



2023

ANNUAL
REPORT





TABLE OF CONTENTS

LETTER FROM THE PRESIDENT p3



1 | GROWING AND DIVERSIFYING OUR NETWORK p4

- Affiliate Membership Pilot p5
- Campus Climate Action Story: Dillard University p6
- New Signatories p9
- University Climate Coalition (UC3) p10
- Campus Climate Action Story: University at Buffalo p11



2 | BUILDING NETWORK CAPACITY p13

- Catalyst Grants p14
- Campus Climate Action Story: Warren Wilson College p15
- Pro Bono Consulting p17
- Energy Research at Under-Resourced Institutions p18



3 | MOBILIZING COMPLEMENTARY SECTORIAL STRENGTHS p23

- 2023 Climate Leadership Summit p24
- The Buddy Program p25
- Fostering Reciprocal Relationships For Climate Action p26
- WHITE PAPER: Using the Distinctives of Higher Education to Accelerate Climate Action p26



4 | SUPPORTING OUR NETWORK p27

- Working Groups & Initiatives p28
- Solutions Center, Climate Action Resources, and Webinars p29

BY THE NUMBERS p30

STAFF AND BOARD p31





LETTER FROM THE PRESIDENT

I have a combined sense of trepidation and excitement when our new strategic initiatives are launched. How will our key stakeholders respond? We've been thinking about this for a long time, but how will it land with those experiencing it for the first time? How will new conceptual approaches translate into actionable activities? We began 2023 by asking ourselves these questions. The Board had just adopted our new **"Diversify to Unify"** strategy at the end of 2022, and we completed a significant restructuring of our staffing to align with our four new strategic pathways. We announced our strategic plan to the sector in February 2023 at our annual Higher Education Climate Leadership Summit.

At the core of our new strategy is the recognition that to better meet our mission to accelerate climate action through higher education, we needed to mobilize a much wider range of sectoral strengths than we were currently doing. We specifically recognized that the diverse climate leadership strengths held by different institution types and roles within a given institution were not all the same and that this difference was

an underappreciated feature of our sector, not an anomaly.

We don't believe there is a singular campus climate activity that defines climate leadership. And we don't treat on-campus operational decarbonization goals as the singular measure of climate action success. Instead, the new strategy sees the decarbonization targets as one milestone that must work with other sector strengths like academic research, student learning, workforce development, and community engagement. This approach creates a fuller, "whole-of-institution" and "whole-of-sector" climate strategy to address our collective environmental challenges.

In 2023, we began implementing this new strategic approach, and we've seen some early successes. Our stakeholder engagement groups have explored topics such as climate justice, advocacy, and workforce development. We have produced educational resources and collaborated on publications connected with federal climate policy and cross-sector leadership. We created our first-ever cohort of climate and energy

researchers at predominantly undergraduate institutions - building their capacity to apply for federal funding.

We are just beginning our strategic implementation, but the outlook and response have been promising. As with many things, the best way to determine whether something works is to do it. We will continue to learn, adapt, and grow along with the sector in the years ahead. We are grateful that you have joined us on our journey to implement this new strategy and welcome your participation in the years ahead.

In solidarity,

Tim Carter
President



1 | GROWING AND DIVERSIFYING OUR NETWORK

AFFILIATE MEMBERSHIP PILOT

In 2023, Second Nature piloted the Climate Leadership Network Affiliate membership, an opportunity to join a network of over 400 higher education institutions engaged in impactful climate action in the higher education sector. The program presents an opportunity to expand our growing network of institutions working on a range of climate solutions, including operational decarbonization, climate justice, community engagement, workforce development, and climate research.

Affiliate membership is an excellent choice for institutions looking to engage in more significant climate action initiatives. It provides a unique opportunity to learn from the wealth of experience of long-standing Climate Leadership Network signatory institutions. This knowledge-sharing aspect, combined with the chance for existing members to contribute their

learning and experience, makes the Affiliate membership a valuable addition to the network. Furthermore, the Affiliate membership aims to diversify the network, welcoming participation from a variety of professionals, including faculty, researchers, institute directors, Diversity, Equity, Inclusion, Access, Justice (DEIAJ) professionals, and campus communications experts.

Notably, Affiliate members contribute to the Climate Leadership Network's collective impact by creating a broad range of climate solutions and by removing financial barriers and the barrier to making a formal, public institutional commitment to carbon neutrality. They also inspire other higher education institutions to join the network.

[LEARN MORE ABOUT AFFILIATE MEMBERSHIP.](#)

2023 Pilot Affiliate Members



DILLARD UNIVERSITY: A JOURNEY OF SUSTAINABILITY AND HOPE



Dillard University, a Historically Black University (HBCU) in New Orleans, has taken a tremendous step in joining the fight against climate change by becoming a Second Nature Affiliate member. This decision marks a pivotal moment in the university's sustainability journey, reflecting its commitment to unifying its diverse campus and community toward a more sustainable future.

Dillard University has a rich history of promoting social justice and community engagement. However, its commitment to sustainability is a recent initiative that became more defined in 2023. While attending Second Nature's Higher Education Climate Leadership Summit, Dillard was inspired to join Second Nature's Climate Leadership Network as an Affiliate member.

Kem Opperman-Torres, Director of Sustainability at Dillard, said: *"What makes it [Affiliate Membership] attractive is that it's an easy way to start, get your foot in the door, and see what Second Nature has to offer. Through my connections with Second Nature, I've met partners and collaborators who've opened up a world of opportunities. Since then, we've started putting together a carbon-neutrality plan, and the university is focused on more work in sustainability."*

Becoming a Second Nature Affiliate member provided Dillard with a unique opportunity to join a network that might have otherwise been inaccessible. Opperman-Torres explained, *"Being associated with Second Nature puts you in a forward-thinking mindset, showing you what you need to aim for with your program and leadership. The Intersectional Climate Action Leaders Working Group at Second Nature has been key, giving HBCUs like ours a chance to share ideas and build awareness."*

This membership is especially valuable for smaller HBCUs with limited financial resources, as it opens doors to a larger community of sustainability-minded institutions without imposing the typical cost burdens. This access allows these institutions to participate in critical conversations and collaborate on initiatives that they might otherwise be excluded from due to budget constraints.





Despite being in the early stages of its sustainability journey, Dillard has already significantly impacted its campus community. Students are highly engaged in environmental awareness activities, beautification projects, and campus cleanups. Opperman-Torres said she seizes the chance to engage with students through these activities and, in doing so, has discovered a profound sentiment. During a campus beautification project, students planted new greenery, many for the first time. Some had never wielded a shovel. Then she realized a pivotal truth: she couldn't ask them to change their daily habits—like managing energy use or reducing food waste—without first fostering a genuine connection to the earth. They needed to feel the soil, witness the life growing from it, and sense the heartbeat of nature before they could be genuinely inspired to protect it.

“One student told me they had never planted a plant. It was a learning curve for me, and now I always show them how to plant properly. These simple activities have a significant impact. The students get excited about the plants, naming and caring for them, which fosters a sense of responsibility and connection to the earth,” Opperman-Torres shared.

Dillard's Strategic Sustainability Committee, formed in October 2023, has been instrumental in driving the university's climate action efforts. The committee, comprising faculty, staff, and students, created a Sustainability Strategic Plan, conducted waste

audits, and organized events aimed at building connections and awareness for the climate action movement.

