

How Long Does It Take to Break Even With an Electric Car

By Carrie Kirby on 22 May 2017, Wisebread.com

Electric cars come at a premium. You can still get a hefty tax rebate for buying an all-electric or plug-in hybrid vehicle, but even after deducting that \$3,700 —\$7,500 rebate from the price, you're still going to pay more up front for electric than a gas-powered engine. You'll make up for it in gas savings, right? Maybe — but with low gas prices persisting, the payback may take a long time. Here's a look at the math behind the theory that an electric car will pay for itself.

Upfront cost: My husband and I recently test drove a Kia Soul EV. It was peppy and felt surprisingly roomy for a small car. It costs about \$34,000, while the Soul without an electric motor costs only \$20,000. So even after deducting the \$7,500 tax credit, you'd still be paying \$6,500 more to go electric. (Your state might offer additional credit, but I'll leave that out of this calculation.)

Another upfront expense, which I didn't think about until I looked at EVs, is the cost of buying a home charging station and having it installed in the garage. That would be about \$1,200. However, you might be able to apply for a local rebate or credit to defray that cost as well.

The difference in upfront cost: Buying and getting set up with the Kia Soul EV costs about \$7,700 more than the nonelectric.

Fuel costs: Nationwide, at the time of writing, the average gallon of gasoline costs \$2.41. If you live in California or in a big city like I do, you may be paying closer to \$3. If I bought a traditional Kia Soul, I'd get about 28 miles per gallon — so driving a typical 15,000 miles a year, I'd be buying about 535 gallons of gas. In most parts of America, that would run about \$1,300 for a year's worth of fuel. With the electric car, I could drive about [105 miles on 33.7 kilowatt-hours](#), which at a cost of 12 cents per kWh, means I could drive 15,000 miles a year for \$578 in electricity. You can save even more on charging if you work somewhere with a free charging station, or if you have access to free public chargers.

The difference in fuel costs: Electric costs \$722 less per year at current gas prices.

Maintenance: Because they don't require oil changes, all-electric vehicles cost less than regular cars to maintain — about 35 percent less, according to one estimate I found. According to Repair Pal, the average cost to maintain and repair a regular Kia Soul is \$446 a year, while the EV is \$267.

The difference in maintenance cost: Electric costs \$179 less per year.

Other expenses: You might wring a few more dollars out of your EV from insurance company discounts and free public parking. You may also save on tolls if your area allows you to drive your EV in the carpool lane.

Breaking even: So, you started out life with your new EV \$7,700 in the hole after buying the car, installing a charging station, and pocketing the federal tax credit. You will save about \$900 a year in fuel and maintenance costs. At this rate, it will take you eight to nine years to break even. That's a pretty long time to recoup an investment.

Other benefits of going electric: However, there are non-monetary benefits to owning an electric vehicle that make the purchase worthwhile for many people. **First**, there is the knowledge that you're contributing less to climate change and air pollution by using electricity instead of gasoline. While EVs produce no tailpipe emissions, the power plants that fuel them do produce emissions. Still, the Department of Energy estimates that EVs are responsible for less than half the emissions of gas vehicles. That's big. **Second**, your EV may entitle you to privileges such as driving in the carpool lane. In the high traffic Bay Area where I live, many EV owners made their purchase decision based on carpool lane access alone, because it can make the difference between a two-hour commute and a one-hour commute into Silicon Valley.

If you're buying an EV for the perks, check all the details before you sign the contract to make sure you're really getting everything you want. Sometimes states have restrictions, such as quotas for carpool lane stickers and income caps for tax rebates.