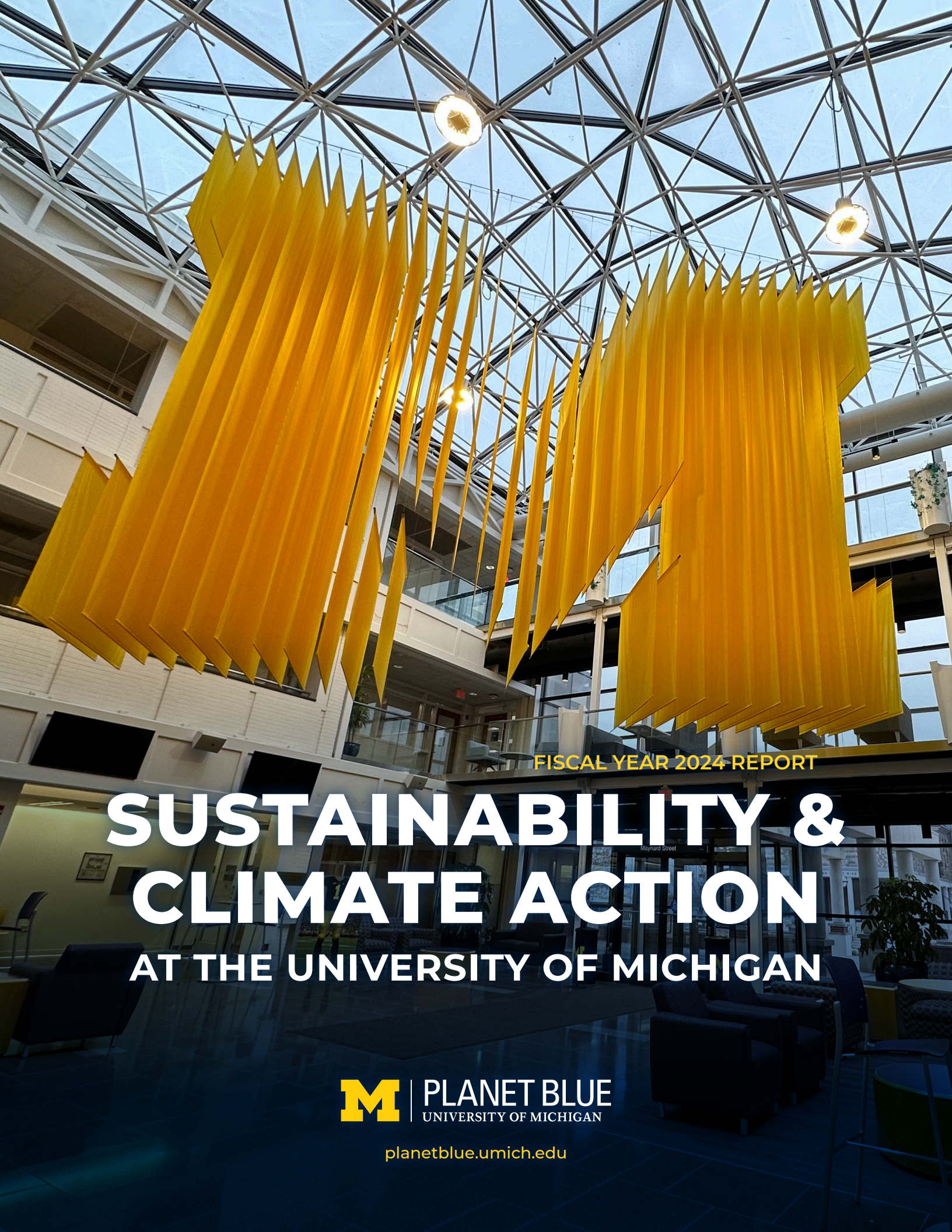


FISCAL YEAR 2024 REPORT

SUSTAINABILITY & CLIMATE ACTION

AT THE UNIVERSITY OF MICHIGAN

PLANET BLUE
UNIVERSITY OF MICHIGAN

planetblue.umich.edu

On campus, in research and teaching, in healthcare and in service to communities near and far, the University of Michigan intensifies its focus on leadership through action in response to critical global challenges.

This page: Burton Memorial Tower, Ann Arbor | *Connor Titsworth, Michigan Commons*

Cover image: Student Financial Services Building, Ann Arbor | *Fatimah Bolhassan, Graham Sustainability Institute*

To the leaders and best,

Society's greatest challenges require a communitywide response. This is precisely why the University of Michigan is poised to lead in responding to the climate emergency and building social and environmental resilience. Because U-M is foremost a community; where students, staff, faculty, alumni and others join together to cultivate multidisciplinary solutions.

We pursue this work through an institutionwide approach called "Planet Blue," for the environmental challenges we face affect nothing less than the entire planet, and there's nothing more Michigan than blue. So Planet Blue is not an office, nor a single central initiative, but rather a collective effort that speaks to the need for Michigan to lead in finding innovative, regenerative and just solutions for this existential and human challenge.

Planet Blue encompasses campuswide carbon neutrality operations, including our plans to construct 25 megawatts of on-campus solar power across the Ann Arbor, Dearborn and Flint campuses, with installations for adjacent communities that may be experiencing energy inequities.

