



**2024**

# SUSTAINABILITY ACTION PLAN

*University of Connecticut*

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# A Message from President Maric

The University of Connecticut's commitment to sustainability stands as a cornerstone within our overarching 2024 – 2034 Strategic Plan, seamlessly intertwining our dedication to academic excellence, research innovation, and community engagement. This Sustainability Action Plan harmonizes with and bolsters the pillars outlined in our strategic plan, enhancing our mission to be a global leader in higher education.

Our commitment to sustainability is foundational to our core values and mission. This Sustainability Action Plan outlines our strategic framework to cultivate a culture of environmental responsibility, social equity, and economic viability across all facets of our institution.

## Vision and Objectives:

Our vision is to be a global leader in sustainable practices within higher education by fostering innovation, education, and collaboration. To achieve this, we have established key objectives:

1. **Carbon Neutrality:** Achieving carbon neutrality by 2030 through comprehensive emissions reduction strategies.
2. **Resource Conservation:** Implementing conservation measures to optimize water and energy usage, reduce waste generation, and promote sustainable practices campus-wide.
3. **Academic Integration:** Integrating sustainability across curricula, research initiatives, and campus engagement to empower our students, faculty, and staff as change agents.
4. **Equity and Engagement:** Fostering a diverse and inclusive community committed to sustainability, ensuring equitable access to resources and opportunities for all.
5. **Partnerships and Innovation:** Collaborating with local and global partners, fostering innovation, and leveraging technology to address complex sustainability challenges.

## Alignment with Strategic Initiatives:

Aligned with the University of Connecticut's Strategic Plan, this Sustainability Action Plan is interwoven with the Six Cross-Cutting Initiatives:

1. **Student Success Journey to Academic Excellence:** Integrating sustainability across academic programs, research endeavors, and experiential learning opportunities, empowering students to become leaders in sustainable practices and innovation.
2. **Excellence in Research, Innovation, and Engagement:** Fostering interdisciplinary research initiatives and innovation hubs focused on sustainable solutions to address pressing environmental challenges.
3. **Wellness of People and Planet Community Engagement:** Engaging with local and global communities, cultivating partnerships, and advancing initiatives that promote environmental stewardship and social responsibility leveraging UConn expertise and resources for broader impact.
4. **Seven World-Class Campuses, One Flagship University:** Facilitating interdisciplinary multi-campus academic opportunities to develop sustainable systems and processes to increase climate resiliency and improve operational efficiency.
5. **Stronger, More Inclusive University:** Ensuring equity and inclusion within sustainability efforts, providing equitable access to resources, and fostering a diverse and inclusive sustainability-focused community.
6. **Husky Pride & Resilience:** Celebrate faculty, staff, and student contributions amplifying our nationally recognized Green University rankings, leverage engaged alumni philanthropic support for sustainability

research and innovation and pursue industry partnerships or synergistic joint ventures expanding commercialization and startup creation.

**Measuring Progress and Accountability:**

Our commitment to measuring progress and fostering synergies between the Sustainability Action Plan and the University's Strategic Plan will be central to our success. We are committed to accountability and transparency through regular assessments, benchmarking, and reporting on key performance indicators. Engaging stakeholders and regularly updating our community on progress will drive continuous improvement.

**Conclusion:**

The Sustainability Action Plan embodies our unwavering commitment to lead by example, embrace innovation, and create a resilient and sustainable future for our university and beyond. Together, we will forge a path towards a more sustainable and equitable world.

Leading with joy and love for all,  
Radenka

**UConn is a great university.**

But it is more than that. A top-ranked Land and Sea Grant research institution, with campuses and staff across Connecticut, built to inspire the global community that is UConn Nation. UConn's talented students exceed expectations. Our expert researchers, faculty, staff, and alumni drive Creativity, Innovation, and Entrepreneurship (CIE) for a better tomorrow. We fuel the State's economy and are committed to inclusion with emotional intelligence in benefiting the greater good. **This is UConn.**

**STUDENTS FIRST. UCONN ALWAYS. HUSKIES FOREVER.**

**DR. RADENKA MARIC**

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# About the University of Connecticut

The University of Connecticut is dedicated to excellence demonstrated through national and international recognition. As Connecticut's public research university, through freedom of academic inquiry and expression, we create and disseminate knowledge by means of scholarly and creative achievements, graduate and professional education, and outreach. Through our focus on teaching and learning, the University helps every student grow intellectually and become a contributing member of the state, national, and world communities. Through research, teaching, service, and outreach, we embrace diversity and cultivate leadership, integrity, and engage citizenship in our students, faculty, staff, and alumni. As our state's flagship public university, and as a land and sea grant institution, we promote the health and well-being of Connecticut's citizens through enhancing the social, economic, cultural, and natural environments of the state and beyond.

