


UNIVERSITY of WASHINGTON

# SUSTAINABILITY ACTION PLAN

FISCAL YEAR 2021 (1 JULY 2020 - 30 JUNE 2021)



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# UW SUSTAINABILITY STRATEGY



## WELCOME TO THE UW SUSTAINABILITY STRATEGY

Since establishing the UW Climate Action Plan in 2009, the University has made good progress with reducing its carbon footprint and institutionalizing sustainability. But even as a third-time gold-rated university recognized by the Association for the Advancement of Sustainability in Higher Education (AASHE), our work is not done. We have opportunities to improve our sustainability performance and lay out actionable goals that involve all campuses.

Today, we expand our vision beyond the Climate Action Plan with a new Sustainability Strategy built on five Guiding Principles addressing student learning outcomes, research impact, diversity equity & inclusion, responsible use of our resources, and of course, decarbonization of our energy sources. The Sustainability Strategy balances our sustainability goals with the University's overall priorities to ensure we can execute these actions in a measurable manner. As such, we are applying a financial lens for setting our mid-term targets and adherence to measurable outcomes that we will track annually.

Our community of students, faculty and staff recognizes the importance of guiding our sustainability work in a framework of diversity, equity and inclusion. This first year we embark on integrating the commitment to equity and inclusion into UW's Sustainability Strategy, while reflecting on the changes our world is facing today. Our goal is to engage with groups who are already modeling the best

work of diversity, equity and inclusion on our campuses. Through these partnerships the UW community will foster a sustainable global future through our teaching, research and operations.

At an unprecedented time in our history, the emergent COVID-19 pandemic has influenced our pathway toward this Sustainability Strategy. We have the opportunity to incorporate what we are learning from teaching, researching, and operating a public research university in the context of the pandemic with the implementation of this plan. Five planned, annual Action Plans will actualize the UW Sustainability Strategy, advance our commitment to a sustainable UW, and expand our innovation, discovery and inclusion within our campuses, communities and beyond.

# PLAN STRUCTURE

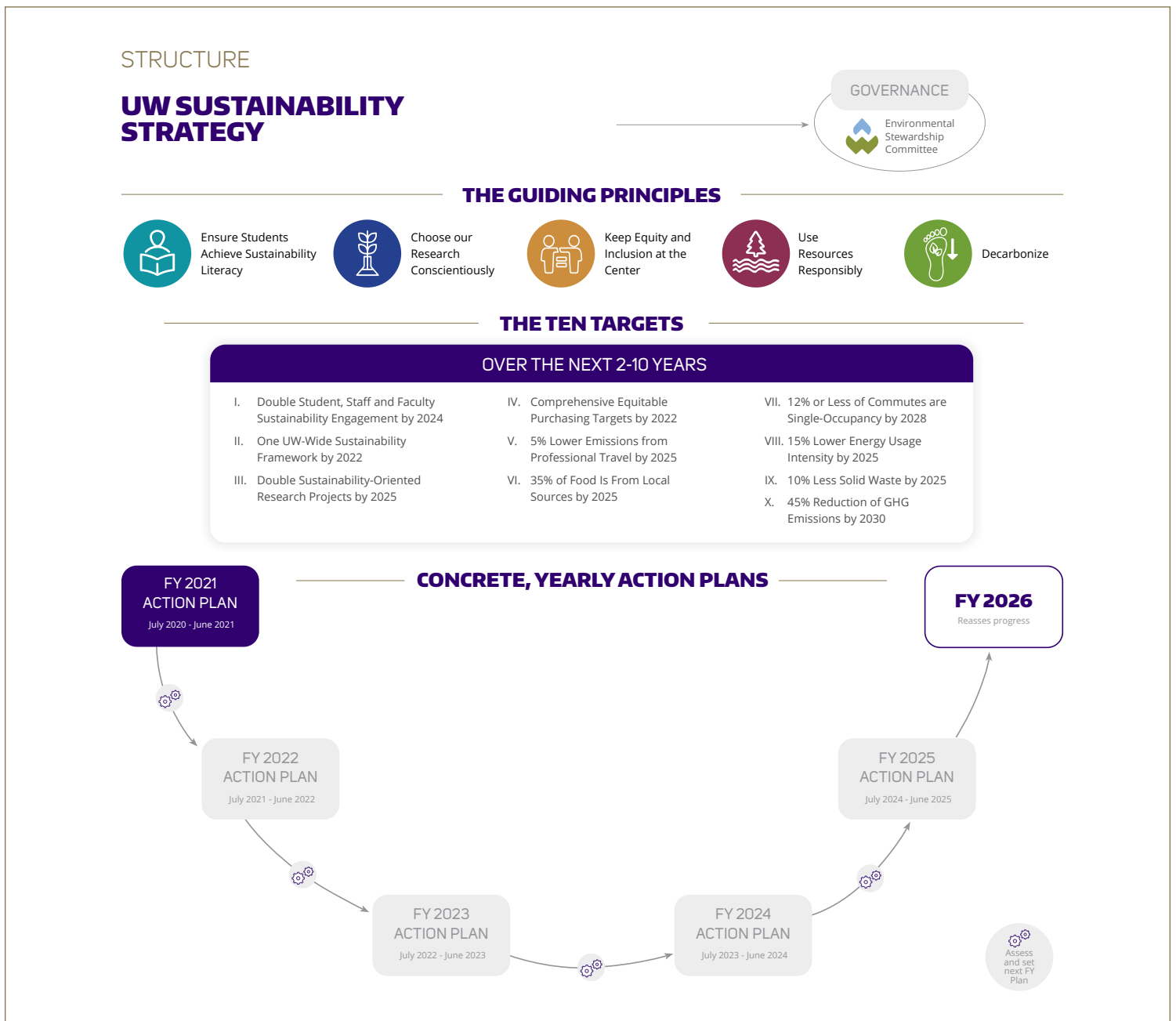
UW's approach to sustainability is structured as a three-tiered system. At the top level, five Guiding Principles are intended to be permanent, directional beacons that ensure we don't lose touch with our primary vision and intentions. The second level consists of quantitative Targets that call for increases or reductions of measurable performance indicators, over 2- to 10-year time horizons. Finally, within

each Target a collection of Actions is designed to induce achievement of the Target.

This Sustainability Strategy articulates the Guiding Principles, as well as ten Targets. Under the Sustainability Strategy's guidance, a series of five annual Action Plans will launch and course-correct the various Actions that achieve each of the Targets over time.

The Action Plans operate within a fiscal year, beginning with FY2021 (July 2020 to June 2021).

During the latter two quarters of the fifth Action Plan, January 1 – June 30 2025, progress toward all Targets will be evaluated; Targets will be accordingly adjusted, retired, or supplemented; and a new Sustainability Strategy will guide the next five years of Action Plans.



## THE FIVE GUIDING PRINCIPLES

### Ensure Students Achieve Sustainability Literacy



The University of Washington prepares its students for their personal success in the broader world, and for our shared success with respect to the planet, and for advancing and sustaining healthy ecosystems. We live in a time of intensive globalization: an increasing global population means we need to carefully share available resources; technology is connecting people across continents with incredible ease; and climate change presents risks that can only be solved through international collaboration.

Every UW student's education should be organized around their place in the global network. We will ensure that UW graduates have considered and discovered how their personal passions and skills fit into the framework of activity the globe needs to thrive far into the future.

### Choose our Research Conscientiously



UW philosophers, economists, urban planners and many others help the changing world organize itself around the challenges of our changing planet. UW is a world leader in advancing scientific understanding of climate change. We are at the leading edge of building the knowledge, and initiating the changes necessary, to make the world a better place.

Just as we must encourage our students to place their focus carefully in the framework of sustainability, so must our researchers know the place that their work occupies in the social-economic-environmental matrix. Each researcher's program and projects contributes in its unique way to the organization of human life on this planet, and our researchers

must ensure that the work they do contributes to our shared prosperity. We will continue to support groundbreaking research and enable innovations that bring sustainability faster, more widely, and equitably.

### Keep Equity and Inclusion at the Center



In the five decades since the first Earth Day, a focused environmental rescue effort has focused on saving species, protecting ecosystems, and stabilizing the climate. However ecological losses and climate change have impacts beyond the natural world, calling for more equitable sharing of burdens and benefits. The University of Washington will center equity and inclusion as fundamental pillars of sustainability.

Advancing efforts on climate justice make it urgent to design inclusive strategies that strengthen the capacity of all communities to respond effectively to climate change. As UW implements this Sustainability Strategy, equity and inclusion will guide every step that we take in partnership with communities both locally and around the world. We will work with UW's global position in mind, attempting to benefit the widest possible constituency, recognizing our impact beyond borders and keeping an eye towards social responsibility.

### Use Resources Responsibly



Keeping the planet healthy means living within our ecological means. A growing global population needs to consume raw materials for production, freshwater, topsoil, energy, arable landscape and other resources at rates no greater than they can be replenished or recycled. Future generations – all future generations – must have enough as well.

UW will model environmental stewardship and sustainability with efficient, cost-effective practices throughout its operations. We will reduce consumption of energy, reduce consumption of materials, shift to renewably-produced materials, and increase reuse, recycling, and composting. As a leader in implementing best practices we will demonstrate flexibility in adapting to new information, changing approaches, and emerging technologies. All University operations will be participating, including: planning, design, construction, and performance monitoring of buildings; commuting and professional travel; land use; information technology; and the cycle of procurement, consumption, and disposal of commodities.

### Decarbonize



In 2007 then-UW president Mark Emmert signed the American College & University Presidents Climate Commitment, committing UW to "achieve climate neutrality as soon as possible." In the thirteen years since, we have seen growing awareness and increasing compliance requirements in our own cities of Seattle, Tacoma and Bothell, and the state of Washington. Our local and global landscapes require innovation, cooperation and hope. As an institution of higher education and research, we can and must work together on multi-sector solutions.

UW intends to be a leader in decarbonization, and our path toward carbon-neutral campuses will be accelerated accordingly. Successfully integrating the social, economic and environmental forces that define sustainability can set a shining and positive example for future leaders.

## THE TEN TARGETS

UW's Sustainability Strategy includes ten Targets aligned in various ways with the five Guiding Principles. All Targets are measured relative to their levels in 2020 except the greenhouse gas reduction target, which is measured against a legally-mandated 2005 baseline.

I.

Double Student, Staff and Faculty Sustainability Engagement by 2024

**Impacts Guiding Principles:** Ensure Students Achieve Sustainability Literacy, Choose our Research Conscientiously, Keep Equity and Inclusion at the Center.

