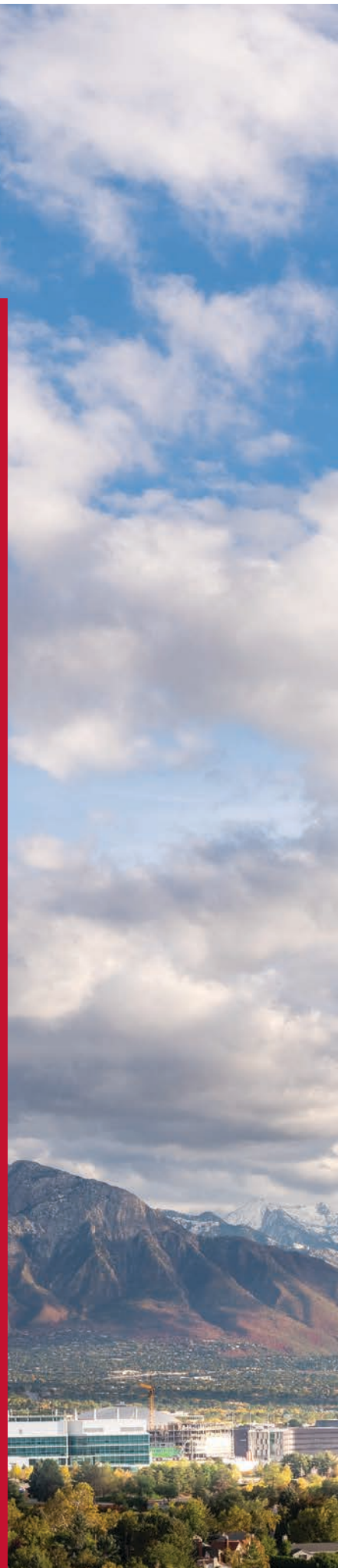


CLIMATE ACTION PLAN





LAND ACKNOWLEDGMENT

The University of Utah has both historical and contemporary relationships with Indigenous peoples. Given that the Salt Lake Valley has always been a gathering place for Indigenous peoples, we acknowledge that this land, which is named for the Ute Tribe, is the traditional and ancestral homelands of the Shoshone, Paiute, Goshute, and Ute Tribes and is a crossroad for Indigenous peoples.

The University of Utah recognizes the enduring relationships between many Indigenous peoples and their traditional homelands.

We are grateful for the territory upon which we gather today; we respect Utah's Indigenous peoples, the original stewards of this land; and we value the sovereign relationships that exist between tribal governments, state governments, and the federal government.

Today, approximately 60,000 American Indian and Alaska Native peoples live in Utah. As a state institution, the University of Utah is committed to serving Native communities throughout Utah in partnership with Native Nations and our Urban Indian communities through research, education, and community outreach activities.

The Climate Action Plan works to put this commitment into action at every stage of the university's response to climate change, from the engagement and development of the plan to its implementation and evaluation.

For more information on the process and formation of the U's Land Acknowledgment, see <https://attheu.utah.edu/facultystaff/indigenous-land-acknowledgement>.

“Often there isn't a lot of reflection on a land acknowledgement and what that means. If people are so moved by these statements, they might be moved to do something and take some action.”

(American Indian Resource Center Listening Session, 18 Oct 2022)

CLIMATE ACTION PLAN





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Executive Summary

As climate change continues to cause and intensify both local and global challenges, the University of Utah (the U) is choosing to act boldly and leverage its collective impact as an institution to pave the way for a better future. Building on the U's first Climate Action Plan, released in 2010, this updated Climate Action Plan (CAP) highlights progress that has been made and articulates new ways university research and education can contribute to more positive climate outcomes. It outlines a path toward meeting the U's accelerated 2040 target date for achieving net zero greenhouse gas emissions, also known as carbon neutrality, and builds on the U's recent Climate Resilience Assessment, identifying steps to prepare for impacts of climate change on U facilities and people.

Approximately 4,300 participants provided input during the CAP's stakeholder engagement period, helping to ensure that this plan reflects the needs and collective expertise of the broad university community. The CAP differs from previous efforts in its inclusion of U of U Health: patients and health care providers were engaged to help the plan address climate-health impacts.

In compliance with the Presidents' Climate Leadership Commitments signed by President Taylor Randall in 2022, this plan presents a series of goals, targets, strategies, and actions in the following core areas:

 <p>RESEARCH</p>	 <p>EDUCATION</p>	 <p>MITIGATION</p>	 <p>RESILIENCE</p>
<p>GOAL Generate climate-related research that supports those most impacted and drives solutions in Utah and beyond</p>	<p>GOAL Graduate students with knowledge and skills to address climate-related challenges and opportunities</p>	<p>GOAL Take urgent action to reduce greenhouse gas emissions</p>	<p>GOAL Increase university and community resilience to the current and future impacts of climate change</p>

Under each core area, the CAP outlines ambitious and achievable actions that meet the urgency and scale required to address climate change at the U and beyond. By anchoring this work in a set of **core values and principles** (see page 17) developed throughout stakeholder engagement, and by establishing clear steps for implementation, tracking progress, and future decision-making, the CAP provides a road map to guide the U's response to climate change over the next two decades while remaining flexible to adapt to new challenges, opportunities, and evolving community needs.

ACKNOWLEDGMENTS

The University of Utah's Climate Action Plan (CAP) would not be possible without the significant contributions of many staff, faculty, students, and community members. In addition to the groups listed below, thank you to the thousands of participants who provided input in the development of this plan.

CORE TEAM

A Core Team of U staff, faculty, and consultants met regularly to guide the CAP development process, conduct stakeholder engagement, digest participant input, and draft the content of the plan.

***Kerry Case**, Chief Sustainability Officer, CCTF Co-Chair

***Brenda Bowen**, Director of the Global Change & Sustainability Center, Professor of Geology, CCTF Co-Chair

***Alexis Lee**, Director of Social & Environmental Sustainability, U of U Health

***Amy Fulton**, New Leadership Academy Director, Equity, Diversity, & Inclusion

***Ginger Cannon**, Active Transportation Manager, Sustainability Office

John Close, Senior Campus Planner, Planning Design & Construction

Julie Johnsson, Administrative Assistant, Sustainability Office

Kara Freedman, Sustainability Engagement and Events Coordinator, Sustainability Office

***Lissa Larson**, Director, Sustainability & Energy, Facilities

Maria Archibald, Sustainability Communication & Relationship Manager, Sustainability Office

***Sam Jensen-Augustine**, Director of Infrastructure Project Management, Planning Design & Construction

*Core Team members with asterisks next to their names also serve on the Presidential Climate Commitment Task Force.

CONSULTANT SUPPORT

The consultant team at **Introba** was engaged for this project and functioned as part of the Core Team, leading efforts specific to equity, stakeholder engagement, and content development.

David Righter, *Introba*

Lisa Westerhoff, *Introba*

Shalini Sinha, *Inclusiv*

Susanna Haas Lyons, *Susanna Haas Lyons Consulting*

With special thanks for **Janika McFeely**, formerly of Introba; **Sarah Schlaefke**, Sustainability Communication and Relationship Manager, Sustainability Office; and **University of Utah Marketing & Communications**

PRESIDENTIAL CLIMATE COMMITMENT TASK FORCE

The Presidential Climate Commitment Task Force (CCTF) was established as part of the 2019 Academic Senate resolution to own the development of the CAP. This group, comprised of leaders from across the U's departments, operations, and student body, as well as community advisors, convened approximately every few months to guide and advise on the CAP.

Andrew King, Director, Planning Design & Construction

Anneke Enquist, Sustainability Board Associate Director, Associated Students of the University of Utah

Auburn Acord, Sustainability Board Director, Associated Students of the University of Utah

William R. L. Anderegg, Director, Wilkes Center for Climate Science and Policy, Assoc. Professor of Biology

Cathy Anderson, Chief Financial Officer

Collin Simmons, Executive Director, Auxiliary Services

Danielle Endres, Professor, Communication

Jenn Watt, Director, Sustainability Education, Assoc. Director and Assoc. Professor (Lecturer), Environmental and Sustainability Studies

Jennifer Reed, Associate Vice President, Auxiliary Services

Jerry North, Associate Executive Director, Facilities Management, U of U Health

John Atkins, Director, Auxiliary Services

Lisa Potter, Communications Specialist, Marketing & Communications

Lori McDonald, Vice President, Student Affairs

Masood Parvania, Associate Professor, Electrical & Computer Engineering

Robin Burr, Chief Facilities Officer

Steve Panish, Associate Vice President, Capital Program & Space

Smitha Warriar, Medical Director of Environmental and Social Sustainability, Chief Surgical Operations Officer, Associate Professor, Anesthesiology

Taylor Vandertoolen, 2022-23 Student Body President, Associated Students of the University of Utah

COMMUNITY ADVISORS

Corbin Anderson, Salt Lake County Environmental Health

Debbie Lyons, Salt Lake City Sustainability

Sophia Nicholas, Salt Lake City Sustainability



Dear friends,

In one of my first formal actions as president, and with your encouragement and support, I renewed the University of Utah's commitment to address our changing climate. I accelerated the U's target deadline for net zero greenhouse gas emission by **ten** years and signed on, like my predecessors, to the Presidents' Climate Leadership Commitments.

