



WV State Fleet Coordinators

September 9, 2015

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Clean Cities Mission

To advance the energy, economic, and environmental security of the U.S. by supporting local decisions to reduce petroleum use in transportation.

- Energy Policy Act of 1992 (EPAAct)
- Provides a framework for businesses and government agencies to work together
- Clean Cities activities are implemented by a national network of nearly 100 Clean Cities coalitions.
- Major milestone: In 2013, coalitions and stakeholders reduced U.S. petroleum consumption by 1 billion gallons in a single year
- Ahead of schedule on goal: Reduce U.S. petroleum use by 2.5 billion gallons per year

www.energywv.org/cleanstateprogram

Description of Area: State of West Virginia

When was coalition formed? Oct. 19, 1994;
re-designated in 1999, 2005 and 2012

Coalition Structure



- Host agency is W.Va. Division of Energy, the state energy office
- Activities set by WVDOE director
- 60 stakeholders
- Coalition funded through U.S. Department of Energy
- In 2014, stakeholders reduced 341,404 gasoline gallon equivalents through carpooling, reducing idling, hybrid vehicle use and the use of alternative fuels (biodiesel and CNG)

17,529 public alternative fuel stations in U.S.



Alternative Fueling Station Locator

Find alternative fueling stations near an address or ZIP code or along a route in the United States. Enter a state to see a station count.

Find Stations | Plan a Route

Q address, ZIP, or state... **Go**

All Fuels ▼

[more search options](#)

17,529
alternative fuel stations
in the United States

Excluding private stations

Location details are subject to change. We recommend calling the stations to verify location, hours of operation, and access.