This Target is about increasing the visibility of, and access to, sustainability in campus life. Implementing actions include a wide range of education programs, collaborations, and volunteerism that touch the lives of nearly every student, staff and faculty member, as well as community members in the neighborhoods surrounding UW campuses. The 2021 Action Plan will include actions that promote innovative collaborations between UW's existing healthy living and environmental sustainability efforts; expanded professional development; and community engagement programs.

II.

One UW-Wide Sustainability Framework by 2022

**Impacts Guiding Principles:** Ensure Students Achieve Sustainability Literacy, Keep Equity and Inclusion at the Center.

A clear, common definition of sustainability is necessary for effective communication and coordination around learning and action across campus. This Target invokes a campus-wide definition and standardized reporting of existing sustainability courses. To successfully facilitate this goal and others, an Academic Sustainability Manager will be hired. The 2021 Action Plan will also lay foundations for the development of a UW-wide sustainability course or other general requirement, and begin work toward a common, minimum sustainability learning outcome by 2025.

III.

Double Sustainability-Oriented Research Projects by 2025

**Impacts Guiding Principle:** Choose Our Research Conscientiously.

Sustainability evolves at the intersection between society and the environment. Much of scientific research is aligned along this same interface, so a more refined attention to sustainability illuminates our thinking about how we engage in research. We start toward this Target simply by understanding these parallels through a comprehensive sustainability research inventory. We will also vigorously expand our work beyond the walls of academia, making our campuses and surrounding communities living laboratories that provide rich collaborations and shared positive outcomes.

IV.

Comprehensive Equitable Purchasing Targets by 2022

**Impacts Guiding Principle:** Keep Equity and Inclusion at the Center.

Procurement comprises a significant portion of UW's spending. With its purchasing decisions UW can endorse suppliers who are practicing sustainability; we aspire to have 100% of them aligned with our Supplier Code of Conduct. We are quickly working to incorporate students' voices in purchasing decisions. As we work with campus units and departments to develop equitable purchasing targets, we will follow the state's goals for minority- women- and veteran-owned businesses under the Results Washington strategic framework.

V.

5% Lower Emissions from Professional Travel by 2025

**Impacts Guiding Principles:** Keep Equity and Inclusion at the Center, Use Resources Responsibly.

Collaboration is a central activity of academic research, and UW faculty travel for networking, researching, learning and reporting. Until sustainable aviation fuels are widely deployed there are no meaningful low-emissions alternatives to jet travel. However, the COVID-19 crisis has kick-started rapid and successful deployment of videoconferencing technologies that UW staff and faculty can leverage by being aggressive adopters and by taking initiative to organize events online. Simultaneously, we will establish a bank of high-quality greenhouse gas (GHG) offsets that travelers may use when there is no viable alternative to air travel.

VI.

35% of Food Is From Local Sources by 2025

**Impacts Guiding Principles:** Keep Equity and Inclusion at the Center, Use Resources Responsibly.

Our food is particularly emblematic of sustainability, a personal and literal symbol of the connection between the social and the environmental. The physically closer we are to the original sources of our food, the greater our ability is to affect positive change. At all three campuses, focusing on local food sources means we are engaging with, investing in, and providing support to our local food systems while reducing the carbon footprint of our community.

VII.

12% or Less of Commutes are Single-Occupancy by 2028

**Impacts Guiding Principles:** Keep Equity and Inclusion at the Center, Use Resources Responsibly, and Decarbonization.

81% of trips to and from UW's Seattle campus are transit, biking, walking or rideshare trips, or telecommuting; the other 19% are driving alone. Reducing the campus drive-alone rate reduces emissions and other impacts, but also increases accessibility for those moving around the community. Led by Transportation Services and in alignment with State of Washington Commuter Trip Reduction law and the Campus Master Plan, UW will continue to reduce drive-alone commutes until they are only 12% of Seattle campus commutes.

VIII.

15% Lower Energy Usage Intensity by 2025

**Impacts Guiding Principles:** Use Resources Responsibly.

80% of the world's greenhouse gas emissions come from combusting fossil fuels to generate energy, including electricity. We need to do our part toward reducing energy consumption. Achieving this goal will require accelerating the implementation of energy conservation projects, targeting older and less efficient buildings for deep retrofits, and ensuring all new buildings meet the UW Green Building Standard to minimize water and energy consumption. The expanded use of utility metering and monitoring based commissioning will keep buildings operating optimally.

IX.

10% Less Solid Waste by 2025

**Impacts Guiding Principles:** Use Resources Responsibly, Decarbonization.

Everything we throw away is something that we don't need. That may seem self-evident, but combined with life-cycle thinking it means an opportunity to reduce manufacturing emissions, energy consumption, transportation, and even raw materials extraction associated with whatever object we didn't need. "Reduce, reuse, recycle" remains a powerful hierarchy of solid waste management, but there are even more details of product and materials management, economics, and urban ecology that can receive both our research attention and our operational attention.

X.

45% Reduction of Greenhouse Gas Emissions by 2030

**Impacts Guiding Principles:** Decarbonization.

Climate change is the environmental issue of our time. The UW is a world-class research center in climate-related topics; in fact climate change's centrality to our academic life is reflected in a Guiding Principle of this Sustainability Strategy. We're going to follow through on our sustainability commitment by embarking on a major energy planning process to drastically reduce the Seattle Campus district heating system's demand for fossil fuels, and reduce our dependence on utility energy with solar photovoltaic power on all our campuses.



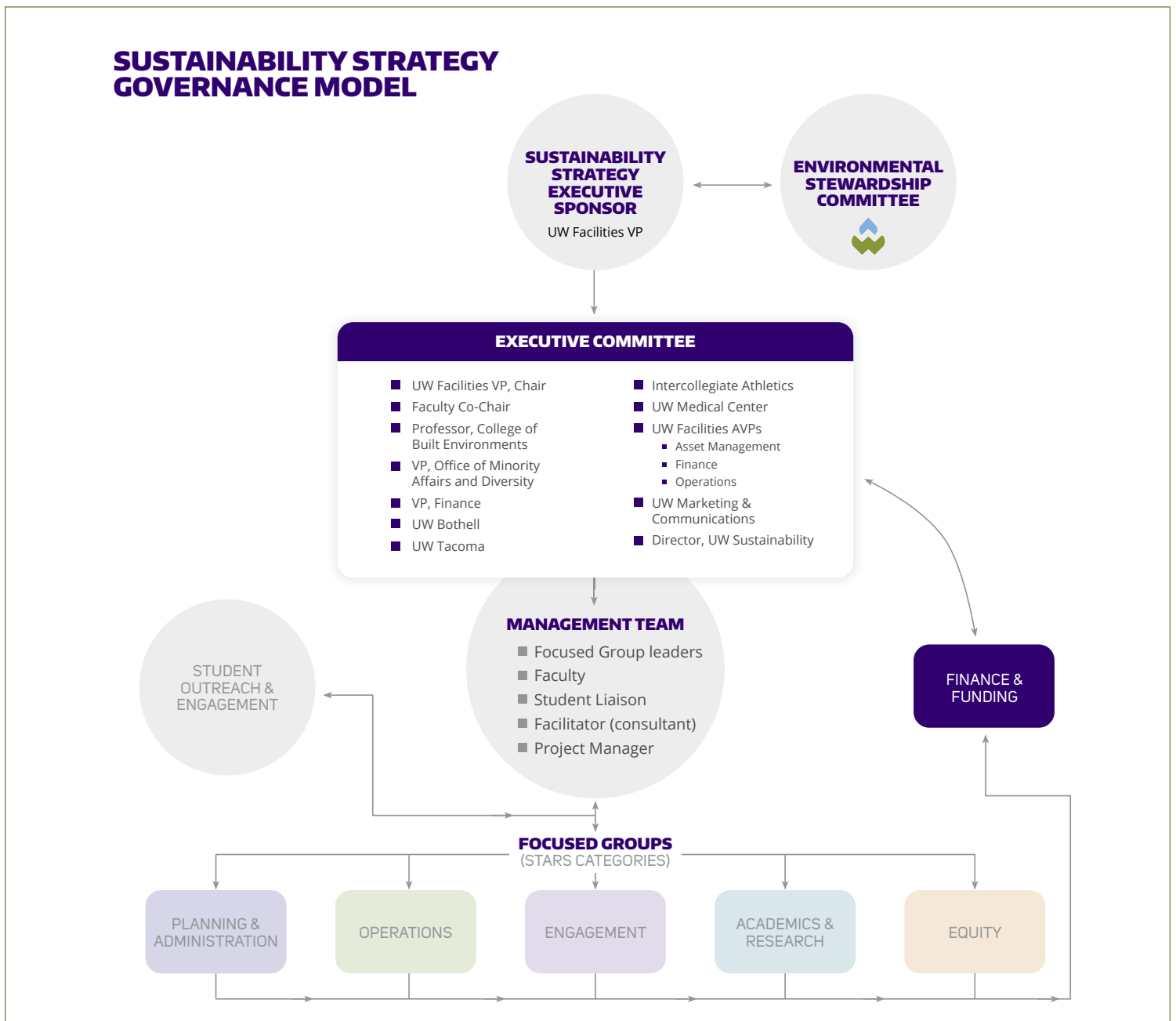
## OUR PROCESS

At the University of Washington responsibility for stewarding and monitoring sustainability at the institution lies with the Environmental Stewardship Committee (ESC). ESC reports to the President and Provost and is composed of student, staff and faculty representatives from the Seattle, Bothell and Tacoma campuses; UW Medicine; Housing & Food Services; and Intercollegiate Athletics. ESC provides institutional governance and oversight

of our commitments and goals. Great breadth and depth of membership allows for diverse viewpoints, integration of academic and operational expertise and collaboration among generations.

The Sustainability Strategy's Guiding Principles and Targets were developed through consultation with the ESC, the Plan's Executive Committee, and the Plan Management Team. Plan

Management Team members are assigned to five different focused groups, to ensure attention is given to all components of a successful university sustainability strategy: diversity equity & inclusion; academics & research; engagement; operations; and planning & administration. A separate finance & funding committee guaranteed that this practical lens was applied to all actions being considered under each Target.



## OUTREACH & ALIGNMENT

The UW Sustainability office has been committed to inclusive engagement of diverse stakeholder groups throughout the development of this Sustainability Strategy.

In Autumn quarter of 2019 UW Sustainability began with tabling sessions during Dawg Days and the Sustainability Fair, followed by listening sessions, tabling at events and meetings with numerous Registered Student Organizations, the Presidents of the Undergraduate and Graduate Student Senates, and the Student Regent. An outreach and brainstorming event organized by student groups attracted over one hundred students; the event led directly to the a proposal of a feasibility study for a Student Sustainability Hub for research and engagement that will be included in the Sustainability Strategy's first annual Action Plan.

