Emory Sustainability Vision and Strategic Plan

DRAFT EDITION
INTRODUCTION

Caption

Our Vision

Building on a decade of accomplishment to enhance sustainability at Emory University, the Office of Sustainability Initiatives has worked with representatives of many academic, operational, and healthcare units to carry out a strategic planning effort to chart the next five to ten years.

Our vision for Emory is to be a model of transformative practices and sustainable choices at every level. From the copy room to the operating room, from the class room to the residence hall—among academic units, healthcare units, and operational units—Emory will more deeply engage the challenges of sustainability and expand our leadership in higher education.

Students sample biodiversity in apples at the Sustainable Food Fair
A decade of accomplishment

In 2004, Emory University adopted sustainability as a guiding principle and inscribed it into the 2005-2015 Strategic Plan. Since that time, the university has become known for innovations in green building, curriculum development, sustainable food and procurement, and energy and water conservation.

This progress built on important efforts that include robust academic programs in sustainability-related fields, establishment of the University Senate’s Committee on the Environment, Emory Recycles, the No Net Loss of Forest policy, the commitment to LEED\(^1\) construction standards, and the campus land use classification plan.

Key institutional structures are now in place: the Office of Sustainability Initiatives, the Faculty Advisory Council, the Sustainable Food Committee, the Health Sciences Task Force, a student and staff Sustainability Representatives program in over fifty campus buildings, and the Sustainability Forum that coordinates over a dozen student groups related to sustainability.
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A decade of accomplishment

Together with active partnerships in Campus Services, Purchasing, Campus Life and Dining, and all the academic units, Emory has seen dramatic progress. Some highlights are:

- Built or renovated over 27 buildings to LEED standards.
- Met the goal of reducing campus energy use per square foot by 25%, with over $25 million in costs avoided.
- Created the Cliff shuttle system that runs on biofuel made from hospital and campus used cooking oil and transports millions of riders annually.
- Diverted 95% of construction waste from landfill and currently diverts over 40% of non-construction and non-hazardous waste.
- Built a new WaterHub facility that will cut potable water consumption as much as 40% and save the university millions in water utility costs over a 20-year period.
- Created or renovated over 300 courses that engage sustainability issues (offered in 57% of all academic departments across the university) and developed two minors related to sustainability.
- Inaugurated the Oxford College Organic Farm to provide healthy food to the Oxford dining hall, to CSA subscribers, and to a Newton County food pantry.
- Created thriving educational garden project, student-run fair trade coffee shop, and Emory farmers market.
- Developed multi-focused sustainability efforts in Emory Healthcare, including waste and energy reduction; Emory University Hospital Midtown alone has decreased its greenhouse gas emissions by 53% since 2009.

In the next ten years, we seek to amplify this momentum, though we realize that future challenges may be harder. Because creating a sustainable campus and community is a long process, we have crafted a ten-year Vision. However, we plan to conduct an audit after five years and, in necessary, undertake a midcourse correction to ensure that our Vision is relevant and on-target to our fast-changing world.
What is sustainability?

Sustainability is defined in Emory’s 2005-2015 Strategic Plan as relating to quality of life: a community is sustainable if economic, social, and environmental systems provide a healthy, productive, and meaningful life for all community residents, present and future.²

Sustainability supports and incorporates many aspects of Emory’s mission—educational, medical, and operational. It offers the university an opportunity to more fully enact our principles and provide equitable opportunities for satisfying livelihoods and study through a safe, healthy and high quality of life for current and future generations.
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The Strategic Vision Process

This strategic plan articulates a primary vision for the future, with four strategic action arenas. We include guiding questions to stimulate further creativity towards sustainability efforts among all Emory units.

Through meetings, discussion groups, and a survey, we will disseminate this draft document widely as we seek to share the ownership of this strategic plan in order to create a collective commitment for the future of our campus and community.