ABOUT THE DATA

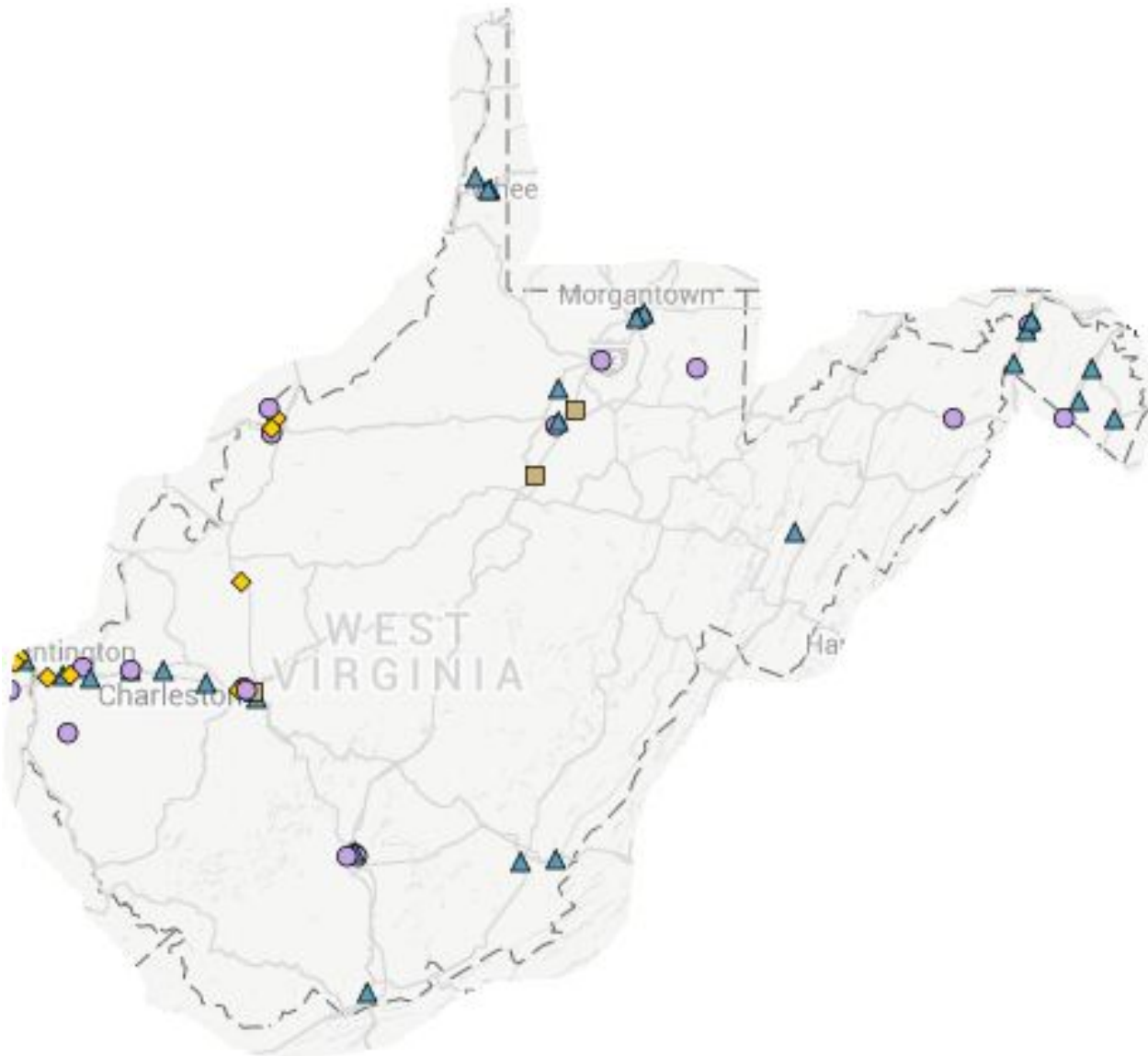
Embed | Submit New Station

Legend

- Biodiesel
- CNG
- Electric
- Ethanol
- Hydrogen
- LNG
- Propane

Map data ©2015 Google, INEGI Terms of Use

46 alternative fuel stations in WV



- 3 CNG
- ◆ 5 E85
- ▲ 24 Electric
- 14 Propane

WV Propane School Bus Demonstration: Three components



- Driver survey
- Running the buses
- Assessing the results

AFLEET results

- Propane buses \$702 cheaper annually
- Payback in 11 years
- If expected life is 13.5 years, counties could realize \$1,755 savings per bus

	Diesel	LPG
School Bus		
Number of vehicles	1	1
Annual Mileage (from KCS)	18,987	18,987
Fuel Economy	6.0 7.2 From KCS; converted to gasoline gallon equivalent	5.0 From demo
DEF Use (% of fuel consumption)	2%	0%
Purchase Price (\$/vehicle)	\$94,000 (From KCS)	\$101,676 (Average from WV bus vendors)
Maintenance & Repair (\$/mile)	\$0.165 Includes labor from case study: 7.5 cents/mile PLUS 9 cents/mile for diesel parts from Kanawha County Schools	\$0.126 Includes labor from case study: 7 cents/mile for propane PLUS 5.6 cents/mile for parts (an average from bus vendors and the case study)
Fuel and DEF Price		
Fuel (\$/gallon) retail, gasoline gallon equivalent	\$2.5820 AAA diesel price at end of demo: \$2.98; adjusted to GGE	\$2.21 Propane sold to KCS at GGE price
DEF (\$/gallon)	\$2.63	
Annual Operating Cost		
Fuel Cost	\$8,171	\$8,375
Diesel Exhaust Fluid Cost	\$166	\$0
Maintenance Cost	\$3,133	\$2,392
TOTAL	\$11,470	\$10,768
Annual Operating Savings		
Compared to Diesel HD Fleet		\$702
Simple Payback		
Miles		207,544.8
Years		10.9

Monongalia County Schools propane bus



LAST MODIFIED: SATURDAY, AUGUST 01 10:20 PM

Mon County fields state's first propane-powered bus

CONOR GRIFFITH
TheDPost.com

MORGANTOWN — Monongalia County Schools is the first in West Virginia to make use

Representatives of school districts across the state will attend a presentation on the new propane-powered school bus at the West Virginia State Capitol in Charleston this week, and the de

WV County Adds Propane-Powered School Bus To Fleet

Updated: Monday, August 3, 2015 | AP



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A 'First' for West Virginia: District Buys Propane-Powered School Bus

in News Departments > New & Noteworthy
by NGT News on Wednesday August 12, 2015



Monongalia County Schools has purchased a propane-powered Blue Bird Vision bus, making the school district the first in West Virginia to have an alternative fuel school bus in its fleet, according to the parties involved.

Monongalia County Schools bought the autogas bus from local dealer Blue Bird Bus Sales of West Virginia and will start running the new vehicle on the first day of school this year.

