

# 2018 Transportation Technology Deployment Report:

Massachusetts Clean Cities Expanded Edition

March 2019

# DRAFT



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 Massachusetts Clean Cities.

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



#### **Historical Gallons of Gasoline Equivalent Reduced**



#### Historical Greenhouse Gas Emissions Reduced





#### **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 <u>www.epa.gov/green-book</u>. To learn more about what your emissions numbers mean, please take the Understanding Emissions or Emissions Compliance courses at <u>Clean Cities University</u>.

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	70,699 lb	101 lb	-342,482 lb	4 lb	3 lb
E85 - 85% Ethanol	0 lb	15 lb	0 lb	0 lb	0 lb
Electric (all-electric)	32,507 lb	28,026 lb	508,282 lb	865 lb	801 lb
Hybrid (conventional)	5,268 lb	270 lb	-2,394 lb	10 lb	7 lb
Hydrogen	56 lb	1 lb	6 lb	0 lb	0 lb
Plug-in Hybrid	2,439 lb	3,757 lb	68,627 lb	108 lb	100 lb
Propane	26,746 lb	-4,392 lb	-118,026 lb	11 lb	14 lb
Total:	137,715 lb	27,778 lb	114,013 lb	998 lb	925 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

#### Massachusetts Clean Cities - MA

http://www.mass.gov/energy/cleancities

**Designated:** 03/18/1994 **Boundaries:** Entire state of Massachusetts

# COORDINATORS

Mike Manning	Address C-6 Shipway Pl	Telephone	Fax
Stephen Russell	Boston, MA 02129 100 Cambridge St, Ste 1020 Boston, MA 02114		
Number of coordinators			2
Coordinator(s) hours per week	on Clean Cities		45 hours
Other staff hours per week on C	lean Cities		20 hours
How long have you been the co	ordinator?		9 years

# **OPERATING INFORMATION**

Coalition organizational structure	Hosted in a state government agency
Stakeholders	
Number of stakeholders	385
Number of private stakeholders	275
Does the State Energy Office provide any financial support to the coalition or stakehold	ers? Yes
Explain State Energy Office's support	
Salary, office space and admin support	
How would you rate the quality of the data on your survey?	Good
How do you obtain most of your data for the survey?	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 expense	es? \$1,200,000
Non-DOE or ARRA grant and matching funds spent in 2018	\$4,000,000
Total non-DOE or ARRA funding in 2018	\$5,200,000

#### **Alternative Fuel & Vehicles**

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	Fuel Used	GGE Reduced	GHG Reduced
ABC Disposal	Heavy-Duty	CNG	25	100% of time	138,309 gal	116.5 tons
Miles traveled per vehicle: 25,000 m Average vehicle fuel economy: 3 Mil Market: Corporate Fleet Vehicle type: Truck: Refuse Percentage from coalition: 50% National Clean Fleets Partnership: N	i PGde No					
Allied Republic	Heavy-Duty	CNG	4	100% of time	22,129 gal	18.6 tons
Miles traveled per vehicle: 25,000 m Average vehicle fuel economy: 3 Mi Market: Corporate Fleet Vehicle type: Truck: Refuse Percentage from coalition: 50% National Clean Fleets Partnership: N	i PGde No					
AVSG	Heavy-Duty	CNG	100	131,500 GGE	88,763 gal	74.7 tons
Market: Corporate Fleet Vehicle type: Truck: Refuse Percentage from coalition: 75% National Clean Fleets Partnership: N	٧o					
This represents 8 communities using (	CNG in their vehicles	the number of v	ehicles is appro	oximate AVSG sells	the CNG to these commu	nities.
AVSG	Light-Duty	CNG	2	100% of time	1,034 gal	1.3 tons
Miles traveled per vehicle: 11,991 m Average vehicle fuel economy: 17 M Market: Corporate Fleet Vehicle type: Pickup/SUV/Van Percentage from coalition: 75% National Clean Fleets Partnership: N	i IPGge No					
Bunker Hill community College	Heavy-Duty	CNG	4	100% of time	3,508 gal	3.0 tons
Miles traveled per vehicle: 22,829 m Average vehicle fuel economy: 7 MF Market: Government - State Vehicle type: Bus: Shuttle Percentage from coalition: 25% National Clean Fleets Partnership: N	i PGde No					
Charles River TMA	Heavy-Duty	CNG	12	100% of time	55,556 gal	46.8 tons
Miles traveled per vehicle: 30,126 m Average vehicle fuel economy: 7 Mi Market: Corporate Fleet Vehicle type: Bus: Shuttle Percentage from coalition: 100% National Clean Fleets Partnership: N	i PGde No					
City of Boston	Heavy-Duty	Biodiesel (20%)	175	300,000 gal	6,396 gal	56.0 tons
Market: Government - Local Vehicle type: Truck: Refuse Percentage from coalition: 10% National Clean Fleets Partnership: N	Νο					
City of Boston Central fleet	Light-Duty	Propane	31	75% of time	8,252 gal	11.7 tons
Miles traveled per vehicle: 12,138 m Average vehicle fuel economy: 17 M Market: Government - Local Vehicle type: Pickup/SUV/Van Percentage from coalition: 50% National Clean Fleets Partnership: N	i IPGge No					

