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Solar photovoltaics design and installation at an undergraduate college. EJ ZITA, MATT BOOTH, ALAN DEUFEL, NELSON HAFFNER-RATLIFFE, MICHAEL JOSEPH, SCOTT MORGAN, MATTHEW STRICKLAND, Evergreen St. College — We will describe strategies for integrating education with the design and creation of sustainable infrastructure on campus. Teams of students in our Energy Systems classes, working together over 3 years, drove the design and installation of a major photovoltaic (PV) system on the Evergreen State College campus. We collaborated with solar power professionals, campus staff, and funding agencies. Student teams performed solar power capacity analyses using diverse methods and tools. They measured and calculated the production capacity of campus buildings and sites for PV, solar thermal, and other power production options. They studied each building for suitability, working with campus Facilities staff. Students continued the work through summer research and several classes, mentoring new students over the years. We prepared feasibility, engineering, and cost-benefit analyses. The student-funded Clean Energy Committee and the Department of Commerce jointly supported this project for $150,000. In 2017, Evergreen's 20 kW photovoltaic system was completed on our Tacoma campus.

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