PITTSBURGH REGION CLEANIGHTLES

PRCC GAZETTE

"DRIVING THE WAY TOWARD ENERGY INDEPENDENCE"

Volume 5, Issue 14 March 2020

Alternative Fuel Taxes Extended

The clean transportation energy industry won several big victories this week as the House and Senate reached an agreement on an FY2020 spending bill. The House has passed the bill on Tuesday, with the Senate expected to approve it in short order, and the President expected to sign it into law before the December 20th funding deadline. The bill includes a number of key provisions, which we have been suggesting for several years.

The bill extends key alternative fuel tax incentives that have been expired since the end of 2017. Specifically, it extends:

- the \$1.00-per-gallon tax credit for biodiesel and biodiesel mixtures, and the small agribiodiesel producer credit of 10 cents per gallon, retroactively for 2018 and 2019 and prospectively through 2022;
- the alternative fuel excise credit (\$0.50) retroactively for 2018 and 2019 and through 2020;

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- the alternative fuel infrastructure credit (30% of the cost, not to exceed \$30,000.00) retroactively for 2018 and 2019 and through 2020; and
- the credit for qualified fuel cell vehicles (Up to \$8000.00 available) retroactively for 2018 and 2019 and through 2020.



CALENDAR OF EVENTS

BOARD OF DIRECTOR MEETING SCHEDULE FOR 2020

The PRCC Board of Directors meeting schedule is as follows:

April 1, 2020

July 1, 2020

October 7, 2020

All meetings will be at:

Five Star Development Inc.

1501 Preble Ave.

Pittsburgh, PA 15233

Starting at 9:30 AM

Upcoming Events

Stakeholder Meeting February 25, 2020 CCAC-West Hills Center 10:00am

Odyssey Day October 2, 2020

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. These classes are **free** to Sustaining Members

Light Duty Natural Gas Vehicles

ATE-115-WH85

1. CEU

TBD

Introduction to Hybrid Electric Vehicles Training

ATE-136-WH85

1.0 CEU

TBD

CNG Tank Inspector Prep for Certification

ATE-601-WH85

TBD

Servicing Hybrid Electric Vehicles

ATE-137-WH85 TBD



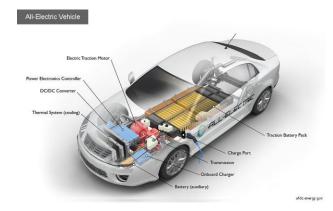
To register for these classes contact Bob Koch at 412-788-7378 or rkoch@ccac.edu





Alternative Fuels Data Center How Do All-Electric Cars Work?

All-electric vehicles (EVs) have an electric motor instead of an internal combustion engine. The vehicle uses a large traction battery pack to power the electric motor and must be plugged in to a charging station or wall outlet to charge. Because it runs on electricity, the vehicle emits no exhaust from a tailpipe and does not contain the typical liquid fuel components, such as a fuel pump, fuel line, or fuel tank. Learn more about electric vehicles.



High-res image

Key Components of an All-Electric Car

Battery (all-electric auxiliary): In an electric drive vehicle, the auxiliary battery provides electricity to power vehicle accessories.

Charge port: The charge port allows the vehicle to connect to an external power supply in order to charge the traction battery pack.

DC/DC converter: This device converts higher-voltage DC power from the traction battery pack to the lower-voltage DC power needed to run vehicle accessories and recharge the auxiliary battery.

Electric traction motor: Using power from the traction battery pack, this motor drives the vehicle's wheels. Some vehicles use motor generators that perform both the drive and regeneration functions.

Onboard charger: Takes the incoming AC electricity supplied via the charge port and converts it to DC power for charging the traction battery. It monitors battery characteristics such as voltage, current, temperature, and state of charge while charging the pack.

Power electronics controller: This unit manages the flow of electrical energy delivered by the traction battery, controlling the speed of the electric traction motor and the torque it produces.

Thermal system (cooling): This system maintains a proper operating temperature range of the engine, electric motor, power electronics, and other components.

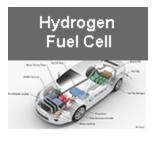
Traction battery pack: Stores electricity for use by the electric traction motor.

