

# HOW TO CALCULATE ELECTRIC CAR EFFICIENCY



## 01

### Calculating Electric Vehicle Efficiency

Calculating electric vehicle efficiency allows you to see how much electricity is being used and what it costs you. A quick way to do this calculation is by dividing your electric bill from a month into kilowatt hours (kWh) and then multiplying that number by the cost per kWh. For example, \$150 divided by 300=0.50 multiplied by 20 cents per kWh =\$0.25/hr.



## 02

### How Does Electric Car Efficiency Work?

It is a measurement of how much energy the electric motor uses to move the vehicle. The higher the electric car efficiency, the further it will go on one full charge and use less battery power in proportion to its total weight. The United States Department of Energy calculates miles per gallon equivalent (MPGe) for electric cars. This is the number that most people use to compare electric car efficiency with vehicles fueled by gasoline or diesel fuel. The EPA uses MPG, which measures actual gas consumption in the distance traveled and does not consider driving patterns such as idling or frequent starting and stopping.

## 03

### Factors That Affect Electric Car Efficiency

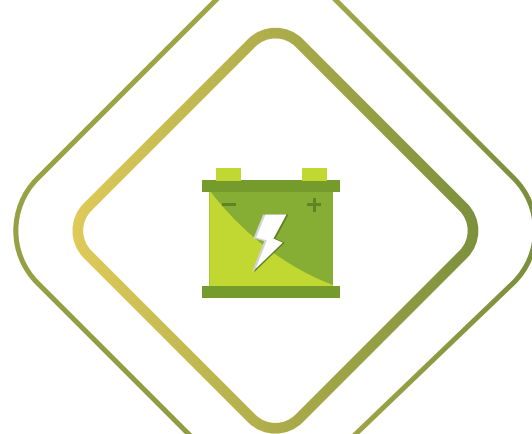
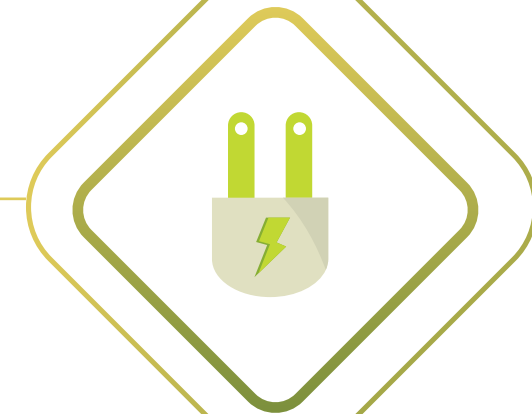
#### Electric Motors Affect EV Efficiency

Besides the emissions created to produce the electric motor, additional factors affect how efficiently it runs and affect mpg/-consumption of power on a full charge. Electric vehicles use

#### Efficiency Rating (The Higher, The Better)

You may have noticed that some cars have a graph on the window sticker with ratings from 100% to 12. The first number represents how efficient your vehicle is on the electric grid, and it's rated by how many miles you can drive per kilowatt-hour of electricity.

A car below 150 kWh/100 mile will create optimal efficiency for an electric vehicle, but what about if you're driving a hybrid car or running on gas? These numbers do not consider other factors such as charging inefficiencies which make them less than accurate when deciding whether or not to buy an electric car.



## 04

### Electric Vehicle Efficiency and Why It Matters

Efficiency is one of the factors to consider when you're thinking about getting an electric car. The energy consumption of your vehicle includes the power plant emissions and transmission losses. Electric vehicles are also more efficient because their engines don't produce greenhouse gases as fossil fuels do.

## 05

### The Benefits of Electric Cars Over Gas-Powered Vehicles

- Electric cars are much quieter
- Electric motors require almost zero maintenance
- EVs have virtually no engine wear
- EVs are less expensive to operate



## 06

### Disadvantages Of Electric Cars Compared to Gas-Powered

- Basic Electric Vehicles don't have a very high top speed
- The batteries must be charged daily
- EVs can require a long charge time.
- Electric cars are expensive
- Electric vehicles may be impractical

