

2015 Transportation Technology Deployment Report:

State of Delaware Clean Cities

Expanded Edition

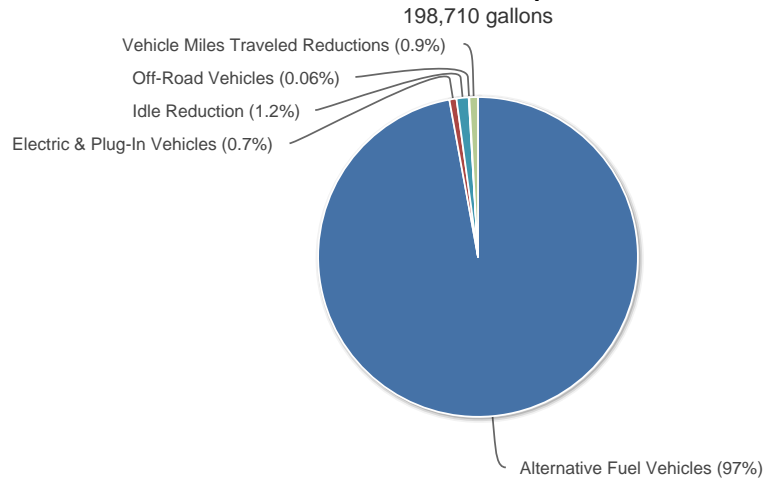
March 2016

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.

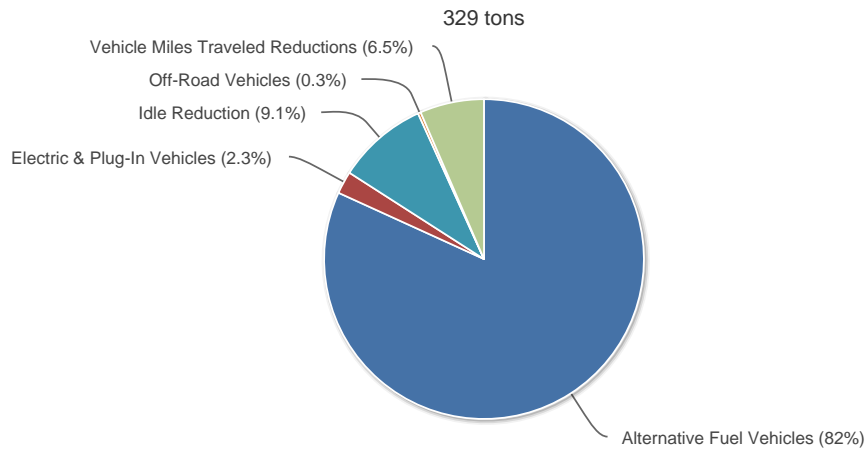
Every year, each Clean Cities coalition submits to DOE an annual report of its activities and accomplishments for the previous calendar year. Coalition coordinators, who lead the local coalitions, provide information and data via an online database managed by the National Renewable Energy Laboratory (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 Delaware Clean Cities.

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

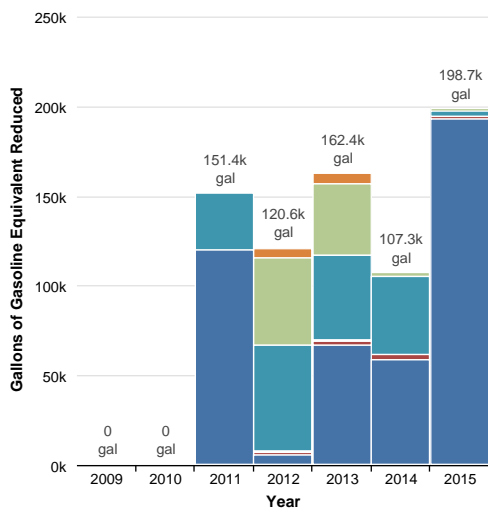
2015 Gallons of Gasoline Equivalent Reduced



