

How Much Does It Cost to Charge Your Smartphone for a Year?

Shockingly smartphones use very little energy. With a few assumptions and the right calculation formula it is very easy to estimate the theoretical cost. I'll be using the battery found in the iPhone 13 Pro as a reference point. The iPhone 13 Pro has a 3,095 mAh battery that runs at 3.83 volts.

First, we need to figure out how many watt-hours of energy your phone's battery can store. To do that, we need to first turn the milliamp-hours into watt-hours by multiplying the battery capacity by the voltage and dividing by 1,000.

$$(\text{mAh} * \text{V}) / 1000 = \text{Wh}$$

Based on that equation, our 3,095 mAh / 3.83v iPhone battery has an 11.85 Wh capacity. It's the same amount of stored energy regardless of how we label it, we're simply changing the units from mAh to Wh because your electricity use is measured and billed by kilowatts.

Now let's calculate how much it costs you to charge an 11.85 Wh battery, assuming it has been completely depleted. Let's convert the Wh to kWh, the unit used by an electric company to bill us.

$$\text{Wh} / 1000 = \text{kWh}$$

So, the capacity of our iPhone battery is 0.01185 kWh. Now we can figure out how much that amount of electricity costs by referencing the electric bill for the cost-per-kWh value. I'll use in this example the cost of \$0.12 per kWh.

$$\text{Battery Capacity in kWh} * \text{Cost-per-kWh} = \text{Charge Cost}$$

Our iPhone 13 Pro, based on our perfectly efficient charging scenario here, costs \$0.00141 to charge from a completely dead state to a fully charged state.

Assuming you ran your battery down to empty every day of the year and then charged it back up, it would cost you \$0.51—not even a dollar. It is very unlikely that you drain your phone battery every day. Thus, your yearly cost of charging your phone is actually closer to 50 cents per year.

This was a real eye opener to me when I made these calculations for the first time.

IRS Warns of Third-Party Employee Retention Credit Claims Fraud

The Internal Revenue Service is warning employers to be wary of third parties who are advising them to claim the Employee Retention Credit (ERC) when they may not qualify. *The third parties may take improper positions related to taxpayer eligibility for and computation of the credit benefit.*

These third parties often charge large upfront fees or a fee that is contingent on the amount of the refund and may not inform taxpayers that wage deductions claimed on the business' federal income tax return must be reduced by the amount of the credit, thus significantly lowering the credit benefit.

If the business filed an income tax return deducting qualified wages before it filed an employment tax return claiming the credit, the business should file an amended income tax return to correct any overstated wage deduction.

Businesses are encouraged to be cautious of advertised schemes and direct solicitations promising tax savings that are too good to be true. Taxpayers are always responsible for the information reported on their tax returns. Improperly claiming the ERC could result in taxpayers being required to repay the credit along with penalties and interest.

What is the ERC?

The ERC is a refundable tax credit designed for businesses who continued paying employees while shutdown due to the COVID-19 pandemic or had significant declines in gross receipts from March 13, 2020, to December 31, 2021. Eligible taxpayers can claim the ERC on an original or amended employment tax return for a period within those dates.

If you want me to evaluate your eligibility, feel free to give me a call at 201-568-4530.