EXCELLENCIA
INTERNATIONAL MULTI-DISCIPLINARY JOURNAL OF EDUCATION
Volume 02, Issue 02, 2024 ISSN (E): 2994-9521

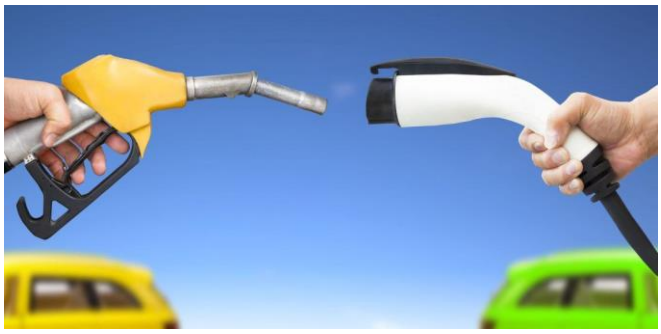
Advantages and Disadvantages of Electric Cars

Muhammadjonov Azizbek [1]

[1] Student of Andijan Machine-Building Institute

Abstract:

Why is it worth buying an electric car or not? There are definite pros and cons. There are pros and cons to electric vehicles that you might not immediately think of. In addition, each disadvantage has its own advantages. Vice versa. All this is covered in this article. The greenhouse effect threatens the ecological condition of our planet. This phenomenon occurs due to the exhaust gases of the car. Deterioration of the environment and threats to nature are the consequences of burning gasoline, which is the basis of this industry. Do not panic, scientists and experts are developing the cars of the future - electric cars.



Keywords: Electric car, gasoline, industry, self-driving, Asia, Europe, the USA, energy, batterie, carbon, electricity, motorist.

Introduction: What is an electric car? An electric car is a vehicle powered by an electric battery. There are such types of car models that can be run on solar energy. Electric cars do not need gasoline, there is no gearbox. Google and other giant manufacturers are involved in the development of self-driving cars that work with computer data. Billions of dollars are invested in

the automotive industry every year. In some countries of Asia, Europe and the USA, electric cars have already started to be used. The infrastructure necessary for this is actively developing: lamps with the function of charging cars, etc. Electric vehicle production is developing in Russia. However, the models of electric cars of well-known Russian brands are making big strides in the regional and world markets. China is the largest manufacturer of electric vehicles that exports its products all over the world.

The history of the appearance and use of electric cars

This car model appeared in the distant 21th century. In the era of steam engines, the creation of relatively compact vehicles powered by an electric motor was in the first place. However, the potential of electric cars is not fully revealed due to the shortcomings of this car. The electric car was not designed for long trips and almost always caused difficulties due to the need to charge. In the 70s, at the height of the global energy crisis, interest in alternative energy sources. Research in this area was actively conducted. But when the crisis was over, everyone happily forgot about it. About electric cars again in the nineties and two thousand years, when the gas pollution of the world's largest cities reached its peak (and still). Then the government decided to introduce electric cars to stabilize the environmental situation.

Advantages of electric vehicles

The main advantage of this machine is undoubtedly its relative environmental friendliness. It does not burn gasoline, it emits tons of hazardous substances and products into the atmosphere. Also, the owners of such cars can save gas: it is not known when the energy crisis will come again and the price of gas will rise. The absence of noise and smell while driving will be a pleasant bonus.

Disadvantages of electric vehicles

Since these developments are only at their peak and are not yet intended for mass production, the price of these machines is very high. The infrastructure of any city, especially in Russia, is not designed to serve electric cars. In addition, the batteries cannot provide a long trip without charging, which in turn lasts more than eight hours.

Are electric vehicles really harmless?

There is an opinion that all electric cars do not cause any harm to the environment. Absolutely, say scientists. What's the harm in a fuel-efficient car? First, they produce batteries for electricity from thermal power plants, nuclear power plants, etc. During production, these power plants emit a lot of harmful smoke. Second, at some point these batteries will fail and need to be disposed of.

