

2018 Transportation Technology Deployment Report:

Vermont Clean Cities

Expanded Edition

March 2019

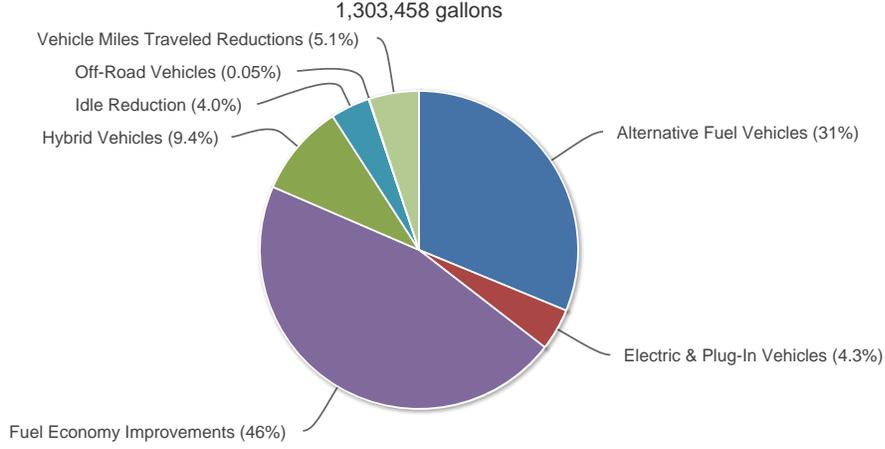


The U.S. Department of Energy's (DOE) Clean Cities program advances the nation's economic, environmental, and energy security by supporting local actions to reduce petroleum use in transportation. A national network of nearly 100 Clean Cities coalitions brings together stakeholders in the public and private sectors to deploy alternative and renewable fuels, idle-reduction measures, fuel economy improvements, and new transportation technologies, as they emerge.

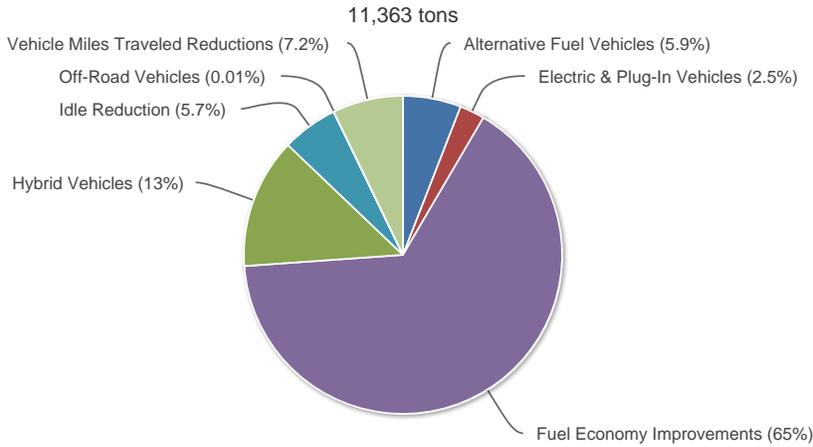
Every year, each Clean Cities coalition submits to DOE an annual report of its activities and accomplishments for the previous calendar year. Coalition coordinators, who lead the local coalitions, provide information and data via an online database managed by the National Renewable Energy Laboratory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

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

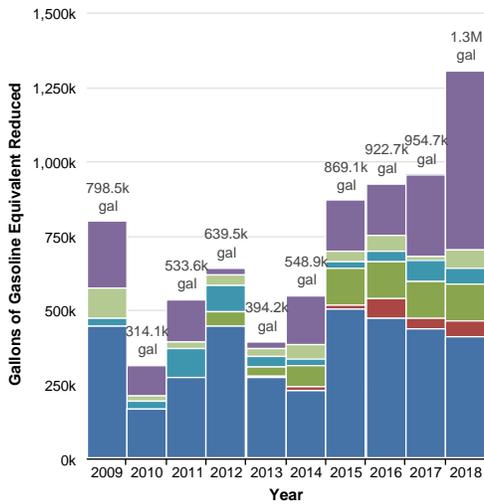
2018 Gallons of Gasoline Equivalent Reduced



