

CELEBRATING 40 YEARS

Why Install EV Charging?

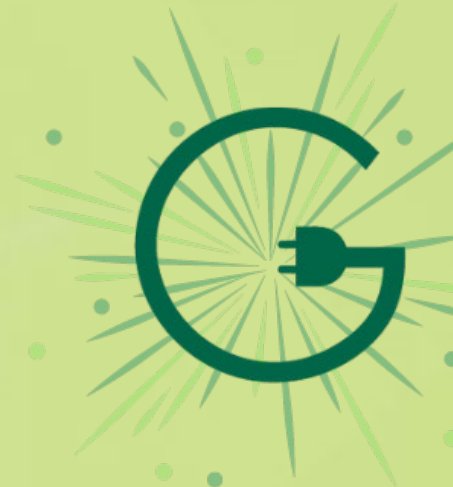
June 20, 2023

Green Energy Consumers Alliance

Harnessing our power as energy consumers to speed the transition to a zero -carbon future.



- Non -profit founded in 1982
- Massachusetts & Rhode Island
- Programs & Advocacy



First: For general information on electric vehicles...

Visit our
[Drive Green](https://www.greenenergyconsumers.org/drivegreen)
website!

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Outline

1. Quick EV charging facts
2. Electric cars are coming.
3. There's never been a better time to act.

TLDR; Installing EV charging will help attract and retain customers, and federal, state, and utility incentives can significantly bring down the costs of installing charging.



Quick EV charging facts



There are three levels of EV charging.

Level 1: 110 volts, 2-6 miles of range per hour

- Just use a regular household outlet and a Level 1 charging cord.

Level 2: 220 volts, 11-54 miles of range per hour

- Buy a Level 2 charging unit online or at home improvements store, hook up to 220 volt outlet with an electrician.

DC Fast Charging: ~80% of the battery in 30 minutes

- Not something you install at home
- At rest-stops, used for roadtrips



Who pays for the electricity?

You, the site host, get to decide who pays for the electricity. You can decide:

- To offer the electricity for free, as an amenity,
- To charge for parking but not for electricity, and/or:
- To charge for electricity, on a per-kilowatt-hour or per-hour basis.

To charge for charging, you will need a “networked” charger, AKA a charger that can transmit charging information via wifi or cell signal to the charging provider’s software. Using this feature requires paying a networking fee, but the utility program can cover this up to four years.

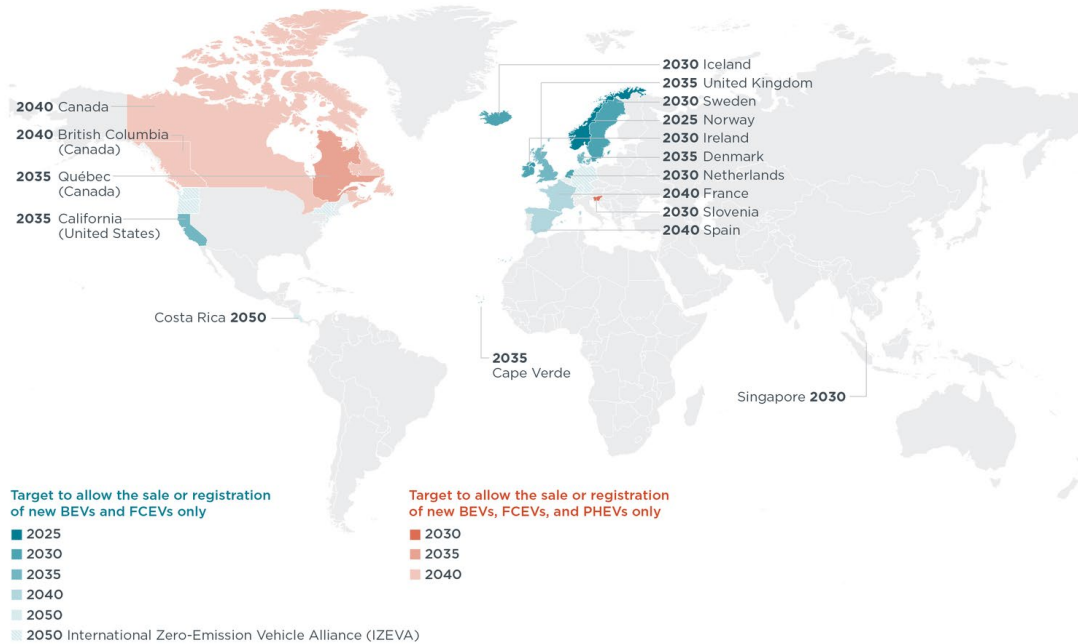


Electric cars are coming.



