

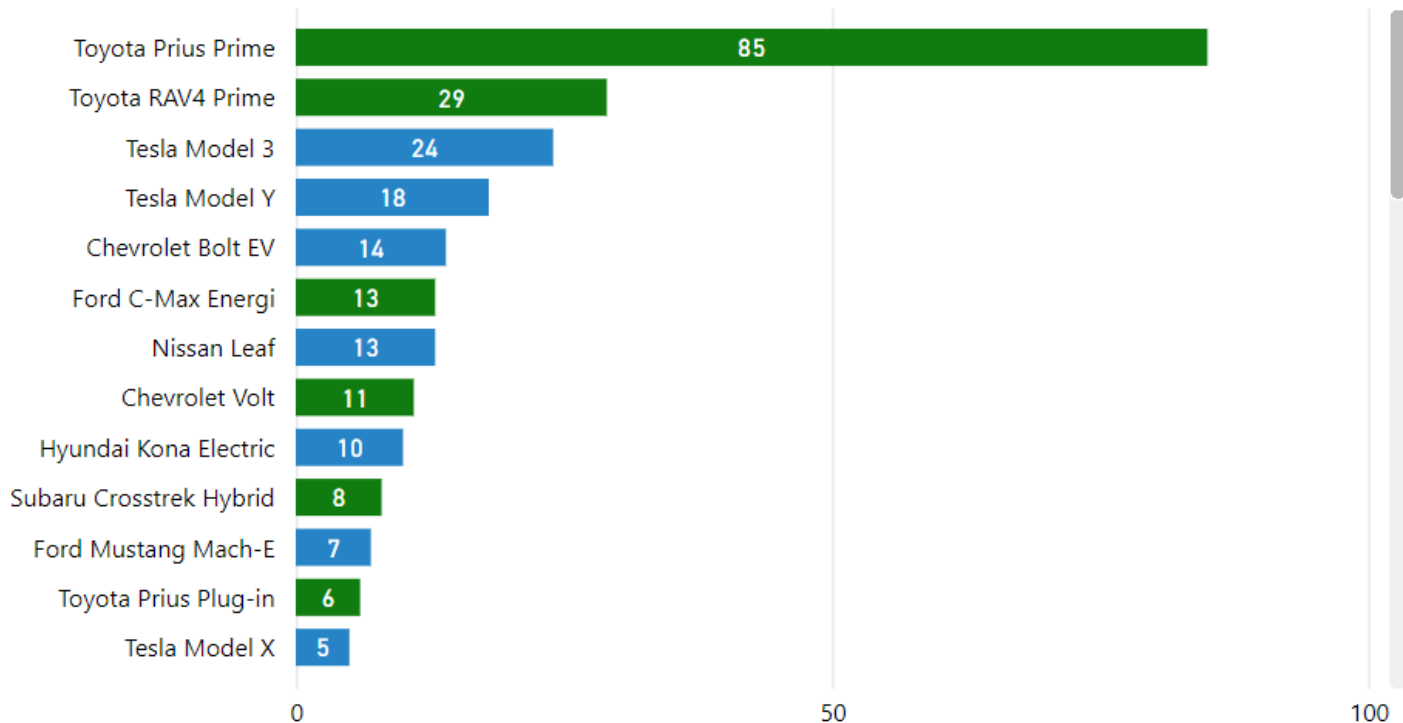
Future of Transportation EV Incentives

Amanda Kaier
NYSERDA Clean Energy Communities Coordinator

Electric Vehicle Registration Data- Otsego County

EVs on the Road by Vehicle Name

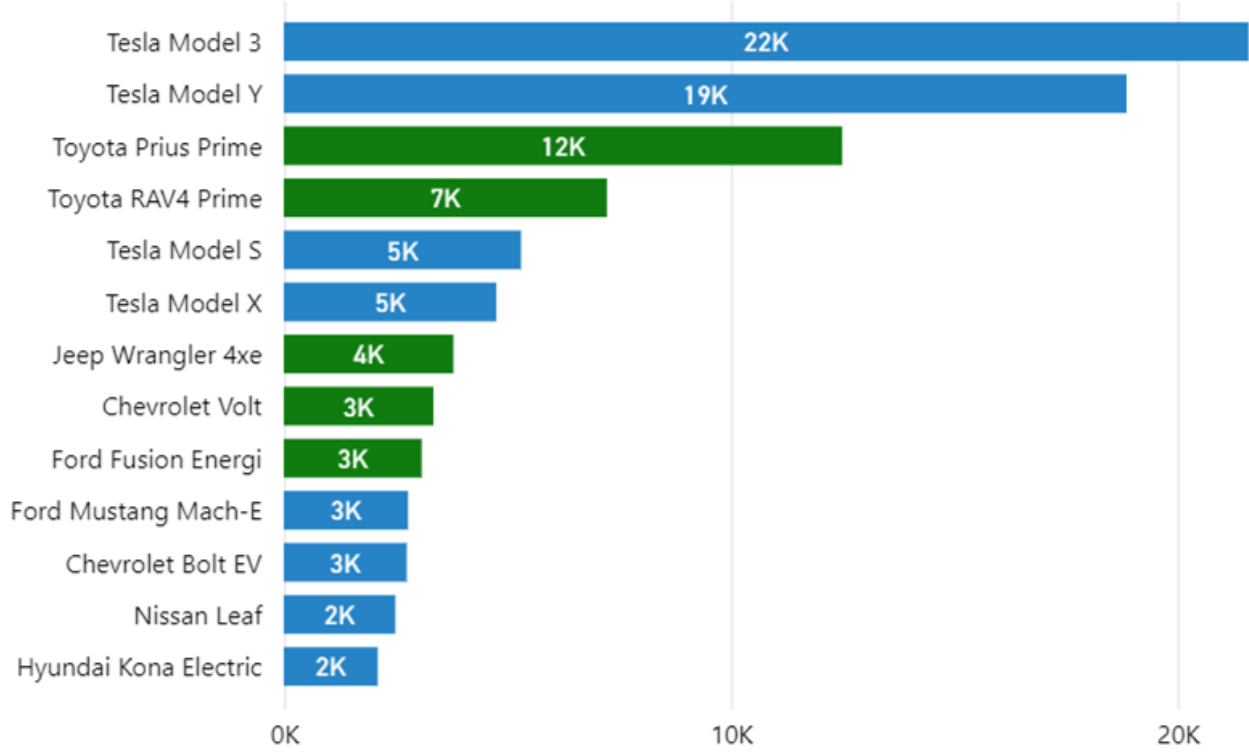
