

2022 Transportation Technology Deployment Report:

Massachusetts Clean Cities
Expanded Edition

March 2023



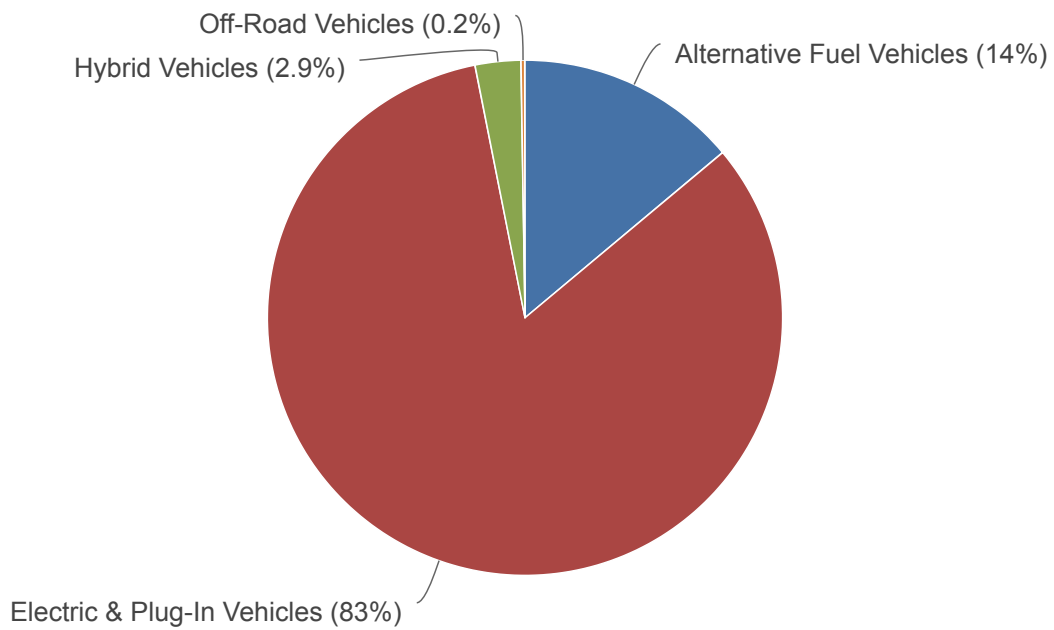
The U.S. Department of Energy's (DOE) Clean Cities Coalition Network fosters the nation's economic, environmental, and energy security by working locally to advance affordable, domestic transportation fuels, energy efficient mobility systems, and other fuel-saving technologies and practices. A national network of more than 75 active coalitions serve as the foundation of Clean Cities by working in communities across the country to implement alternative fuels, fuel-saving technologies and practices, and new mobility choices.

Every year, each Clean Cities coalition submits to DOE an annual report of its activities and accomplishments for the previous calendar year. Coalition directors, 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 coalition directors also submit data on the sales of alternative fuels, deployment of alternative fuel vehicles, idle-reduction initiatives, fuel economy activities, and efforts to reduce vehicle miles traveled. NREL and DOE analyze the data and translate them into energy use impact, greenhouse gas reduction, and other metrics to show progress supporting the Clean Cities mission for individual coalitions and the network as a whole. This report summarizes those impacts for Massachusetts Clean Cities.

To view aggregated data for all local coalitions in the network, visit cleancities.energy.gov/accomplishments.