Whole countries are phasing out new gas cars.

Governments with official targets to 100% phase out sales or registrations of new internal combustion engine cars by a certain date*
(Status: June 2021)



* Includes countries, states, and provinces that have set targets to only allow the sale or registration of new battery electric vehicles (BEVs), fuel cell electric vehicles (FCEVs), and plug-in hybrid electric vehicles (PHEVs). Countries such as Japan with pledges that include hybrid electric vehicles (HEVs) and mild hybrid electric vehicles (MHEVs) are excluded as these vehicles are non plug-in hybrids.

Figure 1. Government targets to 100% phase out the sale or registration of new ICE cars.

*This map is presented without prejudice as to the status of or sovereignty over any territory, the delimitation of international frontiers and boundaries, and the name of any territory, city, or area.

Governments around the world are committing to phasing out gas-powered cars.

The car market is a global market, so decisions made abroad impact what manufacturers produce and deliver here as well.



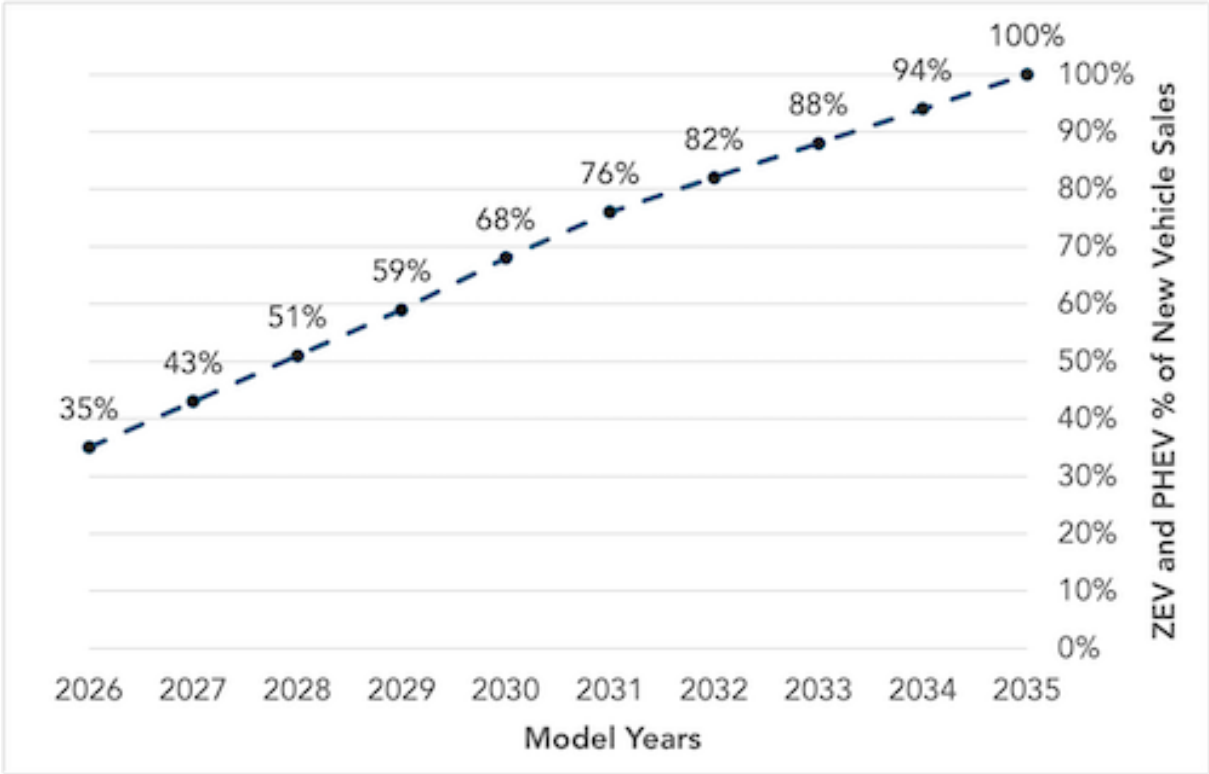
Automakers are announcing plans to electrify.