● BEV ● PHEV



State EVs on Road

EVs on the Road by Vehicle Name

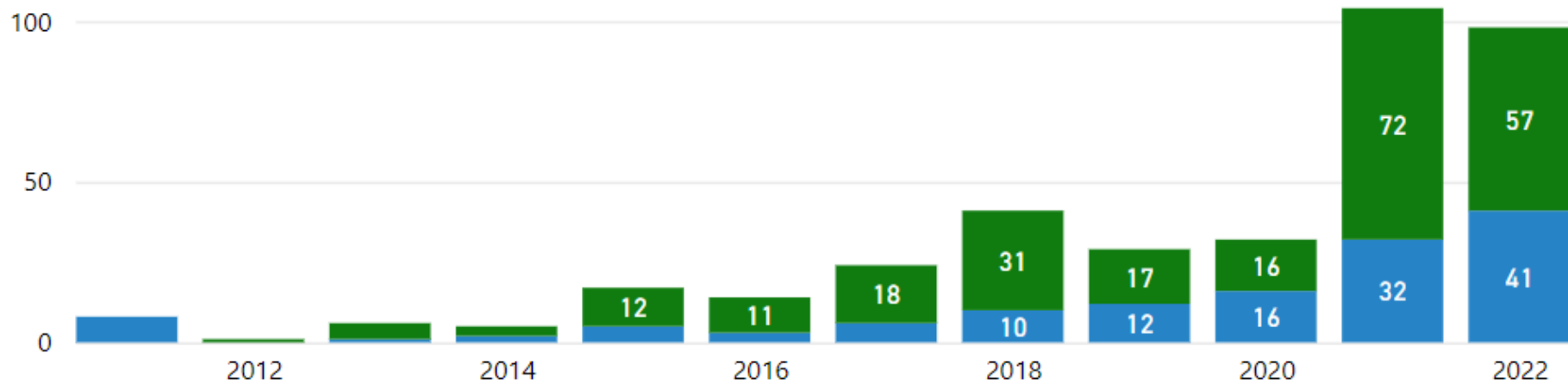
● BEV ● PHEV



Original EV Registrations

● BEV ● PHEV

EV Original Registrations



Vehicles to people and Vehicles per Port

Key Metrics

1.97