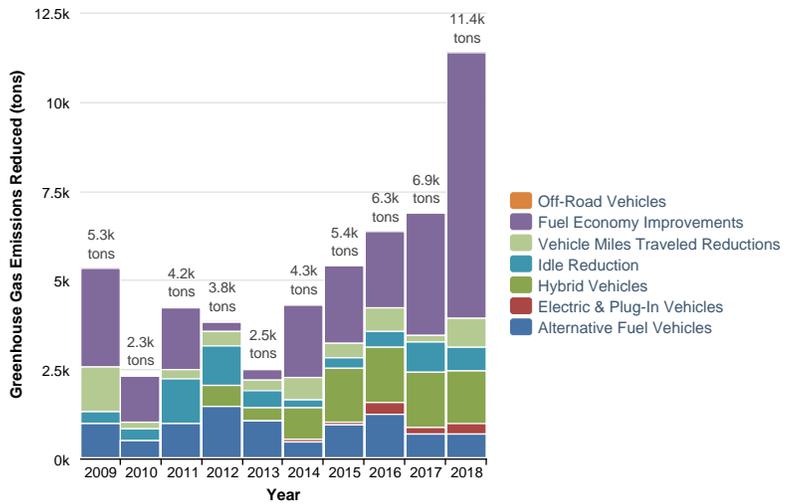
2018 Greenhouse Gas Emissions Reduced



Historical Gallons of Gasoline Equivalent Reduced

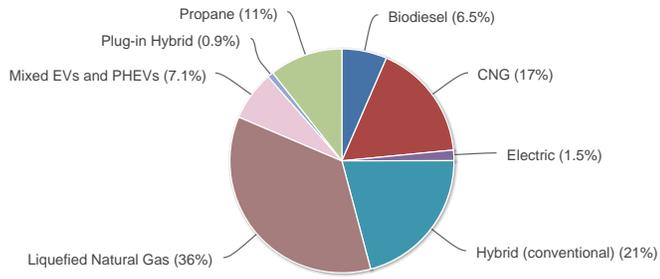


Historical Greenhouse Gas Emissions Reduced



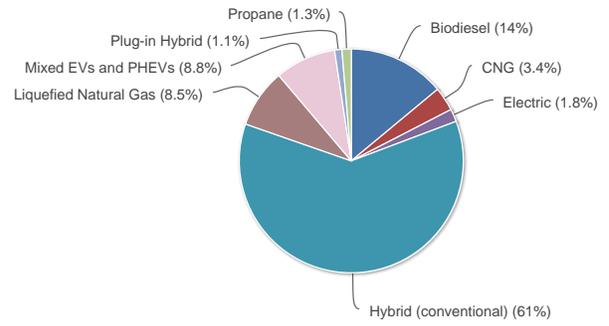
2018 Gallons of Gasoline Equivalent Reduced by Fuel Type for Alternative Fuel Projects

585,582 gallons



2018 Greenhouse Gas Emissions Reduced by Fuel Type for Alternative Fuel Projects

2,467 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.

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	3,118 lb	4 lb	-9,975 lb	1 lb	1 lb
Electric (all-electric)	59 lb	48 lb	868 lb	2 lb	1 lb
Hybrid (conventional)	195 lb	508 lb	0 lb	0 lb	0 lb
LNG - Liquefied Natural Gas	13,631 lb	0 lb	-55,260 lb	0 lb	0 lb
Mixed EVs and PHEVs	109 lb	186 lb	2,635 lb	4 lb	4 lb
Plug-in Hybrid	64 lb	98 lb	1,787 lb	3 lb	3 lb
Propane	3,352 lb	-234 lb	-5,724 lb	23 lb	5 lb
VMT Reduction (Gasoline)	299 lb	477 lb	8,569 lb	120 lb	26 lb
Total:	20,827 lb	1,087 lb	-57,100 lb	153 lb	40 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

Vermont Clean Cities - VT

<http://www.uvm.edu/vtccc>

Designated: 06/25/2001

Boundaries: Entire state of Vermont

COORDINATORS

	Address	Telephone	Fax
Peggy O'Neill-Vivanco	UVM Transportation Research Center 210 Colchester Ave, Farrell Hall Burlington, VT 05405		
Number of coordinators			1
Coordinator(s) hours per week on Clean Cities			20 hours
Other staff hours per week on Clean Cities			20 hours
How long have you been the coordinator?			3 years

OPERATING INFORMATION

Coalition organizational structure	Hosted in a university
Stakeholders	
Number of stakeholders	67
Number of private stakeholders	35
Does the State Energy Office provide any financial support to the coalition or stakeholders?	No
How would you rate the quality of the data on your survey?	Excellent
How do you obtain most of your data for the survey?	Coalition records, Online questionnaire to stakeholders (SurveyMonkey, Google Forms, etc), Paper, e-mail, or spreadsheet questionnaire to stakeholders, Phone calls to stakeholders
Has your coalition registered with www.grants.gov?	Yes

2018 Outside Funding

Stakeholder dues collected	\$0
How much funding is obtained from other sources to cover coalition operating expenses?	-
Non-DOE or ARRA grant and matching funds spent in 2018	\$0
Total non-DOE or ARRA funding in 2018	\$0