The university's commitment to sustainability is reflected in its long-term goals and upcoming initiatives. The University Carbon Neutrality Action Plan (30 x 30) aims to significantly reduce the university's carbon footprint by 2030 through a comprehensive framework that captures essential data and drives sustainability initiatives. Key strategies include enhancing energy efficiency, promoting renewable energy, encouraging sustainable transportation, reducing waste, and integrating sustainability into operations and curricula. The university will systematically cut emissions by conducting energy audits, upgrading infrastructure, incentivizing green commuting, and expanding recycling programs. Continuous monitoring, reporting, and community engagement will ensure accountability and progress towards a 30% reduction in net carbon emissions, embedding sustainability as a core institutional value.

In the fall of 2023, Dillard began a partnership with Energy Smart. Using Energy Smart's Trade Allies, Synergy Building Solutions, LLC and M3 Services, Dillard has implemented energy efficiency upgrades, offsetting significant Co2 levels and generating substantial yearly energy savings. These projects are part of a broader vision to embrace climate action as a core institutional value.

The university is also launching the **New Energy Entrepreneurship (NEE)** minor and Workforce (NEEW) certificate, funded by the Economic Development Administration, to promote clean energy education and entrepreneurship among students.

One of the significant barriers Dillard faced was financial constraints. However, the association with Second Nature,




which allowed them to join without an initial fee, has been a game-changer. *“Money is probably the biggest barrier when an institution is thinking of joining a new organization and is unsure of the benefits. The affiliate pathway allowed us to be part of the group without worrying about the costs associated with memberships,”* Opperman-Torres noted.

Dillard’s interim president, Dr. Monique Guilory, has shown a strong commitment to sustainability, and the university hopes to formalize this commitment through various environmental-centric policies and tracking greenhouse gasses. For Dillard, there is an understanding that leadership is key. With a passionate leader, it’s much easier to move things forward. Those invested in the sustainability work of Dillard are “hoping to start creating policies around e-waste disposal and single-use plastics on campus,” the representative added.

In August of 2024, the EPA awarded Dillard University nearly \$20 million in grant funding, a monumental achievement that underscores the university’s commitment to sustainability and community resilience. This funding will enable Dillard and its partners to lead transformative projects in Orleans, St. Tammany, and Washington Parishes, including energy-efficient building upgrades, resilience hubs, expanded transportation access, renewable energy installations, and new clean energy and climate resilience programs. This award highlights Dillard’s leadership in addressing critical environmental challenges and empowering

the community, marking a significant step toward a more sustainable and resilient future.

Dillard University’s journey as a Second Nature Affiliate member is a testament to the power of accessibility and support in driving meaningful climate action. This partnership has empowered Dillard to take significant steps towards sustainability, inspiring other HBCUs and institutions to follow suit. By fostering a culture of environmental stewardship and community engagement, Dillard is paving the way for a more sustainable and equitable future. 



SIGNATORY MEMBERS

In 2023, five campuses signed onto at least one of the [three Presidents' Climate Leadership Commitments](#) to become Climate Leadership Network signatories. Each signatory signs onto at least one formal Commitment:



This Commitment focuses on reducing Greenhouse Gas emissions and achieving carbon neutrality as soon as possible.

BRYN MAWR
COLLEGE



This Commitment integrates carbon neutrality with climate resilience and provides a systems approach to mitigating and adapting to a changing climate.



THE UNIVERSITY of
MISSISSIPPI

Carnegie Mellon University



University of Wisconsin
Stevens Point



Shared elements of all Commitments:

- Integrating sustainability in education curriculum
- Expanding research efforts
- Public reporting
- Creating and revising an action plan

Climate Leadership Network signatory institutions report on their yearly progress through a reporting platform, publicly sharing their climate action plans, greenhouse gas inventories, and more.

UNIVERSITY CLIMATE COALITION (UC3)

UC³

The [University Climate Change Coalition \(UC3\)](#) is a core program of Second Nature that connects 23 of the world's leading research universities committed to accelerating climate action on campus, in communities, and globally.

In 2023, UC3 member institutions led climate action on a wide range of efforts:

- Presentations to peer institutions on climate risk and resiliency assessment, ambitious system decarbonization goals beyond climate neutrality, increasing equity and transparency in climate action planning, a just transition for fossil-funded research, and innovations in responsible investing.
- Several UC3 schools mandated system-wide adoption of climate action education across the curriculum.
- Co-hosted a higher education pavilion and led an engagement session series for students, faculty, and staff attending COP28.
- Launched a new research working group focused on capacity building for transdisciplinary research.

Significant climate action efforts at UC3 campuses in 2023 included:

- **Tec de Monterrey** invested in the largest district cooling project in Latin America.
- **Washington University** and the **University of Michigan** unveiled EV buses and shuttles.
- The **State University of New York (SUNY)** system hired its first-ever Chief Sustainability Officer. It launched a system-wide single-use plastics policy and mandated energy master planning across all campuses.
- **Boston University** opened its first fossil-free building.
- The **University of Michigan** led on several projects:
 - strengthening capacities of campuses to be Living Labs,
 - collaborations in Sustainability Culture Assessment, and
 - supporting climate action in Campus Health Systems.



LEADING THE CHARGE: THE UNIVERSITY AT BUFFALO'S PATH TO CARBON NEUTRALITY



One of UB's recent milestones includes completing its first set of low-carbon building renovations. These buildings now utilize renewable energy for heating, cooling, and power, demonstrating UB's commitment to reducing its carbon footprint. Other projects, such as on- and off-campus solar installations and purchasing renewable energy certificates, further this transition. Ryan McPherson, UB's Chief Sustainability Officer, stresses the importance of celebrating these achievements to maintain momentum and engage the campus community in shared climate action goals.

UB's sustainability journey has been [evolving since the 1970s](#), with significant progress in energy efficiency and establishing its first greenhouse gas footprint in the early 2000s. A significant leap occurred with developing a comprehensive Climate Action Plan around 2008. Under President Tripathi's leadership, UB expanded its sustainability efforts to include research and education alongside operational changes. This holistic approach led to the 2020 launch of a refreshed Climate Action Plan, introducing ten ideas to be advanced by ten university leaders over ten years, aiming for carbon neutrality. Despite challenges, UB has persevered, [transition-](#)

[ing to electric buses](#) and implementing a [campus-wide waste audit](#).

Central to UB's decarbonization strategy is the [South Campus Clean Energy Master Plan](#), which aims to replace natural gas-based heating systems with sustainable electric alternatives like heat pumps and geothermal wells. This plan, developed with Wendel Companies and funded by the New York State Energy Research and Development Authority (NYSERDA), is crucial for reducing UB's carbon footprint, as natural gas is a significant emission source. The master plan provides a framework for decarbonization, with a companion plan also advancing the North Campus.

Transitioning to electric heating systems presents challenges, including the complexity and regulatory constraints within a public university setting. Stringent procurement regulations and slower operational processes can delay projects and increase costs. Additionally, expertise in renewable energy and navigating funding mechanisms like the Inflation Reduction Act are needed. However, these challenges bring growth and collaboration opportunities. UB's partnership with Wendel Companies and funding from



NYSERDA are instrumental in advancing these initiatives. The shift to electric systems, especially heat pumps, promises long-term benefits, including significant greenhouse gas emissions and operational cost reductions. Balancing continuous campus operations with comprehensive infrastructure upgrades is essential to ensure uninterrupted education and research activities.


