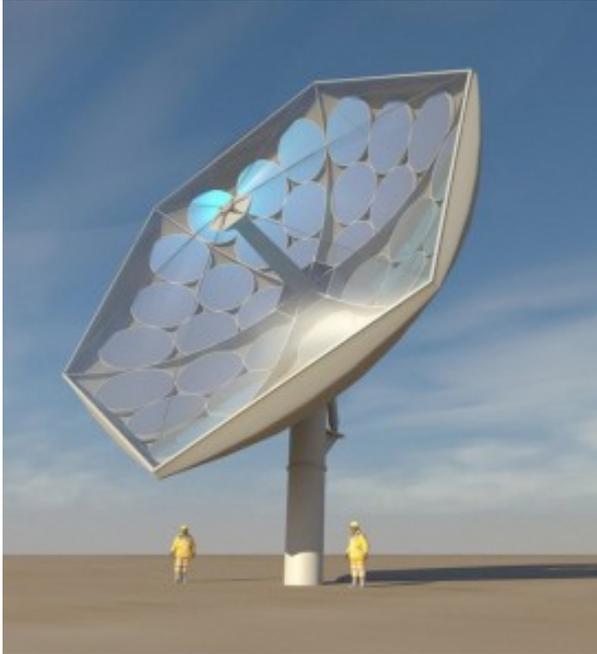


IBM Solar Collector Magnifies Sun By 2000X – These Could Provide Power To The Entire Planet



A team at IBM recently developed what they call a High Concentration Photo Voltaic Thermal (HCPVT) system that is capable of concentrating the power of 2,000 suns, they are even claiming to be able to concentrate energy safely up to 5,000X, that's huge.

The process of trapping the sunlight produces water that can be used to produce filtered drinkable water, or used for other things like air conditioning etc. Scientists envision that the HCPVT system could provide sustainable energy and fresh water to communities all around the world.

“Each 1cmX1cm chip can convert 200-250 watts, on average, over a typical eight-hour day in a sunny region. In the HCPVT system, instead of heating a building, the 90 degree Celsius water will pass through a porous membrane distillation system where it is then vaporized and desalinated. Such a system could provide 30-40 liters of drinkable water per square meter of receiver area per day, while still generating electricity with a more than 25 percent yield or two kilowatts hours per day. A large installation would provide enough water for a small town.” (2)

The heat is absorbed into hundreds of tiny solar cells called photovoltaic chips. These gather the energy and are then cooled by microchannled water, which is why they are safely able to concentrate such large amounts of solar energy.

According to Greenpeace, this technology can establish itself as the third largest player in the sustainable power generation industry. A study published in 2009 predicted that solar power could supply all the world's energy needs, with minimal space. (1) Greenpeace estimates that it would take only two percent of the Sahara Desert's land area to supply the entire planet's electricity needs.(1)

A common problem with modern-day solar collectors is that they can only take in a minimal amount of energy. This means that useful heat is wasted, cannot be harnessed and is thrown away. This technology eliminates that problem. Solar panels taking in too much energy run the risk of melting themselves due to mass amounts of heat. This is changing, as we continue to explore more efficient ways of energy generation, it's becoming clear that it's time to do away with the old, and usher in the new, clean, green technologies.

This project is being funded by the Swiss Commission for Technology and Innovation. They are supplying a three-year \$2.4 million grant to develop the technology. Prototypes have been developed and are being tested.

This is another great technology that could provide power to the entire planet for free! Good reasons as to why we cannot implement this technology are non existent. At the end of the day, it seems that big oil corporations will do whatever they can to prevent change from happening, but the power of the people is greater. All we have to do is come together, create, and cooperate.

Below is a video of IBM research scientist Bruno Michel giving an overview of the project.

{youtube}J_zzE8xMdZc{/youtube}

[\(1\)](#)

<http://www.greenpeace.org/international/en/publications/reports/concentrating-solar-power-2009/>

(2) http://www.huffingtonpost.co.uk/2013/04/22/ibm-solar-collector-hcpvt_n_3130544.html