VEHICLE & FUEL INVENTORY

Alternative Fuel & Vehicles

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	Fuel Used	GGE Reduced	GHG Reduced
Black Bear Biodiesel	Heavy-Duty	Biodiesel (50%)	1	5,000 gal	2,665 gal	23.3 tons
<p>Market: General/Unknown Vehicle type: Truck: No Trailer Percentage from coalition: 100% National Clean Fleets Partnership: No</p>						
Black Bear Biodiesel	Light-Duty	Biodiesel (100%)	835	12,000 gal	15,350 gal	140.5 tons
<p>Market: General/Unknown Vehicle type: Unknown/Other Percentage from coalition: 100% National Clean Fleets Partnership: No <i>Sold 450,000 gallons of biodiesel out of state.</i></p>						
Black Bear Biodiesel	Light-Duty	Biodiesel (75%)	2	1,500 gal	1,439 gal	13.2 tons
<p>Market: Corporate Fleet Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No</p>						
Black Bear Biodiesel	Light-Duty	Biodiesel (75%)	1	1,500 gal	1,439 gal	13.2 tons
<p>Market: Corporate Fleet Vehicle type: Pickup/SUV/Van Percentage from coalition: 100% National Clean Fleets Partnership: No</p>						
Bourne's Energy	Heavy-Duty	Biodiesel (99%)	100	1,700 gal	1,794 gal	15.7 tons
<p>Market: General/Unknown Vehicle type: Unknown/Other Percentage from coalition: 100% National Clean Fleets Partnership: No</p>						
Bourne's Energy	Heavy-Duty	Biodiesel (10%)	100	5,460 gal	582 gal	5.1 tons
<p>Market: General/Unknown Vehicle type: Unknown/Other Percentage from coalition: 100% National Clean Fleets Partnership: No</p>						
Bourne's Energy	Heavy-Duty	Biodiesel (5%)	100	16,831 gal	897 gal	7.9 tons
<p>Market: General/Unknown Vehicle type: Unknown/Other Percentage from coalition: 100% National Clean Fleets Partnership: No <i>Biodiesel market is still tight. There is a new bio distributor and they are hoping that will keep Bourne's tanks full.</i></p>						
Bourne's Energy	Light-Duty	Propane	1	145 gal	110 gal	0.2 tons
<p>Market: General/Unknown Vehicle type: Pickup/SUV/Van Percentage from coalition: 100% National Clean Fleets Partnership: No <i>Added dual fuel tank set truck in Oct 2018.</i></p>						

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	Fuel Used	GGE Reduced	GHG Reduced
Bourne's Energy	Light-Duty	Propane	2	100% of time	983 gal	1.4 tons
Miles traveled per vehicle: 11,300 mi Average vehicle fuel economy: 23 MPGge Market: Corporate Fleet Vehicle type: Pickup/SUV/Van Percentage from coalition: 100% National Clean Fleets Partnership: No						
Bourne's Energy	Light-Duty	Propane	4	100% of time	2,753 gal	3.9 tons
Miles traveled per vehicle: 16,500 mi Average vehicle fuel economy: 24 MPGge Market: Corporate Fleet Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No						
Bourne's Energy	Light-Duty	Propane	3	100% of time	4,621 gal	6.5 tons
Miles traveled per vehicle: 22,333 mi Average vehicle fuel economy: 15 MPGge Market: Corporate Fleet Vehicle type: Pickup/SUV/Van Percentage from coalition: 100% National Clean Fleets Partnership: No						
Burlington DPW	Heavy-Duty	Biodiesel (5%)	45	67,045 gal	3,573 gal	31.3 tons
Market: Government - Local Vehicle type: Truck: No Trailer Percentage from coalition: 100% National Clean Fleets Partnership: No <i>They pay for the 5% Biodiesel blend that is not available at the regular pump.</i>						
Burlington DPW	Heavy-Duty	CNG	3	100% of time	8,061 gal	6.8 tons
Miles traveled per vehicle: 6,800 mi Average vehicle fuel economy: 3 MPGde Market: Government - Local Vehicle type: Truck: Refuse Percentage from coalition: 100% National Clean Fleets Partnership: No						
Burlington DPW	Light-Duty	CNG	1	100% of time	86 gal	0.1 tons
Miles traveled per vehicle: 2,000 mi Average vehicle fuel economy: 23 MPGge Market: Government - Local Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No <i>Down to 1 cars. Older Honda CNG rusted out.</i>						
Casella Waste Systems	Heavy-Duty	CNG	10	73,815 GGE	66,434 gal	55.9 tons
Market: General/Unknown Vehicle type: Truck: Refuse Percentage from coalition: 100% National Clean Fleets Partnership: No						
Green Cab	Light-Duty	Biodiesel (10%)	5	50% of time	415 gal	3.8 tons
Miles traveled per vehicle: 30,000 mi Average vehicle fuel economy: 20 MPG Market: Taxis Vehicle type: Pickup/SUV/Van Percentage from coalition: 100% National Clean Fleets Partnership: No						