This Climate Action Plan represents the next critical step in our bold and collective journey to engage in climate research, education, mitigation, and resilience that serves our state.

I extend my appreciation to the many staff, faculty, and students who contributed to this plan. The U's inclusive and collaborative process involved approximately 4,300 participants.

I also take heart in the progress we've already made. The U reduced overall water use by 20% since 2018, achieved 25% energy savings in buildings, purchased more than 50% of our electricity last year from renewable sources, and assisted rural communities with economic need. We are on a bold path forward that will help us become a top **ten** public university with unsurpassed societal impact.

Thank you to all involved in the creation of this plan. The U is ready to tackle this challenge as we build a healthier, more resilient future for our campus and beyond.

A handwritten signature in black ink, reading "Taylor R. Randall". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Taylor R. Randall

President, University of Utah



1.0 Introduction

1.1 PURPOSE OF THE CAP

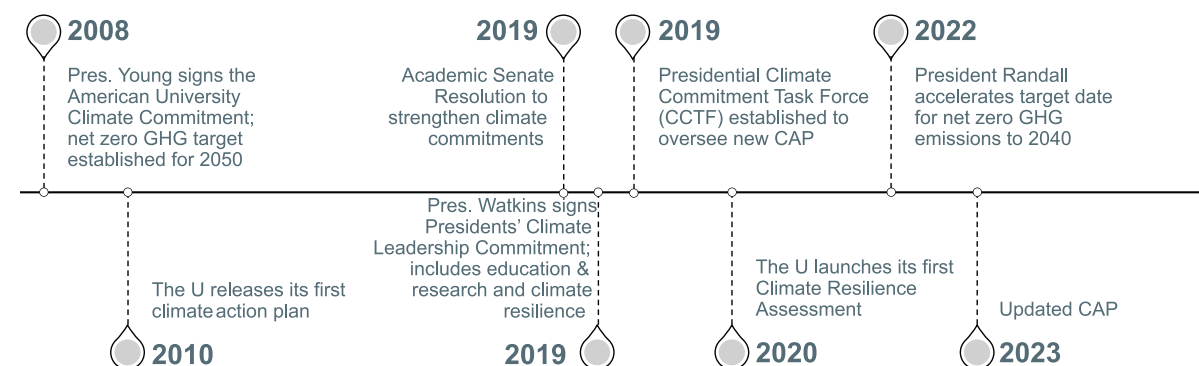
Here in Utah, temperatures are rising, the Great Salt Lake has recently reached record low levels, and wildfires and wildfire smoke are becoming more common. Local emissions contribute to poor air quality in the Salt Lake Valley, exacerbating illnesses and health disparities, while more frequent and extreme weather events have led to increased instances of flooding, drought, and water scarcity.^{1,2} Not all members of our community are equally impacted by climate change, and some groups feel its consequences more frequently and intensely.³

Fortunately, the U is well-positioned to address the needs of our students, employees, patients, and the wider community. As Utah's flagship higher education institution, the U has a responsibility to lead by example and take ambitious action to minimize its contribution to climate change while preparing for its impacts.

The new Climate Action Plan (CAP) communicates how the U intends to meet its climate action goals by outlining critical steps toward its vision of a more sustainable future. Each of the four core areas for action has an associated set of goals, targets, strategies, and actions that describe how the U will support cutting-edge climate research, prepare climate-ready future leaders, reduce its greenhouse gas (GHG) emissions, and prepare for the impacts of climate change.

1.2 CLIMATE LEADERSHIP AT THE U

The CAP builds on a well-established legacy of climate action at the U. In 2008, President Michael Young first signed the American College and University Climate Commitment and charged the U with working to achieve carbon neutrality by 2050. In 2019, the Academic Senate passed a resolution asking that the U strengthen this commitment. As a result, President Ruth Watkins signed an expanded Presidents' Climate Leadership Commitments that included carbon neutrality, climate resilience, and incorporation of these into education and research. The Presidential Climate Commitment Task Force was established to help the U fulfill the expanded commitments, including development of a new Climate Action Plan. Recently, President Taylor Randall reaffirmed these commitments and accelerated the target date for carbon neutrality from 2050 to 2040, recognizing the urgency that climate change demands.



The University of Utah released its first Climate Action Plan in 2010. Since then, the U has established itself as a leader in sustainability and climate action among American universities, especially in the Intermountain West. Currently, the U is the only institution in Utah to achieve a Gold rating from the Sustainability Tracking Assessment and Rating System (STARS), the comprehensive sustainability rating system for higher education. The U drives climate action across Utah by helping launch statewide climate coalitions and contributing to the development of local and regional studies and plans.^{4, 5, 6}

Our progress to date can be attributed to the vision and hard work of the many staff, faculty, and students who have led on sustainability and climate action over the years. Much has changed in the decade-plus since the 2010 Climate Action Plan was published, and the new CAP—which focuses on research, education, mitigation, and resilience—presents an immense opportunity to build on the work that has come before it.

Recent Accomplishments in Sustainability & Climate Action

Incorporating sustainability into education and research

- 65% of departments include sustainability in their curriculum
- 62% of departments conduct sustainability research
- Multiple centers expanding interdisciplinary, solutions-driven research related to climate change

Moving toward net zero greenhouse gas emissions

- 25% reduction from 2007 baseline as of 2022
- 50% reduction per FTE students, faculty, and staff since 2007
- Achieved energy savings of 25% across 17 million square feet of building space
- Sourced more than half of purchased electricity from renewables in 2022

Preparing for the impacts of climate change

- Launched first Climate Resilience Assessment
- 20% reduction in overall water use since 2018

1 Assessment of Climate Change in the Southwest United States (2013): <https://swccar.arizona.edu/sites/default/files/2022-05/SW-NCA-color-FINALweb.pdf>
 2 Great Salt Lake Policy Assessment (2023): <https://gardner.utah.edu/wp-content/uploads/GSL-Assessment-Feb2023.pdf?x71849>
 3 <https://www.epa.gov/cira/social-vulnerability-report>

4 Utah Climate Action Network: <https://utahclimateactionnetwork.com/>
 5 Utah Climate & Clean Air Compact: <https://climateandcleanaircompact.org/>
 6 The Utah Roadmap: Positive solutions on climate and air quality: <https://gardner.utah.edu/wp-content/uploads/TheUtahRoadmap-Feb2020.pdf>

2.0 Stakeholder Engagement

2.1 SUMMARY OF ENGAGEMENT

To help ensure that the values and actions outlined in the CAP were informed directly by the university community, the planning team designed and carried out an extensive university stakeholder engagement process that took place over the Fall 2022 semester. During the process, key community stakeholders from outside the university were also engaged, including University of Utah Health patients, city and county sustainability leaders, and residents from West Valley and the west side of Salt Lake City who are connected with University Neighborhood Partners. The purpose of the engagement was to hear from diverse voices, on and off campus, to collaboratively develop strategies to achieve carbon neutrality, build resilience, and establish university priorities for addressing the impacts of climate change through education, research, operations, and health care.

Approximately 4,300 participants gave input throughout the planning process via various platforms, including an online survey and dozens of in-person and virtual events (Table 1).⁷ Targeted activities intentionally engaged populations most at risk for harmful impacts of climate change to ensure that their perspectives were included. A summary of key takeaways from the CAP engagement, and where this input has been incorporated into the CAP, is included in Table 2.

Table 1. Summary of CAP engagement activities.

Opportunities for Input	Number of Participants Engaged
16 interviews	21
6 listening sessions	35
2 CCAP draft feedback consultations	10
1 decision-making framework workshop	11
1 orientation session for campus communications leaders	25
1 campus-wide online survey	2,318
1 U of U Health patient survey	34
1 U of U Health patient focus group	7
12 interactive pop-up events	1,200
11 classroom presentations	336
8 in-person and online roundtable discussions	286

The CAP development effort also included monthly workshops with a Core Team of U faculty, staff, and consultants to guide the process, inform the content, and digest the results of participant input. The Presidential Climate Commitment Task Force (CCTF), comprised of leaders from across the U's departments, operations, faculty, and student body, convened every few months to guide and advise on the CAP.

Table 2. Summary of stakeholder input for CAP development.

