

2012 Transportation Technology Deployment Report:

State of West Virginia Clean Cities

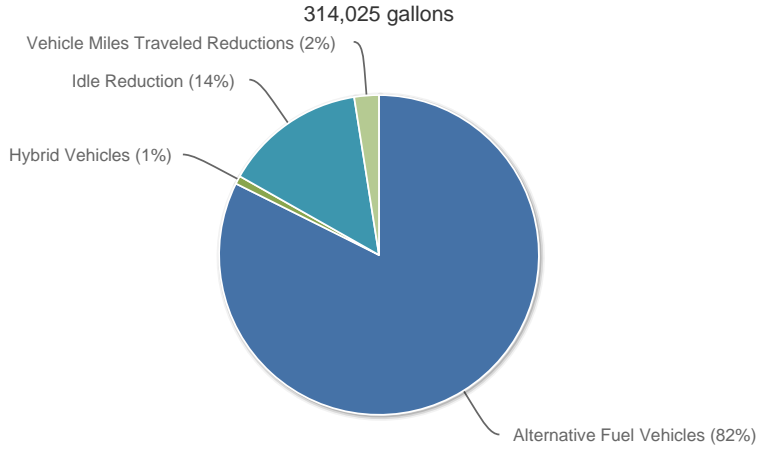
January 2013

The U.S. Department of Energy's (DOE) Clean Cities program advances the nation's economic, environmental, and energy security by supporting local actions to reduce 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, idle-reduction measures, fuel economy improvements, and new transportation technologies, as they emerge.

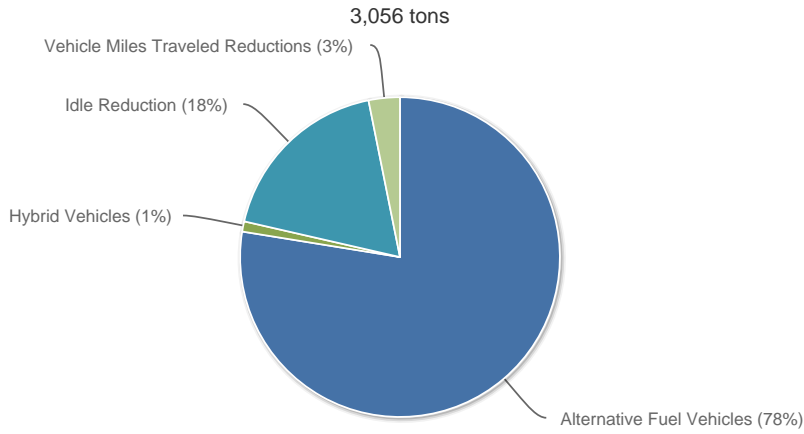
Every year, each Clean Cities coalition submits to DOE an annual report of its activities and accomplishments for the previous calendar year. Coalition coordinators, who lead the local coalitions, provide information and data via an online database managed by the National Renewable Energy Laboratory (NREL). The data characterize membership, funding, projects, and activities of the coalitions. The coordinators also submit data on the sales of alternative fuels, deployment of alternative fuel vehicles and hybrid electric vehicles, idle-reduction initiatives, fuel economy activities, and programs to reduce vehicle miles traveled. NREL and DOE analyze the data and translate them into petroleum-use and greenhouse gas reduction impacts for individual coalitions and the program as a whole. This report summarizes those impacts for State of West Virginia Clean Cities.

To view aggregated data for all local coalitions that participate in the Clean Cities program, visit www.eere.energy.gov/cleancities/accomplishments.html.