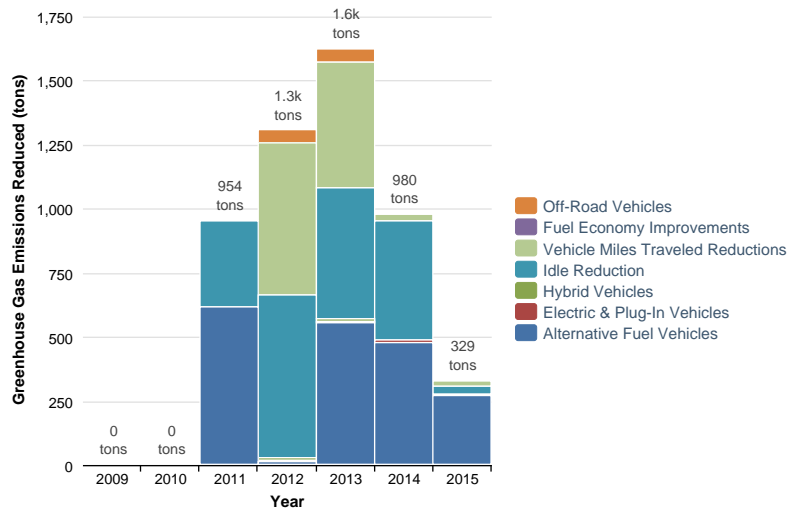
2015 Greenhouse Gas Emissions Reduced



Historical Gallons of Gasoline Equivalent Reduced

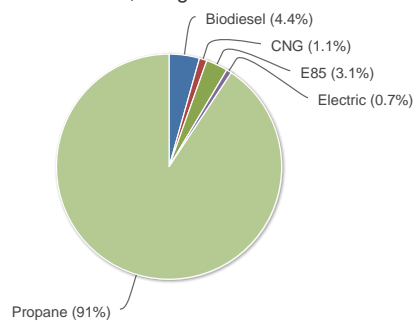


Historical Greenhouse Gas Emissions Reduced



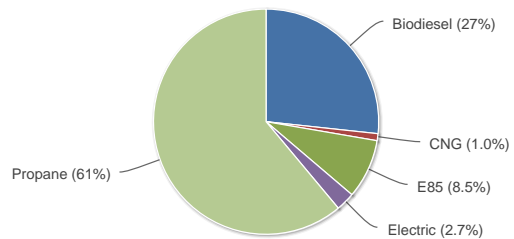
2015 Gallons of Gasoline Equivalent Reduced by Fuel Type for Alternative Fuel Projects

194,551 gallons



2015 Greenhouse Gas Emissions Reduced by Fuel Type for Alternative Fuel Projects

278 tons



Criteria Pollutant Emissions Reduced

Criteria pollutants are chemicals that have been linked to human health effects and therefore regulated in the Clean Air Act of 1970. The Clean Cities annual report calculates them using the same assumptions and default values as AFLEET 2016, with some adjustments to fit specific data inputs. They are quantified at vehicle tailpipes, as those are the emissions contributing to the regulated “ambient” air quality of a given city. This means that they omit emissions from sources such as electric power plants, refineries, and biofuel feedstock farms (where emissions are sufficiently removed from populations in order to minimize health effects). When a specific pollutant surpasses a given threshold for a given area, the area is considered to be in “nonattainment” for that pollutant. Nonattainment areas for given pollutants can be viewed at www.epa.gov/green-book. To learn more about what your emissions numbers mean, please take the Understanding Emissions or Emissions Compliance courses at [Clean Cities University](http://CleanCitiesUniversity).

Reductions by Fuel Type*	NOx	VOC	CO	PM10	PM2.5
Biodiesel	0 lb	0 lb	0 lb	0 lb	0 lb
CNG - Compressed Natural Gas	0 lb	0 lb	0 lb	0 lb	0 lb
E85 - 85% Ethanol	0 lb	0 lb	0 lb	0 lb	0 lb
Electric (all-electric)	0 lb	0 lb	0 lb	0 lb	0 lb
Propane	0 lb	0 lb	0 lb	0 lb	0 lb
VMT Reduction (Gasoline)	-	-	-	-	-
Total:	0 lb	0 lb	0 lb	0 lb	0 lb

* This table accounts for criteria pollutants from alternative fuel vehicle, hybrid vehicle, and VMT reduction projects only. It does not include fuel economy, idle reduction, or off-road projects. Negative values indicate an increase in emissions.

COALITION

State of Delaware Clean Cities - DE

http://www.dnrec.delaware.gov/energy/services/otherservices/Pages/Clean_Cities/Home.aspx

Designated: 10/12/1993

Boundaries: Entire state of Delaware

COORDINATORS

	Address	Telephone	Fax
Kathy Harris	100 W Water St, Ste 5A Dover, DE 19904		

Number of coordinators	2
Coordinator(s) hours per week on Clean Cities	20 hours
Other staff hours per week on Clean Cities	0 hours
How long have you been the coordinator?	3 years

OPERATING INFORMATION

Host organization	Government - State
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Stakeholders

Number of stakeholders	38
Number of private stakeholders	19
Does the State Energy Office provide any financial support to the coalition or stakeholders?	Yes
Explain State Energy Office's support	
The State Energy Office provides office space, administrative support, and financial support for the coordinator and co-coordinator's salaries.	
How would you rate the quality of the data on your survey?	Poor
How do you obtain most of your data for the survey?	Estimates, Paper, e-mail, or spreadsheet questionnaire to stakeholders, Phone calls to stakeholders
Has your coalition registered with www.grants.gov ?	No