Input from Participants	Where input is reflected in the CAP
<p>Include knowledge and perspectives of groups most impacted by climate change in CAP development.</p> <p>Build upon existing relationships. Leverage conversations that are already taking place on campus related to disproportionate environmental impacts.</p>	<p>Values and principles: <i>Conversations around what is most important to the university community led directly to the development of the values and principles guiding the CAP.</i></p>
<p>Address the broad and disproportionate local impacts of climate change. Top concerns include:</p> <p>Poor air quality</p> <p>Water scarcity</p> <p>Access to resources</p> <p>Improve transit access, increase mobility options such as biking and walking, and create more remote and tele-health opportunities in response to traffic, pollution, and poor air quality.</p> <p>Prioritize operational strategies to maximize energy efficiency in buildings, purchase renewable energy, and conserve water.</p> <p>Educate patients and community members on how to protect their physical and mental health from climate change impacts.</p> <p>Increase climate awareness and expand opportunities to get involved in climate action on campus and in the community.</p> <p>Further integrate climate into curricula and research, and ensure that research responds to and supports the needs of community members most impacted by climate change.</p>	<p>Core areas for action: <i>Stakeholder priorities for how the U responds to climate change have been incorporated into the goals, strategies, and actions of the CAP.</i></p> <p>Mitigation: <i>Emissions reduction actions improve local air quality and protect the health and well-being of students, employees, and visitors.</i></p> <p>Resilience: <i>Resilience actions address the disproportionate impacts of climate change.</i></p> <p>Research and Education: <i>Actions expand learning opportunities for students and ways for faculty to integrate climate and its disproportionate impacts into curricula and research.</i></p>
<p>Set an example by acting with urgency, and empowering others to make climate-friendly decisions.</p> <p>Ensure that those most impacted by climate change have representation and power in the decision-making processes that affect the campus and surrounding community.</p> <p>Increase leadership and communication on climate action at the U with transparency in tracking and reporting and accountability for progress.</p>	<p>Implementing the Plan: <i>Governance and Accountability address leadership, coordination, and communication on climate action.</i></p> <p>Guidance for values-aligned action: <i>embeds the needs and perspectives of disproportionately impacted stakeholders in a tool to guide future climate action and decision-making.</i></p>

⁷ A separate "What We Heard" report compiles all the information gathered during the engagement activities. For more information on this report, contact the Sustainability Office at <https://sustainability.utah.edu/>.

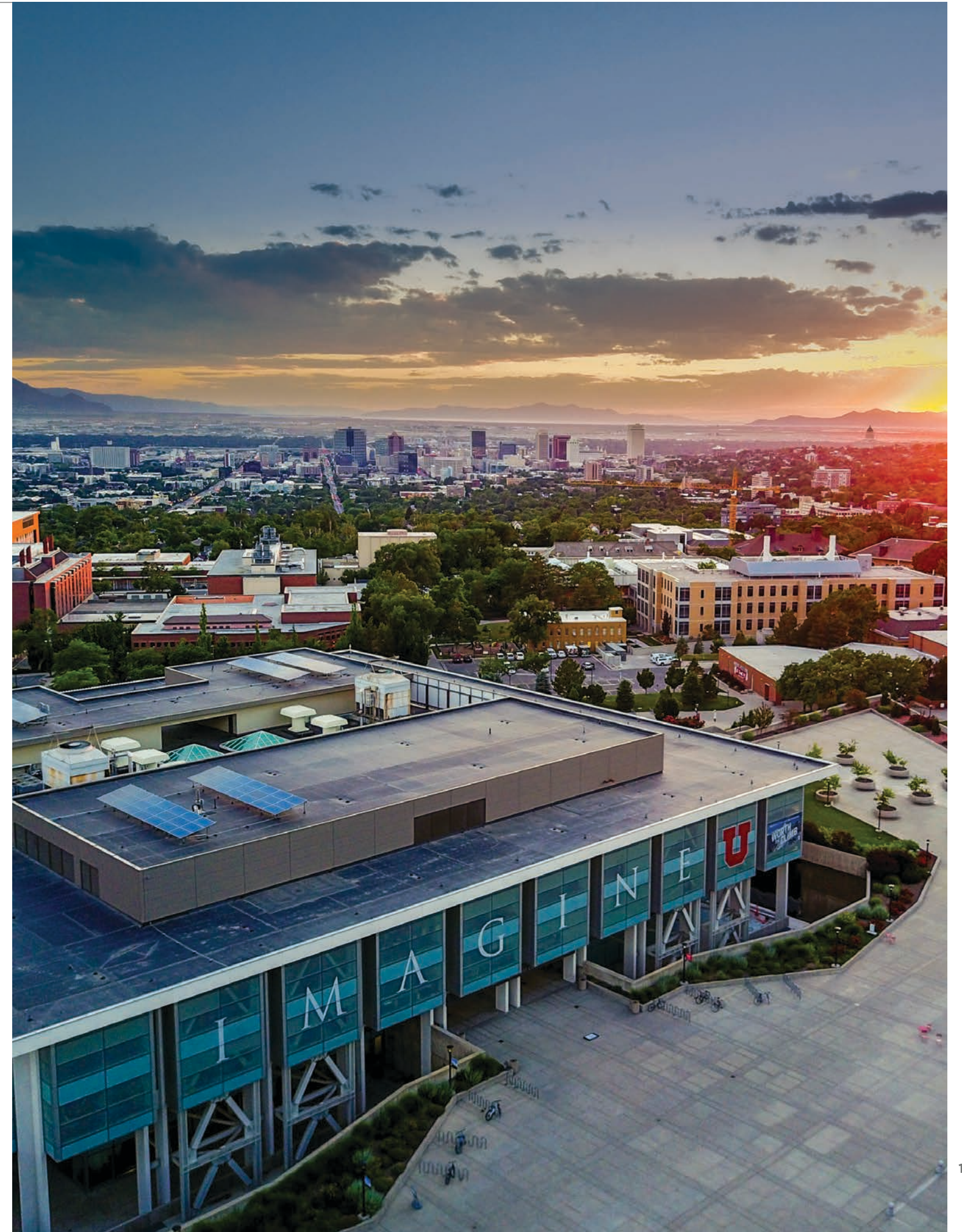
2.2 INCLUSIVE STAKEHOLDER ENGAGEMENT

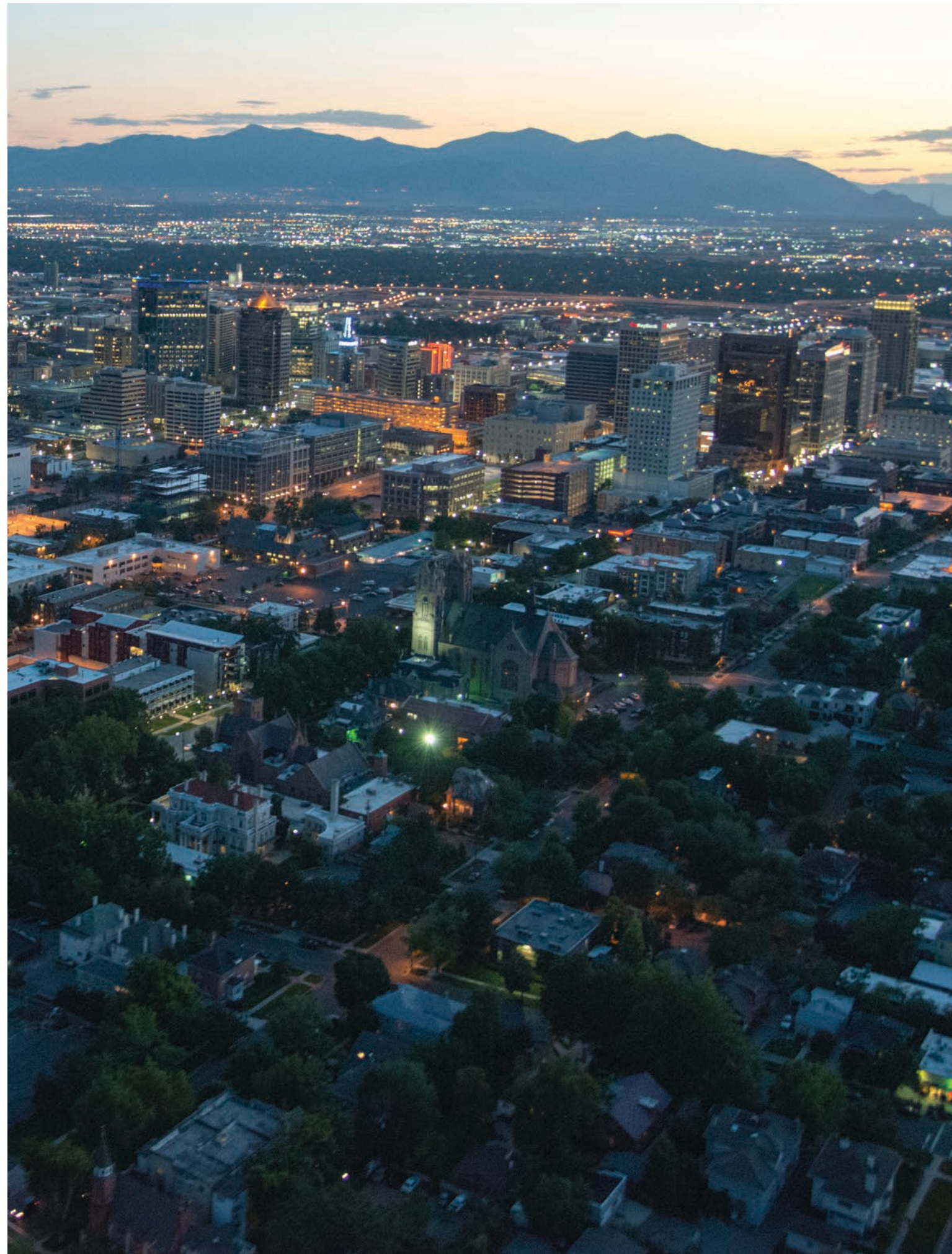
During stakeholder engagement for the U's Climate Resilience Assessment in 2021, the university community repeatedly asked that individuals and groups disproportionately at risk for climate-related harm have a voice when determining future climate action.