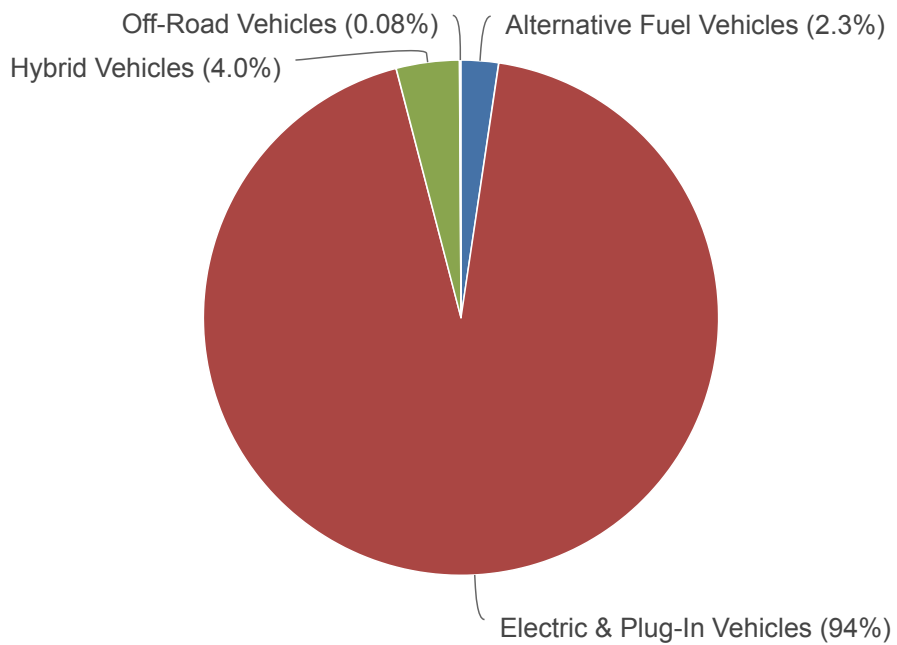
2022 Gallons of Gasoline Equivalent Reduced

