5 Questions About EV Charging

HOW LONG WILL IT TAKE TO CHARGE MY CAR?

How long it takes to charge your car depends on the type of charging station and the size of your vehicle's battery. Charging options are measured in kilowatts. Vehicle batteries are measured in kilowatt-hours. The more kilowatts that can flow to your battery at once, the quicker it will charge.

LEVEL 1 (REGULAR WALL OUTLET)	LEVEL 2 (240-VOLT HOME CHARGER)	DC FAST CHARGING (PUBLIC STATION)	SUPERFAST/ ULTRAFAST CHARGING (PUBLIC STATION)
1.2 kW	3.3-19.2 kW	50–150 kW	150-400 kW
42 hours	**2.6-15 hours**	**20-60 minutes**	**8-20 minutes**

Charging station ranges from the Association's report, Understanding the US Electric Vehicle Market. Times based on charging a fully depleted 63 kWh battery (the median battery size of US BEV models as of May 2019) to 80% capacity.

HOW FAR CAN I GO ON A KILOWATT-HOUR?

2-4 miles*

Just as gas-fueled cars can go different distances on a gallon of gasoline, how far you can drive your EV with one kilowatt-hour of electricity depends on the car, how you drive it, and other features you are using, such as heating. The median range – how far it can go on a full battery – for 2019 EVs is **236 miles.**

**Based on EPA estimated fuel economy for 2019 EV models*

HOW MUCH DOES IT COST TO CHARGE?

$5.95 per charge*

$450–$800 per year**

Compared to fueling with gas, it costs the average US driver about half as much to fuel an electric vehicle.

THE EQUIVALENT ELECTRICITY TO ONE GALLON OF GASOLINE***	
	$1.21 eGallon of electricity
	$2.71 gallon of gasoline

Customers can save even more by taking advantage of public power utility rates designed for EV drivers to charge during periods of low electricity use (usually overnight).

The cost to use public charging stations varies (and can be free), and might be a per use fee, an hourly rate, or per kWh rate.

**To charge a fully depleted 63kWh battery to 80% capacity using 2018 national public power average residential rate of $0.118/kWh*

***Estimated annual fuel cost for 2019-2020 all-electric models, according to FuelEconomy.gov*

****DOE's eGallon calculator, based on average residential electricity price of $0.13/kWh and average gasoline price as of August 2019.*

CAN I USE ANY PUBLIC CHARGING STATION?

No — different manufacturers use different plugs for DC fast charging.

PLUG TYPE	PLUG TYPE	WHICH CARS USE IT
	SAE Combo coupler system (CCS)	Audi, BMW, Chrysler, Ford, GM, Honda, Hyundai, Kia, Mercedes, Porsche
	CHAdeMO	Nissan, Mitsubishi
	Tesla	Tesla

Some, but not all, stations can accommodate multiple plug types. Drivers can use onboard systems or mobile apps to look for compatible stations.

HOW OFTEN WILL I HAVE TO CHARGE IT?

2-3 times/week

With typical daily commuting, charging every other night or every few days is common.

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