

Gas and hybrid cars versus electric cars



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Introduction

Humans are social creatures that need to stay connected to others; relationships are a large part of human nature. Texting, calling, and social media are all things that come to mind when considering staying connected with one another. However, most people probably would not consider vehicles when thinking about staying connected. How do most people get to the beach, restaurant, or mall to hobnob with friends? The obvious answer is that people typically use vehicles to get there. This shows that vehicles are indeed a large part of staying connected with one another on a daily basis; in other words, vehicles are great for facilitating the social aspect of human nature.

Though cars are used most for transportation and getting from one place to another, they can mean lots of different things to different people. To some, cars are seen as machines that are fun; reasons for this are the sportiness of the car, the sound system in the car, and others. To others, a car is a home and a roof over their heads. Furthermore, cars can be seen as stress relief or a getaway when life gets overwhelming. Each of these are uses of cars that people typically look over because cars are mainly used for the sole purpose of transportation; however, it is evident that in society today, lots of passion is poured into cars for one reason or another. In this, people can see that cars are more important to society than some give them credit for.

Not a day goes by in which vehicles are not a big part of life. But what many do not think about much is the impact that these vehicles have on life around us, severe or subtle; is not that important to consider in a world

basically dependent on these practical machines? Moreover, people fail to consider the pros and cons to different vehicle choices. On one hand, hardcore environmentalists tend to lean toward fully electric vehicles with the goal of being largely environmentally friendly and reduce emissions as well as possible. On the other end of the spectrum, the new technologies for gas-powered vehicles suffice for some; they realize that the advantages of such technologies outweigh the little harm that is caused to the environment. As the years pass, society seeks to undermine the relevance of gas-powered vehicles using the rise of electric cars. Though there is some validity to its arguments, the advantages of new gas technologies largely outweigh their cons.

Statement of Facts

People automatically think of Henry Ford when the history of cars is the topic at hand. What most people don't realize is that Ford only invented the assembly line; he was not the first to invent an automobile. The very first automobiles were steam-powered, and later on they progressed to electric and gas-powered vehicles from the 1800s onward. In the present day, technology has come a long way from steam engines and even hybrid engines are being produced. Furthermore, it is evident that steam-powered automobiles are no longer driven on the road, leaving drivers with a hard choice between gas, hybrid, and electric cars. Factors of consideration in making that decision range from the practicality of the vehicle to the environmental friendliness of it.

Part of practicality is the ability to be reasonable; this reasonability comes into play when thinking about whether the car is worth its price. While there are some aspects of cars that people tend to overlook when searching for a new car, cost is one that most people seem to dwell on. With technology continuously updating, high tech and electric cars tend to be more expensive. One of the most popular electric cars is the Tesla Model S; the MSRP for the base model of this car is \$69,200, with optional features that can easily spur the price tag along well past \$70,000 (Tesla Model S). The BMW 5 Series Sedan is a gas-powered luxury sedan of similar features, starts at a base price of \$53,395 (BMW 5-Series). Additionally, any affordable, full-electric car options tend to be very compact and impractical when compared to gas-powered and hybrid cars of the same price. Outside of very cramped, full-electric cars, the larger ones tend to be expensive and luxury-based as associated with companies like Tesla.

A consideration that is at the top of most car buyers' lists is the mileage that a car gets. A Consumer Reports Car Survey shows that the most important car-buying factor is fuel efficiency; 37% of participants said this was the most important, whereas the next highest percentage was 17% for car quality (Leader). Not only does the car cost money, but the fuel that it runs on costs money as well. Needless to say, full-electric cars do not burn gas; however, they do run on electricity that the owner has to pay for anyway when charging the car at home. This does not mean that gas and hybrid cars should automatically take a backseat to full-electric cars.

