ELECTRIC VEHICLES Let Us Count the Ways (They Work)

Not all electric cars are created equal. Here are the four main types of electric cars:



Hybrid Electric Vehicles (HEVs) have been on the market the longest. HEVs include a small battery pack that is not charged by plugging it in, but rather the pack is charged by the internal combustion engine or the braking process. HEVs are not powered solely by batteries at any given time.



Plug-in hybrid EVs run on both battery power and gasoline and have much smaller battery packs than BEVs. The all-battery range in these vehicles is typically between five and 30 miles, and then the internal combustion engine is responsible for anything beyond that. Plug-in hybrids reduce emissions for short trips around town; longer trips are powered by gasoline.



Battery Electric Vehicles (BEVs) (also known as EVs) do not rely on any gasoline to run and have zero tailpipe emissions. EV operators plug their vehicles into their home electric grid or a public charging station to charge. BEVs also generate electricity from braking, similar to HEVs, and use this as a secondary energy source.



Range Extender Hybrid EVs (REHs) function the same way as plug-ins, but they have higher battery ranges due to design differences. Examples include the BMW i3 and the discontinued Chevrolet Volt. Some can drive more than 50 miles on a single charge.