UB's 10 in 10

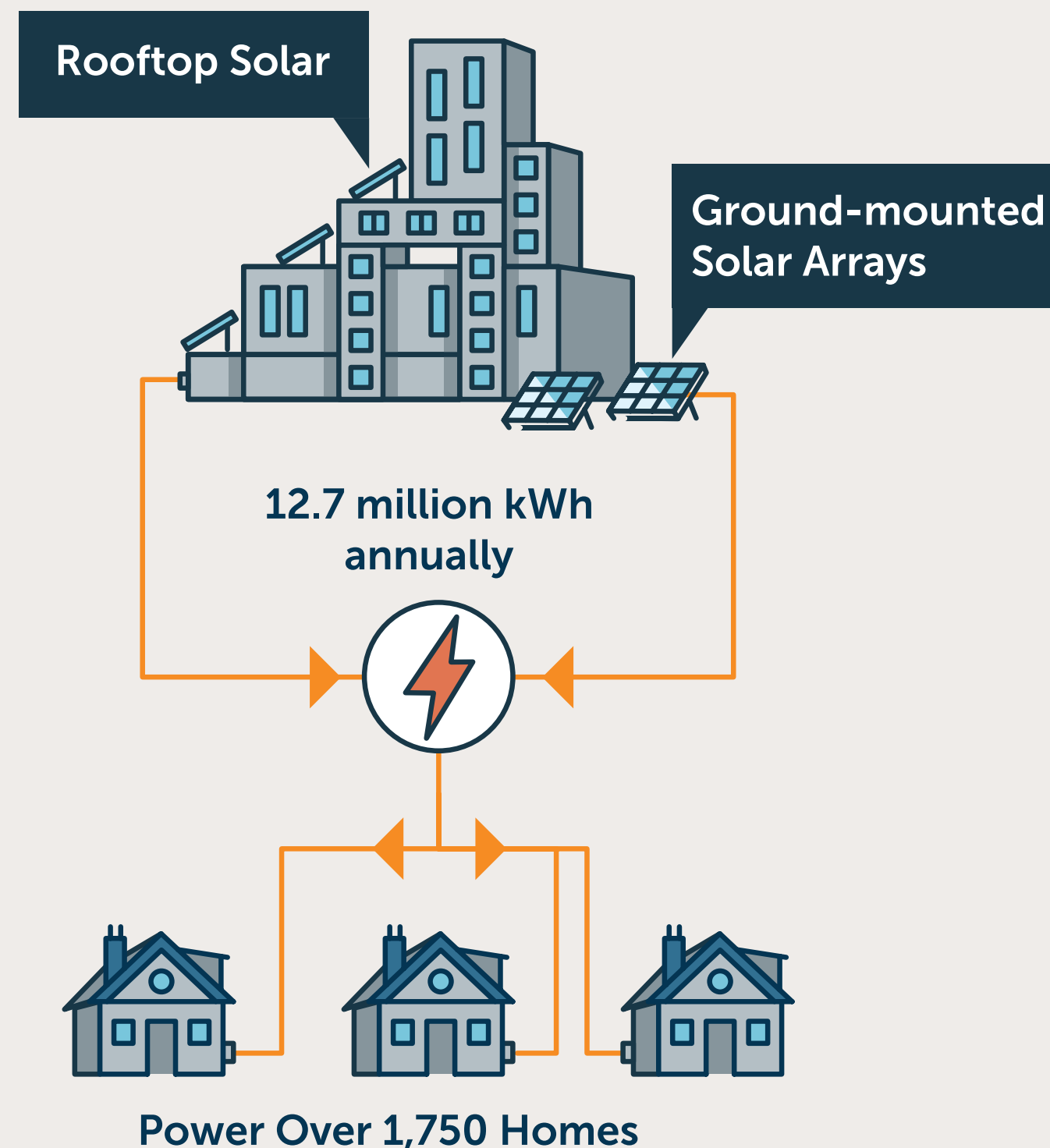
UB is also implementing innovative on-site solar energy projects as part of its "10 in 10" climate action plan. This initiative includes five new ground-mounted solar arrays and four rooftop installations on the North Campus, generating 12.7 million kWh annually—enough to power over 1,750 homes. This project [positions UB as one of the nation's leading on-campus renewable energy producers](#) and integrates clean energy into the campus environment, providing a living laboratory for students. This comprehensive approach addresses the causes and effects of climate change while fostering a resilient and equitable future.



Collaborations with the surrounding community and beyond further support UB's climate neutrality efforts. Recent awards, like the Second Nature Catalyst Grant and Pro Bono Consulting from Brailsford and Dunlavey,

highlight the importance of these partnerships. McPherson notes that while UB has focused on on-site renewable energy projects, their work began with a broader coalition, including the city of Buffalo, Erie County, and Erie County Community College. This regional collaboration is vital for achieving sustainable and equitable outcomes.

UB stands as a beacon of hope and leadership in the fight against the climate crisis, with groundbreaking initiatives and a steadfast commitment to sustainability and climate justice. McPherson emphasizes that *"our climate justice efforts involve collaborating with the broader Buffalo community and local institutions to advance regional, equitable climate action that reduces barriers to things like renewable energy access to disadvantaged communities."* UB's climate justice work acknowledges that achieving climate neutrality requires cooperative efforts beyond the university, providing a platform for marginalized voices within the region. It addresses its carbon footprint by pioneering renewable energy projects and deep community collaboration, leading the region toward a sustainable future. McPherson highlights the collective effort required for meaningful change, supported by passionate students, faculty, and external partners. This perseverance ensures that sustainability becomes integral to university life. As UB refines its Climate Action Plan, it sets a powerful example for others, envisioning and actively building a greener, more sustainable future for communities far beyond its borders. 





2 | BUILDING NETWORK CAPACITY



CATALYST GRANTS

In 2023, Second Nature awarded 11 Climate Leadership Network member colleges and universities \$100,000 in Catalyst Grants to spark innovative and impactful climate action. We received over 70 applications, reflecting a diverse range of projects and institution types nationwide. The volume, quality, and range of the proposals speak to the importance and urgency of the work being done by the campuses in our network, all striving to create climate solutions on campus and in their local communities.

Up to \$10,000 was awarded to each of the selected institutions, who are leading on decarbonization, climate resilience work, and initiatives that advance climate justice.



Central Oregon Community College (Bend, OR): Central Oregon Community College will prioritize the development of a campus Climate Action Plan (CAP), utilizing Catalyst Grant funding for personnel to manage the technical and operational elements of CAP creation and support stakeholder engagement.

Earlham College (Richmond, IN): Earlham College's Catalyst Grant funding will support installing a water line to the campus' Miller Farm, which includes a production garden, several pollinator gardens, a high tunnel, composting, and a community garden.

Morehouse College (Atlanta, GA): The Morehouse College Center of Sustainability and Innovation will survey, monitor, and evaluate the college's overall progress at reducing inputs through single-stream recycling metrics to meet the goal of reducing its landfill contribution by 20 percent.

Northeastern University (Boston, MA): Northeastern University's Climate Justice and Sustainability Hub (CJ&S Hub) is developing an ongoing climate justice experiential learning program in conjunction with Alternatives for Community and Environment (ACE), a local grassroots environmental justice organization.

Paradise Valley Community College (Phoenix, AZ): Paradise Valley Community College will purchase native plants to recharge the water table and sequester carbon in its Food Forest. The forest offers fresh and healthy food, a living classroom for hands-on teaching experiences, a site for community gatherings, and a flourishing ecosystem.

SUNY New Paltz (New Paltz, NY): SUNY New Paltz will use Catalyst Grant funding to bring together diverse stakeholders for engagement workshops to better understand the community's hopes and aspirations for climate and environmental justice, research best practices, and recommend evidenced-based approaches for implementing climate justice principles.