1,767,061 gallons

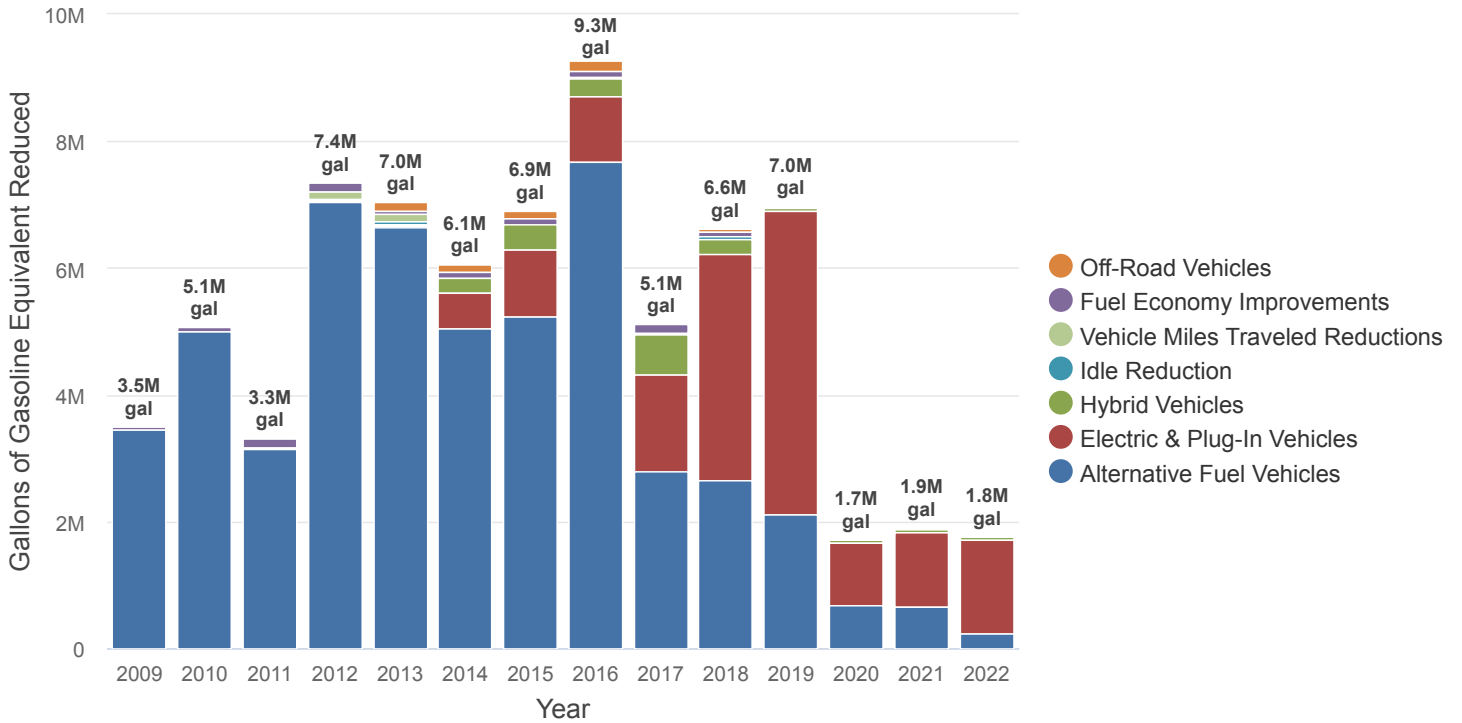


2022 Greenhouse Gas Emissions Reduced

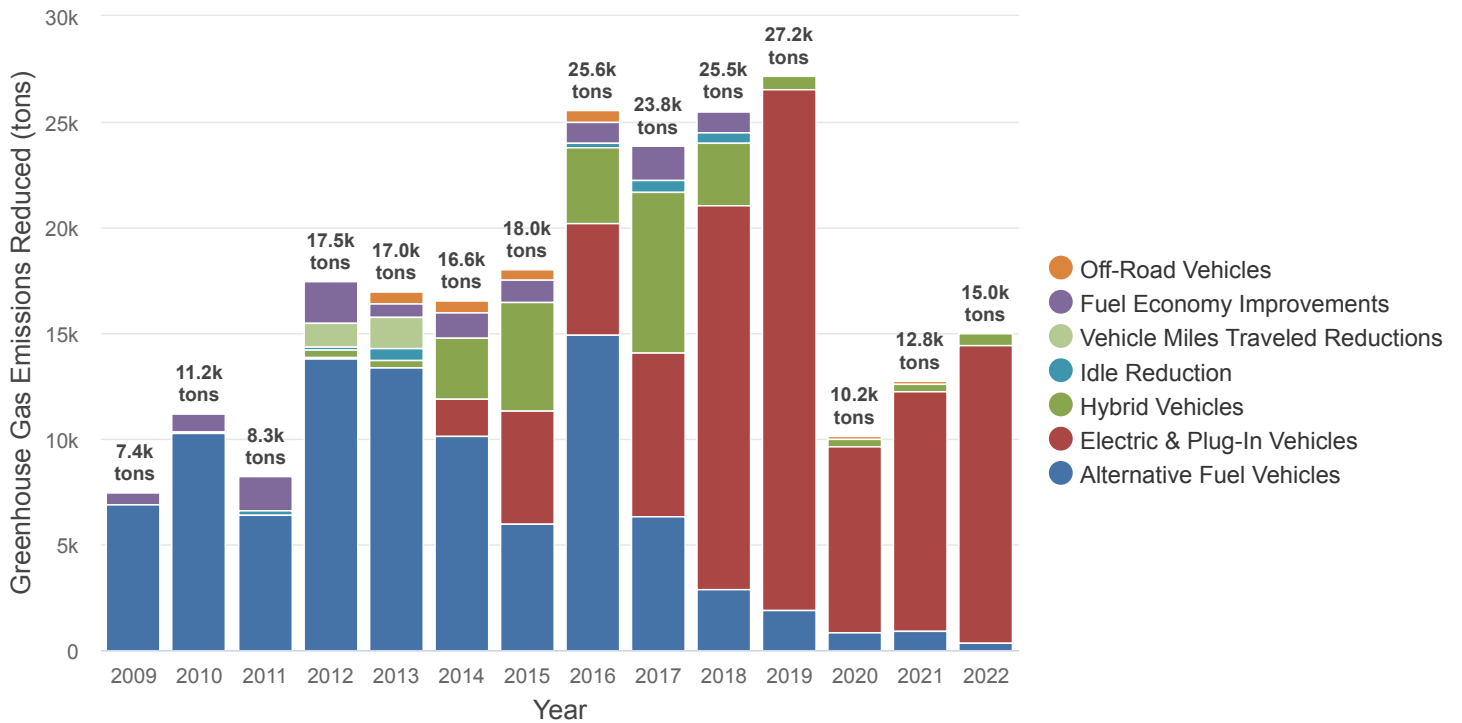
15,028 tons



Historical Gallons of Gasoline Equivalent Reduced