Front wheel drive cars are significantly higher in gas mileage ratings than cars of other drivetrains whether powered by gas or hybrid engines as front

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wheel drive is the most fuel efficient configuration. The reason behind this leap in fuel economy is that “ the direct connection between engine and transaxle reduce the mass and mechanical inertia of the drivetrain compared to a rear-wheel drive vehicle with a similar engine and transmission, allowing greater fuel economy” (Advantages). Moreover, a vast majority of electric cars are rear wheel drive which decreases overall efficiency. Pairing front wheel drive with hybrid technology allows for an affordable yet fuel efficient breed of cars such as the Toyota Prius; the Prius manages upward of 50 miles per gallon (Toyota). This being said, practicality is about a lot more than price tags and fuel efficiency.

The bulk of the practicality is found in the usefulness of the car and whether it is functional in satisfying the owners’ needs. Something to take note of is the fact that full-electric cars have unimpressive ranges because the batteries powering the car cannot typically hold an equivalent charge to a gas-powered car’s gas tank. Referring to a previous electric car example, the Nissan Leaf has a battery capacity that limits the car’s range to a maximum of just 107 miles (Edelstein). On the other hand, the Scion iM is a gas-powered car of similar qualities and it has a maximum range of 500 miles on one tank of gas (Scion iM). Furthermore, unlike gas-powered cars, electric cars take time to “ fill up” and the places where they can recharge are few and far between. Until more electric car chargers are installed along the roadways, full-electric cars are not practical for everyday driving because low range combined with recharging that is hard to come by do not mix well. Taking into consideration that they already have wimpy ranges, electric cars lose their battery capacities over time and this leads to progressively

decreasing ranges with every charge just as a phone battery does. However, besides practicality, there are other factors at play in this consideration.

Another large part of the debate between gas or hybrid-powered cars and full-electric cars is about how they affect the environment around them. With culture's ever-growing concerns around eco-friendliness, increasingly more goals are set to reduce emissions by vehicles. The gas and hybrid-powered car industry comes back with an answer that is very effective; the answer is the part of a car's exhaust system called a catalytic converter. This device is cheap, it is easily installed by a mechanic, and it drastically reduces harmful emissions. With the use of a catalyst in a car's exhaust, the fumes coming out of the car actually become partly oxygen that we have to breathe in to live (How Do Catalytic Converters Work?).

With these sorts of technologies on the rise, PZEV (Partial Zero Emissions Vehicle) cars are also becoming increasingly more common. These cars meet a high quality standard that allows it to wear the PZEV badge so proudly. Furthermore, states are rewarding PZEV drivers with tax breaks or rebates to encourage the use of cars with clean emissions. PZEV cars also have a 15 year/150, 000 mile warranty so that if your emissions system fails, it can be covered and thus, the air is kept cleaner (Johnston).

Division

Now that the facts have been presented, it is time to show how they support my thesis. First and foremost, I will discuss the comparisons between the price tags of gas, hybrid, and electric cars as well as how their prices stack up to the practicality of the cars. Secondly, fuel economy will be

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reintroduced to show the ways that gas and hybrid technologies are positively impacting the car industry. Next, the differences between the utilities of gas tanks and batteries have to be discussed in order to better grasp the enormous relevance of gas and hybrid cars that electric car companies seek to undermine. Finally, the advantages of gas and hybrid technologies regarding emissions will be compared to the advantages of buying an electric car. Through these points, I hope to prove my point that gas and hybrid cars are indeed more advantageous to consumers than electric cars are.

Argument

What is it that gas and hybrid powered cars can provide that electric cars cannot? Can gas and hybrid cars compete with the fortes of electric car technology? These are a couple of questions that should be answered when weighing the pros and cons of each type of car. Car companies are continuously trying to make cars increasingly practical and user-friendly so that more people will buy them, but certain technological limitations can prevent these cars from being very practical. This scenario is played out in the electric car industry as running cars solely on batteries can be interpreted as less practical than its gas and hybrid powered counterparts.

