

Electric cars do not solve the automobiles environmental problems essays examples...

[Environment](#), [Electricity](#)



Introduction (Description of the topic and problem addressed)The United States of America has more than 250 million registered vehicles currently in use. Every year, 10 to 11 million vehicles reach their maximum usage on the road and are taken out of service. The above figure clearly explains some of the main environmental impacts that such large number of automobiles both on the roads and on those taken out of service create. The main issues associated with the automobiles when it comes to affecting the environment are centers on climate change, gas emissions, and fuel economy. In an effort to reduce the number of environmental impacts caused by automobiles, engineers designed electric cars that use electricity instead of fossil fuel to power their engines (Guillén 26-30). It has long been known that electric cars solve the environmental problems, but the reality is they really contribute a lot to environmental degradation and pollution. Just let us think of how electric cars never solve the automobile's environmental problems.

The introduction of electric cars has captured the attention of innovators for some decades because they are taken as the next generation vehicles with high level of environment conservation. Most developed countries have embraced the move remove fossil-fuel powered engines and replace them with electric cars in order to reduce the number of automobile environmental impacts. The innovation of electric cars was a major move and no automobile engineer can doubt this. The manufacturing process of any automobile is a rigorous process requiring a lot of energy consumption. The process of producing electric cars, especially the manufacture of their batteries uses enormous amount of energy generated from fossil fuels.

Statistics show that the production of an electric car produces almost double

the amount of carbon dioxide emissions produced while manufacturing a gasoline-powered car. When natural gas undergoes combustion, it produces carbon dioxide, which demands environmentally problematic ideas to release it to the earth. On the other hand, some eclectic car-manufacturing firms use nuclear power that yields hard-to-store wastes that cause many environmental risks. These two impacts have no comparison, a reason why electric cars' production is a real threat to the environment.

Secondly, electric cars use huge batteries with high-energy consumption rates. These batteries must be charged in order to produce the amount of power needed to move a car. Where does the power to charge these batteries come from? An electric car's battery cannot be charged with power generated from renewable sources such as solar or wind. Only diesel-powered generators can manage to provide the amount of energy required to charge these batteries. These generators use fossil fuels that produce large quantities of carbon dioxide that contributes to environment pollution, hence causing environmental problems (Enger and Smith 115-116).

Powering battery charging generators lead to additional amount of carbon dioxide emission in addition to that produces during the manufacture of electric cars. A good look at the above argument shows that electric cars do not solve the automobile's environmental problems.

On the other hand, if renewable energy sources are used to charge electric car battery, it also introduces some environmental impact issues. For instance, solar cells are made of heavy metals whose manufacturing process releases greenhouse gases such as sulfur hexafluoride. Sulfur hexafluoride has 23 thousand times much global warming potential compared to carbon

dioxide (Liu, Powers, and Liu 4018). That is not the end, burning of fossil fuels must occur to extract raw materials used to make solar cells and even wind turbines. In addition, energy from fossil fuels is used during fabrication, assembling, and maintenance of solar cells and wind turbines.

Thirdly, the main component of an electric car is its battery. The battery section carries most weight and to compensate for this, designers construct the remainder of the car body with lightweight materials that require high-energy consumption to produce and process. Aluminum and carbon composites are the main materials used. In addition, an electric car must have an electric motor that also contributes to the amount of energy used during manufacturing. On the other hand, the magnets used in electric cars are made of rare earth metals that are very expensive to extract. Global mining of the two important earth metals, dysprosium, and neodymium requires a 700 percent increase of the amount of fossil fuel consumed in extracting normal earth metals. In order to keep in pace with the National Environmental Protection plans, extraction of these metals requires a continuous 25 years of mining. Just how much carbon emission can be produced during this period? Is it not large enough to cause global warming problems for over 100 years? The truth is electric car's do not solve the automobile's environmental problems (Duke).

Electric cars receive a higher status in some countries, and even people receive tax incentives for purchasing them because they lead a move for the country to go green. The production and maintenance of electric cars involves many toxic substances that create more environmental problems compared to conventional gasoline cars. As discussed above, the global

warming potential of the process used in manufacturing electric cars is twice that of making gasoline cars (Zehner 2).