Hearing this feedback, the Climate Commitment Task Force committed to ensuring that CAP engagement created opportunities for representatives of disproportionately impacted communities to provide input into future climate action at the U. Globally and locally, historically marginalized communities contribute less to the causes of climate change but experience significantly more of its negative impacts. At the same time, many of these same communities hold knowledge and cultural practices that offer solutions for reducing and adapting to climate change. These communities are often not represented in climate planning processes, may feel discouraged to speak, may lack access to support and resources, and may experience fatigue for being consulted while not being empowered or respected in a process. Stakeholder engagements with these groups were done through a separate process in an attempt to address these challenges.

“You need to make this bigger than the native person, the grandmother, the nation. We didn't create this situation, so you need to draw us in to help stop it.”

(American Indian Resource Center Listening Session, 18 Oct 2022)





3.0 Values and Principles

The CAP's values and principles were developed through extensive engagement with the campus community. These values reflect what campus stakeholders expressed is important to them, while the principles that follow each value describe how to carry these out. Together, they will guide the U as we take action in response to climate change.

Impact. Lead with creative, achievable actions—on campus and in local communities—that visibly respond to the urgency of climate change.

Respect. Center the voices and needs of those most impacted by climate change, as we work to repair and regenerate ecosystems.

Reciprocity. Develop mutually beneficial relationships and collaborations across disciplines, identities, and geographies.

Accountability. Track and transparently communicate climate actions and progress with the university community, local partners, national peers, and global counterparts.

“I was raised taking care of the land and land taking care of me.”

(University Neighborhood Partners Residents Group Listening Session, 3 Nov 2022)

4.0 Core Areas for Action

SUMMARY OF GOALS & PRIMARY TARGETS

	Goal	By 2030	By 2040
Research	Generate climate-related research that supports those most impacted and drives solutions in Utah and beyond	+50% Faculty producing research related to climate change and its impacts	+100% Faculty producing research related to climate change and its impacts
Education	Graduate students with knowledge and skills to address climate-related challenges and opportunities	+5 STARS points in curriculum and engagement categories combined	+10 STARS points in curriculum and engagement categories combined
Mitigation	Take urgent action to reduce greenhouse gas emissions	-60% Reduction in net GHG emissions	Net Zero GHG emissions
Resilience	Increase university and community resilience to the current and future impacts of climate change	+50% U of U Resilience Assessment metrics improved	+75% U of U Resilience Assessment metrics improved

4.1 RESEARCH

Climate-related research includes work that advances our understanding of climate change, its impacts on human health and the environment, the opportunities to minimize those impacts, and solutions that will increase resilience.

Background

Resilience to and mitigation of climate change requires innovative solutions that address both global and local challenges and opportunities. As one of Utah's only higher education research institutions, the U is well-positioned to leverage research expertise to propel climate action at the university, across the state, and beyond. The U's research can drive climate solutions that are regional, national, and even global in scale.

What Have We Already Accomplished?

The Presidents' Climate Leadership Commitments ask the U to develop research strategies that align with mitigation and resilience efforts to address climate change. The U's 2023 STARS report identified sustainability researchers in 62% of departments, and over 40 faculty have reported publications or grants specifically related to climate on their faculty activity reports.

Programs like SEED2SOIL, which brings together operations professionals and faculty researchers, draw on this expertise to make improvements to campus operations that support mitigation and resilience. Campus as a Living Lab provides students with direct research and project experiences that build campus engagement, increase student ownership, and create spaces for campus-community partnerships.

The U also helps drive climate research nationally as a member of the University Climate Change Coalition (UC3), a group of top research universities working to address climate change. There are multiple climate-related research centers at the U, including the Global Change & Sustainability Center and the newly created Wilkes Center for Climate Science & Policy, which bring together interdisciplinary and solutions-driven research to address the most pressing challenges in Utah and beyond.

“When our voice goes out there [for your research], we want you to come here, too [and share your knowledge to help us].”

(University Neighborhood Partners Residents Group Listening Session, 3 Nov 2022)

RESEARCH

Goal 1.0 Generate climate-related research that supports the needs of those most impacted and drives solutions in Utah and beyond.

Targets:

2022 Status	By 2030	By 2040
41 faculty self-identified in FAR as having climate-related publications and/or grants	+50% Faculty producing research related to climate change and its impacts	+100% Faculty producing research related to climate change and its impacts

Strategy 1.1 Provide support structures and resources to advance, increase, and accelerate interdisciplinary climate-related research.

Key Actions

1. Support existing structures⁸ that facilitate engagement and collaboration opportunities for interdisciplinary climate-related student and faculty research
2. Enhance structures to advance Campus as a Living Lab and communicate opportunities for students to assist with CAP implementation
3. Provide support (staff, infrastructure, faculty time) for faculty development of large interdisciplinary climate grants
4. Facilitate internal and external sharing of climate-related research at the U with particular attention to reciprocity with communities most impacted

Strategy 1.2 Align research with the needs and opportunities of those most impacted by climate change.

Key Actions

1. Support climate-related research that addresses university, local, state, and regional challenges and opportunities
2. Support structures to strengthen reciprocal relationships between the university and community members from groups most impacted by climate change

“The U, I think it would be great if they could help other people reach their challenges, so they could partner together and affect the environment.”

(University Neighborhood Partners Residents Group Listening Session, 3 Nov 2022)

⁸ Inclusive of education and research centers, interdisciplinary programs, SEED2SOIL, Office of Undergraduate Research, Office of the Vice President for Research, and more.



4.2 EDUCATION

Sustainability education includes curricular, co-curricular, and engagement opportunities that help prepare future leaders to advance climate mitigation and resilience. Strategies in this section focus specifically on students. Strategies to equip university employees and the broader community with climate-related knowledge and skills are included under the Resilience section.

Background

As the flagship institution of higher learning in Utah, the U is well-positioned to leverage education to help prepare the state to address both the challenges and the opportunities associated with climate change. Integrating mitigation and resilience into the curriculum and co-curricula will equip the next generation of leaders and prepare students to respond to climate change in their careers and lives beyond campus.

What Have We Already Accomplished?

The Presidents' Climate Leadership Commitments ask the U to develop curricular, co-curricular, and community engagement strategies that align with mitigation and resilience efforts to address climate change. The U currently offers several sustainability certificates, emphases, and degrees, and a sustainability course attribute (SUST)⁹ is applied to many courses integrating concepts that address climate mitigation and resilience. In fact, 65% of departments already include at least one SUST course, with over 70 climate-focused courses already identified at the U.

There is opportunity for education to take a more prominent role in the U's response to climate change. Throughout CAP engagement, participants called for more ways to get meaningfully involved and affect positive change on campus and in their communities. Students expressed wanting more opportunities to learn about climate and contribute to sustainability initiatives on campus. Faculty across various departments called for increased support and coordination to further develop sustainability curricula.

Learning opportunities should extend beyond the classroom to broaden their impact. Strengthening the connections between education, research, campus operations, and the community will empower the U's students and faculty to learn from, inform, and develop innovative solutions for mitigation and resilience and to help drive CAP implementation.

⁹ Sustainability courses are currently tracked using the SUST course attribute which is based on the 17 United Nations Sustainable Development Goals (SDGs). <https://sustainability.utah.edu/faculty-resources/earning-a-sust-designation/>. SDGs support climate mitigation and/or resilience, so this overarching sustainability metric is an appropriate measure of climate-related curriculum and is already the metric used for the Sustainability Assessment and Tracking System (STARS).