"We are thrilled to introduce this new product into our fleet," says Jeff Meadows, the school district's Superintendent of Transportation. "It is a first for the entire state of West Virginia. We will start to see more Blue Bird

Schools is adding

school system gave a pre

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We get it! Nobody sells for

propane-powered school bus to fleet

Monongalia County Schools is adding a propane-powered school bus to its fleet. The bus will join the school system's fleet this week. The manufacturer Blue Bird gave a presentation on the new bus to the

Business Wire
A Division of Liberty Classics

HOME SERVICES NEWS EDUCATION ABOUT US

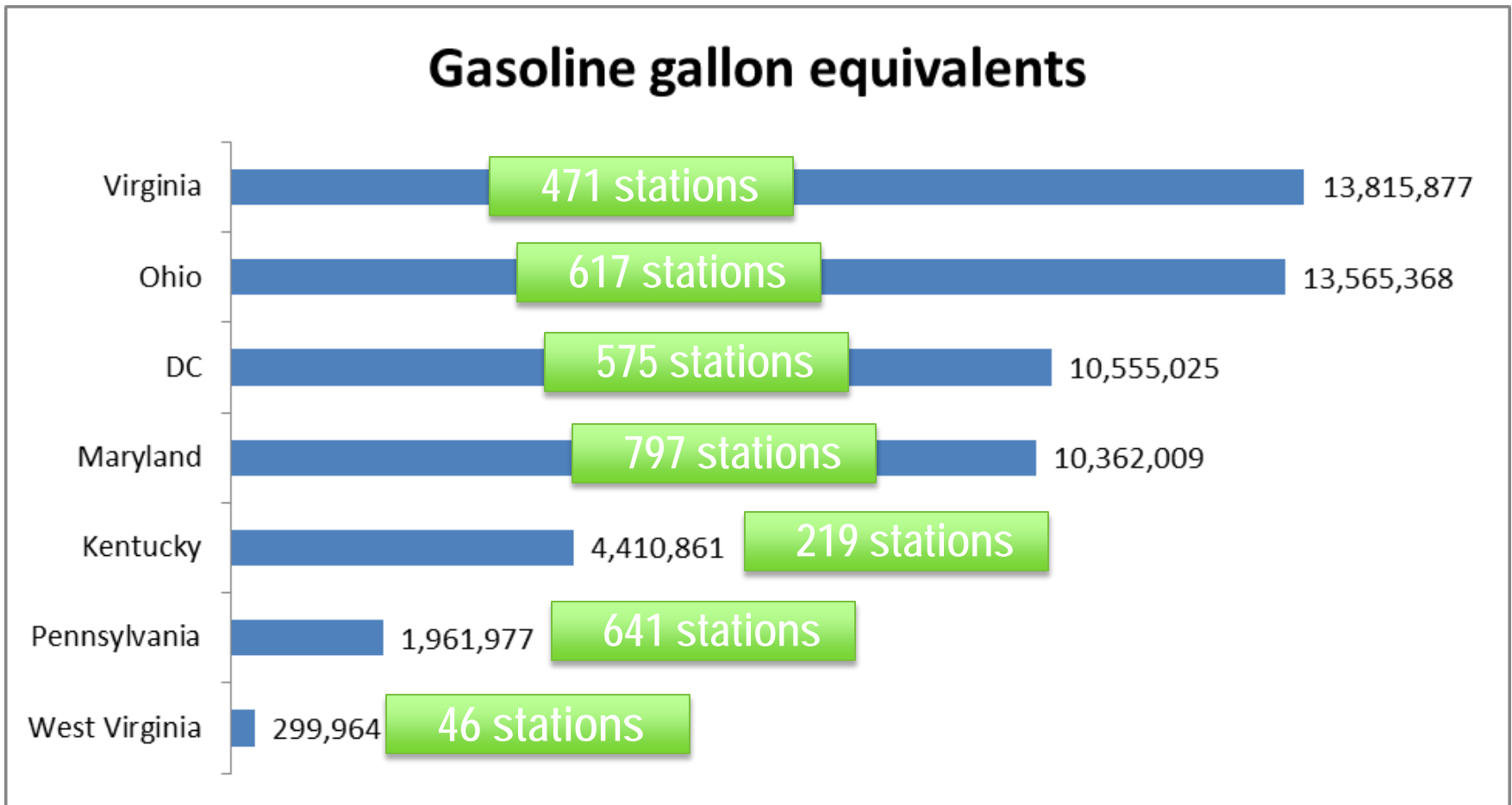
First Alternative-Fueled School Bus Rolls into West Virginia

Monongalia County Schools adds a Blue Bird propane-powered school bus to its fleet