Our focus on equity, diversity and inclusion led to meetings with the Office of Minority Affairs for Diversity followed by additional outreach events at the Ethnic Cultural Center, the Foundation for International Understanding Through Students, and meetings with the American Indian Student Commission and UW Native Life & Tribal Relations. UW Sustainability will build on these efforts during the first year of the Sustainability Strategy to ensure we are truly keeping equity at the center.

In addition to person-to-person outreach, various internet media were used as well, including a universitywide survey during early development of the Sustainability Strategy; a website with the survey link, upcoming events, and other ways to stay involved; messages on digital boards across the University; and departmental newsletters and social media feeds. Regular social media posts by UW Sustainability also included links to the Sustainability Strategy website and survey. A draft of the Plan was released on Earth Day 2020 with a University-wide survey to collect feedback on the Targets and Actions for sustainability.

### ★ AASHE STARS ★

UW is a member of the Association for the Advancement of Sustainability in Higher Education (AASHE). AASHE leadership and staff have collectively devoted thousands of hours to considering the definition and meaning of “sustainability” in the context of higher education. AASHE has codified this accumulated wisdom in the Sustainability Tracking, Assessment and Rating System (STARS). UW currently holds a score of 77.18 in the STARS system. With a thorough gap analysis we identified, numerically, areas where UW can improve its sustainability performance within the context of AASHE's sophisticated sustainability framework.

In crafting the most effective possible Sustainability Strategy, UW gave the greatest weight to following the Guiding Principles, but supported by the substantial momentum under our existing Climate Action Plan, and the gap analysis relative to AASHE STARS. STARS Version 2.2 is also mapped to the UN Sustainable Development Goals, ensuring that our reporting and actions are easily applicable to a global standard.



# THE FY 2021 ACTION PLAN

## INTRODUCING THE FISCAL YEAR 2021 ACTION PLAN

This inaugural plan launches the University of Washington's Sustainability Action Plan, the first out of five based on the UW Sustainability Strategy. The plan lays out ten Targets with Actions, steps and metrics to ensure we are working towards achievement of the goals.

Oversight for accountability and transparency will ensure the FY21 Action Plan is implemented for the next fiscal year (July 1, 2020 – June 30, 2021). Quarterly progress reports will be shared with the Environmental Stewardship Committee and guided by the Sustainability Action Plan Executive Committee with members from Seattle, Bothell, Tacoma, Medical Centers and Athletics.

For this first year, we will make inclusion central to our implementation and engage with diverse groups on our campuses. Our passionate students, faculty and staff will be key to making our plan achievable, and we are hopeful to continue dialogue and conversation for advancing UW's sustainability efforts in an equitable manner.





# I. DOUBLE STUDENT, STAFF, AND FACULTY SUSTAINABILITY ENGAGEMENT BY 2024

## Target Actions

- Whole U and UW Sustainability Collaborate To Expand University-wide Communication
- Expand Professional Development Opportunities for Faculty and Staff
- Inventory and Expand Community Engagement

## Sustainability Plan guiding principles



Ensure students achieve sustainability literacy



Choose our research conscientiously



Keep equity and inclusion at the center



## AASHE STARS categories

EN 2

Student Orientation

EN 9

Professional Staff Development & Training

EN 12

Continuing Education

EN 13

Community Service

This Target is about increasing the visibility of, and access to, sustainability in campus life. Implementing actions include a wide range of education programs, collaborations, and volunteerism that touch the lives of nearly every student, staff and faculty member, as well as community members in the neighborhoods surrounding UW campuses.

The 2021 Action Plan will include actions that promote innovative collaborations between UW’s existing healthy living and environmental sustainability efforts; expanded professional development; and community engagement programs.



## ACTION:

### Whole U and UW Sustainability Collaborate To Expand University-wide Communication



A collaboration between Whole U, UW Sustainability and other campus communicators to create a comprehensive and integral package of sustainability communications for the UW Seattle, Tacoma and Bothell campuses.

This Action is an important platform for integration between diversity, equity and inclusion (DEI) and environmental sustainability, following the Sustainability Plan’s third Guiding Principle. Historically, UW Sustainability has been about the natural environment, while Whole U has been about human well-being. At UW, we will be building the bridge connecting these previously disparate efforts into a united platform of sustainability.

Contributing programs and concepts include:

- Expanding Sustainability Stories virtual and on campus events with diversity, equity and inclusion topics.
- Launching expanded *Whole U signature wellness* initiatives centered around each year’s Earth Day.
- Expanding the existing Whole U Quarterly Seminars program.
- Revamping the Green Office and Lab Certification program with student ambassadors.



#### Steps we will take in FY 2021

1. UW Sustainability will lead an effort to define “sustainability engagement” in measurable terms, and assess a 2020 baseline. The defined measurement unit shall correlate to an individual receiving an encouragement toward considering environmental impact, human health, diversity, equity or inclusion in the context of their participation in the UW community.
2. The Whole U plans to continue offering a seminar every quarter in collaboration with UW Sustainability and will add sustainability features to a monthly editorial calendar and encourage UW Sustainability to contribute articles or recommend other UW faculty and staff.
3. UW Sustainability will revamp the Green Office and Lab Certification programs and include student ambassadors; provide student capstone internships to engage with underrepresented groups and RSOs; develop an inclusion

plan for outreach communications.

4. The Whole U will add a sustainability focus for every signature program that involved overall wellness.

#### Responsible party

UW Sustainability & Whole U

#### Statuses and linkages

Whole U quarterly seminars and wellness programs, Green Office and Lab Certification Program, Sustainability Stories virtual and on-campus events.

#### Financing

 Additional financing needed in FY2021.

Continued University support of the Whole U program will ensure this Action will involve reach to all UW faculty and staff members.

#### Metrics

- Number of participants as a percentage of the promotional reach of communication (e.g. website traffic, email distribution or newsletter subscribers)
- Number of new certified offices and labs (when applicable for on-campus return) as a percentage of the promotional reach of communication (e.g. newsletter advertisement, tabling at events, presentations via in-person or online)
- Annual Sustainability Plan survey response count, beginning with the 2020 results and continuing with subsequent Annual Sustainability Plan surveys.

This Action may contribute points toward STARS credit EN-2 *Student Orientation* where UW shows a point gap of 0.56.<sup>1</sup> UW has already achieved the full value of most credits grouped under the STARS *Campus Engagement* subcategory.

**0.56** AASHE STARS POINTS OPPORTUNITY

<sup>1</sup> In the STARS system, raw points are not the same as the percentage points that define the final score. Each raw point is worth approximately ½ percentage point in the final score. UW’s final score is 77.18% but there are 54.17 combined raw points accounted in the gap analysis.

## ACTION:

### Expand Professional Development Opportunities for Faculty and Staff



The Whole U to work with Professional and Organizational Development (POD) on incorporating further slides and information on important sustainability resources and trainings at New Hire Orientation. UW Sustainability will support the Whole U through resources such as campus sustainability data and metrics and facilitation for training programs. Established faculty will be encouraged to share and talk about their experience or on-going projects. This can provide opportunities for new faculty to get recruited into existing programs so they don't need to re-invent the wheel.



#### Steps we will take in FY 2021

1. The Whole U will work with POD in including UW Sustainability resources for New Hire Orientation. The Whole U will also include sustainability resources when tabling at the new hire events and virtual events.
2. Work with UW Marketing to reach faculty, and develop a faculty sustainability network and outreach strategy. May include a Faculty Sustainability Fellows program modeled after Western Washington University.

#### Responsible party

UW Sustainability & Whole U

#### Statuses and linkages

This will complement Target II (*Identify Minimum Learning Outcomes*)

#### Financing

Additional financing needed in FY 2021.

Continued University support of the Whole U program will ensure this Action will involve reach to all UW faculty and staff members.

#### Metrics

- Calculate the number of new faculty participation in the professional development network as a percentage of new hire orientations conducted.
- Calculate the number of existing faculty participation in the professional development network as a percentage of those reached through outreach presentations and communications.

This action can gain points in STARS credit EN-9 *Professional Staff Development & Training* where UW shows a point gap of 2.00.

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**2.00** AASHE STARS POINTS OPPORTUNITY

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## ACTION:

### Inventory and Expand Community Engagement



#### Part 1

Build an inventory of sustainability coursework currently offered through Continuum College through a web review of published information and feedback from Continuum College program directors. Sustainability foci in offerings would be identified following AASHE STARS definitions. Begin a conversation with Continuum College to integrate relevant sustainability content into continuing education offerings. Explore ways to assist Continuum College in developing innovative sustainability content, beginning with community lectures and summer youth programs.

#### Part 2

Collect data from the Carnegie Classification on sustainability related opportunities and promote these opportunities with student service learning opportunities.



#### Steps we will take in FY 2021

1. Coordinate with Continuum college to incorporate sustainability into their curriculum, track attendance for these courses and offer continuing communications to attendees through newsletters, website and social media.
2. Collect data on sustainability focused Registered Student Organizations (RSOs), and promote student engagement with community service through these RSOs. Depending on current levels of engagement, provide information and resources to these RSOs regarding engagement with both episodic and long-term volunteer opportunities. Evaluate expanding opportunities to all RSOs.

#### Responsible party

UW Sustainability & Continuum College

#### Statuses and linkages

Linkages to: Carnegie Classification, Carlson Service Learning

#### Financing

No additional financing needed in FY 2021.

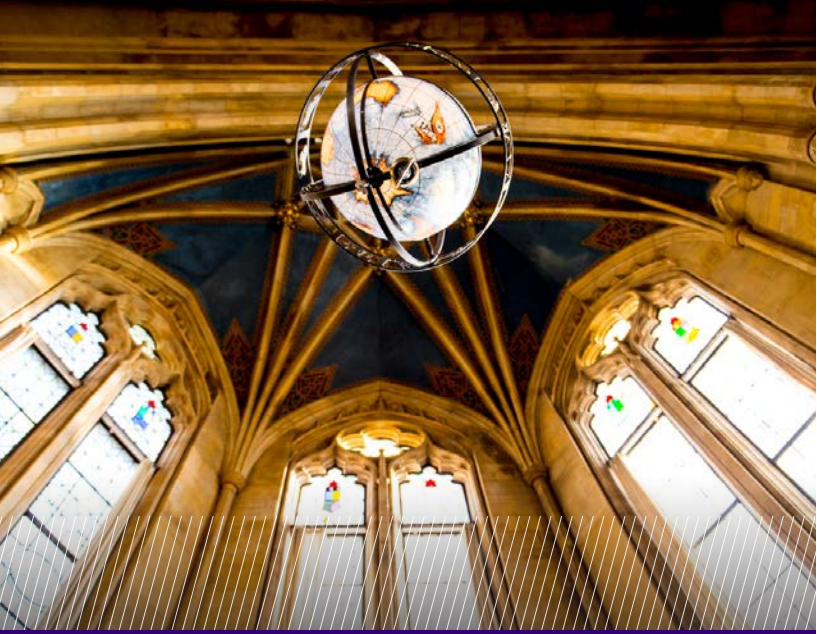
#### Metrics

- Number of attendees of Continuum College sustainability courses as a percentage of audience reached through promotions and marketing.
- Number of new student volunteers from RSOs as a percentage of service learners.

