



The future is **now**

 Learn about the benefits of **electric vehicles** and their use in the northeastern United States





In the fall of 2011, states and communities from Washington, D.C., to Maine launched the **Northeast Electric Vehicle Network** to remove barriers to electric vehicle (EV) growth, facilitate EV travel, and make owning an EV easier.

Private companies, non-profit organizations, and other stakeholders are also working with local governments to support EVs in the region.



Benefits of driving an EV



Save Money and Fuel

While the upfront cost of an EV might be more than a conventional vehicle, driving an EV can save thousands of dollars in fueling costs over the life of a car. The average cost of electricity in this region is 13 cents per kWh,ⁱ which is the equivalent of driving with gasoline that costs about \$1 per gallon.ⁱⁱ



Environment

EVs produce zero tailpipe emissions, improving the air quality and health of a community. Even when EVs are charged with electricity generated by fossil fuels, less global warming pollution is emitted to charge an EV than would be emitted to power a typical conventional car. Northeast and Mid-Atlantic electricity is among the cleanest in the country, relying heavily on natural gas and renewable energy, making EVs even cleaner to drive than in most places in the U.S.ⁱⁱⁱ



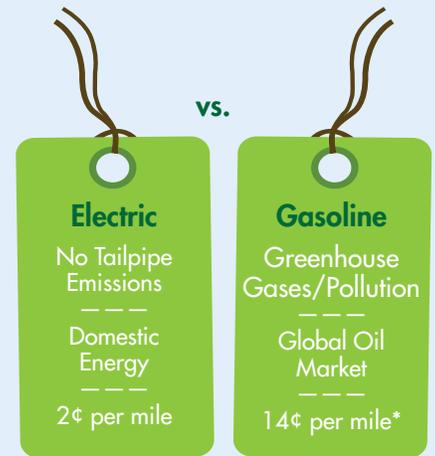
Energy Security

The U.S. sends more than \$1 billion out of the country every day to meet our petroleum needs,^{iv} and the transportation sector accounts for two thirds of that consumption.^v EVs can be powered completely by electricity, which is generated almost entirely by domestic sources of energy.^{vi} EVs can decrease our dependence on oil while supporting jobs in the U.S. Over the lifetime of an EV, the owner can save more than 6,000 gallons of gasoline.^{vii}



Fun to Drive

EVs are quiet, smooth, fast, and fun to drive. In a recent owner satisfaction survey, the highest-rated car was an electric vehicle with 93 percent of respondents saying they would buy it again.^{viii}



EV drivers can save nearly \$13,000 in fuel costs over the life of the vehicle.^{xi}

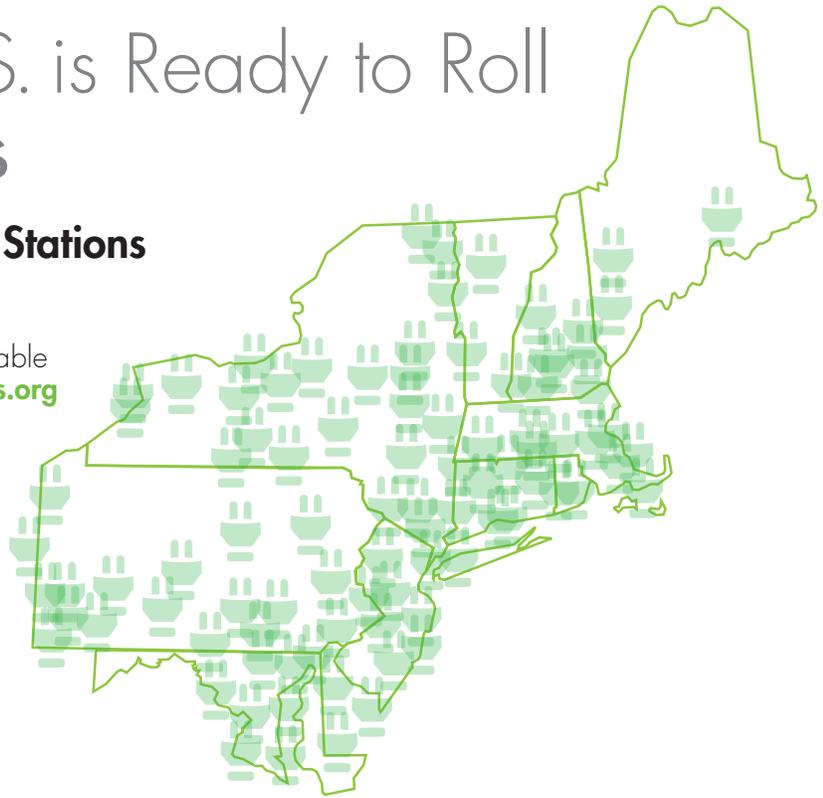
*Based on October 2012 average fuel of \$3.90 per gallon in the TCI region (AAA)^{ix} and average EPA window-sticker fuel economy of 27 miles per gallon for all compact vehicles sold in 2010 (Union of Concerned Scientists).^x