Tecnológico de Monterrey (Monterrey, Mexico): Tecnológico de Monterrey's Sustainability and Climate Change Plan has a multi-pronged approach that includes building alliances and networks. The school will convene public and private universities in Mexico to form a Network of Mexican Universities for Climate Action to support community engagement, build capacity, and assist campuses in setting carbon neutrality goals.

University at Buffalo (Buffalo, NY): Catalyst Grant funding will support a series of workshops to build sustainable relationships between faculty, staff, students, and community members at the University at Buffalo. The goal is to frame future climate justice work, develop a working group and long-term goals, and use seed money from the Catalyst Grant to implement projects.

University of Wisconsin–Eau Claire (Eau Claire, WI): The University of Wisconsin–Eau Claire is using Catalyst Grant funding to expand its carbon offset investment portfolio while simultaneously supporting the development of an Environmental, Social, and Governance (ESG) course for students to learn about the ethics and purpose of using carbon offsets.

Warren Wilson College (Swannanoa, NC): The Center for Working Lands at Warren Wilson College is restructuring its operations to serve as a training facility for students and regional landowners looking to reduce land management's climate impacts while maintaining economic viability. The Center will provide a menu of climate-mitigation equipment for landowners to test, including an electric Solectrac tractor purchased with Catalyst Grant funding.

Western Colorado University (Gunnison, CO): Western Colorado University will hire a part-time Climate Justice Intern to ensure attention at all levels to climate justice and equity, involve students in completing its Climate Action Plan, and deliver three participatory sustainability workshops.

EMPOWERING RURAL COMMUNITIES THROUGH ENERGY INDEPENDENCE: WARREN WILSON COLLEGE'S CENTER FOR WORKING LANDS



Warren Wilson
COLLEGE

Warren Wilson College, located in Swannanoa, NC, is leading climate action in the

Southern Appalachian Mountains through its Center for Working Lands (CWL). A working, learning, and living laboratory, the CWL is focused on land stewardship, education, and outreach. It engages students and local communities through experiential learning in sustainable agriculture, food justice, and land conservation. The Center aims to create a more inclusive and resilient world by integrating ecological landscape design and fostering sustainability leadership. Supported by a [Catalyst Grant](#) from Second Nature, [Warren Wilson College](#) is working on reducing greenhouse gas emissions and strengthening community resilience through innovative solutions.

"The Catalyst Grant really got us over the hump... it really was a catalyst because it helped us develop our first micro-grid, which was the first big project we were able to do to demonstrate off-grid tractor technology. I would say in the truest sense, it was the catalyst for our decarbonization work at Warren Wilson College; it didn't help us do something we were already doing – it jump-started a new project," says Dave Ellum, Dean and Director of the Center for Working Lands.

A Catalyst for Change

Second Nature's Catalyst Grant, along with support from the band Pearl Jam, and private donors, enabled Warren Wilson College to kickstart its decarbonization efforts. The grant facilitated the acquisition of a Solectrac electric tractor and the development of a solar-powered microgrid charging station.

This initiative marked the college's first significant step in showcasing off-grid tractor technology, setting a precedent for further sustainable innovations on campus.

Community Engagement and Demonstrations

Warren Wilson College's CWL is committed to engaging the local community in its climate action initiatives. The center hosts workshops and demonstrations where local farmers and landowners can learn about and test new technologies like electric tractors, solar charging stations, and electric work bikes. The primary goal is to minimize the upfront risk for landowners when adopting new innovations by testing and implementing these practices. This approach allows the Center to view risk as a form of research and



education that benefits students and will enable landowners to observe and evaluate new methods before committing to them. “We allow people to come onto campus and try out some of these innovations,” Dr. Ellum explains, emphasizing the importance of hands-on experience in building community trust and understanding.

Innovative Climate Solutions

The CWL is an innovation hub that features projects like the Mobile Microgrid Work Vehicle (MMWV) fleet and agrivoltaic systems. The MMWVs, which are solar-powered and independent of the fossil fuel grid, demonstrate a sustainable alternative for campus transportation and farm operations. Additionally, the college is exploring agrivoltaics, which integrate solar energy production with agricultural activities, aiming to make the college’s 900 acres of agricultural land energy-independent.

Other innovations include high-intensity rotational grazing, which aids in soil carbon sequestration, and the testing of climate-resilient crops in collaboration with the Utopian Seed Project. These efforts contribute to environmental sustainability and provide economic benefits by reducing reliance on traditional fossil fuels and increasing energy independence.

Supporting Underrepresented Groups

The CWL is also committed to supporting underrepresented groups in agriculture. The college collaborates with organizations like Bounty & Soul and local Latinx markets, contributing to food justice initiatives. Moreover, Warren Wilson College provides educational opportunities for Pell-eligible students and those from diverse backgrounds, ensuring broader access to sustainable agriculture education and training.

Student Involvement and Education


Integral to the CWL’s mission is the hands-on student involvement. Approximately 135 students work with the center, gaining practical experience in sustainable land management practices. The

college’s [Cultivate Fellowship Program](#) allows students from various academic disciplines to engage in climate-related projects, fostering a multidisciplinary approach to solving environmental challenges. Ellum notes, “It’s not going to be the science alone that will solve this problem; it’s going to be changing people’s behavior.” To further this goal, the center is developing a new climate and sustainability crew, including a specialized group focused on climate data collection and assessment, enabling students to integrate their work into their current academics and future careers.

Challenges and Looking Ahead

One of the significant challenges the CWL faces is changing public perception and behavior toward renewable energy and sustainable practices. Dr. Ellum acknowledges the difficulty of convincing stakeholders of the benefits of technologies like agrivoltaics. However, by demonstrating economic, ecological, and social benefits, the CWL hopes to foster wider acceptance and adoption of these innovations.

Looking ahead, Warren Wilson College plans to expand its educational outreach through initiatives like a summer climate summit and ongoing collaboration with local farmers and landowners. The college’s efforts aim to create a sustainable agriculture and community resilience model, with potential long-term benefits extending beyond the Asheville region.




Warren Wilson College’s Center for Working Lands exemplifies how academic institutions can be pivotal in driving climate action and fostering community resilience. By integrating innovative technologies, supporting underrepresented groups, listening to the actual problems local landowners are facing now and creating innovative solutions, engaging students in a multidimensional approach, and, perhaps the most impactful action, assuming the high risk of early adoption of new innovations that provides learning opportunities and protects landowners, the CWL is safeguarding the fabric of rural communities through energy independence and paving the way for a more sustainable and equitable future. 



PRO BONO CONSULTING

Nine higher Second Nature member institutions were awarded Pro Bono Consulting services to support their campus climate action projects. 2023 marked the third round of the pro bono consulting initiative.

Technical and advisory support worth up to \$20,000 was given to selected campuses at no cost to them in the following three areas:

- 
Climate Action Planning: Supports drafting a climate action plan that outlines a technically and financially feasible roadmap towards an equitable, carbon-free future aligned with the institution's education and research mission.
- 
Shifting to Renewable Power: supports a transition to renewable power, which includes an assessment of the institution's energy situation, identification of renewable energy solutions, and recommendations for implementing one or more of the advised energy solutions.
- 
Water Resiliency Strategy: supports water resiliency planning, a water diagnostic designed to uncover campus water risks and challenges, and identify solutions that minimize water risks, combat growing water/sewer costs, and enhance resiliency.

Provided and sponsored by Brailsford & Dunlavey and Coho, two long-term Second Nature partners, 23 colleges and universities have been awarded Pro Bono consulting services since the program was launched.



