

- Is driving an electric vehicle better for the environment? _____

Well, **yes and no**. It's better for the environment when you're comparing driving an electric vehicle to driving a vehicle with an internal combustion engine (zero exhaust emissions, reduced demand for petroleum, improved public health...).

But, when compared to alternate means of transportation such as bicycling, walking, public transportation powered by renewable energy, etc., electric vehicles are a good, but not best, choice.

It also depends on how the electricity for charging an electric vehicle is generated - all coal, not so good. When the energy for charging is derived from an average mix of sources (coal, natural gas, nuclear, renewables), electric vehicles are better.

Primary source: [The Hill, 1/25/18](#)

- When was the electric car first invented (circle the correct answer)?
1832 1859 1897 1908 1920 1974 1988

1832

From ThoughtCo.: [The History of Electric Vehicles Began in 1830](#).:
Who invented the very first EV is uncertain, as several inventors have been given credit. In 1828, Hungarian Ányos Jedlik invented a small-scale model car powered by an electric motor that he designed. **Between 1832 and 1839 (the exact year is uncertain), Robert Anderson of Scotland invented a crude electric-powered carriage.**

In 1835, another small-scale electric car was designed by Professor Stratingh of Groningen, Holland, and built by his assistant Christopher Becker. In 1835, Thomas Davenport, a blacksmith from Brandon, Vermont, built a small-scale electric car. Davenport was also the inventor of the first American-built DC electric motor.

- There's no gasoline engine in an electric car, so what runs the thing? (circle)
An internal combustion engine Hamsters An electric motor

In practically all cases, the answer is "An electric motor". However, it seems that some hamsters can power and drive their own cars:

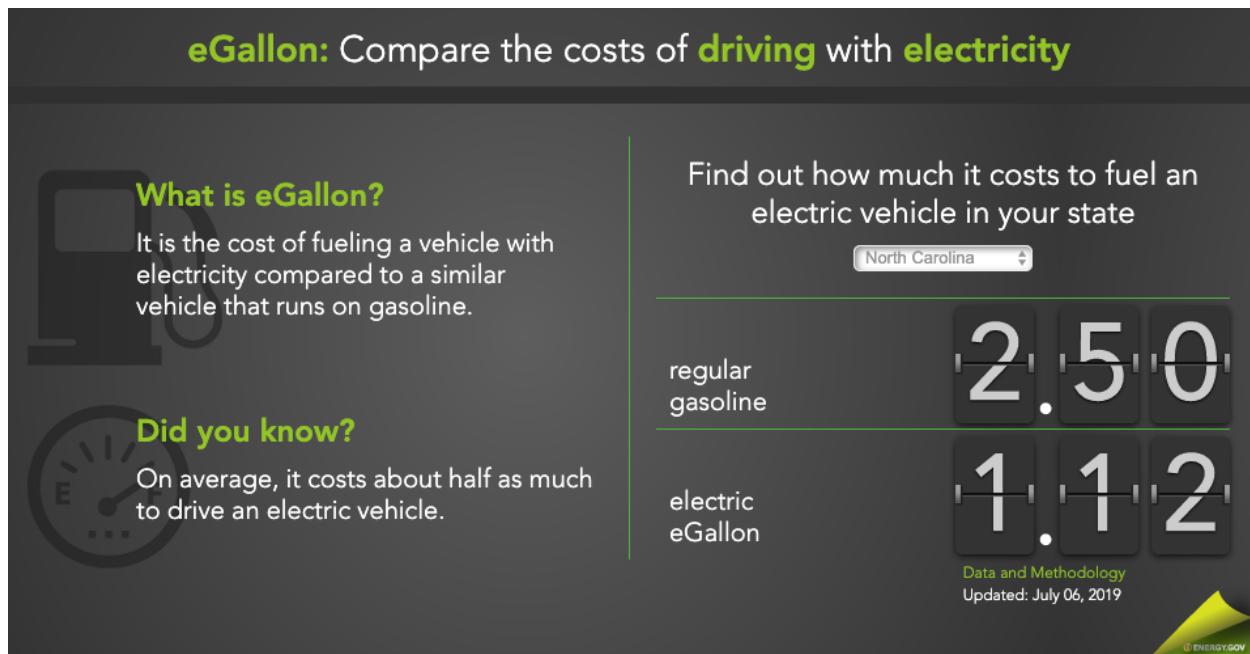


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- The annual cost of gasoline for the average car is about \$1,400 per year. For electric vehicles, the cost is about _____ per year. :)

It varies primarily depending on where you live. One [comparison](#) states "The average cost of electricity in the US is 12 cents per kWh. Therefore, the average person driving the average EV 15,000 miles per year pays about **\$540.00** per year to charge it. As mentioned, the cost of electricity can vary greatly depending on where you live, but in order to equal the price of the average gasoline car's fuel costs, the price of electricity would have to be 2.5 times the national average, and cost 31 cents per kWh. The average person would save roughly \$860 per year in fuel alone, and that's assuming gasoline prices remain at their historically low current levels." Source: Plug-In America: [How Much Does It Cost To Charge An Electric Car?](#)

Answers in the range of **\$300 to \$900 annual cost** of electricity for EVs are acceptable.