It covers decarbonization in healthcare, from reducing emissions related to anesthesia without compromising patient safety or comfort to instilling sustainable building standards to expanding virtual patient care.

It includes campus involvement, whether centered around annual "Earth Month" happenings or our ever-expanding Planet Blue Ambassador program — which boasts more than 10,000 community members advancing sustainability on and off-campus in their studies, work and lives.

Planet Blue draws on academics and research, the 700-plus faculty focusing on sustainability topics, and the 800-plus relevant courses available for the U-M community.

And, it includes leadership initiatives to hone our collective values, like U-M's Vision 2034 and Campus Plan 2050.

Sustainability is necessarily broad, for the opportunities are many, and the potential for impact is real. Each of us, with our distinct gifts and talents can contribute in meaningful ways to sustainability solutions, joining our ideas, efforts and energies to create a better world. That's why Planet Blue will always begin with you.

Sincerely,

Santa J. Ono
President

”Arriving Home” sculpture, Ann Arbor | *Photo by Daryl Marshke of Michigan Photography)*

Emissions reduction. Carbon neutral. Net zero. Waste reduction.

These phrases continue to dominate sustainability discourse, perhaps because they represent the measurable efforts across institutions in various sectors, including higher education and healthcare. As such, you'll find these phrases throughout this report because, of course, the University of Michigan is committed to tracking the impact of our actions.

Yet these phrases are insufficient in capturing the essence of this work. They speak to reducing potential harms rather than realizing potential healing. As a field, we focus our messages on reducing our carbon footprint or mitigating the effects of the climate crisis, often underemphasizing the inspiring innovations and partnerships that are the heart of the work of cultivating healthy communities near and far. Higher education offers the unique nexus of lived experience, education, research, and operations that fosters innovation — and the University of Michigan is particularly well-poised to demonstrate the next generation of leadership within that nexus.

This report includes updates on U-M's sustainability and climate action efforts across a variety of sub-topics. As you read it, we invite you to think expansively. Our plans to build 25 megawatts of on-campus solar power will reduce our reliance on fossil fuels, and will also model processes that benefit local communities. Our investment strategy will pursue a net-zero endowment by 2050, and will also reveal how green investments — largely because they're sustainable — make good business sense. One reusable sharps container program at U-M Health has led to a reduction of 258,000 pounds of plastic waste annually, and is also showing us just one way to prioritize people and the planet simultaneously.

Our goal is to become carbon neutral by 2040. The word "neutrality," however, implies that we're looking to do the least harm. In actuality, we strive to become an exemplar of environmentally and socially regenerative practices, and in so doing, to become "climate positive."

We strive for our actions to be scalable and transferable so that this university can serve as a force multiplier toward positive change. In this way, U-M endeavors to lead in regenerative action.

Finally, we'd like to acknowledge the immense work happening at various schools, colleges and auxiliary units, including those that are sustainability-focused in nature and those that are incorporating sustainability within other topics. All of our progress has occurred as a product of their engagement and yours. We're optimistic for our shared journey ahead.

Go (Planet) Blue,

Shana S. Weber,
Associate Vice President for Campus Sustainability

T. Anthony Denton,
Senior Vice President & Chief ESG Officer, U-M Health/Michigan Medicine

Michigan Marching Band, Elbel Field, Ann Arbor | *Connor Titsworth, Michigan Commons*

EMISSIONS REDUCTION AMID CAMPUS GROWTH

34%
decrease in greenhouse gas emissions* since 2010

8%
decrease in greenhouse gas emissions* since FY23

14%
increase in total building area since 2010

*Quantified emissions include those from direct, on-campus sources (Scope 1) and purchased electricity (Scope 2).

CARBON NEUTRALITY — CAMPUSWIDE — BY 2040

Emissions reduction goals

- **2025** — reduce emissions from purchased power to net zero (Scope 2).
- **2025** — establish goals for a wide range of indirect emission sources (Scope 3).
- **2040** — eliminate direct, on-campus greenhouse gas emissions (Scope 1).
- **2050** — achieve a net-zero endowment (Scope 3).

Additional Ann Arbor campus goals**

- **2025** — reduce landscape chemical applications by 40% (achieved in 2019).
- **2025** — reduce carbon output per passenger trip by 30% (reduction to date: 0%).
- **2025** — reduce waste sent to landfill by 40% (reduction to date: 14%).
- **2025** — purchase 20% of U-M food from local and sustainable sources (19% reduction by FY20; new goal to be developed).

**These goals were established in 2011 with 2006 baselines and will be updated in 2025.

APPLIED EDUCATION & COMMUNITY-DRIVEN ACTION

10,000+ **Planet Blue Ambassadors** advancing sustainability through their studies, work and life at U-M, on and off campus.

6,000+ **Students** engaged by the Student Sustainability Coalition, U-M Sustainable Food Program, Planet Blue Student Leaders, and Sustainability Cultural Organizers.

1,997 **Tons recycled and 117 tons of food composted** by U-M Health in 2023.

1,400+ **Unique customers of the Farm Stand**—a student-run, student-grown, student-access project with $10K+ in total sales.