The 2023 Pro Bono Consulting recipient colleges and universities (by area of work) were:


CLIMATE ACTION PLANNING


 FURMAN UNIVERSITY
 (South Carolina)


 LANE COMMUNITY COLLEGE
 (Oregon)


 UNIVERSITY OF RICHMOND
 (Virginia)


SHIFTING TO RENEWABLE POWER


 NORTHERN ILLINOIS UNIVERSITY
 (Illinois)


 UNIVERSITY OF FLORIDA
 (Florida)


 UNIVERSITY OF PUERTO RICO AT UTUADO
 (Puerto Rico)


RESILIENCY STRATEGY


 SALEM STATE UNIVERSITY
 (Massachusetts)


 UNIVERSITY OF SAN DIEGO
 (California)


 VIRGINIA COMMONWEALTH UNIVERSITY
 (Virginia)

BUILDING ENERGY RESEARCH CAPACITY AT UNDER-RESOURCED INSTITUTIONS

With the support of a grant from the Alfred P. Sloan Foundation, Second Nature launched a first-of-its-kind pilot project for our organization to study and address federal funding barriers faced by researchers at higher education institutions not commonly involved in climate research.

Historically Black Colleges and Universities (HBCUs), Tribal Colleges and Universities (TCUs), community colleges, and Primarily Undergraduate Institutions (PUIs) have a vital role to play in accelerating climate solutions research. This pilot project was designed to help researchers at these institutions overcome barriers and build capacity to access the unprecedented funding currently available in the energy research field.

The project will also inform how government decision-makers and other funders can design future energy research funding announcements that include more diverse institutional applicant pools, driving the energy system transition forward.

Cohort profiles on the following pages:

"It 100% would not have been possible for me to submit this grant without being part of the Energy Expansion Research Cohort from Second Nature. The program was the catalyst that made my institution take me seriously and also bought me time to actually work on the grant, so thank you for all the support you provided throughout this process and for giving me this opportunity!"

- ENERGY RESEARCH EXPANSION PROJECT COHORT MEMBER



Name: **Dr. Prajukti Bhattacharyya**
 Title: **Professor**
 Department: **Geography, Geology, and Environmental Science**
 Institution: **University of Wisconsin - Whitewater**

Dr. Prajukti (juk) Bhattacharyya received her PhD from University of Minnesota, Twin Cities. She is trained as a structural geologist with other research interests including petrology, geochemistry, volcanoes, landslide monitoring, and resource extraction. She is also interested in discipline-based educational research, assessment of student learning, and undergraduate STEM education through course-based research. Her current grant-funded research involves ways to incorporate culturally appropriate indigenous ways of teaching and learning in STEM classrooms.



Name: **Dr. Ozgur Yavuzcetin**
 Title: **Associate Professor of Physics**
 Institution: **University of Wisconsin - Whitewater**

Dr. Ozgur (Oz) Yavuzcetin holds a Ph.D. in physics from UMass Amherst, specializing in nanofabrication and fuel cell membranes. His postdoctoral research at Northwestern and Northeastern Universities focused on nanophotonics and high-resolution brain wave imaging. Currently, as an associate professor of physics at UW-Whitewater, Oz's research centers on sensors, nanotechnology, and neurophysics, providing hands-on experience to students through research initiatives. He imparts knowledge in courses covering introductory physics, energy, electronics, modern physics, and embedded systems. Dedicated to mentorship, he guides undergraduates at UW-Whitewater in research, particularly in areas such as landslide monitoring using diverse sensor technologies.



Name: **Dr. Jennifer Bradham**
 Title: **Assistant Professor of Environmental Studies and Data Science**
 Department: **Environmental Studies**
 Institution: **Wofford College**

Dr. Jennifer Bradham, an assistant professor of Environmental Studies and Data Science at Wofford College, earned a BS from the College of Charleston, an MS from the University of California, Santa Barbara, and a PhD from Vanderbilt University. Most broadly, her research seeks to quantify the complex relationships between people and nature. Much of this work occurs in the Neotropics where she uses large mammals as proxies for understanding how tropical ecosystems are changing in response to anthropogenic climate and land use change. In addition, she also developed a local research program rooted in data science and focused on equity.

In collaboration with Wofford colleagues and community partners, this work has included interdisciplinary assessments of greenspace equity, quantification of the impacts of condemned and abandoned properties, and evaluations of disparities with future climate change impacts on local communities.



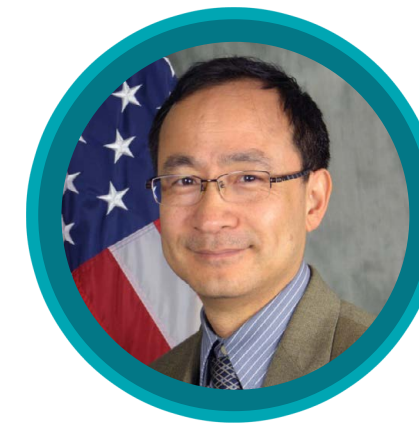
Name: **Dr. Arica Crootof**

Title: **Associate Professor of Environmental Sustainability**

Department: **Environmental Studies**

Institution: **the University of Montana Western**

Dr. Crootof is a human-environment geographer specializing in water and energy management, human dimensions of global change, and science communication. Within her classes, Dr. Crootof is engaging undergraduate students in renewable energy transitions research in Montana and Nepal. She looks forward to connecting research findings with other mountain environments to support energy transitions that work for, not against, rural communities. As a member of this cohort, Dr. Crootof is excited to seek funds that support undergraduate research in renewable energy transitions and climate resiliency through student-driven climate adaptation, climate mitigation, and climate justice activities.



Name: **Hua-Jun S Fan**

Title: **Professor & Chair**

Department: **Department of Chemistry & Physics**

Institution: **Alcorn State University**

Dr. Hua-Jun S Fan serves as the Chair of the Chemistry Department at Alcorn State University. Dr. Fan has a Ph.D. in Chemistry from University of Arizona, Postdoctoral training at TAMU and UNC Chapel-Hill, and 70+ refereed publications in leading journals. Dr. Fan is a respected authority in computational chemistry, machine learning, and additive manufacturing. Dr. Fan is committed to advancing research, fostering excellence in teaching, and promoting collaboration within the department at Alcorn.



Name: **Dr. Kumudu Janani Gamage**

Title: **Visiting Assistant Professor**

Department: **Mathematics**

Institution: **Washington and Lee University**

Dr. Kumudu Janani Gamage is the Visiting Assistant Professor of Mathematics at Washington and Lee University. She is a computational applied mathematician with a Ph.D. from Old Dominion University and a master's degree in Sustainable Environment and Energy Systems from Middle East Technical University, Northern Cyprus. As a Visiting Assistant Professor at Washington and Lee University, she teaches various mathematical courses, including calculus and ordinary differential equations, using innovative pedagogical techniques. Her research expertise encompasses numerical methods for interface problems, as well as research and development in green energy technologies and sustainable practices.



Name: **David Gibson**

Title: **Director of Energy**

Institution: **College of Atlantic**

David Gibson is the Director of Energy at College of the Atlantic. His focus areas include Energy Systems, and Building Science. Some of his course offerings include Building Science and Energy Auditing, Green Building Through the Lens of LEED, Interactive K-12 Energy Education, Physics and Mathematics of Sustainable Energy, Practicum in Sustainable Energy. For this role, from Feb 2020-present Gibson served as Executive Committee Member, Sierra Club Maine Chapter. David has transitioned two homes entirely off of fossil fuels, including a post and beam farmhouse built in 1828.



