

Which Solar Companies Manufacture the Best Solar Panels?



Which solar companies make the best solar panels (for example: [GOAL ZERO NOMAD 7 PLUS](#)) for homes? Search the internet, and you'll find almost as many opinions on this subject as there are websites offering opinions -- up to and including self-promoting websites apparently sponsored by Trina Solar (NYSE:TSL) and SunPower (NASDAQ:SPWR) touting their respective solar panels as "the best" solar panels.

Meanwhile, Consumer Reports, America's standard for unbiased evaluations of things folks want to buy, has gone AWOL on the issue. CR just put out a big spread on Tesla's (NASDAQ:TSLA)solar roof product in its September edition, but CR declined to actually endorse Tesla's solar panels -- or anybody else's, for that matter.

That basically puts solar energy consumers, and investors in solar stocks, right back at square one, scouring the internet in vain, looking for answers, but unsure of whom to trust. So, what should you do if you're in the market for a solar power system -- or a solar stock? Well, while there may be no single authoritative source identifying which solar companies make the best solar panels, there does seem to be a consensus forming around a handful of solar companies that are all pretty good:

With claimed efficiencies of 18.6%, 22.5%, 24.1%, and 22%, respectively (i.e., the percentage of energy, contained in sunlight hitting the panel, being converted into usable electricity), First Solar, Panasonic, SunPower, and Tesla's SolarCity make some of the most efficient solar panels for homes. Furthermore, in 2016, the National Renewable Energy Lab independently verified the best of these -- SunPower's solar panels -- as achieving its claimed 24.1% efficiency.

U.K.-based solar installer JojuSolar (a SunPower partner -- so they may not be completely unbiased) backs up this assessment in part, naming SunPower and Panasonic solar panels as among the top three best solar panels it's aware of.

Adding to the evidence, The Motley Fool's own resident solar specialist, Travis Hoiium, examined data sheets on solar power systems produced by three solar companies earlier this year. His conclusion: Canadian Solar and China's JinkoSolar also deserve consideration. According to the data, Mr. Houim reviewed, some of the solar panels produced by both Canadian Solar and JinkoSolar outclass SunPower's own "P-Series" polysilicon panels, although neither of their panels achieves the highest rating that NREL accorded to the SunPower solar panels.

What it means for solar panel buyers -- and solar investors

Unless and until some authoritative source takes it upon itself to invest the large amounts of money necessary to put multiple panels, from multiple panel makers, through their paces over an extended period of time (Consumer Reports, are you listening?), it's unlikely that consumers will get a definitive answer to "who makes the best solar panels?" any time soon.

Meanwhile, a comprehensive report of the solar power system offerings from several large solar companies, published on Reviews.com last month, echoes Travis' vote of confidence in Canadian Solar. Calling it a "solid contender," Reviews.com highlights the strength of Canadian Solar's global network of operations.

Quoted efficiency ratios vary from information provider to information provider. Moreover, they change from year to year as new technological breakthroughs are announced and new products come to market, making it difficult to name any single solar company as the one with "the best" solar panels. And that's before you even address other issues that go into making a solar power system "the best." The quality of customer support, for example. The durability of the panel over time, warranty protection -- and of course, price -- are all other important factors.

The news is somewhat better for investors, who have better numbers to work with -- numbers like the market capitalization of the solar companies making the solar panels, and their earnings. Working from such "hard numbers," I can't say I'm terribly impressed with solar companies Tesla, First Solar, or even SunPower. Their products may be highly rated efficiency-wise, but if their companies aren't "efficient" enough to earn a profit from selling solar panels, I have serious doubts about their potential for investment. (As a buyer, I'd also have

some doubts about their ability to stick around long enough to honor a warranty, if they can't earn a profit.)

On the other hand, a profitable company like JinkoSolar with a reputation for building efficient solar panels seems to me a good place to look. Whether you're interested in buying solar panels, or a solar stock, with long term potential.

10 stocks we like better than First Solar

When investing geniuses David and Tom Gardner have a stock tip, it can pay to listen. After all, the newsletter they have run for over a decade, Motley Fool Stock Advisor, has tripled the market.*

David and Tom just revealed what they believe are the ten best stocks for investors to buy right now... and First Solar wasn't one of them! That's right -- they think these 10 stocks are even better buys.