

PRCC GAZETTE

"DRIVING THE WAY TOWARD ENERGY INDEPENDENCE"

Volume 4, Issue 16



PRCC 7th Annual Odyssey Day set for October 14th at CCAC-West Hills Center in Oakdale, PA

Odyssey Day is an outreach and education event dedicated to promoting the use of alternative fuel and advanced technology vehicles. It is coordinated by the National

Alternative Fuels Training Consortium (NAFTC) headquartered at West Virginia University in Morgantown, West Virginia, in partnership with the U.S. Department of Energy (DOE). The first event was held in 2002.

<u>Issue Contributors</u>:

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PITTSBURGH REGION CLEAN CITIES

C/O Rick Price, Executive Director/Coordinator 1436 Royal Park Blvd South Park, PA 15129 www.coordinator@pgh-cleancities.org

September 2016

The Pittsburgh Region Clean Cities holds this event each year in October at the Community College of Allegheny County West Hills Center in Oakdale, PA

Event Date: October 14, 2016 Time: 9:00am to 2:30pm

This years' event will feature alternative fueled vehicles including a CNG and Propane School buses, an all electric Tesla and CNG dedicated and Dual Fuel Class 8 Tractors. Guest Speakers include Roger Cohen, PA Department of Transportation Director of Policy and other speakers

To register click here

https://docs.google.com/forms/d/e/1FAIpQLScvwi1X0 ExfKIWAYX4CyYGJXvFB0Pwswv4Fol9654FfBtGN nw/viewform?c=0&w=1

Vendors to register click here

lhttps://docs.google.com/forms/d/e/1FAIpQLSdoHj4iax XnNoKK8wqA6mAdiVQDroqDTAjgh_QcALoxAmkP OQ/viewform?c=0&w=1

To register for sponsorships click here

https://docs.google.com/forms/d/e/1FAIpQLSdWpa7m cecjMPWBTBWX6FTifMpYbsaAzABbyCk11mjgnbC Vgg/viewform?c=0&w=1

This features alternative fueled vehicles, Ride-n-Drives and breakout sessions on:

Grants and Funding, <u>VW Settlement</u>, <u>Smart</u> <u>Mobility and Autonomous Vehicles</u>, <u>Alternative</u> <u>Fuels and Vehicles</u>, <u>Benefits from Natural Gas</u> <u>Derivatives</u>, <u>Electric Vehicle</u>, <u>Plugin Hybrid Electric</u> <u>Vehicles and Hybrids</u>, <u>Use of Alternative Fuels on</u> <u>Buses</u> and <u>Large Engines</u>.

CALENDAR OF EVENTS

BOARD OF DIRECTOR MEETING SCHEDULE FOR 2015

The PRCC Board of Directors meeting schedule is as follows:

October 5, 2016

All meetings will be at:

Five Star Development Inc.

1501 Preble Ave.

Pittsburgh, PA 15233

Starting at 9:30 AM

Upcoming Events

Odyssey Day October 14, 2016 CCAC-West Hills Center 9:00am to 2:30pm

Oakland Transportation Fair October 7, 2016 University of Pittsburgh's Alumni Hall 11:00am to 1:30pm

National Fire Protection Association Alternative Fuels Vehicles Safety Training Program<u>(Free for First Responders)</u> January 12, 2017 CCAC-West Hills Center 8:30am to 4:30pm

Training Classes

The PRCC is working with the National Alternative Fuels Training Consortium and the Community College of Allegheny County – West Hills Center to conduct training classes. <u>These classes are free to Sustaining</u> <u>Members</u> **Light Duty Natural Gas Vehicles** ATE-115-WH85 1.CEU TBD

Introduction to Hybrid Electric Vehicles Training ATE-136-WH85 1.0 CEU

Tuesday & Thursdays 6:30pm to 10:30PM 10/25to11-03 CNG Tank Inspector Prep for Certification

ATE-601-WH85 Mondays & Wednesdays 6:30pm to 10:30pm 11-7-to

<u>11-16</u> Servicing Hybrid Electric Vehicles ATE-137-WH85

Tuesday & Thursdays 6:30pm to 10:30PM 11/8-11-03

More classes schedule for Spring 2017



To register for these classes contact Bob Koch at 412-788-7378 or <u>rkoch@ccac.edu</u>





School District Capitalizes on Abundant Local Fuel Supply, Pays Half Per Gallon for Propane

District: Bradford Area School District

Industry:EducationLocation:Bradford, PennsylvaniaVehicles:2014 – 2016 Blue Bird VisionPropane (8)On-site propane autogas stationChallenge:On-site propane autogas station

To integrate school buses that run on an abundant, locally available fuel and can perform in the harsh climate and mountainous region of this north central Pennsylvania school district.

