Pittsburgh Region Clean Cities Gazette

Driving the way toward energy independence

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Alternative Fuels Showcase at DEP

this issue

PRCC on April 26th held an alternative fuel showcase for PA DEP on Washington's Landing

PRCC Attends Energy Information Summit

Executive Director Rick Price attended Transportation Energy Partnership's (TEP) sixth annual Energy Information Summit (EIS) in Washington, D.C., on March 26-28, 2012. The purpose of the summit was to bring transportation industry leaders together with coordinators from across the Clean Cities program to learn about and build support around policy incentives that will result in continued growth in jobs and investments for clean energy transportation alternatives to petroleum. The program included participants from all over the U.S. telling their stories of barriers that they have had to overcome and success stories. Governor Daniel P. Malloy discussed how Connecticut is advancing the use of alternative fuels. Participants also took part in individual meetings with key Congressional Offices and Committees to ask for continued support for the Clean Cities Program and other government programs that support alternative fuel transportation and research, including a request to extend several alternative fuels and vehicle tax credits that have expired.

Sil Lukewitte, Tony Bandiero, Rick Price, and Evan Endres

Karen and Darius Teslovich meet with Congressman Thompson

President's Corner

On April 13, President Obama signed an executive order that creates an interagency task force to coordinate oversight of the country's booming natural gas development. The task force, chaired by the White House energy adviser, includes high ranking officials from, among others, the Environmental Protection Agency, and the departments of Defense, Energy, Interior, and Commerce. The purpose of the task force is to help streamline federal approval processes for new gas wells to help drive the economic benefits that come with the responsible growth of the gas industry. As the President noted in his speech:

> *"In 2011, natural gas provided 25 percent of the energy consumed in the United States. Its production creates jobs and provides economic benefits to the entire domestic production supply chain, as well as to chemical and other manufacturers, who benefit from lower feedstock and energy costs. By helping to power our transportation system, greater use of natural gas can also reduce our dependence on oil. And with appropriate safeguards, natural gas can provide a cleaner source of energy than other fossil fuels. For these reasons, it is vital that we take full advantage of our natural gas resources, while giving American families and communities confidence that natural and cultural resources, air and water quality, and public health and safety will not be compromised."*

We are looking forward to this sentiment at the national level translating into strong incentives for the adoption of natural gas fueled vehicles.

I would also like to note that there is still an opportunity to contact your local state representatives and encourage them to support funding for the Alternative Fuel Incentive Grant program in the upcoming year's budget. With the announcement by the state that the revenues for this year are higher than expected, there might still be a chance that the state will fund this important program. Please act now.

PRCC participates in Laugh & Learn

David Marks, PA Gas Marketing, LLC, has been holding frequent Laugh and Learn events for almost two years. David recently brought together a panel of PRCC members and stakeholders including Jan Lauer (PRCC), Mike Lickert (Giant Eagle), Kevin Collins (CP Industries), Travis Buggey (Kinetic Clean Energy), Alicia Skatell (Zoresco), and Rick Price (PRCC) to speak about compressed natural gas as a transportation fuel. The event was attended by the Mayor of Duquesne as well as other interested parties that wanted to understand CNG and its benefits.

Laugh and Learn Panel in Duquesne, PA

PRCC speaks at Gateway High School

Dr. Lutitia Clipper from Peoples Gas and Rick Price (PRCC) visited Gateway Senior High School to discuss with students alternative fueled vehicles. The students were taught about the benefits of using CNG as a transportation fuel. Dr. Clipper explained the characteristics of natural gas, and then the students were able to go outside and see all the components of a CNG vehicle. Later in the day students were able to go to the People's Wilkinsburg Refueling Facility and see the CNG Honda Civic being refueled. Students also visited Zoresco for a walkthrough of the Zoresco upfitter facility in Turtle Creek. Rick Price was also able to bring a Chevy Volt for the students to examine.

