E.F.E.W. (Electricity From Electromagnetic Waves)

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This project focused on finding ways to get cheaper energy source, that at the same time will be more efficient and environmentally friendly. The main idea is to get electricity from the energy of electromagnetic waves, using some usual electrical components. I created a device that can be placed on the roofs of buildings in the city, as it is the most open place for electromagnetic waves. The device will absorb EM waves travelling in open space and then transfer them into electric current. with voltage that we will get , will be able to light a house and some flats . Proposed device consists of several parts. First part is responsible for waves absorption and consists of antenna and a graphene plate (area about 1 square inch). The antenna can absorb radiowaves and graphene plate can absorb microwaves and waves in infrared and ultraviolet part of spectrum. Adjustible capacitors are a part of a feedback loop and are used to tune into resonance for certain frequencies. The second part is responsible for converting the energy of waves into alternating electric current using electrolytic capacitors, and germanium diodes bridge. Acquired energy is then accumulated in other two electrolytic condensers . And the final part consists of an earth connection. To improve the scheme I also connected some electrolytic capacitors with big capacities to the outputs I have built a working experimental model, and I'm trying to make it more powerful and much cheaper. It can possibly generate more than 250 volts using four different types electromagnetic waves. Device's price is expected to be about 400 – 500 dollars. The construction is simple, easy-to-manufacture and not expensive. It can be placed on the roofs of the buildings and will be able to light flats, houses and streets.