By the Numbers:

- More than 8,000 fewer pounds of nitrogen oxide emissions and more than 250 fewer pounds of particulate matter compared with diesel models replaced.
- Estimated \$1,500 savings per year per propane bus compared with maintenance and parts needed for diesel buses.
- During winter 2015, buses started in -25 degrees Fahrenheit without issue.
- District pays 50 percent less per gallon of propane compared with diesel.

Bradford Area School District is located in a mountainous region in northern Pennsylvania surrounded by the Allegheny National Forest. The district transports about 2,500 students to school each day on 28 daily bus routes. The school district's attendance area spans about 250 square miles, comprising five schools and nine buildings. And, each school bus travels an average of 120 miles per day.

Abundant Propane Supply

The school district looked to the Blue Bird of Pittsburgh dealership and salesperson Josh Wasielczyk when the time came to purchase the buses, which will take advantage of a readily available fuel.

More than 90 percent of the United States propane autogas¹ supply is produced domestically, with an additional 7 percent from Canada. According to the Propane Education & Research Council, the Marcellus shale can supply more than 2 billion gallons of propane per year.

"Our area has an abundance of propane due to local Marcellus and shallow wells, so we are doing our part to support local industry and the community," said Barry Bryan, director of transportation, who holds a degree in environmental science. "And because of my background, I have a strong interest in green energy."

Lowered Emissions

Along with researching the fuel supply in the area, the school district took notice of the larger school bus providers and districts across the country that were integrating propane-powered school buses. Due to the positive results found in their study, Bradford Area School District began purchasing new propane-fueled buses in 2013 to replace aging diesel buses

These new Blue Bird Vision buses are equipped with Ford Motor Company's 6.8L V10 engines powered by ROUSH CleanTech propane autogas fuel systems.

The propane fleet will emit more than 8,000 fewer pounds of nitrogen oxide emissions and more than 250 fewer pounds of particulate matter compared with diesel models replaced. "The biggest thing we have noticed is that the clean operation of the propane buses has reduced the emissions in our garage and around our schools," said Bryan. "There is far less crude build-up on our computer screens inside of our maintenance bays, which is obviously a plus for our lungs."

Operational Benefits

The school district has also realized myriad operational benefits due to the propane-fueled buses. These buses, which seat 72 students, run quieter than their diesel counterparts and allow the drivers to more easily interact with passengers. Buses fueled by propane reduce noise levels by about half compared to a diesel engine. "Every driver of our propane buses has expressed a preference of the propane model over the diesel due to reduced cabin noise and increased power on hills," Bryan said.

Each Bradford Area School District driver has been instructed on the proper operation of the propanefueled buses. They have commented that these buses maintain power when climbing steep inclines, heat up fast in the winter and provide students a warmer ride.

"The Bradford area saw temperatures of -25 degrees Fahrenheit last winter, and our propane buses ran without missing a beat," said Bryan. The propane autogas fuel system used in the Blue Bird Vision heats the buses quickly and provides unaided cold weather starts to -40 degrees Fahrenheit.

To save on labor costs, drivers fuel the buses at the school district's private station, which is made up of two 1,000-gallon tanks.

Like many Pennsylvania school districts, Bradford Area School District has not seen a budget increase in over four years. All savings from the operation of propane buses have been allocated back into the district's general budget, including the savings in fuel costs.

On average, propane autogas costs 40 to 50 percent less than diesel. Currently, the district is paying \$1.42 per gallon of diesel versus \$.70 for propane, which includes a \$.55 per gallon government incentive.

The district also received a \$5,000 government rebate on the initial cost of each bus.

Maintenance

Bradford Area Schools District's maintenance staff received training form both the local Blue Bird dealership and an onsite visit to ROUSH CleanTech's headquarters in Livonia, Michigan, to ensure the staff fully understood the buses' operation and service schedule. Outside of regular preventative maintenance, and a few issues covered under warranty, the district's propane buses have not required additional service.

