

Affordable alternatives

Smaller Triad firms putting solar panels on their rooftops

By CATHERINE CARLOCK THE BUSINESS JOURNAL

Solar rooftops are becoming more prevalent in the Triad among mainstream businesses and organizations — even as the solar panel industry overall has lost some of its luster.

In fact, softening global demand and mounting inventories have helped drive prices down, at the same time many Triad businesses are realizing that solar panels can more than pay for themselves within a few years.

To date, many of the solar projects garnering headlines across the state have involved massive, ground-mounted systems that produce megawatts of power. The 17.2-megawatt farm in Davidson County, for example, is billed as one of the largest installations on the East Coast. Another attention-grabbing project west of the Triad is Apple Inc.'s data center in Maiden, which will soon host a 20-megawatt solar farm. But increasingly Triad executives are realizing they don't necessarily need to have the wherewithal of Apple for solar to make sense.

"The market is becoming more and more aware of solar," says Wendy Cockerham, director of sustainable construction at Weaver Cooke Construction. "Not that it's a far-fetched goal, but that it's actually doable for a small business."

Incentives less, but prices better

Interest in solar projects in the Triad is growing even as the broader industry experienced a hiccup in the past year. Global manufacturers of solar panels have seen inventories surge as demand has waned. Meanwhile, domestically, the federal tax incentives have been reduced. The bonus depreciation schedule is now 50 percent spread over five years, as compared to the prior level of 100 percent taken during one year.

Despite that cut in bonus depreciation, businesses are still eligible for a 30 percent federal tax credit on solar installations, as well as a 35 percent state tax credit taken over five years. And experts say the price of solar installations has come down enough to help offset the drop in subsidies, which makes solar a worthy long-term investment.

In fact, a report released this week by the N.C. Sustainable Energy Association found that, assuming state and federal tax credits were used, solar photovoltaic systems larger than 10 kilowatts in size were in 2011 either cost competitive with statewide commercial retail electricity prices or had achieved grid parity — meaning it was less expensive to install solar power than to purchase electricity from the grid.

That's prior to the cut in bonus depreciation, but the report goes on to project that systems larger than 500 kilowatts become cost competitive or achieve parity by 2015. Those between 10 kilowatts and 500 kilowatts become cost competitive, or achieve



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Bruce Freeman, left, president of Skyward Solar Power, and David Del Vecchio, in hardhat, senior engineer with Strata Solar, talk with a group with Tencarva Machinery about the solar panels recently installed on their roof.

grid parity, in 2018, according to the study. Those projections presume use of state and federal credits.

The price of solar installations has dropped by as much as 50 percent in the past few years, primarily because the price of modules has dropped significantly as the solar industry matures, says Travis Simpson, CEO of Extend Energy in Greensboro, which does commercial and residential solar projects.

"The equipment, the inverters, are getting easier and quicker to install," Simpson says. "The racking is getting better and more streamlined to install. The whole process improves, and people are learning how to deal with the regulatory side of it as well.... All of that together will help drive down the overall cost to the end user."

For example, in 2008 and 2009, the price of solar installations averaged about \$6 to \$8 per watt to install. Today, that price is down to the \$4 to \$5 per watt range, Simpson says.

In some cases, a rooftop solar installation can eliminate a company's electric bill for that building or offset rate hikes from utility companies.

For example, furniture industry services firm Wright of Thomasville invested about \$300,000 to install a nearly 84-kilowatt rooftop installation on the company's corporate headquarters in Thomasville.

CEO Greg Wright says the company is contracted to sell the energy created back to Duke Energy for five years. That contract allows the company to receive a credit on its electric bill, as well as helps Duke Energy reach its mandated quota of energy that

Tax credits, efficiency made panels a no-brainer for GSO's Tencarva

As Harry Taylor sees it, there are two ways to earn money for your company: increase sales or operate more efficiently.

So sustainability and energy efficiency were top of the list when Taylor, the vice president of operations for Tencarva Machinery Co. in Greensboro, was considering ways to reduce expenses.

Tencarva started with installing energy-efficient lights. But the large, flat rooftop of its corporate headquarters was a prime spot for a solar installation.

"We can make money by doing this," Taylor says. "It made more sense to invest our money in something like this, rather than to have it sitting in a CD or something."

Tencarva started the installation process in July, hoping to finish by year's end in order to take advantage of the 100 percent federal bonus depreciation available.

Though Tencarva missed the deadline by a few weeks, it had prepared for that possibility when first preparing its contract with Skyward Solar Power of Durham, which installed the project.

"We had built in to the pricing with our solar panel people that if they were not able to complete the project in time for us to take advantage of (the bonus depreciation), then our price of purchasing the system was reduced," Taylor says.

TENCARVA MACHINERY Co.

Developers: Skyward Solar Power, Strata Solar
Location: Greensboro
No. of panels: 784
System size: 188.2 kilowatt DC
Investment: \$800,000
Completed: February

The level of federal bonus depreciation available dropped to 50 percent over a period of 5 years — down from 100 percent bonus depreciation over a period of one year — at the start of this year.

But the drop didn't sway Tencarva, which still took advantage of a 30 percent federal tax credit and a 35 percent state tax credit to offset much of its cost.

The initial cost of installation was about \$800,000. But with the combination of tax credits and depreciation, Tencarva expects the total cost of the project to be about \$230,000.

The project will more than pay for itself within five years, Taylor says, and is guaranteed to produce power for the next 40 years, with a 25-year warranty guarantee on production.

— Catherine Carlock