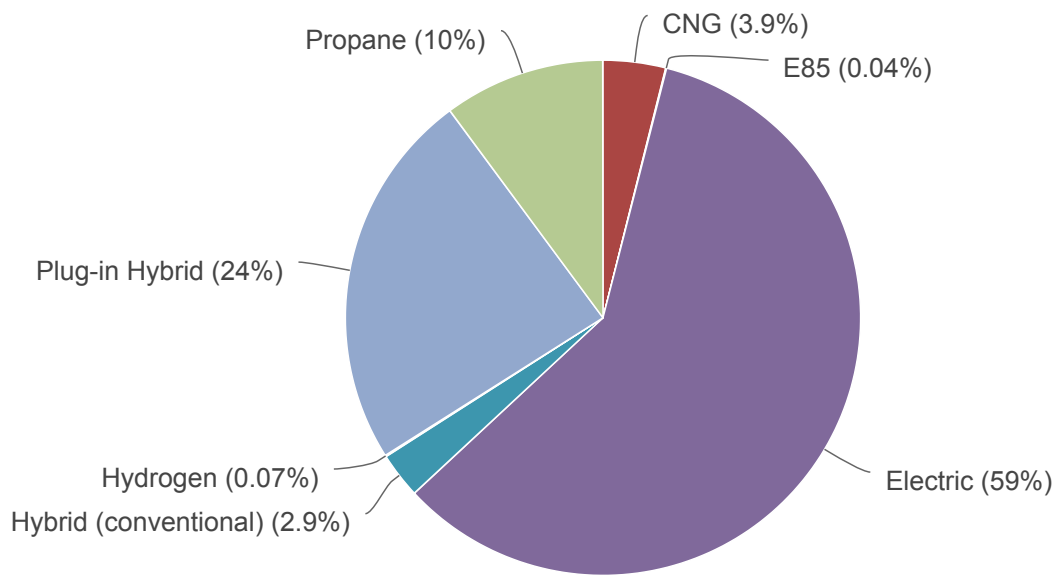


Historical Greenhouse Gas Emissions Reduced



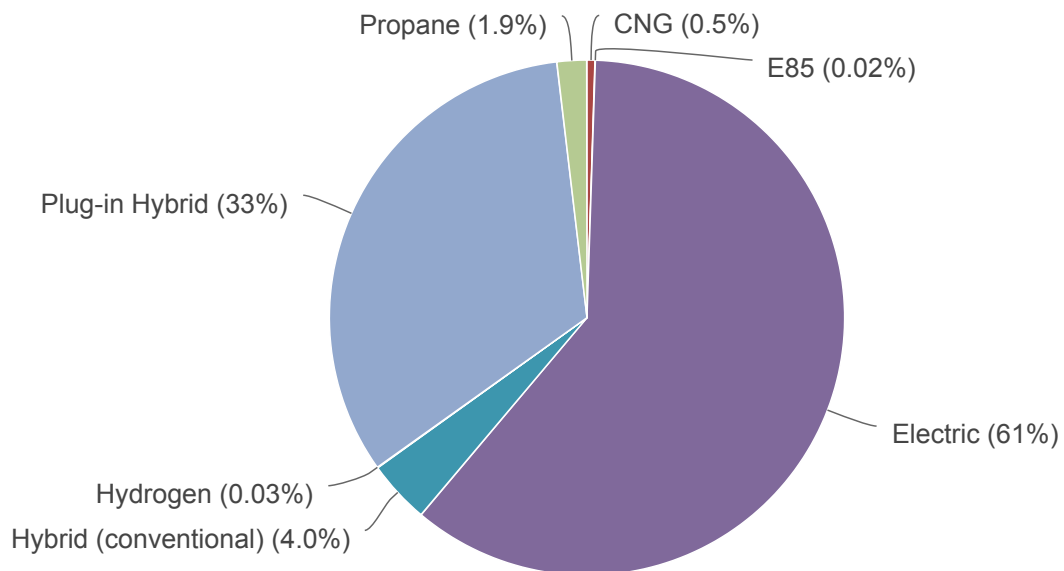
2022 Gallons of Gasoline Equivalent Reduced by Fuel Type for Alternative Fuel Projects