The University of Connecticut (UConn) is a public land-grant research university system whose main campus is in Storrs, Connecticut. It was founded in 1881 as the Storrs Agricultural School. In 1893, the school became a public land grant college, becoming the University of Connecticut in 1939. Over the following decade, social work, nursing, and graduate programs were established, while the schools of law and pharmacy were also absorbed into the University. During the 1960s, UConn Health was established for new medical and dental schools.

UConn is accredited by the New England Commission of Higher Education and has fourteen schools and colleges and more than 115 undergraduate majors. The UConn Storrs campus has over 12 million square feet of building and infrastructure supporting a population of about 27,000 students, faculty, and staff. Additionally, UConn operates five regional campuses (Avery Point, Law School, Hartford, Waterbury, and Stamford).





# Executive Summary

At the University of Connecticut, a key aspect of our mission is to provide knowledge and leadership for a sustainable future. As the State of Connecticut’s public research institution, we *Lead by Example* toward a sustainable future with innovative research, educational engagement, and modeling the implementation of innovative solutions. Our public and private partnerships with peer institutions, business leaders, and national governmental organizations focus on society’s evolving and urgent environmental challenges. To achieve this, we identify and pursue pathways to a sustainable future that respects diverse values including equity, liberty, and civil discourse. We are grounded by a set of five core values:

- **Leadership:** UConn attracts outstanding students and faculty nationally and internationally to offer a pioneering curriculum that defines the knowledge and skills needed to become our Next Generation of environmental leaders in a range of careers including STEM and Public Policy.
- **Excellence:** UConn creates defining science, policy, and business models built on our fundamental commitments to analytic rigor, robust empirical data, and intellectual integrity leading to excellence in performance.
- **Conservation:** UConn encourages primarily conservation of environmental resources to provide the most visionary, long-lasting environmentally just results of today’s efforts to support and sustain an inclusive future for the diverse Next Generations of all races, colors, economic status, or national origin.

- **Sustainability:** UConn generates knowledge that will advance thinking and understanding across the various dimensions of sustainability encouraging environmental stewardship by responsible behavior on campus, within our state, and beyond.
- **Collaboration:** UConn fosters collaborative learning, professional skill development, and problem-solving in our community strengths of collegiality, diversity, independence, and lifelong learning.

The University of Connecticut is committed to lowering its carbon footprint, evidenced by our Presidents' Climate Commitment, participation in the Governor's Council on Climate Change (GC3), and our voluntary advanced standing in the *Lead by Example - Improving Energy Management at State Facilities* (CT Public Act 11-80). Over the years significant investments have been made in areas including research, education, planning, staffing, conservation, infrastructure, and operation.

## Stakeholder Engagement

### Academic Research and Collaboration Vision

The Academic Research and Collaboration Vision at UConn is highlighted by a dynamic and multi-faceted approach. UConn's approach to sustainability through advanced research is deeply integrated with collaborative efforts. The university has invested significantly in facilities and initiatives that foster collaborative research and learning environments. For instance, the Science 1 building, part of UConn's Next Generation Connecticut initiative, is a state-of-the-art facility designed to promote hands-on experience and interdisciplinary collaboration. This facility exemplifies UConn's commitment to transforming education and research, integrating various disciplines, and connecting with industry and other collaborators to drive innovation. UConn's research strategy towards a more sustainable society also emphasizes partnerships, both local and international, to enhance its impact. This includes collaborating with over 165 institutions worldwide across 48 countries. The focus on collaborative and interdisciplinary strategy is a key aspect of UConn's Sustainability Action Plan, aiming to address bigger challenges and find more innovative solutions through collective effort. UConn has launched an ambitious 10-year strategic plan which emphasizes the expansion of the University's research impact and harnessing its strengths to benefit Connecticut. This plan is built upon promoting holistic student success and prioritizes investment in UConn's research enterprise. It includes specific initiatives and priority actions for enhancing research and innovation, focusing on areas like student success and sustainability.

### President's Carbon Reduction Working Group

The [President's Carbon Reduction Working Group](#), established in 2023, supported ongoing energy conservation efforts and sought to identify, evaluate, and recommend specific cost-effective initiatives and actions within the larger context of the University's available resources. This included academic research and other programs that will increase the use of clean and sustainable energy on UConn's campuses and reduce environmentally harmful emissions. The goals of this group included enabling UConn to achieve carbon neutrality on its campuses by 2030, with the goal of zero carbon by 2040. The President's Carbon Reduction Working Group was made up of students, faculty, and staff.

### Institute of the Environment Office of Sustainability

The [Office of Sustainability \(OS\)](#) is under the umbrella of the Provost's Office (Vice Provost for Academic Operations) within the [Institute of the Environment \(IoE\)](#), with a secondary reporting relationship on operational matters to the Executive Vice President for Administration & Chief Financial Officer (EVPA & CFO).