Propane autogas burns cleaner in engines than gasoline and diesel, which results in reduced maintenance costs and less wear and tear on the engine and components. "Our propane buses greatly reduce the time spent in maintenance when compared to the maintenance required to keep the emission equipment on a diesel bus operational," said Bryan. "Thus, our mechanics have been very happy."

Because extra equipment like diesel particulate filters (DPF), diesel emission fluid (DEF) and manual regeneration isn't needed for the propanefueled buses, the district estimates it will save \$1,500 per year per bus.

"Our propane buses are easy to maintain, create less pollution, increase financial savings and operate on a local fuel," said Bryan. "Due to our positive experience, we plan to replace two diesel buses per year with Blue Bird propane models."

Pittsburgh Region Clean Cities Has a New Website

Pittsburgh Region Clean Cities has a new and improved website! Come check out some of our new features including a vehicle cost calculator. You can meet our team, learn how to become a member, and much more. http://pgh-cleancities.org/



E NASEO's iREV Case Studies Highlight the **Importance of Fuel Diversification to emergency Response**This week, NASEO's Initiative for Resiliency in Energy through Vehicles (iREV) released a series of case studies that feature stories from communities that have successfully used alternative fuel vehicles to prepare for and respond to disasters. When petroleum is in short supply, alternative fuel vehicles can provide needed transportation services to help communities during emergency situations. Having a diverse fuel mix is one of the key resiliency strategies that municipalities and states employ to ensure continuous operations during extreme natural and man-made events. The four iREV reports highlight ways that communities and others have used biodiesel, electric, natural gas, and propane vehicles to assist with emergency operations in disasters, and also explores other benefits and considerations associated with the various fuels.



REV

The case

studies were developed under iREV, a nation-wide project that supports state and local emergency management decision makers by providing customized tools, information, and strategies about alternative fuel vehicle technologies, infrastructure, and potential uses in emergency scenarios. The authors received significant input from the iREV **Steering Committee**, as well as the State Energy Offices and NASEO Transportation Committee Members. To learn more about iREV and to get involved, visit our website at www.naseo.org/irev.

National Conference on Weights and Measures adopts diesel gallon equivalents for CNG



August 5, 2016. The National Conference on Weights and Measures (NCWM) has voted to approve the diesel gallon equivalent (DGE) standard as a legally authorized method of sale for natural gas that is sold as fuel for vehicles.

The DGE standard allows for the ready comparison of natural gas with diesel fuel, which is the dominant fuel used in truck applications, according to NGVAmerica.

The standard reflects the gasoline gallon equivalent (GGE) standard previously adopted by NCWM that has been in place for CNG since 1994. The adoption of this standard is expected to fill a void for liquefied natural gas (LNG), which previously lacked a uniformly recognized standard.

The adoption of the DGE standard is the product of a more than a three-year process of industry working with NCWM to adopt an approach for selling LNG. The action also means the DGE unit will also be available for CNG retailers that want to use the unit for their retail sales to truck fleets.

"NGVAmerica thanks the NCWM leadership for its thoughtful consideration of this issue and for working with the natural gas vehicle industry to get this done," said Matthew Godlewski, president of NGVAmerica. "This successful vote was the culmination of years of hard work by NGVAmerica staff, our members, industry allies and public officials with the shared goal of transparency for the customer."

The DGE standard will help keep taxation methods consistent and create efficiencies associated with accounting and record keeping requirements, according to NGVAmerica.

Currently, 28 states are using DGE for taxing LNG, while ten states have enacted legislation or approved regulations recognizing DGE as a standard for dispensing natural gas.

Question of the Month: What are the key considerations when installing ethanol equipment at a fueling station?

Answer: For those new to ethanol fueling, installing the necessary infrastructure may be unchartered territory. From fuel specifications to dispensing regulations, the recently updated *Handbook for Handling, Storing, and Dispensing E85 and Other Ethanol-Gasoline Blends* (http://www.afdc.energy.gov/uploads/publication/e thanol_handbook.pdf) is the go-to source for all your ethanol station installation needs. The *Handbook* is designed for those who blend, distribute, store, sell, or use ethanol blends above E10 (90% gasoline blended with 10% ethanol). Below is a summary of some of the top infrastructure considerations

Blend Level

If you are considering an ethanol fueling station, one of the first decisions to be made is the blend level. Specifically:

□ **Low-level blend**: E10

o **Regulations and Specifications**: E10 is subject to the same regulations and specifications as regular gasoline.