Name: **Dr. Sakib Mahmud**
 Title: **Associate Professor of Environmental Sustainability**
 Department: **Environmental Studies**
 Institution: **the University of Montana Western**

Dr. Sakib Mahmud (He, Him, His), is a Professor in Sustainable Management and Economics at the University of Wisconsin, USA. He serves on the boards of the *Redevelopment Authority of the City of Superior, Wisconsin*, and the *Duluth Superior Area Community Foundation*. Recently, he is nominated as President of the Wisconsin Economic Association (WEA) effective. Dr., Mahmud joined *Duluth Superior Eco Rotary Club*, which serves communities in Duluth, Minnesota, and Superior, Wisconsin with different environmentally focused service projects, in fall of 2020. He is, currently, the President Elect of the *Duluth Superior Eco Rotary Club* which falls under the Rotary International District 5580.



Name: **Alondria Owens**
 Title: **Executive Assistant to the Vice President for Institutional Advancement**
 Institution: **Jackson State University**

Alondria Owens currently serves as the Executive Assistant to the Vice President for Institutional Advancement and Board Administrator for the JSU Development Foundation. Alondria is a seasoned veteran in community engagement, customer service, workforce training and development, budget management, and administrative supervision. Additionally, Alondria is a licensed science educator with over 10 years of direct classroom experience. Her passion is connecting the right people to further the development and provision of opportunities to under-served and under-represented students and groups. Alondria's passions also align with her philanthropic nature. Personally, she enjoys travel and working with others to improve the overall human condition.



Name: **Dr. David A. Padgett**
 Title: **Associate Professor**
 Department: **Geography and Director of the Geographic Information Sciences Laboratory**
 Institution: **Tennessee State University**

Dr. David A Padgett serves as the Associate Professor of Geography and Director of the Geographic Information Sciences Laboratory, at Tennessee State University, in Nashville, Tennessee. He is a core team member of the HBCU Environmental Justice Technical Team and HBCU Climate Change Consortium. He also serves on the stakeholder advisory group for NASA. His focus area is Geographic Information Systems (GIS), Environmental Justice.



Name: **Dr. Carol Pride**

Title: **Chair**

Department: **Marine and Environmental Science**

Institution: **Savannah State University**

Dr. Carol Pride joined the faculty of Savannah State University in 2002 and serves as chair of SSU's Department of Marine and Environmental Sciences. Her background is in marine science and paleoceanography. Before coming to Savannah, she completed a BA in Environmental Science at Wesleyan University, a Ph.D. at the University of South Carolina in Marine Science, a visiting professorship at the College of Charleston, and postdoctoral research at the University of California Santa Barbara. Her research includes use of stable isotope biogeochemistry and micropaleontology in studies of short and long term climate and oceanic variability. She currently mentors SSU undergraduate and graduate students in research on our local estuaries, with emphasis on the impacts of humans and climate change on these systems.



Name: **Dr. Myron N.V. Williams**

Title: **Associate Professor**

Department: **Chemistry**

Institution: **Clark Atlanta University**

Myron Williams earned a BS in Microbiology from Howard University and a Ph.D. in Biology from the Massachusetts Institute of Technology, focusing on molecular genetics of nitrogen fixation. As a "World Citizen", much of his research and teaching has focused on addressing the challenges of the underserved, from agriculture, medicine, education and infrastructure in the developing world, to the health disparity in prostate cancer among African American populations. He deeply values interdisciplinary collaboration to facilitate the implementation of STEM discovery to improve people's lives.



Name: **Dr. Yuemei Zhang**

Title: **Assistant Professor of Chemistry**

Department: **Department of Chemistry and Physics**

Institution: **Warren Wilson College**

Yuemei Zhang serves as an assistant professor of chemistry at Warren Wilson College, holding a Ph.D. in chemistry from North Carolina State University. Her research focuses on designing functional materials that drive progress in renewable energy technologies. She specializes in the development of high-performance catalysts for efficient green hydrogen production, the design of rare-earth-free permanent magnets in wind turbines for electricity generation, and the exploration of spintronics materials for enhanced data storage and retrieval. Her goal is to contribute to sustainable energy solutions and push forward materials science in the field of renewable resources.



3 | MOBILIZING COMPLEMENTARY SECTORIAL STRENGTHS

THE 2023 HIGHER EDUCATION CLIMATE LEADERSHIP SUMMIT

The Higher Education Climate Leadership Summit is the premier annual gathering of higher education leaders committed to addressing inequality and the climate crisis. The 2023 Summit was hosted by Second Nature and the Intentional Endowments Network (IEN) in Miami.

More than 350 people attended the gathering. Thirty-five sessions provided space for courageous conversations, creating new partnerships, and connecting with peers and cross-sectoral climate champions, all with the overarching goal of finding solutions to our time's most consequential climate and justice issues.

350+
Attendees

35
Sessions



SECOND NATURE PILOTS "BUDDY PROGRAM" WITH AGNES SCOTT COLLEGE AND BENNETT COLLEGE

Second Nature partnered with Agnes Scott College's Center for Sustainability team and Bennett College's "Green Team" to pilot a Buddy Program. This initiative aims to champion interpersonal relationship building among peer higher educational institutions in the Southeast and share scalable sustainability best practices that fit each institution's culture and capacity.

Second Nature provided funding to host a campus visit and tour of Agnes Scott College for a team from Bennett College, including Chief Financial Officer, Elizabeth Waugh, and Anne Hayes, Executive Director of Global & Interdisciplinary Programs. Anne is a long-time supporter of Bennet's climate action work and a champion of their student Green Team.



AGNES SCOTT COLLEGE  BENNETT COLLEGE

KIMBERLY REEVES, ANNE HAYES,
ELIZABETH ROWE, ELIZABETH WAUGH,
FAYOLA WAITHE

FOSTERING RECIPROCAL RELATIONSHIPS FOR CLIMATE ACTION



Second Nature hosted *Fostering Reciprocal Relationships for Climate Action*, our first Midwest gathering on the Menominee Reservation. Representatives from the College of Menominee Nation and members of the higher education community across the Midwest joined us to learn from Black, Indigenous, and People of Color.

Students, sustainability staff and faculty, diversity, equity, and inclusion professionals gained critical insights about what it means to be in authentic relationships with those with

different identities, digging deeper into the hard questions around cross-cultural and cross-racial relationships while moving towards the collective goal of climate action.

