

2023 Transportation Technology Deployment Report:

Massachusetts Clean Cities
Expanded Edition

March 2024



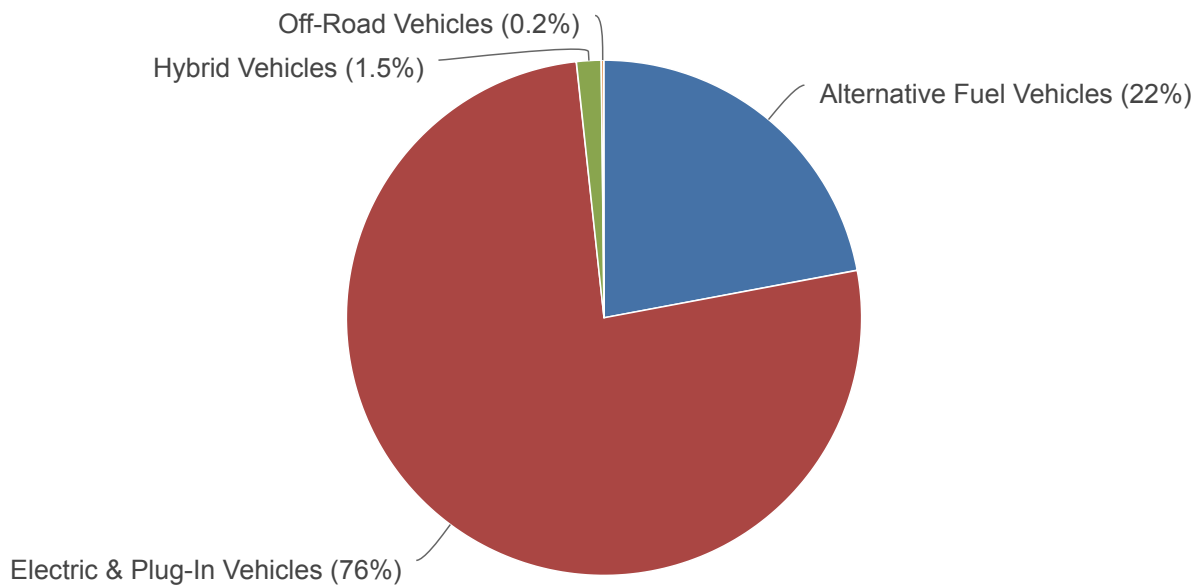
The U.S. Department of Energy's (DOE) Clean Cities Coalition Network fosters the nation's economic, environmental, and energy security by working locally to advance affordable, domestic transportation fuels, energy efficient mobility systems, and other fuel-saving technologies and practices. A national 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.

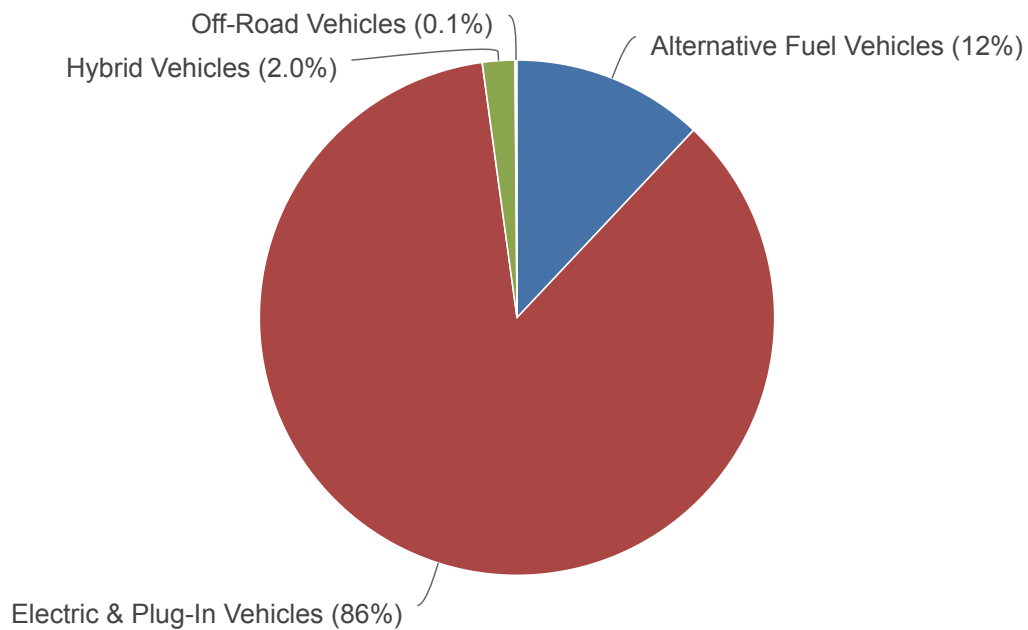
2023 Gallons of Gasoline Equivalent Reduced