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	Fuel Used	GGE Reduced	GHG Reduced
Green Mountain Power	Light-Duty	Biodiesel (5%)	137	204,530 gal	9,811 gal	89.8 tons
<p>Market: Utility Vehicle type: Unknown/Other Percentage from coalition: 75% National Clean Fleets Partnership: No Have 55 Pickup/SUV/Van; 80 Truck (no trailer); 2 Semi-trailer truck. Total fuel use for all is 204,530 - so I put all 137 vehicles in this category.</p>						
OMYA	Heavy-Duty	LNG	17	463,033 gal	208,156 gal	208.8 tons
<p>Market: General/Unknown Vehicle type: Truck: Semi-trailer Percentage from coalition: 75% National Clean Fleets Partnership: No Waiting for data verification.</p>						
Schwan's - Medium-duty Propane	Heavy-Duty	Propane	18	77,908 gal	53,078 gal	20.8 tons
<p>Market: Corporate Fleet Vehicle type: Truck: No Trailer Percentage from coalition: 100% National Clean Fleets Partnership: Yes Includes 2 Light HD Class 3 vehicles.</p>						
University of Vermont	Heavy-Duty	CNG	9	24,000 GGE	21,600 gal	18.2 tons
<p>Market: Corporate Fleet Vehicle type: Bus: Shuttle Percentage from coalition: 100% National Clean Fleets Partnership: No</p>						
Vermont Gas Systems	Light-Duty	CNG	6	4,000 GGE	2,850 gal	3.7 tons
<p>Market: Utility Vehicle type: Pickup/SUV/Van Percentage from coalition: 75% National Clean Fleets Partnership: No</p>						
Vermont Gas Systems	Light-Duty	CNG	2	300 GGE	214 gal	0.3 tons
<p>Market: Utility Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No</p>						
Total:			1,402		406,913 gal	670 tons

Electric, Hybrid & Plug-in Vehicles

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	GGE Reduced	GHG Reduced
Bourne's Energy	Light-Duty	HEV	1	647 gal	8.0 tons
<p>Average vehicle fuel economy: 45 MPG Miles traveled per vehicle per year: 31,000 mi Market: General/Unknown Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:</p>					
Bourne's Energy	Light-Duty	PHEV	1	615 gal	3.2 tons
<p>Average vehicle fuel economy: 43 MPG Miles traveled per vehicle per year: 31,000 mi Market: General/Unknown Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:</p>					

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	GGE Reduced	GHG Reduced
Burlington DPW Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 500 mi Market: Government - Local Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	Electric	1	22 gal	0.1 tons
Burlington Electric Department Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 5,000 mi Market: Utility Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	Electric	2	323 gal	1.7 tons
Burlington Electric Department Average vehicle fuel economy: 45 MPG Miles traveled per vehicle per year: 9,000 mi Market: Utility Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	HEV	1	141 gal	1.7 tons
Burlington Electric Department Average vehicle fuel economy: 10 MPG Miles traveled per vehicle per year: 3,000 mi Market: Utility Vehicle type: Truck: No Trailer Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:	Heavy-Duty	HEV	2	213 gal	2.6 tons
Car Share VT Average vehicle fuel economy: 46 MPG Miles traveled per vehicle per year: 11,250 mi Market: General/Unknown Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	HEV	7	1,682 gal	20.7 tons
Casella Waste Systems Miles traveled per vehicle per year: 1,999 mi Market: General/Unknown Vehicle type: Truck: Refuse Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:	Heavy-Duty	Electric	1	714 gal	2.9 tons
CCRPC Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 7,931 mi Market: Government - Local Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	Electric	1	342 gal	1.8 tons

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	GGE Reduced	GHG Reduced
CCRPC Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 2,038 mi Market: Government - Local Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	Electric	1	88 gal	0.5 tons
Church Street Marketplace Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 234 mi Market: General/Unknown Vehicle type: Low-Speed/Neighborhood Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	Electric	1	11 gal	0.1 tons
City of Winooski Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 6,250 mi Market: Government - Local Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge: <i>Waiting for verification of mileage.</i>	Light-Duty	Electric	4	2,500 gal	13.0 tons
EVgo stations Electricity used: 124,699 kWh Market: General/Unknown Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge: <i>DC= 47,727; L2= 76,972</i>	Light-Duty	EV-PHEV	1,000	17,807 gal	92.6 tons
Farrell Distributing Average vehicle fuel economy: 45 MPG Miles traveled per vehicle per year: 23,000 mi Market: Corporate Fleet Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge: <i>Waiting for confirmation from fleet about 2018 data.</i>	Light-Duty	HEV	135	48,627 gal	599.0 tons
GMT Average vehicle fuel economy: 45 MPG Miles traveled per vehicle per year: 8,276 mi Market: Corporate Fleet Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	HEV	4	697 gal	8.6 tons
Green Cab Average vehicle fuel economy: 38 MPG Miles traveled per vehicle per year: 80,000 mi Market: Taxis Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	HEV	19	44,916 gal	553.3 tons

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	GGE Reduced	GHG Reduced
Green Cab Average vehicle fuel economy: 22 MPG Miles traveled per vehicle per year: 80,000 mi Market: Taxis Vehicle type: Pickup/SUV/Van Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	HEV	7	5,830 gal	71.8 tons
Green Mountain Power Average vehicle fuel economy: 8 MPG Miles traveled per vehicle per year: 8,000 mi Market: Utility Vehicle type: Truck: No Trailer Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:	Heavy-Duty	HEV	2	352 gal	4.3 tons
Green Mountain Power Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 1,500 mi Market: Utility Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	Electric	4	195 gal	1.0 tons
Green Mountain Power Average vehicle fuel economy: 29 MPG Miles traveled per vehicle per year: 13,500 mi Market: Utility Vehicle type: Pickup/SUV/Van Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	HEV	21	5,052 gal	62.2 tons
Green Mountain Power Average vehicle fuel economy: 46 MPG Miles traveled per vehicle per year: 9,000 mi Market: Utility Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	HEV	6	850 gal	10.5 tons
State of Vermont Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 11,370 mi Market: Government - State Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	Electric	2	711 gal	3.7 tons
State of Vermont Average vehicle fuel economy: 39 MPG Miles traveled per vehicle per year: 11,400 mi Market: Government - State Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	PHEV	25	3,733 gal	19.4 tons

