



## PLAN | SMART IDEAS



“Falling prices have led more small businesses to take the solar plunge.”

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**I**NSTALLING SOLAR power at their Shelter Island, N.Y., Ace Hardware store seemed like the right thing to do for the planet, say owners David Gurney and Meredith Page. But now that the brother-and-sister ownership team have the system, they're finding that it's also good for their wallets.

Solar power was once just a luxury for well-funded corporate citizens like Wal-Mart and Google. But with the price of solar components plummeting, and rebates and other financing sweetening the pot, more small businesses are considering whether to run on the oldest form of energy. That's especially the case for those that have hefty power needs and operate in states where power is pricey. “Solar was once for a tree-hugger-type mentality,” says Scott Maskin, president of solar installer SUNation Solar Systems in Oakdale, N.Y. “It's evolved to a financial decision.”

China has blasted into the solar industry in the past decade, and while that's been tough on U.S. solar manufacturers, it has helped drive down costs. The average price (excluding financial incentives) for a commercial installation as of last autumn was \$4.94 a watt, compared with \$6.34 at the beginning of 2010, a 23 percent drop in less than two years, according to the Solar Energy

Industries Association and GTM Research. The average size of a commercial system has also decreased, according to the survey—an indication that more smaller businesses are taking the plunge. And solar cells themselves have grown increasingly



efficient and cost-effective, according to the American Solar Energy Society.

The upshot: A commercial installation of a 55-kilowatt system (enough to power a drugstore) that would have cost \$440,000 in 2009 now goes for \$272,000—before rebates. The availability of low-interest financing, through banks and some large installers like SolarCity, has also contributed to a surge of smaller-

business customers, says Neal Lurie, executive director of the Colorado Solar Energy Industries Association. Once the savings on utility bills are accounted for, some customers can be cash-positive on day one, Lurie says.

The Shelter Island hardware store's installation, completed in December, cost \$58,500. But after a utility-company rebate of \$21,840, a nearly \$11,000 federal tax credit and a one-time \$18,550 accelerated depreciation charge that lowers the store's taxable income, the owners estimate their out-of-pocket expenses at \$7,000. Folks on the island pay a relatively high 18 cents a kilowatt-hour for electricity, so the owners expect their outlay to pay for itself in three to five years. “I was surprised we were able to do it,” says Gurney.

One big caveat: Federal and state assistance, which greatly affect affordability, is increasingly unreliable. Generous federal grants ended last year, and may or may not be revived. California made draconian cuts to its solar subsidies. Colorado's programs, meanwhile, tend to flicker: Installation prices have come down 50 percent in the past seven years, but Blake Jones, cofounder of Boulder, Colo.-based Namasté Solar says “the picture is complicated by on-and-off state incentives.”

New Jersey has become the second-largest solar market after California, thanks to an ambitious state subsidy

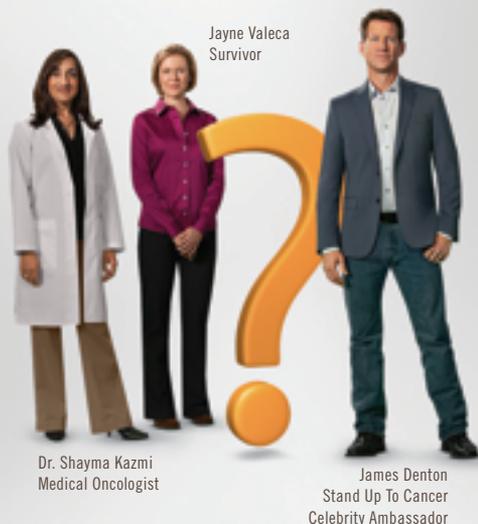


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program. Like many other states, New Jersey offers clean-energy credits, which those who create solar power can sell to high-polluting companies; those polluters in turn are required to buy a certain number of certificates.

For Dick Masia, who converted six buildings at his Murray Hill Health and Tennis Club, in New Providence, N.J., to solar power last July, the credits add up. He's already seeing an 85 percent reduction in his monthly utility bills, which used to average \$7,200, and he's earned credits worth as much as \$52,000. (Not that Masia's in the black yet: He spent \$1.5 million after rebates for his system, so it'll take eight or nine years to pay for itself.)

The payback period depends greatly on the price of local power. It's a quick path to breakeven in Hawaii, where businesses pay 25.7 cents a kilowatt-hour on average, but a much longer one in Utah or Wyoming, where power averages less than 8 cents a kilowatt-hour. Entering into the calculus is the amount of solar power you can produce (sunshiny states in the South and West have the better deal), the roof space you have and whether you're a heavy electricity user.

And, in some cases, there's the weight of one's social conscience. When the latter is the strongest motivator, as for SunRidge Farms in Pajaro, Calif., you just do it. SunRidge, an organic-snack maker, added solar panels on some facilities in 2007 and expanded them to four of its six buildings last year. SunRidge measures its success in carbon dioxide emissions avoided—in its case, an amount that's the ecological equivalent of 1,800 acres of trees planted. "Profit is not what drives us," says general manager Ron Giannini.

Still, it's sweet when reducing your carbon footprint doesn't squeeze margins. Stephen Nicholls, of Mueller Nicholls Builders in Oakland, Calif., says the monthly payments he makes on his \$400,000 solar array are about equal to what he saves on utility bills. But once the loan is paid off, in five years time, he'll be sitting in the sun. ☀



## THE PRICE OF POWER

The higher the cost of conventional electricity in a business's local area, the more cost-effective it can be to go solar. Here, a sample of traditional-power costs per kilowatt-hour for commercial users in a few states:

HAWAII	25.7 cents
NEW YORK	16.2 cents
CALIFORNIA	14.0 cents
<b>U.S. AVERAGE</b>	<b>10.2 cents</b>
TEXAS	9.4 cents
ILLINOIS	8.1 cents
UTAH	7.2 cents

SOURCE: EISENBACH CONSULTING