

E-Highway

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Abstract: *Highways are one of the significant parts of the modern world. They are important role in the progress of a country . The transport sector is heavily dependent on non-renewable energy sources. The transport sector not only contributes to the country's development, but also to the emission of greenhouse gases, which account for almost a fifth of the world's total energy consumption. The constant release of harmful gases from vehicles into the atmosphere must be curtailed and replaced with a more sustainable transport alternative. The viable alternative for this regular petroleum-based road transport is the introduction and use of e-highways with electric vehicles. The electric superhighway is a technology in which large trucks or hybrid vehicles with dynamic pantographs on the roof are connected or coupled to the trolley wires to draw electricity from the grid. As a result, e-highways with the combination of electric vehicles can eliminate the need for vehicle charging. This technology is the most efficient in terms of both fuel consumption and intelligent power supply*

Keywords: Dynamic pantographs, electric road systems, e-highways, electric vehicles, greenhouse gases, power grid, intelligent power supply, vehicle charging, etc.

REFERENCES

- [1]ENTSO-E (2010, July), Ten-Year Network Development Plan (TYNDP) 2010
- [2] European Commission (2011, October), Guidelines for trans-European energy infrastructure,2011
- [3] European Commission (2010, November), Energy Infrastructure Package (EIP)
- [4] ENTSO-E (2011, July), Study Roadmap towards Modular Development Plan on pan-European Electricity Highways System 2050