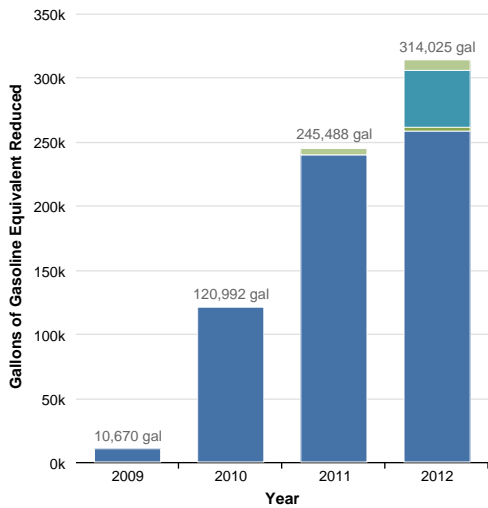
2012 Gallons of Gasoline Equivalent Reduced



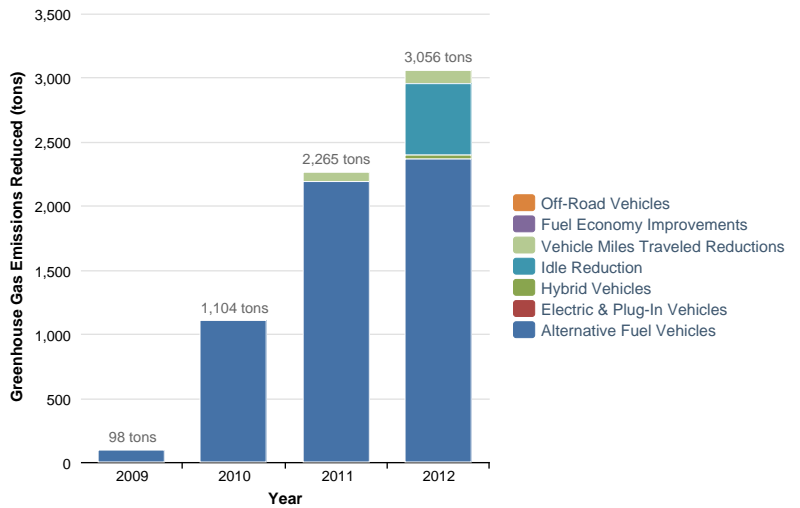
2012 Greenhouse Gas Emissions Reduced



Historical Gallons of Gasoline Equivalent Reduced



Historical Greenhouse Gas Emissions Reduced



- Off-Road Vehicles
- Fuel Economy Improvements
- Vehicle Miles Traveled Reductions
- Idle Reduction
- Hybrid Vehicles
- Electric & Plug-In Vehicles
- Alternative Fuel Vehicles

COALITION

State of West Virginia Clean Cities - WV

<http://www.energywv.org/CleanStateProgram>

Designated: 10/18/1994

Boundaries: Entire state of West Virginia

COORDINATORS

	Address	Telephone	Fax
Kelly Bragg	1900 Kanawha Blvd E Bldg 6, Rm 620 Charleston, WV 25305	800-982-3386 x2004 or 304-558-2234 x2004	
Casey Randolph	1900 Kanawha Blvd E Bldg 6, Rm. 620 Charleston, WV 25305	800-982-3386	

Number of coordinators	2
Coordinator(s) hours per week on Clean Cities	10 hours
Other staff hours per week on Clean Cities	0 hours
How long have you been the coordinator?	7 years

OPERATING INFORMATION

Host organization Government - State

Stakeholders

Number of stakeholders	49
Number of private stakeholders	26
Does the State Energy Office provide any financial support to the coalition or stakeholders?	Yes

Explain State Energy Office's support

The W.Va. Clean State Program co-coordinators are employees of the W.Va. Division of Energy, the state energy office. Program activities are directed by WVDOE's director. The co-coordinators' office space, computers, phones, etc. are provided by WVDOE.

