

Use of Stray Currents as a Source of Renewable Energy

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Hypothesis: our planet is in ocean of energy. Everything moves around us, everything changes. The stormy clouds confirm the presence of huge reserves of energy in atmosphere and its use can be considered environmentally friendly. Planet Earth is a natural electric motor. It is a compatible electro-mechanical inductive-capacitive generator that creates an electric current flowing from West to East and magnetic fields directed from the South to the North. Therefore, the Earth's electromagnetic field may be an alternative source of energy. The purpose of the work: to design a plant for the extraction of electricity from the Earth, and to test the possibility and efficiency of electricity generation from Earth's electromagnetic field and stray currents. We optimized shape of electrodes from the cylindrical to flat plate to increase contact area receiving the currents; for cathode, use of magnesium-coated steel instead of zinc and graphite instead of copper that withstand corrosion and reduced production costs. An elevated antenna, which is connected to cathode, will "attract" charge of the Earth. Due to electrochemical reaction between electrodes we registered a current of 7 amperes and 3 volts. The potential difference across a 1.5 meter antenna was 225 volts, however the current was negligible and can be ignored. The total power of the installation was about 1600W. Research methods are based on the development of scientific sources devoted to the use of alternative energy sources, methods of invention and design and conducting field experiments. Practical value of the suggested technologies is that it can be considered as absolute ecofriendly source of renewable inexhaustible energy.