

Electric Cars: Easier and Cheaper Than You Think

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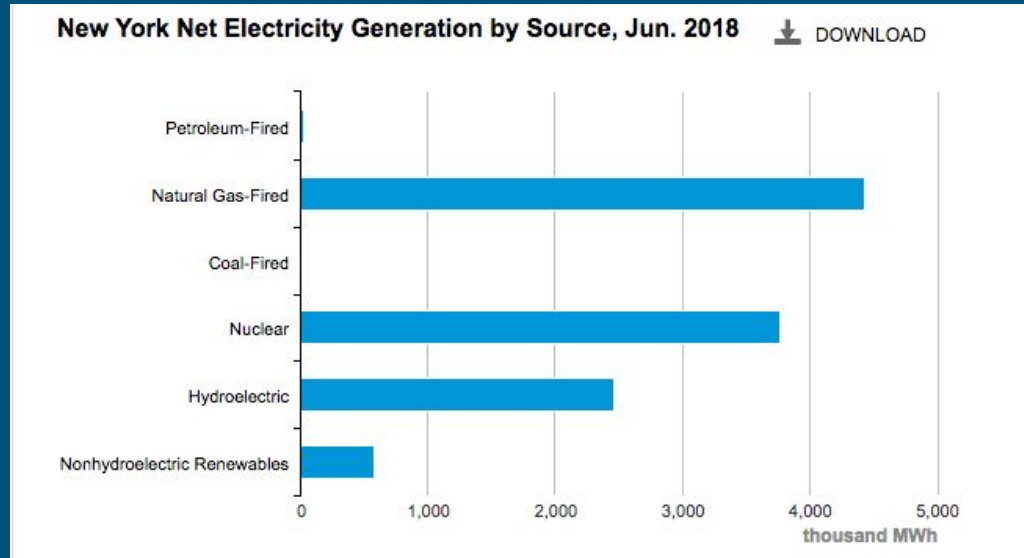
Egallon

- the cost of fueling a vehicle with electricity compared to a similar vehicle that runs on gasoline.
- On average, it costs about half as much to drive an electric vehicle.
- <https://www.energy.gov/maps/egallon>



Carbon Footprint

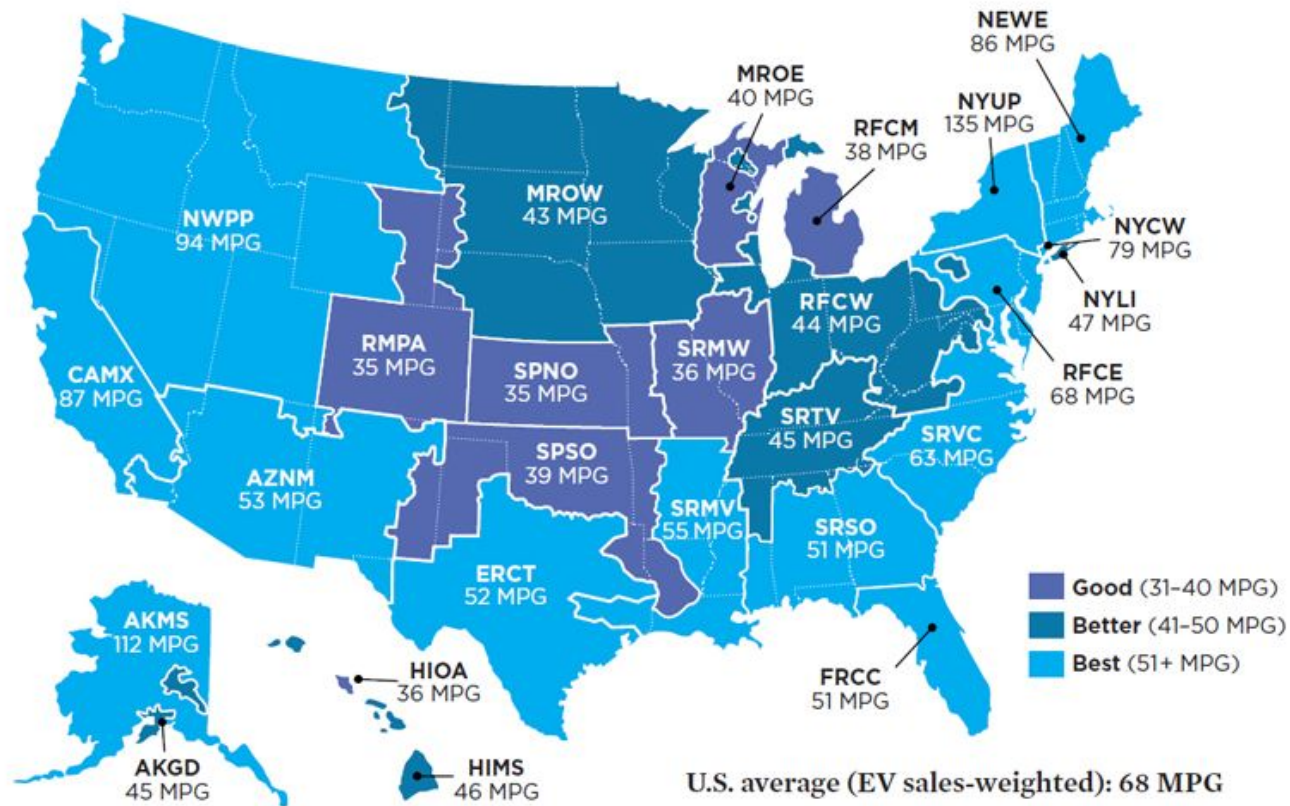
- <https://www.ucsusa.org/clean-vehicles/electric-vehicles/ev-emissions-tool#.W6a06-hKq2w>
- A life cycle analysis of EVs
 - manufacturing
 - operation
 - disposal/recycling