How would you rate the quality of the data on your survey? Good

How do you obtain most of your data for the survey? Coalition records, Estimates, Paper, e-mail, or spreadsheet questionnaire to stakeholders

Has your coalition registered with www.grants.gov? Yes

2012 Outside Funding

Stakeholder dues collected	\$0
How much funding is obtained from other sources to cover coalition operating expenses?	\$4,056
Non-DOE or ARRA grant and matching funds spent in 2012	\$0
Total non-DOE or ARRA funding in 2012	\$4,056

VEHICLE & FUEL INVENTORY

Alternative Fuel & Vehicles

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	Fuel Used	GGE Reduced	GHG Reduced
WV county school bus fleets	Heavy-Duty	Biodiesel (5%)	3,090	5,095,957 gal	258,620 gal	2,369.9 tons
<p>Market: Government - Local Vehicle type: Bus: School Percentage from coalition: 100% National Clean Fleets Partnership: No</p>						
Total:			3,090		258,620 gal	2,370 tons

Electric, Hybrid & Plug-in Vehicles

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	GGE Reduced	GHG Reduced
C&H Taxi	Light-Duty	HEV	2	2,248 gal	27.7 tons
<p>Average vehicle fuel economy: 45 MPG Miles traveled per vehicle per year: 25,295 mi Market: Taxis Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No</p>					
W.Va. Department of Environmental Protection	Light-Duty	HEV	1	180 gal	2.2 tons
<p>Average vehicle fuel economy: 46 MPG Miles traveled per vehicle per year: 9,040 mi Market: Government - State Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No</p> <p><i>The W.Va. Department of Environmental Protection is a W.Va. Clean State Program stakeholder. The department's Prius is one of two hybrids in the state fleet.</i></p>					
W.Va. Division of Energy	Light-Duty	HEV	1	158 gal	2.0 tons
<p>Average vehicle fuel economy: 30 MPG Miles traveled per vehicle per year: 13,068 mi Market: Government - State Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No</p> <p><i>The W.Va. Division of Energy, the W.Va. Clean State Program's host agency, received its Chevy Malibu hybrid in 2008. This is the first time co-coordinator has included the vehicle to the annual report. The co-coordinator wrote the specs for the vehicle so contribution is 100 percent. This vehicle is one of two hybrids in the state's fleet.</i></p>					
Total:			4	2,587 gal	32 tons

FUEL ECONOMY

Vehicle Miles Traveled Reductions

Fleet Name	Method	Vehicle Class	GGE Reduced	GHG Reduced
W.Va. State Employee Rideshare Program	Carpooling	Light-Duty	7,818 gal	96.3 tons
<p>Fuel saved: 7,818 gallons Percentage from coalition: 100% National Clean Fleets Partnership: No</p>				
Total:			7,818 gal	96 tons

IDLE REDUCTION

Other Idle Reduction

Project Name	Number of Vehicles	Idling Reduced per Vehicle	Fuel Saved per Vehicle	GGE Reduced	GHG Reduced
WV county school bus fleets	3,000	10 mins/day 180 days/year	0 gal/hr	45,000 gal	558.0 tons
<p>Type of project: Policies Type of vehicle: School Bus Percentage from coalition: 100% National Clean Fleets Partnership: No</p> <p><i>From Policy 4336, West Virginia School Bus Transportation Policy and Procedures Manual: School bus operators are prohibited from idling the buses for more than 10 minutes unless defrosting of windows is needed; in this case idling shall be limited to thirty minutes. Estimates for this annual report are based on information from the WV Department of Environmental Protection - Division of Air Quality. Using a baseline that idling a bus for 1 hour wastes 1/2 gallon of diesel fuel, the division calculates that idling 1/2 hour less saves 45 gallons of fuel per bus annually. Conservatively, the program reduces idling by 10 minutes per day, which would be 15 gallons of fuel per bus annually. With 3,000 buses in the fleet, the fuel savings are estimated at 45,000 gallons.</i></p>					
Total:	3,000			45,000 gal	558 tons