Transmission (electric): The transmission transfers mechanical power from the electric traction motor to drive the wheels.

COMPARE WITH









Billions of Dollars Remain for VW Funding, Propane School Buses

It's been a few years since the Volkswagen diesel emissions scandal emerged and almost \$15 billion earmarked to settle it. Of that, the \$2.9 billion Environmental Mitigation Trust, which funds transportation projects that reduce NOx emissions, has only awarded about \$150 million.

The good news? There's still plenty of opportunity to remove older, dirty diesel trucks and buses and replace them with a cleaner-burning technology, like propane autogas.

In terms of the number of alternative fuel vehicles deployed by this funding, propane school buses are leading the pack with more than 500 deployed using these settlement funds. In a dollar-for-dollar comparison of Type C school buses, buses fueled by propane autogas reduce NOx the most. Propane buses cost \$91 per pound of NOx reduced. Diesel buses cost \$1,330 per pound of NOx reduced, making propane buses 93 percent more cost-effective. And, electric buses cost \$268 per pound of NOx reduced, making propane autogas 66 percent more cost-effective.

There has been almost \$17 million in publicly announced awards from school districts in Colorado, Indiana, Iowa, Louisiana, Maine, Minnesota, Nebraska, Ohio, Oklahoma, South Carolina and Tennessee. And, more announcements are coming daily. These states are in the process of successfully deploying over 400 new Blue Bird propane school buses, which will bring economic savings and emission reductions to the communities in which they operate.

There is still a tremendous amount of opportunity out there. And, there's work to be done with the state beneficiaries to develop funding programs that create competitive opportunities and encourage level playing fields for all alternative-fuel technologies. The focus is and will continue to be NOx reduction as we know the negative health effects it has, especially on the developing lungs of children.

What can you do? Reach out to your state's beneficiary. (You can find this information on the Volkswagen Settlement Clearinghouse website here.) Discuss how low NOx propane school buses will substantially reduce NOx while benefiting school districts and communities throughout the entire state. You can visit ROUSHcleantech.com/volkswagen-settlement to learn how best to approach and plan for the next phase of Volkswagen settlement (and other funding) opportunities in your state.



DEP Invests \$1.89 Million For 12 Clean Energy Vehicle Projects Across



On November 20, the Department of Environmental Protection announced it has invested \$1,891,000 in 12 clean energy vehicle projects through the <u>Alternative Fuels Incentive</u> Grants Program.

"Replacing gasoline- or diesel-powered vehicles with lower-emissions alternative fuel vehicles makes a world of sense," said Department of Environmental Protection (DEP) Secretary Patrick McDonnell. "It makes Pennsylvania's communities and environment healthier; helps to slow the increasingly urgent impacts of climate change we're seeing; and saves owners money on fuel costs."

The AFIG program supports replacement of older shuttles, school buses, waste-hauling trucks, and other vehicles with cleaner natural gas and electric vehicles, as well as installation of fueling stations for such vehicles.

Projects Funded

- -- Armstrong County: Snyder Brothers, Inc.: \$463,064 to upgrade and expand capacity to meet increasing demand at two fast-fill compressed natural gas fueling stations that serve their fleet and are also available to the public
- -- Bucks County: Pennsbury School District: \$68,000 to convert eight old diesel school buses to propane school buses for use in Bucks County.
- -- Butler County: Progas Inc.: \$5,800 to replace a gasoline vehicle with a propane-fueled vehicle to increase their propane fleet and train six technicians to do propane vehicle conversions and repairs at their site.
- -- TC Recycling: \$240,000 for six new CNG trash collection trucks at their Mars site
- -- Lancaster County Solid Waste Management Authority: \$138,560 to expand its CNG waste transfer fleet by adding four new trucks.
- -- Montgomery County: Tri-County Transit Service, Inc.: \$49,769 to support construction of a new propane fueling station in Montgomery County.
- -- Hatboro-Horsham School District: \$25,000 for three new propane school buses for use.
- -- Philadelphia: Comcast: \$100,000 to convert 20 trucks based at company locations in Philadelphia County to plug-in hybrid vehicles for use statewide.