BEVs per 1k People

3.27

PHEVs per 1k People

8.29

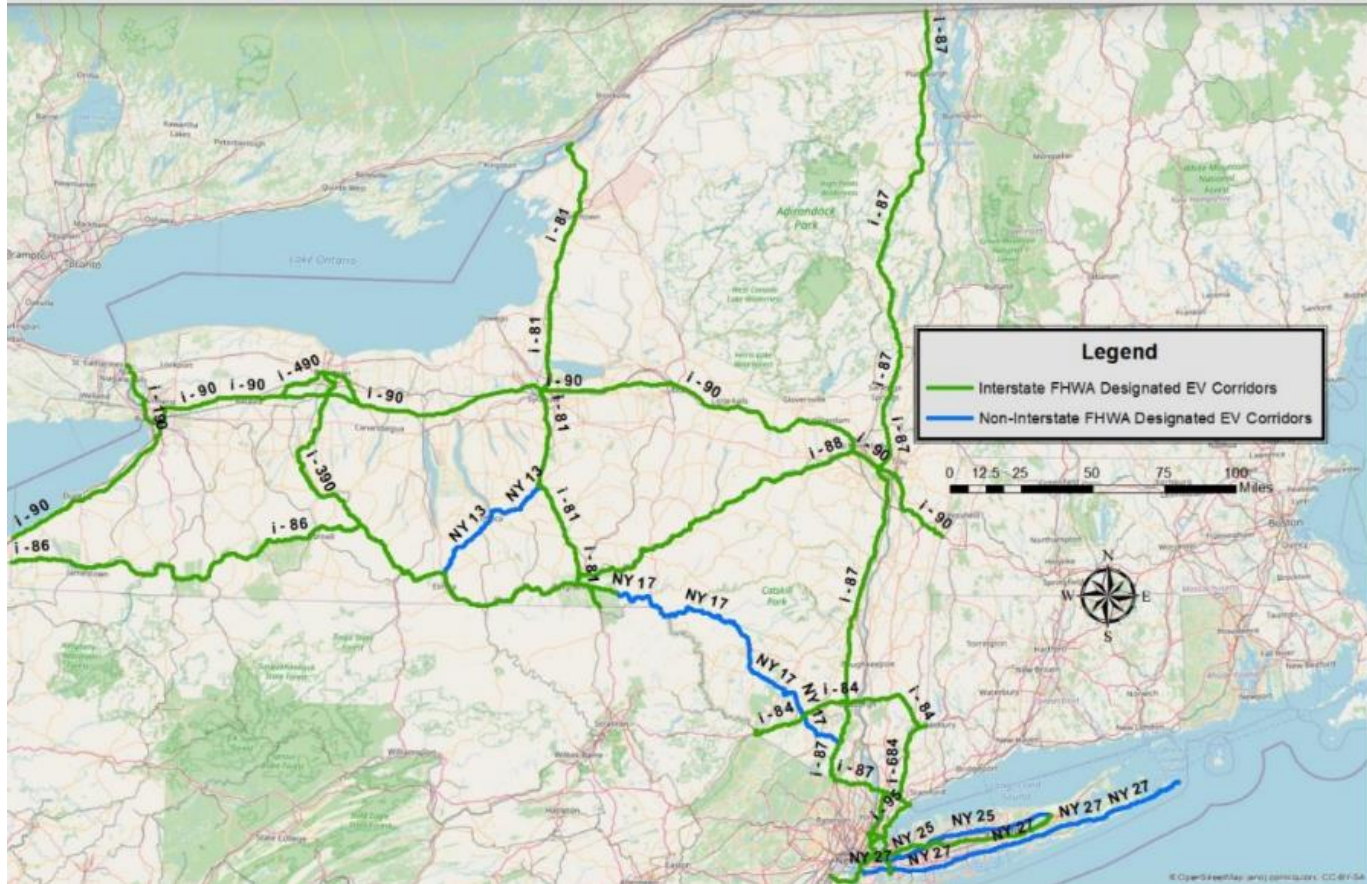
BEVS per DCFC Ports

12.88

EVs per Level 2 Port

As the number of EVs in our region grows, we need to increase the number of chargers people can access when away from home.