800+ **Sustainability courses.**

700+ **Faculty** leading research, teaching, and engagement efforts across a myriad of environmental topics.

280+ **Graduating students** admitted to the Excellence in Sustainability Honors Cord Program, proudly wearing student-made, naturally-dyed Michigan wool cords.

130+ **Student organizations** focusing on sustainability or the environment.

$1B **Investment in climate solutions** through the university's portfolio over the past five years.

$70M **Investment in on-campus solar** installations (estimated), which will total 25 megawatts in capacity.

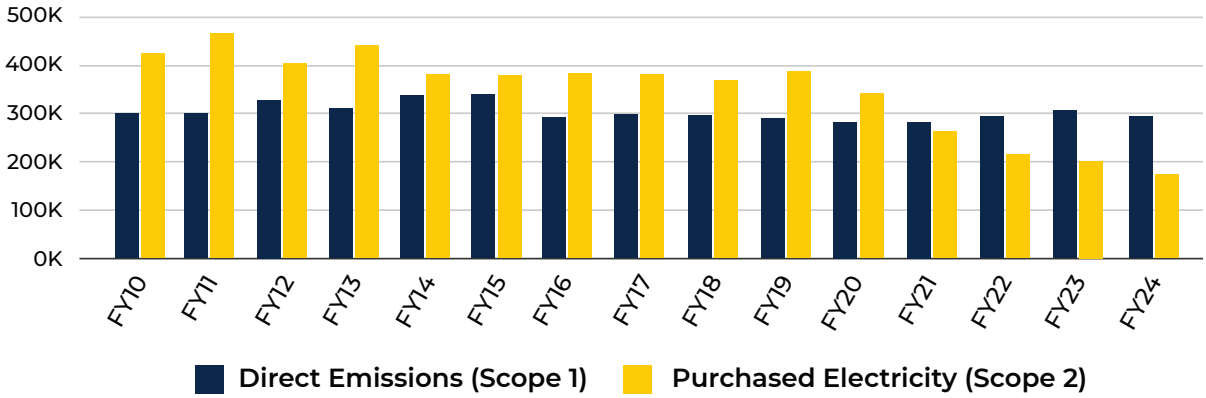
$7.3M Dispensed during FY24 from a central revolving energy fund to units throughout the university pursuing energy efficiency projects.

$120K Granted from students to 27 unique sustainability projects, ranging from transforming polylactic acid (PLA) waste into 3D printing filament to creating a campus sawmill.

The following data visualizations illustrate universitywide carbon neutrality performance. For additional visualizations, covering Ann Arbor campus performance, building energy use, Scope 3 greenhouse gas emissions, and green bolds, visit planetblue.umich.edu/campus/dashboards.

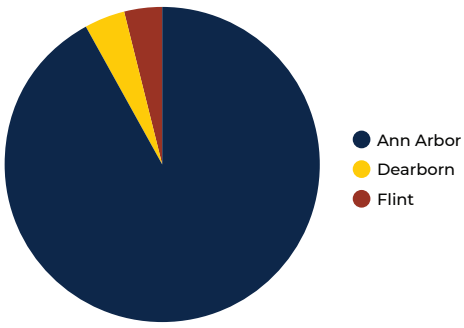
Note: *UM-Dearborn data is not available prior to FY14, so FY10-FY13 values are assumed to be equal to FY14 values. This assumes limited emissions changes between FY10 and FY14, which is consistent with the data-informed emissions trends on the Ann Arbor and Flint campuses.*

U-M Greenhouse Gas Emissions by Scope (MTCO2e)



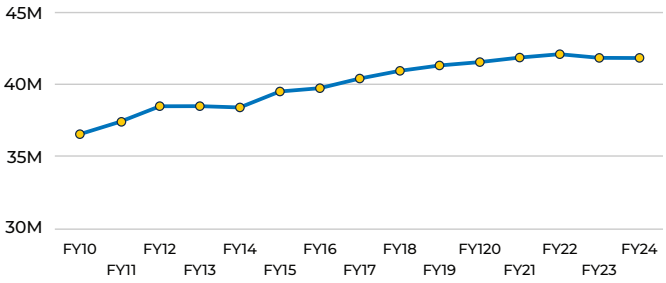
The graph above displays Ann Arbor, Flint and Dearborn campuses Scope 1 and 2 emissions since FY10. Scope 1 emissions decreased by more than 4% since FY23. Scope 2 emissions continue to decrease markedly as U-M pursues 100% renewable purchased electricity. Since FY23, Scope 2 emissions have decreased by nearly 13%. Sustainability staff are evaluating the effectiveness of different strategies to meet U-M's Scope 1 goals and will share visual representations as they become available.

FY24 Emissions by Campus



Though the university comprises three main campuses, UM-Flint and UM-Dearborn collectively account for approximately 8% of total university emissions.

U-M Building Area (sq. ft.)



Total greenhouse gas emissions are decreasing despite an increase in the university's physical footprint. New construction and renovation projects continue to incorporate substantial sustainable building standards and energy conservation measures.

During FY24, U-M furthered its commitment to climate action through new plans for on-campus solar, various redesign and educational initiatives to decarbonize healthcare, expanded leadership structures, extensive waste reduction efforts and more.

