UDK 652.741 ROADS CONSTRUCTION FOR ELECTRIC VEHICLES

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The technology of inductive charging of cars undoubtedly involves the construction of roads that will charge electric vehicles standing or moving along them on the principle of inductive charging. A magnetic frequency is used to transfer energy from metal coils located under the road itself to a special receiver installed on an electric car. Such a receiver and its installation, according to Electreon Wireless estimates, will cost up to \$ 1.5 thousand.

In the USA, the construction of such a road in the city of Detroit will be carried out for the first time. It is planned to be put into operation in 2023. The government of the State of Michigan invests money in this project [1].

The Israeli startup Electreon Wireless in partnership with Ford and DTE is engaged in the development and construction of the road, the length of which will be about 1.6 km. Electreon Wireless has already implemented its infrastructure on the roads of Sweden, Israel and Italy.

The use of the mentioned above technology because of its convenience will contribute to the mass introduction of electric vehicles. Every fifth owner of electric vehicles switches to cars on traditional fuel because of the inconveniences associated with charging. The introduction of electric vehicles also leads to a reduction in carbon dioxide emissions compared to internal combustion engines, besides the issue of cost is of vital importance for the future owners [2].

References

1. The first electric car charging road will be built in the USA [Electronic resource]. – Mode of access: https://rb.ru/news/charging-road-usa/. – Date of access: 11.02.2022.

2. Barancheev, V. P. Innovation management: textbook / V. P. Barancheev, O. I. Ganchenko, E. V. Petrova. – M.: Yurayt, 2015. – 388 p.