Practicality displays itself in many ways; one big way is the practicality regarding the cost of buying a car based on one's budget. The costs involved in producing the more complex electric cars compared to gas cars are higher as there is a lot more technology inputted into them. At the end of the day, when the prices are compared, gas cars of one style tend to be cheaper than

electric cars of the same style. Even then, electric cars with similar price tags to gas cars are generally more compact and impractical because part of the nature of an electric car is weight reduction to increase fuel economy. All this in consideration, it becomes obvious that gas powered cars are the more cost-effective option.

With fuel efficiency at the top of many car buyers' lists, the gas or electric car debate carries great significance. Though filling up an electric car may cost less, people tend not to consider the fact that electric cars cost more to begin with and that it takes time for an electric car to recharge compared to filling up a gas powered car. Additionally, gas powered cars are configured in a few different ways; these configurations include front-wheel drive, rear-wheel drive, and all-wheel drive. With front-wheel drive cars built in a way that conserves more energy, the jump in fuel economy is significant. Gas and hybrid cars configured in front-wheel drive are capable of fuel economy that soars to over 50 miles per gallon. With this level of efficiency, the price of filling up the car is much less of a burden.

While on the subject of gas, something worth noting is the distance that gas, hybrid, and electric cars can travel on one tank of gas or one full charge. When comparing similar gas and electric cars, it becomes evident that electric cars have very low ranges compared to its gas powered counterparts. On top of this, gas cars can be easily filled up at any gas station, whereas, electric cars would have to find a car charging station that are hard to come by. With the safety of the driver and the utility of the car in mind, it is safe to say that gas powered cars are generally more practical in

this sense that they can be driven for longer distances on one tank of gas and that refueling is convenient.

Emissions from vehicles are the exhaust that they produce through internal combustion or the burning of fuel to run the vehicle. In the case of electric cars, no emissions are released because no fuel is being burned, electricity is simply stored in large batteries. Though this may make it sound like gas cars are terrible for the environment around them, they are not as bad as they seem. With new gas technologies such as the catalytic converter having been developed, chemicals emitted by gas cars are insignificant and no longer harmful.

Lastly, with these gas technologies on the rise to make cars more eco-friendly, cars that meet certain requirements qualify to be Partial Zero Emissions Vehicles. This qualification shows that the vehicle emits almost no gases at all and purchasing these cars can have its pros for the buyer. Car buyers get tax breaks for buying these cleaner running gas cars so it ends up being a win in more than one way.

Refutation

As with any good argument, there are pros and cons to each side. In other words, though one side may prevail, there are good points to be brought up for both. The debate between gas powered cars and electric cars is one that has surfaced in more recent years; however, even with the elite technology that is available today, neither side has stolen the show completely. This demonstrates that the debate at hand is not one that is unarguable, but instead it shows the opposite. The purpose of this thesis is <https://assignbuster.com/gas-and-hybrid-cars-versus-electric-cars/>

to argue the relevance and superiority of gas powered cars to electric powered cars, but there are pros to the latter that need to be reasoned with.

Someone advocating electric cars might argue that electric cars do not consume gas at all, leaving no way for gas powered cars to be elite in that aspect. This is in fact a true point, but though gas powered cars cannot match the use of no gas, there are other related ways that allow gas powered cars to be superior. Overlooking the advantages of running a car on gas could be a huge mistake because though a gas free option sounds better, it is impractical. Electric cars can only run for short distances before the battery dies compared to gas powered cars which generally run for longer on a single tank of gas. Additionally, when the battery dies or the gas tank is empty, both types of cars will require recharging or refueling. The fact that refueling a gas powered car is almost instant is impactful compared to electric cars that require hours of charging only to be drive for less distance than gas cars. This shows that though electric cars do not burn fuel, running a car on solely electricity may prove to be problematic and impractical.

Relating to the previous point, a product of not using gas is not producing emissions. Electric cars produce no emissions which is why electric cars do not have exhausts. Gas powered cars on the other hand, do produce emissions though this could sound completely harsh for the environment. However, just because electric cars do not produce emissions does not mean that gas powered cars are automatically dropped to second place. With technology growth as rampant as it is, gas technologies are getting better day by day. Little by little, new technologies are released into the production

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market and put into cars. These gas technologies allow gas cars to be capable of emitting fumes that are no longer harmful and even still, minute amounts thereof. With as many factors as are stacked up against electric cars, are the little bits of harmless fumes worth the drop in practicality elsewhere? The evidence speaks for itself in this case.

