Hybrid Solar Oven Can Cook on Cloudy Days or At Night

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Solar ovens are a remarkable <u>low-tech</u> and low-impact accessory for off-grid cooking, and can make sense even if you have access to plenty of cheap electricity, as long as you have abundant sunshine. In my neck of the woods, the Southwest, solar ovens are very popular, as we have 300+ sunny days per year, but in other parts of the world, cloudy days might make cooking with the sun a bit problematic.

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It's totally possible to <u>build your own solar oven</u>, but many people choose to buy a readymade version, which might be more efficient than a DIY version. And there's a new type of solar oven on the market, which combines the best features of a high-performance solar oven with the reliability of an electric oven, that may make for wider adoption of sun-powered cooking.

The SunFocus solar electric oven is being billed as a "next generation" solar oven, as it is claimed to be able to cook efficiently, even on cloudy days or at night, because of its hybrid solar/electric system. When the sun is shining, it uses just the heat from the sun, and no external power, but if the temperature drops below a certain point because of cloudiness or sunset, the built-in thermostat kicks on a low-wattage (465 watt) electric heating element to keep the food cooking.

Video of SunFocus solar electric oven, click

https://v.kickstarter.com/1586389114_1cfa7502412cd74ca4d144585e07c93fed1c3241/projects/6 38090/video-312918-h264_high.mp4

The SunFocus solar hybrid oven, which is made in the US, can handle about 10 to 12 pounds of food at a time, with cooking temperatures of around 375 F (solar/electric) or 350 F (solar only). The design has many of the features found in other solar ovens, such as double-paned glass, reflector panels, a decent-sized cooking chamber ($13 \frac{1}{2}$ " x 19" x H 6 $\frac{1}{4}$ "), and it folds up into a portable "suitcase" format weighing about 30 lbs. The company, Sun BD Corporation, states that because the electric element is only 465 W, it uses approximately 75% less electricity than a standard household electric oven.



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"**Our Goal**: To manufacture the best "next generation" low wattage - high performance solar electric ovens that can enhance "life quality" for people

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everywhere that want to utilize our planet's "free solar energy" for cooking but want the convenience and reliability of a modern electric oven as a back-up." -Sun BD

This may seem obvious, but perhaps needs to be explicitly stated here - to use the electric feature on this solar hybrid oven, a 120V AC power supply is needed (though according to the company's website, it could be run from a DC system with an inverter).

The SunFocus solar oven is currently the focus of a <u>crowdfunding campaign on Kickstarter</u> (although at this point, it doesn't seem likely to make its funding goal in the next four days), where backers at the \$399 level can choose one of the ovens as their perk. The oven is also available <u>direct from Sun BD</u>, for the price of \$489.