The Miami Herald

Is it a lab or a parking lot? FPL, FIU partner on new solar project

April 27, 2016
By Jenny Staletovich

Engineering students at Florida International University are getting a two-fer with Florida Power & Light's new 1.4-megawatt solar array at the university's Sweetwater campus: covered parking and a lab.

On Wednesday, the school and the utility unveiled the $4.7 million commercial-scale power array erected over a parking lot that will double as a research lab for engineering students looking at how to incorporate solar power into FPL's sprawling South Florida grid.

An additional $660,000 five-year grant will provide 21 engineering students with a chance to study fluctuations caused by cloud cover or seasonal variations and design smart technology to manipulate the flow. Researchers also plan to model weather patterns over the last decade to come up with ways to better predict reliability.

"You're setting on a path that others are going to look back and say, wow, you really made us better."

FPL president and CEO Eric Silagy

"You're changing the world. You're making us better. You're setting on a path that others are going to look back and say, wow, you really made us better," FPL president and CEO Eric Silagy told a gathering of students and faculty.

With 4,400 panels, the array will produce enough energy to power nearly 250 homes. Recorders attached to supports under the canopy over 400 parking spaces will stream to a research center that lets students see in real-time how solar power fluctuates. While they won't be able to control that power, students can use the data to find ways to make its use more efficient.

"Unless we know how much it generates, how much you generate in five minutes or an hour, the value goes down," said Arif Sarwat, an engineering professor and director of the university's FPL Solar Research Facility.

A separate project being considered would look at storage and batteries, a component of solar power that continues to vex advocates and researchers hoping to make solar a primary source of clean energy.

Wednesday's unveiling also allowed FPL to burnish its solar credibility, which has come under steady attack by solar advocates who say the utility has done too little to advance solar energy in the Sunshine State. Last year, FPL backed a measure intended to derail a citizen referendum that would have removed a state law that limits the sale of electricity to the state's major utilities, shutting down the finance structure used in other states to make rooftop solar affordable.

In a report this week, the Center for Biological Diversity singled out Florida for having one of the worst records in the nation for solar power and not having a comprehensive strategy for advancing its use.

"Both Florida and Texas could feasibly have some of the best markets in the country for distributed solar growth."

Center for Biological Diversity in a report that ranks Florida among the lowest in solar production

"Both Florida and Texas could feasibly have some of the best markets in the country for distributed solar growth," with more than 16 percent of the total potential solar power in the U.S, the center said. "Because of bad policy landscapes, however, these states currently only account for 2.7 percent."

But Silagy said FPL supports solar, as long as it's good for customers — and cost and reliability remain issues. Expensive rooftop panels, which gives credit to customers for the electricity they don't use, forces poorer customers to subsidize wealthier ones who can afford systems that run more than $30,000, he said.

This year, a rebate program that paid $30 million to just 1,700 residential and commercial customers ended because it failed to spur enough new solar use.

Instead, Silagy said utility-scale plants offer the cheapest solar, which FPL is pursuing. This year, FPL plans on spending $400 million to triple its solar output.

"It needs to be economical and smart for our customers," he said. "I'm always trying to make sure what we do is smart in deploying the technology, but is also good for the customer."