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	Fuel Used	GGE Reduced	GHG Reduced
City of Boston School bus fleet Miles traveled per vehicle: 14,000 m Average vehicle fuel economy: 6 MF Market: Government - Local Vehicle type: Bus: School Percentage from coalition: 75% National Clean Fleets Partnership: N	Heavy-Duty i PGde No	Propane	247	100% of time	478,271 gal	187.5 tons
This fleet has ordered an additional 14	11 Propane buses or	dered for 2019				
City of Cambridge Market: Government - Local Vehicle type: Truck: Refuse Percentage from coalition: 50% National Clean Fleets Partnership: N	Heavy-Duty №	Biodiesel (20%)	175	60,000 gal	6,396 gal	56.0 tons
City of Newton Market: Government - Local Vehicle type: Truck: No Trailer Percentage from coalition: 50% National Clean Fleets Partnership: N	Heavy-Duty ∿o	Biodiesel (20%)	175	74,000 gal	7,888 gal	69.1 tons
Clean Uniform	Heavy-Duty	CNG	4	100% of time	880 gal	0.7 tons
Miles traveled per vehicle: 13,123 m Average vehicle fuel economy: 7 MF Market: Corporate Fleet Vehicle type: Truck: No Trailer Percentage from coalition: 10% National Clean Fleets Partnership: N	i PGde No					
Clean Vehicle Grant Program propane conversions	Light-Duty	Propane	30	100% of time	23,424 gal	33.1 tons
Miles traveled per vehicle: 11,712 m Average vehicle fuel economy: 15 M Market: Government - Local Vehicle type: Pickup/SUV/Van Percentage from coalition: 100% National Clean Fleets Partnership: N	i IPGge No					
This represents two fleets coverted to	propane					
Consolidated utilities Miles traveled per vehicle: 12,138 m Average vehicle fuel economy: 17 M Market: Corporate Fleet Vehicle type: Pickup/SUV/Van Percentage from coalition: 75% National Clean Fleets Partnership: N	Light-Duty i IPGge No	CNG	8	100% of time	4,259 gal	5.5 tons
Courtyard by Marriot	Heavy-Duty	CNG	2	100% of time	1,754 gal	1.5 tons
Miles traveled per vehicle: 22,829 m Average vehicle fuel economy: 7 MF Market: Commuters Vehicle type: Bus: Shuttle Percentage from coalition: 25% National Clean Fleets Partnership: N	i PGde No					
Dennis K Burke Market: General/Unknown Vehicle type: Unknown/Other Percentage from coalition: 50% National Clean Fleets Partnership: N	Heavy-Duty ∿o	Biodiesel (100%)	19	2,370 gal	1,263 gal	11.1 tons

This is B 100 biodiesel sold to various fleets in Massachusetts in various percentages. I do not know the number of vehicles that used this fuel. It does include Boston Coach, the Duck Boats and some small buses used at hotels in Eastern MA. Communities using biodiesel include, Somerville, Marblehead, Uxbridge, Hanover, Kingston, Water Resources and Harvard University.

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	Fuel Used	GGE Reduced	GHG Reduced
Dennis K Burke	Light-Duty	E85 (blender pump)	100	90,937 gal	39,421 gal	153.8 tons
Market: General/Unknown Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: I	No					
This is wholesale sales of E-85 by De	ennis K Burke, a stak	eholder.				
Dennis K Burke retail station	Heavy-Duty	Biodiesel (20%)	2	4,546 gal	969 gal	8.5 tons
Market: Government - State Vehicle type: Unknown/Other Percentage from coalition: 100% National Clean Fleets Partnership: I	No					
Selling B-20 at their retail station Deni	nis K Burke					
Dennis K Burke retail station	Light-Duty	E85	11	9,551 gal	4,140 gal	16.2 tons
Market: General/Unknown Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: I	No					
Dennis K Burke - this is there retail s	tation					
Everett CNG station	Heavy-Duty	CNG	100	72,344 GGE	6,511 gal	5.5 tons
Market: Corporate Fleet Vehicle type: Truck: Refuse Percentage from coalition: 10% National Clean Fleets Partnership: 1	No					
This fuel is reported to me by Clean E	nergy - do not know	# of vehicles se	rved			
Eversource Utility	Light-Duty	CNG	20	100% of time	3,549 gal	4.6 tons
Miles traveled per vehicle: 12,138 m Average vehicle fuel economy: 17 M Market: Utility Vehicle type: Pickup/SUV/Van Percentage from coalition: 25% National Clean Fleets Partnership: 1	ni MPGge No					
Gulf/Cumberland Farms 3 stations on the Mass Pike	Light-Duty	E85	100	24,488 gal	7,077 gal	27.6 tons
Market: General/Unknown Vehicle type: Car Percentage from coalition: 50% National Clean Fleets Partnership: I	No					
This is all the E-85 sold at the 3 station	ns on the Massachus	setts turnpike				
Knight's Airport Limo service	Light-Duty	Propane	45	100% of time	23,258 gal	32.9 tons
Miles traveled per vehicle: 11,991 m Average vehicle fuel economy: 17 M Market: Airport Vehicle type: Pickup/SUV/Van Percentage from coalition: 75% National Clean Fleets Partnership: 1	ni MPGge No					
They continue to operate the converte	ed 45 vans to run on	propane funded i	through our Cle	ean Vehicle Grant. It is	an airport Shuttle servic	е.
Massachusetts DOT (highway)	Light-Duty	CNG	75	100% of time	68,419 gal	88.6 tons
Miles traveled per vehicle: 14,596 m Average vehicle fuel economy: 12 M Market: Government - State Vehicle type: Pickup/SUV/Van Percentage from coalition: 75% National Clean Fleets Partnership: 1	ni MPGge No					