National Vehicle Infrastructure Program



Electric Vehicles and Charging Stations



Electric Vehicle Terms

BEV - Battery electric vehicle, an all-electric car

PHEV - Plug-in hybrid electric vehicle, an electric car that plugs in and runs on electricity, but has a gasoline engine to power the car if the battery is depleted

EREV - Extended-range electric vehicle, an electric car that plugs in and runs on electricity, but has a gasoline engine to recharge the battery if the battery is depleted

DCFC - Direct current fast charger, a quick charging station

EVSE - Electric Vehicle Supply Equipment

EV Market Outlook

- **Ford** says its passenger vehicles will be 100 percent emissions-free in Europe by 2030.
- **GM** aims to have 20 EVs available in the U.S. by 2025, as it moves to an all-electric model lineup by 2035.
- **Mercedes-Benz** has committed to an aggressive electric-focused plan backed by \$47 billion in funding.
- **Toyota** announced its latest electrification goalposts in December 2021, promising to build 3.5 million battery-only electric vehicles per year worldwide by 2030

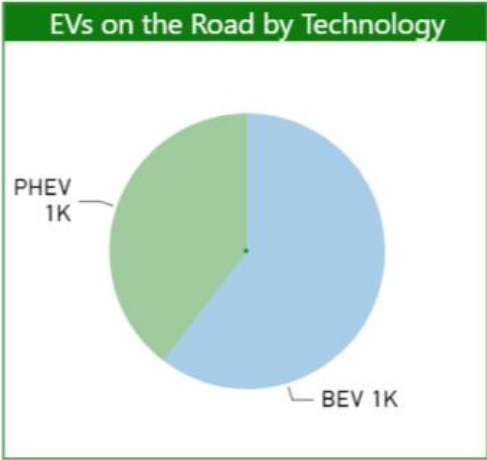
Here is an article from Consumer Reports about Automaker Promises



EV Registrations



EVs on the Road	Last Updated
2,065	DMV Snapshot (2/3/2023)



EV Registration Map

Electric Vehicles (EVs)

About EVs

- Electric vehicles (EVs) save money and reduce air pollution.
- Compared to gasoline-powered cars, EVs are more energy efficient and cost about 50 to 70% less to operate per mile.
- EVs reduce greenhouse gas emissions and pollutants that cause smog and acid rain.
- Require less maintenance such as oil changes
- NYS Drive Clean Rebates Available up to **\$2,000**
- Federal Tax Credits
- New York State's \$1 billion investment in electrifying its transportation sector is vital to meeting the State's sweeping climate and clean energy plan/goals.



ChargeNY

5 REASONS TO CONSIDER AN ELECTRIC CAR



exhilarating

ELECTRIC CARS OFFER FAST AND SMOOTH ACCELERATION.

For pickup that is intuitive and responsive to the driver, the electric car can't be beat.



captivating

ELECTRIC CARS ARE A TECHNOLOGY-RICH EXPERIENCE. Whether it's to preheat your car without garage emissions, or turn up the bass on your speakers without engine distortions, electric cars are at the cutting edge of comfort.



satisfying

ELECTRIC CARS KEEP SAVING TIME AND MONEY. Electric motors don't need oil changes, so they require less maintenance than conventional gas cars. Electric car owners make fewer or no trips to the gas station.



inspiring

BY DRIVING A CLEAN CAR, YOU ENABLE A CLEANER FUTURE.

Transportation still accounts for 42% of NYS' greenhouse gas emissions today, so each electric car that replaces a gas vehicle will make a positive difference.



rewarding

OWNING AN ELECTRIC CAR IS REWARDING. You can get a point-of-sale rebate of up to \$2,000. Combine that with a Federal Tax Credit of up to \$7,500 for a very rewarding purchase. Learn more: nyscrda.ny.gov/Drive-Clean-Rebate.