2015 Outside Funding

Stakeholder dues collected	\$0
How much funding is obtained from other sources to cover coalition operating expenses?	\$0
Non-DOE or ARRA grant and matching funds spent in 2015	\$0
Total non-DOE or ARRA funding in 2015	\$0

VEHICLE & FUEL INVENTORY

Alternative Fuel & Vehicles

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	Fuel Used	GGE Reduced	GHG Reduced
Chesapeake Utilities- Ford	Light-Duty	CNG	1	100% of time	1,429 gal	1.9 tons
Miles traveled per vehicle: 20,000 mi Average vehicle fuel economy: 14 MPGge Market: Corporate Fleet Vehicle type: Pickup/SUV/Van Percentage from coalition: 100% National Clean Fleets Partnership: No						
Chesapeake Utilities- Honda	Light-Duty	CNG	1	100% of time	556 gal	0.7 tons
Miles traveled per vehicle: 20,000 mi Average vehicle fuel economy: 36 MPGge Market: Corporate Fleet Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No						
Delaware Transit	Heavy-Duty	Propane	6	33,266 gal	14,732 gal	5.8 tons
Market: Commuters Vehicle type: Bus: Shuttle Percentage from coalition: 65% National Clean Fleets Partnership: No						
Kent Sussex Industries	Light-Duty	Propane	6	39,617 gal	29,990 gal	42.4 tons
Market: Corporate Fleet Vehicle type: Pickup/SUV/Van Percentage from coalition: 100% National Clean Fleets Partnership: No						
Prime Care Medical	Light-Duty	Propane	6	16,485 gal	12,479 gal	17.6 tons
Market: Corporate Fleet Vehicle type: Pickup/SUV/Van Percentage from coalition: 100% National Clean Fleets Partnership: No						
Schwan's Home Service	Heavy-Duty	Propane	20	92,996 gal	63,358 gal	24.8 tons
Market: Corporate Fleet Vehicle type: Truck: No Trailer Percentage from coalition: 100% National Clean Fleets Partnership: Yes						
Sharp Energy	Light-Duty	Propane	34	73,824 gal	55,885 gal	79.0 tons
Market: Corporate Fleet Vehicle type: Pickup/SUV/Van Percentage from coalition: 100% National Clean Fleets Partnership: No						
State of Delaware	Light-Duty	E85	1,594	2% of time	6,064 gal	23.7 tons
Miles traveled per vehicle: 9,069 mi Average vehicle fuel economy: 19 MPG Market: Government - State Vehicle type: Car Percentage from coalition: 65% National Clean Fleets Partnership: No						
State of Delaware DelDOT	Heavy-Duty	Biodiesel (20%)	422	60% of time	8,362 gal	73.2 tons
Miles traveled per vehicle: 5,051 mi Average vehicle fuel economy: 22 MPG Market: Government - State Vehicle type: Unknown/Other Percentage from coalition: 65% National Clean Fleets Partnership: No						

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	Fuel Used	GGE Reduced	GHG Reduced
Sustainable Energy Utility	Light-Duty	CNG	1	100% of time	143 gal	0.2 tons
Miles traveled per vehicle: 5,000 mi Average vehicle fuel economy: 35 MPGge Market: General/Unknown Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No						
Total:			2,091		192,997 gal	269 tons

Electric, Hybrid & Plug-in Vehicles

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	GGE Reduced	GHG Reduced
State of Delaware OMB	Light-Duty	Electric	4	1,444 gal	7.5 tons
Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 13,001 mi Market: Government - State Vehicle type: Car Percentage from coalition: 65% National Clean Fleets Partnership: No Workplace Charging Challenge: Retrofitted all-electric Toyota Scions					
Total:			4	1,444 gal	8 tons

Off-Road Vehicles

Fleet Name	Application	Method	Fuel	Number of Vehicles	GGE Reduced	GHG Reduced
State of Delaware DeIDOT	Landscaping and lawn equipment	Alternative fuel or vehicles	Biodiesel (20%)	238	110 gal	1.0 tons
Fuel used: 792 gal Percentage from coalition: 65% National Clean Fleets Partnership: No						
Total:				238	110 gal	1 tons

FUEL ECONOMY

Vehicle Miles Traveled Reductions

Project Name	Method	Vehicle Class	GGE Reduced	GHG Reduced
State of Delaware Employees Van Pool	Other	Light-Duty	1,731 gal	21.3 tons
Fuel type of vehicles driven less: Gasoline Fuel economy of vehicles driven less: 22 MPG Number of vehicles driven less: 37 VMT reduction per vehicle being driven less: 10,200 mi Percentage from coalition: 10% National Clean Fleets Partnership: No The State of Delaware operates a state employees vanpool program that takes individual commuting vehicles off the road each day. Approximately 310 employees using 37 vanpools are currently enrolled in the vanpool program. GPS systems in the 37 vans log an average of 4,294 miles per day for an average trip of 90 miles per pool.				
Total:			1,731 gal	21 tons