Carbon Footprint

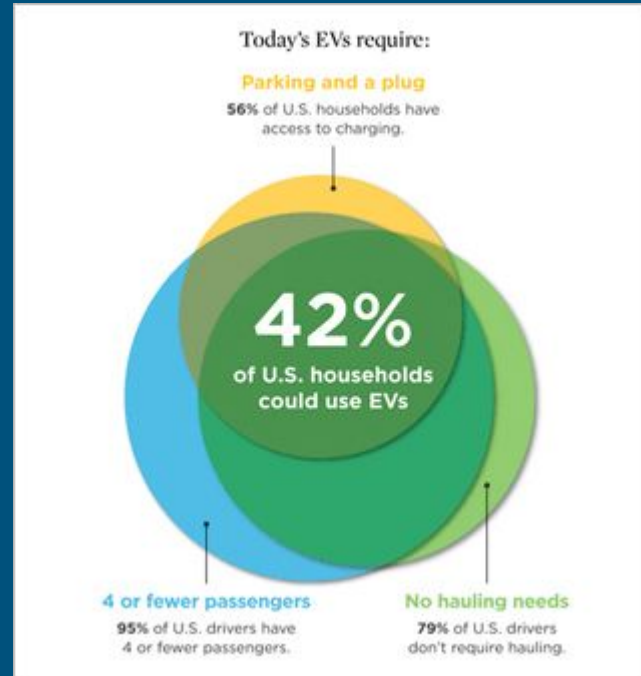
- as electricity becomes cleaner (which it is), the difference between electric cars and gasoline cars will only grow

Electric Vehicle Global Warming Pollution Ratings and Gasoline Vehicle Emissions Equivalents by Region



Note: The MPG (miles per gallon) value listed for each region is the combined city/highway fuel economy rating of a gasoline vehicle that would have global warming emissions equivalent to driving an EV. Regional global warming emissions ratings are based on 2012 power plant data in the EPA's eGRID 2015 database (the most recent version). Comparisons include gasoline and electricity fuel production emissions. The 68 MPG U.S. average is a sales-weighted average based on where EVs were sold in 2014.

Is it for you? (as of 2015)



