

V3Solar photovoltaic Spin Cell generates 20 times more electricity per cell than flat panels

October 2 2012, by Bob Yirka



(Phys.org)—V3Solar has developed a new way to convert the sun's energy into electricity using traditional technology in a new way, and in so doing have discovered a way to get twenty times more electricity out of the same amount of solar cells. Their new device, called the Spin Cell, does away with the traditional flat panel and instead places the solar cells on a cone shaped frame which are then covered with energy concentrators. Once in operation, the whole works spins, making unnecessary the need for tracking hardware and software. What's more,

they actually look nice.

Up till now, virtually all [solar arrays](#) have been based on flat panels with solar cells mounted on them. The panels are mounted on poles which allow for tilting to track the [sun](#) as it passes overhead in the sky. This new approach turns the old idea completely on its head.

Because of the great potential of [solar energy](#), researchers have looked into increasing the [efficiency](#) of solar cells by using lenses or mirrors to direct more of the sun's energy onto them hoping to get more electricity out of the same number of cells. Unfortunately, doing so tends to create so much heat that the cells become useless. The engineers at V3Solar took this idea and modified it to prevent such overheating by mounting the cells on a rotating platform; doing so means that each cell only receives extra heat for a very short amount of time and is then allowed to cool as the cone spins. The concentrators form an outer skin creating a hermetically sealed inner environment for the triangular shaped blue colored solar cells. The cone is situated on a base of electromagnets powered by some of the energy that has been converted from the sun's energy by the [solar cells](#), creating a nearly frictionless spin. The result is a marvel of engineering and an artistic triumph – a means to produce much more [electricity](#) than traditional flat panels in a pleasing, and as the company says, beautiful way.

The only shadow on this bright idea might be the price. The company hasn't said just yet how much each cone will cost, but surely it will be far more expensive than a flat panel. The question is, will the cost for one be equal to or less than twenty traditional panels, making them cost justifiable? Only time will tell of course, but in the meantime, no doubt many will have their fingers crossed as the cones actually look like something out of a science fiction movie, and that will surely be reason enough to have many rooting for them.

More information: v3solar.com/nature-is-as-beautiful-as-the-idea-of-all-invention/

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