EDUCATION

“I felt I was on this journey [having concern for climate change] by myself. I felt that other people weren't experiencing this as desperately as I was. Finding people and building a community around this is so important.”

(Women's Resource Center & LGBT Resource Center Listening Session, 21 Oct 2022)

Goal 2.0 Graduate students with knowledge and skills to address climate-related challenges and opportunities.

Targets:

2022 Status	By 2030	By 2040
Curriculum: 33.53/40 STARS points earned	+5 STARS points in curriculum and engagement categories combined	+10 STARS points in curriculum and engagement categories combined
Campus Engagement: 14.76/21 STARS points earned		

Strategy 2.1 Integrate sustainability into curricula across the university.

Key Actions

1. Support faculty to integrate sustainability into new and existing courses
2. Track and assess sustainability course content using SUST attribute and faculty activity reports

Strategy 2.2 Expand sustainability learning opportunities beyond the classroom.

Key Actions

1. Support departments and programs as they expand high-impact learning practices related to sustainability across colleges
2. Develop strong sustainability career pathways for students across disciplines, including paid opportunities for students to engage in the U's climate action
3. Expand informal opportunities for students to learn about climate change, its impacts, and solutions through events, clubs, etc.

4.3 MITIGATION

Climate mitigation refers to efforts to reduce or prevent the emission of greenhouse gases.¹⁰

Background

While climate change is already impacting Utah and the university, quickly reducing greenhouse gas emissions at all scales can help avoid the most severe consequences. The most common greenhouse gases that contribute to global warming include carbon dioxide, methane, and nitrous oxide. Local emissions at the U also include air pollutants such as carbon monoxide, ground-level ozone, sulfur dioxide, and particulate matter, which contribute to poor air quality and can exacerbate illness and health disparities in the state. Air quality was one of the most commonly raised issues during engagement with groups most at risk for climate impacts. As a prominent public university comprising some 300 buildings and tens of thousands of students, staff, and faculty, the U can significantly reduce local and greenhouse gas emissions and set an example for the rest of the state and region.

The U has been actively invested in reducing emissions from operations for the last 15 years (Figure 1), during a period of significant growth. It has developed a long-term vision for achieving carbon neutrality by increasing operational efficiency, transitioning to low or no emissions energy sources, and securing high-quality offsets for remaining emissions (Figure 2). By signing the Presidents' Climate Leadership Commitments, the U originally committed to achieving carbon neutrality by 2050. In 2022, the U moved up this target date by 10 years to **2040**. As part of CAP implementation, the long-term vision (Figure 2) may be updated to meet targets outlined in this plan.

What Have We Already Accomplished?

Key Accomplishments to Date

- **Energy efficiency:** achieved energy savings of 25% across 17 million square feet of building space, exceeding the Better Buildings Challenge¹¹
- **Renewable energy:** as of 2020, over 50% of the U's electricity comes from renewable geothermal energy, and with the addition of solar power purchases, the U has contracted over 70% of its energy from renewables as of the end of 2023
- **GHG emissions:** as of 2022, the U has reduced its GHG emissions by 25% from its 2007 baseline and reduced its emissions per FTE by 50% and emissions per square foot by 45%

¹⁰ United Nations Environment Programme: <https://www.unep.org/explore-topics/climate-action/what-we-do/mitigation>

¹¹ U exceeds federal energy reduction commitment: <https://attheu.utah.edu/facultystaff/u-exceeds-federal-energy-reduction-commitment/>

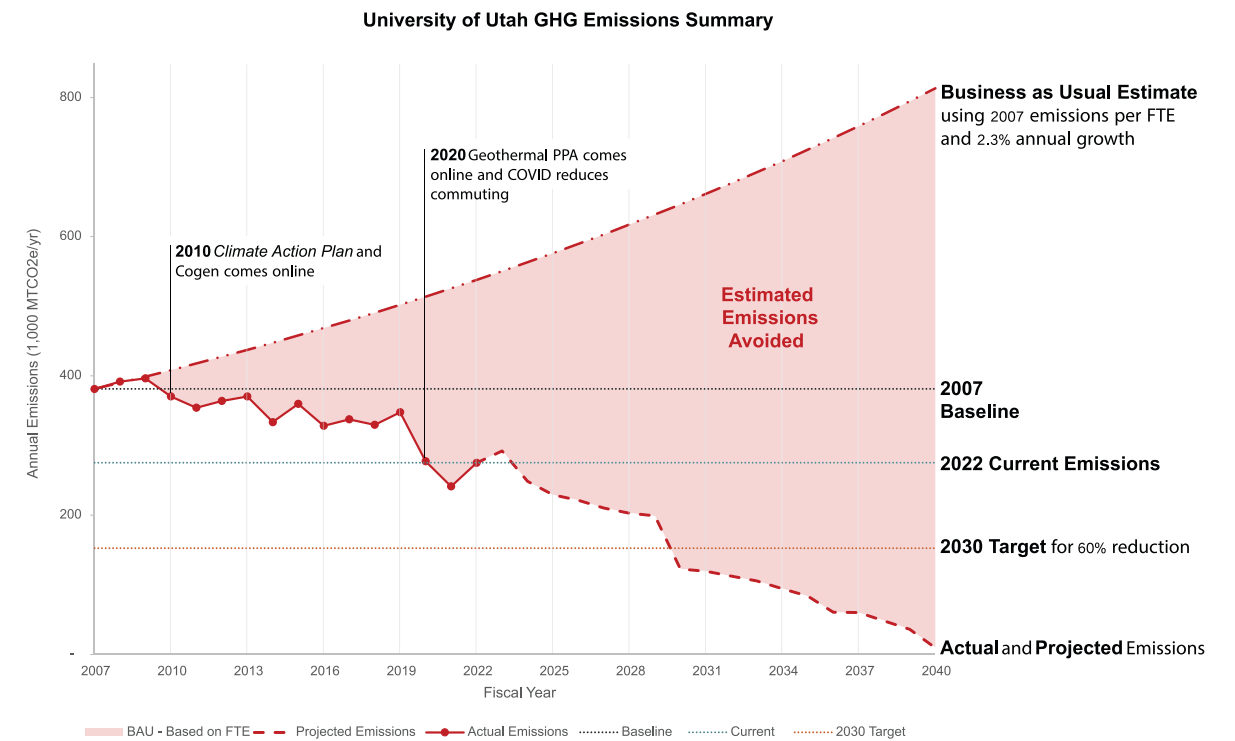


Figure 1. University of Utah GHG Emissions Summary. Source: U of U Facilities Sustainability & Energy



MITIGATION

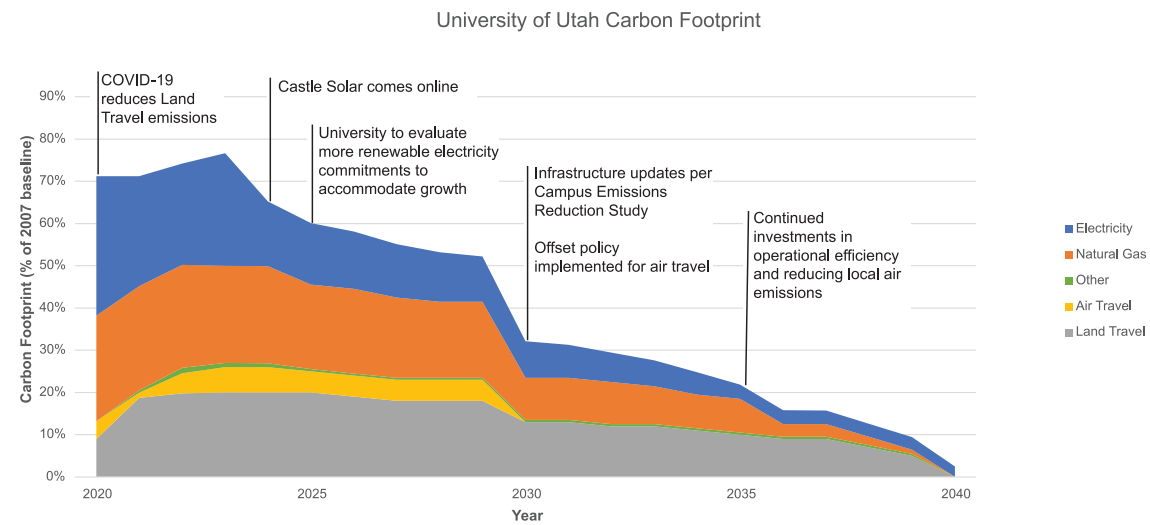


Figure 2. Long-term vision for achieving net zero GHG emissions. Source: U of U Facilities Sustainability & Energy