Where to charge your car in the North Country

← → ↻ Secure | https://na.chargepoint.com/charge_point

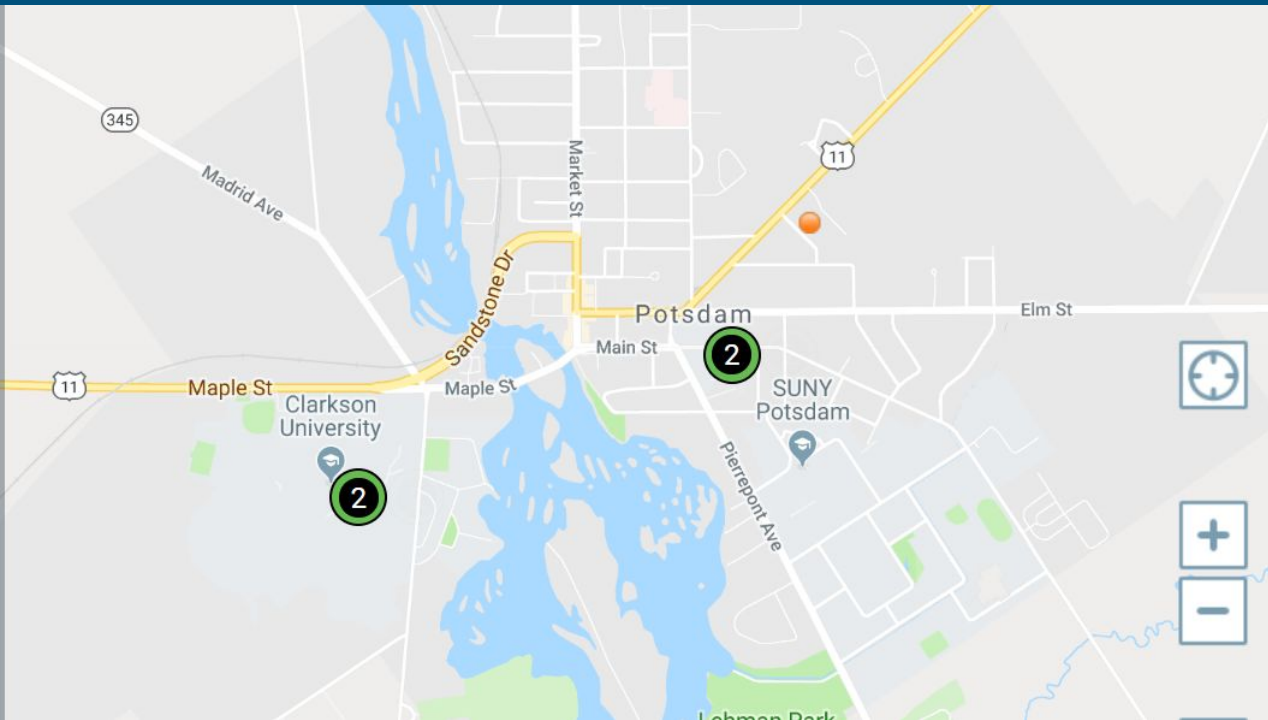
Status	Price	Connector Type
Available <input type="checkbox"/>	Free <input type="checkbox"/>	Level 1 <input type="checkbox"/>
Show Est. Fee >		Level 2 - J1772 <input type="checkbox"/>
		Level 2 - NEMA 14-50 <input type="checkbox"/>
		Level 2 - Tesla <input type="checkbox"/>
		DC - CHAdeMO <input type="checkbox"/>

The map displays the North Country region with several charging stations highlighted by green circles containing numbers. The stations are located in the following areas:

- Station 2: Located near Cornwall and Massena.
- Station 4: Located near Potsdam.
- Station 6: Located near Saranac Lake and Lake Placid.

Other labeled locations on the map include Chesterville, Morrisburg, Ogdensburg, Heuvelton, Gouverneur, Edwards, Fine, Childwold, Cranberry, Colton, Parishville, Nicholville, Adirondack State Park, Paul Smiths, Harrietstown, Lake Clear, and Wilm.

