



*Photo credit: Sun Tribe Solar*

## UVA SUSTAINABILITY: DECEMBER 2018

In 2016, the University of Virginia, the first in the country to set nitrogen reduction goals, laid out its environmental principles in a landmark sustainability plan. Those and other efforts have helped UVA establish itself as a leader in sustainability, and the work continues – including through the recent Bicentennial Sustainability Leadership Summit. Here are 10 ways UVA is leading in higher education sustainability.

### 1. UVA Sustainability Plan

In 2016, UVA launched its first comprehensive [Sustainability Plan](#), developed by the Committee on Sustainability and facilitated by the Office for Sustainability, with input from more than 100 stakeholders. The plan built upon existing stewardship goals; added objectives regarding waste, procurement, food and water; and committed to integrated plans focused on community engagement, curriculum and research. The plan outlines 23 goals and 101 objectives, including the development of detailed action plans for how the University will meet its environmental stewardship goals.

UVA's strategic sustainability framework seeks pan-University and interdisciplinary connections at all levels of the University to involve the community and raise awareness, steward resources on Grounds and beyond, and discover solutions to global challenges through research, curriculum and using the Grounds as a learning tool.

*This report was adapted from the October 23, 2018 UVA Today article, "[10 Ways UVA Plays a Leading Role in Higher Ed Sustainability](#)," written by UVA Communications and the UVA Office for Sustainability. For more information, see the [UVA Sustainability website](#) and the [2017-2018 Sustainability Annual Report](#) ([www.sustainability.virginia.edu](http://www.sustainability.virginia.edu)).*



## 2. Bicentennial Sustainability Leadership Summit

As UVA approaches the 2020 landmark of many of its Sustainability Plan initiatives and moves into its third century, it has an opportunity to engage the community in developing a shared, holistic, longer-term vision for sustainability.

As a first step, from October 28 to 30, UVA hosted the [Bicentennial Sustainability Leadership Summit](#). With over 500 student, staff, faculty, alumni and community attendees, more than 50 confirmed speakers, breakout discussions, tours and networking events, the Summit explored UVA's achievements to date and began to chart a course for advancing UVA's leadership role in addressing the most pressing global challenges.

## 3. Collaboration from the Grounds Up

There are sustainability-related learning and leadership opportunities in nearly every area of the University, with more than 130 sustainability-related courses, more than 300 faculty members involved in sustainability-related research, and more than 30 sustainability-focused student groups.

UVA is preparing current and future sustainability leaders for work in the sciences, social sciences, engineering, design, the humanities and more. Pan-University collaborative teaching, research and applied practice continues to grow, with extensive collaboration among the University Committee on Sustainability, UVA's Office for Sustainability, the Environmental Resilience Institute, the Global Sustainability Initiative and other entities.

## 4. Climate Action - Greenhouse Gas Reduction

In 2011, the Board of Visitors set a goal to reduce greenhouse gas emissions 25 percent by 2025, including both UVA's academic Grounds and the UVA Health System. Despite significant building expansion and growth, UVA has already reduced emissions by 19 percent and has released a Greenhouse Gas Action Plan that outlines future efforts.



*Photo credit: Dominion Energy*

## 5. Renewable Energy

The use of renewable energy is a key strategy in UVA's Greenhouse Gas Action Plan, and the University's use of renewables is growing on and off Grounds.

As of October 2018, 21 percent of UVA electricity (32 MW) is being powered by a two new off-Grounds solar facilities in King William County (Hollyfield solar facility) and Middlesex County (Puller solar facility), representing 123,800 solar panels. Additionally, UVA has installed 726 kW of solar-generated electricity on Grounds – enough to power roughly 100 American homes for a year – with solar arrays atop Ruffner Hall, the UVA Bookstore, Clemons Library, Skipwith Hall and the Alderman Substation.

## 6. Nitrogen Research and Goal

As the first institution of higher education in the world to set a nitrogen reduction goal, UVA leads both in researching nitrogen footprints as well as in developing goals and strategies to reduce reactive nitrogen at an institutional scale.

Home of the Nitrogen Footprint Network, environmental sciences professor James Galloway's lab has helped more than 18 institutions worldwide track their nitrogen footprints. Recently, UVA and the University of New Hampshire collaborated to develop the first integrated carbon and nitrogen footprint tool, the Sustainability Indicator Management and Analysis Platform, or SIMAP.

## 7. Resilience Research

The Environmental Resilience Institute is the hub of environmental resilience and sustainability research at the University. Launched in 2017, the institute includes guidance from a steering committee of eight faculty members from five schools, and participation from more than 150 members spanning 10 schools. The mission of ERI is to accelerate the rate of discovery, train the next generation of leaders in integrative research, and link science with policy on regional to global scales.



## 8. Sustainable Building

For existing buildings, the Office for Sustainability's Delta Force program, a building retro-commissioning team, drives down energy and water use through building management and systems upgrades. Because of Delta Force, Clark Hall recently achieved a 67 percent reduction in energy costs, reducing the annual energy expense from around \$1.2 million to approximately \$450,000.

For new construction and major renovations, UVA requires that all buildings meet a minimum of Silver-level certification through the Leadership in Energy and Environmental Design. Currently, 52 buildings across Grounds and at the College of Wise hold LEED certification at various levels. UVA's new Green Building Standards go above and beyond LEED to ensure all new construction aligns with sustainability goals.

## 9. Global Sustainability Degree Programs

The Global Sustainability Initiative encompasses several transdisciplinary degree programs with UVA faculty. The Global Sustainability minor was created in 2011 with just three students and has seen 269 graduates to date. Eighty-four students have graduated with the Global Studies major in environments plus sustainability, with another 59 expected over the next two years.

This year, the team is expanding the capacity of these programs and strengthening ties across disciplines by adding the leadership of three new UVA Sustainability Faculty Fellows. These fellows will help develop the community of scholars across UVA's schools who can deliver a collaborative teaching experience to students interested in global sustainability.

## 10. Alumni Engagement

UVA's new Sustainability Alumni Network was created to bring together alumni working in the multi-faceted realm of sustainability, students interested in related careers, and sustainability leaders on Grounds. Involved alumni will collaborate in shaping a vision for sustainability at UVA, serve as mentors for students and connect with each other to build a global community of Wahoos in service of a more sustainable world.