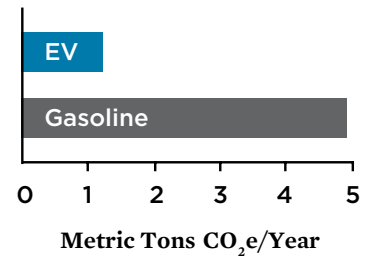


Electric Vehicle Benefits for Massachusetts

Four Facts You Need to Know

1. **EVs cut global warming emissions.**

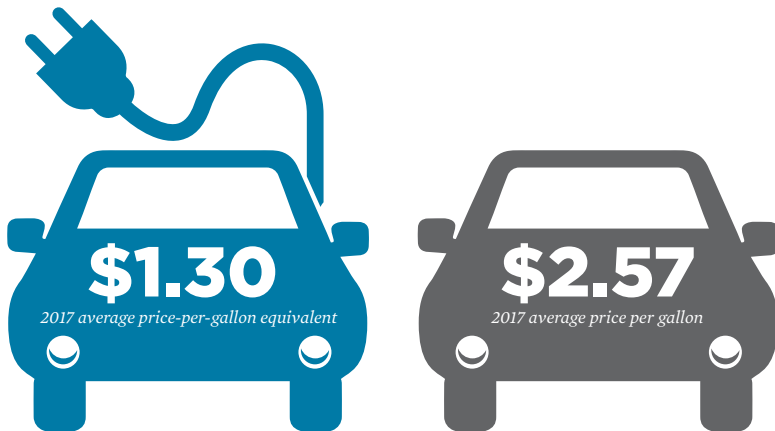
Driving an EV in Massachusetts produces 1.2 metric tons of emissions per year compared with 4.9 metric tons from the average new gasoline-powered car.



2. **Rural EV drivers save the most on fuel.**

On average, rural Massachusetts drivers could save \$640 by switching from gasoline to electricity.

3. **City drivers save money too.**



Charging an EV at home in Boston is like paying \$1.30 per gallon of gasoline.

4. **Interest in EVs is quickly growing.**

EV sales grew 94 percent in Massachusetts from 2017 to 2018, reaching 22,573 sold by the end of 2018.

Why Electric Vehicles Are Essential to Massachusetts

EV DRIVERS SAVE MONEY

Fueling an electric vehicle (EV) at home typically costs significantly less than fueling a gasoline-powered vehicle. In Boston, fueling an EV is like paying the equivalent of \$1.30 for a gallon of gasoline (Reichmuth 2017). And, because EVs have fewer moving parts and don't need oil changes, EV owners can save an average of \$2,100 in maintenance costs over the life of an EV compared with a similar gasoline car (AAA 2017). In addition, since rural drivers drive more than urban drivers, they will save more from switching to an EV—potentially up to twice as much as their urban counterparts (Gatti 2018).

EVS IMPROVE PUBLIC HEALTH AND COMBAT CLIMATE CHANGE

When operating on electricity, EVs don't emit harmful tailpipe pollutants known to have negative respiratory and circulatory health impacts (EPA 2017). EVs are also one of the most promising solutions to cut global warming emissions from transportation, which is now the United States' largest source of these emissions (EPA 2018). In 2017, the average EV in Massachusetts produced 1.23 metric tons of global warming emissions compared with 4.9 metric tons from an average gas-powered vehicle (ANL 2017; EPA 2016). Overall, driving on electricity in Massachusetts produces the global warming emissions equivalent to a gasoline-powered vehicle that gets 102 miles per gallon (Reichmuth 2018).

The total global warming emissions from EVs—including manufacturing, driving, and disposal—are about half the emissions of a comparable gasoline car over its lifetime (Nealer, Reichmuth, and Anair 2015). As more EVs hit the road, the nation will consume less oil, which could help alleviate pollution-related health problems caused by burning gasoline and diesel fuel.

AMERICANS LARGELY SUPPORT EVS AND POLICIES THAT HELP PUT MORE EVS ON THE ROAD

More than 50 percent of drivers in the Northeast and California support government policies that would make it easier to own an EV (UCS 2016). While the purchase cost of new EVs is expected to be closer to gasoline vehicles by the mid-2020s (Berckmans et al. 2017), rebates and tax credits that help offset the purchase price of an EV and incentivize automakers to offer more EVs, especially larger models such as SUVs and pickup trucks, can give consumers more ways to save money and reduce emissions.

POLICY SUPPORT CAN KEEP THE MARKET FOR EVS GROWING

The federal tax credit of up to \$7,500 for a qualifying EV, which has helped hundreds of thousands of car buyers go electric, has expired or is about to expire for some manufacturers. Extending the credit is critical to continue building the EV market. Massachusetts contributes to EV growth by offering its own purchase incentive up to \$2,500 (PIA 2019). Additionally, California's Zero Emission Vehicle (ZEV) program has pushed automakers to offer a variety of EVs in California and the nine other states, including Massachusetts, that have adopted this policy. Expanding the ZEV program to additional states and extending incentives to reduce the up-front cost of an EV would build upon past success, ensuring that everyone who wants to purchase an EV has a fair shot, and maintaining US leadership in automotive technology.

Also, policies that encourage deployment of charging stations in urban areas and apartment or condominium parking facilities would help address the needs of people who cannot have home charging stations and people who have long commutes into the city. Access to reliable and affordable public charging, especially fast charging, will broaden the base of potential EV drivers.



FIND METHODOLOGY AND REFERENCES ONLINE: www.ucsusa.org/state-EV-fact-sheets

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