The OS is an important focal point for sustainability initiatives on campus and works with senior administrators, students, faculty, and staff to set and advance strategic sustainability goals in the areas of climate action and resilience, energy and buildings, waste reduction and diversion, water resources, food and dining, grounds, purchasing, transportation, open space and natural resource stewardship, and the intersection of these issues with environmental and social justice. The office develops outreach and engagement programs that feature experiential learning to raise awareness and improve performance around sustainable practices and behaviors. The Office of Sustainability also houses the [Environmental Policy Advisory Council \(EPAC\)](#) which serves as an advisory body to university's senior leadership, focusing on enhancing the University's environmental performance through fostering environmentally sustainable development, improving environmental compliance, and promoting environmental leadership initiatives. Among other tasks the council functions by developing and revising UConn's environmental policy statement, identifying environmental risks, advising on conservation and development plans, and monitoring the University's environmental performance. Importantly, the EPAC provides a forum for all university departments to report on their contributions to moving this Strategic Action Plan implementation forward.

### **Academic Curriculum**

Environmental education is essential to solving many of the complex global challenges we face today. Indeed, starting in 2019 UConn implemented a general education requirement in environmental literacy to ensure that students are provided with perspective on the interaction between society and the natural world, as well as the challenges associated with environmental stewardship. At present, the university offers over 80 courses across five of its schools/colleges to meet this requirement, which notably, represent fewer than 50% of the university's complete (and often more advanced) course offerings related to sustainability and the environment.

Additionally, UConn offers a myriad of programs related to sustainability and the environment. At the undergraduate level there are over 17 majors across three colleges, including, but not limited to:

- BA in Environmental Studies
- BS in Environmental Sciences
- BS in Environmental Engineering
- BS in Environmental and Natural Resource Economics
- BS in Sustainable Plant and Soil Systems
- BS in Natural Resources and the Environment
- BS or BA in Ecology and Evolutionary Biology

UConn also has 20+ graduate and postgraduate programs directly or partially related to sustainability and the environment, including, but not limited to:

- LLM in Energy and Environmental Law
- MS in Energy and Environmental Management
- MS or PhD in Environmental Engineering
- Certificate in Sustainable Environmental Planning & Management
- MS in Advanced Manufacturing for Energy Systems
- MS in Biodiversity and Conservation Biology
- MS or PhD in Natural Resources

It is worth noting that UConn has some of the most prominent faculty and researchers in sustainability, climate change, and clean energy. At present, UConn has over 200 faculty whose academic/research focus is in these disciplines.

Beyond traditional degree and certificate programs, UConn offers a number of unique experiential learning opportunities for students. Examples include: the Office of Sustainability's *EcoCaptain Interns* which are hired annually for every residential hall to support environmental programming for residents; *UConn@COP* which sends UConn students to the UN's Conference of the Parties annual official Climate Change Conference; and the *Environmental and Social Sustainability Grants Program* which focuses on supporting student-faculty interdisciplinary projects that address UConn's strategic sustainability goals and social challenges, with special emphasis on equity, justice, and the arts and humanities.

### **Community Outreach**

UConn is committed to ensuring that members both internal to the university and the public at-large have the resources necessary participate in supporting an environmentally-conscious future. Internally, UConn provides opportunities for staff, faculty, and students to get involved with sustainability-related organizations (e.g., EcoHusky, Fossil Fuel Free UConn, Environmental Coalition, Clean Energy Society, and Environmental Justice Front). The Office of Sustainability issues regular sustainability newsletters providing information, events, and updated data. The University has a variety of sustainability events throughout the year that are held on campus, including Earth Day Spring Fling which was established in 2008 that hosts vendors, student groups, and environmental organizations to raise environmental awareness.

On the external side, the university has a significant number of institutes and centers with community outreach as central to their missions, including, but not limited to:

The Center for Land Use Education and Research (CLEAR) - CLEAR aims to provide information and support to enhance land use decisions, improve natural resources, and foster resilient communities through research, outreach, and training programs focused on water management, land use planning, climate resilience, and geospatial technology.

The Connecticut Institute for Resilience & Climate Adaptation (CIRCA) - CIRCA focuses on mapping coastal flooding, community climate adaptation policy and planning, and providing future sea level rise scenarios for Connecticut's coastline through research and analysis.

The Connecticut Sea Grant – The Sea Grant focuses on achieving healthy coastal and marine ecosystems through integrated research, outreach, and education programs, aiming to support sustainable marine resource development and stewardship.

The Natural Resources Conservation Academy (NRCA) - NRCA, within UConn's Institute of the Environment, offers transformative and authentic learning opportunities for high school students, focusing on critical thinking, creativity, decision-making, and appreciation of science application and nature, with a particular emphasis on contributing to local environmental solutions and addressing climate change issues.