There are excellent calculators available that take into account where you live. One such is provided by the Office of Energy Efficiency and Renewable Energy: [eGallon: Compare the costs of driving with electricity](#)



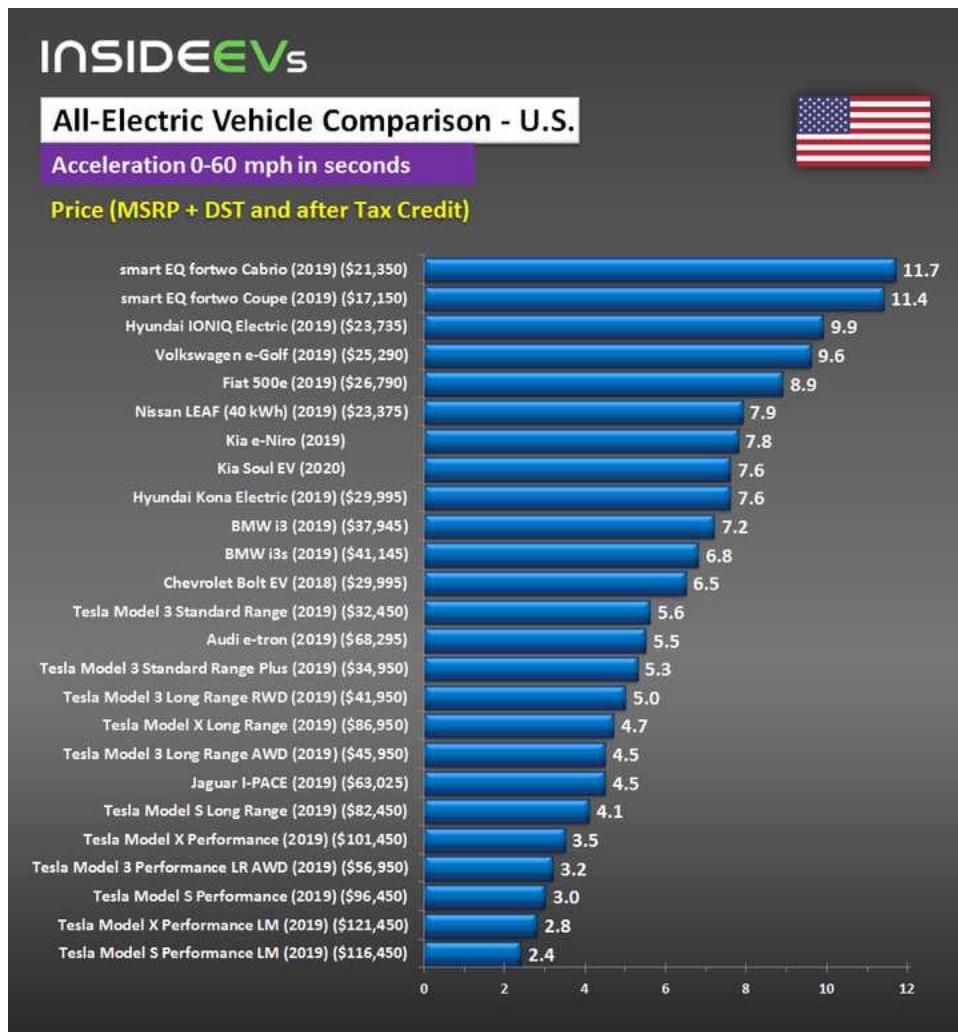
- ____ percent of consumers who have experienced an electric vehicle say they “enjoyed” the experience, while ____ percent reported not enjoying it.

From a survey published by [Business Wire in December 2016](#):
“**Sixty** percent of consumers who have experienced an EV say they “enjoyed” the experience, while only **eight** percent reported not enjoying it.”

That was 2016. More recent reports show enjoyment of driving an electric vehicle are increasing. See [Will I enjoy driving an EV? In Motoring – May 7, 2019](#)

- Electric vehicles can accelerate 0 to 60 in ____ seconds with no shifting of gears.

Here's a chart published by [Inside EVs, April 3, 2019](#):



Electric vehicles account for ____ percent of auto sales in the United States and ____ in Norway.

From TechCrunch.com in April 2019 [More than 350,000 new EVs will be sold in the U.S. in 2020:](#)

"Those figures will give EVs a still tiny **2 percent share** of the total U.S. fleet. More than 350,000 new EVs will be sold in the U.S. in 2020. Those figures will give EVs a still tiny 2 percent share of the total U.S. fleet."

For Norway, from The Driven, October 12, 2018, "Of 10,620 new passenger vehicles registered in Norway, nearly half [50%] were electric, according to the Norwegian Road Traffic Advisory Council (OFV)."

* Name all the models of Electric Vehicles and Plug-ins you can.

The [website PlugIn Cars](#) has a current list of Battery Electric Vehicles, and Plug-in Hybrids. It lists 48 models.