• **Equipment**: E10 can be stored and dispensed in existing gasoline fueling equipment.

o Vehicle Applications: Any gasoline-powered vehicle

<u>**Mid-level blend</u>**: E15 (10.5% to 15% ethanol); other common offerings include E25 (25% ethanol) and E30 (30% ethanol)</u>

o **Regulations and Specifications**: ASTM International (ASTM) D4806 -Standard Specification for Denatured Fuel Ethanol for Blending with Gasoline for Use as Automotive Spark-Ignition Engine Fuel

o **Equipment**: For underground equipment, stations must adhere to federal code, which requires compatibility. The majority of tanks and pipes are compatible with all ethanol blends. For above-ground equipment, stations must use equipment listed for the fuel being sold. A list of compatible equipment is available in the *Handbook*.

o Vehicle Applications:

 \Box E15: Flexible fuel vehicles (FFVs), model year 2001 and newer conventional light-duty cars and trucks, and medium-duty passenger vehicles

 \Box Note: FFVs can operate on any blend of gasoline and ethanol, up to 83% ethanol.

□ **<u>High-level blend</u>**: E85 (51% to 83% ethanol, depending on geography and season), also called ethanol "flex fuel"

 Regulations and Specifications: ASTM D5798 -Standard Specification for Ethanol Fuel Blends for Flexible-Fuel Automotive Spark-Ignition Engines
 Equipment: E85 fueling equipment is subject to the same requirements as mid-level blend equipment.

o Vehicle Applications: FFVs

Fuel Quality

Most transportation fuel sold in the United States is blended to ASTM specifications, the fuel quality standard. These standards are recognized by federal and most state government agencies as the primary means of ensuring fuel quality. Fleets and retailers should work with their fuel suppliers to confirm that the fuel provided meets these requirements. After the installation of ethanol fueling equipment, operational precautions, such as periodic checks (e.g., once every one to two months) of fuel properties, should be performed to help assure fuel quality.

Infrastructure Requirements

An ethanol station consists of approximately 60 interconnected pieces of fueling equipment necessary to deliver fuel to vehicles, including tanks, pipes, pump, dispenser, and hanging hardware. UL (www.ul.com) is the primary third-party safety certification laboratory that has developed standards for listing fueling equipment.

As stated above, stations must meet federal compatibility requirements for underground equipment, which includes a letter stating compatibility from a manufacturer with specific biofuel blends or listing from a third party laboratory, such as UL. The majority of existing tanks and pipes are compatible with all ethanol blends. Some associated underground storage equipment, such as leak detection and prevention or fill equipment, may need to be replaced. Above-ground equipment must be listed for the fuel blend being dispensed. UL listed aboveground equipment is available for E10, E25, and E85 blends. A complete list of compatible equipment is available in the appendices of the *Handbook*.

Note that some stations have UL-listed E85 blender pumps capable of legally dispensing ethanol blends between E0 and E85, including mid-level blends like E25 or E30, for FFV owners.

Labeling

Federal law requires dispenser labels for ethanol blends above E10 to follow Federal Trade Commission specifications

(http://www.afdc.energy.gov/laws/8060). Labels must be placed on the front panel of the dispenser in a position that is clearly visible. Approved labels are available free of charge from the Blend Your Own website (http://byoethanol.com/dispenserlabels-available.html). Some states have additional labeling requirements; check here to see if your state does: http://www.afdc.energy.gov/laws/state.

Safety

When handling ethanol, it is important to keep safety procedures in mind. Like gasoline, ethanol is flammable, poisonous, and may contain additives that can be harmful even with casual contact. To avoid risk, personal exposure to ethanol should be minimized. To fight an ethanol fire, specific equipment, materials, and training is required. Before offering blends above E10, consult your local fire marshal to determine regulations governing safe ethanol handling procedures. It is also important to be familiar with specifications detailed in the E85 material safety data sheet (http://www.afdc.energy.gov/uploads/publication/S SA_MSDS.pdf).