Additionally, the University hosts annual events open to the public. In Fall of 2023, UConn co-hosted the Sustainable Clean Energy Summit with Eversource which brought together academic, utility, industry, municipal, and legislative experts to discuss the shifting energy landscape. The summit also featured final presentations from six student-led research teams, keynote speakers, and two panels where leaders from industry, government, and community organizations discussed relevant topics and an energy engagement fair was held.

## Strategies and Implementation

Each year, units across UConn will participate at the Environmental Policy Advisory Council meetings to report on their contributions to moving this Strategic Action Plan implementation forward. This process will build on existing annual planning processes at UConn and be aligned with resource allocation decision-making.

Our plan delineates actionable strategies aligned with our objectives:

1. **Climate Action Plan:** Implementing a robust climate action plan to reduce greenhouse gas emissions through energy-efficient infrastructure, renewable energy adoption, and transportation initiatives.
2. **PRISMATIC:** President's Research Investment in Sustainability Measures, Actions, Technologies, Initiatives, and Communities provides funding opportunities to undergraduate students supporting the pledge to reduce UConn's carbon footprint steadily and reach a state of carbon neutrality by 2030.
3. **Waste Management:** Enhancing waste reduction and recycling programs, promoting circular economy principles, and minimizing single-use plastics across campus toward having Zero Waste.
4. **Education and Outreach:** Expanding sustainability-focused education, awareness campaigns, and community engagement initiatives to inspire behavioral change and foster a culture of sustainability.
5. **Social Responsibility:** Advancing social equity through inclusive policies, diversity programs, fair labor practices, and community partnerships.
6. **Innovation and Research:** Investing in interdisciplinary research, innovation hubs, and partnerships to develop sustainable solutions and technologies such as Hydrogen, Fuel Cells, Microgrid Cogeneration Battery, Solar, and Wind energy systems.

# Sustainability Approach

Due to the everchanging landscape of developing technologies and environmental policies, UConn has developed an iterative and continual Sustainability Action Plan Approach which includes periodic review of its initiatives and objectives in the areas of research, education, planning, staffing, conservation, infrastructure, and operations that correspond to the University Master Plan. The [2015-2035 UConn Master Plan](#) laid out a significant [Sustainability Framework Plan](#) changing to Leadership in Energy and Environmental Design (LEED) certification from the U.S. Green Building Council LEED Gold building standards. In 2019 the [President's Working Group on Sustainability and the Environment](#) examined UConn's carbon emission reduction goals and our progress to achieving them highlighting the exigency of additional efforts needed locally, nationally, and throughout the world. The 2024-2034 Strategic Plan envisions the next decade operating model led by a culture of sustainability, both financial and otherwise, wherein UConn will uncover and recognize areas of opportunity to solve critical problems. These areas of focus will help guide the University to seek innovative solutions to climate change while also demonstrating the University's commitment to sustainability.

## Sustainability Area of Focus: Research

Seven Campus One University Goals

Research teams are essential to tackling the growing threats of climate change. Opportunities are abundant for our students and staff to engage on topics as diverse as:

- Sustainable Power Generation, Fuel Production, and Energy Storage
- Carbon Capture, Storage, and Utilization
- Extreme Weather and Its Impact on Our Shorelines and Critical Infrastructure
- Removing Microplastics from Wastewater

- Sustaining the Food Supply
- Diversity and Inclusion, Human Rights on Global and Local Scales
- Eversource Energy Center Storm Outage Prediction
- Microgrid Resiliency



### **Sustainability Area of Focus: Education**

#### Seven Campus One University Goals

- In 2019, the [University of Connecticut](#) began requiring undergraduates to complete at least one three-credit course that relates to the environment. The university senate originally proposed and approved this general education requirement, which is aimed at improving environmental literacy through qualifying courses like "Global Climate Change and Human Societies," "Plants in a Changing World" and "Human Modifications of Natural Environments."
- In 2024 UConn Student Health and Wellness engaged students to think and develop how we can come together and holistically address the question "How can UConn improve the health of both students and the environment in the midst of the climate crisis?" as a component of the [Innovate Wellness Challenge](#) Spring 2024.

## Sustainability Area of Focus: Planning

### Seven Campus One University Goals

- UConn’s Board of Trustees statement: “The university community has rightly determined that the growing climate crisis is one of the gravest threats to humanity that this and future generations must face and collectively address to help avert global catastrophe. We are already seeing the dire consequences of a warming planet. UConn and every research university has a critical role to play in helping to combat this crisis and build a far more sustainable future.”