A description of how people are seeking to address this problem Despite the above problems, experts are suggesting ways and means of ensuring electric cars have minimum harm to the environment. The solutions stand with car designers. Manufacturers and government agencies concerned with the production process. One of the first move that designers have undertaken to reduce automobile's environmental problems involved a consideration to replace nickel-metal batteries with lithium batteries that are light in weight, less expensive and require less energy to manufacture. Lithium batteries use lightweight metals whose extraction and processing costs use lesser volumes of fossil fuels compared to Nickel-metals. Such a move will assist minimize the amount of carbon dioxide emission released to the environment. In addition, the charging power consumed by such batteries will be also reduced hence solving a problem.

On the other hand, governments whose citizens make most use of electric cars have come up with policies requiring people to charge their cars at night when the electricity demand is low. An electric car making a trip of 50 miles requires a daily charge of 12 kWh (MacKay 12). In addition, a standard home uses about 25 kWh each day, representing a half increase in electricity usage daily. The cost of such electricity varies depending with the location of the user and the time of the day. Daytime electricity consumption has a high impact on nation grid because most factories and industries are also using the electricity. If car owners can charge their vehicles at night, it would save the nation a greater amount of revenue in addition to the amount of fossil

fuel consumed to produce electric power.

In 2009, the United States electricity grid generated 400 thousand mega watts of electricity. The nighttime power requirement needed to meet other loads on the grid can allow the produced power to accommodate extra load of charging electric vehicles (Mahajan 126). The nighttime load reduction was 20% without counting charging electric vehicles, a prove that the power can accommodated approximately 40 million electric cars available without a significant reduction in power produced (U. S. Energy Information).

Another suggested solution aimed at reducing the amount of gas emissions was using electric cars in metropolitan areas. When charging or manufacturing electric cars the emissions produced are transferred to emissions creates at the power plant location. Transfer of such emissions to power plants located away from metropolitan would eliminate unhealthy emissions of nitrogen oxides, carbon monoxides, and hydrocarbons from automobiles. In addition, the above solution connects to charging cars at night because at that time the cars are dormant and the only emissions created comes from the mixture of power plants connected to the grid.

The final solution that people sought in addressing the issue of electric cars causing environmental problems is the use of alternative raw materials to make the car bodies. As discussed above, processing and maintenance of an electric car consumes a lot of energy derived from fossil fuels. If metals that require less energy to mould and process can be used, the amount of fuel consumed would be reduced and consequently reducing the amount of greenhouse gas emissions. Moreover, the ores where such metals are mined

are powered by renewable energy in order to minimize usage of fossil fuels (Dijk and Masaru1382-1386).

How this topic touches on current events and how it influences the broader community

The above topic has a lot of significant to the current events and affects the broader community. Firstly, the topic addresses the issue of greenhouses gas emission and globalization that has been a topic of debate for over a century. Engineers have a feeling that they have given the people an environmentally friendly car, but the environmentalist claim that the cars are worse than the gasoline cars. With this in mind, the relevant authority has been involved in serious debates concerning the issue for the benefit of a normal citizen. Under the current events also, the topic has touched on the exploitation of natural resources by the said innovators for their own personal gains. One of the problems discussed involved the extraction of a metal that would cause a massive global warming for the next 100 years. Such issues have been highlighted through discussing this topic, and assist the public in evaluating what best suits them in terms of energy conservation and environmental safety.

On the other hand, the topic has a significant impact to the broader community because it teaches people how to conserve the environment. One of the solutions provided above focuses on the communities that use electric vehicles. The suggestions given about charging the cars during nighttime are of beneficial to the broader community because the move ensures less energy consumption and homes get access to the required amount of power from the grid. In addition, the topic makes the public more

vigilant about the dangers surrounding them associated with climate changes and global warming. The broader society understands the impact of using an electric car to the environment, calling for car owners to embrace the suggested solutions.

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