North Campus solar installation, Ann Arbor | *Fatimah Bolhassan, Graham Sustainability Institute*

CAMPUS SOLAR (SCOPE 1)

FY24 progress

In May, U-M **announced** that it is moving ahead with plans to construct on-campus solar power installations with a capacity of 25 megawatts across the Ann Arbor, Dearborn and Flint campuses, including Michigan Medicine and Athletics. The university hired Radial Power, a Houston-based distributed energy and sustainability solutions firm, to design and build the installations.

The total amount of electricity generated will equal the power consumed by approximately 3,000 homes annually. U-M is pursuing installations totaling approximately 20 megawatts on the Ann Arbor campus and 5 megawatts between the Dearborn and Flint campuses.

In addition to emissions-reduction benefits, U-M will pursue, in partnership with the installer (Radial Power), living-learning laboratory opportunities for the U-M campus community. Due to U-M leadership in modeling contracts that support broader community benefits, Radial Power will also donate 10 percent of the effort's proceeds to solar projects in surrounding communities.

The university will prioritize large rooftops, existing parking decks and parking lots, and will consider ground-mounted arrays.

Next steps

In coordination with Campus Plan 2050, U-M will phase the solar energy installations over three years, and is currently convening stakeholders to review potential sites. Construction will begin in early 2025.

CAMPUS GEOEXCHANGE (SCOPE 1)

FY24 progress

U-M continues to pursue renewable electricity-powered heat pump and geo-exchange systems, which leverage the steady sub-surface temperature of the earth for heating and cooling. The Hayward Street Geo-exchange Facility, adjacent to the Leinweber Computer Science and Information Building on North Campus, has been under construction since January 2023. It features 99 completed 700-foot bores and will begin serving the Leinweber Building in early 2025.

U-M is also continuing to install geo-exchange systems to serve the dining hall for the forthcoming Central Campus residential complex, which will add 2,300 beds to campus, as well as for the Edward and Rosalie Ginsberg Building, respectively. The Central Campus residential complex's geo-exchange system features 85 completed 800-foot wells and the Ginsberg system consists of 8 completed 535-foot wells. Boring for both systems took place during FY24.

U-M designs all new building and renovation projects to be compatible with renewable energy-driven heating and cooling systems.

Next steps

U-M will continue to implement geo-exchange through a phased approach, as a key strategy toward decarbonizing all heating and cooling infrastructure. Ultimately, the university aims to build district-level geo-exchange systems that serve multiple buildings at once, while remaining flexible to emerging technologies.

Lorch Column, Ann Arbor | *Connor Titsworth, Michigan Commons*

RENEWABLE PURCHASED ELECTRICITY (SCOPE 2)

FY24 progress

U-M procured 27 percent of its purchased electricity from Michigan-sourced renewables during FY24, largely supplied by three wind parks, **launched** in FY21 as part of a power purchase agreement (PPA).

Next steps

The university is pursuing a second PPA that would enable it to procure 100 percent of its purchased electricity from Michigan-based renewable sources. U-M plans to finalize the PPA in FY25, with new generation of renewable power on line in FY27.

Key considerations in designing PPA agreements include community benefits and engagement, implications for land use, habitat and wildlife, and research and education opportunities. The carbon reduction from U-M's renewable electricity purchasing will be equivalent to removing every motor vehicle registered in Ann Arbor — approximately 70,000 — from the road.

Silver LEED-Certified Ross School of Business, Ann Arbor | *Fatimah Bolhassan, Graham Sustainability Institute*

ENERGY CONSERVATION IN EXISTING BUILDINGS (SCOPE 1)

FY24 progress

U-M allocated $7.3 million from a central revolving energy fund to units throughout the university to pursue energy efficiency projects during FY24. The revolving fund launched in FY22, with $25 million in seed funding to dispense with zero-interest financing over five years. FY24 projects consisted primarily of LED lighting upgrades and HVAC system upgrades, following an initial set of FY22 and FY23 projects that covered LED lighting upgrades across approximately 100 buildings and 10 million square feet of building space.

Next steps

Energy cost savings from projects financed by the revolving fund allow the fund to replenish over time. The fund will continue to dispense zero-interest financing to university units pursuing energy efficiency projects. There will be a continued focus on more complex projects, such as heating, ventilation and air conditioning (HVAC) improvements or building envelope upgrades, as well as on additional lighting projects.

Gold LEED-Certified Engineering Lab Building, Dearborn | *U-M Dearborn*

CAMPUS PLANNING & BUILDING STANDARDS

FY24 progress

U-M continued two long-term planning efforts during FY24: **Vision 2034**, a collective strategic visioning process to imagine the university's shared future priorities; and **Campus Plan 2050**, a long-term effort to explore how best to design the Ann Arbor campus to support the university's vision and mission. Vision 2034 was **released** in April and Campus Plan 2050 was **unveiled** in September. Sustainability, carbon neutrality, and environmental justice are primary values in each planning effort.

In addition, North Campus utility master planning efforts set the stage for detailed designs to decarbonize heating and cooling infrastructure, demonstrating early action steps toward campuswide carbon neutrality by 2040.