A revised report will then be submitted to the Provost, Executive Vice President, the University Senate, and the President’s Cabinet and will guide efforts through the next decade.
Four Strategic Action Arenas

I. Support culture change among academic and operational units to carry forward courageous action on sustainability.

II. Expand the network of sustainability champions to strengthen leadership at every level.

III. Use Emory landscape, buildings, and operations to model sustainable choices.

IV. Create strategic partnerships with local, national, and international institutions to build flourishing and resilient communities.
I. Support culture change among academic and operational units to carry forward courageous action on sustainability.

Guiding questions: How can each group in the Emory community assess its contribution to Emory’s sustainability commitments? How can every degree program and departmental culture encourage consideration of the full economic, environmental, and social costs of its decisions? How can our student groups, academic centers, business processes, and infrastructure of support adapt? How can we establish an environment in which sustainable choices are the default?

Action commitments:

• Incorporate sustainability into first impressions of Emory, through our website, campus visits, hospitals, and material for the general public.

• In collaboration with deans and administrative leaders, ensure all new undergraduate, professional, and graduate students, as well as employees, are welcomed into—and feel a personal stake in—Emory’s sustainability commitments, through orientation activities that include the president’s affirmation.

• Integrate sustainability commitments into each unit’s strategic plan, including Emory Healthcare and the new Emory Campaign.

• Incorporate sustainability criteria (full-cost accounting of economic, social, and environmental impacts) more fully into routine decision making—whether in the hospital, lab or office, in care-giving, events or purchasing.

• Integrate sustainability concerns into recruitment; assess the sustainability-related skills and qualifications needed in each job.

• Integrate sustainability commitments into performance evaluations of all employees.
II. Expand the network of sustainability champions to strengthen leadership at every level.

Guiding questions: How can we build expertise and share essential knowledge for sustainability? How can we coordinate existing efforts and stimulate new initiatives? How can Emory students, faculty, and staff incorporate sustainability into everyday life and take what is learned beyond the Emory environment? How can we strengthen both top down and bottom up support for culture and behavioral change?

Action commitments:

a) Expand support structures and strengthen organizational structures for champions:

• Strengthen faculty leadership through a Faculty Fellows program with the support of each dean.
• Strengthen staff champions in collaboration with the Administrative Council by expanding the role of Sustainability Reps; provide improved communications channels and support.
• Create a program for student champions through collaboration with staff and faculty mentors and internships in Campus Services, Dining, Campus Life and other administrative units, with a focus on sustainability decision making, life skills, and leadership.
• Strengthen or create sustainability leadership positions throughout student government at both the undergraduate and graduate levels.
• Expand sustainability literacy in all existing Leadership Academies and, as needed, develop a new Sustainability Leadership Academy.
• Develop sustainability learning outcomes for all staff and develop educational programs and assessment tools.

Student-led Campus Kitchens initiative repurposes leftovers for donations to shelters
II. Expand the network of sustainability champions to strengthen leadership at every level.

Action commitments continued...

b) Through academic programs and degrees, prepare Emory graduates for sustainability leadership throughout their lives.

- Integrate sustainability into academic programs and degrees to assure universal sustainability literacy.
- Expand curriculum initiatives through the Piedmont Project, Piedmont TATTO Fellowships, and Oxford Institute.
- Link sustainability-related information needs across campus to academic projects through partnerships with operations personnel, the Quality Enhancement Plan (and its focus on evidence), and the new College Quantitative Theory and Methods Institute.
- Support campus-based sustainability research activities with a data hub and interdisciplinary laboratory for action research projects.
- Support start-ups for sustainability-related faculty interest groups, building on existing efforts in Environmental Health, Environmental Law, Climate Change, Food Studies, and Global Health, among others.
II. Expand the network of sustainability champions to strengthen leadership at every level.

Action commitments continued...

c) Integrate sustainability into the life of the campus:

- Infuse sustainability expectations and goals into all aspects of residential education, including the first year experience, Greek life, and Emory Dining educational activities.
- Develop sustainability literacy survey for all students and administer annually.
- Support student leadership at graduate and undergraduate levels to develop metrics of sustainability progress for each program, residence hall, or Greek house.
- Expand sustainability-related community service opportunities through Volunteer Emory and other groups, especially for graduate and professional students.
- Ensure sustainability commitments are met and communicated in summer conference and camp programs and events.

d) Invest in the Office of Sustainability through secure central funding and adequate staff to offer needed coordinating services and expertise throughout the university and healthcare.
III. Leverage Emory landscape, buildings, and operations to model sustainable choices.