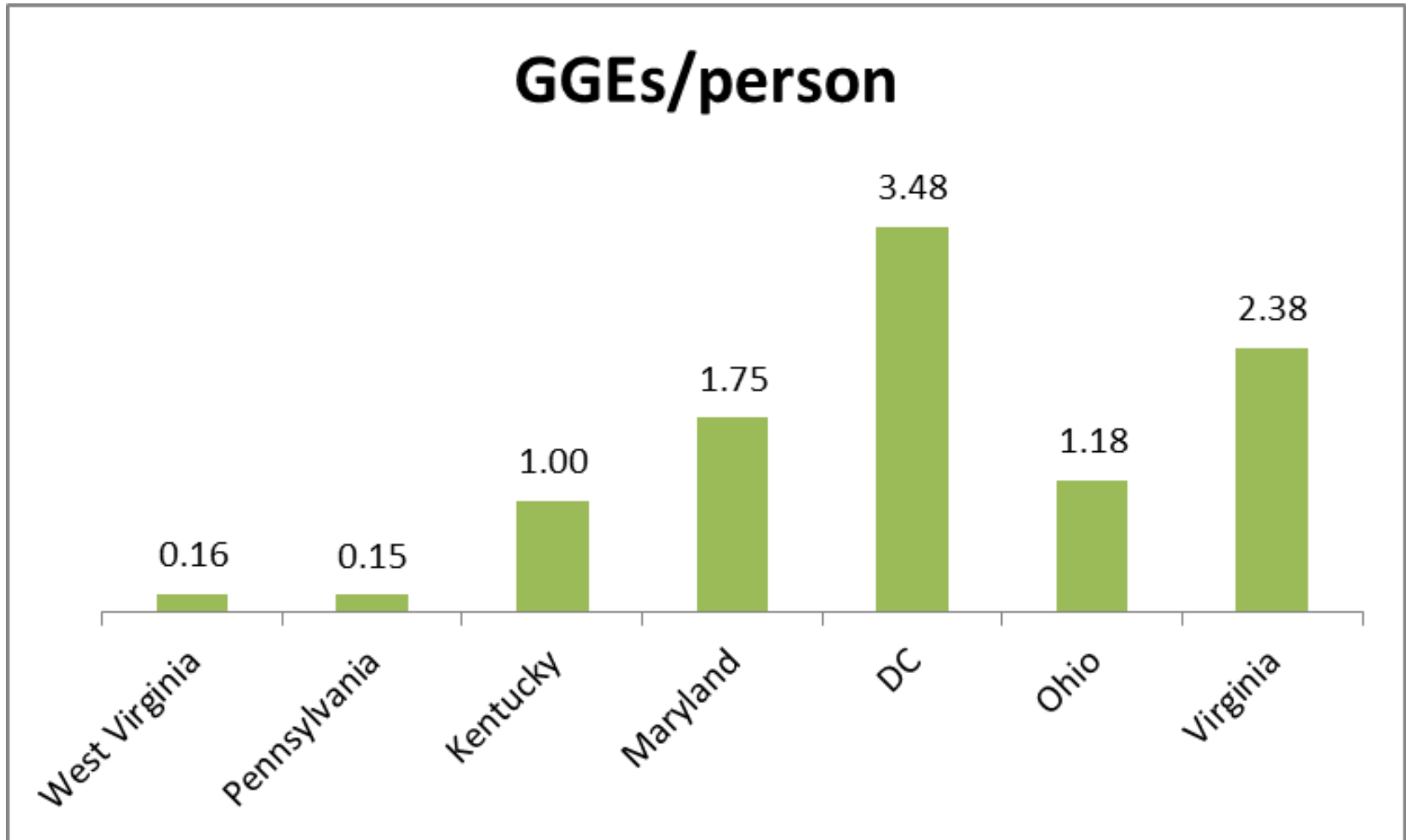
August 10, 2015 08:07 PM Eastern Daylight Time

MORGANTOWN, W.Va. --(BUSINESS WIRE)--(NASDAQ: BLBD) -- Many school districts across the nation are implementing a cleaner, lower total cost of ownership solution for their school transportation needs with Blue Bird propane autogas school buses. Monongalia County Schools is the first in West Virginia to reduce emissions and experience the savings other districts have with the purchase of the Blue Bird Propane-Powered Vision from their local dealer, Blue Bird Bus Sales. "We are thrilled to introduce this new product into our fleet," says Jeff Meadows, Superintendent of Transportation. "It is a first for the entire state of West Virginia. We will start to see more Blue Bird

Gasoline gallon equivalents



IMPROVE YOUR SCORE: without waist measurement



YOU CAN HELP!