Where to charge your car in Potsdam

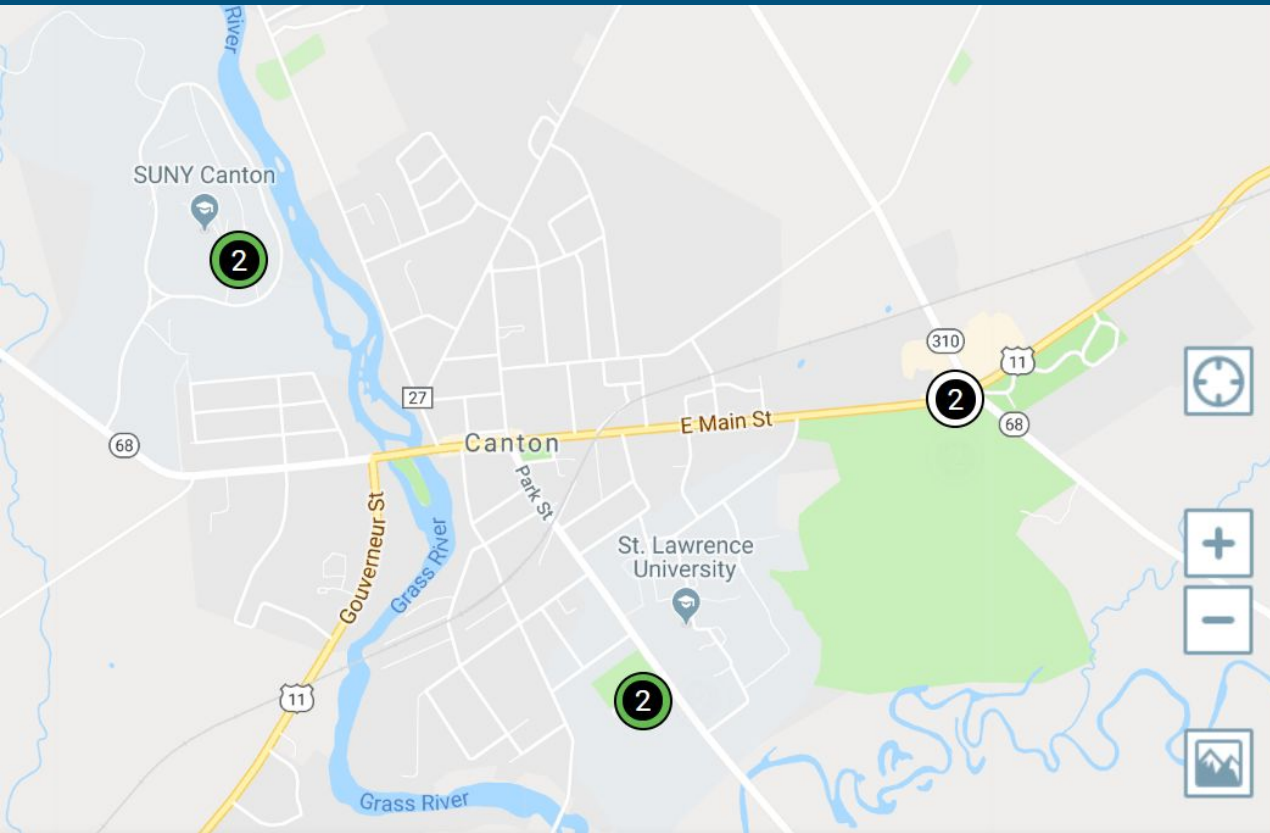


Charge Spots Recent My Spots

Sort by **Distance**







	CLARKSON UNVER OLD MAIN LOT 1	0.41 mi	
Level 2: 2	16A,16B Pierrepont Ave Potsdam, NY		
	NATIONAL GRID CLARKSON U	1.29 mi	
Level 2: 2	8 Clarkson Ave Potsdam, NY		

Where to charge your car in Canton



Charge Spots Recent My Spots

Sort by **Distance**

	Best Western University Inn - Tesla Level 2: 2 90 E Main St Canton, NY	10.02 mi	
	NATIONAL GRID ST LAWRENCE Level 2: 2 40 Leigh St Canton, NY	11.01 mi	
	NATIONAL GRID SUNY NAVELDEAN Level 2: 2 34 Cornell Dr Canton, NY	11.32 mi	

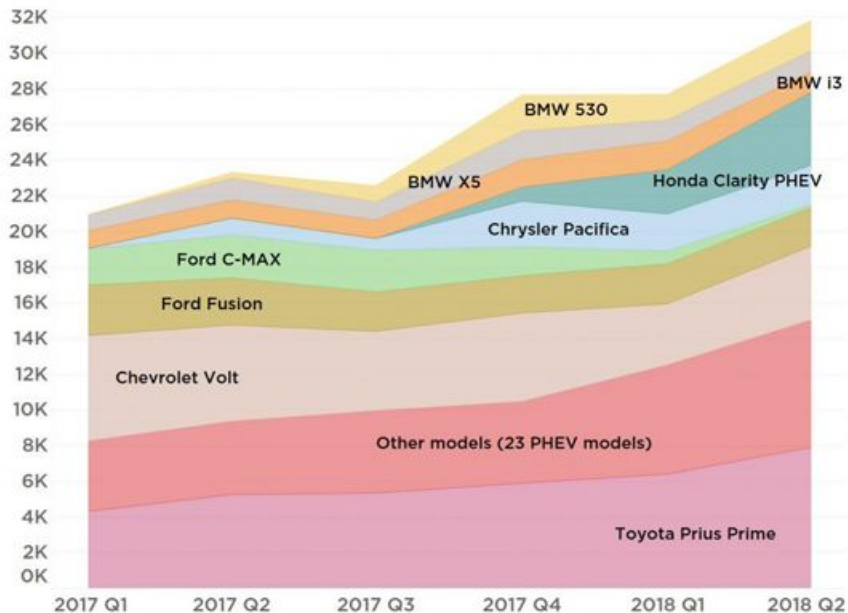
Charging your car

- At home
- Destination charging stations
- On the go charging stations
- <https://www.nyserda.ny.gov/All-Programs/Programs/ChargeNY/Charge-Electric>
- Solar EV chargers