For additional information on installing ethanol equipment at a station, such as a full list of codes and regulations, as well as a checklist for installing and dispensing ethanol blends, refer to the *Handbook*. In addition, check out the Alternative Fuels Data Center's (AFDC) ethanol pages for general information, on ethanol fueling stations:

- Ethanol Blends
 (<u>http://www.afdc.energy.gov/fuels/ethano</u>
 <u>l_blends.html</u>)
- Ethanol Codes, Standards, and Safety (<u>http://www.afdc.energy.gov/fuels/ethano</u> <u>l_codes.html</u>)
- Ethanol Equipment Options
 (<u>http://www.afdc.energy.gov/fuels/ethano</u>
 1_equip_options.html)
- Installing E85 Equipment
 (<u>http://www.afdc.energy.gov/fuels/ethano</u>
 <u>l installing equip.html</u>)
- Ethanol Fueling Station Locations
 (<u>http://www.afdc.energy.gov/fuels/ethano</u>
 <u>l_locations.html</u>)

Clean Cities Technical Response Service Team technicalresponse@icfi.com



UPS completes one billion miles in its rolling Laboratory Green Fleet

August 4, 2016. UPS announced the company has achieved its goal of driving 1 billion miles in its alternative fuel and advanced technology fleet one year earlier than planned, and marked more than 10 years of learning from its "Rolling Laboratory."

UPS's long-term commitment to sustainability is transforming commercial transportation and logistics, spurring growth in the clean fuels market and powering critical engineering advances. The company's wider sustainability progress is detailed in the 14th annual Sustainability Report. "We had a big sustainability goal as we set out to make the most of our rolling laboratory by driving 1 billion clean miles in alternative fuel vehicles – that's the equivalent of well over 4,000 trips to the moon," said David Abney, Chairman and CEO, UPS. "While attaining this goal is new, our commitment to seeking out alternative fuels actually dates back to the 1930s when UPS tested electric vehicles. With more than 100,000 drivers logging more than 3 billion miles per year, our future depends on our ability to meet the growing demand for global trade while reducing our impact on the environment."

UPS deepened its commitment to alternative fuels in 2012, when it set the goal of reaching 1 billion miles driven with alternative fuels by the end of 2017. Shattering that goal one year early, about 12 percent of the conventional diesel and gasoline fuel previously used by UPS's ground fleet is now being replaced by alternative fuels including renewable natural gas and renewable diesel.

"The question wasn't should we make alternative fuels work?" said Mike Whitlatch, UPS's vice president of global energy and procurement. "Instead, it was 'What's the best way to make alternative fuels work for UPS, and for the environment?' After more than a decade of focus, we are now driving more than 1 million miles globally each business day in our alternative fuel and advanced technology fleet."

Recognizing alternative fuels and advanced technologies each have unique advantages depending on the routes and geographies in which they are used, UPS deploys the more than 7,200 vehicles in the Rolling Lab to determine what works best in each situation. From old-fashioned pedal power and electric-assisted bicycles in dense urban areas like London and Hamburg to electric and hybrid electric vehicles in the U.S., and natural gas, renewable natural gas and propane globally, UPS is putting sustainability innovation into action, all over the world.

By the end of 2016, UPS will have invested more than \$750 million in alternative fuel and advanced technology vehicles and fueling stations globally since 2009.



Trillium CNG finalizes contract to build CNG

locations for Pennsylvania Department of

Transportation

July 19, 2016. Trillium CNG, part of the Love's Family of Companies, has finalized an agreement to bring 29 new compressed natural gas (CNG) fuel stations to Pennsylvania. Earlier this year, the Pennsylvania Department of Transportation (PennDOT) selected Trillium for a contract under which the company will design, build and maintain the CNG facilities.

"This is an unprecedented project that will supply CNG to more than 1,600 buses at transit agencies across Pennsylvania," said Bill Cashmareck, general manager of natural gas for Love's. "PennDOT has led the way in proving how valuable public-private partnerships can be. We hope other states use this model so Trillium can help lower the cost of other transit facilities nationwide. With Trillium's deep expertise in constructing and maintaining facilities, we can assure Customers they will receive continued reliable service."

Seven of the 29 facilities will be open to the public with the option to add additional sites in the future. The public stations are also open to the motoring public as well as light-, medium- and heavy-duty trucks. The fueling stations will be strategically placed throughout the state to give fleets and motorists convenient access to more CNG locations. The agreement also includes CNGrelated updates to existing transit maintenance and storage facilities

Construction on the first three facilities will begin later this year and are expected to open early next year. Stations at the Cambria County Transit Authority in Johnstown, Pennsylvania, and the Central Pennsylvania Transportation Authority in York, Pennsylvania, will serve the transit authorities' fleets of public transit buses, as well as the motoring public. The Centre Area Transportation Authority facility in State College, Pennsylvania, is for private use by its bus fleet. All locations will be constructed over the next five years.



