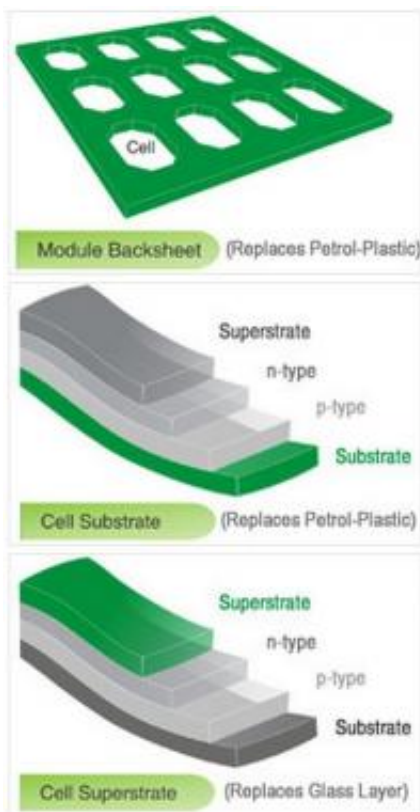


BioSolar announces first sale of BioBacksheet—solar panel part made from cotton and beans

March 21 2013, by Bob Yirka



Credit: BioSolar

(Phys.org) —BioSolar Inc. maker of solar panel components has [announced](#) it has made its first sale of a new product it calls the BioBacksheet—an all natural material that can be used as a backsheet

(cover) for solar panels.

Solar panels have a clear protective coating on top (called a backsheet) that protects the sensitive cells below. Generally the coating is made from non-biodegradable petroleum based plastic and glass.

BioBacksheet, on the other hand is made from cotton and castor beans.

One of the downsides to using [renewable energy sources](#) is the waste or pollution that is sometimes created in harvesting them. Solar panels, for example, harbor a whole host of toxic or non-biodegradable materials, one of which up until now, has been the backsheet. With this initial order, to a company BioSolar has declined to identify, a new era in solar power collection could be dawning—one where the materials used to harvest energy are just as clean as their source.

To make the backsheets, BioSolar processes and uses cotton rags to provide the strength needed to withstand a harsh outdoor environment. Castor beans provide resin which after processing can be used to create a material similar to nylon. When combined, the result is a [transparent material](#) very similar to current backsheets, minus the petroleum based materials. BioSolar says the backsheets are easy to make, are low cost, and are free of the toxins used to create those currently in use. They note also that the BioBacksheet has a high degree of [thermal conductivity](#) and has electromagnetic properties equivalent to [conventional materials](#) as well as the mechanical strength and stability needed for solar panel applications—all in addition to the obvious advantages of using a [biodegradable material](#) for manufacturing purposes, particularly as a component in a so-called "green" technology.

One snag that could hold up widespread adoption of the new biodegradable backsheet is the availability of castor seeds—they're not grown in the U.S. because in their natural state, they are toxic and highly allergenic. For that reason and others, other research efforts are currently

underway to develop caster seeds that have neither negative property.

More information: www.biosolar.com/

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