

Possible tax credit repeal could threaten N.C. solar

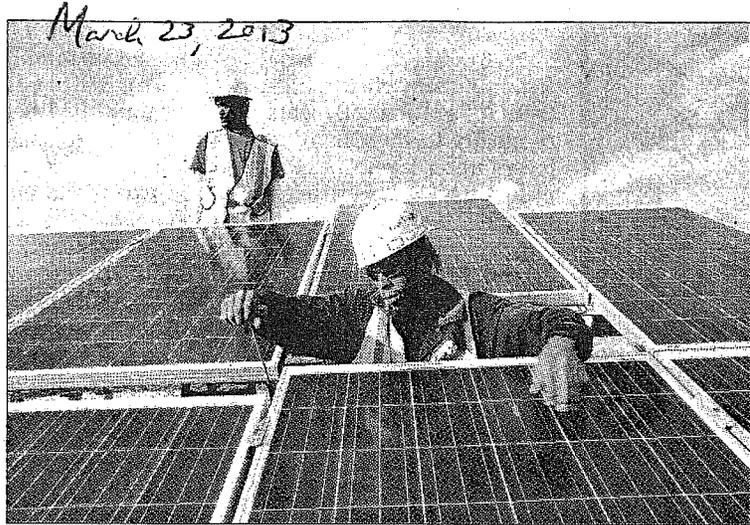
Nascent industry has been making big strides toward cost-efficiency

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To appreciate the explosive growth of solar power in North Carolina, consider the state of the solar industry six years ago: Solar energy was so unusual that most residents had never seen a photovoltaic panel here.

Today, North Carolina ranks fifth in the nation for solar energy production, and the state is projected by the Solar Energy Industries Association to move up to fourth place this year. Giant solar farms are sprouting or planned all over the state, including the biggest proposed to date: a 75-megawatt project in Duplin County.

But the industry's continued success in North Carolina is now in



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A Strata Solar crew installs panels last year in Chatham County. The company has installed 100 megawatts of solar power in N.C.

jeopardy. The state's 2007 energy law, intended to establish alternatives to building power plants, is

one of the Democratic-era policies eyed for elimination by some in the Republican majority in the state.

legislature.

Critics have long had their knives out for the state's renewables policy, which they say is a boondoggle that subsidizes energy resources that will never compete on their own.

What's more, Republicans are leading an overhaul of the state's tax code. Such a change would reduce or eliminate a state tax credit that dates to 1977 and lowers costs for a range of alternative energy investments. The tax credit is worth up to \$2.5 million per project and is a major selling point for Wall Street investors to underwrite North Carolina solar farms.

"It's a power plant, and we have to go to the capital markets in order to be able to build these things," said John Morrison, chief operating officer of Strata Solar, a Chapel Hill developer. "The result will be these investment dollars will go elsewhere to other states."

Still, solar power has defied the expectations of even its most ardent boosters.

Thanks to plummeting global costs of silicon crystals, North Carolina's solar industry has virtually weaned itself off the subsidy created by the 2007 energy law that launched a solar renaissance here.

The state's solar phenomenon is attracting wider attention, House Speaker Thom Tillis told Wilmington talk radio host Chad Adams on Friday.

"Just heard something this week, Chad: Investor-owned utilities saying that at this point they're beginning to see a decrease in their cost of power for solar," Tillis said. "Now, we're trying to figure out ... if (solar) is of itself reaching the right

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place on the cost curve.”

Just this week, Duke Energy notified the N.C. Utilities Commission that it plans to slash its 22-cent monthly charge to customers, a fee collected in utility bills to cover the cost of renewables. Instead of levying a charge to cover the cost of its renewable energy portfolio, the Charlotte-based utility is proposing a monthly bill credit of one penny a month. In part, the monthly credit would account for previously overestimated costs of projects that were not built and replaced with cheaper solar farms.

“It’s an extraordinary success story that there’s an industry that hardly existed several years ago,” said Michael Shore, CEO of FLS Energy in Asheville. “Solar prices are still dropping. We will get to a place where solar will be, without any incentive, a cost-effective part of any utility’s portfolio.”