2,310,857 gallons

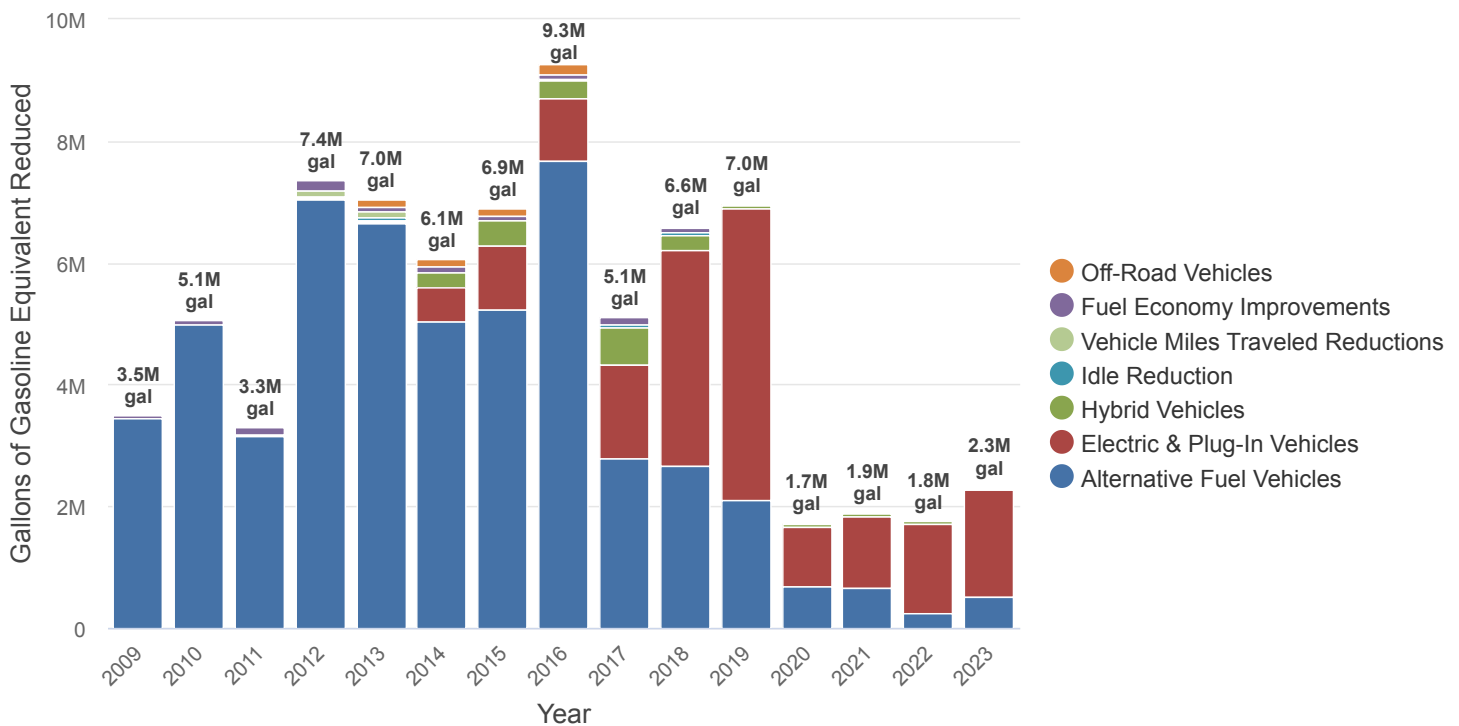


2023 Greenhouse Gas Emissions Reduced

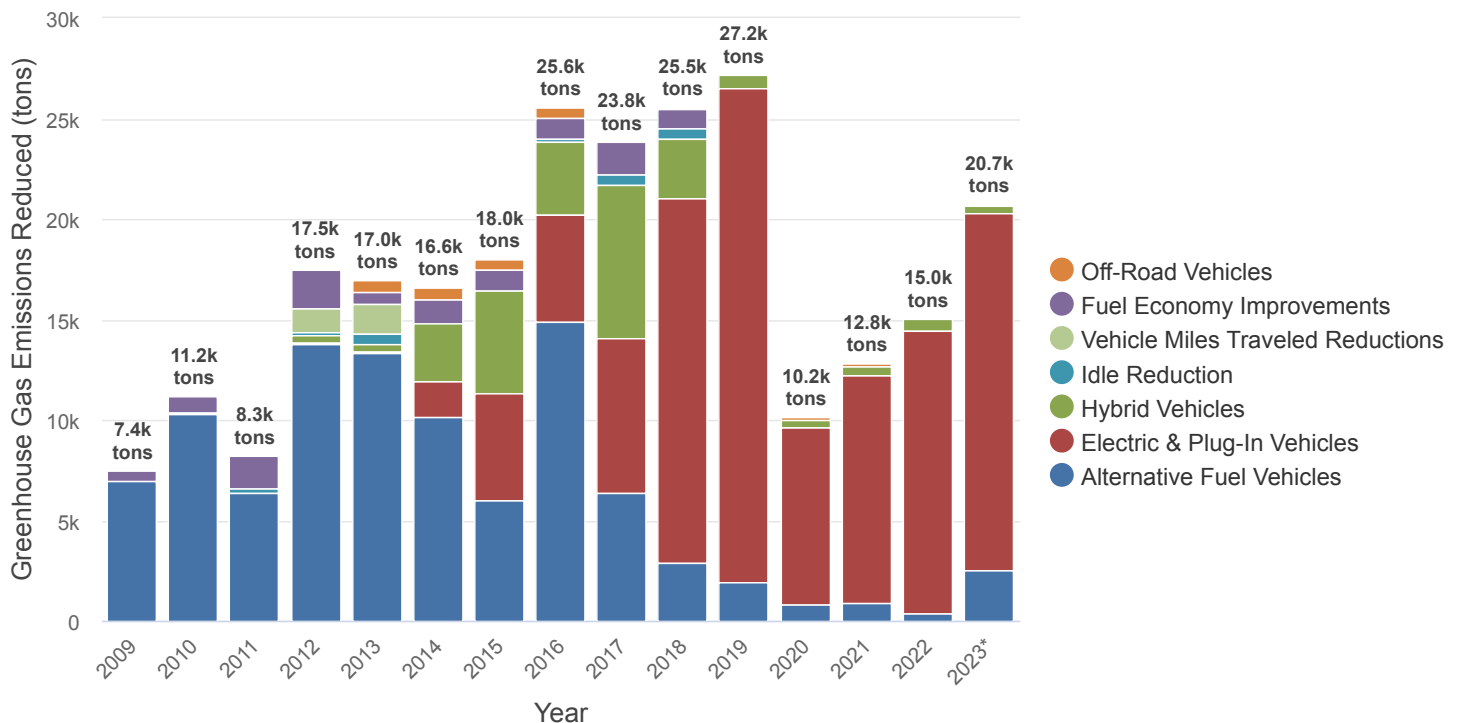
20,718 tons



Historical Gallons of Gasoline Equivalent Reduced



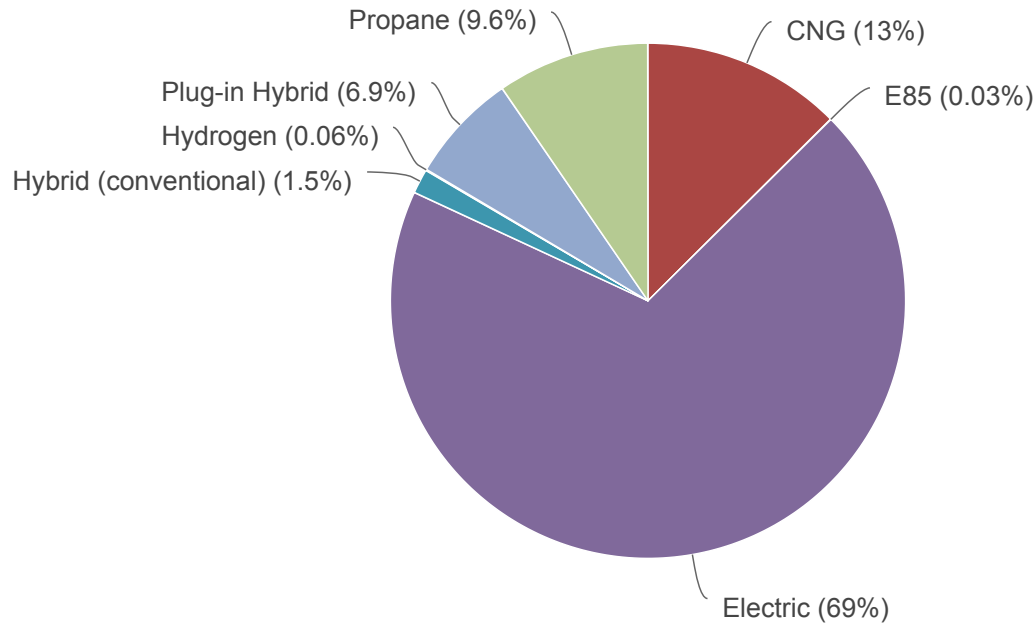
Historical Greenhouse Gas Emissions Reduced



* GHGs displaced from CNG and LNG projects increased in 2023 because Clean Cities and Communities began accounting for the RNG sold into the vehicle fuel market through trading mechanisms set up through the Renewable Fuel Standard and the California Low Carbon Fuel Standard. Please see the Clean Cities and Communities Coalitions 2023 Annual Activity Report for details as to how and why this was allocated.