Multiple Counties

-- Allegheny, Westmoreland, and Washington Counties: People's Natural Gas Company: \$180,000 for 24 new bi-fuel natural gas/diesel vehicles in locations

purchase eight heavy-duty compressed natural gas vehicles for use in Westmoreland County, continuing their transition to alternative fuels at company locations in western Pennsylvania.

-- Bucks, Lackawanna, and Montgomery Counties: Waste Management, Inc.: \$300,000 for eight heavy-duty compressed natural gas (CNG) vehicles for use at company sites

2019 Round Of AFIG Grants

School districts, municipalities, nonprofit organizations, and businesses are eligible to apply for the next round of <u>Alternative Fuels Incentive Grants</u> now through DEP's <u>eGrant webpage</u>. The deadline was December 13. Approximately \$3 million remained available in 2019 funds.

The 2020 AFIG is expected to open this





Summary of Key Findings

Clean Cities coalition activities resulted in an EUI of over 1 billion GGE, comprised of net alternative fuels used and energy savings from efficiency projects, in 2018. Table 1 represents the combined results of all strategies to increase fuel diversity and energy efficiency in the nation's fleets. Participation in vehicle and infrastructure development projects remained strong, as did alternative fuel use and resulting overall EUI.

Table 1. Energy Use Impact of Each Portfolio Element

Project Type	Coalition Impact (MGGE ^a)	Percent of Total Coalition Impact ^b	Change from Last Year
Alt. Fuels and Vehicles	744.4	70%	+2%
Fuel Economy	53.9	5%	+24%
HEVs	51.9	5%	-9%
EVs & PHEVs	45.0	4%	+71%
Idle Reduction	42.9	4%	-3%
VMT Reduction	31.3	3%	+9%
Off-Road	17.8	2%	+19%
Estimated Outreach Impact	69.1	7%	+151%
Total EUI ^c	1,056.3	100%	+9%

^a Million gasoline gallon equivalents

¹ Net alternative fuel used, and energy savings from efficiency projects, in this report are expressed in GGE, using the lower heating value ratio of the fuels.



Duquesne Light Unveils One of Area's Largest Workplace Charging Installations

Duquesne Light Company (DLC) recently unveiled one of the largest electric vehicle (EV) workplace charging installations in the Pittsburgh area, reinforcing its commitment to electric mobility in this region. The installation, located at its Woods Run Campus in the North Shore of Pittsburgh, includes 20 charging station plugs to support the company's growing EV fleet and employees driving electric.

"Through this program, along with a number of other initiatives, including an EV purchase incentive, the launch of an online EV Guide and partnering to install EV charging stations in the City of Pittsburgh, we are helping to pave the way to make it easier not only for our customers, but also our employees, to drive electric," said Steve Malnight, President & CEO, Duquesne Light Company. The company celebrated the installation with a ribbon-cutting ceremony, where Malnight joined Allegheny County Executive Rich Fitzgerald to mark the opening in front of employees and local business leaders. Attendees also were invited to test drive or ride-along in the EVs on-site and to watch a charging station demonstration. Vehicles were provided by #1 Cochran, Tesla Wexford, and Nissan.

To read more go to

https://newsroom.duquesnelight.com/duquesne-light-unveils-one-of-areas-largest-workplace-charging-installations



Chargers at Woods Run DLC Facility



County Executive, Rich Fitzgerald, Jessica Rock, DLC and Steve Malnight, DLC $\,$



Duquesne Light President Steve Malnight



Cutting the Ribbon on the new charging stations

b Totals and subtotals may differ from the sums due to rounding.

⁵ The 2018 Clean Cities Coalitions Activity Report is focused on the impacts of coalition activities and projects and excludes related DOE-led efforts that were included in this report in years prior to 2016.

2020 Diesel Emission Reduction Act (DERA) National Grants - EPA Clean Diesel Grant Program Open

https://www.epa.gov/grants/2020-dera-national-grants-competition

FUNDING / AWARDS: EPA anticipates awarding approximately \$44 million in DERA funding under this announcement. Awards will be selected and managed by EPA's ten regional offices. EPA anticipates 2 to 8 cooperative agreement awards per EPA region, subject to the availability of funds, the quality of applications received, and other considerations.