Next steps

U-M will heighten carbon neutrality and climate action as central priorities and planning efforts continue. As part of Campus Plan 2050, U-M **invited** prospective partners in July 2024 to submit information via a request for qualifications for the design, construction and long-term operation of an automated transit system — the core component of U-M's Campus Connector concept.

The university **announced** its desire in June 2024 to revisit the project, which would enable users to move between the Central, Medical and North campuses in minutes. The project would optimize cross-campus connectivity, decrease traffic congestion and parking demand, increase local economic development opportunities, encourage programmatic and academic connections between North and Central campuses, and support a culture of sustainable transit.

A request for proposals is expected to launch in the coming months, which will result in the selection of a partner to move forward with the project's concept development. The university will share additional information as the project progresses.

U-M continues to build on its maximum building-emissions standards with a project to holistically evaluate and enhance its design guidelines. The initiative seeks to integrate best-of-class sustainability practices into the university's building design and decision-making processes. In addition, the Central Campus Residential Development, currently under construction, is targeting LEED Platinum certification.

VEHICLE DECARBONIZATION

FY24 progress

As the university works to decarbonize its vehicle fleet, a second set of four battery-electric buses arrived on the Ann Arbor campus in June 2024, bringing the total number of e-buses in service to eight. As of September 2023, e-buses have driven more than 52,000 miles, resulting in an emissions reduction equal to 159,000 pounds of CO2-equivalent (relative to if those miles were driven by non-EV buses). This relative reduction in emissions is expected to accelerate as additional e-buses go into service.

During FY24, U-M Logistics, Transportation & Parking significantly expanded its electric vehicle fleet, now comprising 56 EVs. These vehicles can access 169 charging stations across campus, also available to the entire campus community. Over FY24, 120 new Level-2 charging spaces were installed. Additionally, U-M initiated a project to introduce Level-3 fast-charging stations, slated for completion in FY26. Each electric vehicle features a “plugged in for our planet” decal, supporting a campus-wide culture of sustainability.

Next steps

U-M is committed to replacing campus vehicles with low- or zero-carbon alternatives. In FY25, the university plans to add four more battery-electric buses, install 11 additional Level-2 charging spaces, and begin an infrastructure project to create 50 to 70 more Level-2 charging spaces by 2026. Logistics, Transportation & Parking is also assisting various units in transitioning to electric vehicles as their current leases expire.

Battery-electric bus, Central Campus Transit Center, Ann Arbor | Adam Fisher, Office of the Vice President for Communications

INDIRECT IMPACTS (SCOPE 3)

FY24 progress

An Erb Institute team of undergraduate fellows conducted a Scope 3 emissions assessment for U-M Athletics. The team estimated emissions from three categories—waste, business travel, and purchased goods and services — using the GHG Protocol. The report will be released in fall 2024.

Scope 3 emissions are indirect greenhouse gas emissions resulting from an institution's activities that are not directly controlled by the institution. For U-M, this includes emissions from purchased goods and services, university-sponsored travel, commuting, waste disposal, etc. Because these emissions come from diverse and indirect sources, they are often the hardest to measure and reduce.

Last year, U-M successfully completed a pilot program with Delta Airlines to purchase 324,000 gallons of sustainable aviation fuel. This partnership resulted in the avoidance of 3,500 metric tons of CO2-equivalent.

Next steps

U-M has embarked on a **Scope 3 emissions analysis and planning project** to define indirect emissions mitigation targets universitywide, inclusive of U-M Health/Michigan Medicine. In partnership with Buro Happold Consulting, the project is assessing how to improve the quality of Scope 3 data, develop a system to track related emissions and mitigation progress, and define strategies and priorities. Resulting recommendations from this project will inform the development of goals for adoption by U-M in 2025. In addition, the project will identify practical steps for Scope 3 emissions mitigation that can be undertaken while goal-setting is still in progress.

"Insect Hotel" workshop materials, Dearborn | *Planet Blue Ambassador Program*

INVESTMENTS

FY24 progress

In 2022, U-M **announced** the issuance of $300 million in "green bonds." As of March 31, 2024, U-M has dispensed $68M of the original $300M allocation to support capital projects with environmental and climate-related design features.

Next steps

Avoided emissions from U-M investments are likely to exceed the total amount of greenhouse gas emissions produced by the Ann Arbor campus in 2024, with the endowment on track to be net zero by 2030. U-M will continue to prioritize investments that decrease carbon emissions.

Nichols Arboretum, Ann Arbor | *Fatimah Bolhassan, Graham Sustainability Institute*

PARTNERSHIPS

FY24 progress

U-M president Santa J. Ono continues to chair the University Climate Change Coalition (UC3), which connects 23 of the world's leading research universities and university systems committed to accelerating climate action on campus, in communities, and at a global scale. Over the last year, UC3 has explored select topics for R1 universities to collaborate on and lead, including pursuing sustainability survey research at scale and identifying innovative campus-as-a-laboratory approaches.

