

Israeli firm offers doubled-faced solar cells to increase energy yields

July 4 2012, by Bob Yirka



(Phys.org) -- An Israeli firm called bSolar has introduced a dual-faced solar cell that it says can boost energy yields by 10 to 30% with conventional mounted inclined panels, and up to 50% with panels that are mounted vertically. The double-sided cells increase yields by taking advantage of light that bounces off surfaces behind the panel, thus the more light that is bounced back and strikes the cells, the more electricity they are able to produce.

Scientists have known for years that double sided solar cells could collect

more light and thus produce more electricity, but until now, the amount of additional electricity that could be produced didn't make up for the larger cost to make such a cell. That's where the new solar cells by bSolar differ. The company says that through much effort they have figured out a way to make their [solar cells](#) worth the additional cost; it involves using boron instead of platinum when constructing the back [surface](#) field. The company says doing so allows for an open rear face and increased efficiency at the front. Also increasing efficiency are the monocrystalline silicon crystal wafers the company uses, which add more to production costs but are better at converting sunlight to [electricity](#) than those using conventional multicrystalline silicon.



bSolar has already landed a major customer in Nasukarasuyama city, Tochigi, Japan where partner TSBM will be constructing a 730 kWp ground mounted project to supply the area with solar generated power.

Mounting dual-faced cells is likely to differ from conventional systems

to allow for more sunlight to be bounced to the back side. Painting roofs white for instance or with reflective silver coatings could help dramatically as could mounting the panels with more space between them to prevent sunlight being bounced in other directions by other panels or objects such as A/C units or vents on top of buildings.

bSolar was started in 2007 with the express idea of creating and selling high efficiency bifacial cells. And while the company is headquartered in Israel, its construction facility is in Heilbronn, Germany. The company is operating with \$10 million in startup capital from several investors.

More information: www.b-solar.com/

© 2012 Phys.Org

Citation: Israeli firm offers doubled-faced solar cells to increase energy yields (2012, July 4)
retrieved 25 April 2024 from
<https://phys.org/news/2012-07-israeli-firm-doubled-faced-solar-cells.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--