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	GGE Reduced	GHG Reduced
SunCommon Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 15,000 mi Market: Corporate Fleet Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	Electric	6	3,879 gal	20.2 tons
SunCommon Average vehicle fuel economy: 48 MPG Miles traveled per vehicle per year: 20,000 mi Market: Corporate Fleet Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	HEV	26	11,580 gal	142.6 tons
SunCommon Average vehicle fuel economy: 98 MPG Miles traveled per vehicle per year: 18,000 mi Market: Corporate Fleet Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	PHEV	1	592 gal	3.1 tons
The University of Vermont Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 400 mi Market: Corporate Fleet Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	Electric	1	17 gal	0.1 tons
University of Vermont Average vehicle fuel economy: 6 MPG Miles traveled per vehicle per year: 8,025 mi Market: Corporate Fleet Vehicle type: Bus: Transit Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:	Heavy-Duty	HEV	1	1,384 gal	17.1 tons
UVM Police Average vehicle fuel economy: 45 MPG Miles traveled per vehicle per year: 5,453 mi Market: Corporate Fleet Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	HEV	1	114 gal	1.4 tons
UVM Police Average vehicle fuel economy: 45 MPG Miles traveled per vehicle per year: 11,306 mi Market: Corporate Fleet Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	HEV	1	236 gal	2.9 tons

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	GGE Reduced	GHG Reduced
UVM TRC Average vehicle fuel economy: 45 MPG Miles traveled per vehicle per year: 2,145 mi Market: General/Unknown Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge: <i>Vehicle was out of commission for part of summer 2018.</i>	Light-Duty	HEV	1	46 gal	0.6 tons
Vermont Gas Systems Average vehicle fuel economy: 43 MPG Miles traveled per vehicle per year: 3,000 mi Market: Utility Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	PHEV	2	89 gal	0.5 tons
VT ChargePoint Stations Electricity used: 223,854 kWh Market: General/Unknown Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:	Light-Duty	EV-PHEV	1,523	23,975 gal	124.6 tons
Total:			2,811	177,981 gal	1,796 tons

Off-Road Vehicles

Fleet Name	Application	Method	Fuel	Number of Vehicles	GGE Reduced	GHG Reduced
Green Mountain Power Fuel used: 3,250 gal Percentage from coalition: 75% National Clean Fleets Partnership: No <i>Total 5% Bio used for all vehicles is 204,530. That includes on-road vehicles. The amount of 3,250 is from 2017.</i>	Construction equipment	Alternative fuel or vehicles	Biodiesel (5%)	9	130 gal	1.1 tons
Green Mountain Power Fuel used: 1,000 gal Percentage from coalition: 75% National Clean Fleets Partnership: No	Construction equipment	Alternative fuel or vehicles	Propane	14	511 gal	0.2 tons
The Green Side Fuel used: 551 kWh Percentage from coalition: 100% National Clean Fleets Partnership: No	Landscaping and lawn equipment	Alternative fuel or vehicles	Electric	4	47 gal	0.2 tons
Total:				27	688 gal	2 tons

FUEL ECONOMY

Fuel Economy Improvements

Fleet Name	Previous Fuel	Current Fuel	Number of Vehicles	Miles Traveled per Vehicle	GGE Reduced	GHG Reduced
Black River Produce Method: Lightweight materials Vehicle class: Heavy-Duty Market: General/Unknown Vehicle type: Unknown/Other Percentage from coalition: 75% National Clean Fleets Partnership: No <i>Verifying data.</i>	15 MPG	20 MPG	50	10,000 mi	6,915 gal	85.8 tons
Bourne's Energy Method: Vehicle - More efficient Vehicle class: Heavy-Duty Market: General/Unknown Vehicle type: Unknown/Other Percentage from coalition: 100% National Clean Fleets Partnership: No	12 MPG	16 MPG	4	20,000 mi	1,823 gal	22.6 tons
Bourne's Energy Method: Vehicle - More efficient Vehicle class: Heavy-Duty Market: General/Unknown Vehicle type: Truck: No Trailer Percentage from coalition: 100% National Clean Fleets Partnership: No <i>They removed 2 older delivery trucks and replaced them with 2 new 2018 trucks.</i>	5 MPG	7 MPG	2	15,000 mi	1,897 gal	23.5 tons
Burlington DPW Method: Vehicle - More efficient Vehicle class: Light-Duty Market: Government - Local Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No	13 MPG	31 MPG	1	10,000 mi	447 gal	5.5 tons
Cabot Creamery Method: Vehicle - More efficient Vehicle class: Heavy-Duty Market: General/Unknown Vehicle type: Truck: Semi-trailer Percentage from coalition: 100% National Clean Fleets Partnership: No	6 MPG	7 MPG	4	100,000 mi	17,244 gal	213.8 tons
Cabot Creamery Method: Tires - Low-rolling resistance Vehicle class: Heavy-Duty Market: Corporate Fleet Vehicle type: Truck: Semi-trailer Percentage from coalition: 100% National Clean Fleets Partnership: No	6 MPG	7 MPG	24	100,000 mi	74,280 gal	921.1 tons
Cabot Creamery Method: Tires - Auto air inflation systems Vehicle class: Heavy-Duty Market: General/Unknown Vehicle type: Truck: Semi-trailer Percentage from coalition: 100% National Clean Fleets Partnership: No	7 MPG	7 MPG	24	100,000 mi	29,182 gal	361.9 tons
Cabot Creamery Method: Driver training Vehicle class: Heavy-Duty Market: General/Unknown Vehicle type: Truck: Semi-trailer Percentage from coalition: 100% National Clean Fleets Partnership: No	6 MPG	7 MPG	24	100,000 mi	74,280 gal	921.1 tons

