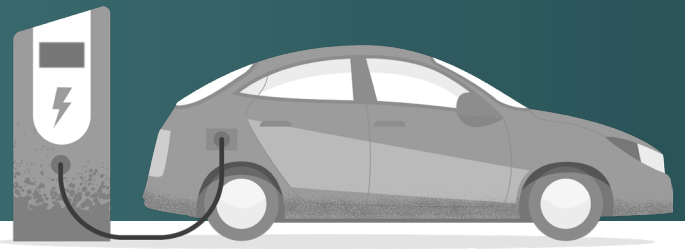# GET THE FACTS ON ELECTRIC VEHICLES:
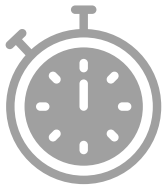# RANGE ANXIETY & CHARGING

"Range anxiety" is the fear that a vehicle doesn't have enough energy/fuel to reach its destination and would leave its occupants stranded. Range anxiety is primarily used in reference to Electric Vehicles (EV) and is one of the biggest concerns people have with switching to an electric vehicle.

Below we give some insight on range anxiety and charging which may encourage more New Yorkers to make their next car an EV.

Myth: An EV doesn't have enough range to be practical.

Fact: Most New Yorkers could drive an EV for days without needing charging. The average New Yorker drives **11,871 miles a year** which comes out to **228 miles per week.** The range of an electric vehicle depends on the make and model of the car, but the average is around 180-200 miles per charge meaning that the average would have to charge their car no more than twice weekly.
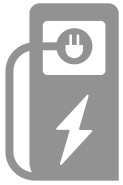
Myth: Charging an EV is inconvenient and time-consuming.

Fact: There are many ways to make charging EV's time-efficient. Most EV owners charge their vehicles overnight to ensure that their vehicle is fully charged for the next day. Doing so also avoids peak energy times and high electricity costs. EV's can also be charged at places you are traveling to and spending time at anyway like supermarkets, malls, parks, and train stations. Some of these places are even implementing DC fast charging which can bring an EV's battery up to 80 percent of its capacity in around 30-60 minutes.

> "I was concerned initially that I would have 'range anxiety' about running out of charge in an inconvenient location, but I have found chargers are plentiful and easy to access. Also, we installed a home charger so every morning I leave the house with 200 miles on my battery. It turns out that this is more than enough for my typical daily driving. Even on long trips, we've found it's refreshing to stop for a half hour at a 'Supercharger' site when needed. We stretch our legs, get a cup of coffee, and walk the dog. Travelling this way is surprisingly easy and pleasant! I also love never going to the gas station! EV's need so little maintenance that we save money and time that way, too. We've been delighted with our EV & recommend one to everyone!"
>
> - Cynthia B., Westchester NY, Tesla driver

Myth: There aren't enough places to charge an EV.

Fact: New York is building charging infrastructure all over the state to address the increasing number of EVs on the road. Governor Cuomo introduced the **Charge Ready NY** program to invest $750 million for charging infrastructure across the state. This funding will support 10,000 charging stations statewide by 2021. Increased charging infrastructure means less distance between charging stations, which in turn greatly decreases range anxiety for drivers. And charging stations are increasingly common at grocery stores, shopping plazas, pharmacies, workplace garages and parking lots, highway rest stops, and even gas stations! **NYSERDA's Electric Vehicle Station Locator** and **Plug-in-America's EV Charger Locator** are great resources to find the nearest EV public charging station.

Myth: Charging an EV is too expensive.

Fact: Much like gasoline prices, electricity costs vary at any given time, however, a range of reported savings are available. With **data provided by CleanTechnica,** it is estimated that EV owners save an average of $3,000 to $10,500 on fuel costs over their vehicle's lifespan.

"I have zero range anxiety with day-to-day around-town driving. If you have a typical or average commute, you can get all you need by charging overnight on level 1 (standard 120v outlet). We haven't done much long-range driving yet (thanks COVID), but our one trip to NYC and back was totally doable with two stops (one each way) at DC fast charging stations at rest stops."

- Portia Z., Niskayuna NY, Chevy Bolt driver

Photo credit: Portia Z.