## Sustainability Area of Focus: Conservation of Energy

### Seven Campus One University Goals

- Focusing on energy use is crucial for UConn to service its carbon neutrality goals. The University needs to immediately move toward carbon neutral buildings, given anticipated growth.
- New construction targets with LEED Gold and a score of 75 or better on EPA’s Portfolio Manager. LEED Platinum and more stringent benchmarking systems can serve as stretch goals to meeting carbon neutrality.
- UConn is poised to take major steps forward through the launch of an [Investment Grade Energy Audit](#), which involves a deep dive into various energy-savings options and will continue efforts underway to retrofit older buildings, transition to LED lighting, replace an aging major underground steam pipe, and other work to reduce fossil fuel use to power, heat and cool buildings and drive transportation reduces carbon emissions.
- STEM labs and residence halls with higher energy use intensity (EUI) benefit from ground source/air source heat pump hybrid systems, less energy intensive buildings may benefit from variable refrigerant flow technology.
- Careful siting and orientation of buildings mitigate heat island effect and improves thermal comfort and energy performance.
- Onsite renewal energy systems will be required. Solar hot water systems, fuel cells, geothermal and ground source heat pump may be useful for some buildings and should be further evaluated. Viable technology for the region as they become available should also be reviewed. Examples include installed onsite or off campus using purchase power agreements, virtual net metering, and solar photovoltaics.

### **Sustainability Area of Focus: Infrastructure Water**

#### Seven Campus One University Goals

- Water conservation is a key part of the University's sustainability program and usage minimizations, reclamation and reuse will need to continue.
- Water use reductions through aerators, ultra-low flow fixtures and process water reductions.
- Greywater or stormwater reuse systems should also be reviewed for mitigating potable water use.
- The Reclaimed Water Facility can reduce peak potable water demand by 20% when operating properly.
- Reducing irrigation needs by planting drought tolerant plants will decrease peak demand loads.
- Addressing stormwater quality, quantity and drainage issues onsite should be a priority.
- The University will need to continue to implement green infrastructure and minimal impact development strategies as part of standard practices.

### **Sustainability Area of Focus: Infrastructure Land**

#### Seven Campus One University Goals

- Proper land management, especially coordinating with utility projects contributors to resilience during significant weather events.
- UConn should continue to provide research to the state to inform the Stormwise Management Practices program.
- Sustainability Sites initiative benchmarking systems adopted for major site developments which complements LEED certification.
- Continue to revitalize brownfields such as Depot Campus and preserve/restore natural areas around hillside Environmental Education Park (HEEP), which is a former landfill.
- Farmland that is lost to development is replaced so UConn can continue agricultural education and development and new agricultural practices and technologies, including sustainable farming and scalable food production.
- Water quality issues are addressed through land area modification, such as vegetated swales, roofs, and walls, reduce and treat runoff and impervious areas disconnected from water bodies.
- Landscape used to impact building energy use where green roofs and appropriate plantings provide insulation and shading to buildings which may otherwise have significant solar loads.

### **Sustainability Area of Focus: Operations Materials**

#### Seven Campus One University Goals

- Vendor code of conduct is reviewed and revised regularly to accommodate changes in vendor products and policies. Lifecycle assessments guide UConn's purchasing decisions. Material is biodegradable, recycled, and low or non-emitting whenever possible.
- Buildings are evaluated to determine if demolition or renovation is more appropriate, and waste is salvaged for reuse on campus to reduce virgin material demand, or otherwise diverted from landfills or incinerators.
- Embodied carbon of new buildings is balanced carefully against potential insurmountable energy challenges for existing building retrofits.
- The food served is healthy and grown on or near campus. This promotes freshness and seasonality and reduces food cost /carbon footprint.
- UConn expands current food related programs, including current composting practices, and composts all biodegradable food waste by 2035.

- Recycling programs are continuously improved, and UConn develops comprehensive strategies for increasing overall diversion rates, including waste reduction and reuse practices, such as purchasing standards that minimize packaging.
- The Sustainable Design Guidelines and associated policies are revised to incorporate more stringent benchmarking targets. UConn adopts LEED Gold certification as a minimum performance standard for construction, like its peers.
- EPA Energy Star Portfolio Manager and other progressive benchmarking systems are implemented for some development projects.
- Local procurement is prioritized and encourages market transformation and economic development.