Plug-in Hybrid Cars



A plug-in hybrid, also called a Plug-In Hybrid Vehicle (PHEV) or an Extended Range Electric Vehicle (EREV), has a larger battery than a conventional hybrid car, and is charged by

plugging into an electric outlet. Plug-in hybrids also keep a gasoline or diesel engine as a backup. After the battery energy is exhausted, the engine starts and the vehicle acts like a conventional hybrid until it is plugged in to recharge.

Battery-Powered Cars



A battery-powered car, or Battery Electric Vehicle (BEV), does not have a gasoline or diesel engine and instead has an electric motor, power electronics, and a battery pack. Battery cars have a

longer all-electric range than a plug-in hybrid, but they do not have a fuel backup. Just like a plug-in hybrid, battery-powered cars plug into an electric outlet to refuel.

NYS Drive Clean Rebate

With more than [60 car models](#) to choose from that qualify for the Drive Clean Rebate, you're bound to find an electric car that best fits your style, budget and driving needs.



DRIVE CLEAN REBATES FOR ELECTRIC CARS PURCHASED AFTER JUNE 30, 2021

The Drive Clean Rebate amount depends on the EPA all-electric range for that car model.

Greater than 200 miles	\$2,000 OFF
40 to 199 miles	\$1,000 OFF
Less than 40 miles	\$500 OFF
Electric cars with MSRP >\$42,000 (MSRP is the manufacturer's suggested retail price)	\$500 OFF

NYS Drive Clean Participating Dealers

County:

 ▼

Brand Vehicle:

FILTER

DEALER NAME	CITY
Country Club Motors	Oneonta
Country Club Nissan	Oneonta
Empire Toyota Scion	Oneonta
Five Star Subaru	Oneonta
Kevins Royal Automtv Ford Of Cooperstown	Cooperstown
Royal Hyundai	Oneonta
Scoville Meno Honda	Oneonta

[NYS Participating Dealers](#)

Electric Vehicle Eligible Models



2022
Escape S

Estimated Net Price \$29,010^{SS} ⓘ




2022
Escape SE

Estimated Net Price \$32,345^{SS} ⓘ



2022
Escape SE Hybrid

Estimated Net Price \$34,710^{SS} ⓘ

 Ford Escape Plug-In Hybrid	38	\$500
Federal Tax Credit \$6,843		
Base MSRP \$33,075		
Fuel Economy (MPGe) 100		
Type	Plug-In Hybrid Electric Vehicle	

[EV Calculator](#)

Inflation Reduction Act Tax Credits

Clean Vehicle Credits

- Credits for New Electric Vehicles Purchased in 2023 or After
 - You may qualify for a credit up to \$7,500 under Internal Revenue Code Section 30D if you buy a new, qualified plug-in EV or fuel cell electric vehicle (FCV). The Inflation Reduction Act of 2022 changed the rules for this credit for vehicles purchased from 2023 to 2032.
 - The credit is available to individuals and their businesses.
- Credits for New Electric Vehicles Purchased in 2022 or Before
 - If you bought a new, qualified plug-in electric vehicle (EV) in 2022 or before, you may be eligible for a clean vehicle tax credit up to \$7,500
- Used Electric Vehicle Credit
 - Beginning January 1, 2023, if you buy a qualified used electric vehicle (EV) or fuel cell vehicle (FCV) from a licensed dealer for \$25,000 or less, you may be eligible for a used clean vehicle tax credit (also referred to as a previously owned clean vehicle credit). The credit equals 30% percent of the sale price up to a maximum credit of \$4,000.
- Commercial Clean Vehicle Credit
 - Businesses and tax-exempt organizations that buy a qualified commercial clean vehicle may qualify for a clean vehicle tax credit of up to \$40,000.
 - The credit equals the lesser of:
 - 15% of your basis in the vehicle (30% if the vehicle is not powered by gas or diesel)
 - The incremental cost of the vehicle
 - The maximum credit is \$7,500 for qualified vehicles with gross vehicle weight ratings (GVWRs) of under 14,000 pounds and \$40,000 for all other vehicles.
- Clean Vehicle Credit Qualified Manufacturer Requirements
- Clean Vehicle Credit Dealer Requirements

New York Truck Voucher Incentive Program (NYTVIP)

NYSERDA will ONLY accept applications for Class 4-8 trucks, transit buses, paratransit shuttle buses, school buses, and port cargo handling equipment that are accompanied by the scrappage of a qualifying pre-2009 vehicle.