This action can gain points in STARS credit EN-12 *Continuing Education* where UW shows a point gap of 2.65, and in credit EN-13 *Community Service* where UW shows a point gap of 3.77.

2.65 AASHE STARS POINTS OPPORTUNITY

3.77 AASHE STARS POINTS OPPORTUNITY



## II. ONE UW-WIDE SUSTAINABILITY FRAMEWORK BY 2022

### Target Actions

- Adopt a University-wide Definition of Sustainability
- Develop Standardized Reporting of Academic Content
- Identify Minimum Learning Outcomes
- Determine Feasibility of a Student Sustainability Hub

### Sustainability Plan guiding principle



Ensure students achieve sustainability literacy



Keep equity and inclusion at the center



### AASHE STARS categories

AC 1

Academic Courses

AC 2

Learning Outcomes

A clear, common definition of sustainability is necessary for effective communication and coordination around learning and action across campus. This Target invokes a campus-wide definition and standardized reporting of existing sustainability courses. To successfully facilitate this goal and others, an Academic Sustainability Manager will be hired.

The 2021 Action Plan will also lay foundations for the development of a UW-wide sustainability course or other general requirement, and begin work toward a common, minimum sustainability learning outcome by 2025.



**ACTION:****Adopt a University-wide Definition of Sustainability**

Identify and agree to a shared vision and definition of sustainability, recognizing the importance of integrating economic, social, cultural, and ecological domains as a means to address climate change and associated social injustices within local, regional, and global contexts. This action will require engagement with UW community members across all three campuses to form a working group that develops a sustainability definition and framework. A clear framework around sustainability is necessary for effective communication and coordination in the design of courses and research opportunities across campuses.

**Steps we will take in FY 2021**

1. UW community members will participate in a multi-phased engagement process facilitated by UW Sustainability staff in partnership with Population Health Initiative staff to create an inclusive vision and definition of sustainability. Through this work, a task force group will be identified composed of interested members of the different colleges, schools, and units across the three campuses, who will work on socializing and creating this framework.
2. After the UW Environmental Stewardship Committee approves this shared framework, it will be published together with a set of tools and resources to guide its implementation.
3. Seek funding for a .50 or 1.0 FTE Sustainability Academic Coordinator manager position to help in the advancement and implementation of academic and research goals contained in this plan.

**Responsible party**

UW Sustainability, Population Health Initiative, EarthLab, Faculty

**Statuses and linkages**

- Work with Population Health Initiative and UW Sustainability STARS reporting data on sustainability-focused courses to identify themes.

- Review and consider findings from prior work: <https://green.uw.edu/content/sustainability-curriculum-committee>  
[https://green.uw.edu/sites/default/files/sustainability\\_across\\_the\\_curriculum\\_report.pdf](https://green.uw.edu/sites/default/files/sustainability_across_the_curriculum_report.pdf)

**Financing**

No additional financing needed in FY 2021.

**Metrics**

The first year will develop a process for gathering input to assess how we are engaging across our campuses. Quantitative and qualitative data will assess the potential impacts of the following:

- Representation of faculty from Seattle, Bothell, Tacoma campuses.
- Representation of diversity, co-curricular groups and RSOs.
- Representation of staff input.

This action enables changes that can affect STARS credit AC-2 *Learning Outcomes* where UW shows a point gap of 5.86.

**5.86** AASHE STARS  
POINTS OPPORTUNITY

## ACTION:

### Develop Standardized Reporting of Academic Content



Catalogue and identify all existing sustainability-oriented courses through the design of a standardized reporting system that incorporates a shared sustainability framework.



#### Steps we will take in FY 2021

1. Using the shared sustainability framework as a reference, build a centralized reporting platform to collect information across campuses and assess the degree to which sustainability is incorporated in existing courses. Developing and implementing common metrics for tracking progress towards the attainment of this goal set forth in this plan are essential to realizing the goals of tri-campus coordination and accountability.
2. To ensure the proper entry of data, design a set of instructions on how to use the reporting system that will be displayed online.
3. Create communication material that will be offered to administrators, personnel in charge of academic affairs and students in each College and School across the campuses. It may also be available to students.

#### Responsible party

UW Sustainability, Population Health Initiative, EarthLab, Faculty

#### Statuses and linkages

This will be overseen by the UW Sustainability Project Manager who coordinates STARS reporting in partnership with Population Health and cataloging of academic research. Tied to Target I – *Expand Professional Development Opportunities for Faculty and Staff*.

#### Financing

 No additional financing needed in FY 2021.

#### Metrics

- Number of new courses added / 2018 STARS data for academic courses.
- Yes/No completion of inventory.

This Action enables changes that can affect STARS credit AC-1 *Academic Courses* where UW shows a point gap of 1.85.

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**1.85** AASHE STARS POINTS OPPORTUNITY

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**ACTION:****Identify Minimum Learning Outcomes**

Initiate a consultative process to identify core sustainability skills and competencies for all UW students as an initial step to develop a university-wide set of learning outcomes that can be incorporated in existing and new courses, regardless of the discipline or concentration, in order to address a full range of ecological, social, and economic dimensions of sustainability. This target could open the space to considering a university-wide sustainability credit in the future.

**Steps we will take in FY 2021**

1. Identify inclusive sustainability academic objectives that can be incorporated in existing and new courses.
2. Benchmark from ASU and other universities that have undertaken similar efforts to integrate sustainability core competencies in curriculum.
3. Facilitate professional development opportunities for faculty and other instructors to foster the creation of innovative and interdisciplinary pedagogical strategies around inclusive sustainability.
4. Create a digital space where instructors can find tools and resources to better incorporate inclusive sustainability academic objectives in their courses.

**Responsible party**

UW Sustainability, Population Health Initiative, EarthLab, Faculty

**Statuses and linkages**

This is tied to the UW-Wide Sustainability Definition.

**Financing**

No additional financing needed in FY 2021.

**Metrics**

The first year we will develop baseline data to determine where inclusive sustainability objectives can be incorporated and how those objectives will impact course outcomes.

This action can gain points in STARS credit AC-2 *Learning Outcomes* where UW shows a point gap of 5.86.

**5.86** AASHE STARS  
POINTS OPPORTUNITY

## ACTION:

### Determine Feasibility of a Student Sustainability Hub



Determine the feasibility of establishing a Student Sustainability Hub; including the need, use cases, funding, potential locations and staffing. The goal is to develop a tri-campus model for ongoing student engagement through the UW-Wide Sustainability Framework and implementation of the Sustainability Plan. The Hub will focus on student engagement, diversity, equity and inclusion (DEI) and interdisciplinary research using the campus, community and region as a living lab; from the undergraduate to the post-doctoral levels. The feasibility study will be managed by the UW Sustainability office in collaboration with the Campus Sustainability Fund, the College of the Environment, the College of Built Environments, the Population Health Initiative, ASUW, GPSS and student RSOs.



#### Steps we will take in FY 2021

1. Establish a project team to be sponsored by the UW Sustainability Office that includes the Student Outreach Coordinator for SAP, CSF Program Manager, and students from ASUW, GPSS, Student Life, and RSOs.
2. Work with campus stakeholders to determine the scope, opportunities, and barriers through interviews, research into existing UW Centers/Initiatives and case studies of other universities. Review and present to ASUW, GPSS, Student Life and administrative stakeholders.
3. Publish a final feasibility study which details the need for the Student Sustainability Hub, use cases, funding model, partnerships with other departments, potential locations and staffing to begin in FY22 or FY23.

#### Responsible party

Campus Sustainability Fund

#### Statuses and linkages

These could be coordinated with the positions suggested for the *UW-Wide Sustainability Definition Task Force*.

The UW Sustainability Office, Campus Sustainability Fund,

ASUW, GPSS and student RSOs have begun to explore this idea though current limitations are space/location and on-going funding resources.

This Action is closely linked with other UW Sustainability Plan Actions: One UW Wide Sustainability Framework by 2022; Double Student, Staff and Faculty Sustainability Impressions by 2024; Double Sustainability Research Projects by 2025.

#### Financing

For FY21, UW Sustainability office hired a .50 FTE graduate student Student Outreach Coordinator dedicated to student engagement for the Sustainability Plan. This position will continue towards this Action.

Future financing for implementation and staffing of the Student Sustainability Hub could come from multiple sources including a resource pooling of departments/units including Campus Sustainability Fund, Student Life, Central Provost Office (for academics), and student government bodies GPSS and ASUW. A student fee could also be a potential funding option.

#### Metrics

The first year is dedicated to determining the feasibility of establishing a Student Sustainability Hub, and we will therefore achieve the following:

- Mapping student-centered services and support from all campuses that are related to sustainability.
- Perform a benefit cost analysis of the potential impacts and outcomes of a Sustainability Hub.
- Benchmark with peer institutions and gap analysis.

Student efforts, through the Campus Sustainability Fund mechanism, have historically worked to advance many of UW STARS targets and actions listed in this plan: Local Food; Divert compostable waste from recycle, landfill; Solar Photovoltaic Expansion.







### III. DOUBLE SUSTAINABILITY-ORIENTED RESEARCH PROJECTS BY 2025

#### Target Actions

- Develop Sustainability Research Catalog
- Expand Campus as a Living Laboratory

#### Sustainability Plan guiding principle



Choose our research conscientiously



Sustainability evolves at the intersection between society and the environment. Much of scientific research is aligned along this same interface, so a more refined attention to sustainability illuminates our thinking about how we engage in research. We start toward this Target simply by understanding these parallels through a comprehensive sustainability research inventory.

We will also vigorously expand our work beyond the walls of academia, making our campuses and surrounding communities living laboratories that provide rich collaborations and shared positive outcomes.

