Electric Cars: Good or Bad for the Economy?

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Outline

I. There has been a big change in fueling vehicle in America. Society has introduced a better way of fueling vehicles, from the view of some experts.
   A. This is a new day and age.
   B. The oil shortage in other countries is affecting American gas prices.
   C. Electric vehicles can be a better way to fuel cars and a cleaner environment for America, but are they?

II. Body
   A. Gasoline fuel vehicles
      1. Efficient
      2. Less expensive and practical
      3. Many models
      4. Third most in pollution
   B. Plug-in hybrid electric cars
      1. Run on electricity
      2. Can switch to gasoline
      3. Swiss army knife of green cars
      4. Range 38 miles
      5. Are not all equal
   C. Hybrid electric cars
      1. Popularity among environmental groups and auto analysts
      2. Reduce weight/improve fuel efficiency
      3. Noisy cabin
      4. More expensive
      5. Good on mileage
   D. Hydrogen fuel cell
      1. Expensive
      2. Generous government subsidies
      3. Natural gas
      4. Miles before refills
      5. Zero emission
      6. Years behind plug-in vehicles
      7. Use energy from braking
      8. Produce 250 grams of CO2

III. Conclusion
   A. America had come a long way with the development of electric vehicle, but will they ever surpass gas vehicle?
   B. A big change indeed, as we look back in history and see all the improvement automakers have done in providing a better fuel, and clean vehicle for our society, but gas vehicles still stand out as the best.

This is a new day and age. There has been a big change in fueling vehicles in America. Society has introduced a better way of fueling vehicle, from the view of some experts. Can this big change really be good for society as a whole or just the privileged few who can afford these expensive vehicles? A few years ago, the prices of gas steadily increased because of the shortage of oil in other countries. This left the economy in a mess. The high gas prices affected everyone in one way or another. Farmers charged more money to supermarkets for the food they produced to make up for the prices they paid at the gas pump to transport their products. Supermarkets in turn passed the high cost they paid to purchase the products from farmers down to consumers, making us all feel the crunch. Something had to be done to make up for the high cost that was being paid at the gas pump. States and government needed an alternate way for transportation in the United States for its citizens and to improve the environment. Automobile manufacturers' engineers, with the push from state and federal governments, decided to come up with new ways to power cars and improve the environment in the process. They came up with a few good ideas. The electric car was one of the ideas that manufacturers came up with, first being produced and sold in Japan. Toyota came up with the idea to combine electric and gas to power cars. The hybrid electric car was later produced as an improvement on the electric car. They went even further by adding the hydrogen fuel cell car, hoping it would take the place of battery-run cars. These ideas jump-started the "go green" campaign. This campaign gained much support by state, local and federal government representatives for a clean environment. Automobile manufacturers used other countries to test their new ideas for fueling cars. There were many trials and errors in producing these alternative cars. The cost of these cars could be very expensive for the average person, though, so despite all the new

technology in creating better cars for cleaner environment, consumers still chose gas cars over any other brand of transportation once gas prices dropped.

Extreme advocates for years proclaimed the use of gas in cars was killing the environment. They claimed that it was causing global warming and polluting the environment. Others felt that the use of petrol gas would leave us vulnerable to countries in the Middle East. This later was proven to be true. The unstable condition in the Middle Eastern countries brought our country to a grinding halt when the supply was shut off (Pearce, 2000). This left our government scrambling to find another way to power motor vehicles. This opened the way for a cleaner, greener fuel environment. We needed it fast and a lot of it. The dilemma was that oil would soon be completely use up, bringing the economy to a standstill if something weren't done soon. They believed that the continued uses of internal combustion engine were polluting the environment with CO2: in turn, many people were dying every year (Pearce, 2000).

For years, we considered internal combustion engines as an efficient option to electric vehicles of the past. There are many different economy-size gasoline vehicle on the market to choose from. These vehicles are less expensive and more practical than other options that are now on the market today. They get 33 miles per gallon on the open highway and city limits. The only drawback is that they are the third most pollution-per-mile vehicle than comparably sized hybrid (Lerner & Lerner, 2008).

We can no one longer consider electric cars as a part of someone's imagination. As of 2011, the electric car became something very real in our society. Manufacturers opened the country up to another way of using other means of fuel for traveling in cars other than gas.

They want us to believe that using electricity would be better for the environment than gas. There are many different ideas car manufacturers came up with their innovation of electric cars. There are also awards already achieved by different manufacturers in creating their electric cars. They want us to know by choosing an electric car, you can get 25 to 50 miles of travel. Many auto manufacturers have started testing and improving their models of the electric cars. There have been many trials and errors in the improvement of these cars. Now these major manufacturers feel they have finally gotten it right and are ready to reveal their intake or idea on the electric car (Lerner & Lerner, 2008).

There are big concerns, though, about the effect of using electricity for fueling cars. Many big cities fear the idea of a black-out, which could occur by the effect of plugging too many electric cars into sockets. Experts say that electric cars can pull as much electricity as lighting an entire house. They feel that the cost of electric cars will be too expensive for the public to handle. Another problem the public may have with electric cars is not enough charging resources to keep the cars running for a long period of time. As you can see, there are many pros and cons on the effect of using the electric car in today's society. There are some who feel that it would be more beneficial to society than the use of gas cars. Others feel that using electric cars would cause more problems for big cities than they are worth. Utility companies worry about the strain it will create on big city generators by plugging electric cars up. It would cost more money to buy the electric car and even more to maintain a charge to keep it running. People should be more concerned about how expensive owning an electric car would be to the average person.