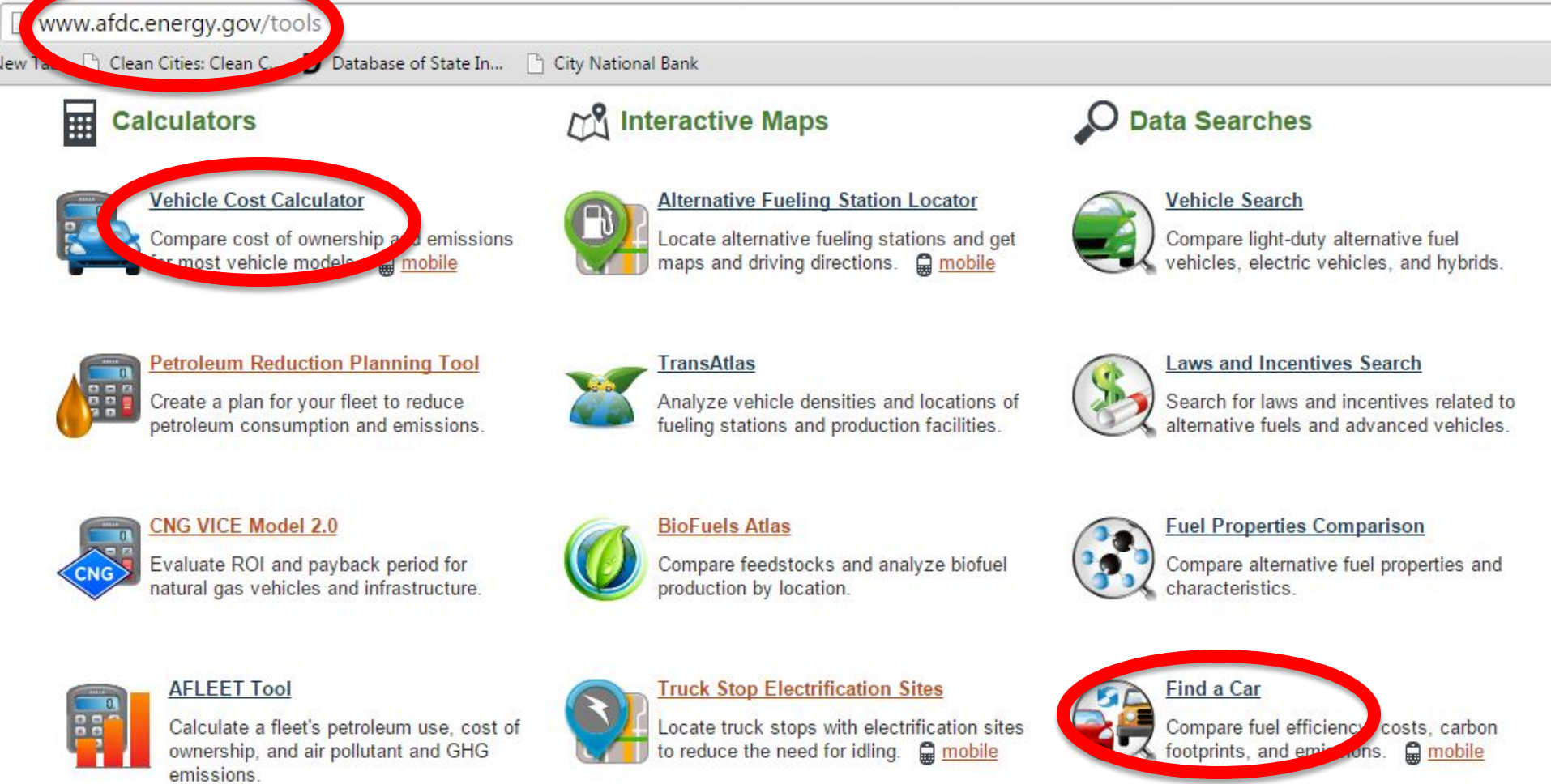
MY15 lists 159 vehicles

80 are alt fuel

- CNG bifuel (27)
- Hybrid (4)
- FFV (49)



AFDC tools:



The screenshot shows the website www.afdc.energy.gov/tools with a browser address bar. The page is organized into three columns: Calculators, Interactive Maps, and Data Searches. The 'Vehicle Cost Calculator' tool is circled in red. Other tools include 'Petroleum Reduction Planning Tool', 'CNG VICE Model 2.0', 'AFLEET Tool', 'Alternative Fueling Station Locator', 'TransAtlas', 'BioFuels Atlas', 'Truck Stop Electrification Sites', 'Vehicle Search', 'Laws and Incentives Search', 'Fuel Properties Comparison', and 'Find a Car'. The 'Find a Car' tool is also circled in red.