FUEL STATIONS

New Stations

Fuel	Public Stations	Private Stations
Biodiesel	-	-
CNG - Compressed Natural Gas	-	-
E85 - 85% Ethanol	-	-
Electric Chargers	14	-
Hydrogen	-	-
LNG - Liquefied Natural Gas	-	-
LPG - Liquefied Petroleum Gas	-	-
Total:	14	0

OUTREACH ACTIVITIES

Activity Name	Dates	Activity Type	Percentage from Coalition	Persons Reached
Fleet contact-CNG	01/24/2012	Meeting - Other	100%	1
<p>Technology: Alternative fuel vehicles Audience: Government</p> <p><i>Planner with local county commission and coordinator have corresponded via email, phone and in person many times since the initial contact was made in January 2012. He is a planner responsible for homeland security as well as economic development. The commission, the local economic development group and a community and technical college in the county are partnering in the development of Kanawha Converts, a public/private consortium pursuing natural gas as a transportation fuel for county fleets. The initiative resulted in the purchase of a bi-fuel Chevy Tahoe for the commission, which has participated in W.Va. Clean State Program alt fuel expo events. Coordinator has provided information about West Virginia alternative fuel resources as well as from the Clean Cities websites.</i></p>				

Activity Name	Dates	Activity Type	Percentage from Coalition	Persons Reached
Kanawha Converts	01/27/2012, 02/10/2012, 02/24/2012, 03/09/2012, 03/23/2012, 04/13/2012, 04/27/2012, 06/22/2012, 08/10/2012, 10/19/2012, 12/14/2012, 12/21/2012	Meeting - Other	100%	25

Technology: Alternative fuel vehicles

Audience: Airport, Government, Private Fleets, Public, Transit, Utility, Waste

The Kanawha Converts effort has brought together fleets from the entire Kanawha Valley to pool proposed GGEs of natural gas and to solicit an infrastructure builder for the construction of a fueling station in Charleston. Along the way, participants have assessed their fleets and the potential savings that could result from converting some of their vehicles. In early 2013, three CNG stations were announced along the I-79 corridor in WV at Charleston, Jane Lew and Bridgeport.

Fleet contact-Hybrids	02/14/2012	Meeting - Other	100%	1
Technology: Hybrid electric vehicles				
Audience: Private Fleets				
<i>Taxi fleet owner contacted the W.Va. Clean State Program about whether the state's new WV alt fuel and vehicle tax credit applies to hybrid vehicles. It does. Fleet now has two Prii in its fleet as part of its Ecoride program.</i>				

The Compelling Case for Natural Gas Vehicles Workshop	02/16/2012	Meeting - Other	100%	170
Technology: Alternative fuel vehicles				
Audience: Airport, Delivery, Government, Private Fleets, Public, Transit, Utility, Waste				
<i>The W.Va. Clean State Program co-sponsored this event with Chesapeake Energy and the W.Va. Oil and Natural Gas Association. In addition to a terrific turnout, there were 17 tabletop displays and seven NGVs outside.</i>				

Fleet contact-CNG	02/23/2012	Meeting - Other	100%	1
Technology: Alternative fuel vehicles				
Audience: Private Fleets				
<i>Newspaper officials and W.Va. Clean State Program co-coordinator corresponded via email and phone and met in person often from February to April. Coordinator provided him with all of the information presented at the Feb. 16 Compelling Case for Natural Gas Vehicles workshop co-sponsored by the program in February as well as links to the AFDC and the W.Va. Tax Department form for the alternative fuel and vehicles tax credit. Additionally, the coordinator used the calculator at www.ngtoolkit.com to present him with a first-cut look at payback if the fleet converted its six highest-mileage vehicles to CNG. Fleet has 55 vehicles: 21 are light-duty sedan types; the remaining 34 are a mix of SUVs, pickups, box trucks and vans.</i>				

Fleet contact-CNG	02/28/2012	Meeting - Other	100%	1
Technology: Alternative fuel vehicles				
Audience: Government				
<i>WV county school system with 116 buses contacted W.Va. Clean State Program after participating in the Compelling Case for Natural Gas Vehicles workshop co-sponsored by the program. Co-coordinator provided him with a list of topics to consider as his fleet pursues interest in natural gas.</i>				