U.S. Department of Energy Honors Pennsylvania Leader for Success in Reducing Greenhouse Gas Emissions and Petroleum Use in Transportation

Pittsburgh Region Clean Cities Coordinator Rick Price Inducted into Clean Cities Hall of Fame

PITTSBURGH – The U.S. Department of Energy (DOE) honored Pittsburgh Region Clean Cities Coordinator Rick Price for his dedication and outstanding accomplishments in reducing Pennsylvania's production of greenhouse gas emissions and dependence on petroleum in transportation. DOE's National Clean Cities Co-Director Linda Bluestein inducted Price into the <u>Clean Cities Hall of Fame</u> on Thursday, September 1 while in Knoxville, Tenn., where representatives from nearly 100 Clean Cities coalitions from across the country gathered for the 2016 Clean Cities Coordinator Workshop.

Price began his work as Executive Director of Pittsburgh Region Clean Cities in 2011, and has been a proponent of alternative fuels and the Clean Cities program throughout western Pennsylvania for almost 15 years. In 2015 alone, Price's coalition averted more than 7,000 tons of greenhouse gases and saved more than 4.9 million gallons of petroleum through the deployment of alternative and renewable fuels, advanced vehicles, idle reduction, and fuel economy improvements.

"Rick is a master at winning grants, and when I have questions I go to him," Bluestein said. "He's been instrumental at bringing alternative fuel vehicles to the state of Pennsylvania, to the National Energy Technology Laboratory (NETL), and the DOE. He brings enthusiasm and passion to his work, and serves as an inspiration to others as to what can get done."

During his tenure as coordinator, Price has become known for the passion and enthusiasm he brings to his work, as well as his ability to connect the right people required to make a project successful. He has also demonstrated immense skill in leading efforts focused on educating a variety of audiences about the benefits and importance of using alternative fuels and advanced vehicles and technologies. In 2014, Price spearheaded the inaugural Tri-State Alternative Fuel Conference and Expo, which was the first educational trade show and conference of its kind in the area to promote the use of alternative energy sources in an effort to revolutionize the transportation industry, boost local and national economies, and protect the environment. Additionally, Price created a hugely successful partnership with the Community College of Allegheny County to provide alternative fuel vehicle training, and regularly hosts stakeholder fuels and vehicles trainings, National Drive Electric Week events, and workshops aimed at helping fellow coordinators secure project grants. "It's such an honor to be inducted," Price said. "The most important part about this job is to have a passion for what you're doing. I believe in the mission of Clean Cities, and that's a big part of the success of our coalition."

Prior to becoming coordinator of Pittsburgh Region Clean Cities, Price retired from the DOE after 37 years of service. While at the DOE, he worked for 20 years as an Organizational Property Management Officer for the NETL in Pennsylvania, during which his duties included serving as the Motor Vehicle Manager of an 82vehicle fleet.

Pittsburgh Region Clean Cities is a designated member of the U.S. Department of Energy's Clean Cities program. Clean Cities advances the nation's economic, environmental, and energy security by supporting local actions to reduce greenhouse gas emissions and cut petroleum use in transportation. A national network of nearly 100 Clean Cities coalitions brings together stakeholders in the public and private sectors to deploy alternative and renewable fuels, idlereduction measures, fuel economy improvements and emerging transportation technologies. For more information, visit cleancities.energy.gov and cleancities.energy.gov/hall-of-fame.



Rick Price PRCC and Don Francis Atlanta Clean Cities with Hall of Fame Trophies

Alternative Fuel Grants Will Cut Nearly 1 Million Pounds of Air Pollution from PA Roads Approved projects will help schools and businesses reduce energy and fuel costs

Harrisburg, PA – The Pennsylvania Department of Environmental Protection (DEP) has awarded more than \$1.6 million to Pennsylvania schools and businesses for projects using alternative fuels and infrastructure. The Alternative Fuels Incentive Grant (AFIG) awards grants for projects to improve air quality through alternative fuel use. The winning projects will eliminate from use an estimated 980,000 gallons of gasoline.

Ten grants have been awarded, mostly for alternative fuel vehicle purchases and retrofits, such as the 41 propane-fueled buses for the Upper Moreland School District in Montgomery County, and converting 20 United Parcel Service (UPS) trucks to run on compressed natural gas.