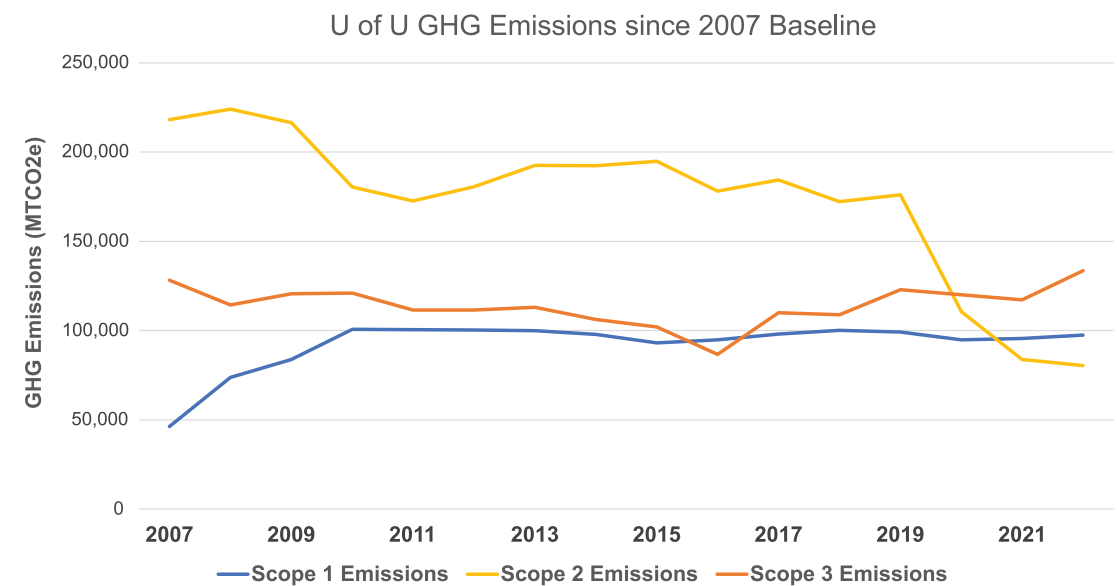


Figure 4. Achieved reductions in GHG emissions by scope since 2007 baseline. Source: SIMAP Public Reporting

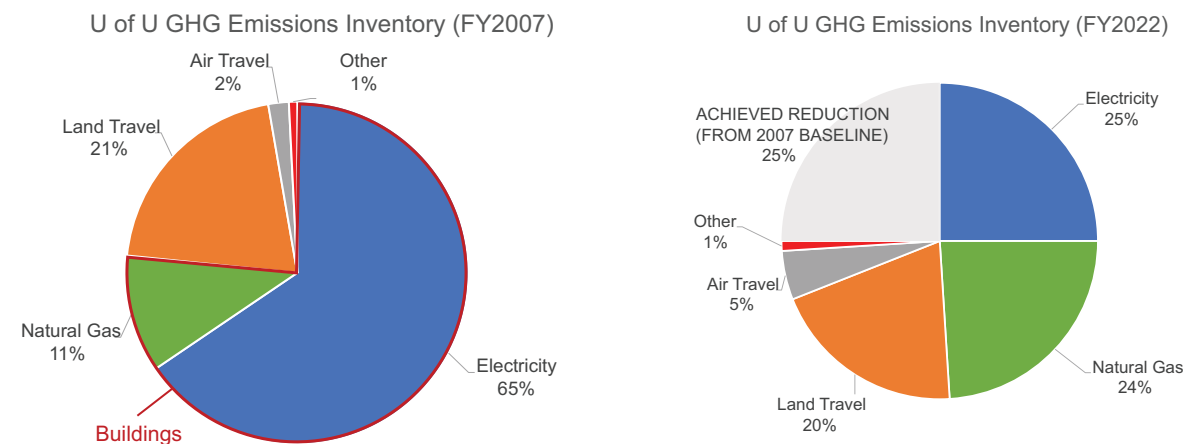


Figure 3. Achieved reductions in GHG emissions between 2007 and 2022. Source: U of U Facilities Sustainability & Energy

While the U has made significant progress in reducing greenhouse gas emissions from university operations, more action is needed to reach the neutrality target, particularly in the strategic areas of buildings/infrastructure and transportation. Continuing to maximize building energy efficiency, increase renewable energy, and transition buildings and infrastructure to low emissions technologies will be critical for reducing emissions and protecting health and well-being. Transportation accounts for the second-largest portion of the U's greenhouse emissions (after buildings) and is a major contributor to local air quality issues. This was raised as a significant concern during engagement; transportation resources, choices, and access are often more limited among groups most impacted by climate change. Electrifying the U's fleet, providing electric vehicle charging infrastructure, improving public transit, and building infrastructure that supports sustainable transportation choices will not only reduce emissions, but can also improve access to transportation to and from university locations.

All targets for emissions reductions in the following section are measured against the 2007 GHG emissions inventory, which was the first baseline inventory completed for the university.¹² The inventory includes scope 1 and scope 2 emissions and some scope 3 emissions (commuting and air travel) as required by the Presidents' Climate Leadership Commitments (Figure 4). Most other scope 3 emissions, such as waste and purchased goods and services, have not been measured and are currently excluded from the inventory. However, sustainable procurement and waste reduction are important and interconnected strategies to reduce scope 3 emissions while addressing the environmental, health, and social impacts of products and services. High-quality, values-aligned carbon offsets will be a last step to achieve carbon neutrality. These can be used to address remaining emissions from the most difficult scope 3 sources included in the U's GHG emissions inventory after maximizing reduction efforts.

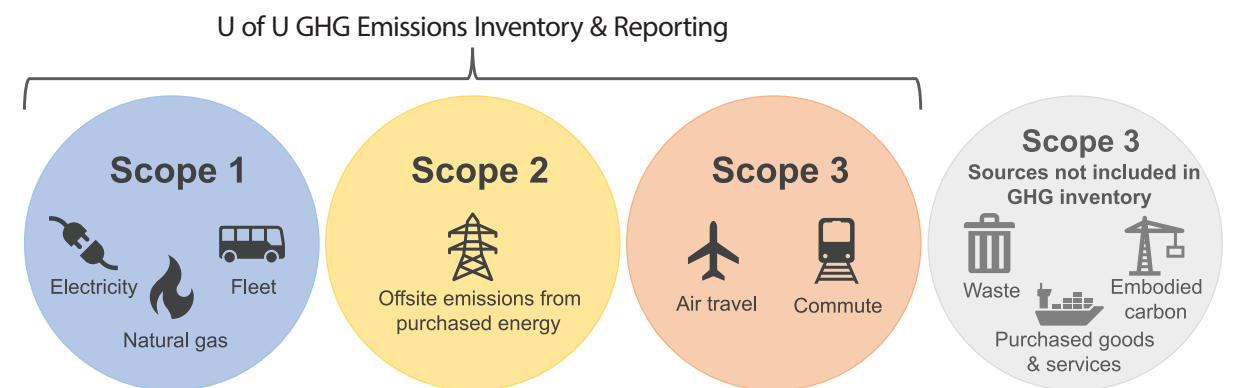


Figure 5. Overview of GHG emissions scopes and sources included in the U of U GHG Emissions Inventory.


12 Public emissions data for the University of Utah is available through the SIMAP Public Reporting portal: <https://unhsimap.org/public/institution/1250>.

MITIGATION

Goal 3.0 Take urgent action to reduce greenhouse gas emissions.

Targets:

Primary Target:	2022 Status	By 2030	By 2040
Total Emissions	25% Reduction in net GHG emissions	-60% Reduction in net GHG emissions	Net Zero GHG emissions

Area Specific Targets:	2022 Status	By 2030	By 2040
Buildings & Infrastructure	23% of energy use intensity is carbon-free	40% of energy use intensity is carbon-free	80% of energy use intensity is carbon-free
	0% of buildings are net zero carbon	80% of new construction and major retrofits are net zero carbon	100% of buildings are net zero carbon
Transportation	2% reduction in net GHG emissions from transportation, including fleet, commute, and air travel compared to 2007 baseline	50% reduction in net GHG emissions from transportation, including fleet, commute, and air travel	Net-zero GHG emissions from transportation, including fleet, commute, and air travel
	<1% of fleet is electric	100% of new light-duty fleet vehicle purchases are electric	100% of non-emergency fleet vehicles are zero emissions
 Curement & Waste	5,935 tons to landfill	50% decrease in waste sent to landfill	Maintain 50% decrease in waste sent to landfill regardless of growth

Buildings & Infrastructure

Strategy 3.1 Maximize building energy efficiency while ensuring comfortable, productive spaces.