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	Fuel Used	GGE Reduced	GHG Reduced
MassPort (Logan Airport)	Heavy-Duty	CNG	22	100% of time	40,992 gal	34.5 tons
Miles traveled per vehicle: 23,576 m Average vehicle fuel economy: 7 MF Market: Airport Vehicle type: Bus: Transit Percentage from coalition: 50% National Clean Fleets Partnership: N	i PGde No					
MBTA - Massachusetts Bay	Heavy-Duty	CNG	175	100% of time	1,336,275 gal	1,125.1 tons
Transportation Authority						
Miles traveled per vehicle: 31,285 mi Average vehicle fuel economy: 3 MF Market: Government - State Vehicle type: Bus: Transit Percentage from coalition: 75% National Clean Fleets Partnership: N	i ≥Gde No					
MBTA - Massachusetts Bay	Heavy-Duty	Hydrogen	1	930 kg	1,811 gal	7.2 tons
I ransportation Authority						
Market: Government - State Vehicle type: Bus: Transit Percentage from coalition: 100% National Clean Fleets Partnership: N	No					
Metro West Regional Transit Authority	Heavy-Duty	CNG	7	72,000 GGE	6,480 gal	5.5 tons
Market: Government - Local Vehicle type: Bus: Shuttle Percentage from coalition: 10% National Clean Fleets Partnership: N	٩o					
This is a new CNG station that was fur	nded with our Clean	Vehicle Grant pro	ogram			
Republic Waste	Heavy-Duty	CNG	2	100% of time	11,065 gal	9.3 tons
Miles traveled per vehicle: 25,000 mi Average vehicle fuel economy: 3 MF Market: Corporate Fleet Vehicle type: Truck: Refuse Percentage from coalition: 50% National Clean Fleets Partnership: N	i PGde No					
Save that stuff	Heavy-Duty	CNG	3	100% of time	16,597 gal	14.0 tons
Miles traveled per vehicle: 25,000 mi Average vehicle fuel economy: 3 MF Market: Corporate Fleet Vehicle type: Truck: Refuse Percentage from coalition: 50% National Clean Fleets Partnership: N	i PGde No					
Schwan's - Medium-duty Propane	Heavy-Duty	Propane	1	5,771 gal	2,949 gal	1.2 tons
Market: Corporate Fleet Vehicle type: Truck: No Trailer Percentage from coalition: 75% National Clean Fleets Partnership: Y	/es					
Includes 2 Light HD Class 3 vehicles.						
South Bay Shopping Center	Heavy-Duty	CNG	1	100% of time	877 gal	0.7 tons
Miles traveled per vehicle: 22,829 mi Average vehicle fuel economy: 7 MF Market: Commuters Vehicle type: Bus: Shuttle Percentage from coalition: 25% National Clean Fleets Partnership: N	i PGde No					

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	Fuel Used	GGE Reduced	GHG Reduced
Stop and shop Miles traveled per vehicle: 65,897 m Average vehicle fuel economy: 5 M Market: Corporate Fleet Vehicle type: Truck: Semi-trailer Percentage from coalition: 25% National Clean Fleets Partnership:	Heavy-Duty <sup>ni</sup> PGde No	CNG	3	100% of time	10,318 gal	8.7 tons
Transaction Associates Miles traveled per vehicle: 22,829 m Average vehicle fuel economy: 7 M Market: Commuters Vehicle type: Bus: Shuttle Percentage from coalition: 50% National Clean Fleets Partnership:	Heavy-Duty <sup>ni</sup> PGde No	CNG	1	100% of time	1,754 gal	1.5 tons
West Roxbury CNG station Market: Utility Vehicle type: Pickup/SUV/Van Percentage from coalition: 10% National Clean Fleets Partnership: This fuel is reported to us from Clean	Light-Duty No Energy from their st	CNG ation do not k	25 mow number of vel	5,379 GGE nicles.	511 gal	0.7 tons
Worcester Station Market: Corporate Fleet Vehicle type: Pickup/SUV/Van Percentage from coalition: 75% National Clean Fleets Partnership: This station is open to the public as w	Light-Duty No rell as the Eversourc	CNG e and Nationa	45 al Grid utility fleet o	36,000 GGE	25,650 gal	33.2 tons
Yarmouth CNG station Market: Corporate Fleet Vehicle type: Truck: Refuse Percentage from coalition: 10% National Clean Fleets Partnership: This fuel is reported to us from Clean	Heavy-Duty No Energy the Number	CNG of vehicles is	75 a guess.	12,848 GGE	1,156 gal	1.0 tons
Total: Electric, Hybrid & Plug-i	n Vehicles		1,827	Number	2,457,862 gal	2,273 tons
					/	

Floot/Otation Nome	Vakiala Class	Evel			
Fleet/Station Name	venicie Class	Fuei	venicies	GGE Reduced	GHG Reduced
Aerovironment charging stations	Light-Duty	Electric	4,258	1,008,614 gal	5,242.3 tons
Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 11,370 mi Market: Government - Local Vehicle type: Car Percentage from coalition: 50% National Clean Fleets Partnership: No Workplace Charging Challenge:					
This represents 40 charging stations installed under a grant freven though we have more EVs registered in the State in 201	rom Clean Cities. AV 8	has stopped co	ollecting data so I	am assuming that usa	age is the same
Brauns Express	Heavy-Duty	HEV	1	938 gal	11.6 tons
Average vehicle fuel economy: 8 MPG Miles traveled per vehicle per year: 42,526 mi Market: Corporate Fleet Vehicle type: Truck: No Trailer Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:					

Massachusetts Clean Cities funded the hybrid technology addition to this truck.

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	GGE Reduced	GHG Reduced
Cambridge Landscape	Heavy-Duty	HEV	2	493 gal	6.1 tons
Average vehicle fuel economy: 8 MPG Miles traveled per vehicle per year: 15,326 mi Market: Corporate Fleet Vehicle type: Truck: No Trailer Percentage from coalition: 80% National Clean Fleets Partnership: No Workplace Charging Challenge:				-	
Mass Clean Cities provided funding for the purchase of this t	echnology.				
City of Boston	Heavy-Duty	HEV	4	968 gal	11.9 tons
Average vehicle fuel economy: 15 MPG Miles traveled per vehicle per year: 5,000 mi Market: Government - Local Vehicle type: Truck: No Trailer Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:					
The City of Boston has 4 bucket trucks that are now Electric	hybrids				
City of Boston	Light-Duty	Electric	4	1,338 gal	7.0 tons
Miles traveled per vehicle per year: 10,345 mi Market: Government - Local Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:					
The City of Boston continues to use battery electric vehicles	in their fleet.				
City of Boston	Light-Duty	HEV	89	27,744 gal	341.7 tons
Average vehicle fuel economy: 32 MPG Miles traveled per vehicle per year: 10,345 mi Market: Government - Local Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:					
The City of Boston has replaced all their Gasoline powered using car share technology.	vehicles with Prius h	ybrids. They i	reduced their fleet u	using zip car technolog	gy by 20 vehicles
City of Boston	Light-Duty	HEV	43	10,194 gal	125.6 tons
Average vehicle fuel economy: 40 MPG Miles traveled per vehicle per year: 10,345 mi Market: Government - Local Vehicle type: Pickup/SUV/Van Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:					
The City of Boston has continues to add Electric vehicles ba	sed on their duty cyc	cle. These are	XL fleet up-fits.		
City of Boston	Light-Duty	PHEV	14	3,017 gal	15.7 tons
Average vehicle fuel economy: 36 MPG Miles traveled per vehicle per year: 10,345 mi Market: Government - Local Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:					
The City of Boston has continues to add Electric vehicles ha	sed on their duty cyc	le. These plui	a in Hybrids contini	ie to be used	