The university remains an active member of the Midwest Climate Collaborative, the Association for the Advancement of Sustainability in Higher Education, the U.S. Department of Energy's Better Climate Challenge, the Big Ten and Friends Sustainability group, the Ivy Plus Sustainability Collaborative, the U.S. EPA Green Power Partnership, First Movers Coalition, Menus of Change University Research Collaborative, the National Academy of Medicine's Collaborative to Decarbonize the Healthcare Sector, White House-HHS Health Sector Climate Pledge, Practice Greenhealth and Campus as Living Lab Community of Practice. U-M also coordinates regularly with the city of Ann Arbor and public-sector organizations in Washtenaw County.

Next steps

The university will continue to collaborate with city of Ann Arbor representatives and will work with community partners to address equity and justice implications related to carbon neutrality efforts. In addition, Planet Blue and A2Zero are exploring potential co-branding opportunities.

In early FY25, U-M joined the International Sustainable Campus Network, an international forum for institutions to achieve sustainable campus operations and integrate sustainability into research and teaching. U-M also became a member of the Association of Pacific Rim Universities, which leverages members' collective education and research capabilities into the international public policy process.

TRANSPARENCY & ACCOUNTABILITY

FY24 progress

During FY24, the university **updated** data visualization tools to segment emissions by university unit and visualize various Scope 3 emission categories. Previously developed dashboards on greenhouse gas emissions, Ann Arbor campus sustainability metrics, green bonds, building energy performance, and waste reduction, respectively, remain in place.

Beginning in early 2024, the College of Literature, Science and the Arts began releasing quarterly sustainability reports, as part of its "Year of Sustainability." Planet Blue at U-M Health also released a 2023-24 sustainability report.

U-M **holds** a Gold rating from the Association for the Advancement of Sustainability in Higher Education (AASHE). The organization's Sustainability Tracking, Assessment & Rating System (STARS) measures and encourages sustainability across participating colleges and universities, covering academics, engagement, operations, and planning and administration.

Next steps

U-M is exploring new data visualization tools to best enable community members to conceptualize how the university is tracking against its goals and parse through data relevant to them. Web design efforts are also underway to consolidate and reorganize Planet Blue **web pages** to better convey university goals and optimize user experience.

Going forward, sustainability communicators throughout the university are prioritizing a cohesive and proactive storytelling approach across units.

Insect hotel and pollinator garden, Dearborn | *Planet Blue Ambassador Program*

LEADERSHIP

FY24 progress

During FY24, the university heightened sustainability and climate action in key university visioning and planning efforts, and elevated sustainability in central leadership. Shana S. Weber, an ecologist and former founding director of Princeton University's Office of Sustainability, joined the university as its first associate vice president for campus sustainability. The Board of Regents approved her appointment in July 2023.

In June 2024, the U-M Board of Regents **approved** the hiring of Shalanda H. Baker, a policymaker and academic with expertise in energy justice, environmental policy and climate change mitigation, as the university's first vice provost for sustainability and climate action, beginning September 1. Baker was formerly the director of the Office of Energy Justice, secretarial adviser on equity at the U.S. Department of Energy, and the department's chief diversity officer. The role will lead interdisciplinary engagement on environmental topics, explore opportunities to integrate sustainability within core curricula and support critical research that addresses the climate crisis.

In April 2024, T. Anthony Denton, senior vice-president and chief ESG officer for U-M Health/Michigan Medicine, was recognized as a "Notable Leader in Sustainability" by Crain's Detroit Business.

Shalanda Baker, Palmer Commons | *Fatimah Bolhassan, Graham Sustainability Institute*

Next steps

The associate vice president for campus sustainability, vice provost for sustainability and climate action, and senior vice president and chief environmental, social and governance officer for U-M Health will serve together as the university's foremost sustainability voices. The university will also continue to imbue carbon neutrality leadership throughout various schools, colleges and units.

STUDENT LEADERSHIP AND CAMPUS ENGAGEMENT

FY24 progress

The Planet Blue Student Innovation Fund and the Social and Environmental Sustainability grant program collectively **awarded** more than $120,000 to 27 unique sustainability projects during the 2023/24 academic year. Grants included: a $39,000 grant for transforming polylactic acid (PLA) waste into 3D printing filament and setting up PLA collection sites around the Ann Arbor campus; a $29,487 grant for the creation of a campus sawmill and solar drying kiln to repurpose timber from diseased or dying trees; and a $14,945 grant for establishing compost and recycling education and collection stations on Central Campus.

Also included in this total: the Student Sustainability Coalition awarded $19,281 in grants to 14 smaller projects, and the U-M Sustainable Food Program provided $5,262 to nine projects that focus on food and social justice.

More than 280 students wore sustainability-themed honor cords at graduation, emphasizing U-M's commitment to sustainability with support from approximately 130 campus groups.

Campus Farm, Matthaei Botanical Garden, Ann Arbor | Connor Titsworth, Michigan Commons

The Planet Blue Ambassador program includes more than 10,000 community members living, studying and working sustainably throughout the university. One hundred Ambassadors are affiliated with UM-Flint and 320 are affiliated with U-M Dearborn.

University leaders across units have also held regular meetings with various campus advocacy groups to inform them of new initiatives and garner feedback.