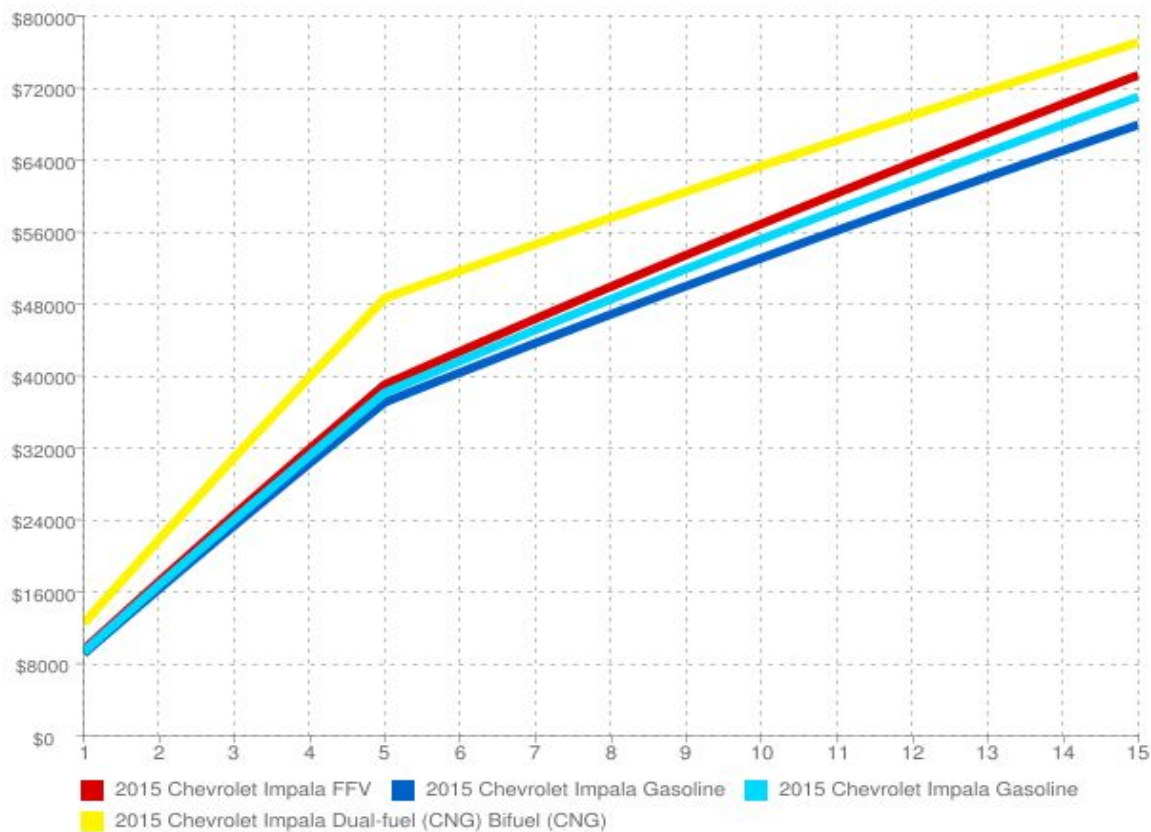
Category	Tool Name	Description	Mobile Access	
Calculators	Vehicle Cost Calculator	Compare cost of ownership and emissions for most vehicle models.	mobile	
	Petroleum Reduction Planning Tool	Create a plan for your fleet to reduce petroleum consumption and emissions.		
	CNG VICE Model 2.0	Evaluate ROI and payback period for natural gas vehicles and infrastructure.		
	AFLEET Tool	Calculate a fleet's petroleum use, cost of ownership, and air pollutant and GHG emissions.		
	Find a Car	Compare fuel efficiency, costs, carbon footprints, and emissions.	mobile	
Interactive Maps	Alternative Fueling Station Locator	Locate alternative fueling stations and get maps and driving directions.	mobile	
	TransAtlas	Analyze vehicle densities and locations of fueling stations and production facilities.		
	BioFuels Atlas	Compare feedstocks and analyze biofuel production by location.		
	Truck Stop Electrification Sites	Locate truck stops with electrification sites to reduce the need for idling.	mobile	
Data Searches	Vehicle Search	Compare light-duty alternative fuel vehicles, electric vehicles, and hybrids.		
	Laws and Incentives Search	Search for laws and incentives related to alternative fuels and advanced vehicles.		
	Fuel Properties Comparison	Compare alternative fuel properties and characteristics.		