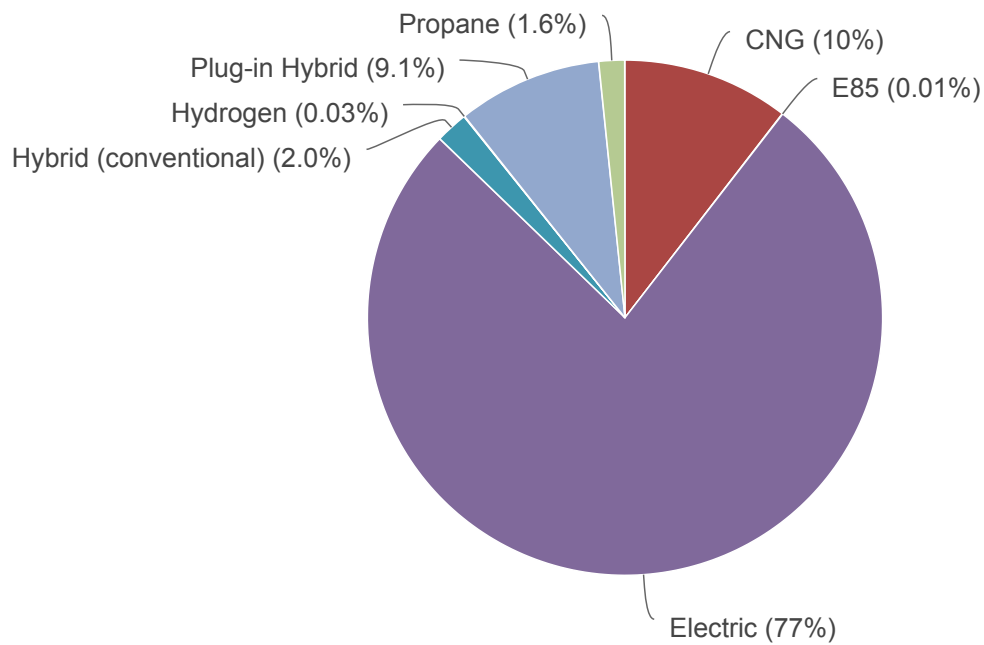
2023 Gallons of Gasoline Equivalent Reduced by Fuel Type for Alternative Fuel Projects

2,310,857 gallons



2023 Greenhouse Gas Emissions Reduced by Fuel Type for Alternative Fuel Projects

20,718 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 and Communities 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 and Communities eLearning](#).

Reductions by Technology	CO	NO _x	VOC*	PM ₁₀	PM _{2.5}
Alternative Fuel Vehicles - CNG	10,128 lb	215 lb	2,181 lb	18 lb	-1 lb
Alternative Fuel Vehicles - E85	0 lb	0 lb	1 lb	0 lb	0 lb
Alternative Fuel Vehicles - Propane	11 lb	0 lb	2,054 lb	0 lb	0 lb
Electric, Hybrid & Plug-in Vehicles - Electric	283,101 lb	8,300 lb	20,246 lb	2,146 lb	402 lb
Electric, Hybrid & Plug-in Vehicles - HEV	5,647 lb	170 lb	474 lb	71 lb	15 lb
Electric, Hybrid & Plug-in Vehicles - PHEV	25,242 lb	759 lb	2,117 lb	315 lb	68 lb
Off-Road Vehicles	375 lb	10 lb	36 lb	1 lb	0 lb
Total:	324,505 lb	9,454 lb	27,108 lb	2,550 lb	484 lb

* VOC is interchangeable with NMOG (non-methane organic gases) and NMHC (non-methane hydrocarbons) for all purposes relevant to the Clean Cities and Communities 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			37 hours
Other staff hours per week on Clean Cities			0 hours
How long have you been the coalition director?			-

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?	Yes

Stakeholders

Number of stakeholders	75
Number of private stakeholders	49
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 Massachusetts Clean Cities Coalition is housed in the state's Department of Energy Resources and can utilize its connections with other state agencies to further Clean Cities goals.

How do you obtain most of your data for the survey?	Coalition records, Estimates, Paper, e-mail, or spreadsheet questionnaire to stakeholders, Phone calls to stakeholders
Has your coalition registered with www.grants.gov ?	Yes

2023 Outside Funding

Stakeholder dues collected	-
How much funding is obtained from other sources to cover coalition operating expenses?	-
Non-DOE or ARRA grant and matching funds spent in 2023	\$0
Total non-DOE or ARRA funding in 2023	\$0

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