### Sustainability Area of Focus: Operations Movement

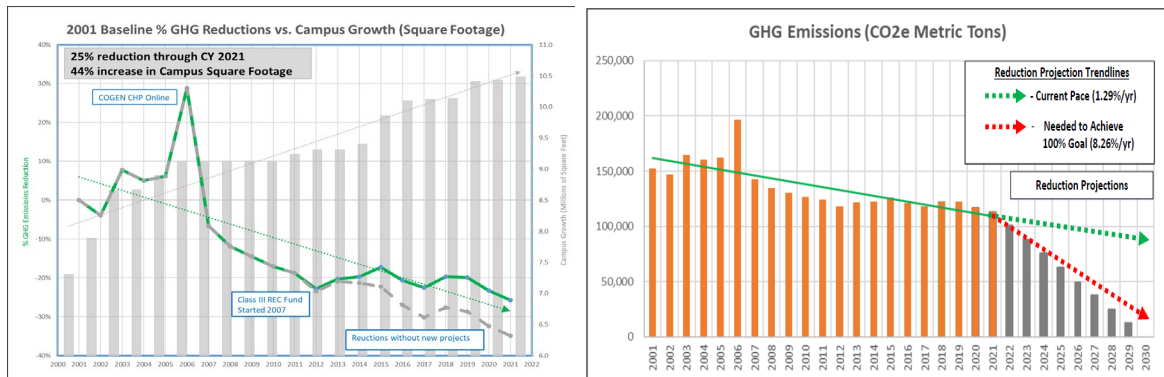
#### Seven Campus One University Goals

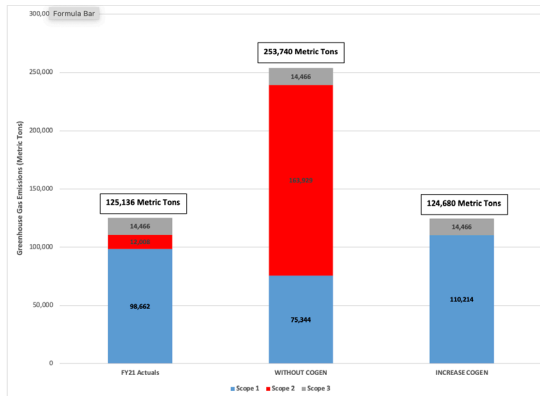
- Future growth must involve a solution to contribute to carbon neutrality goals.
- Reducing single occupancy vehicles, using shuttle and bus services.
- UConn is integrated with local and regional transit services.
- Parking is covered and vertically stacked. A comprehensive plan to assign proper value to parking, graduated rate structure, electronic parking management systems that leverage peak demand and proximity to core campus.
- UConn’s fleet is alternative fueled, hybrid or electric.
- Prioritizing pedestrians fostering a culture of carbon responsible campus travel.
- UConn is a league of American Bicyclists Bicycle Friendly University. Bicycle sharing is improved via more convenience and availability.

## Sustainability Progress to Date

### Greenhouse Gas Emissions

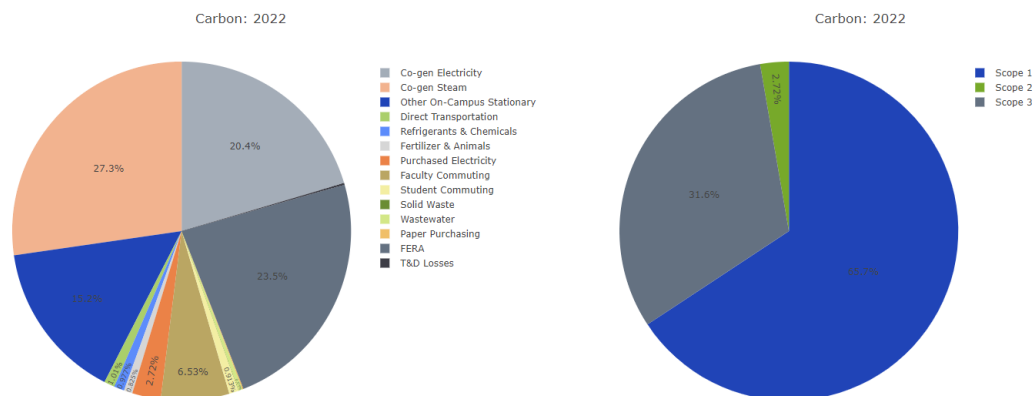
- UConn has achieved a 26% reduction in emissions according to the 2001 baseline, although there has been a 44% increase in campus square footage.
- UConn commissioned a state-of-the-art Cogeneration Facility in 2006 which replaced several oil-fired utility boilers and enabled the University to meet its own energy needs at the Storrs Campus. Additionally, the Cogeneration Facility allows over 80% of the fuel energy to be harnessed, providing a reduction in emissions.





### Energy Scope 1 and Scope 2

- UConn has implemented a metering department to support sub-metering for utilities (chilled water, electric, steam, domestic water) on campus buildings. To date, the program is 87% complete (484 of 559 locations).
- UConn has installed 1500 360-watt panels on the Science 1 building roof with a generation capacity of up to 500 kW. Additionally, Werth Residence Hall also has 20 kW solar panels on the roof. The renewal energy generation is approximately 651 MWh/year.
- UConn has installed a HyAxiom Fuel Cell (460 kW) that provides 100% of the power required for the [Center of Clean Energy Engineering \(C2E2\)](#) plus heating requirements for the research laboratories in the building located at the Depot Campus. This Power Purchase Agreement provides state-of-the-art technology that is hydrogen economy ready. The concepts and research within C2E2 are realized immediately outside the lab in a viable commercial partnership which significantly lowers emissions and operating costs.
- A variety of factors play into UConn’s current carbon footprint as seen below.