#### AASHE STARS categories

AC 8

Campus as a Living Laboratory

AC 9

Research & Scholarship

EN 10

Community Partnerships

EN 13

Community Service

## ACTION:

### Develop Sustainability Research Catalog



In this first year, we will dedicate efforts to identifying the impact of academic research to our communities, faculty and our campuses. It will begin with development of a catalogue to identify living lab sustainability-oriented research projects and opportunities across the UW. Focused resourcing, funding and attention to nurture some of these seminal projects, with lessons learned and outcomes then broadly disseminated to support others down that path. Besides increasing transparency and coordination among UW researchers, this will serve a second purpose, as the baseline count of sustainability-oriented research projects; this is the count that will be doubled by 2025 according to the target. The catalogue will help to understand the University's research activities and help develop faculty incentives that would align with this target. As an R1 public institution, we will also work on engagement with the academy to ensure there is broad level support to engage our research faculty.



#### Steps we will take in FY 2021

1. Highlight existing platforms, tools, and funding resources that support interdisciplinary research projects across UW.
2. Coordinate faculty focus groups to identify opportunities and barriers for increasing sustainability-related research.
3. Using the shared sustainability framework as a reference, build on existing UW systems and processes to coordinate centralized reporting that collects information across campuses and assess the degree to which sustainability (following a holistic and shared definition) is incorporated in existing research projects and funding initiatives.

#### Responsible party

UW Sustainability, Population Health Initiative, EarthLab, Faculty

#### Statuses and linkages

This is intricately tied to Target II. These could be overseen by the positions suggested for the *UW-Wide Sustainability Definition Task Force* and coordination with existing efforts at Population Health, EarthLab, Urban@UW, ChangE, and UW Tacoma and UW Bothell centers.

#### Financing

 No additional financing needed in FY 2021.

#### Metrics

The first year will develop a process for gathering input assessment of how we are engaging across our campuses. Quantitative and qualitative data will assess the following:

- Representation of faculty from Seattle, Bothell, Tacoma campuses.
- Representation of diversity, co-curricular groups and RSOs.
- Assessments of the outputs and progress the diverse groups were able to realize.

This action enables additional actions that may affect STARS credit AC-9 *Research & Scholarship* where UW shows a point gap of 3.97.

**3.97** AASHE STARS POINTS OPPORTUNITY



**ACTION:**

**Expand Campus as a Living Laboratory**

Transform UW's campuses into living laboratories for sustainability research by integrating academic, and research areas of interest with operational targets and sustainability actions thereby providing opportunities for all UW members to collaborate on innovative strategies to address some of the most urgent challenges at different scales. This action entails expanding our work beyond the walls of academia, across local, regional and global scales; viewing our campuses and the surrounding communities as living laboratories that provide rich opportunities for action-oriented research, community-engaged scholarship, service learning, and inter-community collaborations to address the complexities of sustainability challenges in a responsive and equitable way. Through this action, UW will deliver more sustainable communities, students fluent in climate justice, sustainability, and resiliency.



**Steps we will take in FY 2021**

1. Identify and promote opportunities in which UW researchers and students can create and participate in projects that engage UW Facilities and central administration units to transform the campuses and reduce the operations environmental footprint.
2. Promote existing tools, trainings, and internal funding to promote culturally responsible forms of research and engagement and appropriate interactions with non-UW members.
3. Seek opportunities for meaningful forms of engagement and research with local, regional, and global communities to address environmental challenges.

**Responsible party**

UW Sustainability, Population Health Initiative, Campus Sustainability Fund, EarthLab

**Statuses and linkages**

This is intricately tied to Target II. These could be overseen by the positions suggested for the *UW-Wide Sustainability Definition*

Task Force and coordination with existing efforts at Population Health, EarthLab, Urban@UW, ChangE, and UW Tacoma and UW Bothell centers.

**Financing**

Additional financing needed in FY 2021.

Possible sources:

- Use revolving funds from any savings in operations linked to the decarbonization program.
- Create a special endowment or fund coming from donations.
- Identify and strengthen existing sources of funding for research (EarthLab's Innovation Grants, Population Health Initiative pilot research grants, Campus Sustainability Fund).
- Work with UW Advancement for identifying donor funding.

**Metrics**

The first year will develop a process for gathering input from across our campuses and piloting collaboration projects between academic research and campus operations.

Quantitative and qualitative data will assess the following:

- Representation of faculty and staff from Seattle, Bothell, Tacoma campuses.
- Representation of diverse co-curricular groups and RSOs from Seattle, Bothell, Tacoma campuses.
- Qualitative impact of pilot project(s) with campus operations for faculty research.

UW has already earned the maximum points available in the relevant STARS credits AC-8 *Campus as a Living Laboratory* and EN-10 *Community Partnerships*. This Action can gain points in STARS credits AC-9 *Research & Scholarship* where UW shows a point gap of 3.97 and EN-13 *Community Service* where UW shows a point gap of 3.77.

**3.77** AASHE STARS POINTS OPPORTUNITY

**3.97** AASHE STARS POINTS OPPORTUNITY

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## IV. COMPREHENSIVE EQUITABLE PURCHASING TARGETS BY 2022

### Target Actions

- Increase Student Engagement with Procurement Services
- Align Purchasing with Business Diversity and Equity Targets

### Sustainability Plan guiding principle



Keep equity and inclusion at the center

Procurement comprises a significant portion of UW’s spending. With its purchasing decisions UW can endorse suppliers who are practicing sustainability; we aspire to have 100% of them aligned with our Supplier Code of Conduct. We are quickly working to incorporate students’ voices in purchasing decisions. As we work with campus units and departments to develop equitable purchasing targets, we will follow the state’s goals for minority- women- and veteran-owned businesses under the Results Washington strategic framework.

### AASHE STARS category

OP 11

Sustainable Procurement



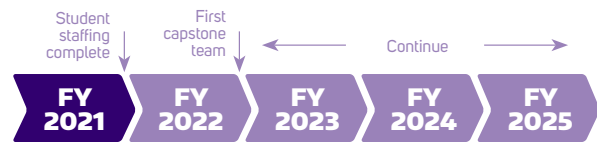


**ACTION:**

**Increase Student Engagement with Procurement Services**

Historically, procurement has been perceived solely as a professional function, unrelated in any direct way to the university’s students. In recent years the power for purchasing decisions to express institutional values has become much more widely acknowledged. This plan strives to build a cohesive community stewarding social equity and physical environments; we have the opportunity to further promote social responsibility in our purchasing, and to engage our communities in this effort.

We will expand student presence in the UW Procurement Services office,<sup>1</sup> with up to three students fulfilling intern, liaison or coordinator positions. This offers the dual win of on the one hand offering a very valuable opportunity to increase real-world learning for students; and on the other hand providing a well-structured pathway for students to influence purchasing choices. Through the Business Diversity and Equity Program, we will leverage the work of the Supplier Diversity RSO and partner for new opportunities to strengthen the visibility of local, minority, women-owned and tribal-owned businesses. Additionally, Procurement Services will identify “capstone” or “keystone” projects suitable for student teams, possibly in partnership with Foster School of Business Consulting and Business Development group, Program on the Environment, or the Buerk Center for Entrepreneurship. Through the work of the Business Diversity & Equity program managed by UW Facilities, we will include student internships that are working on inclusion planning and sustainable purchasing.



**Steps we will take in FY 2021**

1. Identify discrete projects to provide opportunities for student engagement, focusing on sustainability products and projects and supplier diversity reporting and guidance.
2. Create two additional student positions within Procurement Services.
3. Develop and test a system for receiving student concerns regarding purchasing values or ethics.


**Responsible party**

Procurement Services

**Statuses and linkages**

Procurement Services and the Business Diversity & Equity programs have student interns in place, and is well under way toward identifying additional student projects.

**Financing**

 Funding for student positions in UW Procurement Services has been approved by UW Finance. Business Diversity & Equity (BDE) within UW Facilities funds student internships through a UW Endowment for diversity outcomes.

**Metrics**

- Student awareness of UW purchasing as measured by RSO engagement surveys; fall and spring quarter comparison.
- Student participation and awareness in Supplier Diversity RSO events; annual comparison.

This action does not impact a STARS credit score directly.



<sup>1</sup> The UW Procurement Services office does not serve UW Medicine purchasing.



## ACTION:

### Align Purchasing with Business Diversity and Equity Targets

The global recognition of the importance of purchasing, means that the world of equitable purchasing standards is expanding. UW aspires to have 100% of suppliers agreeing to our Supplier Code of Conduct.

In addition, our state government has offered a strategic framework, *Results Washington*, that includes a goal to increase state agency and educational institution utilization of certified small and diverse businesses in contracts and procurement to the following percentages:

- Minority-owned businesses: 10 percent
- Women-owned businesses: 6 percent
- Veteran-owned businesses: 5 percent

UW Procurement Services will align its diversity contracting spend goals both with *Results Washington* and with diverse business spending goals for federal contracts. Supporting language will be incorporated in solicitation templates and forms. Started in FY19, Business Diversity & Equity began focusing on analyzing procurement and spend data to determine current levels and future goals. In FY2021 we will map a pathway to those goals, and begin laying out the iterative process for measuring progress.



#### Steps we will take in FY 2021

1. Report the number of contract suppliers who have agreed to our Supplier Code of Conduct.
2. Continue to report diversity spend across the enterprise.
3. Publish report of 2nd tier diversity spend by large companies holding University contracts.

#### Responsible party

UWF Finance & Administration, Business Diversity & Equity

#### Statuses and linkages

Supplier Code of Conduct is published on Procurement Services website and included in many, but not all University contracts.

Reports have been obtained from major contract suppliers; reporting format for 2<sup>nd</sup> tier diversity spend is being finalized.

#### Financing

 No additional financing needed in FY 2021.

#### AASHE STARS Scoring

- Percentage of suppliers who have agreed to Supplier Code of Conduct.
- Percentage of spend from diverse businesses relative to total spend.

This action addresses AASHE STARS 2.2 credit OP-11 *Sustainable Procurement*, in which UW has a points gap of 0.50.

**0.50** AASHE STARS POINTS OPPORTUNITY



## V. 5% LOWER EMISSIONS FROM PROFESSIONAL TRAVEL BY 2025

### Target Actions

- Expand Online Conferencing
- Establish a Bank of High-Quality GHG Offsets

### Sustainability Plan guiding principle



Use  
resources  
responsibly



Collaboration is a central activity of academic research, and UW faculty travel for networking, researching, learning and reporting. Until sustainable aviation fuels are widely deployed there are no meaningful low-emissions alternatives to jet travel.

