

With the rise in popularity of electric powered cars, so have the concerns of the sustainability of manufacturing and maintaining these vehicles. Should we rely on these cars for a greener future? Please explain your point of view.

Barack Obama once said, “we are the first generation to feel the effect of climate change and the last generation who can do something about it.” Climate change is the greatest threat to the globe because rising temperatures lead to more frequent natural disasters, higher sea levels, and lower resources. As the population surpasses 8 billion and is only ever rising, we need to address climate change for the future prosperity of humanity. Especially the transportation sector, accounting for 27% of greenhouse gas emissions in the US. Consequently, electric cars have grown in popularity, because they do not produce as much emissions as conventional mobility. By the end of 2022, there are ten million electric cars projected to be sold. Even though proponents argue we should rely on electric cars for a greener future because they are more efficient and are backed up by the government, we should not rely on electric cars because of the drawbacks of the production and better alternatives available.

While some find electric cars efficient compared to conventional cars, there are severe detriments to producing electric cars because of emissions in factories and the mining of heavy metals. The steel, doors, and battery needs of an electric car needs to be made in a factory. However, factories release a large amount of carbon dioxide emissions and are the leading cause of air pollution in the US. Even acquiring the necessary components is difficult, because electric cars require semiconductors and lithium ion batteries. Not only are prices of these various elements skyrocketing, but the mining is unsustainable. In China, where much of the mining takes place, the solid waste can create heavy metal contamination, which already is showing its

effects through water pollution. To rely on electric vehicles, we would need to mine more of these metals, and with a dwindling supply, we would drastically harm the quality of life. On the other hand, some assert that electric vehicles are much better than gasoline powered vehicles. Since burning gasoline for fuel directly leads to emissions released, electric cars provide more efficiency on the road, because of the ability to convert electricity into motion. Unfortunately, much of the electricity that powers electricity is nonrenewable, as 61% of the energy generated in the US was from fossil fuels. Since most of the energy is not green, powering these cars isn't sustainable either. With the carbon heavy production, people cannot rely on electric cars for a greener future.

Though electric cars are backed up by the government, we should not rely on them because there are much better alternatives such as cars powered by other forms of energy and high speed rail. While gasoline cars and electric cars are the most widely used, natural gas cars and hydrogen cars are gaining traction. While gasoline requires oil to produce and release emissions, natural gas cars can be powered through BioNGV, which is an energy source that can be obtained from renewables through the methanization of organic waste from industries like food processing and farming. Alternatively, hydrogen cars are powered from a fuel cell that generates its own electricity with hydrogen. Not only does this have the added benefit of being cheaper than electric cars, but usable hydrogen gas can be acquired without emissions by electrolysis, which breaks down water into oxygen and hydrogen. Governments need to put money into these types of cars, because there would be new innovations that would allow people to better power the cars, but we would still have access to greater mileage, lower costs, and decreased refill time. Moreover, countries should rely on high speed rail networks. Constructing high speed rail is more efficient than electric cars because high speed rail also runs completely

on electricity, but carries more people at a time and lasts for longer. With the growing population, high speed rail would provide a reliable source of transportation in the future and the best allocation of resources. However, there are people who stand firm that electric vehicles are the only route, because there are major electric vehicle companies like Tesla and greater lobbying in Congress. In result, the government subsidizes electric vehicles to reduce the costs. Still, government support is not enough to make electric cars reliable, because costs still remain high after subsidies, and the harms still stand. We should not rely solely on electric cars for the green future in so far as there are better options.

In the end, both sides have a common goal: to promote a greener and more sustainable future. People need to address the problem together because there is no room for trial and error when we only have one planet. We need to find the most effective innovations we can rely on to create a green future.

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