### Water

- UConn has had a 10% reduction in water consumption from the 2020 baseline.
- UConn operates a Reclaimed Water Facility which processes up to 1 million gallons per day of non-potable water to reuse on campus buildings like the Cogeneration Facility and administrative buildings.
- UConn completed a survey and repair/maintenance program to install low flow water fixtures, reducing water consumption by about 40,000 gallons per day.

## Waste

- UConn provides all food waste to Quantum BioPower, who uses an anerobic digester to transform pre- and post-consumer food waste into biogas that powers Connecticut communities while also composting.
- UConn has a 25% reduction in waste disposal from the 2020 baseline due to our comprehensive recycling program.
- UConn has been managing an agricultural compost facility since 2010 that composts manure and leaf waste at 800 tons per year.

## Food and Dining

- All eight of the residential dining halls at the Storrs Campus are Certified Green Restaurant from the Green Restaurant Association. UConn is the only University to receive the highest level of four- star certification at all dining halls.
- UConn dining offers vegetarian and vegan choices in all the dining halls, six cafes, a food court, catering and a food truck. In 2021, UConn Dining opened the first 100% plant-based cafe on campus called “Crossroads” offering only vegan options.

## Grounds

- UConn implements and manages an integrated pest management program.
- Per the Sustainable Design and Construction Policy, UConn has implemented minimal impact developments or green features to minimize the effect of rainwater run-off and contaminants that may pollute our waterbodies. These green features include bioretention swales, green roofs, rain gardens, and porous pavers/asphalt.
- UConn follows the Green Snow Pro program, which educates personnel on the deicing operations and optimizes salt usage. Additionally, UConn has a brine tank which is used for pretreatment during snow events, allowing up to 75% less use of deicing material which is both a cost and material savings.

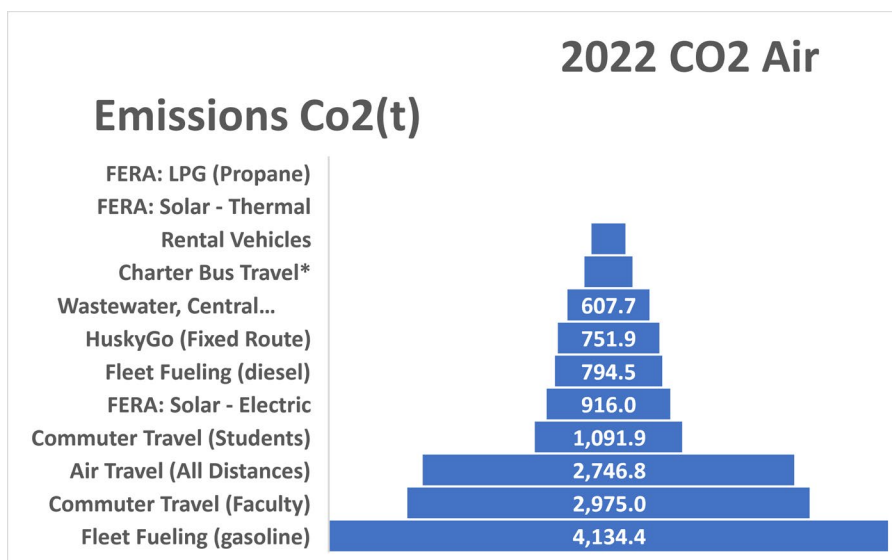
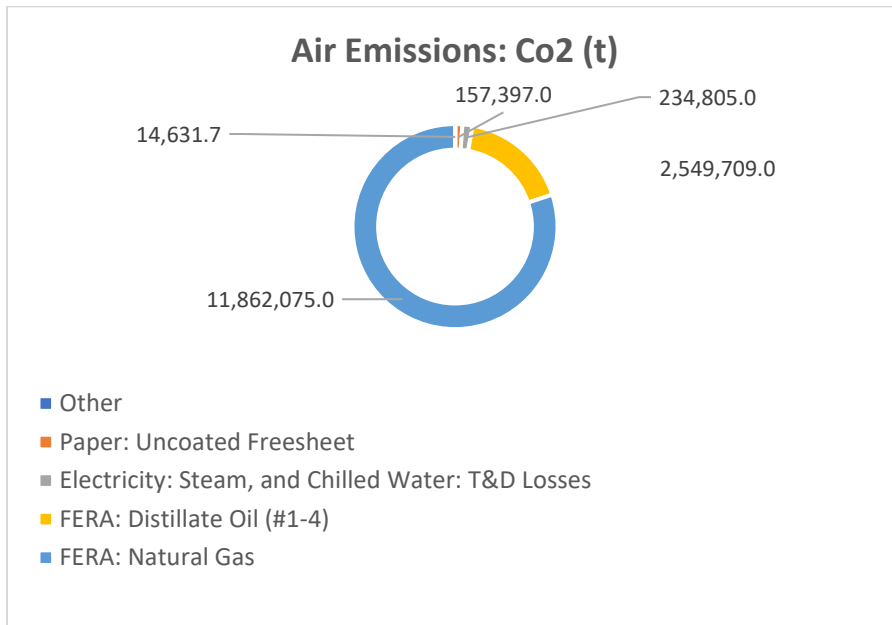


