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Engineering marvel on UB campus harnesses the sun for energy

BY JANE SCHMITT

It's called The Solar Strand and you can't miss it at the University at Buffalo's Flint entrance off Maple Road in Amherst. Right there, set on a flat section of grass, is an engineering feat and a brand-new focal point of the North campus: a massive, ground-mounted solar array that is expected to produce 750,000 watts of energy to power hundreds of student apartments on campus.

"This project represents more than just creating alternative energy," says Ryan McPherson, chief sustainability officer at UB. "This project is about our future, a future that is full of potential and possibilities and reinforces our global reach and local impact. UB is a national leader in reducing energy costs, promoting alternative energy sources and abating the negative risk factors associated with climate change."

The solar installation has been described as a cornerstone of the New York Power Authority's \$21 million renewable energy program statewide. Indeed, NYPA provided funding for it in the form of a \$7.5 million grant.

"We had discussions with UB about doing a large-scale (photovoltaic) project on their campus as part of that program and it turned into this project," says Guy Sliker, PE, director of renewable energy resources and technology at NYPA.

"This (is) the largest one that we have been involved with to date. In terms of nor-



UB's chief sustainability officer Ryan McPherson, says the 3,200-panel 'The Solar Strand' on the North campus represents much more than a source of alternative energy.

mal PV capacity, this is considered a large, distributed project, meaning it is connected into the facility's electrical equipment, not into the utility's distribution system. So it's operating what we call behind the meter. And for that kind of a system, this is very large — one of the largest in New York state."

Solar Liberty of Buffalo has served as the electrical subcontractor for the project. The design blends science with a work of public art, according to McPherson. Groups of PV panels are mounted on supports arranged in rows along Flint Road. Public walkways will run between the rows.

A public art competition was sponsored by UB in 2010 to come up with a concept for the design, which was constructed by



NYPA. The winner was Walter Hood of California, an internationally known artist and former chairman of the landscape architecture department at University of California-Berkeley.

- Other highlights, according to UB:
- The project is 140 feet wide and 1,250 feet long and has 3,200 solar panels.
 - Construction began last summer and it's expected to be operational by spring.
 - The name Solar Strand comes from the linear formation of the panels. According to UB, a bird's-eye view of it resembles the pattern of a DNA fingerprint.
 - The university expects the area to eventually become a hub of activity as students, faculty and visitors use the space for social and educational activities. Indeed, it will serve as a teaching tool for students studying biology, engineering and more.
 - In late October, a group of more than 100 gathered to plant 90 trees and shrubs along Flint Road to enhance the area near the solar display.

"This is a great partnership between the state of New York — specifically NYPA — and the university. It's been one of those great success stories," McPherson says. "We like to think of it that like the public research university (UB), The Solar Strand is multi-purpose and we're getting a large return for a single action."

"So while we will be making enough (energy) to power approximately 750 student apartments here on campus and help our overall goal of reaching climate neutrality by 2030, it's really something that brings together a lot of different pieces."

Albert Gilewicz is UB's assistant director of utility operations for university facilities. "I don't know of a solar array of this magnitude anywhere that people can walk in freely and wander among the panels on walkways," he says. "It is truly unique and it takes it from out of sight/out of mind on a rooftop. This can now be installed anywhere in daily activity with society, and that's a huge step forward."

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