

## Where the U.S. Solar Industry Is Shining

U.S. companies that lease panels to homeowners thrive

By [Ari Levy](#)

There's at least one bright spot in the troubled U.S. solar industry. After a plunge in prices sent panel manufacturers reeling, consumer demand for the alternative energy is soaring. That's a boon for California companies such as SunRun, SolarCity, and Sungevity. These startups are buying panels at depressed prices and leasing them to homeowners at little or no up-front cost.

By teaming up with lenders such as ([BAC](#))Bank of America and ([USB](#))U.S. Bancorp and taking advantage of a federal tax credit for renewable energy, installers can bring down the costs of panels, which for a home typically run between \$30,000 to \$40,000, and help consumers and businesses reduce the use of fossil fuels. Their success is helping revive the solar industry, which gained notoriety last year from the collapse of panel maker Solyndra. "The price of solar is coming down even faster than anyone expected, so who benefits? The consumer benefits," says Steve Vassallo, a general partner at Foundation Capital, which is an investor in SunRun.

The residential market for solar is still nascent, with less than 0.1 percent of U.S. homes outfitted with panels. That number could climb to 2.4 percent by 2020, estimates Bloomberg New Energy Finance. Prices for solar cells fell 51 percent in 2011, to 88¢ a watt, according to data compiled by Bloomberg.

While rising demand is boosting the installation business, the more notable story last year was the crash of Fremont (Calif.)-based Solyndra, which got a \$535 million U.S. government loan. Solyndra was one of three U.S. panel makers pushed into bankruptcy in 2011, in part because lower-cost Chinese manufacturers ramped up production. Other U.S. companies that, like Solyndra, bet on thin-film technologies—which use cadmium telluride or a combination of copper, indium, gallium, and selenide, as opposed to silicon—are also

struggling. Nanosolar, SoloPower, and Abound Solar, which have raised about \$1.5 billion combined in government loan guarantees and venture funding, couldn't bring down their costs enough to keep up with the plunge in panel prices. "I don't think most of the companies that are in later stage are going to succeed," says Mark Pinto, executive vice-president of the energy and environmental unit of ([AMAT](#))Applied Materials, which sells manufacturing gear to the solar industry.

While competition from China threatens to drive more U.S. thin-film companies out of business, it has spurred adoption of solar stateside. Developers in the U.S. added 449.2 megawatts of solar-generating capacity in the third quarter of 2011, the latest data available, up 140 percent from the same quarter a year earlier.

Demand for clean power is also driven by government incentives. In 2009 the Treasury Dept. instituted a 30 percent tax credit for construction projects using renewable energy. The subsidy, which will remain in place until 2016, has helped five solar leasing companies raise more than \$1 billion in venture capital combined, according to a Dec. 27 report from Lux Research analyst Matthew Feinstein.

SunRun is backed by \$85 million in venture capital. The San Francisco company also has raised \$750 million in project financing from U.S. Bancorp and utility ([PCG](#))PG&E, a sum which co-founder Lynn Jurich says is enough to outfit about 20,000 homes with solar. Installing and financing panels is a more sustainable business than manufacturing, she says: "Participating downstream, we thought we'd be the beneficiary of the process of making solar cheaper."

SunRun hires local companies in 10 states to install solar arrays on customers' roofs. The company charges clients for the electricity they generate— at monthly rates as much as 15 percent below those of regular utilities. Jurich says she expects SunRun to have a presence in 15 to 20 states within five years.

SolarCity, headquartered in San Mateo, Calif., operates on a similar basis, except that the company employs its own installers. SolarCity counts ([GOOG](#))Google among its backers: The search giant contributed \$280 million to a financing round that closed in June. The company also secured a loan for as much as \$350 million from Bank of America in November for a \$1 billion project to install panels in military homes and offices in as many as 33 states.

SolarCity, which is chaired by Elon Musk, chief executive officer of electric carmaker Tesla Motors, will file for an initial public offering as early as next month, according to three people with knowledge of the matter who are not allowed to speak on the record. The IPO may

value the company at more than \$1.5 billion, one of them said. SolarCity spokesman Jonathan Bass declined to comment.

Sungevity has raised more than \$175 million for residential solar projects. The Oakland (Calif.)-based company sold a minority stake last year to home improvement retailer ([LOW](#)) Lowe's, which has said it will eventually offer the company's installation services through its stores.

Heather Smith, a partner at Greentech Capital Advisors, expects there to be consolidation in the market over the next 18 months. The winners will be those that have developed a profitable all-in-one package of delivery, installation, maintenance, and finance that works for homeowners. "The only way we're going to deploy solar in the U.S. isn't by the government telling people to put solar panels on your roof," Smith says. "It's by an economic model which makes sense to the consumer."

***The bottom line:*** Tax breaks have helped solar leasing companies raise more than \$1 billion in venture capital financing.

With Andrew Herndon

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