities and has a testing facility at the North Strabane garage that cost more than $1 million to build.

“The fact they've emerged as a leader in this technology is exciting to see. ... These guys are true red, white and blue,” said state Sen. Tim Solobay, D-Canonsburg, who wrote a letter supporting the grant request with the Department of Environmental Protection. “That's more jobs, more opportunity. It's showing the ingenuity of our technological ability.”

It could transform Fyda, too. The goal is to make Fyda Energy Solutions a national company, with conversion centers throughout the east and maybe partners to open centers in the west, said Bob Bodkin, director of operations. There's a chance that 20 years down the line, this work could become the biggest part of its business, Fyda said.

“I think it could be huge,” Fyda added. “One thing we all believe in is that natural gas is the fuel of the future for heavy trucks.”

Timothy Puko is a Trib Total Media staff writer.

To view the article on the Tribune Review website please go to http://triblive.com/business/headlines/5429876-74/fyda-gas-business#axzz2va3PeFnN

ROUSH CleanTech continues rapid growth

ROUSH CleanTech, an active member of 30 Clean Cities Coalitions, has grown from six to 80 employees in the past three years. Jack Roush, of Roush Enterprises, opened ROUSH CleanTech in 2010 to specialize in alternative fuel vehicles.

The rapid growth of Michigan-based ROUSH CleanTech has contributed to many corporate fleets adopting vehicles fueled by clean burning, domestically produced propane autogas. For the 4,000 propane autogas units sold in 2013, about 140 million gallons of gasoline and diesel will be displaced over the lifetime of those vehicles. Plus, the company creates a new job at its headquarters or within its supply chain for every 100 units sold.

"ROUSH CleanTech delivers clean and domestically produced fueling options that help companies across the country meet sustainability goals, combat fuel costs and reduce dependence on foreign oil," says Todd Mouw, the company's vice president of sales and marketing.

Not only does ROUSH CleanTech specialize in developing clean products, the company's operations are also environmentally conscious. ROUSH CleanTech has reduced its waste at a 3:1 rate by using Energy Star appliances and trash compacting. And the 65,000 square foot facility was built with clean building materials, such as recycled carpet and furniture, and low volatile organic compound paints and adhesives.

ROUSH CleanTech currently produces propane autogas fuel systems for light- and medium- duty Ford commercial vehicles, Type A Micro Bird and Type C Blue Bird school buses. For 2014, the company plans to launch propane autogas powered

CCAC Tank Inspector Class a Success

The Community College of Allegheny County West Hills Center held a CNG Tank Inspector Prep Class that attracted 13 students. The class was conducted by CCAC Automotive Instructor Roger Kinger who went over many of the state and federal requirements for natural gas vehicles. Many of the students were from companies that are Sustainable Members of Pittsburgh Region Clean cities, so their tuition for the class was paid for by PRCC.

Students were able to examine CNG tanks that had some scrapes and gouges as well inspect vehicles such as a CNG Honda Civic and a converted pickup truck provided by FYDA Energy Solutions. Anyone interested in alternative fuel classes should contact Bob Koch at 412-788-7378 or rkoch@ccac.edu.

Schools Propane Bus Performance Solid

Blue Bird Corp., manufacturer of the propane-autogas-powered Vision school bus and other alt-fuel vehicles, says the student-services fleets that were running propane buses during the recent "polar vortex" reported no problems starting or operating their vehicles.

"The temperature here dipped as low as minus 12 degrees Fahrenheit, adding complexity to our daily operations," said Leslie Sheldon, operations manager for All Star Transportation, which runs 40 Vision auotgas buses for the city of Torrington, Conn. "The propane autogas buses made the lives of our technicians and bus drivers easier, as the buses started perfectly and came up to temperature promptly."

Lamers Bus Lines also operated 14 propane-powered Vision buses during the cold snap, when temperatures dropped to -27 degrees F in eastern Wisconsin.

"We experienced easy starting, heat within minutes, quiet operation and less headaches," said Allen Lamers, owner of Lamers Bus Lines. "Our propane Visions are great cold-weather buses."

Blue Bird says the Vision autogas buses, which are equipped with ROUSH CleanTech propane autogas fuel systems and Ford 6.8-liter engines, perform well in cold weather because "propane autogas' natural properties keep the fuel in a constant liquid form, free from freezing or gelling," and the "liquid form provides better control of the air-to-fuel ratio, resulting in the superior start-up dependability."

PRCC Question of the Month

Question of the Month: *What are the key terms to know when discussing propane vehicles and their fueling infrastructure?*

Answer: It is important to know how to "talk the talk" when it comes to propane vehicles and infrastructure. Becoming familiar with the terms below will help you better understand these vehicles and the associated fueling infrastructure so you can ask the right questions and make informed decisions.