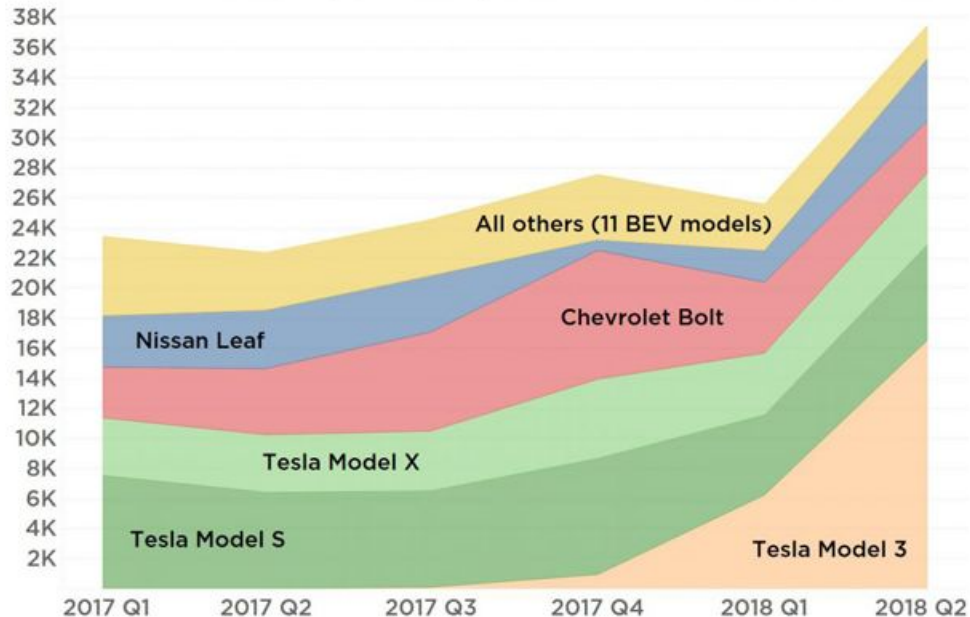


Sales in 2018

Quarterly US plug-in hybrid vehicle sales



Quarterly US battery electric vehicle sales



Used EV cars

- used EVs cost 43 to 72 percent less than new ones.
 - Faster depreciation
 - Incentives factored in

“If you search the classified listings for EV models that have been out for at least three years, such as the Fiat 500e or the Nissan Leaf, you'll find a number of them for less than \$10,000. You would be hard-pressed to find a 3-year-old gas-powered vehicle for the same price. And if you did find one, it is sure to have *double or triple the miles on the odometer.*”

<https://www.edmunds.com/car-buying/the-pros-and-cons-of-buying-a-used-ev.html>

Summing up pros and cons

● Pros

- Used EVs are a bargain
- You'll get a smoother driving experience: and much more torque
- The cars are in better condition and require less maintenance:
 - Nissan Leaf, for example, which requires only a tire rotation, brake fluid and cabin filter replacement in its third year.
- Parking/ carpool access



Summing up pros and cons



- Cons

- The possibility of diminished battery performance
 - Because EVs have a much bigger battery, this performance drop happens much more slowly than it does with a smartphone or a laptop. T Battery fade was a vexing issue for some owners of early Nissan Leafs (2011-2012), with 80 percent of capacity after five years.
- The charging factor: “Range Anxiety”
- Missing out on improvements from improved technology
 - 2015 Nissan Leaf, has an EPA-estimated 87 miles of range. By contrast, the 2018 Leaf has a range of 151 miles. The 2018 Chevrolet Bolt's range is 238 miles.
- Battery life uncertainties: Modern electric vehicles (dating from around 2011) haven't been out long enough to accurately judge how long their batteries will last
 - If the EV's battery flat-out fails, however, you may have recourse.
 - New EV battery, can be installed no matter what the reason,
- Diminished resale value