However, the COVID-19 crisis has kick-started rapid and successful deployment of videoconferencing technologies that UW staff and faculty can leverage by being aggressive adopters and by taking initiative to organize events online. Simultaneously, we will establish a bank of high-quality greenhouse gas (GHG) offsets that travelers may use when there is no viable alternative to air travel.

AASHE STARS category

N/A

## ACTION: Expand Online Conferencing



As UW and the rest of the world struggle with the social distancing measures deployed to fight COVID-19, we are learning tremendous amounts about our ability to work effectively despite significantly reduced air travel and in-person meetings. We have made important institutional investments that allow for more widespread utilization of these tools, which was spurred out of necessity but has proven a significant environmental benefit for reduced air pollution.

Now and in the years following resolution of the COVID-19 crisis, we are going to build on these new skills and technologies to significantly increase the proportion of meetings, presentations, research and gatherings that are conducted online rather than in person. UW staff and faculty who initiate or lead conferences will include online attendance options, add online side-events to major conferences, and in some cases organize entirely online events.

New construction and major renovations are encouraged to consider design elements for meeting rooms that provide online presence for a group of researchers within a single field of view, or that offer more immersive telepresence.



### Steps we will take in FY 2021

1. Develop an enterprise-wide system for measuring online attendance (avoided air travel) in addition to actual air travel. Compare 2005 baseline with reductions achieved during the period of intensive COVID-related travel restrictions, and reassess the numerical Target as of July 1, 2021. Review the financial impact savings from reduced air travel and associated costs.
2. UW Sustainability advocate across campus for intensified use of existing teleconferencing facilities. Begin identifying incentive programs that encourage use of teleconferencing facilities. This could be used in support of a UW-wide policy level change with increasing centralized tracking and reporting of air travel.
3. Create a recognition program rewarding on-campus innovators. The structure is yet to be determined, but

it is likely to (1) provide separate awards for the three campuses; (2) include one class of award(s) based on a quantitative GHG reduction metric, and (3) include one class of award(s) based on an individual's innovation, leadership or advocacy.

4. Lobby the Association for the Advancement of Sustainability in Higher Education (AASHE) for inclusion of professional air travel as a mandatory credit in version 3.0 of the Sustainability Tracking Assessment and Rating System (STARS). Concurrently, reach out to other national and regional sustainability related conference organizers to encourage use of telepresence.

### Responsible party


UW Sustainability, Faculty

### Statuses and linkages

Beginning with UW's 2017 greenhouse gas inventory (and accompanying baseline adjustment process), the University has established a methodology for computing a significant percentage of total professional air travel miles each year from existing data sources.

Academic departments are actively seeking opportunities to promote hyper-local conferencing.

### Financing

 The recognition program can be funded with a surcharge applied to internal purchases of greenhouse gas offsets (see below).

### Metrics

- The primary metric for Action success will be the travel footprint described in Step 1.

STARS does not include a credit representing this change directly.





**ACTION:****Establish a Bank of High-Quality GHG Offsets**

UW is working toward being a regional leader in ethical and appropriate greenhouse gas (GHG) offsets purchasing. During 2019 UW issued a request for procurement (RFP) and has since established a relationship with GHG offsets broker ACT/ Evergreen. UW's RFP was designed to select an offsets broker (rather than a single offset generation project) giving UW the broadest possible access to the voluntary GHG offsets market, and the best customer service toward stewarding an offsets purchasing program. Through the Washington Institutions of Public Higher Education clearinghouse, all public colleges and universities in Washington State will be able to take advantage of the winning broker's services to make the best possible choices for offset purchases.

Wisely purchased GHG offsets have three important co-benefits, beyond simply reducing UW's carbon footprint:

- GHG offsets can provide financial support to developing nations, or economically disadvantaged communities in Washington.
- GHG offsets support low-carbon innovation.
- The selection of GHG offset type and assessment of GHG offset quality are an educational opportunity and provide an immediate impact to air quality and overall health.

UW will hold bulk-purchased GHG offsets in a GHG offsets bank, in part for offsetting a portion of UW's Scope 1 and Scope 2 GHG inventory if needed, and in part to provide a convenient, trusted, and cost-efficient source of GHG offsets for professional travel. UW will take advantage of the wholesale discount available with a bulk purchase, to create a small, internal surcharge on offsets distributed from the bank. This surcharge will be used to fund the professional travel reduction award program.

**Steps we will take in FY 2021**

1. Make UW's first bulk purchase of offsets through our contracted broker.
2. Work with the broker to set up a GHG offsets bank for use by faculty & staff travelers.
3. Increase visibility of the travel offsets program across campuses, focusing on faculty and staff and engage students for project identification for carbon offsets, while

inviting student research projects that evaluates the cost of carbon.

**Responsible party**

UW Sustainability, UW Facilities

**Statuses and linkages**

This is linked to offsetting emissions through air travel in the instance when air travel is the only option. The contract with the offsets broker has been secured. However, UW still needs to make decisions regarding quality and source of offsets to purchase. This effort will be led by UW Sustainability and UW Facilities, but include broad outreach to the students, staff and faculty and engagement for educational opportunities.

**Financing**

No additional financing required for FY 2021. This will be coordinated through current staffing from UW Facilities and Procurement Services.

**Metrics**

- The primary metric for Action success will be the ratio of air travel offsets purchased, divided by total quantity of air travel reported in UW's annual GHG inventory.

AASHE STARS does not address professional travel emissions.



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AASHE STARS





## VI. 35% OF FOOD IS FROM LOCAL SOURCES BY 2025

### Target Action

- Partner with Suppliers, Vendors and Campus Growers to Procure Food Locally

### Sustainability Plan guiding principles



Keep equity and inclusion at the center



Use resources responsibly



Our food is particularly emblematic of sustainability, a personal and literal symbol of the connection between the social and the environmental. The physically closer we are to the original sources of our food, the greater our ability is to affect positive change.

At all three campuses, focusing on local food sources means we are engaging with, investing in, and providing support to our local food systems while reducing the carbon footprint of our community.

### AASHE STARS category

OP 7

Food and Beverage Purchasing

## ACTION:

### Partner with Suppliers, Vendors and Campus Growers to Procure Food Locally



UW Housing and Food Services (HFS) Dining will actively seek to partner with suppliers and local vendors to raise the fraction of foods procured from within a 250-mile radius five percentage points, to a total of 35% of all foods procured. These Actions will aid in the support of the local food system while reducing the overall carbon-food print.



#### Steps we will take in FY 2021

1. UW Dining will make every effort to seek out procurement of foods from sources that are located within 250 miles of the University of Washington campus.
2. UW Dining will continue to partner with the UW Farm and seek out innovative ways to increase the velocity of items that UW Dining purchases.
3. UW Dining will collaborate with on and off-campus partners to advertise and bring awareness to local goods through various modes including but not limited to student outreach efforts and lecture opportunities.

#### Responsible party

Housing & Food Services

#### Statuses and linkages

UW Dining currently allocates 30% of its total food spend to local sources. To be successful and maintain a sustainable procurement approach, HFS Dining will need to balance the UW community demand with budgetary allowances as the increased target of 35% may result in higher food costs. In the event that these changes lead to higher food costs, UW Dining will seek direct support from Committee and Executive Leadership in the justifications for increased costs as result of this target. Additionally, HFS Dining will monitor the tolerance of higher priced menu items and will address the need for reevaluation of this target in the event increased costs are not tolerated and cannot be mitigated.

#### Financing

Financing for FY 2021 is contingent as described below.

The cost of food is considered an operating cost within the HFS Dining budgets and is a part of the greater annual fiscal year budget creation and ongoing budget management processes. As a self-sustaining auxiliary, HFS Dining operates without outside financial assistance, including from the University of Washington or state funds. As a result, the services it provides are largely paid for through operating revenue from on-campus customers.

Due to the effects of the COVID-19 pandemic, there are complex considerations with upcoming budget creation and management. HFS Dining’s operating revenue is directly dependent upon the resident occupancy and number of people on campus. Additionally, HFS Dining will need to make changes to accommodate necessary regulations stemming from COVID-19 which are likely to come at an additional cost. All of these elements will need to be considered in conjunction with the potential increased costs of local food when pursuing these targets and may impact food cost budget.

#### Metrics

- Percent of food expenditures on sources within 250 miles. (Additional metrics to be defined during FY 2021.)

This action may induce an indirect points gain in STARS credit OP-7 *Food and Beverage Purchasing* where UW shows a point gap of 3.11, if the local food meets the certification standards associated with this credit. STARS does not include any credits relating directly to local food sourcing.

3.11 AASHE STARS POINTS OPPORTUNITY

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## VII. 12% OR LESS OF COMMUTES ARE SINGLE-OCCUPANCY BY 2028

### Target Actions

- Promote Commute Options Toward SOV Reduction
- Promote Car Shares and UW Shuttle Service

### Sustainability Plan guiding principles



Keep equity and inclusion at the center

Use resources responsibly

Decarbonize

### AASHE STARS category

OP 16

Commute Modal Split

Eighty-one percent of trips to and from UW's Seattle campus are transit, biking, walking or rideshare trips, or telecommuting; the other 19% are driving alone. Reducing the campus drive-alone rate reduces emissions and other impacts, but also increases accessibility for those moving around the community.

Led by Transportation Services and in alignment with State of Washington Commuter Trip Reduction law and the Campus Master Plan, UW will continue to reduce drive-alone commutes until they are only 12% of Seattle campus commutes.

### Telecommuting

With COVID-19, the University mobilized to teach, work and learn online. UW will evaluate opportunities to identify the cost-benefit to telecommuting and begin capturing best practices for remote work activities for further analysis and benchmarking.



## ACTION:

### Promote Commute Options Toward SOV Reduction



The University of Washington is committed to managing the environmental impacts of transportation. This commitment has resulted in one of the lowest single occupancy vehicle (drive-alone) rates for universities nation-wide.

In the 1970s, the University implemented programs such as the Health Sciences Express, developed computerized ride-matching software, began subsidizing transit passes, and provided incentives to encourage students to carpool. Since then, UW has incrementally built upon these successes and leads nationally in transportation demand management.

Started in 1983, the University committed to managing its transportation impacts and formalized its Transportation Management Plan intended to expand commuting options for University students, staff, and faculty, and to shift travel habits away from single occupancy vehicles.

Since the 2003 Campus Master Plan, the University has continued its commitment to sustainably address transportation choices, while meeting demands for campus growth and adjusting to changing transportation options serving the campus. With the 2019 Campus Master Plan, the goal is to reduce carbon emissions from single-occupancy vehicles less than 12% by 2028.