Just like the Purchasing Division's "Vehicle Rental vs. Reimbursement" calculator, these tools facilitate discussion

Vehicle	Annual Fuel Use	Annual Electricity Use	Annual Fuel/Elec Cost	Annual Operating Cost	Cost Per Mile	Annual Emissions (lbs CO2)
2015 Chevrolet Impala Gasoline	497 gal	0 kWh	\$1,271	\$3,587	\$0.28	11,917
2015 Chevrolet Impala FFV	775 gal	0 kWh	\$1,675	\$3,990	\$0.31	14,709
2015 Chevrolet Impala Dual-fuel (CNG) Bifuel (CNG)	630 gal	0 kWh	\$1,613	\$3,229	\$0.25	15,123
2015 Chevrolet Impala Gasoline	580 gal	0 kWh	\$1,486	\$3,801	\$0.29	13,929

Graph Graph Graph Graph Graph Graph

Cumulative Cost of Ownership by Year (Dollars)



Personalize

Edit Vehicles

2015 Chevrolet Impala Dual-fuel (CNG) X



3.6 L, 6 cyl, Automatic (S6)

2015 Chevrolet Impala X



3.6 L, 6 cyl, Automatic (S6)
MSRP: \$26,910 - \$39,635

2015 Chevrolet Impala X



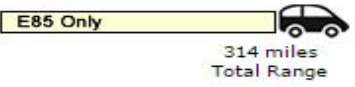
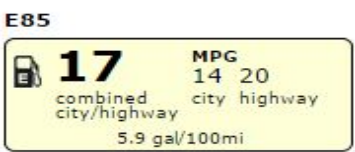
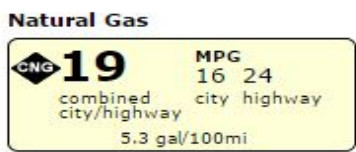
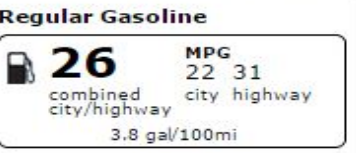
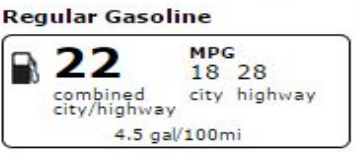
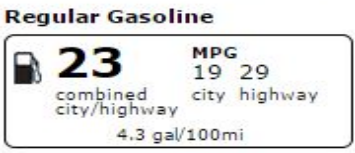
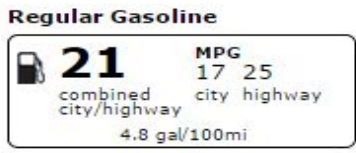
3.6 L, 6 cyl, Automatic (S6)
MSRP: \$26,910 - \$39,635

2015 Chevrolet Impala X



2.5 L, 4 cyl, Automatic (S6)
MSRP: \$26,910 - \$39,635

EPA Fuel Economy



Unofficial MPG Estimates from Vehicle Owners

[Learn more about "My MPG"](#)
[Disclaimer](#)

User MPG estimates are not yet available for this vehicle

Average based on 1 vehicle
23.5 MPG

[View Individual Estimates](#)

User MPG estimates are not yet available for this vehicle

User MPG estimates are not yet available for this vehicle

You save or spend*
Note: The average 2015 vehicle gets 24 MPG

You SPEND \$1,000
more in fuel costs over 5 years compared to the average new vehicle

You SPEND \$250
more in fuel costs over 5 years compared to the average new vehicle

You SPEND \$500
more in fuel costs over 5 years compared to the average new vehicle

