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Backspin Renewables to install 34 solar trackers at Middlebury College

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This spring a solar energy system will join Middlebury College's biomass plant and wind turbine on campus.

College officials have signed an agreement with AllEarth Renewables to create a small 143kW solar farm consisting of 34 solar trackers that will produce an average of 200,000 kilowatt-hours annually. The installation's total kWh will produce enough electricity for a year for one of the college's residence halls the size of Battell Hall, which houses about 238 students. The solar farm will be located on 1.5 acres of college land on Rte. 125, west of McCardell Bicentennial Hall, Middlebury's science facility.

AllEarth manufactures the innovative solar tracker systems, called AllSun Trackers, that feed electricity into nearby power lines. According to David Blittersdorf, CEO and founder of AllEarth Renewables, the solar trackers, which are mounted on poles, use GPS and wireless technology to actively follow the sun throughout the day, producing more than 40 percent more energy than fixed solar panels of the same size. The company constructs the equipment at its Williston facility, using many parts made in Vermont.

AllEarth will subcontract the installation of the site to Backspin Renewables, which will begin work in February and complete the project this spring.

"Middlebury College continues to walk the walk in energy leadership. A product of student research in the college's environmental studies program, this solar farm will put front and center the benefits of advanced solar technology for one of the leading academic institutions in the country," said Blittersdorf. "We are pleased that Backspin Renewables, a local Addison County solar tracker installer, will build this project."

"We're excited to have this system to explore the potential for additional solar power in the future," said Jack Byrne, Middlebury College director of sustainability integration. "This is a demonstration project that offers an opportunity for student learning and research as well as one more option to explore as we pursue our goal to become carbon neutral by 2016. Staff will also have the chance to gain an understanding of the operational aspects of a solar energy system."

Byrne said "It's good to know that we are producing clean energy and putting some of it back into the grid as well."

Solar energy is not completely new to Middlebury â€” solar panels were mounted on the Franklin Environmental Center in 2008 and on Farrell House in 2003 but the new project is significantly larger than the installations on these two college buildings. Byrne said the new system will produce about 15 times the power of the existing panels.

According to Dean of Environmental Affairs Nan Jenks-Jay, students have expressed an interest in

developing a solar energy system at Middlebury for several years in a number of academic courses. Most recently, four students in Professor of Economics Jon Isham's fall semester "Environmental Economics" class wrote a report, "The Cost-Benefit Analysis of a proposed Small Scale Solar Farm at Middlebury College," concluding that a project with AllEarth would have a positive economic and social impact. In 2010 students in an environmental studies seminar taught by Professor of Environmental and Biosphere Studies Steve Trombulak also recommended the college commission a solar project with AllEarth.

Caleb Elder, an AllEarth Renewables employee and a 2004 Middlebury graduate, had heard about the student interest and approached administrators in 2011 about constructing a solar system. College officials referred back to the students' work and realized the timing was right for such a project.

Based on current and projected electric rates and at a predicted production of 200,000 kWh annually, the system is expected to save the college about $5,000-$10,000 a year. "From a financial standpoint, this is a low risk project with a positive impact," said Middlebury College Vice President for Finance and Treasurer Patrick Norton. "At current rates, we will earn money for every kWh produced and we will retain rights to the clean energy credits."

"Once again, we are grateful to our students for their energy and commitment to sustainability," said Byrne. "As with the biomass plant, they provided the initial research and interest that helped make this project possible."