"These vehicles and infrastructure purchased and built with these grants will reduce air pollution coming from cars and trucks on the road, and improve the air we breathe," said Acting DEP Secretary Patrick McDonnell

. "These are innovative solutions to reduce greenhouse gas emissions from the transportation sector, and I am very pleased that DEP is a part of making them a reality." Eight of the grants are for alternative fuel vehicles that utilize alternative fuel stations in Pennsylvania. One hundred and eleven vehicles, including the buses, will be put into service through the grants, as well as utilize seven new alternative fuel refueling stations.

An electric vehicle-to-grid-integration project is also among the winners. The Penn State GridSTAR Center in Philadelphia will create and demonstrate hardware and software that will allow electric vehicles to connect to the electrical grid for energy storage and resiliency. The result will be a system that can provide valuable services to the grid and a financial incentive to increase electric vehicle ownership. A full list of grantees is below.

The AFIG program remains open throughout the 2016 calendar year, and DEP is currently accepting applications for a round closing September 9, 2016. Additional applications will be accepted until December 30, 2016 for innovative, advanced fuel and vehicle technology projects resulting in a cleaner and greener transportation sector within the Commonwealth. The AFIG Fund was established under Act 166 of 1992 and is administered by the DEP through the Energy Office.

Awarded Projects: <u>Awarded Vehicle Projects</u>

Awardee: Upper Moreland Township School District Project: Propane School Bus Conversion Project County: Montgomery Award Total: \$174,566 Number of Vehicles: 41 Estimated Gasoline Gallon Equivalent saved per year: 41,544 Project Description: The project seeks to help Upper Moreland School district procure 41 new school buses, comprising of thirty-five 72 passenger and six medium-sized school buses to operate on propane. This vehicle purchase project was submitted in conjunction with a propane refueling infrastructure application. Awardee: United Parcel Service Project: Willow Grove CNG Vehicle Conversion Project County: Montgomery Award Total: \$200,000 Number of Vehicles: 20 Estimated GGE saved per year: 462,963 Project Description: The project seeks to begin the conversion of UPS's class 8 vehicles to compressed natural gas (CNG). UPS will immediately begin by converting 20 Kenworth T680 tractors to run on CNG. The successful implementation of this project will be used to evaluate the potential conversion of the other 88 vehicles at the Willow Grove depot.

Awardee: Freight Equipment Leasing, LLC Project: Harmar 2016 Expansion: Phase 1 County: Allegheny Award Total: \$200,000 Number of Vehicles: 12 Estimated GGE saved per year: 240,000 Project Description: This project consists of the purchase of twelve CNG tractors. The expected delivery date of the CNG tractors is July 2016. The trucks will operate out of the Pitt Ohio's Harmar Township facility, and will be refueled at the proposed adjacent American Natural Station.

Awardee: Nelson Business Enterprises Project: Company Gas Autos to Company Electric Autos

County: Bucks Award Total: \$33,741 Number of Vehicles: 3

Estimated GGE saved per year: 2,052 Project Description: The project converts the 3 company autos to BMW I3's with range extenders so that they can eliminate almost all gas usage and fully migrate to electric only transportation. Nelson plans to also market heavily this forward thinking conversion to electric vehicles to their clients. This is the only vehicle award involving electric vehicles and will result in company installed installation of home chargers for the employees provided with vehicles as well as a potential office charger that will have limited availability to the public. Awardee: E&B Transportation Co. Project: Propane School Bus Fleet County:Adams Award Total: \$22,500 Number of Vehicles: 5 Estimated GGE saved per year: 12,143 Project Description: The proposed project is to purchase and add 5 propane-powered school buses to its current fleet of 75 diesel school buses.

Awardee: Compass Natural Gas Partners, LP Project: CNG Trucks for Quaker CNG Fueling Terminal County: Lycoming Award Total: \$140,000 Number of Vehicles: 7 Estimated GGE saved per year: 46,667 Project Description: The project would purchase a fleet of (7) new dedicated CNG trucks that will pull tube trailers loaded with CNG from their fueling terminal located in Lycoming County, to PA end users. A private access CNG truck dispenser will be on site to fuel the trucks.