SUMMARY: EPA's Office of Transportation and Air Quality is soliciting applications nationwide for projects that achieve significant reductions in diesel emissions.

Eligible diesel vehicles, engines and equipment may include buses, Class 5 – Class 8 heavy-duty highway vehicles, marine engines, locomotives and nonroad engines, equipment or vehicles such as those used in construction, handling of cargo, agriculture, mining or energy production.

Eligible diesel emissions reduction solutions include verified retrofit technologies such as exhaust after-treatment technologies, engine upgrades, and cleaner fuels and additives, verified idle reduction technologies, verified aerodynamic technologies, verified low rolling resistance tires, certified engine replacements and conversions, and certified vehicle or equipment replacement.

Eligible entities include regional, state, or local agencies; tribal governments (or intertribal consortia) and native villages; or port authorities, which have jurisdiction over transportation or air quality, and nonprofit organizations or institutions that: a) represent or provide pollution reduction or educational services to diesel fleets or b) have, as their principal purpose, the promotion of transportation or air quality. Although private fleet owners are not eligible to apply directly to EPA for DERA funding, both public and private fleets can benefit from the programs implemented by DERA national grant recipients.

Application packages must be submitted electronically to EPA through Grants.gov (www.grants.gov) no later than Wednesday, February 26, 2020, at 11:59 p.m. (ET) to be considered for funding

PRCC 2020 Stakeholder Meeting to be Held on February 25th

The Pittsburgh Region Clean Cities will hold its Annual Stakeholder Meeting on February 25, 2020 at the Community College of Allegheny County – West Hills Center located at 1000 Mckee Road, Oakdale, PA at 10:00am.

This annual meeting will provide information on what PRCC and its stakeholders have accomplished over the past year and to provide information on different technologies and potential funding available.

Prior to the meeting at 8:30am the EV Committee Meeting will be held to again discuss a path forward for the year and beyond.

After the Stakeholder Meeting the Gaseous Fuels Committee will hold their meeting to discuss what events and/or training are planned.

Anyone interested in attending or becoming a member of these committees are welcome to attend.

To register for the Stakeholder Meeting click here https://docs.google.com/forms/d/e/1FAIpQLSdxEy_h1Y61hnjgh8_lr_73-L-bGMMe90dSsAqx27TToLBgzQ/viewform



TECHVIBE RADIO GEEKS OUT WITH PEOPLES GAS

TechVibe Radio was onsite at Peoples Gas to explore the company's commitment to innovation and technology. We'll kick the show off with Peoples CEO Morgan O'Brien and then we will geek out on technologies behind alternative fuel vehicles and combined heat and power. Peoples is embracing the future of energy.

The interviews were divided into four parts. You can listen to all and/or any individual part of the TechVibe Radio Interview.

Part 1

TechVibe Radio headed to Peoples Gas headquarters to record an entire show on site. We kick it off with Peoples CEO Morgan O'Brien overviewing the company and its commitment to technology and innovation.

Part 2

In part 2 of TechVibe Radio's interview with Peoples Gas CEO Morgan O'Brien, he talks about the future of the energy industry. TechVibe Radio recorded an an entire show at Peoples headquarters in Pittsburgh.

Part 3

TechVibe Radio geeks out with William Sapon, Clean Energy & Transportation Advisor, and Rick Price, Executive Director of Pittsburgh Region Clean Cities, on alternative fuel vehicles. Find out what types of vehicles are considered alternative fuel; factors affecting their usage; benefits of NGVs; and who should consider them.

Part 4

TechVibe Radio hangs out at Peoples gas to learn more about Combined Heat & Power technologies. Discover the benefits of CHP; what types of energy users can benefit; the environmental benefits and more. Sean Coughlan, Manager of Large Volume Sales, and Jeff Nehr, VP of Business Development, will give you all of the details and talk about a few Peoples initiatives around CHP.

https://pghtechfuse.com/podcasts/techvibe-radiogeeks-out-with-peoples-gas/ Pittsburgh TechVibe Peoples Gas







Attend the Nation's Premier Clean Transportation Policy Summit

Registration is now open for Energy Independence Summit 2020. This exciting and important annual event provides a unique opportunity for Clean Cities Coalitions and leaders in the clean transportation industry to network and build partnerships with each other, and with key Congressional and Administration decisionmakers in Washington, DC.