Key Actions

1. Track and report university -owned and -operated properties' energy performance, to identify potential areas of improvement
2. Create and adopt a retrofit plan to improve energy efficiency in existing buildings
3. Continue to meet the High Performance Building Standard for all new construction
4. Ensure existing and future on-campus student housing is energy-efficient and net-zero carbon ready

Strategy 3.2 Transition buildings and infrastructure to net-zero emissions.

Key Actions

1. Conduct a campus emissions reduction study
2. Establish a plan to transition existing heating technologies to zero emissions
3. Adopt a policy requiring new buildings, retrofits, and replacements to emit zero GHG emissions, or provide funds, space, and an implementation plan for future conversion
4. Expand electric vehicle charging infrastructure
5. Adopt a policy to ensure leased buildings with the option to purchase align with university energy efficiency and emissions reduction goals
6. Purchase 100% of campus and health system electricity from renewable sources, prioritizing sources that support those disproportionately impacted by climate change

Transportation

“They support public transportation—which is amazing—but the bus commute seems very complicated, I don’t know how to use it. I leave 10 minutes by car but would have to spend 2 hours by bus. That doesn’t make sense.”

(American Indian Resource Center Listening Session, 18 Oct 2022)

Strategy 3.3 Reduce emissions from all university-related transportation.

Key Actions

1. Implement the recommendations of the Transportation and Parking Infrastructure Study (10-year Strategic Plan)
2. Develop a university fleet electrification plan that includes an electric vehicle charging strategy and purchasing policy
3. Coordinate with Utah Transit Authority (UTA) to expand transit route frequency and hours of service to the university
4. Improve and expand programming and infrastructure to increase carbon-free transportation options for those who currently lack access to them
5. Where it supports the university’s strategic goals, strengthen and increase utilization of virtual work, remote learning, and telehealth visits to reduce unnecessary travel to university destinations
6. Establish guidance for values-aligned, high-quality carbon offsets, and develop a procedure for offsetting GHG emissions from university-funded employee travel

Procurement & Waste

“I come from another country. I have had the opportunity to live in many different countries. I am very struck by how much plastic there is in the USA compared to anywhere else I’ve lived.”

(Women’s Resource Center & LGBT Resource Center Listening Session, 21 Oct 2022)

Strategy 3.4 Minimize emissions, resource consumption, waste, and pollution associated with purchased goods and services.

Key Actions

1. Assess current university policies, practices, and certifications related to purchased goods and their delivery to identify areas for improvement
2. Develop and implement sustainable procurement standards
3. Develop and implement training on sustainable purchasing for university purchasers
4. Develop a framework of sustainability criteria for scoring RFP/RFQs, university-wide contracts, and ongoing vendor evaluation for contract renewal

“I’m Indigenous, and I’m outraged. ... In our city, in our backyard, we have a river. ... The rivers of our land are like the veins in our bodies. We need to keep that clean. ...I bring the children down to the river. We’ve pulled refrigerators out of the river. It’s scary. ...We work with the children and [teach them]. We clean up the trail first, because anything on the trail will end up in the river. Then we go out on the river.”

(University Neighborhood Partners Residents Group Listening Session, 3 Nov 2022)

Strategy 3.5 Reduce waste sent to landfill.

Key Actions

1. Improve systems for waste measurement, tracking, and reporting
2. Develop and implement a comprehensive zero-waste plan based on the recommendations of the zero-waste feasibility study
3. Standardize waste removal services across campus to ensure all buildings receive baseline service standard

Research Impacts

Strategy 3.6 Minimize the emissions associated with conducting research at the university.

Key Actions

1. Develop, implement, regularly assess, and update structures and policies that measure and minimize the emissions associated with research practices
2. Create support mechanisms to help faculty reduce emissions from their research

4.4 RESILIENCE

Resilience refers to the capacity to prepare for, withstand, respond to, and recover from the current and future impacts of climate change.¹³

“You go through the struggle, and then you realize, wow, I adapted and responded to this situation.”

(American Indian Resource Center Listening Session, 18 Oct 2022)

Background

The local impacts of climate change include extreme heat, drought, wildfires, poor air quality, severe storms, rainfall flooding, food insecurity, and scarcity of resources. These impacts are already being experienced, and some community members are affected more intensely than others. Climate change will continue to affect public health, and so University of Utah Health must continue to prepare for and respond to climate-related emergencies in which the most vulnerable patients are often hit first and worst. Climate change also threatens water quality and availability, biodiversity, and ecosystems, and puts stress on campus buildings and infrastructure. This all highlights the importance of *resilience*.

What Have We Already Accomplished?

While the majority of the U’s previous climate action has focused on reducing emissions, the CAP presents an opportunity for the U to also prioritize resilience. Major resilience planning efforts were prompted by the re-signing of the Presidents’ Climate Leadership Commitments, which included a Resilience Commitment focused on climate adaptation and university and community capacity-building.

As a first step in this commitment, the U conducted its first Climate Resilience Assessment in 2020. This report, which was released in 2021, identified climate-related vulnerabilities and strengths on campus, indicated overlaps and gaps with the surrounding community, and developed a set of resilience indicators. In addition to compiling baseline data for resilience indicators, this process also provided a valuable framework for tracking progress. Resilience metrics will be reported and used to update the assessment every three-to-five years. Tracking and reporting on resilience has only recently begun, but the U has already made progress in key areas, including reducing its overall water use by 20% since 2018.

The U’s Climate Resilience Assessment is an essential first step in preparing for the impacts of climate change, but much more work is needed to understand specific risks and pursue effective resilience strategies that support those most at risk for impacts. Careful planning in the strategic areas of people and preparedness, natural environment, and buildings and infrastructure set this CAP apart from previous plans and ensure that the U is prepared for the long-term risks of climate change. Completing a detailed climate risk and vulnerability analysis will be a valuable next step to inform actions that support resilience. Throughout engagement, there were also calls to conserve water, protect and restore ecosystems, and recognize the many social and environmental benefits that natural spaces bring to the university community, including stormwater management and mental health improvement. Lastly, achieving resilience requires preparing buildings and infrastructure by considering climate risks and opportunities in every stage of campus planning, design, and construction.

RESILIENCE

Goal 4.0 Increase university and community resilience to the current and future impacts of climate change.

Targets:

2022 Status	By 2030	By 2040
U of U Resilience Assessment	+50% U of U Resilience Assessment metrics improved	+75% U of U Resilience Assessment metrics improved

People & Preparedness

“I grew up outside, playing, in that vulnerable space that is play. I developed a love for the outdoors in that way. It’s very scary to see how fast the environment is changing. Lakes and rivers are drying up, and the snowpack is less. It’s hard not to be able to go outside sometimes, especially since being outdoors is a big way I manage my mental health.”

(Women’s Resource Center & LGBT Resource Center Listening Session, 21 Oct 2022)

Strategy 4.1 Improve the resilience of U students, employees, patients, and visitors while supporting people who are disproportionately at risk of experiencing the impacts of climate change.

Key Actions

1. Conduct a detailed climate change-related risk and vulnerability assessment that includes the voices and needs of those in the U community with disproportionate risk of climate-related harm
2. Develop and distribute university resources to build awareness about the impacts of climate change and strategies for improving personal mental and physical health and resilience
3. Update university emergency plans to consider and address the impacts of climate change
4. Identify university spaces and resources to support the university community during climate change-related disasters
5. Update employee health and safety policies to ensure safe work practices and stop-work protocols in consideration of climate change-related hazards

Strategy 4.2 Support community resilience beyond campus boundaries.**Key Actions**

1. Identify ways the university's climate-related disaster response can complement state, county, and city responses and enhance overall community resilience
2. Develop and maintain relationships to ensure that community members from groups most impacted are involved in climate adaptation planning and implementation
3. Develop, regularly assess, and update training for U of U Health providers to address the physical and mental health impacts of climate change and related events
4. Work in partnership with community organizations to learn from their efforts, share knowledge, and support collective climate resilience initiatives
5. Increase climate-related information in public-facing university programs and departments, i.e. museums and public media outlets

Natural Environment**Strategy 4.3** Maximize water conservation and efficiency.**Key Actions**

1. Install water meters where needed, and centralize and coordinate other efforts to annually collect, track, and report water data
2. Implement the goals and strategies from the University Landscape Master Plan that reduce water use for irrigation and manage stormwater onsite
3. Conduct a feasibility study to assess an on-campus water treatment/reclamation facility, identify water sinks on campus, and annually re-evaluate water use
4. Adopt a consistent value for water availability to include in Life Cycle Cost Analysis that considers the impact of water scarcity and drought, and update regularly to accurately reflect market conditions

Strategy 4.4 Ensure that ecosystems on university-owned and managed lands are healthy and functioning.**Key Actions**

1. Implement the goals and strategies from the University of Utah Landscape Master Plan that address ecosystem resilience
2. Develop and implement a university policy and finance mechanism for new university construction and retrofits to restore and preserve healthy ecosystems
3. Utilize, expand, and enhance campus natural areas (including edible gardens and habitat) for learning, mental and physical well-being, and research

“It’s much harder to find medicinal plants. Sometimes you find something and you can’t use it because of the pollution. And the price has really gone up. The impact on our people back home, the access to employment is difficult. Many people don’t have full-time jobs. Now, we’re asking people to find more money for plants that are getting hard to find for their culture and ceremony.”