Various university units have brought on sustainability-specific staff, including **Student Life Sustainability**, which hired a campus-as-lab manager and a communications and engagement specialist, and U-M Health, which hired a health sustainability officer.

Next steps

Going forward, Student Life Sustainability is prioritizing expanding grants in response to high student interest. The unit is also planning to host more events that focus on centering resilience and adaptation by building community connections through Noon@Night.

A new U-M Farm Stand, built by students and Professor Joe Trumpey from campus timber, is set to open in Fall 2024.

Broadly, U-M will be expanding opportunities to utilize the campus as a lab for sustainability and carbon neutrality.

Campus Farm Stand, Ann Arbor | *Connor Titsworth, Michigan Commons*

ACADEMICS & RESEARCH

FY24 progress

The university **marked** late March and all of April with a series of events focused on sustainability and climate action, continuing a tradition that began with the first "Teach-In on the Environment" in 1970 — which grew into what is now known as Earth Day. More than 20 events involved several university units and spanned various environmental sub-topics. Highlights included the Climate Vulnerability & Health Symposium, the Water @ Michigan Symposium, a discussion with U.S. Secretary of the Interior Deb Haaland, the Wege Lecture on Sustainability featuring climate scientist Katharine Hayhoe, "Rooting for Change" (a student food summit), and an interactive event around combating climate anxiety.

The Graham Sustainability Institute at the University of Michigan **awarded** seven total "catalyst grants" in FY24 to foster climate resilience and sustainability projects across various sectors. Projects explore renewable energy deployment in Nepal, climate justice in the Midwest, textile recycling innovation, equitable transportation infrastructure planning, predicting pollutants like PFAS in water bodies, wave energy converters to power coastal communities, and durable road materials inspired by mussel-binding proteins, respectively. Each project team received $10,000.

Next steps

With a new vice provost for sustainability and climate action hired, U-M will explore opportunities to advance sustainability education and research across schools and colleges, with an emphasis on U-M's role as a living-learning lab toward climate solutions.

Mushroom harvest, Oxford House, Ann Arbor | *Connor Titsworth, Michigan Commons*

WASTE REDUCTION

FY24 progress

In June, the College of Literature, Science, and the Arts and Office of Campus Sustainability **opened** a Lab Swap Shop, enabling all U-M researchers to browse for free, pre-owned laboratory equipment while supporting the university's waste-reduction goals.

More than 100 U-M community members turned out for opening festivities, collectively saving $51,270 in equipment costs and diverting 563 pounds of material from landfills. In addition, one-day "Swapapalooza" events often redistribute over 1,000 pounds of lab equipment.

The shop, which operates from 1-3 p.m. each Thursday, is an expansion of the longstanding Lab Reuse Program, which enables U-M to redistribute surplus chemicals, equipment and materials to researchers across the Ann Arbor campus. During FY24, the initiative has safely diverted 6,200 pounds of supplies from landfills.

Though a growing campus population challenges a 2011 goal to reduce waste sent to landfills by 40 percent (relative to a 2006 baseline), waste reduction efforts remain a priority. To date, the Office of Campus Sustainability offers compost collection services across more than 160 buildings and more than 1,200 bins, including dozens of new public-facing bins to increase compost access for students. Recent efforts to encourage composting in graduate housing on campus include adding compost carts throughout Northwood Housing, distributing countertop compost pails for residents, and providing waste education.

The Zero Waste Event program supports over 1,000 on-campus events each year, including the annual Zero Waste Convocation Picnic, and partners with the Ann Arbor Summer Festival to reduce and divert waste from this highly visible, three-week event. In FY24, a new partnership piloted composting Michigan Stadium waste at the Campus Farm, opening opportunities for more campus-as-lab projects connecting waste operations to student learning.

SUSTAINABILITY IN HEALTHCARE

FY24 progress

Ongoing U-M climate action efforts and carbon neutrality goals encompass U-M Health and the Medical School. The Planet Blue at U-M Health program, formerly called the Environmental Sustainability & Carbon Neutrality program, continued to build upon its long-standing environmental stewardship initiatives with redesign of clinical, administrative and support service processes, including within environmental and efficiency building design and standards; waste reduction and elimination; general material recycling; medical plastics recycling in operating rooms; energy conservation; virtual/remote patient care; green pathology labs; and green anesthesia.

During FY24, U-M Health prioritized initiatives to decarbonize healthcare, resulting in a significant reduction in greenhouse gas emissions. Of particular note, the Department of Anesthesiology reduced emissions from inhaled anesthesia by 88% (4,973 metric tons) within two years — exceeding an initial goal, without compromising patient safety or comfort. A new, multi-phase medical plastics recycling program in the operating room setting was initiated, removing 11.35 metric tons of CO2-equivalent from waste landfills in its first year.

Michigan Medicine, Ann Arbor | *Fatimah Bolhassan, Graham Sustainability Institute*

Also in FY24, U-M Health removed 3.6 million styrofoam cups from its patient care environment, replacing them with a more sustainable material.

U-M Health's virtual/remote care program included 441,864 visits in FY24, resulting in 33 million driving miles saved, an estimated reduction of 12,937 tons in CO2-equivalent.