Fleet Name	Previous Fuel	Current Fuel	Number of Vehicles	Miles Traveled per Vehicle	GGE Reduced	GHG Reduced
Casella Waste Systems Method: Vehicle - More efficient Vehicle class: Heavy-Duty Market: General/Unknown Vehicle type: Truck: Refuse Percentage from coalition: 100% National Clean Fleets Partnership: No	3 MPG	7 MPG	60	30,000 mi	379,361 gal	4,704.1 tons
Green Cab Method: Vehicle - More efficient Vehicle class: Light-Duty Market: Taxis Vehicle type: Unknown/Other Percentage from coalition: 100% National Clean Fleets Partnership: No	36 MPG	48 MPG	2	40,000 mi	556 gal	6.8 tons
Keurig Green Mountain Method: Vehicle - More efficient Vehicle class: Heavy-Duty Market: General/Unknown Vehicle type: Truck: Semi-trailer Percentage from coalition: 50% National Clean Fleets Partnership: No <i>Waiting for confirmation from fleet about 2018 data. Not responsive. Dropped contribution to 50%.</i>	6 MPG	8 MPG	1	10,000 mi	183 gal	2.3 tons
Keurig Green Mountain Method: Vehicle - More efficient Vehicle class: Heavy-Duty Market: General/Unknown Vehicle type: Truck: Semi-trailer Percentage from coalition: 50% National Clean Fleets Partnership: No <i>Waiting for confirmation from fleet about 2018 data. Not responsive. Dropped contribution to 50%.</i>	6 MPG	8 MPG	1	10,000 mi	183 gal	2.3 tons
Keurig Green Mountain Method: Tires - Auto air inflation systems Vehicle class: Heavy-Duty Market: General/Unknown Vehicle type: Truck: Semi-trailer Percentage from coalition: 50% National Clean Fleets Partnership: No <i>Waiting for confirmation from fleet about 2018 data. Not responsive. Dropped contribution to 50%.</i>	6 MPG	7 MPG	8	10,000 mi	1,054 gal	13.1 tons
State of Vermont Method: Telematics Vehicle class: Light-Duty Market: Government - State Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No <i>Recently began installation of telematics to identify minutes of idling by vehicle to inform agencies and departments and encourage idling reductions.</i>	28 MPG	35 MPG	150	2,300 mi	1,848 gal	22.8 tons

Fleet Name	Previous Fuel	Current Fuel	Number of Vehicles	Miles Traveled per Vehicle	GGE Reduced	GHG Reduced
Vermont Gas Systems	12 MPG	18 MPG	50	10,000 mi	10,417 gal	128.3 tons
Method: Telematics Vehicle class: Light-Duty Market: Utility Vehicle type: Unknown/Other Percentage from coalition: 75% National Clean Fleets Partnership: No						
Total:			405	567,300 mi	599,669 gal	7,435 tons

Vehicle Miles Traveled Reductions

Project Name	Method	Vehicle Class	GGE Reduced	GHG Reduced
Car Share VT	Car sharing (e.g., Zipcar)	Light-Duty	60,490 gal	745.1 tons
Fuel type of vehicles driven less: Gasoline Fuel economy of vehicles driven less: 23 MPG Number of vehicles driven less: 255 VMT reduction per vehicle being driven less: 5,456 mi Percentage from coalition: 100% National Clean Fleets Partnership: No				
Green Cab	Route Optimization	Light-Duty	2,256 gal	27.8 tons
Fuel type of vehicles driven less: Gasoline Fuel economy of vehicles driven less: 45 MPG Number of vehicles driven less: 29 VMT reduction per vehicle being driven less: 3,500 mi Percentage from coalition: 100% National Clean Fleets Partnership: No				
Green Cab	Other	Light-Duty	3,358 gal	41.4 tons
Fuel type of vehicles driven less: Gasoline Fuel economy of vehicles driven less: 36 MPG Number of vehicles driven less: 31 VMT reduction per vehicle being driven less: 3,900 mi Percentage from coalition: 100% National Clean Fleets Partnership: No <i>Utilize software mapping to avoid empty trips.</i>				
Total:			66,104 gal	814 tons