Voucher Amounts and Caps for All Vehicle Types

Vehicle Type	Fuel Type	Incremental Cost %	Voucher Amount: Vehicle Weight Class (GVWR)					
			3	4	5	6	7	8
On-Road Trucks	BEV / FCEV	95%	\$ -	\$100,000	\$110,000	\$125,000	\$150,000	\$185,000
Transit Buses	BEV / FCEV	100%	\$ -	\$100,000	\$125,000	\$150,000	\$250,000	\$385,000
Paratransit Buses	BEV / FCEV	100%	\$ -	\$100,000	\$125,000	\$150,000	\$ -	\$ -
School Buses	BEV	100%	\$ -	\$100,000	\$120,000	\$150,000	\$200,000	\$220,000
Port Cargo Handling Equipment	New BEV	90%	\$170,000 across all classes					
	Repower BEV	90%	\$140,000 across all classes					

EV Charging Stations

Electric Vehicle Supply Equipment (EVSE)

2021 HOCTC Electric Vehicle Charging Station Plan

Herkimer-Oneida Counties Transportation Council EV Charging Station Plan

Took into consideration:

- Electric Vehicle Benefits
- Electric Vehicle Incentives
- Comprehensive Charging Network
- Driving Range of EVs
- State and Federal Incentives
- Electric Vehicle Landscape
- Current EV Charging Stations
- Company Employee Numbers
- Renter Occupied Housing
- Major Economic Projects
- Recreational Opportunities
- Implementation Timeline

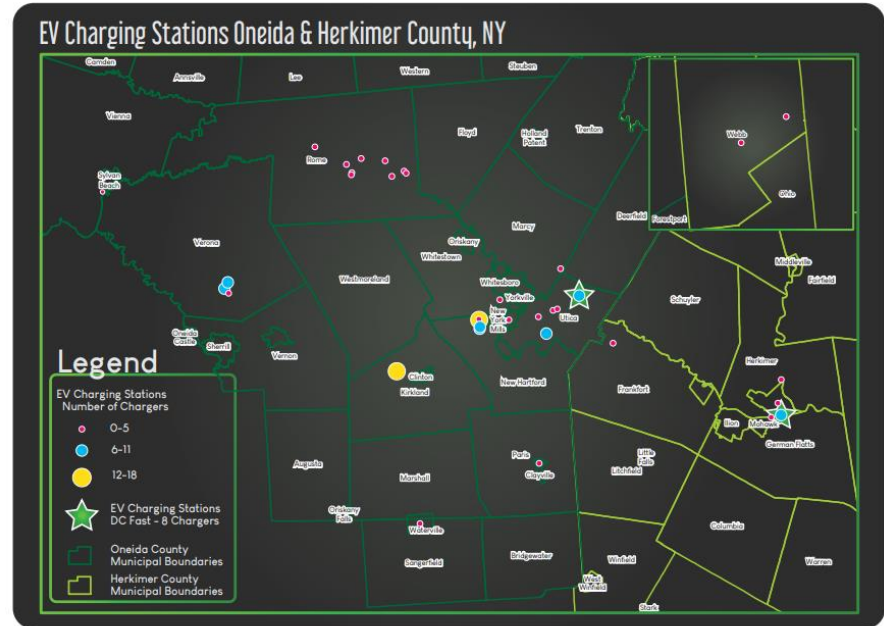


Figure 3: EV Charging Stations in Herkimer and Oneida Counties
Source: HOCTC

Residential Charging Stations

[NYSEG Electric Vehicle Resources](#)

[National Grid Electric Vehicle Resources](#)

STANDARD HOME OUTLET



HOW IT WORKS

Use the adapter cable that came with your car. Plug the standard 3-prong plug into your wall outlet and plug the other end into your electric car.