Fleet contact-biodiesel	03/02/2012	Meeting - Other	100%	1
Technology: Alternative fuel vehicles				
Audience: Private Fleets				
<i>Restaurant owner contacted W.Va. Clean State Program for information about permits and registrations he'd need to make biodiesel. Fleet is six vehicles, a mix of passenger and delivery vehicles. Co-coordinator provided contact information for stakeholder who is a biodiesel producer and provided other information on the fuel.</i>				

Fleet contact-CNG	03/06/2012	Meeting - Other	100%	1
Technology: Alternative fuel vehicles				
Audience: Private Fleets				
<i>W.Va. Clean State Program contacted for information about converting natural gas provider's fleets in two WV cities to natural gas. Fleet consists of Ford F-series pickups, Escapes, Explorers; 117 vehicles in Charleston, 55 in Glenville. Co-coordinator introduced contact to Kanawha Converts; he provided information on his fleet as part of the effort to attract infrastructure.</i>				

Activity Name	Dates	Activity Type	Percentage from Coalition	Persons Reached
Earth Day at the Clay Center for Arts and Sciences Technology: Alternative fuel vehicles Audience: Public <i>As in past years, the W.Va. Clean State Program provided alternative fuels information to the Clay Center's Earth Day coordinator for distribution at the event. Along with the 2012 Vehicle Buyer's Guide, information included a focus on natural gas and propane vehicles.</i>	04/21/2012	Literature Distribution	5%	50
W.Va. Clean State Program stakeholder meeting Technology: Alternative fuel vehicles Audience: Government, Private Fleets, Public <i>W.Va. Clean State Program stakeholders and other participants heard about the origins, current status and future plans of Kanawha Converts, a public-private consortium designed to pool GGEs in Kanawha Valley fleets to attract a CNG infrastructure builder to Charleston.</i>	04/24/2012	Meeting - Stakeholder	100%	30
Fleet contact-CNG Technology: Alternative fuel vehicles Audience: Other <i>W.Va. National Guard contacted W.Va. Clean State Program to discuss benefits of transitioning to natural gas. Co-coordinator provided calculator, AFDC natural gas information, conversion kit list and contact information for the National Alternative Fuels Training Consortium.</i>	05/17/2012	Meeting - Other	100%	1
Alternative fuel planning meeting Technology: Alternative fuel vehicles Audience: Government <i>WV's governor's office called this meeting with the state fleet manager and the W.Va. Clean State Program to discuss how WV can transition to natural gas for transportation. Discussions included amending the state vehicle purchasing contract to include natural gas and propane.</i>	05/25/2012	Meeting - Other	100%	3
Fleet contact-E85 Technology: Alternative fuel vehicles Audience: Government <i>Contact is exploring the installation of an E85 station at the Bureau of Public Debt in Parkersburg, WV. Co-coordinator provided information about use of E85 at NETL in Morgantown and followed up with contact information for fleet manager there as well as contact information for the W.Va. supplier of ethanol to that facility. Later, co-coordinator provided contact information for Pittsburgh Clean Cities Coordinator Rick Price, who was involved in the station's installation. Project Manager Steve Richardson provided this historical detail and also suggested sending contact the E85 handbook, which was provided. Steve also provided information for the current NETL station contact, which co-coordinator gave to contact.</i>	05/25/2012	Meeting - Other	100%	1
Propane grant discussion Technology: Alternative fuel vehicles Audience: Government, Other <i>Triana Energy and CleanFuels USA called the meeting to discuss advancing propane as a fuel for WV fleets. Afterward, co-coordinator worked extensively with several fleets to assess their suitability for national propane fueling opportunity, most notably the WV school bus fleet.</i>	06/07/2012	Meeting - Other	50%	3
Governor's Natural Gas Vehicle Task Force Technology: Alternative fuel vehicles, Fuel blends Audience: Government, Private Fleets, Public, Utility, Waste <i>On June 19, Gov. Earl Ray Tomblin announced the formation of his natural gas vehicle task force. The first meeting was July 12. The W.Va. Clean State Program co-coordinator represented the W.Va. Department of Commerce's secretary at nearly all of the subsequent meetings of the task force and its infrastructure committee. Over the remaining months of 2012 and continuing into 2013, the task force worked to outline a plan for transitioning the state fleet, supporting infrastructure development and communicating the message that natural gas fuels are clean, safe and economical. The W.Va. Clean State Program and its host agency, the W.Va. Division of Energy, will be key in implementing several initiatives proposed by the task force.</i>	07/12/2012, 08/09/2012, 08/23/2012, 09/07/2012, 11/08/2012	Meeting - Other	50%	30
Harrison County CNG meeting Technology: Alternative fuel vehicles Audience: Government, Private Fleets, Public, Utility, Waste <i>A stakeholder in the W.Va. Clean State Program called a meeting of interested parties in Harrison County regarding efforts there to recruit a CNG station. The group learned some CNG basics and discussed possible locations, fleets, fuel supply issues and funding solutions. Both coordinators of the program participated in the meeting and provided followup information as requested. In early 2013, a CNG station was announced for Bridgeport, WV, in Harrison County.</i>	07/16/2012	Meeting - Other	65%	20

