

Virginia Tech Advances Sustainability Goals with Major On-Campus Solar Array Completion

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Virginia Tech has significantly enhanced its commitment to environmental sustainability by successfully completing the installation and activation of four 1.2-megawatt solar arrays across its Blacksburg campus in Fall 2024. This initiative represents a substantial step in the university's efforts to reduce its carbon footprint and transition towards 100% renewable electricity.

The newly operational solar arrays are strategically located on the rooftops of the Sterrett Center, Durham Hall, the Virginia-Maryland College of Veterinary Medicine, and McComas Hall. These installations are projected to generate approximately 2,300 megawatt-hours of electricity annually, equivalent to the energy consumption of over 200 average residential homes. The project, which commenced installation in September 2024 and became fully operational in November, underscores the university's dedication to its clean energy expansion objectives.

Stephen Durfee, Associate Director for Campus Energy Management, highlighted the multi-year effort behind the project, emphasizing the extensive negotiation and stakeholder engagement required. "You've got to start somewhere, and this is how you do it," Durfee commented, noting that this is a foundational step in the university's energy efficiency improvements. His team is continuously identifying areas for energy optimization and developing innovative solutions.

Mark Owczarski, Interim Vice President for Communications and Marketing, affirmed that the solar array project directly aligns with Virginia Tech's comprehensive Climate Action Commitment, which targets carbon neutrality by 2030 and a complete transition to renewable electricity. "It's a commitment to responsible energy use and recognizing that fossil fuels have a limited supply and consequences,"



Owczarski stated. He further emphasized that these projects not only contribute to emissions reduction but also create valuable learning opportunities and engagement spaces for students.

A key component of the Climate Action Commitment is the ambitious goal of achieving 100 percent renewable electricity by 2030, a target to which this solar array project significantly contributes. Owczarski noted that such initiatives are part of a broader strategy benefiting academics, research, business operations, and the environment.

Virginia Tech's dedication to sustainability extends beyond its Blacksburg campus. Owczarski cited the recently opened Innovation Campus building in Alexandria, Virginia, as another testament to the university's sustainable design philosophy, featuring integrated solar panels within its architectural elements. This holistic approach ensures that sustainability is a core principle across all Virginia Tech campuses, including in the education of future energy professionals.

Durfee underscored the critical role of early stakeholder engagement in the success of sustainability projects, noting that learning from the patterns of successful solar installations in the region helped manage risks and gain support. Owczarski added that the long-term economic benefits, including lower utility bills and controllable energy sources, will demonstrate a strong return on the initial investment.

The solar arrays are owned and maintained by a third-party developer, which sells the generated energy to Virginia Tech through a power purchase agreement. A \$500,000 grant from the Virginia Department of Energy played a crucial role in reducing the per-kilowatt-hour cost of this agreement. This strategic partnership currently provides approximately 1.2% of the campus's energy from clean sources, resulting in an estimated annual savings of \$45,000 compared to conventional market rates.