Awardee: Constructural Dynamics Project: Silvi Concrete CNG Concrete Mixer Deployment Project County: Chester Award Total: \$133,165 Number of Vehicles: 10 Estimated GGE saved per year: 85,714 Project Description: The project would purchase ten (x10) CNG heavy-duty concrete mixer trucks in Pennsylvania. The 10 CNG trucks will use 80,000 GGE of CNG a year (8,000 GGE/truck), and fuel at 2 new Silvi Concrete CNG stations at their fleet bases in Pottstown and Downingtown. Constructural Dynamics applied for two identical projects.

Awardee: Francis J. Palo, Inc Project: Francis J. Palo Inc. CNG Vehicles County: Clarion Award Total: \$16,297.50 Number of Vehicles: 3 Estimated GGE saved per year: 4,604 **Project Description:** The project would convert two new 2015 Chevy 1500 pickup trucks and one new 2016 Chevy 3500HD pickup truck to bi-fuel CNG usage. Palo had a 2013 AFIG grant, and purchased 7 out of 10 vehicles in the project. The remaining 3 vehicles were not completed by the end of the grant POP because the other project partners backed out. Awarding this grant would allow Palo to purchase more vehicles achieve the 10 vehicles necessary to sustain their CNG station.

Awarded Innovative Technology Projects

Awardee: Partnerships One, LLC Project: Electric Vehicle-Grid-Integration County: Philadelphia Award Total: \$250,300 Project Description: The project is an electric

Project Description: The project is an electric vehicle-to-grid integration project at the Penn State GridSTAR Center in Philadelphia. This project will create and demonstrate hardware and software to manage electric vehicle charging and other building loads to provide ancillary services to the grid and resiliency to the vehicle owner. Additional software to aggregate a number of vehicles to meet the minimum capacity for ancillary service revenue will also be created and demonstrated. The result will be system that can provide valuable services to the grid and a financial incentive to increase electric vehicle ownership.

Awarded Refueling Infrastructure Projects

Awardee: Upper Moreland Township School District

Project: Propane Fueling Station Project **County:** Montgomery **Award Total:** \$458,197

Project Description: The project will construct a propane fueling station for the new fleet of school buses that will operate using propane as a vehicle fuel. The project will help the township diversify its energy portfolio by converting some of its 59 school buses to run on propane. This station will have conditional access for use to other approved municipal and school districts wishing to convert their vehicles to run on propane. This refueling infrastructure project was submitted in conjunction with a vehicle purchase application.



NFPA's Alternative Fuel Vehicles Safety Training Course Curriculum Overview

NFPA's Alternative Fuel Vehicles Safety Training provides firefighters with the information necessary to respond to emergency situations involving all alternative fuel vehicles on our roadways, including electric, hybrid, hydrogen fuel cell, and gaseous fuels such as CNG (Compressed Natural Gas), LNG (Liquefied Natural Gas), LPG (Liquid Propane Gas), and their recharging/refueling stations. This comprehensive full day instructor-led train-the-trainer course is tailored for those responsible for conducting training or training officers, and is comprised of videos, animations, slides, activities, and field evolutions involving AFVs.

This courseis scheduled for Janauary 12, 2017 at the Community College of Allegheny County = West hills Center, 1000 McKee Road, Oakdale, PA 8;30am to 4:30pm.

This class is "Free" to first responders. If any interests in attending this class or you have any questions, please contact Rick Price at <u>rprice5705@aol.com</u> or call 412-735-4114

PRCC Sustainable Members



PRCC Membership Levels Information

Membership Options: Individual- \$150 Nonprofit- \$300 Bronze- \$500 Silver- \$1000 Gold- \$2000 Platinum/Sponsor- \$4000+

To find out more on membership levels go to:

http://www.pgh-cleancities.org/wordpress/?page_id=367



The Pittsburgh Region Clean Cities Board of Directors would like to thank all of our members and stakeholders for supporting our coalition and mission!



UNITED WE STAND - SEPTEMBER 11, 2001

Our deepest sympathy and heartfelt thoughts go out to our fellow Americans during this time of crises. We will continue to stand strong and united in our support of the men and women protecting our country's interests.

Please come visit our PRCC Web Site:

www.pgh-cleancities.org

. Contribute Your News!

In trying to get the news of successes we have in our area. Please feel free to contact Rick Price, Executive Director/Coordinator at 412-735-4114 or at coordinator@pgh-cleancities.org..

Learn more about Clean Cities at *cleancities.energy.gov*, and learn how to get involved with the Pittsburgh Region Clean Cities coalition at www.pgh-cleancities.org