You SAVE \$500
in fuel costs over 5 years compared to the average new vehicle

Annual Fuel Cost*

Gas: \$1,600
CNG: \$1,550

Gas: \$1,450
E85: \$1,650

\$1,500

\$1,300

Cost to Drive 25 Miles

Gas: \$3.05
CNG: \$2.96

Gas: \$2.78
E85: \$3.18

\$2.91

\$2.46

Cost to Fill the Tank

Gas: \$47
E85: \$40

\$47

\$47

Tank Size

18.5 gallons

18.5 gallons

18.5 gallons

Annual fuel cost against incremental cost of CNG and FFV vehicles vs. gasoline*



CNG bifuel: 3.78 years

Diesel: 2.25 years

Flex Fuel: 0.41 years

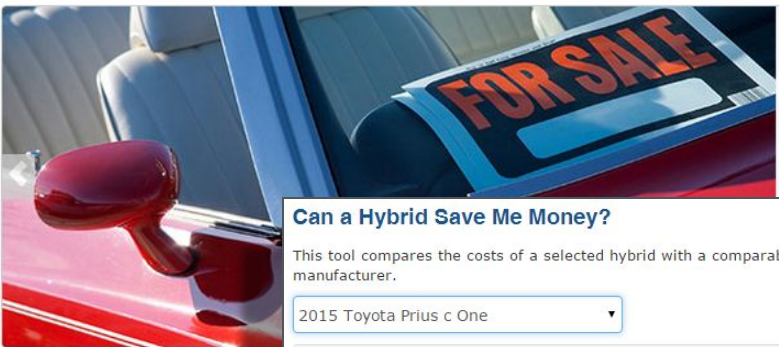
Gasoline: base

Type	Model	Description	Unit Price from MV15	Fuel economy from reviews (EPA doesn't test H-D vehicles for FE)	Fuel economy	Annual miles	Fuel gallons needed	Fuel price	Incremental cost	Annual cost of fuel	Payback in years
CNG Bifuel	Chevrolet Silverado-CK35943	Large PK/ Crew Cab/ Dual Rear Wheels...4WD or AWD, 5 seats, 4 doors, 167" WD, 8cyld	\$38,970	12 (Equipment World), 16 (ENR.com) HWY	14	15,000	1,071.43	\$2.25	\$9,112	\$2,409.64	3.78
Diesel	Ford F350 Crew Cab W3D	Large PK/ Crew Cab/ Dual Rear Wheels...4WD or AWD, 5 seats, 4 doors, 167" WD, 8cyld	\$37,644	13.13 combined (Fuelyly)	13	15,000	1,153.85	\$3.00	\$7,786	\$3,460.38	2.25
Flex Fuel	GMC Sierra TK35943	Large PK/ Crew Cab/ Dual Rear Wheels...4WD or AWD, 5 seats, 4 doors, 167" WD, 8cyld	\$30,869	13 combined (fueleconomy.gov)	13	15,000	1,153.85	\$2.16	\$1,011	\$2,491.15	0.41
Gas	Dodge Ram 3500 DRW D28L92	Large PK/ Crew Cab/ Dual Rear Wheels...4WD or AWD, 5 seats, 4 doors, 167" WD, 8cyld	\$29,858	11 city/17 highway (autotrader.com)	14	15,000	1,071.43	\$2.56	\$0	\$2,741.79	0.00

* Not adjusted for GGE, unknown what % reviewers drove on alt fuel

YOUR MILEAGE MAY VARY

No AFV? Drive smarter!



Selling Your Car?

Advertise its fuel economy with Used Car Label tool.

Can a Hybrid Save Me Money?

This tool compares the costs of a selected hybrid with a comparably equipped non-hybrid from the same manufacturer.

2015 Toyota Prius c One

Personalize

Vehicle Comparison

Hybrid	Non-hybrid	
2015 Toyota Prius c One	2015 Toyota Yaris 5-Door LE	
1.5 L, 4 cyl, Automatic (variable gear ratios)	1.5 L, 4 cyl, Automatic 4-spd	
Combined MPG		
49	33	
MSRP		
\$20,365	\$18,034	
The hybrid vehicle's MSRP is \$2,331 more.		
Fuel Cost Savings with Hybrid		
Weekly	Monthly	Yearly
\$6.37	\$27.58	\$331
Payback Period		
7.0 years		

+ What if I add the extra cost to my loan?

Note: This tool compares vehicles based on fuel cost and vehicle price only. Other factors, such as insurance, maintenance, or resale value, are not considered since they can vary widely. more...

Welcome to My MPG!

We've created "My MPG" to help you calculate and track your fuel economy and compare it with EPA test ratings. You can also share your MPG with other users.

Benefits of Registering

If you register, you will be able to save your MPG information and view, edit, or update it later. You will also be able to share your MPG with others. Fueleconomy.gov retains no information that could be used to identify any individual with a user name or password.

As a non-registered guest, you still have access to all MPG tools, but you cannot save your data or share your MPG.

We Can Help You...

- [Calculate Your MPG](#)
- [Maintain a Fuel Purchase Record](#)

Other Useful Tools

- [Our Printable Form for Recording Fuel Purchases](#)
- [MPG Estimates from Drivers Like You](#)

Tracking Your MPG Just Got Easier

Now you can enter "My MPG" data at the pump from your mobile device at fueleconomy.gov/m/!

Find & Compare Cars



- Compare Side-by-Side
- Power Search
- Mobile Find-a-Car

Calculators and Other Tools

- Fuel Savings Calculator
- Trip Calculator
- Can a Hybrid Save Me Money?
- My Plug-in Hybrid Calculator
- Used Car Label Tool
- Developer Tools
- Find a Car Widget

Clean Cities

www.cleancities.energy.gov

Alternative Fuels & Advanced Vehicles Data Center

www.afdc.energy.gov

USDOE Information Center and Technical Response Service

www.eere.energy.gov/afdc/informationcenter.html

Phone: 1-800-EERE-INFO (1-877-337-3463)

Email: technicalresponse@icfi.com

Thank you

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1. Study, assess, pilot

2.