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	GGE Reduced	GHG Reduced
City of Framingham	Heavy-Duty	HEV	1	115 gal	1.4 tons
Average vehicle fuel economy: 12 MPG Miles traveled per vehicle per year: 8,000 mi Market: Government - Local Vehicle type: Truck: No Trailer Percentage from coalition: 25% National Clean Fleets Partnership: No Workplace Charging Challenge:					
This is a grant funded Hybrid Camera truck used by the city w	hen filming sewers t	he Hybrid ena	ables the vehicle to	nit idle when filming.	
City of Framingham	Light-Duty	Electric	2	237 gal	1.2 tons
Miles traveled per vehicle per year: 11,370 mi Market: Government - Local Vehicle type: Car Percentage from coalition: 25% National Clean Fleets Partnership: No Workplace Charging Challenge:					
City of New Bedford	Light-Duty	Electric	24	5,685 gal	29.5 tons
Miles traveled per vehicle per year: 11,370 mi Market: Government - Local Vehicle type: Car Percentage from coalition: 50% National Clean Fleets Partnership: No Workplace Charging Challenge:					
DCR - Enviornmental Police	Light-Duty	HEV	25	2,890 gal	35.6 tons
Average vehicle fuel economy: 21 MPG Miles traveled per vehicle per year: 12,138 mi Market: Government - State Vehicle type: Pickup/SUV/Van Percentage from coalition: 50% National Clean Fleets Partnership: No Workplace Charging Challenge:					
This department added XL hybrid technology to their vans				001	<b>0</b> 0 <i>i</i>
Department of Energy Resources   Average electric fuel economy: - kWh/100mi   Miles traveled per vehicle per year: 12,000 mi   Market: Government - State   Vehicle type: Car   Percentage from coalition: 75%   National Clean Fleets Partnership: No   Workplace Charging Challenge:   This is a state cars used in the various staff as a pool car	Light-Duty	Electric	1	384 gai	2.0 tons
Department of Enviornmental Protection	Light-Duty	Electric	5	1,922 gal	10.0 tons
Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 12,000 mi Market: Government - State Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:					
These are state cars used ias pool cars in the Department of	Environmental Prote	ection			
Diesel Direct	Heavy-Duty	HEV	1	448 gal	5.5 tons
Average vehicle fuel economy: 9 MPG Miles traveled per vehicle per year: 14,365 mi Market: Corporate Fleet Vehicle type: Truck: No Trailer Percentage from coalition: 80% National Clean Fleets Partnership: No Workplace Charging Challenge:	lition to this fuel dali	ion truck			

			Number of		
Fleet/Station Name	Vehicle Class	Fuel	Vehicles	GGE Reduced	GHG Reduced
EV school bus pilot	Heavy-Duty	Electric	3	3,000 gal	12.0 tons
Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 7,000 mi Market: Government - Local Vehicle type: Bus: School Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:					
Kiessling transit	Heavy-Duty	HEV	33	23,155 gal	285.2 tons
Average vehicle fuel economy: 9 MPG Miles traveled per vehicle per year: 22,829 mi Market: Commuters Vehicle type: Bus: Shuttle Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:					
Massachusetts clean cities funded the differential cost to hybr Hydraulic Hybrid technology	idize their vans				
Lasalle College	Light-Duty	HEV	5	1,999 gal	24.6 tons
Average vehicle fuel economy: 15 MPG Miles traveled per vehicle per year: 11,991 mi Market: General/Unknown Vehicle type: Pickup/SUV/Van Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:					
This project funded by the Clean Vehicle Program Vans use	d to transport studer	nts around the	campus		
Martha's Vineyard Transit Authority	Heavy-Duty	Electric	6	17,006 gal	68.1 tons
Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 34,012 mi Market: Government - Local Vehicle type: Bus: Transit Percentage from coalition: 25% National Clean Fleets Partnership: No Workplace Charging Challenge:					
These buses serve the island of Martha's vineyard Massachu	setts				
Massachusetts Clean Cities MOR-EV consumer rebate program	Light-Duty	Electric	4,258	1,930,560 gal	10,034.1 tons
Miles traveled per vehicle per year: 10,614 mi Market: Commuters Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:					
This is the number of BEVs that were either purchased or lease We do not know the mileage traveled.	sed as a direct resul	t of rebates iss	ued.		
Massachusetts Clean Cities MOR-EV consumer rebate program PHEVs	Light-Duty	PHEV	1,130	212,492 gal	1,104.4 tons
Average vehicle fuel economy: 40 MPG Miles traveled per vehicle per year: 10,614 mi Market: General/Unknown Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:					
This is the number of PHEVs that were either purchased or le We do not know the mileage traveled.	ased as a direct res	ult of rebates is	ssued.		