IDLE REDUCTION

Idle Reduction

Project Name	Number of Vehicles	Idling Reduced per Vehicle	Fuel Saved per Vehicle	GGE Reduced	GHG Reduced
Black River Produce	50	5 mins/day 300 days/year	1 gal/hr	788 gal	9.8 tons
Type of project: Policies Type of vehicle: Heavy-Duty - Other Percentage from coalition: 75% National Clean Fleets Partnership: No					
Bourne's Energy	5	60 mins/day 305 days/year	1 gal/hr	1,281 gal	15.9 tons
Type of project: Automatic engine shutoff Type of vehicle: Heavy-Duty - Truck: Delivery Percentage from coalition: 100% National Clean Fleets Partnership: No					
Bourne's Energy	53	30 mins/day 305 days/year	0 gal/hr	3,152 gal	39.1 tons
Type of project: Policies Type of vehicle: Light-Duty Percentage from coalition: 100% National Clean Fleets Partnership: No					

Project Name	Number of Vehicles	Idling Reduced per Vehicle	Fuel Saved per Vehicle	GGE Reduced	GHG Reduced
Burlington DPW	2	60 mins/day 365 days/year	0 gal/hr	285 gal	3.5 tons
<p>Type of project: Automatic engine shutoff Type of vehicle: Light-Duty Percentage from coalition: 100% National Clean Fleets Partnership: No Installed IdleRight technology.</p>					
Burlington Electric Department	1	210 mins/day 262 days/year	1 gal/hr	578 gal	7.2 tons
<p>Type of project: Auxiliary power unit (APU) Type of vehicle: Heavy-Duty - Other Percentage from coalition: 75% National Clean Fleets Partnership: No</p>					
Cabot Creamery	24	22 mins/day 250 days/year	0 gal/hr	974 gal	12.1 tons
<p>Type of project: Automatic engine shutoff Type of vehicle: Heavy-Duty - Truck: Long-Haul Percentage from coalition: 100% National Clean Fleets Partnership: No</p>					
Cabot Creamery	24	22 mins/day 250 days/year	0 gal/hr	880 gal	10.9 tons
<p>Type of project: Onboard batteries Type of vehicle: Heavy-Duty - Truck: Delivery Percentage from coalition: 100% National Clean Fleets Partnership: No</p>					
Cabot Creamery	24	22 mins/day 250 days/year	0 gal/hr	880 gal	10.9 tons
<p>Type of project: Policies Type of vehicle: Heavy-Duty - Truck: Long-Haul Percentage from coalition: 100% National Clean Fleets Partnership: No</p>					
Cabot Creamery	24	22 mins/day 250 days/year	0 gal/hr	974 gal	12.1 tons
<p>Type of project: Auxiliary power unit (APU) Type of vehicle: Heavy-Duty - Truck: Long-Haul Percentage from coalition: 100% National Clean Fleets Partnership: No</p>					
Farrell Distributing	42	23 mins/day 190 days/year	1 gal/hr	2,294 gal	28.4 tons
<p>Type of project: Other Type of vehicle: Heavy-Duty - Truck: Long-Haul Percentage from coalition: 75% National Clean Fleets Partnership: No Verifying data.</p>					
GMT	40	37 mins/day 300 days/year	1 gal/hr	7,400 gal	91.8 tons
<p>Type of project: Policies Type of vehicle: Heavy-Duty - Other Percentage from coalition: 100% National Clean Fleets Partnership: No All fleet buses are on idle reducing policies, the exception being when the weather is below 10 degrees.</p>					
Green Cab	26	30 mins/day 365 days/year	0 gal/hr	1,851 gal	22.9 tons
<p>Type of project: Policies Type of vehicle: Light-Duty Percentage from coalition: 100% National Clean Fleets Partnership: No</p>					

Project Name	Number of Vehicles	Idling Reduced per Vehicle	Fuel Saved per Vehicle	GGE Reduced	GHG Reduced
Green Mountain Power	80	60 mins/day 250 days/year	1 gal/hr	14,550 gal	180.4 tons
Type of project: Policies Type of vehicle: Heavy-Duty - Other Percentage from coalition: 75% National Clean Fleets Partnership: No					
Green Mountain Power	80	60 mins/day 250 days/year	1 gal/hr	14,550 gal	180.4 tons
Type of project: Automatic engine shutoff Type of vehicle: Heavy-Duty - Other Percentage from coalition: 75% National Clean Fleets Partnership: No					
Keurig Green Mountain	50	5 mins/day 365 days/year	1 gal/hr	760 gal	9.4 tons
Type of project: Policies Type of vehicle: Heavy-Duty - Truck: Long-Haul Percentage from coalition: 50% National Clean Fleets Partnership: No <i>Waiting for confirmation from fleet about 2018 data. Not responsive. Dropped contribution to 50%.</i>					
MVRTD	15	7 mins/day 350 days/year	1 gal/hr	459 gal	5.7 tons
Type of project: Policies Type of vehicle: Heavy-Duty - Bus: School Percentage from coalition: 75% National Clean Fleets Partnership: No					
MVRTD	10	15 mins/day 180 days/year	1 gal/hr	373 gal	4.6 tons
Type of project: Onboard batteries Type of vehicle: Heavy-Duty - Bus: School Percentage from coalition: 75% National Clean Fleets Partnership: No					
University of Vermont	10	5 mins/day 180 days/year	1 gal/hr	75 gal	0.9 tons
Type of project: Policies Type of vehicle: Heavy-Duty - Bus: Transit Percentage from coalition: 100% National Clean Fleets Partnership: No					
Total:	560			52,103 gal	646 tons

