

Electric Vehicles 101

Why Drive an EV?

Environment – Reduces GHG and smog-producing pollutants **Clean Energy, National Security and Fuel Savings** – Use domestically produced electricity at 1/3 the cost of foreign oil resulting in major fuel savings for EV owners **Driver Satisfaction** – Instant torque, quick acceleration, whisper quiet and simple drive train with fewer moving parts to repair or replace

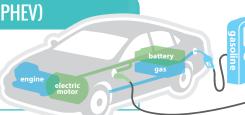
What are the Different Types of Vehicles?



Vehicles propelled by an engine that solely relies on the combustion of gasoline or other fuel as its power source

Plug-in Hybrid Electric Vehicle (PHEV)

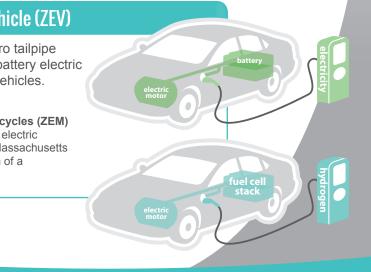
Hybrid vehicles that plug into the grid so they can operate on electricity as well as an internal combustion engine



Zero-Emissions Vehicle (ZEV)

Vehicles that have zero tailpipe emissions, including battery electric and fuel cell electric vehicles. Other ZEVs include:

• Zero-Emission Motorcycles (ZEM) Two- or three-wheeled electric vehicles meeting the Massachusetts Vehicle Code definition of a motorcycle



Are there different types of charging stations?

Charging Equipment

Level 1 (120 volt) Typical household outlet utilized for light-duty appliances

Level 2 (240 volt) Typical household outlet utilized for heavy-duty appliances

DC Fast Charge (480 volt) Commercial chargers used for quick public charging

How long does charging take?

Charging Time

Level 1 = 6 miles of range per hour of charge

Level 2 = 10-15 miles of range per hour of charge

DC Fast Charge = 80% charge in 30 minutes*

*Based on 24 kilowatt-hour battery

Public Charging

Network of charging stations across the state including Level 2 and DC Fast Charging

For a list of charging stations please see one of the following:

- plugshare.com
- afdc.energy.gov/stations
- na.chargepoint.com/ charge_point



For Further Information

Massachusetts Offers Rebates for Electric Vehicles Center for Sustainable Energy mor-ev.org | 866-900-4223