Activity Name	Dates	Activity Type	Percentage from Coalition	Persons Reached
W.Va. Clean State Program stakeholder meeting Technology: Alternative fuel vehicles Audience: Government, Private Fleets, Public, Transit, Utility <i>W.Va. Clean State Program stakeholders and other interested individuals learned about propane as an alternative fuel.</i>	07/18/2012	Meeting - Stakeholder	100%	14
Fleet contact-Propane Technology: Alternative fuel vehicles Audience: Private Fleets <i>Co-coordinator and newspaper fleet manager met to discuss his exploration of propane use for the fleet and his difficulty in finding the fuel. Co-coordinator provided contact information for local UHaul manager. Also discussed CleanFUEL propane grant. Co-coordinator emailed kit list available for funding. Fleet has 55 vehicles: 21 are light-duty sedan types; the remaining 34 are a mix of SUVs, pickups, box trucks and vans.</i>	08/31/2012	Meeting - Other	100%	1
Fleet contact-LNG Technology: Alternative fuel vehicles Audience: Government <i>W.Va. Department of Transportation, Division of Highways, contacted co-coordinator about LNG. Fleet has been active in Kanawha Converts. Fleet has 2,322 vehicles, ranging from pickups to heavy-duty snow removal equipment.</i>	09/10/2012	Meeting - Other	100%	1
State Employee Natural Gas Vehicle Workshop Technology: Alternative fuel vehicles Audience: Private Fleets, Public, Utility <i>Nearly 40 state employees participated in a State Employee Natural Gas Vehicle Workshop using curricula developed by WVU's National Alternative Fuels Training Consortium in its Clean Cities Learning Program. The same day, the W.Va. Clean State Program presented an alternative fuel vehicle expo that drew nearly 100 people. The expo featured a diesel/hybrid bus from the Kanawha Valley Regional Transportation Authority, W.Va. Department of Environmental Protection's Toyota Prius, NAFTC's Chevy Volt and cutaway Prius, Chesapeake Energy's CNG-powered pickup, W.Va. Division of Energy's Chevy Malibu hybrid, CleanFUEL USA's propane-powered pickup, driven to the expo from Texas and Kanawha County's CNG bi-fuel Chevy Tahoe.</i>	09/12/2012	Workshop held by coalition	100%	140
2012 National Alternative Fuel Vehicle (AFV) Day Odyssey pre-kickoff event Technology: Alternative fuel vehicles, Hybrid electric vehicles Audience: Government, Public <i>The 2012 National Alternative Fuel Vehicle (AFV) Day Odyssey began at the pre-kickoff event, conducted at the Mountainlair, at West Virginia University's downtown campus in Morgantown. The National Alternative Fuels Training Consortium (NAFTC) hosted the event; it was sponsored by the WV Division of Energy/WV Clean State Program, Chesapeake Energy and Alternative Fuel Solutions of Pennsylvania. Display tables showcased information on alternative fuel and advanced technology vehicles. Other displays included CNG Chevy Tahoe, HEVTE: Hybrid Electric Vehicle Training Educator, Sparky the EV, Chevy Volt, and propane schoolbus.</i>	10/12/2012	Meeting - Other	75%	1,250
W.Va. Clean State Program stakeholder meeting Technology: Alternative fuel vehicles, Fuel blends, Fuel economy improvements, Hybrid electric vehicles, Idle reduction, Vehicle miles traveled reduction Audience: Government, Private Fleets, Utility <i>Casey Randolph, co-coordinator, led this meeting, which featured an update on how the state school bus fleet is exploring the use of propane as well as a complete review of Clean Cities web-based tools, presented by Kelly A. Bragg, co-coordinator.</i>	10/15/2012	Meeting - Stakeholder	100%	6
W.Va. Transportation Directors' meeting Technology: Alternative fuel vehicles Audience: Government, Other <i>W.Va. Clean State Program co-coordinator was asked to deliver a propane workshop for transportation directors as they explore using the fuel in their fleets. Using the Clean Cities Learning Program curriculum on propane, directors received an hourlong workshop, propane fact sheets and case study.</i>	11/07/2012	Meeting - Other	100%	70
Fleet contact-CNG Technology: Alternative fuel vehicles Audience: Private Fleets <i>Based in Cannonsburg, PA, the company is building a field office in Marshall County, WV, and is exploring the conversion of five to six of its fleet vehicles to CNG. Fleet consists of pickups; the WV fleet is 35-50 vehicles. Contact wanted update on CNG infrastructure in WV. Co-coordinator provided briefing.</i>	11/09/2012	Meeting - Other	100%	1
TransTech Energy Conference Technology: Alternative fuel vehicles, Fuel economy improvements, Hybrid electric vehicles Audience: Government, Public	11/14/2012, 11/15/2012, 11/16/2012	Literature Distribution	25%	126

