



Fuel Savings Methodology

Updated October 2024

How to Use This Document

This methodology document shows you how we calculate average savings for Massachusetts and Rhode Island electric vehicle drivers. We update this document quarterly and separate out our calculations by the three major electric utilities in our two states: National Grid and Eversource in Massachusetts and Rhode Island Energy in Rhode Island. We use average numbers in our calculations, but “show our math” so you can follow along with your personal numbers to get a more specific answer for your fuel savings.

Utilities

There are two main utilities in Massachusetts that provide electricity: [National Grid](#) and [Eversource](#). In Rhode Island, the main utility is [Rhode Island Energy](#). Alternatively, you may get your electricity from a municipally owned utility. Here is a list of [MA municipally owned utilities](#) and a list of [RI utilities](#).

When you look at your electric bill, you may be a customer on the “Basic Service” rate with your electric utility. However, if you individually signed up with a competitive electricity supplier, you may be paying a different rate, and if you are a resident in one of a growing number of [aggregation communities](#), you may be paying your community’s negotiated rate. (More on that below)

Driving on Electricity

So, how much does it cost to drive a mile on electricity in each of these three main utility districts? The average new all-electric car requires about [0.30 kilowatt-hours \(kWh\) per mile driven](#). When you multiply that by the cost of electricity (including all per-kilowatt-hour costs!), **you can calculate the fuel costs per mile of driving.**

Utility	\$/kWh	Price Through	Math	\$/mile
MA: National Grid (supply + delivery)	\$0.34	Sept 2024 – Jan 2025	$\frac{0.30kWh}{mile} \times \frac{0.34}{kWh} \approx 0.10$	\$0.10
MA: Eversource (supply + delivery)	\$0.32	Aug 2024 – Jan 2025	$\frac{0.30kWh}{mile} \times \frac{0.32}{kWh} \approx 0.09$	\$0.09
RI: Rhode Island Energy (supply + delivery)	\$0.31	October 2024 – March 2025	$\frac{0.30kWh}{mile} \times \frac{0.31}{kWh} \approx 0.09$	\$0.09

Driving on Gasoline

How much does it cost to drive a mile on gasoline?

The average fuel efficiency of the vehicle fleet in the United States is [25.4 miles per gallon](#). The average price of gasoline in **New England as of 10/07/2024** was \$3.007/gallon. Below is an example of the equation:

$$\frac{1 \text{ gallon}}{25.4 \text{ miles}} \times \frac{3.007}{\text{gallon}} = \frac{0.118}{\text{mile}} \approx 0.12 \text{ to drive a mile on gas}$$

Savings

Utility	\$/mile (electricity)	Math	Savings/mile
MA: National Grid	\$0.12	\$0.12 - \$0.10 = \$0.02	\$0.02
MA: Eversource	\$0.12	\$0.12 - \$0.09 = \$0.03	\$0.03
RI: Rhode Island Energy	\$0.12	\$0.12 - \$0.09 = \$0.03	\$0.03

Tip:

- Check out apps like Plugshare to find any free charging stations near you! Your costs might actually be lower.
- If you live in a community with an aggregation program or under a municipal utility, you likely have lower electricity rates! This means you can save more if you drive electric.