

# Future of Clean Energy is Bright ... With a Little Help

by Mary Branham

With no pun intended, Sen. Jim Kyle believes the future of solar energy in Tennessee is bright.

Kyle, sponsor of the state's Clean Energy Act of 2009 championed by former Gov. Phil Bredesen, said the new solar farm near Memphis and the success of the Tennessee Solar Initiative will determine whether that future will be dimmed in any way.

"There's a lot riding on these two particular projects," Kyle, a 1986 Toll Fellow, said.

The case for alternative energy in Tennessee is much the same as it is across the country. States are looking at clean energy as a way to reduce dependency on foreign oil, as well as to boost their economies with manufacturing plants to build necessary components for the industry. Although the federal government has gotten the ball rolling with large investments in alternative energy programs, keeping those programs going will likely depend on the states.

"Given the budget uncertainties that we face, the federal incentives look more and

more in jeopardy," said Jeff Logan, senior energy analyst with the National Renewable Energy Laboratories. "State roles will become more and more important in the relative way they push renewables into the market."

Much of that push has come through renewable portfolio standards, which 37 states have adopted. Logan said states with these standards demonstrate in a concrete way they are interested in a clean energy future, and that can attract the industries and jobs.

"Most states that really want to have the clean manufacturing facilities locate within their borders realize you have to have a strong market to get those technologies deployed in order for them to be successful," he said.

## Spurring Growth

Tennessee may be an anomaly. It's one of 13 states without a renewable portfolio standard, but it's also home to a full supply chain for the solar industry. The West Tennessee Solar Farm became operational in April. The Tennessee

Solar Initiative—a partnership among the University of Tennessee, Oak Ridge National Labs, the state and the solar industry—operates the solar opportunity fund, which provides grants for solar installation and innovation.

"Our mission is to speed the deployment of solar throughout the state, as well as provide assistance to the state's solar manufacturing industry," said John Sanseverino, director of programs for the solar initiative.

The development of solar power in Tennessee has come more in small bites rather than on a full plate; private industry and individuals have played a major role in the deployment of the energy resource.

Sen. Lowe Finney, who proposed legislation this year to expand the solar farm near Memphis, can point to three office complexes in Jackson, Tenn., that have recently installed small solar farms to generate the energy they need. Volkswagen, which has been building cars near Chattanooga for about a year, just announced plans to build a \$30 million solar



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—Tennessee Sen. Lowe Finney

park to power its plant there.

Finney believes the incentives the state has offered have spurred the developing industry as an economic base and that, in turn, is spurring interest in using the alternative energy source.

He fears the loss of the incentive—as is part of a bill this year—would stunt the growth of the clean energy industry, which has seen employment numbers grow from 16,000 in 2007 to 76,000 today, according to a study by Middle Tennessee State University.

“To say that we need to do away with those economic incentives for this developing industry would seem to be premature,” Finney said.

Christopher Davis, communications manager for the Tennessee Solar Institute, said the incentives have helped kickstart the solar projects in the state.

Finney said the state is reaping benefits from the solar industry, and all renewables have become more accepted in the Southeast and across the country.

## Maintaining Interest

But even with the job base that’s been created over the past few years, the long history

of energy in Tennessee—Finney points out the state still has mountaintop coal removal—could make for slow going, especially if the incentives end, Finney said.

State and federal incentives aren’t the only things affecting the future of clean energy deployment.

“There is some threat for continued expansion of renewables, at least at the scale that it’s achieved in the past few years,” Logan, of the renewable energy laboratory, said.

The threat to renewable energy development comes not only from the low costs of natural gas and its competitive ability to deliver low-cost kilowatt-hours, but also from the slow growth in the national economy, according to Logan.

“The demand for electricity has been relatively low and so those things in combination are probably serving to slow down the growth of renewables, at least compared to how it’s occurred in the past couple of years,” he said.

Logan paints a grim view of the potential to speed up that growth. He said progress in renewable energy would continue to slow without additional federal incentives, especially for wind energy. Those alternative energy sources are getting very close to the point where they can compete on a level playing field with more traditional energy sources, he said.

When that playing field is leveled, more people are likely to buy into the policy behind renewable energy, and not just the economic benefit of the jobs that can be created, Kyle said.

“We’re going to have to create

energy and that energy is going to have to be used by somebody in Tennessee and it’s going to have to be shown that if we just did more of it, more people could use it in an economically feasible way,” he said.

## Sticking to It

The evidence of success will likely take some time, said George Douglas, media relations manager for the National Renewable Energy Laboratories. States must consider what they want the energy system to look like: clean, affordable and domestic.

“Some solutions can be very short-lived,” he said. “They can provide a spike in benefit, but only for a very short period of time.

“It’s our view that investment in renewables is a long-term investment that will pay off for many years to come.”

Sujit CanagaRetna, senior fiscal analyst with The Council of State Governments Southern office who has studied the economics of clean energy, said a diversified energy portfolio will help states in the long run.

“What it comes down to is you need a blend of different things,” he said. “We’re not going to have one energy source that’s going to be the magic bullet that’s going to solve all our problems.”

Finney said much the same.

“Every state has a role and there may not be one single route to choose,” he said.

Fostering alternative energy, Finney said, does two things: “One, it lessens our dependence on foreign countries for our energy supply; and two, it creates jobs right here in our own backyard.”

Learn more about the [Volunteer State Solar Initiative](#) and the economic impact of clean energy at the [Capitol Ideas](#) website.

## SOLAR POWER

The solar industry in Tennessee is growing. A new solar farm in Memphis, the Agricenter International Solar Farm, was commissioned in April. Roy Taylor, far left, installed solar panels at the farm in Memphis, Tenn. The 4,160 photovoltaic solar panels—mounted on 5.5 acres within view of thousands of motorists driving through Shelby Farms daily—will produce enough electricity to power 400–500 homes at peak demand periods. David Lyons, left, a Nashville attorney, is one of hundreds of property owners who are using solar power to generate electricity and are getting paid for it with the help of the Tennessee Valley Authority and local power distributors.