Total: 1,948

GRANTS

Grantor	Total Grant Amount	Total Matching Funds	Total Project Funding	Grant Amount Spent in 2012	Matching Funds Spent in 2012	Total Project Funding Spent in 2012
West Virginia University Research Corporation/ NAFTC	\$5,000	-	\$5,000	\$5,000	\$0	\$5,000
<p>Length of grant: 1 Year grant began: 2012 Sources of the grant: Department of Energy Partners: West Virginia University Research Corporation/NAFTC Technologies: CNG - Compressed Natural Gas, Fuel Economy Improvements, LPG - Liquefied Petroleum Gas Purpose: To develop a Clean Cities Learning Program for the U.S. Department of Energy (DOE) Office of Energy Efficiency</p> <p><i>The Clean Cities Learning Program included development of first responder safety curricula, training and workshops and awareness (Year 1) and petroleum reduction technologies curricula, training and workshops and awareness training (Year 2), and the delivery of this training to multiple audiences. The W.Va. Clean State Program participated in Year 2 and helped to provide a train-the-trainer workshop about the program to other Clean Cities coordinators in our region. Additionally, the W.Va. Clean State Program used the Clean Cities Learning Program to present the State Employee natural Gas Vehicle Workshop, which focused on CNG, propane and fuel economy strategies.</i></p>						
Total:	\$5,000	\$0	\$5,000	\$5,000	\$0	\$5,000