The 2020 Summit will present an important opportunity to advance our federal priorities, including: (1) Restoring expired tax incentives for alternative fuels and vehicles; (2) Increasing funding for the DOE Clean Cities program and the EPA Diesel Emission Reduction Grants; (3) Protecting and advancing the Renewable Fuel Standard; and (4) Ensuring that the DOT Congestion Mitigation and Air Quality (CMAQ) program resumes its funding for cleaner vehicles.

At the Summit, you will have the opportunity to:

- Meet with key leaders in the Administration and Congress.
- Learn about the latest funding opportunities in roundtable discussions with DOE, EPA, DOT, and USDA.
- Network with the nation's Clean Cities Coalitions and top industry leaders.

- Learn about new technologies and market developments that are driving the alternative fuels industry forward.
- Meet with your Members of Congress and educate them about your work to advance alternative fuels and vehicles in your communities.
- Attend the Capitol Hill Day reception hosted by UPS.

Please contact Ken Brown at Transportation Energy Partners at <u>ken@akbstrategies.com</u> or (202) 674-7777 if you have questions or would like additional information about the Summit. We look forward to seeing you in DC in February! <u>REGISTER NOW</u>

Drive Electric Pennsylvania Coalition Meets in Harrisburg

The Drive Electric Pennsylvania Coalition (DEPA) met at the Pennsylvania Turnpike Commission Building on November 21, 2019.



Geoff Bristow Speaks to the Drive Electric PA Coalition

The Drive Electric Pennsylvania Coalition meets three times a year to promote electric vehicle adoption are increasing nationally, as more states and cities see the value of reduced greenhouse gas emissions and the potential for new economic opportunities. The DEPA Coalition also meets to implement the Pennsylvania Electric Vehicle Roadmap short term and long term goals.



Drive Electric Pennsylvania Coalition Meeting

The DEPA Coalition also had conversations and updates on:

VW Funding One-Year Update – Including upcoming changes to Level 2 Charging Rebate Program

EV Registration Fee Legislation, HB 1392 – overview, status, issues

Updates on I95 Corridor Coalition mileage-based user fees & FHWA Alt Fuel Corridor Grant

Legislative updates

EV Charging in Public Parking Facilities

EV Roadmap implementation & outreach

Review of DEPA/GreenGov EV Event at Capitol on 10/22



Gov. Wolf's GreenGov Council Invites Public Feedback on State Agency Green Practices

Harrisburg, PA – The Wolf Administration's interagency <u>GreenGov Council</u> is inviting the public to learn about efforts to boost green and sustainable practices in state government during a meeting at 1:00 p.m., Friday, January 31, 2020, at the Pennsylvania Emergency Management Agency, 310 Elmerton Avenue in Harrisburg.

Co-chaired by the departments of General Services, Environmental Protection, and Conservation and Natural Resources, the council will give an update on its first year activities and plans for 2020. The public will be invited to provide feedback on the program and discussion on the next steps for the GreenGov Agency Checklist. State agencies will use the annual survey to evaluate progress and achievements toward using fewer resources, which reduces carbon emissions and saves taxpayer dollars. The survey consists of the performance categories of: Benchmarking and Evaluation; Buildings and Structures; Transportation; Products and Materials; Culture; Renewable Energy; and Resilience. All state agencies under the governor's jurisdiction will complete the survey, establishing performance measures and strategies to achieve certification in the GreenGov program. A sample of the GreenGov Agency Certification Checklist is on the GreenGov Council website. Completed checklists from participating agencies will be posted before the public meeting.