When discarded batteries are destroyed, substances and chemicals are released that are dangerous to nature due to their high toxicity. Thus, the statement that electric cars are absolutely safe for the environment is not true at all. However, this branch of automotive construction is still developing, and over time, scientists will be able to reduce all "costs".

Electric cars are actively used as a means of transport in many cities of the world. Giant companies invest millions in the development of this industry. These types of cars have their drawbacks, but every year electric vehicles improve and do not harm the environment. Motorists around the world are debating electric cars. Some consider them to be the cars of the future, while others do not consider them to be cars at all. So, electric cars can be said to be a good alternative to gasoline cars.

Electric cars have become increasingly popular as society seeks cleaner and more sustainable transportation options. While there are notable advantages to adopting electric vehicles (EVs), they also come with certain drawbacks that need consideration.

Advantages:

Environmentally Friendly: Electric cars produce zero tailpipe emissions, contributing to lower air pollution and a smaller carbon footprint compared to traditional combustion engine vehicles.

Reduced Operating Costs: Electric cars generally have lower operating costs per mile compared to conventional cars. They require less maintenance, have fewer moving parts, and electricity is often cheaper than gasoline.

Energy Efficiency: Electric motors are more efficient than internal combustion engines. Electric cars can convert a higher percentage of the energy from the power source to the wheels, leading to better overall energy efficiency.

Incentives and Rebates: Many governments around the world offer incentives, tax credits, and rebates to encourage the adoption of electric vehicles. These can significantly reduce the upfront cost for buyers.

Quiet Operation: Electric vehicles are quieter than traditional cars, contributing to reduced noise pollution in urban areas.

Disadvantages:

Limited Range: One of the primary concerns with electric cars is their limited driving range on a single charge. This can be a significant drawback for those who frequently engage in long-distance travel.

Charging Infrastructure: The charging infrastructure for electric vehicles is not as widespread as gasoline stations. Although it is improving, charging stations are not as readily available in some regions, making long-distance travel challenging.

Initial Cost: While operating costs are lower, the initial purchase price of electric cars can be higher than traditional vehicles. This cost disparity can be a barrier for some consumers, even with incentives.

Charging Time: Charging an electric car takes longer than refueling a gasoline car. Although fast-charging stations exist, the charging time is still not as quick and convenient as refueling at a gas station.

Battery Degradation: Over time, the performance of electric car batteries can degrade, impacting the vehicle's range and efficiency. Replacement batteries can be expensive, adding to the long-term ownership costs.

Conclusion:

Electric cars represent a promising solution to reduce the environmental impact of transportation and decrease dependence on fossil fuels. The technology continues to evolve, addressing some of the current limitations. While there are clear advantages such as environmental benefits and lower operating costs, challenges like limited range and charging infrastructure still need to be overcome for widespread adoption. As technology advances and economies of scale kick in, it's likely that the disadvantages will diminish, making electric cars an even more attractive and viable option for the future of transportation. Although there is still room for compromise, the main advantage of electric vehicles remains: they are better for the environment. In addition, the financial picture is definitely an important factor. Whether you get cheaper with an electric car depends on the situation. If you walk a few kilometers, this will not happen. However, in the long run, an electric vehicle may be cheaper despite the higher purchase price. This is partly because electricity is significantly cheaper than petrol or diesel, maintenance costs are negligible and no MRB is required.

In addition, there are a number of other advantages and disadvantages that can play a role in choosing an electric vehicle. As for the disadvantages, it is often possible to make the same nuance, which means that the situation will improve. This applies, for example, to purchase price, assortment and quotation.

Reference:

1. N.N. Andreyeva. Traditional and electronic books: The influence of religion on modern culture (scientific article).
2. Paychadze S.A. Book - in context civilization. Marked comments. Library work. 2005. No. 9, p. 14.
3. http://pozitronika.com.ua/node/30
4. https://iharsw. login.by/blog/160825 01/