Rick talks to Gateway students about alternative fuels

PRCC Holds Stakeholder Meeting at CCAC

Pittsburgh Region Clean Cities held its semi-annual Stakeholder Meeting on April 20, 2012, at the Community College of Allegheny County, West Hills Center. Kevin Collins from CP Industries, a longtime supporter of PRCC, explained their operation for making cascades and other vessels for natural gas refueling stations. CP Industries has had only a small amount of work in the past for CNG vessels, but with the increased interest in CNG, almost 20 percent of their business now CNG related.

Buzz Tabone of Zoresco talked about their work as an Original Equipment Manufacturer (OEM) upfitter and the increased interest in upfitting vehicles to run on natural gas in the region. Also included in the agenda were Allison Lillie and Liz Nilsen from Penn State EcoCar2 who talked about their program and their new relationship with PRCC to support alternative fueled vehicle outreach. Jason Pacewiez, Chair of the EV Committee, talked about what PRCC is doing related to electric vehicles, and Rick Price gave an update on the Gaseous Fuels and Bi-Fuels Committees. Attendees were treated to lunch and also had an opportunity to drive the CNG Honda Civic and a bi-fuel propane vehicle from Alliance Autogas.

Penn State EcoCar 2 Presentation

Kevin Collins at PRCC stakeholder meeting

Plug-in Mitsubishi i-MiEV Now Available!

The Mitsubishi i-MiEV (Mitsubishi innovative Electric Vehicle) is a five-door hatchback electric car and is the electric version of the Mitsubishi i. The 100% electric Mitsubishi i combines performance with a compact carbon footprint, and a roomy interior for four adults. The range of 62 miles can make it the right choice for urban locations, airports, short deliveries, car sharing, campus security, and courier applications, among many other fleet purposes. The Mitsubishi i gets 112 combined MPGe (miles per gallon equivalent) that ranks it as the most fuel efficient EPA certified vehicle in the U.S. for all fuels ever. Plus the car can be trickle charged, charged at a standard Level II charging station, or it can be DC quick charged.

Mitsubishi has already delivered approximately 20,000 i-MIEV cars in Japan and Europe: safety and performance history is excellent. A special fleet model that includes LEVEL lll Fast Charging capability is priced at $30,650 including delivery, (plus tax and licensing). Tax incentives include $7,500 from the federal government. Local western Pennsylvania dealers are now carrying the i-Miev.

Test your CNG knowledge

By Annalloyd Thomason, Vice President/General Manager, NGVi

There is a lot of misinformation published on the internet and elsewhere about compressed natural gas (CNG) and sometimes it's hard to determine myth from fact. Test your CNG knowledge below by taking our quiz.

1. Any type of vehicle can be legally converted to operate on CNG in the U.S.

False. Only those conversion/power systems that have been approved by the U.S. Environmental Protection Agency (EPA) and/or the California Air Resources Board (CARB) may be legally installed on vehicles. Every approved system will have a Certificate of Conformity from EPA and/or an Executive Order (EO) from CARB.

2. NGVs are less safe than gasoline vehicles because CNG is stored in high pressure cylinders.

False. NGVs are considered safer than gasoline vehicles because of that very reason. Unlike the gasoline storage tanks made of plastic or sheet metal which can easily rupture on impact, onboard CNG fuel storage cylinders are manufactured to much more stringent standards. They are designed to accommodate up to 1.25 times their nominal service pressure and come equipped with thermally activated pressure relief devices (PRDs) in case of fire.

The Great Debate: EV vs. CNG

The debate over the best alternative transportation has raged on for years. Electric vehicle (EV) advocates claim that the steady improvement in battery technology, the pervasiveness of the grid, and proliferation of high-speed charging infrastructure will make electrification of at least some portion of the transportation market inevitable.

However, CNG boasts a number of OEM CNG cars and conversion kits already exist and natural gas, thanks to hydraulic fracturing, could remain relatively cheap for some time.

Who is right? The answer is both. EVs and CNG vehicles will grow in the market over the coming years depending on the demands users require. Here's a general roundup of the benefits and drawbacks of EVs and NGVs.