Electric-battery-power vehicles have been around as long as gasoline-power vehicles. They were first built in 1834, by Thomas Davenport, and improved upon in 1851, with a two-passenger electric vehicles that could travel 20 mph. These vehicles used the Edison cell, a nickel-iron battery that was developed in 1990. It was an important power source in the twentieth century for electric vehicles (Lerner & Lerner, 2008). By the 1920s, the electric car was replaced by the gasoline-running vehicle. Later in the 1960s, automakers decided to try the electric car again, due to the development of the U.S. space program. In this program, astronauts used several of these battery-powered cell vehicles on the moon in (1971-1972). By the 1970's, the electric cars were able to travel at a distance of 300 miles before having to recharge. Electric-battery-power vehicles can be recharged after its power runs down. State and federal government give buyers big subsidies when they buy one of these electric power cars. They discharge less carbon than their other counterparts. It takes hours to recharge these cars once they run down. T hey cost much more than gas-driven cars (Lerner & Lerner, 2008). These cars are adequate in some circles, but for the average person, they just do not make the cut because of the price and inconvenience.

The hybrid is considered to discharge less than the internal-combustion or gasoline- power electric motor and battery-operating vehicles. They produce just as much pollution as the gasoline-driven vehicles, making it worse for the environment. Hybrids can be twice as efficient as a regular gas vehicles, and their refuel capability is the same. Their performance is said to better than the conventional cars. The Insight, by Honda, and the Prius, by Toyota, were first introduced in the U. S. market in 1999 and 2001. Toyota had a hard time keeping up with the rising demand for the hybrid vehicle. These cars became popular among the environmental groups and auto-industry analysts. Hybrid's manufacturers cut the weight of these cars to improve the efficiency of the vehicle. Its cabins are noisy because materials that block sound were removed. These cars proved to be more expensive than our regular gas cars but very good on mileage. They use their braking system to regain energy to

repower the electric motor, which helps save on gas. These vehicles only submit 240 grams of carbon dioxide per mile, still not good enough to be considered good for the environment (Lerner & Lerner, 2008).

Toyota improved on its creation of a hybrid electric car. The designers did this by combining gas and electric in the same vehicle. The idea is to fuel the electric car, which has an electric motor, with gas. This way when the electric battery runs low, you can use the gas to recharge the car's battery without plugging it up. In the late 2000s, Toyota introduced its model of the hybrid electric car, the Prius, in the United States. First, the Prius was showcased in North America and Europe, with the expectation of selling at least 20,000 vehicles. Congressman Bartlett, of Washington, D.C., was scheduled to test-drive Toyota model hybrid that is already being produced in Japan. He was doing this to raise awareness of the importance of conserving energy and protecting the environment (Lerner & Lerner, 2008).

Electric cars are not just a dream anymore; they are reality. Hybrid electric cars are already being produced in other parts of the world; now they are being produced and sold here in the United States. Toyota took electric cars a little further than the older models of electric cars by combining electric and gas. Who would have thought to use gas to charge an electric motor? Toyota gave us more than one way to run an electric car, and it's more practical than the first model that was produced. We also saw Congressional approval of the electric car for a better and clean world, by the action of Congressman Bartlett.

The hydrogen fuel cell is the most expensive of all the electric vehicles on the market. The government also give subsidies to these customers who buy the hydrogen-power vehicles. They are powered by natural gas. The hydrogen vehicles carry natural gas in its tank on board,

which makes it very dangerous and not clean for the environment. Hydrogen can be fueled up just like our moderate day gas cars. A hydrogen car can get 300 miles between each fill-up. There is zero emission or discharge with cell vehicles. They fall years behind plug–in vehicles, though (Lerner & Lerner, 2008).

As gas prices decreased, so did the sales for electric cars. Consumers returned to their purchase of luxury cars, SUVs and big trucks once the gas prices started to go down, forgetting the gas crisis a few years ago. This left the hybrid electric car's manufacturers worried about the future of the electric cars. Jessica Caldwell, senior analyst with *edmunds.com*, states that "If gas were $5 a gallon, this would be a completely different story" for hybrid dealers and those who purchase cars in America (Glinton, 2014). Consumers are more concerned with cars that save on gas than the purchase of electric cars. So the question is, fad or fashion, will electric cars make the cut in a fuel-efficient economy?

We realize that Americans are more concerned on saving gas than purchasing hybrid electric cars. This makes the life span of hybrid electric cars slowly approaching its end. With the high prices of gas dropping, car dealers who sold hybrid electric cars are have a hard time selling these cars. Consumers are returning to the purchases of the big cars and trucks, unconcerned with the jump of gas prices a few years before. Can hybrid electric car survive in a gas-efficient society? Time and different circumstances will tell.

Electric cars have brought about a big change in American auto motor industry-a new day and a new age indeed. As our government struggles to clean up our society, auto makers contribute by producing a gas-free running car. However, are they really good for the environment? Gas cars have been around for years and have gotten much criticism from

skeptics. Toyota created the plug-in vehicle and later improved on it with the hybrid. There were also hydrogen vehicles that were built later. This encouraged the idea of a greener American where state and federal government push for it by granting generous subsidies to customers who purchase the electric cars. As gas prices decreases so do the sales of electric cars, which are much too expensive for the average person. Gas or electric - that is the question. Where do you stand? I am a big fan of gas driven vehicles.

References

Bartlett to test drive the future tomorrow at the capitol. (1999, May). Capitol Hill Press Releases.

Fahey, J. (2010, November 22). Utilities thrilled and worried about electric cars. *Detroit News.*

Fleming, C. (2014, October 26). Fuel cell future. *Los Angeles Times.*

Glinton, S. (2014, October 17). As gas prices drop, hybrid sales *shift into low gear* [Transcript] National Public Radio.

Kliesch, J. (2011). Why electric cars are cleaner. *Mother Earth News,* 58*.*

Pearce, F. (2000). Kicking the habit. *New Scientist,* 34-42.