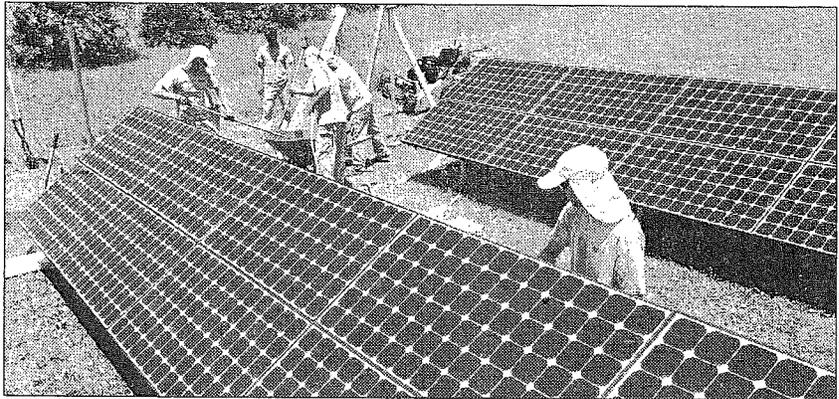
Meanwhile, electricity generated by wind as well as poultry and swine waste have made almost no progress here despite being eligible for the same subsidies that are available for solar power. Those renewables continue to face significant economic and technological obstacles.

Solar’s success in N.C.

North Carolina has 149 megawatts of operating solar farms, according to a February study commissioned by the N.C. Sustainable Energy Association, the renewables trade group in Raleigh. The growth – from an industry that had only produced a smattering of small rooftop solar arrays – represents nearly a 75,000-percent expansion of solar energy since the 2007 passage of Senate Bill 3, the legislation that mandated the use of renewables by the state’s power companies.

Equally telling are industry plans and projections. Since North Carolina’s energy policy became law, developers have proposed 1,274 megawatts in renewable projects, of which 1,068 megawatts was solar photovoltaic energy. That’s equivalent in power output to a nuclear power plant if all those panels were to generate electricity at the same time. Not all the renewable energy projects will be built, and some are still under development, but the figures show how solar energy has dominated the state’s alternative energy landscape.

Catapulting solar power into the forefront was the 2007 law, the first such policy in the South, that required power



JEFF WILLHELM - 2011 CHARLOTTE OBSERVER FILE PHOTO

A crew from Argand Energy Solutions installs hardware for solar arrays at an airport in Ellenboro in Rutherford County west of Charlotte.

companies to replace 12.5 percent of their retail electric sales by 2021 with a combination of renewables and energy efficiency. The law also allowed Duke Energy, Progress Energy, and rural and municipal utilities to charge customers for solar, biomass, landfill methane, even in cases when they cost more than building a coal-burning power plant or natural gas plant.

Thanks to the state’s renewables mandate, Strata Solar has emerged as the state’s biggest solar developer, with nearly 50 full-time employees and some 400 installer contractors. The company has installed 100 megawatts of solar power here and has 800 megawatts under development in North Carolina and five other states, including the 75-megawatt project in Duplin County.

Bills now pending in the state House and Senate would freeze that mandate to 3 percent, which is the level phased in for this year. The bills don’t roll back the mandate to zero because electric companies are bound by long-term contracts they have signed to purchase the output from solar farms and other projects, for which they will charge customers.

Tillis, the Republican House leader, said in his radio comments that the 2007 legislation was a complex bill negotiated with numerous compromises.

“We’ve got to take it slowly because it’s a complex bill,” Tillis said. “At the end of the day it’s going to take some time.”

Subsidies threatened

When the law was passed, solar energy was six times more expensive than it is today, said Morrison of Strata Solar. When power companies first purchased the output from solar farms around 2008, they paid a subsidy of 15 cents a kilowatt hour or more, more than twice

the amount they paid for the electricity itself.

Today, that subsidy is marginal, sometimes less than 1 cent a kilowatt hour on the largest solar farm projects, Morrison said. That means that utility-scale projects could potentially survive without the subsidy, especially if solar costs continue dropping as developers expect.

But it’s not clear the solar industry could withstand the combination of canceling the utility subsidy and the state’s alternative-energy tax credit, one of the most generous in the country. The state tax credit, coupled with a similar federal tax credit, reduce the cost of a multimillion dollar solar farm by more than half.

The amount of state tax credits taken for renewable projects soared from \$440,137 in 2007 to \$11.3 million in 2011, the last year for which data is available from the N.C. Department of Revenue. In 2007, the credit generated project investments of \$4.2 million; in 2011, renewables investments came to \$108.2 million.

Morrison said that uncertainties about the status of North Carolina’s tax credit are already spooking investors. Even if tax reform flounders and the tax credit survives, the benefits will be short-lived, as the credit is set to expire Dec. 31, 2015. Solar developers had expected to make up the difference from the loss of the credit with the utility subsidy allowed under the 2007 law.

But if that law is repealed, then solar energy would have no economic safety net and development could stall.

“If they make that leap, our financing will dry up,” Morrison said. “We’re talking about an investment community that’s really risk-averse.”