## Transportation

- UConn, with ChargePoint, has approved plans to purchase and install 18 electric vehicle chargers in 7 locations at the Storrs campus. Additionally, UConn will be upgrading and repairing the already existing 70 public charging stations at Storrs and Regional Campuses.
- UConn is adding 24 hydrogen powered fuel cell vehicles to our utility fleet and installing a new hydrogen fuel dispenser.
- UConn in partnership with Connecticut Department of Transportation and Windham Region Transit District will be adding 2 electric buses to the bus fleet for on campus transportation.
- A quarter of UConn’s light duty fleet is comprised of electric or hybrid electric vehicles.

### Scope 3 Emissions

- The University has established multiyear targets aiming to achieve carbon neutrality in all three scopes of emissions. Scope 3 emissions include activities from assets not owned or controlled by the reporting organization, but that the organization indirectly affects in its value chain. UConn continues to lead and develop Scope 3 emission mitigation efforts by collecting and evaluating Scope 3 data and lead research and analysis efforts associated with UConn’s Scope 3 emissions and develop plans to use the results strategically.



14,632 Co2(t)

*This is not a base year calculation.*

## Purchasing

- The UConn Board of Trustees adopted a vendor code of conduct in 2013 that includes strong sections on environmental compliance and environmental sustainability.
- UConn purchases green cleaning products for janitorial use.

# Energy Conservation Goals/Projects

- UConn continues to move forward with energy conservation programs while evaluating emergent technology such as fuel cells, solar, wind and hydrogen. We continue to focus on Class 1 and 2 emissions through our partnerships with local utilities Eversource, CT Water, and CNG. Energy projects including lighting conversion to LED will continue with work being completed at the Avery Point and Law School Campuses. The Top Ten Energy consuming buildings will be evaluated for additional new projects including but not limited to mechanical, insulation, lab ventilation, retro commissioning, etc. Water projects will focus on drought resistance, shoreline protections, and innovative expansion of our Reclaimed Water usage.
- UConn continues to implement High Performance Building Standards to achieve the State's greenhouse gas emission, energy and cost reduction goals while driving economic growth that incorporates design, construction, renovation, and operation practices that preserve the natural environment.
- Projects such as Energy Service Performance Contracts (ESPC) and Combined Heat and Power (CHP) using hydrogen ready technology such as fuel cells or turbines will continue to accelerate progress to the goal of removing the additional 113,000 metric tons of CO<sub>2</sub>eq.
- Significant investments in conservation, ESPCs, CHP and infrastructure are required today to be prepared for either or both Hydrogen or Electric economies of the future that mitigate Climate Change. The required conservation rate must be four times the current rate, which requires four times the current investment of \$5 million yearly. A 25 MW hydrogen capable turbine or fuel cell would be a NPV investment of ~\$100 million.
- Transportation Class 3 Emissions Reduction Planning will focus on soliciting proposals for ride share and active transportation providers. This solicitation will be to analyze the safest and most effective way to roll out a program considering pedestrian safety, charging stations, fire/life safety and cost. Distribution of the chargers, identification of infrastructure challenges and planning regarding centralizing locations. Strategic distribution of on campus Electric Vehicle Charging Systems, Hydrogen Fuel Cell Vehicles and Fueling Centers, and Personal Transportation Systems will be evaluated for implementation. UConn is developing Parking Solar Canopies to provide power to chargers while also providing some shade to the vehicles below the canopy. Additionally, solar for bus shelters and signage is being evaluated in approximately twenty-four locations on campus. The procurement, contracting, and engineering process has begun with a target installation of summer 2023.
- UConn's Discovery Drive has been designated to become the model Renewable Energy Corridor onto the Storrs Campus. Anchored by our Tech Park [Innovation Partnership Building](#) (IPB) this corridor will highlight UConn's research and technology industry collaborations. Several model installations of renewables, control systems to manage energy variability from generation to end consumer, and optimization are being planned.

### **Energy Projects and Research Collaboration**

- UConn is leading the efforts to develop hybrid propulsion system for commercial electric aircraft, aiming at decarbonizing the aviation industry
- UConn is enhancing research at the Innovation Partnership Building with the addition of a microgrid.
- UConn is partnering with industry to produce, store, and utilize hydrogen on site and through repurposing natural gas pipelines.

### **References & Resources**

<https://president.uconn.edu/communications/carbon-reduction-working-group/>  
<https://fo.uconn.edu/departments/facilities-energy-services/energy-conservation/>  
<https://sustainability.uconn.edu/>