Would you steal energy?

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While stealing is generally frowned upon in most societies, there is a new type of thieving that might just change that.

Dennis Siegel [1], a Digital Media student from the University of the Arts in Germany has designed a harvester that takes advantage of unused energy in electromagnetic fields.

A small harvester designed for lower frequencies below 100Hz (general mains 50/60Hz, 16,7Hz) and a larger harvester for lower and higher frequencies like radio broadcast (~100MHz), GSM (900/1800MHz) up to Bluetooth and WLAN (2,4GHz) make up the two main options for future buyers, should this reach the consumer market level.

The harvester, which indicates strength of the electromagnetic field via an LED on top, taps into the redundant energy in the fields created by small appliances and larger electronics. The device taps into existing, but unused energy sources and stores the taken energy in battery form.

“Many of those fields are very capacitive and can be harvested with coils and high frequency diodes,” says Siegal who claims that depending on the strength of the field, you could charge a small battery in a day.

The downside to all of this is the harvester has to stay in the electromagnetic field, so its uses are limited. Plus, if I'm going to spend all day charging something only to receive one battery full of energy, I'm not entirely sold on the idea. It’s an interesting use of energy that would have gone unused without the harvester, but is it worth the effort?

(This is, of course, completely discounting the potential legal issues and the potential health effects of electromagnetic fields, which could include cancer.)

Interestingly, with a little work, this might prove semiviable for sustainable energy, because you're essentially collecting energy already in existance that was previously just being wasted. Plus, unlike wind or solar power sources — which, for the record would provide a lot MORE power but I digress — it requires no expensive infrastructure or huge initial investment beyond the device. As it stands, it may not seem like a lot of power is being produced, but if this was done on a mass scale, it might help provide a little energy.

Would you be interested in harvesting energy from surrounding electromagnetic field? Sound off in the comments

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[1] http://dennissiegel.de/electromagnetic-harvester/