

UVA's Commitment to Sustainability and Responsible Financial Stewardship

The University of Virginia continually strives to be a global leader in sustainability across all aspects of the university – the curriculum, the student experience, research, practices on Grounds and engagement with the local community. Sustainability at UVA is closely connected to the University's Cornerstone Plan, particularly with its emphasis on collaborative decision-making, student leadership, high-impact student experiences, and organizational excellence. Student interest in sustainability at UVA is high with over 30 sustainability-related Contracted Independent Organizations (CIOs) on Grounds. The Sustainability Committee of Student Council actively works to engage these groups, as well as to bring to life its own projects and events.

While there are many strategies to pursue sustainability, including investment in renewable energy initiatives, installation of solar panels on University facilities, conservation initiatives, and divestment; there is also a wide range of opinions on relative efficacy of each respective strategy.

The University has devoted significant thought to developing a responsible and practical approach, which is summarized in this report.

UVA's Five-Year Sustainability Plan

Since UVA's sustainability goals were approved by the University's Board of Visitors in 2011, water usage is down more than 30 percent from an all-time high in 1999; greenhouse gas emissions are 11% below 2009 levels despite significant growth; and building energy use intensity has decreased by 10% since 2010. To date, the University has 44 Leadership in Energy and Environmental Design (LEED) certified buildings, representing over 2.2 million square feet.

Building on the Board's commitment to sustainability, in 2016 UVA unveiled a five-year <u>Sustainability Plan</u>, developed by more than 120 students, faculty, and staff across Grounds, to further advance the University's efforts in this area. In support of the Sustainability Plan, the University has committed additional resources to a number of sustainability-related initiatives and programs. Progress in meeting the Plan's goals and objectives is reported regularly to the Buildings and Grounds Committee of the Board of Visitors. Click <u>here</u> to access the 2016-2020 Sustainability Plan.

Despite significant growth at the University that has occurred in recent years and is forecasted to continue, the plan includes the following goals:

 Attaining a 25 percent reduction in UVA's carbon footprint by 2025 and reducing building energy use intensity by 20 percent below 2010 levels by 2020.

- Reducing reactive nitrogen losses to the environment by 25 percent below 2010 levels by 2025.
- Lowering potable water use by 25 percent below 2010 levels by 2035.
- Reducing the total weight of waste generated at UVA by 50 percent below 2014 amounts by 2035.
- Enhancing and expanding the number of sustainable sites and buildings.
- Increasing annually the percentage of sustainable food and beverages available on Grounds.
- Enhancing sustainability research and UVA's focus as a leader in sustainability practices, as well as offering more sustainability-focused teaching and curricular development.

In addition, UVA has launched many eco-friendly programs in its daily work to protect and improve the environment including, but not limited to, Green Workplace, Green Labs, Recycling & Waste Diversion, Sustainability Partners and Delta Force. In December 2016, UVA collaborated with Dominion Energy on a commitment to produce an estimated 17 megawatts of electricity via solar energy — about 12 percent of UVA's total electric demand. The UVA Darden School of Business will take on about 25 percent of the electricity production that will help the School achieve its long-term zero-carbon goal.

The University, together with Dominion Energy, is planning more projects to advance sustainability work already in motion at UVA and is committed to be a leader in the Commonwealth. We hope to make another major announcement in June.

UVA's vision for the redevelopment of Brandon Avenue reimagines an "Academical Village for the 21st Century" which showcases sustainability, supports learning and research, and promotes ecosystem and human health. The vision creates an innovative model of best practices in utility and facility development; landscape design and stormwater management; and energy, water, and waste reduction. The Brandon Avenue design will connect Central Grounds and the Health System with new pathways and parks; create a working bioretention landscape in the center of the public realm; and make the street feel more like an outdoor room. The mixed-use street will be activated throughout the day and evening by locating diverse and dynamic uses on the ground floors of new buildings.

For this work, UVA has been recognized with a number of national sustainability awards that include:

 The Association for the Advancement of Sustainability in Higher Education ranking UVA as a top performer in the 2016 Sustainable Campus Index.

- The U.S. Department of Education selected UVA as one of only nine post-secondary institutions in the United States and the only one in Virginia to receive the Green Ribbon Schools honor in 2015.
- In its Guide to 353 Green Colleges, The Princeton Review Guide acknowledged UVA's exceptional commitment to sustainability based on course offerings and student preparation for sustainability careers.

UVA Committee on Sustainability

The UVA Committee on Sustainability advises senior leadership on all matters related to the University's commitment to sustainability and any impacts on the future of the University including interrelated environmental, financial, teaching, research and social aspects. In carrying out this charge, the Committee fosters the development and dissemination of sustainability knowledge through research and teaching; promotes the highest standards of sustainable practices on Grounds; engages the civic and academic communities in topics associated with sustainability; and contributes to and reports on progress in achieving the University's sustainability goals. The Sustainability Committee's membership includes a representative group of faculty, staff and students from relevant administrative units and student and faculty organizations.