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	GGE Reduced	GHG Reduced
Massachusetts Electric vehicle Incentive	Light-Duty	Electric	183	8 670 gal	45 1 tons
program. BEVs	Light Duty	LICOLIIO	100	0,070 gui	40.1 10113
Miles traveled per vehicle per year: 11,370 mi Market: Government - Local Vehicle type: Car Percentage from coalition: 10% National Clean Fleets Partnership: No Workplace Charging Challenge:					
This was a grant funded program provided by DEP for Cities a	and Town to purchas	se e BEVs and	PHEVs		
Massachusetts Electric vehicle Incentive program. PHEVs	Light-Duty	PHEV	54	2,558 gal	13.3 tons
Average vehicle fuel economy: 40 MPG Miles traveled per vehicle per year: 11,370 mi Market: Government - Local Vehicle type: Car Percentage from coalition: 25% National Clean Fleets Partnership: No Workplace Charging Challenge:					
Massachusetts Executive office fleet	Light-Duty	HEV	55	4,967 gal	61.2 tons
Average vehicle fuel economy: 21 MPG Miles traveled per vehicle per year: 12,138 mi Market: Government - State Vehicle type: Pickup/SUV/Van Percentage from coalition: 50% National Clean Fleets Partnership: No Workplace Charging Challenge:					
This includes vehicles from DCR and DOC.					
Mass DOT Highway fleet	Light-Duty	PHEV	23	2,719 gal	14.1 tons
Average vehicle fuel economy: 42 MPG Miles traveled per vehicle per year: 13,239 mi Market: Government - State Vehicle type: Car Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:					
These vehicles are Chevrolet Volts					
MASSPort ( Logan airport)	Heavy-Duty	HEV	32	26,767 gal	329.7 tons
Average vehicle fuel economy: 10 MPG Miles traveled per vehicle per year: 22,679 mi Market: Government - State Vehicle type: Bus: Shuttle Percentage from coalition: 50% National Clean Fleets Partnership: No Workplace Charging Challenge:					
These are Diesel Hybrid Buses used on the airport to go from 60 foot Articulated	T station rental cen	ter to all termin	als.		
MBTA	Heavy-Duty	Electric	28	158,723 gal	635.5 tons
Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 34,012 mi Market: Commuters Vehicle type: Bus: Transit Percentage from coalition: 50% National Clean Fleets Partnership: No Workplace Charging Challenge:					
mese are Electric Catenary buses serving the public.					

Fleet/Station Name	Vehicle Class	Fuel	Number of Vehicles	GGE Reduced	GHG Reduced
MBTA	Heavy-Duty	HEV	216	135,480 gal	1,668.8 tons
Average vehicle fuel economy: 6 MPG Miles traveled per vehicle per year: 34,012 mi Market: Commuters Vehicle type: Bus: Transit Percentage from coalition: 10% National Clean Fleets Partnership: No Workplace Charging Challenge:					
Pioneer valley Transit	Heavy-Duty	Electric	2	2,267 gal	9.1 tons
Average electric fuel economy: - kWh/100mi Miles traveled per vehicle per year: 34,012 mi Market: Government - Local Vehicle type: Bus: Transit Percentage from coalition: 10% National Clean Fleets Partnership: No Workplace Charging Challenge:					
Square One Daycare Center fleet	Light-Duty	HEV	5	464 gal	5.7 tons
Average vehicle fuel economy: 20 MPG Miles traveled per vehicle per year: 14,596 mi Market: General/Unknown Vehicle type: Pickup/SUV/Van Percentage from coalition: 75% National Clean Fleets Partnership: No Workplace Charging Challenge:					
Mass Clean cities funded the conversion with funds from Mass 20% savings	s DEP. XL hybrid teo	chnology was ir	nstalled on 5 of the	eir E 250 Vans and the	ey are achieving a
Town of Dalton MA	Light-Duty	Electric	2	95 gal	0.5 tons
Miles traveled per vehicle per year: 11,370 mi Market: Government - Local Vehicle type: Car Percentage from coalition: 10% National Clean Fleets Partnership: No Workplace Charging Challenge:					
Town of Rochester MA	Light-Duty	Electric	2	95 gal	0.5 tons
Miles traveled per vehicle per year: 11,370 mi Market: Government - Local Vehicle type: Car Percentage from coalition: 10% National Clean Fleets Partnership: No Workplace Charging Challenge:					
University of Massachusetts Amherst campus	Light-Duty	Electric	23	10,896 gal	56.6 tons
Miles traveled per vehicle per year: 11,370 mi Market: Government - State Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:					
University of Massachusetts Amherst Campus	Light-Duty	HEV	26	4,927 gal	60.7 tons
Average vehicle fuel economy: 40 MPG Miles traveled per vehicle per year: 11,370 mi Market: Government - State Vehicle type: Car Percentage from coalition: 100% National Clean Fleets Partnership: No Workplace Charging Challenge:					

Vehicle Class	Fuel	Number of Vehicles	GGE Reduced	GHG Reduced
Light-Duty	Electric	29	11,376 gal	59.1 tons
Heavy-Duty	Electric	6	35,249 gal	141.1 tons
	Vehicle Class Light-Duty Heavy-Duty	Vehicle Class Fuel   Light-Duty Electric   Heavy-Duty Electric	Vehicle ClassFuelNumber of VehiclesLight-DutyElectric29Heavy-DutyElectric6	Vehicle ClassFuelNumber of VehiclesGGE ReducedLight-DutyElectric2911,376 galHeavy-DutyElectric635,249 gal

Worcester continues to operate these Battery Electric Proterra buses They have added a second DCFC this year to reduce demand charges that take place when they have to charge rapidly.

Total:	10,595	3,658,452 gal	20,477 tons

#### **Off-Road Vehicles**

Fleet Name	Application	Method	Fuel	Number of Vehicles	GGE Reduced	GHG Reduced
City of Boston	Construction equipment	Fuel economy improvement	Diesel	2	221 gal	2.7 tons
Fuel reduced: 2,000 gal Percentage from coalition: 1 National Clean Fleets Partne	10% ership: No					
These are 2 Diesel electric W	heel loaders and 1 diese	el electric Hybrid trash con	npactor.			
Martignetti's Beveridge distrbutor	Forklifts	Alternative fuel or vehicles	Hydrogen	56	3,680 gal	14.7 tons
Fuel used: 3,780 kg Percentage from coalition: 5 National Clean Fleets Partne	50% ership: No					
Our Stakeholder Nuvera fuels	cells supplies the Hydro	ogen and builds the forklift	s for Yale Hyster	~		
Massachusetts DOT	Forklifts	Alternative fuel or vehicles	Propane	21	33,479 gal	13.1 tons
Fuel used: 49,140 gal Percentage from coalition: 1 National Clean Fleets Partne	100% ership: No					
MassPort	Other	Alternative fuel or vehicles	Electric	115	0 gal	0.0 tons
Fuel used: 25 kWh Percentage from coalition: 1 National Clean Fleets Partne	10% ership: No					
This is the ground support equ	uipment on Logan Airpo	ort.				
Sysco Foods	Forklifts	Alternative fuel or vehicles	Hydrogen	230	584 gal	2.3 tons
Fuel used: 1,200 kg Percentage from coalition: 2 National Clean Fleets Partne	25% ership: No					
No Idea on KG used this is a s	total guess					
Total:				424	37,964 gal	33 tons