Auto makers are responding to government policies and consumer preferences and announcing plans to phase out new gas cars. To name just a couple:

- General Motors plans to sell 1 million EVs/year in China and North America by 2025 and is investing \$35 billion in electric (and autonomous) technology between 2020 and 2025. By 2035, it will only sell electric cars.
- Ford will only sell electric cars in Europe by 2030 and is investing \$22 billion in electric technology by 2025.
- Honda aims to reach 100% electric or hydrogen by 2040.
- Hyundai and Kia planning on ending the sale of internal combustion engine vehicles by 2035 in Europe and 2040 in the rest of the world.
- Volkswagen aims to reach 100% electric sales by 2040.



Massachusetts policy is moving us forward.



Massachusetts has joined California and several other states in adopting standards that will require automakers to make sure a certain percentage of the new vehicles they sell in the state are electric starting with model year 2026. That number increases every year until it reaches **100% in 2035**.



Key state policies will accelerate EV adoption.

The state has several key policies in place to incentivize EV adoption.

- Last year's climate law prohibits the sale of *new* gas-powered cars after 2035.
- The state **MOR-EV rebate** , which will soon have offerings at the point-of-sale and for used EVs, plus an added rebate for low- and moderate-income drivers.
- The state **MassEVIP program** , which offers rebates for installing charging for different segments and help for fleets that want to electrify.
- The economic development bill that passed last year included **\$50 million** for electric vehicle charging.
- Massachusetts is receiving **\$63.5 million** from the federal government to build out DC Fast Charging along highways.
- The Department of Public Utilities approved National Grid, Eversource, & Unitil to spend **\$400 million** on EV charging in the next couple of years.



Market dynamics are changing all the time.

For example, Tesla, Ford, & General Motors announced a major new collaboration in the past month that will make it easier for more people to go electric sooner.

You can read the blogpost here:

[Ford and GM Customers Will Soon have Access to Tesla's Charging Network \(greenenergyconsumers.org\)](https://www.greenenergyconsumers.org/blog/ford-and-gm-customers-will-soon-have-access-to-tesla-s-charging-network)



FORD AND GM CUSTOMERS WILL SOON HAVE ACCESS TO TESLA'S CHARGING NETWORK

Devan DiLibero & Anna Vanderspek | June 16, 2023

Big news in the electric car world over the past couple of weeks! Tesla has struck a partnership with both **Ford** and **General Motors** to allow their vehicles access to Tesla's network of over 12,000 (and counting) Superchargers.

This is a huge development. It's great for drivers of Ford and Chevy and the other GM brands, because one of Tesla's key advantages in the electric car market is its expansive and reliable charging network. It also fundamentally shakes up the trajectory of the EV market, which seemed to have been settling on the CCS standard for DC fast charging (for non-Tesla vehicles) and is now settling on Tesla's technology. (Don't know what some of those terms mean? Check out our [Charging Basics](#) page.)



There's never been a better time to act.



Federal Commercial Charging Infrastructure Tax Credit

- Instituted by Inflation Reduction Act
- Amount is... confusing. 30% of the cost (or 6% in the case of property subject to depreciation), not to exceed \$100,000.
- Available to tax -exempt entities via Direct Pay (municipalities & nonprofits!)
- Includes bidirectional chargers!
- More information: [Alternative Fuel Infrastructure Tax Credit \(energy.gov\)](https://www.energy.gov/alternative-fuel-infrastructure-tax-credit)

Eligibility Requirements

Census tract	<ul style="list-style-type: none">• Not an urban area;• Poverty rate is at least 20%; OR• Median family income is less than 80% of state medium family income
Apprenticeship and prevailing wage	<ul style="list-style-type: none">• Details TBD

*Some confusion on this point. May be 6% base rate and 30% if apprenticeship and prevailing wage requirements are met.



Massachusetts: Existing MassEVIP Charging Incentives

Program Name	Description	Amount* (Max \$50,000 per street address for all)	Commercial Entities	Public Entities	Nonprofits
Direct Current Fast Charging <i>*Currently closed!</i>	Funding for hardware and installation costs of DC Fast Charging at publicly accessible sites (more info)	<ul style="list-style-type: none"> Government -owned locations with publicly accessible parking: Up to 100% Non-government owned locations with publicly accessible parking: Up to 80% Educational campuses: Up to 60% 	Eligible.	Eligible.	Eligible.
Public Access Charging <i>*First come, first served</i>	Incentives for hardware and installation costs of Level 1 and 2 charging stations at public locations (more info)	<ul style="list-style-type: none"> Government -owned locations: Up to 100% All other locations: Up to 80% 	Eligible.	Eligible.	Eligible.