Fuel

Propane is a clean-burning, domestically produced alternative fuel that can power light-, medium-, and heavy-duty vehicles. The fuel is a colorless, odorless liquid that is stored under pressure. An odorant, ethyl mercaptan, is added to the fuel for leak detection. Propane is also known as **liquefied petroleum gas or liquefied propane gas (LPG), or propane autogas.** In the United States, these terms are used interchangeably.

Vehicle Types

Propane vehicles work much like spark-ignited gasoline vehicles. The fuel is stored as a liquid in a relatively low-pressure tank (about 150 pounds per square inch). There are two types of propane fuel systems:

- **Vapor-Injected Systems:** Liquid propane travels along a fuel line into the engine compartment. The supply of propane to the engine is controlled by a regulator or vaporizer, which converts the liquid propane to a vapor. The vapor is then fed to a mixer located near the intake manifold where it is metered and mixed with filtered air before being drawn into the combustion chamber and burned to produce power, similar to gasoline. An example is the Alliance AutoGas Prins bi-fuel system.
- **Liquid Propane Injection Systems:** Propane is not vaporized. Instead, it is injected into the combustion chamber in liquid form. Examples are the CleanFUEL USA and Roush CleanTech technologies.

Propane vehicles are available in the following configurations:

- **Dedicated Vehicle:** These vehicles are designed to run on only propane and are used in light-, medium-, and heavy-duty applications.
- **Bi-Fuel Vehicle:** These vehicles are able to run on either propane or gasoline because they have two separate fueling systems. Bi-fuel vehicles include light-duty models and, more recently, medium- and heavy-duty vehicles.
    - Please note that some agencies may use the term **dual-fuel** to describe bi-fuel vehicles. However, Clean Cities uses dual-fuel to describe vehicles that have fuel systems that run on alternative fuel and use diesel fuel for ignition assistance. By this definition, there are not currently any dual-fuel propane systems available.

The power, acceleration, and cruising speed of propane vehicles, whether they are dedicated or bi-fuel, are comparable to those of gasoline vehicles.

PRCC Question of the Month

Fueling Infrastructure Components

Propane fueling infrastructure is very similar to gasoline equipment, including:

- **Storage Tank:** Propane is brought to the station via a transport truck and put into on-site storage—traditionally an aboveground storage tank on a concrete pad.
- **Pump and Fuel Dispenser:** The main difference between a propane fueling dispenser and a gasoline dispenser is that propane is delivered to the vehicle under pressure so it remains a liquid. When the vehicle tank is full, the dispenser stops automatically just like a gasoline dispenser.
- **Credit Card Reader:** A card reader is necessary for a public station accepting payment. Note that federal regulations require a "competent attendant" to fuel propane vehicles, so drivers may need to be trained before they can use an unmanned pump (Title 29 of the Code of Federal Regulations, section 1910.110; National Fire Protection Association (NFPA) 58 and 54).

Fueling stations may fall into one of the following categories:

- **Skid-Mounted:** The storage tank, dispenser, pump, and any additional piping or controls are mounted to a portable concrete or steel frame that can be installed easily, removed, or relocated. Skid-mounted systems tend to be more affordable than stationary equipment.
- **Stationary:** In a stationary system, the storage tank may be underground, and the station may include additional features not available on a skid-mounted system, including spill-proof pumps and additional metering capabilities.

More information on propane vehicles and infrastructure can be found on the Alternative Fuels Data Center (AFDC) Propane website (http://www.afdc.energy.gov/fuels/propane.html) and the Propane Education & Research Council website (http://www.autogasusa.org/).

PRCC Sustaining Members

Membership

Pittsburgh Region Clean Cities is always looking for new members! Our job is to help you understand the value and importance of converting to alternative fuels. We can tell you about the incentives available to you for using alternative fuels. We can help guide you through making smart financial and environmental choices about purchasing an alternative fueled vehicle or using an alternative fuel. Become a member, and we can help you assess your fleet and objectives, as well as work with you to acquire funding assistance. If you would like to join and/or volunteer, please contact Rick Price at coordinator@pgh-cleancities.org

Contribute Your News!

We want to showcase your news and successes, and we welcome ideas for articles. Please feel free to contact Rick Price, Executive Director/Coordinator, at 412-735-4114 or at coordinator@pgh-cleancities.org

Upcoming Events

Board meetings

- April 2, 2014
- July 2, 2014
- October 1, 2014

Rick Price
Executive Director/Coordinator

1436 Royal Park Blvd.
South Park, PA 15129
(412) 735-4114
coordinator@pgh-cleancities.org
www.pgh-cleancities.org