

## Top 20 Green Tech Ideas

*You may have to look hard, but some very smart companies are doing some very creative things when it comes to the environment*

### Thin-film Solar

By **BRYAN WALSH** Monday, Dec. 06, 2010



Two factors will make solar power more competitive on the energy market. One is efficiency — the percentage of the sun's energy that a solar panel can convert into electricity. The other is price: how cheap are the panels to produce? Many solar panels in use today — the crystalline silicon arrays you'll see on rooftops — focus on efficiency while costing more.

But there's another way to make solar panels: thin-film. The technology uses much less silicon, which means that the average efficiency of those panels is less than arrays using crystalline silicon. But the very fact that thin-film panels use less silicon makes them much cheaper and faster to produce. That combination has helped thin-film companies like first Solar of Tempe, Arizona, and Nanosolar of San Jose emerge as early clean tech titans. Publicly traded First Solar is one of the most successful renewable energy firms in the world today. The future of solar looks thin.

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