Footnotes i-xiv for this brochure are available online at www.northeastEVs.org

The Northeastern U.S. is Ready to Roll with Electric Vehicles

A Growing Number of Charging Stations Makes Regional Travel Possible

To view a detailed map of charging stations available in the Northeast, please go to www.northeastEVs.org



FAQs about EVs

What is an EV?

Plug-in electric vehicles (EVs) are powered by electricity and can be recharged by plugging into an outlet. There are two types of EVs:

- **Pure battery electric vehicles (BEVs)** are powered entirely by electricity and have an electric motor with no gasoline engine.
- **Plug-in hybrid electric vehicles (PHEVs)** are powered by electricity and gasoline.

How far can I drive before recharging?

Like gasoline cars, EVs can only drive so far before they need to refuel. Currently, typical BEVs have a range of about 70 miles before needing to recharge. A PHEV has a smaller electric range, but transitions to gasoline when it runs out of electricity.

	BEV	PHEV
RANGE ^{xii} [in miles]	~60-265	Electric range: ~11-38 Gasoline range: 240+
FUEL SOURCE	Electricity	Electricity and/or gasoline

How do I charge my EV?

EVs can plug directly into an outlet to recharge the battery.

There are three levels of charging: 120 volt (a "Level 1" standard outlet just like the one you would use for a toaster); 240 volt (a "Level 2" outlet similar to those used for electric dryers); and DC Fast Charge.^{xiii} Many EV owners install a Level 2 charger in the garage when purchasing their vehicle. The time to recharge a battery varies, with typical ranges shown below.^{xiv}

	BEV	PHEV	
TIME TO RECHARGE*	20+ hours	3-16 hours	LEVEL 1 (standard outlet)
	4-7 hours	1½-6 hours	LEVEL 2
	About 30 minutes	N/A	DC FAST CHARGE†

*These times assume a fully depleted battery. In most cases, batteries will not be fully depleted and can be charged in a shorter period of time.

†DC Fast Charge will recharge a car to about 80%, and is currently only available for some BEV models.

Where can I charge my car?

- Most charging tends to occur **at home overnight**, enabling EV drivers to leave with a full charge the next day.
- Some employers provide Level 1 and even Level 2 charging stations so that employees can recharge at work. **Workplace charging** is the primary charging location for EV owners who do not have access to an EV charging station at home.
- **Public charging stations** are also available at some garages, shopping malls, and along city streets.



Additional Resources

For more information, please visit the Northeast Electric Vehicle Network at www.northeastEVs.org

Additional resources are also available on the following web pages:

U.S. Department of Energy, Alternative Fuels Data Center: www.afdc.energy.gov/fuels/electricity.html

U.S. Department of Energy, Clean Cities Program: www.cleancities.energy.gov/

Electric Drive Transportation Association: www.electricdrive.org

Plug In America: www.pluginamerica.org

Department of Energy, FuelEconomy.gov: www.fueleconomy.gov

The Northeast Electric Vehicle Network is a project of the Transportation and Climate Initiative—a regional collaboration of the energy, environment, and transportation agencies from Connecticut, Delaware, the District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Early planning efforts for the Network have been supported by a U.S. Department of Energy Planning Grant, which was awarded to TCI, and project partners NYSERDA, the Georgetown Climate Center, and 16 of the region's Clean Cities Coalitions.