FUEL STATIONS

New Stations

Fuel	Public Stations	Private Stations
Biodiesel	-	-
CNG - Compressed Natural Gas	-	-
E85 - 85% Ethanol	-	-
Electric Charging Outlets	21	176
Hydrogen	-	-
LNG - Liquefied Natural Gas	-	-
Propane	-	-
Total:	21	176

OUTREACH ACTIVITIES

Activity Name	Dates	Activity Type	Percentage from Coalition	Persons Reached
Vermont Walk Bike Summit Technology: Vehicle miles traveled reduction Audience: General Public, Government, Private Fleets <i>VTCCC is part of the organizing committee for this event. 50% of the committee participants are VTCCC stakeholders.</i>	05/04/2018	Conference participation	50%	250
Electric Vehicle Ride & Drive Event Technology: Electric vehicles, Hybrid electric vehicles Audience: General Public, Government, Private Fleets, Utility <i>Held a workplace EV Ride & Drive Event that included participation from over dozen dealers and owners. Fleet managers held a panel discussion on EV ownership and maintenance. Dave Roberts from Drive Electric Vermont explained charging systems, costs and purchase incentives.</i>	05/23/2018	Media Event	100%	50
SunCarnival 2018 Technology: Electric vehicles, Hybrid electric vehicles, Vehicle miles traveled reduction Audience: General Public <i>VTCCC staffed a table and co-sponsored the event. SunCommon is a stakeholder.</i>	06/09/2018	Media Event	50%	200
Bike and bus lanes around schools Technology: Vehicle miles traveled reduction Audience: Other <i>VTCCC met with school principals, School District administrators, parents and bike-ped advocaets to present information on bike and bus lanes around schools to support safety for kids and to reduce single vehicles dropping off students. Schools and parents want to set-up a 2 week pop-up protected bike lane and bus drop off in Oct. 2018.</i>	08/22/2018	Meeting - Other	100%	10
Bike and bus lanes around schools Technology: Vehicle miles traveled reduction Audience: Government <i>VTCCC met with Mayor of Burlington to present information on bike and bus lanes around schools to support safety for kids and to reduce single vehicles dropping off students. Schools and parents want to set-up a 2 week pop-up protected bike lane and bus drop off in Oct. 2018.</i>	09/25/2018	Meeting - Other	100%	5
LEAP (Local Energy Action Partnership) EV Fest Technology: Electric vehicles, Hybrid electric vehicles Audience: General Public <i>VTCCC explained our mission, and spoke about the VW settlement and EVSE grants.</i>	09/26/2018	Media Event	50%	75
VTEN: Sharing Lessons from Chittenden County: Adapting Urban Solutions to the Rural Context Technology: Vehicle miles traveled reduction Audience: Government, Private Fleets, Transit, Other <i>Vermont Transportation Efficiency Network meeting members toured the recent pop-up bike lane and bus drop off demonstration at a local school. VTCCC worked with parents and stakeholders to facilitate the set up of the pop-up.</i>	10/04/2018	Meeting - Other	100%	50
Emerging Opportunities for Municipal Energy Improvements Technology: Biodiesel, Electric vehicles, Fuel economy improvements, Hybrid electric vehicles, Idle reduction, Natural gas vehicles, Vehicle miles traveled reduction Audience: Government, Utility <i>VTCCC presented on Improving Municipal Vehicle Fleet Efficiency and Expanding Electric Vehicle Use.</i>	10/10/2018	Conference participation	50%	50
Renewable Natural Gas Opportunities Technology: Natural gas vehicles Audience: Delivery, Private Fleets, Utility, Waste, Other <i>VTCCC explained Vermont's Comprehensive Energy Plan for Transportation and how alt fuels, such as CNG and RNG could play a role in reducing emissions and increasing energy security in VT.</i>	10/19/2018	Conference participation	50%	25

Total: **715**

GRANTS

Grantor	Total Grant Amount	Total Matching Funds	Total Project Funding	Grant Amount Spent in 2018	Matching Funds Spent in 2018	Total Project Funding Spent in 2018
Plug-In America	\$22,000	\$0	\$22,000	-	-	\$0
Length of grant: 3 Year grant began: 2016 Sources of the grant: U.S. Department of Energy Partners: MA Clean Cities, New Haven Clean Cities, Ocean State Clean Cities, Plug-In America, Reach Strategies Technologies: Electricity Purpose: EV Showcase Events <i>Perform two high profile EV ride and drives, one for the public and one for fleet managers/developers.</i>						
Total:	\$22,000	\$0	\$22,000	\$0	\$0	\$0