WHEN TO USE IT

Plug it in overnight and your car will be ready by morning. It takes about 8-12 hours to full charge a depleted battery.

RAPID HOME CHARGER



HOW IT WORKS

This requires an initial purchase and installation, but once set up, simply plug the charger cable directly into your electric car.

WHEN TO USE IT

If you drive multiple times a day, this type of charger may be for you by ensuring that your car is fully charged between outings.

EV Charging Station Programs

[EV Make-Ready Program](#): Covers up to 100% of the electric infrastructure costs associated with new non-residential EV charging stations can be incentivized through your local utility provider.

[DCFC Per-Plug Incentive Program](#): The DCFC Per-Plug Incentive Program (DCFC PPI) provides an annual declining per-plug incentive to qualifying public DCFC operators. The purpose of the incentive is to support DCFC while utilization is relatively low by offsetting electric delivery cost.

[ZEV Infrastructure Grant Program](#): provides grants to cities, towns, villages, and counties to install hydrogen fuel filling station components and electric vehicle supply equipment (EVSE) for public use.

[NYS Tax Credit](#): 50% up to \$5,000

[Federal Tax Credit](#): 30% up to \$30,000 *Need IRS Guidance) [Energy.gov](https://www.energy.gov)

Types of Commercial EV Chargers

Level 2 Charging Station

Require 208-240 V
3 kW to 19 kW AC
18-28 Mile Range/Hour
Charged in ~ 8 hours

DESTINATION CHARGING STATIONS



HOW IT WORKS

Use a charging station app to find one of the thousands of Level 2 stations near your destination. Depending upon its host, using it may be free or cost a small fee.

WHEN TO USE IT

Ideal for topping off when you park somewhere for a while, like a workplace or parking garage.

ON-THE-GO CHARGING STATIONS



HOW IT WORKS

Pay and use any of the hundreds of NYS fast chargers to rapidly charge your car, similar to how you would use a conventional gas station.

WHEN TO USE IT

As a stopover on longer road trips when you need to charge up as you go.

Rapid Fast Charging Station

Direct Current Fast Charge (DCFC)

Max output 350 kW DC
80% Charge in 20-40 min
100% in 60-90 min

Joint Utilities EV Make-Ready Program

Incentive Level	Eligible Project Criteria
Up to 100%	Publicly available DCFC projects with standardized plug types located within Disadvantaged Communities.
	L2 projects at multi-unit dwellings located within Disadvantaged Communities.
Up to 90%	Publicly available L2 and DCFC projects with standardized plug types located outside of Disadvantaged Communities. Includes municipal pay-to-park and free parking locations.
	Publicly available L2 and DCFC projects including proprietary plugs must have an equal number of standardized plugs of an equal or greater charging capacity to the proprietary plugs (outside of Disadvantaged Communities).
Up to 50%	Non-public L2 and DCFC projects, such as workplaces with restricted access and privately-owned pay-to-park lots.
	Public and non-public L2 and DCFC projects consisting only of proprietary plugs.
	Public and non-public L2 and DCFC projects where proprietary plugs are not co-located with an equal number or greater number of standardized plugs of equal or greater charging capacity.

Table is provided for illustrative purposes. Individual utilities reserve the right to make determinations regarding incentive-level eligibility based on their best interpretation of the proposed project and available information at the time of review. Customers are responsible for charger costs, annual maintenance cost, and ongoing electricity costs.

Zero-Emission Vehicle Infrastructure Grants for Municipalities

Application Closed for 2021

The Municipal [ZEV Infrastructure Grant Program \(PDF\)](#) provides grants to cities, towns, villages, and counties to install hydrogen fuel filling station components and electric vehicle supply equipment (EVSE) for public use.

A variable match of 0 to 20 percent is required based on the median household income (MHI) of the municipality in which the ZEV infrastructure will be installed.

Looking at the Numbers

- Our efforts have contributed to another increase in the number of electric vehicles sold in 2022, bringing the total number of EVs on the road to almost 130,000 and the number of charging stations in the state to more than 11,000. Over 150,000 electric vehicles have been purchased in New York since 2013 - more than 48 other states.

5th AVE NYC
1900

Where is
the
car?



5th AVE NYC
1913

Where is
the
horse?



Thank you!

Any Questions?