#### Steps we will take in FY 2021

1. Complete a Transportation Needs Assessment of the campus community to develop specific transportation mode targets and strategies.
2. Continue to promote the U-PASS program to students, staff and faculty. Provide a fully-subsidized U-PASS to additional staff.
3. Construct 2 new bike houses on campus to provide secure bicycle parking.

#### Responsible party

Transportation Services

#### Statuses and linkages

The University of Washington provides a comprehensive

Commuter Options program to help staff, faculty and students choose sustainable transportation modes to commute to campus:

- Discounted or fully-subsidized U-PASS transit pass program
- Secure bicycle parking facilities located throughout campus
- Free helmet program
- Free parking for vanpools, discounted parking for carpools
- Partnerships and discounts for bikeshare and carshare

Transportation Services also provides outreach and education to our campus community to provide personalized trip planning services:

- Personalized commute planning
- New Employee Orientation participation
- Dawg Daze participation
- Earth Day Fair participation
- Bicycle encouragement campaigns twice a year (Ride in the Rain, Bike Everywhere Month)

The University also advocates for and supports increased transit service and bicycle/pedestrian infrastructure in the U-District and regionally to support more sustainable transportation options.

#### Financing

Programs to support reducing SOV programming to support the reduction of single-occupancy vehicle commuting is funded through a combination of parking revenue, student and employee fees, and institutional funding. The FY21 budget for Commuter Options programming, including the U-PASS, is \$20,590,000.

#### Metrics

The University conducts an annual transportation survey of staff, faculty and students to learn about their commuting behavior. Based on the 2019 Annual Transportation Survey, the current SOV rate is 18.2%. Progress toward this Action will be tracked through the continued administration of the annual transportation survey.

This action may induce an indirect points gain in STARS credit OP-16 *Commuter Modal Split* where UW shows a point gap of 0.84.

0.84 AASHE STARS POINTS OPPORTUNITY

## ACTION:

### Promote Car Shares and UW Shuttle Service



The Transportation Services Shuttles service provides a vital connection for faculty and staff between campus and medical facilities across the city. The U-CAR program provides a critical function to allow campus community access to a vehicle for business-related trips. Both of these services allows staff, faculty and students to use commute options other than driving alone and still be able to complete the work they need to without having to bring their personal vehicle to campus, helping to reduce carbon emissions related to transportation.



#### Steps we will take in FY 2021

1. UW Shuttles exploring Shuttle Routes to support Intra-Campus Mobility
2. Review impacts of COVID-19 on shuttle and U-Car services.

#### Responsible party

Transportation Services

#### Statuses and linkages

UW Shuttles carries over 601,400 riders annually. This service transports students, faculty, staff and medical commodities to UW Medical Center Montlake, Harborview Medical Center, Seattle Cancer Care Alliance, Fred Hutchinson Cancer Research Center, UW Medicine in South Lake Union, UW Medicine on Roosevelt Way and Seattle Children’s Hospital. On top of these medical shuttles, the team operates a nighttime shuttle and an accessibility-assistance shuttle for students, staff, and faculty. These services are provided to the community at no-cost to the rider.

In 2020, there are 110 U-Cars that support business-related carsharing on all UW campuses. There are also 12 Zipcars on the UW Seattle campus to support personal carsharing trips for staff and students.

#### Financing

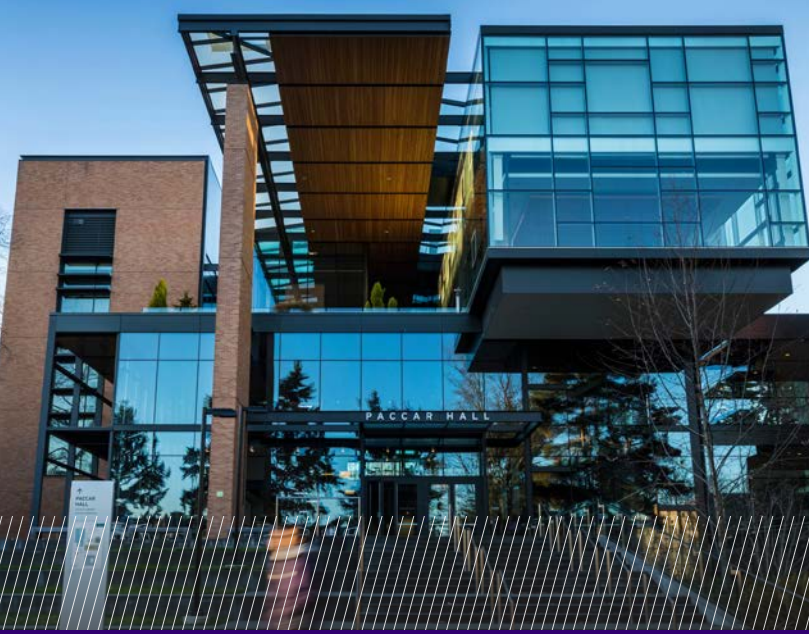
UW Shuttles are funded through partnerships with UW Medical Center, Harborview, School of Medicine, Fred Hutchinson, Seattle Cancer Care Alliance, and Seattle Children’s Hospital. The program is also funded through parking revenue and institutional funding.

#### Metrics

- We track the ridership numbers on all shuttle services (HSE, SCCA, SLU, Dial-A-Ride, and Night ride) on a weekly basis when services are operating. We track the number of unique car share rentals, UCAR mileage, and their utilization on a monthly basis. We do not have the ability to determine if a car share is used to move multiple individuals in a trip.

This action may induce an indirect points gain in STARS credit OP-16 *Commute Modal Split* where UW shows a point gap of 0.84.

**0.84** AASHE STARS POINTS OPPORTUNITY



## VIII. 15% LOWER ENERGY USAGE INTENSITY BY 2025

### Target Actions

- Implement Cost Effective Conservation Investments
- Expand Campus Meter Monitor O&M Program
- Purchase Only Energy Star Appliances

### Sustainability Plan guiding principle



Use resources responsibly

### AASHE STARS categories

OP 2

Greenhouse Gas Emissions

OP 4

Building Operations and Maintenance

OP 5

Building Energy Efficiency

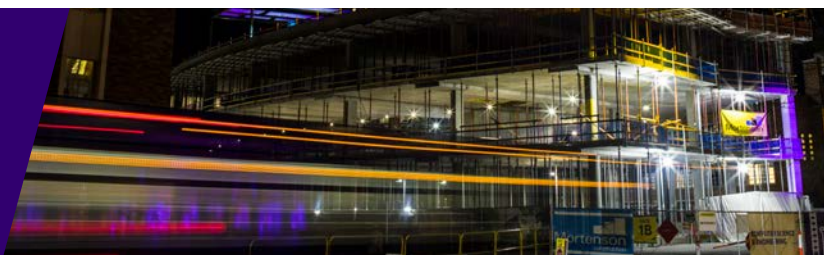
Eighty percent of the world’s greenhouse gas emissions come from combusting fossil fuels to generate energy, including electricity. We need to do our part toward reducing energy consumption. Achieving this goal will require accelerating the implementation of energy conservation projects, targeting older and less efficient buildings for deep retrofits, and ensuring all new buildings meet the UW Green Building Standard to minimize water and energy consumption. The expanded use of utility metering and monitoring based commissioning will keep buildings operating optimally.

### Water conservation

UW will monitor opportunities to reduce water consumption for new building construction, maintenance and irrigation. In collaboration with academic units, UW Facilities will explore paths to research the feasibility of enhancing water reduction through the use of new technologies or integration into campus planning.

## ACTION:

### Implement Cost Effective Conservation Investments



In 2015, comprehensive energy engineering audits of 112 campus buildings identified energy conservation opportunities requiring \$25 million of capital investment but avoiding \$5 million in energy waste annually. Once the initial \$25 million capital investment is made, additional conservation investments can be pursued at \$5 million/yr, resulting in optimization to the built environment by 2025 operating at least 15% more efficiently than the 2015 baseline audit condition. Once optimized the building stock will be monitored (see *Expand Campus Meter Monitor O&M Program* below) both to insure persistence of the energy cost avoidance, and to identify additional conservation opportunities.



#### Steps we will take in FY 2021

1. Execute 17 minor conservation projects in 32 campus buildings avoiding an estimated \$1 million annual utility cost (starting mid FY22). Estimated capital cost will be \$3.2M, of which \$1.6 million can be recovered in utility rebates.
2. Begin initial design, permitting and equipment procurement for a Phase II expansion of the West Campus Utility Plant. This project will pilot seasonal hot water energy transfer to a select group of high-EUI buildings in west and south campus, using a new, 1,300 ton heat recovery chiller.
3. Conduct in-house energy engineering analysis in coordination with the One Capital Plan and other initiatives to identify one or more co-funding opportunities for a major renovation or deep retrofit in FY2022-FY2023, that can support future revolving fund revenues.

#### Responsible party

UW Facilities Asset Management


#### Statuses and linkages

From 2015 to present, the resource conservation program has invested \$5 million in 32 projects capturing \$2.2 million in utility rebates and avoiding \$624,000 in annual utility

cost. These past and future building efficiency activities incrementally bring the campus into compliance with Washington State Clean Buildings Code, City of Seattle Benchmarking and Tune-up Ordinances. These Actions also support the overarching initiative to meet State greenhouse gas reduction targets (see Target X below).

Future investments must be coordinated and augmented with the One Capital Plan, facility preservation fund and program renewal investment funds. Additionally, resource conservation investments must be coordinated with self-sustaining units' capital investment programs.

#### Financing

 A centralized energy management revolving investment fund has been conceptually approved by senior leadership. Currently, the detailed design of the fund is underway. Assuming the conceptual intent is borne out in the detailed design and approved by UW decision makers, the revolving fund will be seeded with sufficient funding to generate future revenue.

For Phase II expansion of the West Campus Utility Plant, an ongoing feasibility study suggests a \$1.2M utility cost avoidance on an \$8M capital investment. \$1.8 million of the initial investment is required in FY2021.

#### Metrics

- Net energy usage intensity (EUI) reduction (weather and gross square footage use intensity normalized).
- Return on investment (lifetime utility cost avoided/net value invested).
- Simple payback (net capital invested/annual utility cost avoided).

This action may impact STARS credits OP-2 *Greenhouse Gas Emissions* where UW shows a points gap of 3.91, and OP-5 *Building Energy Efficiency* where UW shows a points gap of 2.16.

**3.91** AASHE STARS POINTS OPPORTUNITY

**2.16** AASHE STARS POINTS OPPORTUNITY



**ACTION:**

**Expand Campus Meter Monitor O&M Program**



Formalize and fully fund the UW Facilities Meter Monitor Program. Hire a full time program manager, and modernize data collection technology. Formalize, document and begin automation of program business processes, measures and outputs. Track and report key performance indicators no less than quarterly.



