

HIGH CONCENTRATION PHOTOVOLTAIC THERMAL SYSTEM

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Researchers from IBM have created a very impressive and affordable new photovoltaic system that is capable of concentrating solar radiation up to 2000 times. The system is also capable of converting 80% of incoming solar radiation into useful energy.

Other than simply creating solar electricity, the system also has two other very important capabilities.

Those other two very important capabilities include the ability to provide desalinated water and cool air. Both of those things are often in very short supply in remote locations.

The technology used in the IBM system was developed in part using a three-year \$2.4 million grant from the Swiss Commission for Technology and Innovation. Several other companies also work with IBM on the project including Airlight Energy, ETH Zürich, and Interstate University of Applied Sciences Buchs NTB.

IBM says that technically it would take only 2% of the solar energy from the Sahara desert to supply all of the world's electrical needs. The problem with capturing that 2% of solar energy in the Sahara desert is that current solar panel technology is too expensive and slow to produce making massive solar installations impractical.

IBM and its partner companies prototype system is called the High Concentration Photovoltaic Thermal system or HCPVT.

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