1. Efficiency – Winner EVs

EVs tend to be more efficient than NGVs due to the efficiency of large scale power generation at power plants. A 2010 MIT report found that in general, 1,000 cubic feet (cf) of natural gas, converted to electricity, yields 457 miles in an EV. This same 1,000 cf in an NGV would only have a range of around 224 miles.

2. Filling Stations – Tie

Both types of vehicles have filing stations benefits and drawbacks. A 240-volt charger costs only $2,000 and can be installed at home or the office but takes 3 to 8 hours to fully charge the vehicle. Fast charge stations due exist but can cost $50,000 for installation and are lacking in the Southwestern Pennsylvania region. As more fast charge stations come online EV use will greatly enhance.

CNG also suffers currently from a lack of public infrastructure within the region. But much like EV fast charge stations PRCC and other groups are working to remedy the situation. A CNG filling station costs around $750,000. The high price of the filling stations means that CNG cars will likely be purchased by fleet owners for the foreseeable future. Fleet cars drive in somewhat predictable orbits relatively close to home base, which cuts down on the need for filing stations.

3. Vehicle Cost - Tie

Call it a toss-up. The all-electric Ford Focus starts at $39,200 before $7,500 in federal tax credits and state credits that can come to a few thousand. A standard Focus ranges in price from $16,500 to $22,000. Ford does not make natural gas cars, but some cars can be retrofitted into natural gas machines for around $10,000. Making cars that run natively on natural gas (like some manufacturers do on a limited basis) reduces the cost. But batteries are coming down too and EVs require less maintenance than combustion cars of any stripe.

4. Fuel costs – Winner EVs

Electrics have cheaper fuel prices but CNG cars still perform well. A CNG vehicle currently operates on the equivalent of $2 per gallon of fuel which still offers significant savings compared to petroleum or diesel.

5. Range – Winner CNG

This is where CNG begins to shine. A four-door CNG car with a tank that can hold the equivalent of 15 gallons of fuel can get close to 300 miles on a tank, similar to a gas vehicle. Alternatively EVs like the Nissan Leaf have a limited range of almost 100 miles on a charge.

6. Charge Time – Winner CNG

It takes only a few minutes to fill a CNG car. But, EVs can take hours unless using a fast charge system. The cost of fast charge system installation prevents most home owners from installing a system in their home. There are only limited fast charge stations within the region but more on coming in the next couple years.

This article is based on a January 11, 2012 article by Michael Kanellos in Forbes. The complete article can be found at http://www.forbes.com/sites/michaelkanellos/2012/01/11/which-are-better-electric-cars-or-natural-gas-vehicles/

Fleets Across America Choose Propane Autogas

For the outsider looking in, it doesn't seem like companies that deal with ground transportation, medical supplies and elevators have that much in common. Yet, as diverse as these industries are, they do have one thing in common. They have all chosen to incorporate alternative fueled vehicles into their fleets. And the alternative fuels available today are just as varied as the industries these companies serve. From compressed natural gas and propane autogas to biodiesel and electric, fleet managers have a lot to sort through when making this important choice.

SuperShuttle of Phoenix, Ariz., Wright & Filippis of Rochester Hills, Mich., and ThyssenKrupp Elevator of Atlanta, Ga., have each chosen propane autogas as a viable alternative fuel and have incorporated ROUSH CleanTech propane autogas vehicles into their fleets. Each of these companies has noted significant reductions in operating costs and vehicle emissions by fueling with propane autogas.

SuperShuttle, a recognized name in the airport ground transportation business, is operating more than 60 ROUSH CleanTech liquid propane autogas Ford E-350 passenger vans in their ground transportation fleet. Ken Brooks, national purchasing manager for SuperShuttle, has found significant savings with propane autogas.

This ROUSH CleanTech propane autogas Ford E-350 passenger van owned by SuperShuttle reduces 300,000 pounds per van of carbon dioxide emissions over its 5-year / 600,000-mile lifetime.

"We are seeing tremendous fuel savings right now. The switch to propane autogas technology was a smart thing to do," says Brooks.

From an operating cost standpoint, propane autogas currently provides each SuperShuttle franchise van owner / operator an average savings of $280 per week in fuel costs, or $14,500 per year. And to make operating on propane autogas easier and even more profitable for their franchise owners, SuperShuttle installed an on-site propane autogas fueling station, centrally located for all drivers to use.

