

Even old-line manufacturers are hopping aboard the solar bandwagon

By: H. Lee Murphy March 24, 2012

How powerful is the sun? There is a well-worn formula that suggests that enough sunlight falls on the Earth in a single day to fulfill the energy needs of every person for 27 years. The trick, of course, is in harnessing that awesome potential.

Solar power is still a sidebar in the ongoing energy debate, but with a push from government programs, more companies around Chicago are finding that an investment in solar as an adjunct to fossil fuel makes sense. Even old-line manufacturers are coming on board.

Consider the case of United Displaycraft Inc. in Des Plaines. The company's headquarters is situated within a sprawling 212,000-square-foot plant, where it employs more than 200 workers and produces marketing displays for such well-known brands as Sears, Lowe's and Kraft. The company put up the first solar panels on the roof of its plant 18 months ago, and on the right kind of bright sunny day now, its Commonwealth Edison Co. meter actually runs backward, sending more electricity back to the grid than the company consumes.

"We have a computer attached to our solar system that tells me we've saved the equivalent of 4,500 trees so far, or 20,000 gallons of gasoline," says Richard Carrigan, United Displaycraft's president and CEO. "We also reduce our CO₂ output by 122 tons a year. That's like planting 60 acres of trees every year. I can't understand why more warehouse owners around Chicago aren't doing something like this." Most are afraid of the cost, but the investment isn't as daunting as it might seem at first glance. United has 650 solar panels installed by Solar Service Inc., based in nearby Niles, that cost \$923,000. But the net cost was far lower. Nearly one-third of the investment was subsidized by a grant from the Illinois Department of Commerce and Economic Opportunity, with funding from the American Recovery and Reinvestment Act. Then there was another 30 percent tax credit grant from the U.S. Department of Energy. Then there are solar renewable energy credits that the company can sell on the open market to businesses in states such as New Jersey, where energy conservation mandates prompt out-of-compliance businesses to purchase such credits. At \$300 per credit, United is reaping another \$50,000 a year. United Displaycraft's annual electricity tab used to run about \$100,000. The solar panels have reduced that cost by 20 percent.



Richard Carrigan, president and CEO of United Displaycraft, on the roof of his facility with a photovoltaic solar array that provides the company with 20% of its electricity.

With all the government sponsorship, Mr. Carrigan figures the payback on his investment will come in a little more than three years.

"That means that by 2015 I'll have paid off the cost, and I'll have an asset continuing to generate \$70,000 a year for me — energy savings and SREC income combined — for decades into the future," the executive says.

He's not done. The panels so far cover just 10 percent of the roof of his plant. Mr. Carrigan is close to a decision, as he puts it, "to double down on our solar investment." The upfront cost is likely to keep falling as new technology and foreign competition have combined to cut the prices on panels by as much as half. On the other hand, there is no certainty that government sponsorship programs will continue to hand out such generous assistance.

Solar energy first came to bloom in the 1970s as an experiment for tree-hugging homeowners. Brandon Leavitt, president and owner of Solar Service, reports that his sales when he founded the company in 1977 were just 25 percent commercial and 75 percent residential. Today that ratio has flipped as more companies sign on to solar, he says.

Mr. Leavitt is apt to approach a typical company with a \$10,000 monthly electricity bill and propose a 100 kilowatt system priced at \$600,000 with the aim of reducing the utility's load by 30 percent. Without government incentives, it will take a company 15 years to get back to even on its investment. But with government programs that Solar Service steers its clients toward, the payback can be whittled to as little as five years. Big retailers such as Ikea, which is retrofitting its stores in Schaumburg and Bolingbrook this year, are signing on. Walgreen Co. is also adding solar to some of its stores.

"Solar isn't a hard sell once people understand that it can be a great investment," Mr. Leavitt says. "Companies want to be responsible about their energy consumption. But they also have profit-and-loss statements. We're now getting to the point that solar can be very profitable for the long term."