# FUEL ECONOMY

#### **Fuel Economy Improvements**

Fleet Name	Previous Fuel	Current Fuel	Number of Vehicles	Miles Traveled per Vehicle	GGE Reduced	GHG Reduced
Braun's Express	6 MPG	7 MPG	185	45,000 mi	22,842 gal	283.2 tons
Method: Telematics Vehicle class: Heavy-Duty Market: Corporate Fleet Vehicle type: Truck: Semi-trailer Percentage from coalition: 10% National Clean Fleets Partnership: No						
Brauns Express	6 MPG	7 MPG	60	23,000 mi	3,391 gal	42.1 tons
Method: Other Vehicle class: Heavy-Duty Market: Corporate Fleet Vehicle type: Truck: Semi-trailer Percentage from coalition: 10% National Clean Fleets Partnership: No						
these are plug in APUs						
Total:			245	68,000 mi	26,233 gal	325 tons

# IDLE REDUCTION

#### **Idle Reduction**

Project Name	Number of Vehicles	Idling Reduced per Vehicle	Fuel Saved per Vehicle	GGE Reduced	GHG Reduced
Brauns express	53	360 mins/day 200 days/year	1 gal/hr	28,852 gal	357.8 tons
Type of project: Auxiliary power unit (APU) Type of vehicle: Heavy-Duty - Truck: Long-Haul Percentage from coalition: 50% National Clean Fleets Partnership: No					
This technology has saved 1000 gallons of Diese	el fuel on each tr	uck per year			
Brauns Express	18	164 mins/day 365 days/year	1 gal/hr	8,147 gal	101.0 tons
Type of project: Auxiliary power unit (APU) Type of vehicle: Heavy-Duty - Truck: Long-Haul Percentage from coalition: 50% National Clean Fleets Partnership: No					
City of Boston	2	360 mins/day 305 days/year	1 gal/hr	355 gal	4.4 tons
Type of project: Automatic engine shutoff Type of vehicle: Heavy-Duty - Other Percentage from coalition: 10% National Clean Fleets Partnership: No These are bucket trucks with Hybrid Aerial drive					
Total:	73			37,354 gal	463 tons

# FUEL STATIONS

New Stations						
Fuel	Public Stations	Private Stations				
Biodiesel	-	-				
CNG - Compressed Natural Gas	2	-				
E85 - 85% Ethanol	-	-				

Fuel	Public Stations	Private Stations
Electric Charging Outlets	92	74
Hydrogen	-	-
LNG - Liquefied Natural Gas	-	-
Propane	-	-
Total:	94	74

# OUTREACH ACTIVITIES

Activity Name	Dates	Activity Type	Percentage from Coalition	Persons Reached
Transportation Climate Initiative	01/04/2018, 02/01/2018, 03/01/2018	Meeting - Other	75%	25
Technology: Electric vehicles, Vehicle miles traveled re Audience: Government	eduction			
Meet monthly with the steering committee regarding the	e Georgetown Climate C	Centers work with the 14 state Trar	nsportation initiative	
Massachusetts state Fleet Fuel efficiency standard meetings	01/04/2018, 12/27/2018	Meeting - Other	50%	100
Technology: Fuel economy improvements Audience: Government				
This is an ongoing meeting with state Staff who run the every two week throughout the year.	fleet - it reviews all pur	rchase to make sure the meet the s	state's fuel efficiency standa	rd. it meets
Nafa fleet managers meeting	01/10/2018, 03/21/2018, 05/16/2018, 10/15/2018, 11/14/2018	Meeting - Other	50%	200
Technology: Electric vehicles, Fuel economy improven Audience: Delivery, Government, Private Fleets, Utility	nents, Hybrid electric ve , Waste	phicles, Idle reduction		
Monthly meeting of fleet managers is an opportunity to	Connect with corporate	and Muni fleet mangers and talk	Alt fuels.	
Booth at the New England Auto show Boston	01/11/2018, 01/12/2018, 01/13/2018, 01/14/2018, 01/15/2018	Media Event	75%	500
Technology: Electric vehicles Audience: General Public				
The Clean cities coalition sponsored a booth at the auto invited EVSE companies and it added to booth.	show to talk about the	Electric vehicle rebate program th	at had begun in 2014. This y	/ear we
Future of transportaion symposium Tufts universty	01/11/2018	Conference participation	25%	200
Technology: Electric vehicles, Hybrid electric vehicles Audience:				
This was a well attended symposium at Tufts university	v that to a look at how to	o reduce emissions in the transpor	tation sector in Massachuse	tts
Dealer training EV sales person from dealerships	01/24/2018	Workshop held by coalition	100%	20
Technology: Electric vehicles, Hybrid electric vehicles Audience: Other				

The Mass Clean Cities Coalition Held two Electric vehicle training programs to talk about the EV rebate the state offers . sales folks from dealers in the state were invited to an EV raining session which covered EV charging and technology