"Our franchisees travel up to 600,000 miles over the lifetime of their vehicle. By making the switch to propane autogas, our drivers are not only saving money and lowering our nation's dependence on foreign oil, but reducing carbon emissions by the ton, and this is something they can feel good about," said Brooks.

Wright & Filippis is another company inspiring people to change the way they think about fleets by choosing clean-burning, domestically produced propane to fuel their business. Believing "First to Serve, First to Care" is the only way to do business, Wright & Filippis, the nation's largest family-owned home medical equipment distributor, is reducing its fleet carbon dioxide emissions by 933,000 pounds each year. They've switched 25 percent of their 50-vehicle fleet to propane autogas.

"We feel strongly that propane autogas is a practical and proven solution in reducing our operating costs and becoming more eco-friendly," said Tom Hopkins, department head of logistics for Wright & Filippis.

The company has reported saving $3,000 per vehicle, per year on fuel and maintenance costs while displacing over 44,000 gallons of gasoline burned by switching to propane autogas. "I would encourage any manager that operates a fleet, to take a look at the propane autogas solutions that are out there today," said Hopkins. "I think they will find that this is a very cost-effective solution that makes sense for their fleet as well."

Fleets Across America (cont.)

Like Wright & Filippis, ThyssenKrupp Elevator knows remaining on top means being fiscally, socially and environmentally sustainable. For Tom Armstrong, director of fleet at ThyssenKrupp Elevator, this meant evaluating alternative-fueled vehicles to explore ways to combat rising fuel costs, and to learn which fuels were sustainable now and for the next generation.

"We are challenged in today's marketplace to go green," said Armstrong. "We were determined to reduce our fuel consumption and find sustainable vehicles that worked for us. When we laid out all the fuels available, including propane autogas, ethanol, biodiesel, compressed natural gas and electric, there was only one alternative fuel source that met all of our

This Wright & Filippis propane autogas Ford E-350 cargo van delivers more than $3,000 per year in savings.

criteria, and that was propane autogas."

ThyssenKrupp Elevator is reducing its carbon footprint by 12,237 pounds of carbon dioxide each year for a total of more than 67 tons annually across the 17 vehicles already in use. Armstrong estimates the company is displacing more than 2,000 gallons of gasoline per vehicle each year by switching to propane autogas. This alone provides more than $35,000 in annual fuel cost reductions to the company's bottom line.

ThyssenKrupp Elevator is committed to leaving behind a sustainable future for the generations to come by operating a green fleet that minimizes impact on precious natural resources, conserves fuel costs, and builds a foundation for moving their successes to the other markets they serve. ThyssenKrupp is already expanding its fleet of clean-burning pro-

A ROUSH CleanTech propane autogas Ford E-150 cargo van owned by ThyssenKrupp Elevator provides a positive return on investment for the company.

pane autogas vehicles with one more on order for its Phoenix location, six more being deployed in Seattle, 10 for its Los Angeles location, and eight awaiting deployment in San Diego, Calif.

ROUSH CleanTech, the manufacturer of the propane autogas fuel systems for these companies' fleet vehicles, is dedicated to providing quality, performance and service to help make the transition to clean, domestically sourced energy seamless for its customers. To ensure that all regulations are being met for its customers, all ROUSH CleanTech systems are EPA- and CARB-certified and meet NHTSA, FMVSS and NFPA standards at the time of launch.

"Propane autogas is quickly becoming the gold standard by which other alternative fuels are measured, said Joe Thompson, president of ROUSH CleanTech. "Fleets across North America are deploying propane autogas vehicles because they make economical and environmental sense."

Upcoming Events

Board of Directors Meeting Schedule for 2012

July 3, 2012

October 3, 2012

Propane Powered Vehicle Expo

June 22, 2012

10 am - 1 pm CCAC West Hills Center

Odyssey Day

October 19, 2012

Membership

Pittsburgh Region Clean Cities is always looking or 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

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