UVA Sustainability Research Initiatives

University students, faculty and alumni also conduct important research aimed at opening new paths to global environmental sustainability based on science, design, cultural understanding and policy. Examples include:

- Working with India to revitalize the pollution-choked Yamuna River that flows through New Delhi, one of the most densely populated areas on Earth. UVA and the New Delhi water authority signed a five-year memorandum of understanding to chart a comprehensive, multi-disciplinary approach to save this major waterway.
- Exploring how restored seagrass meadows create habitat and feeding grounds for a diverse range of sea creatures. These animals contribute to oceans' ecological health and serve as food sources for people.
- Determining possible methods to improve bumblebee populations to better ensure plants are pollinated. Most crops involve pollination as part of the process to put food on tables.
- Creating the nonprofit organization PureMadi that invented a water purification tablet for use in water-desolate communities of South Africa. This resource can repeatedly disinfect water for up to six months by resting in a vessel where the water is poured.

- Launching the Virginia Coast Reserve Long-term Ecological Research initiative to develop a predictive understanding of the response of coastal barrier systems to long-term environmental changes in climate, sea level and land use. This project strives to preserve coastal landscapes and better understand their life cycles.
- Gaining approval from the Federal Aviation Administration for the first onshore wind energy facility in the Commonwealth of Virginia. Construction is slated to begin by the end of 2017.

UVA's New Resilience Institute

The UVA Resilience Institute, led by Professor Karen McGlathery, Ph.D., from the Department of Environmental Sciences, recognizes that environmental problems are by their very nature social problems. Leveraging strengths across Grounds in environmental science, engineering and policy as well as new cluster hires, the Resilience Institute will become one of the first institutes in the nation to focus on "wicked problems" ranging from the effect of climate change on coastal erosion, to the more frequent occurrence of 100-year storms, to the restoration of dead rivers caused by massive urbanization. An innovative feature of this institute will be a pCorps program for graduate students and researchers to prepare them for policy implications of their scientific discoveries, inspired by the iCorps program at NSF. The institute brings together faculty and students from Arts and Sciences, Engineering, Architecture, Batten, Law, Nursing, Commerce, Curry, Medicine, and the Miller Center.

UVA's Students' Commitment to Sustainability

UVA students across Grounds also are passionately pursuing initiatives to make the University a more environmentally responsible and sustainable place. Empowered and creative students have incorporated sustainability into the culture of the University. In addition to active student participation on the Committee on Sustainability, over thirty sustainability-minded, Contracted Independent Organizations (CIOs) led by students approach sustainability from every angle, from responsibly-sourced food in dining halls to initiating bike-fixing stations around Grounds to making art with recycled materials. Student-led/coordinated initiatives promoting sustainability on and off Grounds include, but are not limited to:

- The Sustainability Advocates, a group of 50 student volunteers, serve as peer educators and reach out to fellow students to inform them about sustainability-related events around Grounds and in the community; to educate and encourage sustainable behavior and habits; and to foster a sense of stewardship for the planet.
- From the Grounds Up blog features posts written by students working to make UVA more sustainable and provides insight into how UVA students make a difference on Grounds and in the community.
- Participation in various annual events including the Game Day Challenge, the Dorm Energy Race, UVA Sustainability Day, America Recycles Day, RecycleMania, SustainaBanquet, and others.

 Renewable Energy Research Fair to raise awareness about the growing need to invest in renewable energy.

Divestment

Colleges and universities throughout the world are examining the issue of divestment in fossil fuels. The University of Virginia invests its endowment and long-term financial resources with the University of Virginia Investment Management Company (UVIMCO), an independent 501(c)(3) organization overseen by its own Board of Directors. UVIMCO maintains a diversified investment portfolio designed to provide long-term financial benefits to UVA's students, faculty, and staff within the risk tolerance of the University. Distributions from these investments provide a vital source of funding for many University operating programs.

Both UVIMCO and the UVA administration have undertaken an extensive review of the issue of divestment, including reviewing policies at peer colleges and universities, engaging student organizations and other special interest groups on Grounds, and analyzing the impact divestment could have on overall financial returns.

The University of Virginia has heard from student groups whose preference is for the University to divest from companies focused on fossil fuels. In the spirit of the Board of Visitors (BOV) and UVA administration's interest in hearing students' opinions, and in acknowledging the thoughtful paper prepared by the students on the issue of divestment, several UVA Board members were pleased to meet with these students and the Sustainability Committee Student Group to listen to the their concerns

The University believes it can most effectively impact climate change through continued investment in teaching, research and operational sustainability initiatives. UVA's strong financial position helps make UVA's numerous sustainability initiatives possible. In addition, many fossil fuel companies are also emerging leaders in developing renewable energy sources. After careful consideration and analysis, UVA will continue with its current investment practices in line with its fiduciary responsibility to its stakeholders and the Commonwealth of Virginia.

In conclusion, the University believes the most effective and practical impact is achieved both by investing selectively in promising renewable energy technologies, by converting University energy consumption to renewable sources and by investing in and promoting conservation (water, design of buildings, facilitating pedestrian and bike traffic).

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The University of Virginia has positioned itself as a leader in sustainability practices. As evidenced by UVA's Sustainability Plan, the University remains a committed advocate for these important efforts.

The University will continue to focus resources and attention on its sustainability initiatives and encourages community members to be involved and participate in efforts to improve our living and learning environment. For more information on UVA's sustainability efforts, click here.

The University considers its aggressive pursuit of a diverse range of sustainability programs and initiatives to be a preferable approach over narrowly focused tools such as divestment of individual industry assets that provides uncertain or immeasurable results.