**Assuming charging unit, installation, and entity meet all program requirements*



Massachusetts: Existing MassEVIP Charging Incentives

Program Name	Description	Amount* (Max \$50,000 per street address for all)	Commercial Entities	Public Entities	Nonprofits
Multi -Unit Dwelling & Educational Campus *First come, first served	Incentives for hardware and installation costs of Level 1 and 2 charging stations at multi -unit dwellings (5+ units) and educational campuses (15+ students) (more info)	Up to 60%	Eligible.	Eligible.	Eligible.
Workplace & Fleet Charging *First come, first served	Incentives for hardware and installation costs of Level 1 and 2 charging stations for employers and fleet operators at non -residential places of business (15+ employees) (more info)	Up to 60%	Eligible.	Eligible.	Eligible.

**Assuming charging unit, installation, and entity meet all program requirements*



Again, More Massachusetts Charging Funding Coming

The \$50 million **Charging Infrastructure Deployment Fund** may make funding available for commercial entities; details TBD.

The **utility programs approved by the DPU** also includes funding for public and workplace charging.










- Up to 100% of Make Ready costs
- Sliding scale for charging unit hardware/installation, based on community
 - Meet EJ criteria based on income: Up to 100%
 - Meet a different EJ criterion: Up to 75%
 - Municipality-owned sites, ports 3-10: Up to 50%
 - Non-municipality-owned sites, ports 5-10: Up to 50%



Find Other Federal Incentives & Grants






The Electrification Coalition has developed a “Federal Electric Vehicle Funding Finder” tool that can help you get a high -level sense of all the opportunities available to you for both vehicles AND charging infrastructure. See: [Electrification Coalition - Federal Funding Finder](#)

Step 1: I represent a...

 City	 Rural Area
 School	 Freight/Shippers and Carriers
 EV Advocate or Community Organization	 Business
 Non-Profit Transportation Group	 Individual
 State	

Step 2

Select Funding Scenarios

 Purchase or Lease a Light-Duty Vehicle Funds to purchase or lease a light-duty vehicle (ex: passenger car)	 Purchase Light-Duty Charging Infrastructure EV charging infrastructure incentives for light-duty vehicles	 Grid Upgrades Funding for updating and preparing the grid for at-scale EV adoption
 Purchase or Lease a Medium- or Heavy-Duty Vehicle Funds to purchase or lease a medium- or heavy-duty vehicle (ex: school bus)	 Purchase Medium- or Heavy-Duty Charging Infrastructure EV charging infrastructure for medium- and heavy-duty vehicles	 Access Support Planning Funding to ensure adequate planning of EV infrastructure
 Support Workforce Development Funds to train and ensure a workforce has the required skills and certifications	 Access Technical Assistance Funds to provide technical expertise to access EVs or EV infrastructure	 Electrify Ports Funding for shipping and transportation companies to electrify port transit

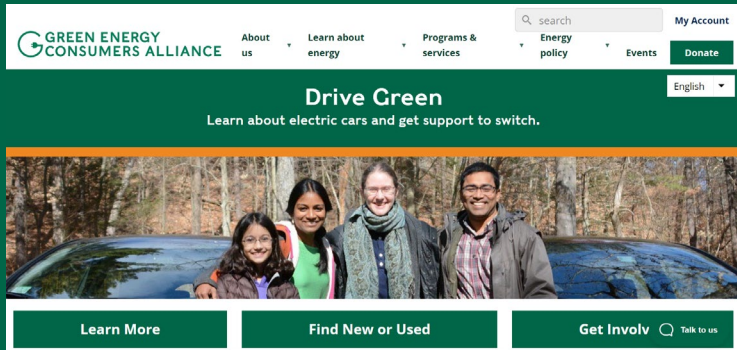


All in all...

- As a society, we need to build out more charging stations, both so that we can meet our greenhouse gas reduction requirements (and better public health) *and* so that more people can access the lower fuel and maintenance costs of electric cars.
- Because your site is located in an environmental justice zone, you are eligible for a higher level of support within Massachusetts. To bring down the costs of installing charging, you can combine the federal tax credit, utility programs, and state programs.
 - Note: Third party funding will be subtracted from the utility support, but that does *not* include the federal tax credit.



Contact Us!



For any questions or thoughts, send us a message today at drivegreen@greenenergyconsumers.org or call us now at **(617) 397-5199**

For YouTube webinars and videos, check out our page at: <https://www.youtube.com/@MassEnergy1982>

You can reach me directly at:
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