IDLE REDUCTION

Idle Reduction

Project Name	Number of Vehicles	Idling Reduced per Vehicle	Fuel Saved per Vehicle	GGE Reduced	GHG Reduced
State of Delaware Idling Policy	1,200	5 mins/day 257 days/year	0 gal/hr	2,429 gal	30.1 tons
Type of project: Policies Type of vehicle: Light-Duty Percentage from coalition: 35% National Clean Fleets Partnership: No					
Total:	1,200			2,429 gal	30 tons

FUEL STATIONS

New Stations

Fuel	Public Stations	Private Stations
Biodiesel	-	-
CNG - Compressed Natural Gas	-	1
E85 - 85% Ethanol	-	-
Electric Charging Outlets	8	2
Hydrogen	-	-
LNG - Liquefied Natural Gas	-	-
Propane	-	2
Total:	8	5

OUTREACH ACTIVITIES

Activity Name	Dates	Activity Type	Percentage from Coalition	Persons Reached
Clean Cities Stakeholder Meeting	01/20/2015	Meeting - Stakeholder	100%	15
Technology: Fuel economy improvements, Hybrid electric vehicles, Idle reduction, Vehicle miles traveled reduction Audience: General Public, Government, Private Fleets, Transit, Utility				
Clean Cities Stakeholder Meeting	03/06/2015	Meeting - Stakeholder	100%	15
Technology: Fuel economy improvements, Hybrid electric vehicles, Idle reduction, Vehicle miles traveled reduction Audience: General Public, Government, Private Fleets, Transit, Utility				
Junior Solar Sprint	05/13/2015	Media Event	50%	200
Technology: Hybrid electric vehicles Audience: General Public, Government, Utility, Other <i>State-wide solar car sprint race competition for Junior High School students. This event showcased AFVs, electric vehicles and other PV technology.</i>				
Clean Transportation Incentive Program Press Conference	07/15/2015	Media Event	50%	75
Technology: Electric vehicles, Hybrid electric vehicles, Natural gas vehicles, Propane Audience: General Public, Government, Private Fleets, Other <i>At this event, which announced a new rebate program for alternative fueled vehicles, the Delaware Clean Cities Coalition had a table with literature distribution and information on alternative fuels. Media, the general public, and businesses were present at this event.</i>				
Sharp Energy Ground Breaking	09/03/2015	Media Event	25%	100
Technology: Natural gas vehicles, Propane Audience: General Public, Private Fleets, Transit, Utility <i>The Delaware Clean Cities Coalition participated at this event with one of our propane stakeholders. The Coalition provided opening remarks at the event, and was able to reach a varied audience of business leaders, legislators, and members of the public.</i>				

Activity Name	Dates	Activity Type	Percentage from Coalition	Persons Reached
Clean Cities Stakeholder Meeting	09/10/2015	Meeting - Stakeholder	100%	12
Technology: Fuel economy improvements, Hybrid electric vehicles, Idle reduction Audience: General Public, Government, Private Fleets, Transit, Utility				
Newark Community Days	09/20/2015	Literature Distribution	100%	250
Technology: Electric vehicles, Natural gas vehicles, Propane Audience: General Public <i>At this year's event, the Coalition presented information on the new alternative fuel infrastructure that has been installed throughout the state over the past year including the new EV charging stations. This also allowed for the Coalition to promote the new grants and rebates that are available in the State of Delaware for individuals and fleets.</i>				
Clean Cities Stakeholder Meeting	10/22/2015	Meeting - Stakeholder	100%	15
Technology: Fuel economy improvements, Hybrid electric vehicles, Idle reduction, Vehicle miles traveled reduction Audience: General Public, Government, Private Fleets, Transit, Utility <i>This meeting was held to discuss a position paper, which would highlight the importance of alternative fueled vehicles in Delaware's state fleet and on state contract.</i>				
Green Your School	10/23/2015	Literature Distribution	100%	100
Technology: Electric vehicles, Natural gas vehicles, Propane Audience: Private Fleets, Other <i>This event helped to educate principals, school bus drivers, and other education professionals on the importance of sustainability in schools. The Coalition had a table at this event to provide information on alternative fuels, their benefits, and the alternative fueled vehicles available in the state.</i>				
Alternative Fuel Education Event Planning	12/09/2015	Meeting - Other	100%	15
Technology: Electric vehicles, Hybrid electric vehicles, Natural gas vehicles, Propane Audience: Government, Private Fleets, Transit, Utility <i>This meeting began the planning of an alternative fuel education event.</i>				
Total:				797