Last but not least, electric cars are known for their ability to accelerate quicker than other cars. It would be easy to hear this and assume that gas powered cars are inferior in performance and sportiness. Mechanically speaking, because electric cars do not use internal combustion to produce horsepower and torque, acceleration should happen quicker. There is nothing wrong with this statement, but one should consider the fact that even still, the quickest and fastest cars in the world are powered by gas in some way, shape, or form, whether fully or partially.

In a nutshell, because this debate is one that requires a lot of thought and consideration, both sides are going to have good points to argue and argue against. The side advocating electric cars can bring up points such as the fact that electric cars use no gas at all, but yet gas cars still seem more practical with the availability and speed of refueling. Secondly, the opposition might bring up a point about how electric cars emit no emissions whatsoever, but discount the fact that new gas technologies have made the fumes from gas powered cars harmless and minute. Lastly, the performance of the cars can be argued; however, though theoretically electric cars should be more sporty, electric production cars have yet to display a performance superiority to gas powered cars.

Conclusion

In an attempt to resolve a debate that is widely known but never really won, this thesis outlined the pros and cons to having a gas powered car and an electric car. Through discussing the practicality of these types of cars, fuel economy is compared as well as things like emissions technology and utility for everyday use. Given figures representing each side's norm, valuable conclusions can be drawn to show that gas powered cars are indeed superior to electric cars on many accounts. First, the importance of cars must be stressed in order to fully grasp what is truly at hand in this debate.

Cars are used for so much more than just getting from Point A to Point B. They are used for fun, stress relief, and some people's lives even depend on them in terms of shelter and a home. They invoke passion in many drivers' hearts. Cars are not merely objects solely for transportation and the ever-growing amounts of advances in the car industry exhibit the evolution of the uses of cars. Advances are now largely based on sport or luxury because people have a deeper connection with their cars rather than just transportation. Understanding the full effect that cars have on society and the world helps with understanding the importance of the car decisions that have to be made.

Driving a lot of this argument is the practicality found in these types of cars and where they differ. The practicality discussed includes cost, utility, and how they are related to produce the best bang per buck. Evidence shows that gas powered cars are generally less expensive on the price spectrum because they have less complex technology to be inputted, but yet still have

the same great features found in electric cars. Secondly, the way cars are built can have an effect on the space available in the cabin; this is the case with gas powered cars. Front wheel drive gas powered cars conserve on space in the mechanics of the drivetrain which helps to leave more room in the cabin for passengers or storage. This said, gas powered cars are even still cheaper regardless of the utility involved.

Also discussed was the issue of fuel economy and emissions. These are some of the most well-known reasons that electric cars may be fancied. To be fair, they are reasons that do not have direct opposition from the gas powered car side of things. No gas powered car is able to run without burning fuel and no gas powered car can run without emitting exhaust. However, gas powered vehicles can fill this void using other valuable points. Gas technologies of today allow fuel to be burned at very low rates as well as the resulting harmful gases to be made into not harmful gases before being released into the atmosphere. With this knowledge at hand, the utility involved in the ease of refueling and the speed of refueling show that gas powered cars should not be counted out because of fuel economy and emissions.

Taking all these points into consideration, a winner must be chosen. Though this thesis can push the verdict one way or another, the decision making comes down to each individual and his or her particular needs. This being said, generally speaking, people will want to acquire the most out of the money that they spend. This thesis shows the relation between money spent on each car and the utility or practicality found therein. Weighing the pros and cons of each side, gas powered cars seem more appealing and rightfully

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so. Not only do they prove to be more convenient, they also do this with a lower price tag and the technology can only continue getting better, working more towards cheaper luxuries than already available.

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