In 2023, U-M Health launched a reusable sharps container program estimated to eliminate 100,000 disposable containers and 258,000 pounds of plastic waste annually, with an estimated reduction of 1,238 metric tons of CO2-equivalent.

U-M Health has been recognized for more than 20 consecutive years by Practice Greenhealth, which provides oversight and guidance to healthcare organizations committed to waste reduction, recycling and reuse, among other priorities.

Next steps

U-M Health will continue to implement medical plastics recycling initiatives in operating room and procedural settings, complete energy efficiency/LED lighting improvements, and expand food composting initiatives. The system is also pursuing LEED Platinum certification of a new hospital on the main medical campus. Design for a new clinical care facility in Oakland County will also include sustainability principles.

U-M Health is partnering with clinical leaders to increase reprocessing of medical instruments approved by the Food and Drug Administration, reducing single-use items and their associated burden on landfills.

U-M Health is expanding its environmental sustainability efforts to include its regional partners in Grand Rapids and Lansing communities.

Collaboration with Central Campus colleagues will continue regarding solar power installations on the Medical Campus, along with completion of Scope 3 inventory development and goal setting. U-M Health will also continue to participate within the National Academy of Medicine, expanding advocacy for decarbonization efforts within healthcare. Further, U-M Health is collaborating with Habitat for Humanity in a volunteer effort to improve housing in Ypsilanti.

HEALTHY ENVIRONMENTS

FY24 progress

As a certified Bee Campus, U-M increased pollinator awareness via tours and podcasts and expanded collaboration between students and operational staff.

Matthaei Botanical Gardens and Nichols Arboretum continued myriad efforts in conservation and restoration, including native plant preservation and oak regeneration.

In FY23, the Office of Campus Sustainability reported that the Ann Arbor campus reduced landscape chemical applications by 61 percent, relative to a 2006 baseline. Successful strategies include organic fertilizer use, expanding natural areas, and implementing best practices to minimize chemical use.

Next steps

With the Ann Arbor campus achieving its Huron River protection goal before its 2025 deadline, a Resilient Grounds Steering Committee has drafted recommendations for strategies to build on U-M's success and develop a comprehensive approach to sustainable land management.

Festifall 2024, Ann Arbor | *Fatimah Bolhassan, Graham Sustainability Institute*

DEVELOPMENT

FY24 progress

As of December 2023, the Office of University Development (OUD) completed a series of events seeking donor feedback on proposed future campaign priorities, concluding a multi-year effort begun in 2019. The upcoming Look to Michigan campaign is focusing on areas where U-M is uniquely positioned to impact global challenges, including Democracy, Civic, and Global Engagement, Health and Well-being, Life-changing Education and Sustainability and Climate Action — along with campuswide school, college, campus, and unit priorities. The university's commitment to the arts and diversity, equity and inclusion is also underscoring campaign priorities.

Over the last fiscal year, OUD expanded its support of interdisciplinary initiatives fundraising, adding an executive director focused on sustainability and climate action fundraising.

Next Steps

The Look to Michigan campaign will publicly launch in early FY25. OUD will liaise with sustainability leadership and various units to further refine topic focus areas, deepen existing conversations with donors, and pursue new donor relationships around the world to help support university sustainability work.

Museum of Art, Ann Arbor | *Fatimah Bolhassan, Graham Sustainability Institute*

PLANET BLUE
UNIVERSITY OF MICHIGAN

ABOUT THE UNIVERSITY OF MICHIGAN

One of the nation's top public universities, the University of Michigan has been a leader in research, learning and teaching for more than 200 years. With one of the highest research volumes of any public university in the country, U-M is advancing new solutions and knowledge in areas ranging from the COVID-19 pandemic to driverless vehicle technology, social justice and carbon neutrality. Its main campus in Ann Arbor comprises 19 schools and colleges; there are also regional campuses in Dearborn and Flint, and a nationally ranked health system, Michigan Medicine. The university also boasts a world-renowned intercollegiate athletics program and has been the site of many important events in U.S. history, including JFK's announcement of the Peace Corps, LBJ's "Great Society" speech, and the clinical trials of the Salk polio vaccine. U-M's alumni body is one of the largest in the world and includes a U.S. president, scientists, actors, astronauts and inventors.

A Non-discriminatory, Affirmative Action Employer.

STATEMENT ON THE ANISHINAABE LAND TRANSFER

The University of Michigan is located on the traditional territory of the Anishinaabe people. In 1817, the Ojibwe, Odawa, and Bodewadami Nations made the largest single land transfer to the University of Michigan. This was offered ceremonially as a gift through the Treaty at the Foot of the Rapids so that their children could be educated. Through these words of acknowledgment, their contemporary and ancestral ties to the land and their contributions to the University are renewed and reaffirmed.

REGENTS OF THE UNIVERSITY OF MICHIGAN

Jordan B. Acker, Huntington Woods
Michael J. Behm, Grand Blanc
Mark J. Bernstein, Ann Arbor
Paul W. Brown, Ann Arbor
Sarah Hubbard, Okemos
Denise Ilitch, Bingham Farms
Ron Weiser, Ann Arbor
Katherine E. White, Ann Arbor
Santa J. Ono, *ex officio*

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