

Are Electric Cars Really Aiding in the fight of Air pollutants?

Electric cars have been proven to give off no air pollutants, but are these cars really making a solid difference? To find out, you have to think into it slightly further than just the vehicle itself, but how it's produced, the charging of the car, and one I personally think no one's thought of yet, the disposal of all of the faulty/old batteries. With all these factors considered, it's easy to see why the answer to my question is slightly harder to find out than you initially thought.

How are electric cars produced?

The carbon footprint of making a car is very lengthy no matter the kind of engine powering it. Metal Ores are dug out of the ground and extracted from the dirt. Those rare metals amounted to 0.2 percent of what gets pulled out of the ground. The other 99.8 percent, now contaminated with toxic chemicals, is dumped back into the environment. The metal is then processed into what part of the vehicle's body it will become. Other components must also be brought together such as tires, plastic dashboards, paint, etc. The whole car is then assembled, and every stage in the process requires energy from machines powered by fossil fuels. All of these factors lead to why every car, no matter the engine, produces several tons of CO₂ emissions before it even hits the showroom floor.

How are the cars charged?

Some electric car companies give you the option of purchasing a charging station for your home, but the stations are also usually found at gas stations and convenience stores. All the station does is transfer its electricity, which it receives from the power lines connected to the store, to the car. The power lines receive electricity from power plants, which to this day are still majorly coal plants and natural gas plants. According to Environment America, power plants emitted three times as much pollution as cars in 2007. They released about 2.56 billion tons of pollutants that contribute to global warming. So, unless you live in a city that uses no fossil fuel plants for electricity (which is uncommon) or you have a station at a solar powered house, you still have a very large carbon footprint.

What is the battery made of?

The lithium in the batteries is super light and conductive, which is how an electric car gets a lot of energy without adding as much weight as a wet-celled battery. Lithium and other battery elements only exist in tiny quantities and inconvenient places. In the Jiangxi mine in China, workers dig eight-foot holes and pour ammonium sulfate into them to dissolve the sandy clay. Then they haul out bags of muck and pass it through several acid baths, separate the metals, and dump the now contaminated dirt back into the earth. To make things worse, the metals have to be shipped using large diesel-powered vessels to factories across the globe. These factories, once again powered by fossil fuels, combine the elements together along with more acidic components. The result is a battery. This whole process is repeated thousands of times to give you the batteries used to power anything from electric cars to your phone.

Where will the batteries go?

Batteries cannot simply be put in a landfill. They have to be broken down, the metals recycled, and the contaminated parts properly disposed of. An electric car battery is big, the pack in the Model S tops half a ton, far bigger than anything most e-recycling outfits take, so coming up with an efficient and cost-effective recycling process will take some work, and only a few companies specialize in recycling

lithium batteries right now. Another issue not brought up is the fact that most faulty batteries that no longer hold a charge often undergo chemical reactions within the battery, contaminating all of what could have been recycled.

So, if electric cars aren't the answer, what is?

So, there's no doubt that electric cars can make a difference in our pollution output, but I feel as if right now technology has to catch up with it before it can make a difference. Before we find a way to power our factories without fossil fuels, the footprint of producing an electric car is equal if not more to a gasoline powered car. Also, it doesn't matter if your car isn't giving off pollutants if the electricity it's using came from a fossil plant, so until all cities convert to wind or solar power, the two will contradict each other. Once we fix these issues, electric cars will be the future, but until then, their contribution to lowering pollution will be miniscule. Our main focus now should be finding more efficient recycling methods, reducing our use of electricity from coal plants, and development towards reducing pollutants from production of automobiles.