Guiding questions: How can Emory architecture, physical plant operations, and broader ecosystem act as pedagogy for sustainability and make visible our commitments throughout the campus? How can daily life in this institution enhance the economic, social, and environmental aspects of sustainability?

Action commitments: All goals use 2025 as a target date and 2015 as data baseline.

a) Built environment:

- All new construction on campus will be carbon neutral.
- Attain best practices for sustainable performance in building interiors.
- Reduce campus energy use per square foot by 50% and total energy use by 25%.
- Reduce Emory Healthcare energy use by 25%.
- Reduce energy use in renovated buildings by 20% and incorporate renovations into LEED silver commitment.
- Self-generate 10% of energy used on campus to replace fossil fuel sources.
- Eliminate drinking water use for heating, cooling, toilet-flushing, and other non-potable uses, with a goal to reduce campus water use by 50%.
- In the new Campus Life Center (former DUC), or other appropriate innovative facility, incorporate regenerative architectural standards such as net zero impact and “living building” to educate campus community and visitors.
- Renovate and use iconic buildings on campus such as the president’s home for sustainability education and outreach.
- Create financial incentives for all operating units to conserve beyond existing goals, including a sustainability revolving fund.
- When replacement is necessary, make all roofs cool, green and/or solar.
III. Leverage Emory landscape, buildings, and operations to model sustainable choices.

Action commitments continued...

b) Waste:

- All university events will be zero municipal landfill waste by 2020.
- Divert 95% of non-construction waste from municipal waste landfills (except regulated lab and medical waste).
- Compost, recycle, or reuse at least 95% of food waste, non-hazardous animal bedding, and construction materials.
- All university functions will be plastic bottle free except for Commencement.
- Meet or exceed leading healthcare industry rates of waste reduction/reuse/recycling to 37%.\(^5\)
- Divert 20% of non-hazardous medical waste from municipal landfills.

c) Transportation:

- Shift Emory-owned vehicle fleet to become carbon neutral.
- Double alternative commuting registrants through innovative incentives, outreach and establishing unit-specific targets and reward programs.
- Expand bike share and Cliff Shuttle into neighborhoods and to Lindbergh MARTA station.
- Increase awareness of alternative transportation options among Emory Healthcare patients and University visitors.
III. Leverage Emory landscape, buildings, and operations to model sustainable choices.

Action commitments continued...

d) Campus Ecosystem:

• Explore opportunities to enhance Emory’s original vision of “a campus in a forest.”
• Enhance planting of native species and remove invasive species in 25% of campus woods to foster a healthy forest ecosystem.
• Shift from No Net Loss policy for forest canopy to Net Positive policy.
• Plant 200 new trees by Emory’s 200th anniversary and enhance pedestrian shade.
• Reduce hard surface and water runoff on campus to enhance stream quality; reduce impervious pavement by 15%.
• Reduce turf grass on Druid Hills and Oxford campuses by 15% and replace with low-maintenance native species.
• Research alternatives to herbicides and insecticides with the goal to reduce their use.

e) Food:

• Expand sustainable food purchases (either locally grown or sustainably grown) in Emory Dining to 50% by 2016, to 60% by 2019, and to 75% by 2025.
• Support the Oxford organic farm to provide 50% of produce needed on the Oxford campus by 2020 and 5% of produce needed on the Atlanta campus by 2020.
• Expand urban food production on the Druid Hills campus; establish a second Emory organic farm.
• Expand sustainable and local food purchases in Emory Healthcare to 25% by 2025 and establish tracking system to document future gains.
III. Leverage Emory landscape, buildings, and operations to model sustainable choices.