Activity Name	Dates	Activity T	уре	Percentage from Coalition	Persons Reached
Zero Emission Vehicle commission	01/26/2018	Meeting ·	- Stakeholder	50%	75
Technology: Electric vehicles Audience: Government, Private Fleets, Utility					
The coalition provides resources for the State appointed	ZEV commission.				
VW mitigation trust program for Massachusetts stakeholder meetings	01/29/2018	Meeting ·	- Stakeholder	10%	100
Technology: Electric vehicles, Fuel economy improvem Audience:	ents, Hybrid electric vehicles	, Natural gas	vehicles, Propane		
This was the first of 10 Listening session put on by the D 2/07,02/07,02/12,02/12, 02/15, 02,15.02/27,02/27,	Department of Environmenta	l protection (0	Governor appointed	trustee of the funds) 1/	29,1/29
Regional Hydrogen Infrastructure meeting	02/05/2018	Meeting -	- Other	50%	10
Technology: Hydrogen Audience: Government, Other					
This meeting was held in CT to bring folks in MA,Ct to di along with Industry and tate folks	scuss hydrogen infrastructur	e in the regio	on several coalition o	coordinators were in Atte	endance
Boston University Intern Charging station project	02/06/2018	Meeting	- Other	100%	6
Technology: Electric vehicles Audience: Government					
Boston University approached the coalition to do a proje near state facilities and suggested future locations. It wa	ct. They took on looking a Fa s a well done report.	ast charging a	across Massachuse	tts with a goal of identify	ing DCFC's
Fleet Manager Visits	02/08/2018	Meeting -	- Stakeholder	100%	23
Technology: Biodiesel, Electric vehicles, Fuel economy Audience: Government, Private Fleets, Utility	improvements, Hybrid electi	ic vehicles, H	lydrogen, Idle reduc	ction, Natural gas vehicle	es, Propane
Met with 5 fleet managers across the state to discuss alt Beverly, Framingham,, Cambridge, Worcester,and And	ernative fuels and fuel efficie over to discuss alternative f	ency. uels and tech	nnologies option for	their fleets	
Massachusetts Hydrogen coalition meeting	02/08/2018	Meeting ·	- Stakeholder	50%	10
Technology: Hydrogen Audience: Other					
This meeting was to bring the Hydrogen fuel cell stakeho market in MA as well as review progress on infrastructur	olders in Massachusetts up to re. It was presented by folks i	o date on pro from Californ	gress by the Manufa ia and CT	acturers to bring their ve	hicles to
Telmatics Pilot	02/15/2018	Meeting -	- Other	100%	100
Technology: Fuel economy improvements, Idle reduction Audience: Government	on, Vehicle miles traveled rec	luction			
Massachusetts clean cities has begun a Telematics pilot	t for small rural communities	. The goal is	to develop recomm	nendations on how small	fleets
EV Charging station OCCP research (open protocol for Consumers to pay for charging)	03/02/2018	Meeting ·	- Other	50%	25
Technology: Electric vehicles Audience:					
The coalition participated in several calls with California Massachusetts has legislation that requires one standard	to compare notes on the OC d program for charging and p	CP program baying for veh	that they were work nicles.	ing on for EV charging.	Stay Tuned
Magic EV bus presentation	03/09/2018	Conferen participat	ice tion	50%	100
Technology: Electric vehicles Audience:					
The coalition did a presentation about the EV school bus	at the annual NESEA energy	gy conferenc	e we were able to h	ave the bus demo also.	
Hybrid vehicle demo Andover MA	03/29/2018	Meeting ·	- Stakeholder	50%	20
Technology: Hybrid electric vehicles Audience: Government					
demonded and VI by devide sections to the Analysis DDIA					

demoed aan XL hybrid vehicle to the Andover DPW.

Activity Name	Dates	Activity Type	Percentage from Coalition	Persons Reached
Resource to State contracting office on Vehicles	03/29/2018	Meeting - Other	25%	20
Technology: Electric vehicles, Hybrid electric vehicles Audience: Government				
The state has a contract for entities to purchase vehicles make sure that alt fuel vehicles get on the contract.	from and Clean cities meet	ts with this agency when they ar	e working with vehicle contra	acts to
Commissioning of the first EV America DCFC installations Chicopee MA	04/26/2018	Meeting - Other	75%	5
Technology: Electric vehicles Audience:				
Chicopee MA was the first installation by Electrify Americ commissioning of the units with did not go well.	a of DCFCs 4 units with 4 v	vires were installed. Clean citie	s was asked to be do the	
EV ride and drives statewide	04/28/2018	Media Event	75%	854
Technology: Electric vehicles Audience: General Public, Private Fleets				
In 2018 Massachusetts Clean cities and the Department events. 854 folks took advantage of the ride and drive an	of energy resources sponse d drove a pure electric car.	ored 10 ride and drives at major They took place all year.	corporations and a couple o	f major
Meeting with he National Biodiesel Board	05/01/2018	Conference participation	25%	30
Technology: Biodiesel Audience: Government, Other				
The coalition was invited to the northeast meeting of the	National Biodiesel Board m	eeting held in Hyannis Massach	usetts.	
Meeting with Boston Convention center	05/08/2018	Meeting - Other	100%	5
Technology: Electric vehicles Audience: Government				
Met with the Boston Convention center staff to provide re They are particularly interested in Electric food trucks. Th	sources on Electric vehicle ley ate also interest in movi	s ng their shuttle buses to Electric	2.	
Clean cities Coalition Stakeholder meetings	05/15/2018, 12/06/2018	Meeting - Stakeholder	75%	66
Technology: Hydrogen, Idle reduction, Natural gas vehic Audience: Delivery, Government, Private Fleets, Transit,	cles, Propane , Utility			
The May meeting had presentations fro E NOW, The con the MASS EVIP program. The December meeting was he Hydrogen tanks -	tracting office from the stat eld at the FIBA corporation	e did a "how to" research contra a company the makes Gaseous	cts as well as a DEP update storage tanks( Propane CN	∍ on 'G and
Electric pick up demo	05/31/2018	Media Event	100%	20
Technology: Electric vehicles Audience: Airport, Government				
The coalition organized a demo of the Workhorse EV pice attended with interest	k up for the staff at Logan a	irport the major airport serving E	Boston. The CEO of MassPo	rt
Clean Cities new coordinator presentation at training	06/11/2018, 06/12/2018, 06/13/2018	Meeting - Other	50%	25
Technology: Biodiesel, Electric vehicles, Hybrid electric Audience:	vehicles, Idle reduction, Pro	opane		
Provided training for the coordinator 101 program for new	v coordinators.			
EV driver training	06/15/2018, 07/25/2018	Workshop held by coalition	100%	30
Technology: Electric vehicles Audience: Government				
The clean cities coalition provided driver training for the ministruction sheet noting the differences between EVs and	new BEV vehicle purchased I ICE vehicles. This was do	l as a pool car. the coordinator p ne for two departments using the	provided hands on training a e new BEVs.	а