Checklists will help state agencies to lead by example goals in energy efficiency, emissions reduction, and green energy jobs creation by:

- Reducing overall energy consumption by 3 percent per year, and 21 percent by 2025, as compared to 2017 levels.
- Replacing 25 percent of the state passenger car fleet with battery electric and plug-in electric hybrid cars by 2025.
- Procuring renewable energy to offset at least 40 percent of the commonwealth's annual electricity use.

Governor Wolf established the council in January as part of Executive Order 2019-01, which sets ambitious statewide emission reduction goals to slow down climate change in Pennsylvania with a 26 percent reduction of net greenhouse gas emissions by 2025 and an 80 percent reduction by 2050 (from 2005 levels).

A Bright Future: Reflecting on a Decade of EV's

Nick Nigro

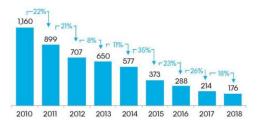
The first mass-market plug-in electric vehicle hit U.S. streets in late 2010, about a year after I landed in DC. By the end of this year, millions will have been sold worldwide and nearly \$350 billion will have been committed to electrify the transportation sector. Looking back, it's evident that the rollout of EVs has managed to both disappoint early advocates and far exceed the expectations of experts. The next decade will be pivotal for the technology as cost parity is reached and, hopefully, global efforts to reduce greenhouse gas emissions are finally accelerated.

A precipitous fall in battery prices in the 2010s completely changed recent and future investments in transportation electrification. A firm that tracks this information closely, Bloomberg New Energy Finance reports that price declines continued in 2019, reaching \$156 per kilowatt-hour and predicts that prices will reach just \$100 per kilowatt-hour by 2023. Inexpensive batteries opened up a world of opportunities for transportation electrification, shifting investment largely to all-electric vehicles from plug-in hybrids. They've also significantly expanded the tent to include transit and school buses, short-haul delivery vans and trucks, and the largest vehicles of them all, Class 8 trucks. Infrastructure went from, "all you need is an outlet in your garage" to massive, multimegawatt charging sites. The decade didn't start out that way and a look back offers some clues as to what to expect in the 2020s.

Lofty, ambitions and high hopes marked the beginning of the decade as General Motors, Nissan, and a few hot-shot startups started to roll out the first mass market EVs. Analysts were clear: lithium ion batteries were expensive and would stay that way, so it was impractical to build an all-electric vehicle with a range of more than 100 miles. Besides, they said, most Americans drive fewer than 50 miles per day and that range is perfectly adequate for a "commuter car."

To be clear, both the Nissan Leaf and Chevy Volt were remarkable feats of engineering; the former being the first mass-marketed all-electric vehicle and the latter, a complex hybrid drivetrain so original that GM made up a new name for it (an extended range electric vehicle). All the while, a small Silicon Valley startup threw caution to the wind and toiled away with mass-produced lithium cells instead of those specifically designed for vehicles, first putting them into the seriously expensive Lotus Elise chassis and calling it the Tesla Roadster. Fast forward five years, the United States failed to reach its goal of one million EVs on the road by the end of 2015, oil prices plummeted by more than half, and a number of companies hoping to capitalize on the new market reminded everyone why it's so hard to mass produce an automobile. Naysayers predicted dire forecasts with EVs making up only one percent of all auto sales by 2040. Unattractive offerings from automakers plagued the market in the mid-2010s from short range plug-in hybrids with a battery stuffed in the trunk to tiny all-electric cars with meager abilities. The EV industry looked like it was in trouble – sales were down five percent from 2014 to 2015. Alas, all was not lost.

Tesla continued its slow march, delivering the first Model S in late 2012, going public in 2013, and continuing to shun the experts who said that long range all-electric vehicles were impractical. The market rewarded them handsomely, shooting their valuation to over \$30 billion by 2014. By late the next year, they worked out the kinks in their manufacturing processes, delivered their 50,000th EV, and built out a national network of "superchargers" to quell any concerns over range anxiety. At this point, cumulative sales of all-electric vehicles caught up to plug-in hybrids and never looked back.



Battery Price Drop: The Decade for Electric Vehicles in One Chart

Source: Bloomberg New Energy Finance

PRCC Sustainable Members

Platinum Members









Gold Members









Silver 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/membership/



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