1,767,061 gallons



2022 Greenhouse Gas Emissions Reduced by Fuel Type for Alternative Fuel Projects

15,028 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. Criteria pollutants include nitrogen oxides (NO_x) and volatile organic compounds (VOC), both precursors to ozone pollution or smog. They also include particulate matter (PM) grouped into 10 and 2.5 micron sizes. 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. Upstream emissions from electric power plants, refineries, and biofuel feedstock farms are not included in this summary since those operations typically do not take place in or near population centers where the vehicles are operated and health effects can be documented. 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.com).

Reductions by Technology	CO	NO _x	VOC*	PM ₁₀	PM _{2.5}
Alternative Fuel Vehicles - CNG	1,268 lb	85 lb	85 lb	8 lb	4 lb
Alternative Fuel Vehicles - E85	0 lb	0 lb	1 lb	0 lb	0 lb
Alternative Fuel Vehicles - Propane	0 lb	0 lb	1,211 lb	0 lb	0 lb
Electric, Hybrid & Plug-in Vehicles - Electric	168,053 lb	7,532 lb	13,565 lb	714 lb	395 lb
Electric, Hybrid & Plug-in Vehicles - HEV	7,871 lb	349 lb	696 lb	68 lb	27 lb
Electric, Hybrid & Plug-in Vehicles - PHEV	65,506 lb	2,909 lb	5,788 lb	567 lb	227 lb
Off-Road Vehicles	280 lb	13 lb	32 lb	1 lb	1 lb
Total:	242,979 lb	10,888 lb	21,378 lb	1,357 lb	655 lb

* VOC is interchangeable with NMOG (non-methane organic gases) and NMHC (non-methane hydrocarbons) for all purposes relevant to the Clean Cities suite of technologies.

COALITION

Massachusetts Clean Cities - MA

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

Designated: 03/18/1994

Boundaries: Entire state of Massachusetts including tribal lands

DIRECTORS

	Address	Telephone	Fax
Zachary Jenkins			
Number of coalition directors			1
Coalition director(s) hours per week on Clean Cities			10 hours
Other staff hours per week on Clean Cities			5 hours
How long have you been the coalition director?			0 years

OPERATING INFORMATION

Coalition organizational structure	Hosted in a state government agency
Does the coalition have a non-profit governing board?	No
Does the coalition have a non-governing advisory committee?	No

Stakeholders

Number of stakeholders	2,401
Number of private stakeholders	0
Stakeholder counting notes	
Does the State Energy Office provide any financial support to the coalition or stakeholders?	Yes
Explain State Energy Office's support	
The Clean Cities Director position is housed in the Massachusetts Department of Energy Resources	
How do you obtain most of your data for the survey?	Coalition records, Estimates, Paper, e-mail, or spreadsheet questionnaire to stakeholders
Has your coalition registered with www.grants.gov ?	Yes

2022 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 2022	\$0
Total non-DOE or ARRA funding in 2022	\$0

VEHICLE & FUEL INVENTORY

Alternative Fuel & Vehicles