

Reality and Future of Electrical Vehicles in India: Review Article

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Abstract: *The most of the Electric vehicle manufacturing companies in infancy in India . We don't have lithium, important raw material for electric vehicles to produce high quality batteries. It is imperative to use the resources in which if the vehicles are switched to diesel petrol then severe power shortages can be created. The huge benefits of electric cars, electric buses and electric bikes are being talked about so much these days that many people are informing. our Indians about these vehicles and their benefits to show how advanced and aware they are. There's a lot of curiosity about gadgets these days. It's a good thing that it makes sense to us. We may have some new discoveries for science and technology and a new world.*

Keywords: Electric vehicles, Lithium, Battery, Petrol, Diesel

INTRODUCTION

Electric vehicle manufacturing companies in India are in their infancy. The main important thing required for electric vehicles is batteries. and for production of good quality batteries it requires Lithium. In India lithium is produced in very very small amount. So for production of high quality batteries we need to import lithium from other countries, which is very costly. And due to this reason prices of electric vehicles can be increased.

Pollution of the environment is currently an international issue. Toxic emissions from inner combustion engines are one of the number one air pollution. with a purpose to mitigate the results of fossil fuel emissions and deal with environmental concerns (ECs), electric powered vehicles (EVs) are being promoted aggressively everywhere in the international level. Various governments are encouraging human beings to replace to EVs with the aid of incentivizing the transition. The preceding research indicates that the excessive cost of the electrical automobile, non-availability of charging infrastructure, and time and variety anxiety act as impediments to patron adoption.

DISCUSSIONS

The government of India has given a call for 'handiest electric cars' on avenue through 2030. This text is contemporary and examines the various factors that have an effect on a patron's adoption of an EV. The respondents of the examine are existing automobile proprietors in India. The facts have been analyzed the use of Structured Equation Modeling (SEM). Attitude (ATT) Emerged as a Robust mediator, influencing the adoption of electric motors. Here are some of the benefits of electric cars : Pollution is completely reduced, resulting in reduced carbon emissions. These vehicles are environmentally friendly and provide protection and conservation of the climate on Earth as a whole.

This is a very popular solution to the problem of global warming; it has long term benefits.

These vehicles are being used in all the developed countries and very sophisticated technology has been used in it.

In the future, these cars will be all over the world, so we have no choice but to use electric cars The most important battery charging stations are the dealerships of these vehicles as well as the time and the moment to get into this business. The maintenance of these vehicles is very low as compared to diesel petrol or gas vehicles. Fuel prices are skyrocketing today and these cars running costs mileage or average, is much less than diesel petrol or gas which is affordable to your pocket. All above benefits of electric car acceptable to us we need to study electricity production sources in India. Because if we go for electric car, we need more electricity .

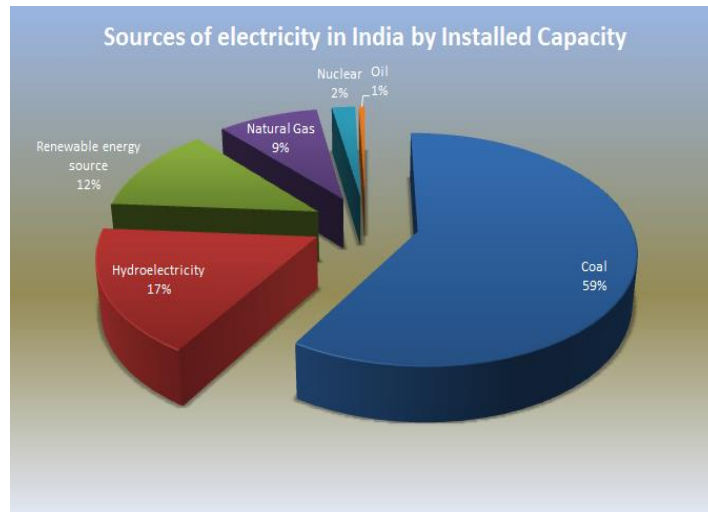


Fig-1: Sources of electricity in India

From the above figure we can conclude that, more than 50% of electricity is produced from Coal.

For decreasing pollution of big cities in India, The Indian government has shifted thermal power plants to rural areas where trees are cut in large quantities. No one sees that the pollution from coal is not related to any city or country it directly affects on global warming.

If we think about India, the raw material required for electric car vehicles high quality batteries is Lithium. In India there is no one place where lithium is found.

For EV's production we need to import lithium from other countries, which is expensive. And another one problem is e-garbage produced from vehicles.

Electric vehicle manufacturing companies in India are in their infancy. So their securities and technologies are doubtful.

Today the customers are taking vehicles which are available, but it is found that the very big difference in average of vehicles as company said and actual average.

In the case of France, Germany, Holland, China, all these countries are moving towards a net zero carbon goal by avoiding electricity generation, by using coal.

If we see energy use of India in the period of 2020 to 2021,

Purpose	Use of energy in percentage
industrial	42.69%
Household	24.01%
agriculture	17.67%
Traction	1.52%
Other	6.9%

Table -1: use of energy in India 2020-2021

Most of the electric energy is produced from coal in India. In India currently have a shortage of adequate charging stations. Clean power generation is slow to develop Indian technology that will be used worldwide. India has a system of changing government policy from time to time. Today, fuel prices have skyrocketed. As a result, coal-fired power generation is cheaper,

but not environmentally friendly. It is imperative to use unconventional energy sources. India is experiencing massive industrialization. In the future, industries will grow. We have a huge population growth rate. New houses are being built. There will be plenty of electricity for agriculture. Somehow enough for agriculture. If these petrol-powered vehicles are switched to electric, there is a possibility of severe power shortages. For this, accurate and foresight planning is required. If you make a sincere effort, a satisfactory picture can emerge in the coming decade. At the same time, if we want to compete with the world in the future, we have to focus on non-conventional power generation.

CONCLUSION

Hydropower projects, solar power generation, wind power generation, geothermal power generation, energy production including biofuels are all sources of renewable energy and will never run out. Proper planning needs to be implemented. For those who want to buy electric vehicles, installing a solar power plant at home will be a real net zero carbon goal.

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