WHITE PAPER: USING THE DISTINCTIVES OF HIGHER EDUCATION TO ACCELERATE CLIMATE ACTION



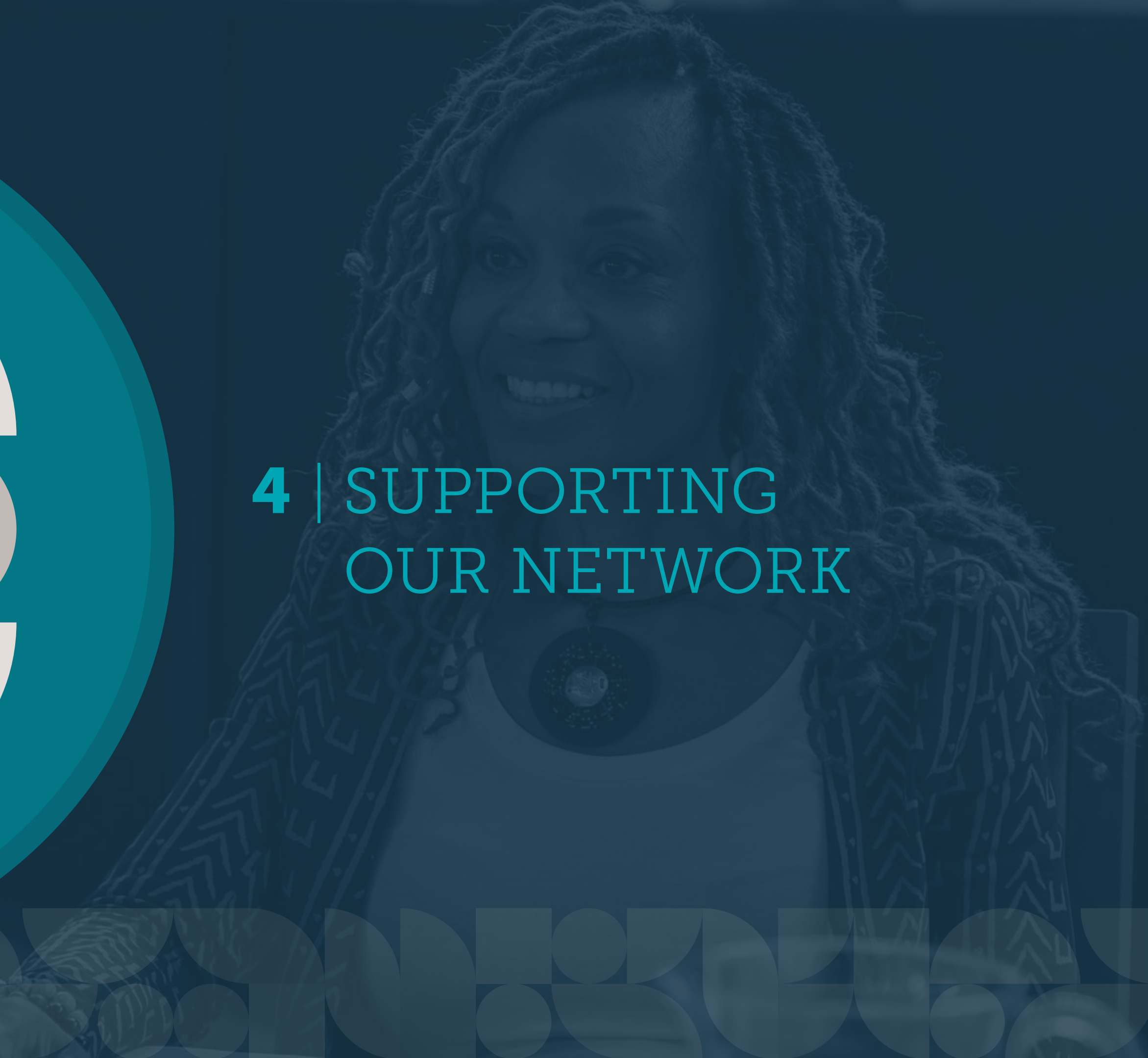
For hundreds of years, the higher education sector has played an essential role in society, beginning with the education of clergy and vocational training, expanding into research during the 19th century, and developing further to include a “third mission” of directly meeting society’s needs through the application of research. Higher education institutions have also begun directly collaborating with community stakeholders in recent years through a “co-creation” model, an extension of the third mission. Higher education is well-positioned to leverage these missions to create solutions to the complex and urgent global problems caused by climate change.

This paper, co-authored by Second Nature’s President, Tim Carter, and former America’s All In Fellow Jayson Toweh, describes **seven key distinctives of the higher education sector** that have emerged from these missions and how they are being applied directly to address climate challenges.

These distinctives are not unique to the higher education sector but are areas of sector-specific strength. Articulating these distinctives can help other sectors working on climate issues better understand how cross-sector climate action could be effectively and efficiently accomplished. The paper provides background on these distinctives and examples at various institutions. It concludes with future opportunities.



4 | SUPPORTING OUR NETWORK



WORKING GROUPS & INITIATIVES



COMMITMENTS 3.0 WORKING GROUP

Commitments 3.0 is a working group evolving the next generation of Second Nature's Climate Leadership Commitments. The group has been focused on researching topics including climate justice, targets and claims, membership, and accountability. In 2023, the working group's emphasis was on:

- Climate Action Milestones
- Collective Goals
- Offsets Guidance and Rigor
- Resilience and Provisions

INTERSECTIONAL CLIMATE ACTION LEADERS WORKING GROUP

The working group is intended to advance peer-to-peer relationships and share best practices to help accelerate institutional resilience and climate action planning. It consists of BIPOC-identified faculty, staff, community, and organizational partners affiliated with climate action and resilience planning at an HBCU (Historically Black Colleges and Universities), MSI (Minority Serving Institutions), or Tribal College or who have an interest in championing the work and legacy of these institution types and the demographic bases they serve.

The working group continued growing in 2023 with new members joining from:

- Green Power Ventures
- Dillard University
- Alcorn State University
- Tennessee State University
- US Climate Action Network

Group members also contributed to developing UNCF's *HBCU Climate Action Blueprint Report* and hosted an HBCU/MSI Carbon Offsets workshop.




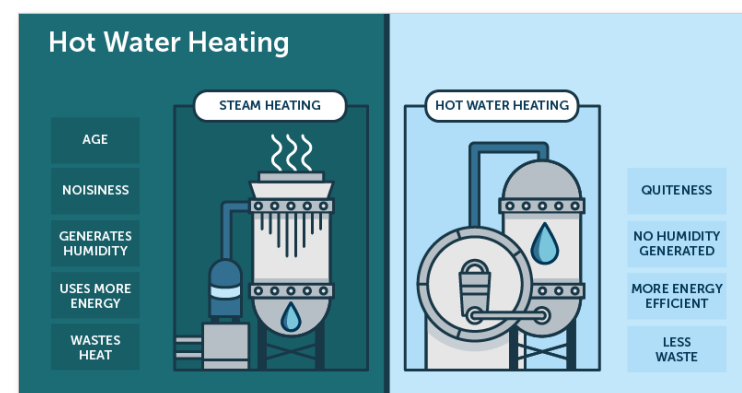
OFFSETS ADVISORY COUNCIL

This working group was convened in 2023 to advise on Second Nature's expansion and update of the Carbon Markets and Offsets Guidance resource (expected publication in 2024). In addition to helping to shape the guidance, the group of 70 members co-developed an annual offsets purchasing survey process and met monthly to trade best practices for higher education offsets engagement.

SOLUTIONS CENTER AND CLIMATE ACTION RESOURCES

SOLUTIONS CENTER

- Request for Proposal (RFP) templates on climate action and decarbonization planning were added in 2023. 
- Several new service provider profiles and descriptions, case studies, project portfolios, client testimonials, and service descriptions were added.
- The organization and categorization of the Solutions Center resources were improved, search functionality enhanced, and the decision-making spreadsheet was made more visually accessible.



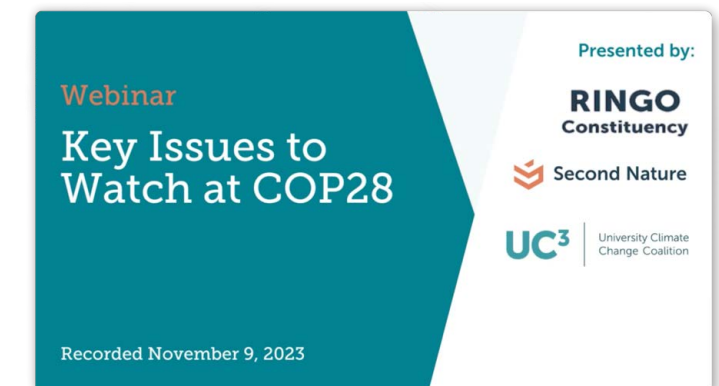
PATCH PARTNERSHIP

In 2023, Second Nature partnered with [Patch](#), a platform that allows organizations to drastically lower their carbon footprint and emissions to reach their climate action goals. The partnership will assist colleges and universities with carbon offset purchasing and co-create more transparency and education.