(American Indian Resource Center Listening Session, 18 Oct 2022)

Buildings & Infrastructure**Strategy 4.5** Ensure that campus buildings and infrastructure are resilient to the impacts of climate change.**Key Actions**

1. Include and regularly update climate resilience metrics in campus planning, design, construction, and operational requirements, policies, and standards for retrofits and new construction
2. For university operations, develop climate resilience actions to integrate into existing plans based on the results of the climate risk and vulnerability assessment
3. For planning and design, establish guidelines and standards for specific long-term climate-related hazards, including extreme heat, poor air quality, power outage and energy resilience, rainfall flooding, severe storms, drought and water scarcity, and wildfire
4. Identify opportunities for energy, water, and resource independence to increase resilience and reduce reliance on external infrastructure

5.0 Implementing the Plan

5.1 GOVERNANCE

This Climate Action Plan lays out the goals, targets, strategies, and actions to reduce the U's emissions, build resilience, and integrate climate into education and research. The following sections establish ownership of the CAP, define roles and responsibilities, and outline an approach to taking values-aligned climate change action. Successful implementation of the CAP will require committed effort and coordination among operational and academic departments, in collaboration with staff, faculty, students, and community partners; and a commitment to continuing to partner with those most impacted by climate change. This next phase presents an opportunity to address concerns raised during CAP engagement around better coordination, leadership, and communication on climate action at the U.

The implementation of the CAP will be led by the Climate Commitment Steering Committee, with representation from across the university, the wider community, and those most impacted by climate change. Implementation Working Groups (Research, Education, Mitigation, and Resilience) will assign responsible parties to each action, identify funding mechanisms, and establish time frames and specific implementation steps for each action. Implementation Working Groups will also oversee the long-term implementation of the CAP, under the guidance of the Climate Commitment Steering Committee, and ensure that it continues to align with the Presidents' Climate Leadership Commitments and university goals and priorities.

To properly strengthen relationships and partnerships for future decision-making around climate action, it is important to carefully consider who to involve in program, policy, and plan definition and implementation. For general projects, this includes:

- Ensuring that leaders from communities most impacted by climate change provide input during project development and form a part of the team making decisions about whether and how a project moves forward
- Ensuring that the people impacted by the implementation of a project have been involved in its development
- Taking care not to overburden communities, in part by operating at a pace and with the flexibility that works for the people being engaged
- Adequately preparing and ensuring the willingness of project teams and decision-makers to receive and incorporate feedback from impacted communities

“Everyone has to be involved.”

(University Neighborhood Partners Residents Group Listening Session, 3 Nov 2022)

5.2 GUIDANCE FOR VALUES-ALIGNED ACTION

Just being at the table is not enough, but being able to make the decisions and drive the conversations [helps]. We aren't causing the problem, but we are bearing the impacts.”

(University Neighborhood Partners Residents Group Listening Session, 3 Nov 2022)

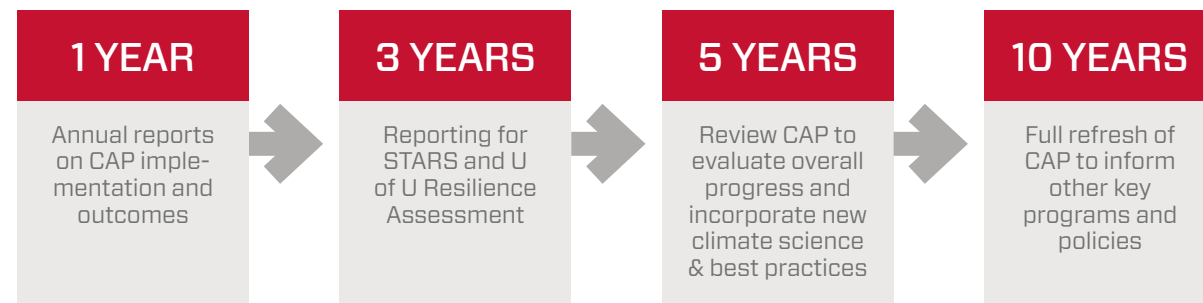
Addressing power imbalances consistently came up during CAP stakeholder engagement, and decisions about the U's climate action need to address historic exclusions of impacted communities. Input from engagement activities informed the development of a guide for values-aligned climate action to assist with CAP implementation and future climate-related actions. Engagement on this topic included an in-person workshop with members of communities most at risk for climate impacts, to gather needs and ideas, and another public roundtable where participants worked collaboratively to brainstorm and test criteria for evaluating the U's potential climate actions. The guide will help implementation teams in the ongoing development of effective plans, projects, actions, or programs that advance the goals of the CAP, reflect its values and principles, and prioritize inclusive decision-making.

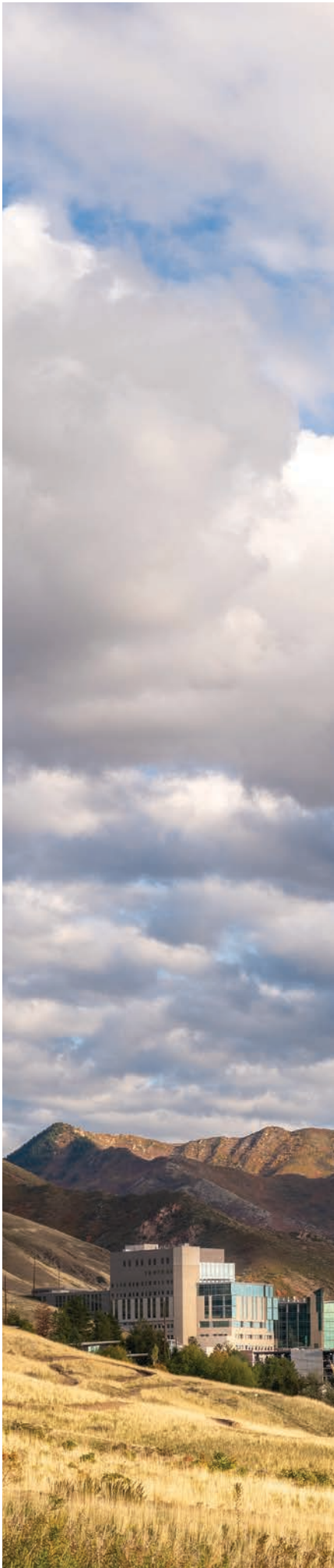
5.3 ACCOUNTABILITY

The CAP was developed through extensive stakeholder engagement that helped increase awareness and participation in climate action planning on campus. The U can build on this momentum by continuing to involve campus and community stakeholders in the implementation of the CAP while addressing their calls for improved communication and transparency in sharing information about climate action on campus. Establishing a clear plan for tracking and reporting on progress and achievements is essential for keeping stakeholders involved in the process, measuring CAP success, and informing ongoing action planning. This section outlines a plan for how the U will regularly report on progress and keep the CAP up to date as conditions change and advancements are made toward the U's climate action goals.

First, the CAP's success will be monitored by way of the *targets* included in each of the core areas for action, which have established indicators and time frames to track progress toward achieving the CAP's goals. In many cases, structures already exist for reporting regularly on these targets, including the Sustainability Tracking Assessment and Rating System (STARS) for all of higher education and the U's own Climate Resilience Assessment, both of which involve data collection and reporting on a three- to-five-year cycle. Where there are major gaps for tracking and reporting on targets, actions are included in the CAP to develop methods to do so (e.g., building energy performance, emissions, waste, and water data, and sustainability course content). The U will leverage these efforts to publish annual reports on CAP implementation progress and outcomes for research, education, mitigation, and resilience targets, accompanied by recommendations for adjusting actions to meet new conditions.

The CAP contains bold and achievable actions that reflect the scale and urgency needed to meet the challenges of climate change at the U. Nevertheless, the targets, strategies, and actions laid out in this plan will need to adapt as new information and resources become available and priorities evolve. The U will return to and update the CAP periodically to ensure the long-term success of the plan. In addition to annual reporting, the CAP will be reviewed every five years to evaluate overall progress and incorporate new climate science and best practices. A full refresh of the CAP is recommended on a 10-year review, and any outcomes from this process should inform updates to other key programs and policies on campus, keeping climate embedded throughout university operations. As we move toward 2040 and beyond, there will be much to test and evaluate, and the U will continue to adapt to new challenges and opportunities to best respond to the needs of our full community.





Updated 11/2023