Activity Name	Dates	Activity Type	Percentage Pe from Coalition Re	ersons eached
Northeast Region meeting for Clean mCities	06/28/2018, 06/29/2018	Meeting - Other	25%	15
Technology: E85, Electric vehicles, Fuel economy impro Audience: Other	ovements			
This was the northeast region meeting of clean cities coo on what folks are doing in heir territories.	ordinators. great meeting ena	abling the northeast states to co	oordinate on programs and get t	updated
Propane workshop hosted by PERC	07/19/2018	Workshop held by coalition	100%	20
Technology: Propane Audience: Airport, Delivery, Government, Private Fleets,	Utility			
PERC hosted a workshop on AutoGas and how the techn it was Hosted at the City of Boston Fleet facility.	nology goes into Vehicles ar	nd the benefits of this alternative	e fuel.	
EV Bolt Meet up	07/31/2018	Meeting - Other	20%	12
Technology: Electric vehicles Audience: General Public				
Massachusetts Clean cities brought the new State EV to	the event and spoke about	the EV rebate.		
MOR EV booth at Greenfest	08/03/2018, 08/04/2018	Media Event	100%	100
Technology: Electric vehicles Audience: General Public				
The Clean cities coalition staffs a booth at the annual Gre Environmental friendly products	een fest event on Boston Cit	y hall plaza which attacks thous	sands of attendees - The focus	is on
Clean Cities Booth at the Northeast Propane association exhibition	08/08/2018, 08/09/2018	Media Event	50%	100
Technology: Propane				
The northeast region coalitions pitched in and covered th	e Fleets, Ottinty, Waste	days, Maine, CT, VT and Mas	sachusetts and NH all attended	
National Drive Electric week		Media Event	50%	. 150
National Drive Liectic week	09/09/2018.		5078	150
	09/10/2018.			
	09/11/2018.			
	09/12/2018.			
	09/13/2018.			
	09/14/2018.			
	09/15/2018			
	09/16/2018			
Technology: Electric vehicles Audience: General Public, Government, Private Fleets,	Transit			
Massachusetts Clean cities participated in 19 events acro Springfield, Concord, Worcester and Plymouth, Braintree continues to have one of the largest number of events in	oss the state during the Plug e, Quincy, Cambridge Martha n the country.	n in America/ Sierra club drive on a signal of the sign of the second and Shrewsbury of the signal o	electric week events.Boston, all had events. Massachusetts	
Utility funded EVSE make ready program.	09/10/2018	Meeting - Stakeholder	20%	20
Technology: Electric vehicles Audience: Utility				
Massachusetts Clean cities has been a resource as the U program.	Jtility has put together its ve	ndors for the DPU approved E\	/ charging station make ready	
EV Ride and Drive New England Public works expo.	09/20/2018	Meeting - Other	100%	100
Technology: Electric vehicles Audience: Delivery, Government, Utility, Waste				
the Clean Cities held an EV ride and drive for Attendees	at the New England Public v	vorks expo.		

Activity Name	Dates	Activity Type	Percentage P from Coalition R	ersons eached
Garlic Festival - Orange MA	09/29/2018, 09/30/2018	Conference participation	100%	100
Technology: Biodiesel, Electric vehicles, Hybrid electric v Audience: General Public	vehicles, Hydrogen, Natural	gas vehicles, Propane		
The Clean cities Coordinator presented at this festival and State rebate program.	d we also had an EV rebate	booth talking with folks about th	ne positives of driving an ev ar	nd the
Meeting with Nissan	10/12/2018	Meeting - Other	10%	10
Technology: Electric vehicles Audience: Utility				
The Nissan motors met to inform the coalition about their discount	r Discount program for utility	customers when purchasing o	r leasing a Leaf It is a 5,000 d	ollar
AltWheels Fleet day	10/15/2018	Workshop held by coalition	100%	285
Technology: Biodiesel, Electric vehicles, Fuel economy i Audience: Airport, Delivery, Government, Private Fleets,	mprovements, Hybrid electri Transit, Utility, Waste	c vehicles, Hydrogen, Idle redu	ction, Natural gas vehicles, Pr	opane
This annual event provides not only speakers and panels addition many clean cities coordinators assist in the even coordinators from the region assisted in Moderating sess	on various fuels but also a v t as moderators and panelis ions for the event .	very large EXPO with many alte ts. This year we had an electric	rnative fueled vehicles on dis vehicle Ride and drive. CC	olay.In
Meeting with Massachusetts State Auto Dealers Association (MSADA)	10/22/2018	Meeting - Other	100%	125
Technology: Electric vehicles Audience: Private Fleets				
The coalition met with this association to plan involvement consumer rebate changes.	nt at the New England Auto s	how along with communication	about the Electric vehicle EV	
Meeting with Bio-diesel distributor	12/18/2018	Meeting - Other	100%	5
Technology: Biodiesel Audience: Government				
the City of Cambridge had a fuel problem and they were a sort out the problems.	concerned it was the b 20 th	at they are using so I took the F	leet manager to the fuel distri	butor to

Total:

### 3,611

# 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
CMAQ	\$11,700,000	\$0	\$11,700,000	-	-	\$0
Additional matching funds adde Length of grant: 6 Year grant began: 2014	ed since start \$0					

Sources of the grant: Congestion Mitigation and Air Quality Improvement (CMAQ) Program, U.S. Department of Energy

Partners: DOT

Technologies: CNG - Compressed Natural Gas, Electricity, Fuel Economy Improvements, H2 - Hydrogen, Idle Reduction, Propane, Other Purpose: 11,700,000.00 to provide differential cost for adding Alternative fuel technology to LD,MD,and HD vehicles

This clean vehicle CMAQ grant opportunity is open to all public and private fleet operations. The grants will support Gaseous alternative fuels, Hybrid Electric vehicles and infrastructure projects.

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		
RGGI	\$12,000,000	-	\$12,000,000	\$4,000,000	\$0	\$4,000,000		
Length of grant: 3 Year grant began: 2018 Sources of the grant: State Government Technologies: Electricity Purpose: Provide consumer rebates for BEV and PHEVs over the last 3 years								
2019 the rebate program is changing								
Total:	\$23,700,000	\$0	\$23,700,000	\$4,000,000	\$0	\$4,000,000		