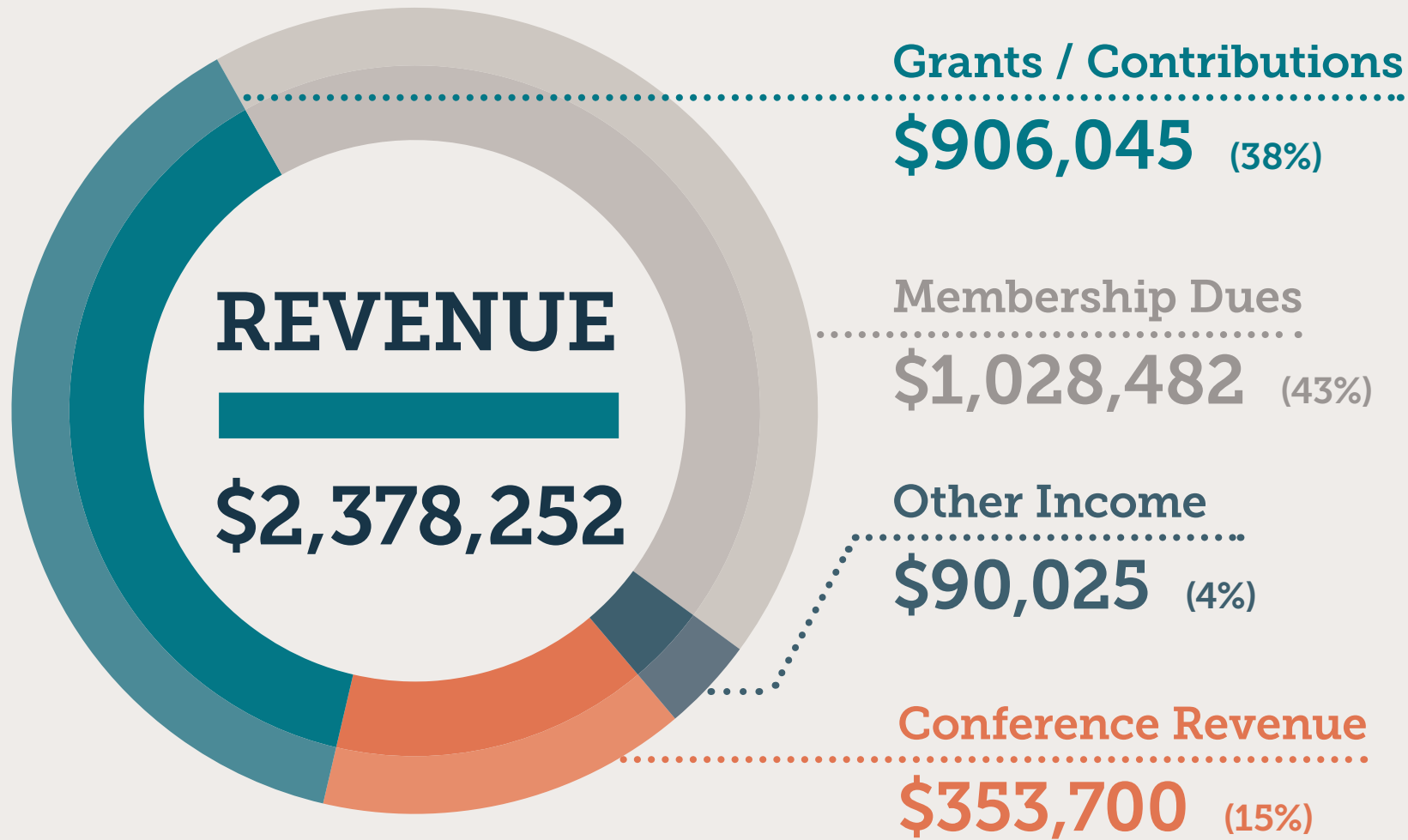
Through Second Nature's radius account on Patch's platform, schools can gain free access to view carbon offset projects with available tonnage for purchase and can receive assistance from Second Nature in matching projects to campus offset strategy.



WEBINARS



BY THE NUMBERS



Program Development
\$ 1,799,582 (85%)

Management / General
\$252,226 (12%)

Fundraising
\$66,505 (3%)



WHO WE ARE - STAFF*



Timothy Carter
President



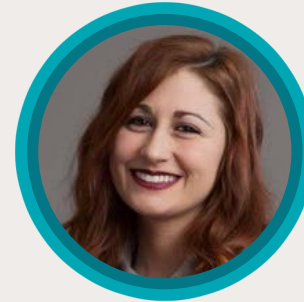
Blythe Coleman-Mumford
Climate Programs Manager



Noa Dalzell
Climate Policy Associate



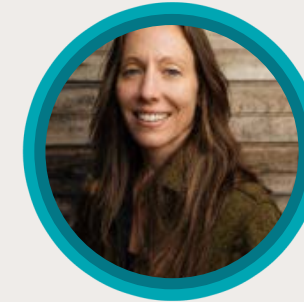
Sydney DuBose
Climate Justice Fellow



Bridget Flynn
Climate Programs Senior Manager



Joelle Geisler-Haley
Manager of Operations & Administration



Meredith Leigh
Carbon Offsets Fellow



Katherine Mac-Holmes
DEIAJ Associate



Shaina Maciejewski
Climate Programs Data Manager



Michele Madia
Senior Director, Climate Programs



Steve Muzzy
Climate Programs Senior Manager



Bari Samad
Director of Communications and Marketing



Mia Sen
Climate Programs Manager



Cami Sockow
Climate Programs Manager



Samantha Thomas
Climate Programs Manager - Data and Evaluation



Molly Toth
Communications and Marketing Manager



Jayson Toweh
America Is All In Fellow



Karen Wheeler
Director of Finance and Administration

INTERNS

Gloria Ulloa-Soto: Allegheny Intern

Padmini Das: Tisch Fellow and Climate Programs Intern

Nadia L'Bahy: Solutions Center Intern

Windley Knowlton: Climate Programs Intern

Hazel Ammons: Allegheny Intern

*worked for Second Nature during calendar year 2023

WHO WE ARE - BOARD



Javier Cevallos

President, American Academic Leadership Institute



Mark Chambers

Director, Earth Alliance



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Former President, Chatham University and Senior Advisor and Vice President for Corporate and Social Responsibility, Torrgreen USA



Dianne F. Harrison

President Emerita, California State University, Northridge



Rachel Hodgdon

CEO, International WELL Building Institute



Jia Hu

Associate Professor and Associate Director, School of Natural Resources and the Environment, University of Arizona



Steven Knapp

Vice Chair – CEO, Carnegie Museums of Pittsburgh



Scott Miller

President, Virginia Wesleyan University



Christine Scott Nelson

Chair – Trustee of Allegheny College and Chair of the Board of Laspau, a Harvard Affiliate



Elsa M. Núñez

President, Eastern Connecticut State University



Judith A. Ramaley

Trustee, Portland State University and President Emerita, Winona State University



Nathaniel Smith

Founder and Chief Equity Officer of the Partnership for Southern Equity (PSE)

**Second Nature is committed to accelerating climate action in,
and through, higher education.**

We do this by mobilizing a diverse array of higher education institutions to act on bold climate commitments, to scale campus climate initiatives, and to create innovative climate solutions. We align, amplify, and bridge the sector's efforts with other global leaders to advance urgent climate priorities.

secondnature.org



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