Action commitments continued...

f) Climate action:

- Update Emory’s 2011 Climate Action Plan based on latest science.
- Foster and reward innovative strategies to implement the University’s Climate Action Plan and each academic unit’s Climate Action Plan to meet current goals to reduce 20% of total greenhouse gas emissions by 2020, 36% by 2036, and 50% by 2050.
- Establish a Carbon Neutral Degree within an academic unit that allows sustainability-conscientious students to offset the environmental impacts of attaining their degree.
IV. Create strategic partnerships with local, national, and international institutions to build flourishing and resilient communities.

Guiding questions: Promoting a healthy, thriving, and resilient community is central to Emory’s sustainability mission; how can we be sure our policies and standards will reflect these commitments? How can Emory expand its leverage through relationships with other entities?

Action commitments:

a) Identify and partner with other Atlanta institutions, government organizations, and corporate partners to create more sustainable decision options for Emory students and employees and to enhance sustainability across the region:

- Expand MARTA rail through the Clifton corridor.
- Expand fossil-fuel-free energy options through Georgia Power or other sources.
- In alliance with Atlanta partners, expand food security in metro area and resilience in self-provisioning, for example by building a food hub to aggregate produce from local and sustainable farmers.
- Support procurement of local products with a sustainability-focused business incubator.
- Expand awareness of healthy, sustainable behaviors among the populations served by Emory Healthcare through education and outreach.

b) Engage coalition of distinguished leaders and corporations to enhance sustainability decision making in the national and Emory supply chain. Develop scorecards for “Emory preferred” practices and decisions which encourage full-cost accounting among vendors and contractors and enhance the selection criteria when awarding contracts.

Emory promotes transit alternatives and the bus fleet uses bio-diesel from reclaimed cooking oil.
This strategic vision seeks to strengthen and harmonize our institutional culture with sustainability commitments, expanding our individual capacities for courageous action and enhancing the effectiveness of our educational mission.

We hope this plan will support creativity at every level of Emory—and generate unexpected synergies—while incorporating sustainability more integrally in our daily lives. As Emory graduates and employees, we will gain the knowledge, skills, and habits to address sustainability challenges throughout our lives.

These next ten years offer opportunities for new leadership, as sustainability principles are embedded in the policies that emerge from the decisions, information, champions, structures, and partnerships outlined here. We seek to build on the pioneering work of the previous decade, making sustainability ever more deeply a part of who we are as an institution.
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Sustainability Visioning Committee Members

Steve Bowen, Christian Bowers, Ioulia Fenton, Dave Fuhrman, Ciannat Howett, Joan Kowal, Carolyn Livingston, Justin Remais, Tom Rogers, Eri Saikawa, Paige Tolbert, and Demetrius Woods; Dennis Creech, ex-officio; Matthew Early and Peggy Barlett, co-chairs.

Sources cited

1 The US Green Building Council was created in 1993 to promote energy efficiency improvements in building and construction. Its certification program, LEED (Leadership in Energy and Environmental Design), began in 2000 and recognizes best-in-class building practices. Emory achieved the first LEED-certified building in the Southeast and continues to be a national leader in certified square footage. See http://sustainability.emory.edu/page/1007/green-buildings/green-space.

2 Definition of sustainability adopted by the Emory College Sustainability Minor Steering Committee 9-27-13: Sustainability refers to a process in which human societies adapt to live within the earth’s finite limits in ways that:
  • restore healthy ecosystems and reduce harm to water, air, forests, soils, and biodiversity;
  • support secure livelihoods and vibrant local economies and redress poverty and inequality;
  • create resilient cultural and natural systems and empowered communities;
  • and meet the needs of the present without compromising the ability of future generations to meet their own needs. Sustainability includes economic, environmental and social dimensions, including equity and diversity goals.

3 Carbon neutral buildings create no increase of carbon dioxide to the atmosphere through their operations; any fossil fuels burned are offset by other activities that remove carbon from the atmosphere.

4 A “net zero energy” building produces energy on site each year that is roughly equivalent to the amount of energy consumed. Like the “living building” program, such buildings do not increase the quantity of greenhouse gases in the atmosphere. See: http://living-future.org/

5 The reduce/reuse/recycle metric includes diversion of unused medical supplies and equipment for donation, reprocessing and reuse.

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The Educational Garden Project sites are located throughout campus