**Steps we will take in FY 2021**

1. Fund \$250k to purchase, configure, and document equipment, and train UW Facilities operators. Existing staff time will be turned toward new information technology hardware and software per May 11, 2020 recommendations by the UW Meter Monitor Team. Operationalize the Meter Monitor Program’s “MBCx process” in seven additional campus buildings.
2. Fund \$250k in on-going annual program operations & maintenance, hire a Meter Monitor Program Manager, operationalize MBCx process in 14 buildings by end of FY2021.
3. Conduct analysis for future Meter Monitor investment strategy, including investments in additional steam and water meters at all state funded buildings.

**Responsible party**

UW Facilities Asset Management

**Statuses and linkages**

The Meter Monitor Program is an extension of a American Recovery and Reinvestment Act legacy Smart Grid program.

In addition to ensuring the persistence of utility costs avoided by the Action Implement Cost Effective Conservation Investments above, this Action is an early contributor to the Portfolio Management Strategy that is a UW Facilities strategic priority for FY2021. This Action will significantly improve UW Facilities operational and maintenance efficiency.

**Financing**

🔍 Financing for this Action is shared with *Action Implement Cost Effective Conservation Investments* above.

Step 3 will likely identify a funding gap in the \$6 million to \$7 million range for some metering equipment that cannot be fully covered with the associated return on investment.

**Metrics**

- Maintenance of net EUI reduction over time.
- Reduction of annual Operations and Maintenance cost, divided by work order cost of implementing target EUI outcome.

This action may induce indirect points gains in STARS credits OP-4 *Building Operations and Maintenance* where UW shows a point gap of 3.50, and OP-5 *Building Energy Efficiency* where UW shows a point gap of 2.16.

**3.50** AASHE STARS POINTS OPPORTUNITY

**2.16** AASHE STARS POINTS OPPORTUNITY



## ACTION:

### Purchase Only Energy Star Appliances

A large percent of building operations energy utilization comes from appliances and other building related equipment. In accordance with the Energy Policy and Conservation Act of 1975 (EPCA), as amended, the U.S. Department of Energy (DOE) implements minimum efficiency standards for a wide range of appliances and equipment used in residential and commercial buildings. These federal efficiency standards compel product designers and manufacturers to reduce the amount of energy and water necessary for the proper operation of appliances and other building equipment. The voluntary Energy Star Program, jointly administered by the Environmental Protection Agency (EPA) is the most widely recognized symbol for energy efficiency in the world and promotes products that are even more energy efficient than those that meet the minimum federal standards. The University's commitment to energy conservation includes ensuring Energy Star certified appliances and equipment requirements are incorporated into the University's Facilities Design Guide and Procurement Policies.



#### Steps we will take in FY 2021

1. Develop regular communications highlighting Procurement guidelines for Energy Star purchasing requirements.
2. Develop annual reporting for Energy Star appliances.
3. Work with UW Facilities and HFS to promote Energy Star appliances for all new buildings.

#### Responsible party

Procurement Services and UW Facilities Finance & Administration

#### Statuses and linkages

Procurement Services promotes environmentally preferred purchasing (EPP) as defined by the National Associate of Educational Procurement, meaning that environmental and social considerations are “taken with equal weight to the price, availability and performance criteria that colleges and

universities use to make purchasing decisions.”

The University's buying staff leverage current supplier relationships to raise awareness of the purchasing considerations necessary to reduce our environmental impact and to maximize resource efficiency.

In order to further the University's commitment to sustainability, individual departments are encouraged to purchase recycled and environmentally preferable products, when quality, performance and price are comparable to alternatives.

Procurement works with manufacturers and Seattle City Light to identify equipment subject to Seattle City Light energy rebates.

#### Financing

 No additional financing needed in FY 2021.

#### Metrics

- Percentage of Energy Star appliance purchases compared to total spend on a quarterly basis.

This action may impact STARS credit OP-5 *Building Energy Efficiency* where UW shows a points gap of 2.16.

**2.16** AASHE STARS POINTS OPPORTUNITY



## IX. 10% LESS SOLID WASTE BY 2025

### Target Actions

- Divert Compostable Waste from Recycling and Landfilling
- Implement Low-Waste Campus Kitchens

### Sustainability Plan guiding principles



Use resources responsibly



Decarbonize

Everything we throw away is something that we don't need. That may seem self-evident, but combined with life-cycle thinking it means an opportunity to reduce manufacturing emissions, energy consumption, transportation, and even raw materials extraction associated with whatever object we didn't need. "Reduce, reuse, recycle" remains a powerful hierarchy of solid waste management, but there are even more details of product and materials management, economics, and urban ecology that can receive both our research attention and our operational attention.

AASHE STARS category

N/A

## ACTION:

### Divert Compostable Waste from Recycling and Landfilling



The UW landfilled 4,812 tons of material in FY2019; the 2025 goal is to generate less than 4,332 tons annually. Based on the 2018 waste characterization study, we estimate that 19% of our landfilled waste is compostable paper and 14% is food waste. UW generates about twice as much compostable waste compared to recyclable waste. While UW recycles 63% of recyclable materials that are discarded, only 46% of compostable waste is composted on campus (48% of it is landfilled and 5% of it contaminates our recycling). The UW generated 1,933 tons of mixed recycling. Based on the same study, we estimate that the recycling is contaminated by 7% food waste and 6% compostable paper.

Recycling has been available in many forms on campus for decades but compost is relatively new. By focusing on increasing access to and awareness of compost on campus, the UW can not only reduce the amount of landfilled material and the corresponding carbon footprint, but also ensure our recyclable items are clean and recycled successfully.



#### Steps we will take in FY 2021

1. Infrastructure: increase compost capacity and update public area bins in 37 buildings, including UW Tower.
2. Outreach: increase in-person and online outreach about proper waste disposal. Implement online waste diversion training, for example create a course in the Bridge Enterprise Training System required for all UW Facilities Staff, and optional for all UW staff. If possible, expand the online Bridge waste diversion training to students if possible and/or affordable. Otherwise, find alternatives to provide waste education online for students.

#### Responsible party


UW Recycling

#### Statuses and linkages

There are compost bins in every kitchen, dining area, and restroom in every building on campus. Most buildings have

compost bins in lobbies, public areas and hallways as well, but there are still several that don't meet new waste infrastructure guidelines with expanded compost collection. UW Recycling currently advertises the importance of composting on digital boards in Residence Halls, Dining Halls and the HUB. UW Recycling also provides free training and resources about composting to all UW Seattle staff, faculty and students and can be leveraged for use by Bothell and Tacoma campuses.

#### Financing

 UW Recycling's operating budget should cover the work of increasing awareness and improving infrastructure so people can compost rather than recycle/landfill their compostable material. That being said, UW Recycling anticipates needing additional funding to increase compost capacity in the following fiscal year (new indoor bins: \$100,000 and new outdoor bins: \$150,000).

#### Metrics

- Compost rate/# of buildings with added composting facility (38 buildings in Seattle).
- Diversion rate change as a result of outreach and training.

STARS does not include a credit representing this change directly. Diverting waste from the landfill would directly impact STARS OP-19 *Waste Minimization and Diversion* (only criteria Part 3 directly).





## ACTION:

### Implement Low-Waste Campus Kitchens



By FY2023, HFS will seek to have all UW Dining kitchens transition to low-waste by reducing waste volumes by 10%. Current kitchen waste levels are a result of over-production and over-purchasing due to a lack of robust historical data, analysis, and forecasting tools. Increased data creates more informed forecasting, which in turn allows UW Dining to more accurately estimate the volume and needs of patrons. HFS will take Actions to increase the accuracy of these estimates which will ultimately result in a 10% reduction of over-production and over-purchasing, to be maintained in perpetuity.



#### Steps we will take in FY 2021

1. HFS Dining will invest in and implement CBORD FSS menu management system in dining locations to aid in more comprehensive forecasting. These efforts will allow UW Dining to more accurately estimate the number of dining patrons and reduce over-purchasing that adds to waste.
2. HFS Dining will utilize over-production tracking within the dining units. The overproduction process and data will be used for two purposes; data will be entered into the menu management software to be used to improve future forecasting. Food that is identified as over-production will be diverted to a local food bank or donation group to be further utilized.
3. HFS Dining will review over-production and over-purchasing data as well as weekly inventory data and reports routinely to identify and take action against potential points of waste reduction, ultimately reducing the waste stream produced by HFS Dining kitchens.

#### Responsible party

Housing & Food Services

#### Statuses and linkages

Over-production and over-purchasing tracking is currently being manually facilitated within HFS Dining units with some limitations including but not limited to comprehensive cost tracking, production scheduling, and automated

menu-driven ordering. Weekly inventory data is also being recorded via mobile inventory and is routinely reviewed for appropriate stock levels. In order to achieve automated data retention, tracking and analysis, HFS Dining must complete implementation of CBORD FSS within its dining units.

#### Financing

Implementation of manual over-production and over-purchasing tracking necessitated a nominal investment and is currently being utilized in units. The purchase and implementation of weekly inventory occurred in fall of 2019. Implementation of the menu management software required to achieve low-waste in perpetuity will require a budget of approximately \$171,000, requested and approved in April 2019. These costs include software and technology investments as well as implementation consulting and staff training; additional costs will be reassessed as they arise.

#### Metrics

- Calculate the percentage of food tracked in dining halls by the total diverted food in 2019-2020.
- In addition, UW Dining will utilize menu management software to provide poundage and cost data relating to overproduced, donated, and wasted food.

STARS does not include a credit representing this change directly.



### Waste Diversion Through Donation

Besides reducing our kitchen waste, we also have a plan for better handling the waste that we do have. Some high-quality food waste can avoid either landfilling or composting, and instead be donated to other organizations. 2019 food recovery for donation was 15,000 pounds (9,000 pounds from Housing & Food Services/Dining, and 6,000 pounds from UW Recycling's student moveout collection program). Our goal is to reach 16,000 pounds collected for donation by 2022.



# X. 45% REDUCTION OF GREENHOUSE GAS EMISSIONS BY 2030

## Target Actions

- Electrify UW Transportation Services
- Plan to Repower the Seattle Campus
- Implement Campus Solar Plan

## Sustainability Plan guiding principle



Decarbonize

## AASHE STARS categories

OP 2

Student Orientation

OP 5

Building Energy Efficiency

OP 6

Clean & Renewable Energy

Climate change is the environmental issue of our time. The UW is a world-class research center in climate-related topics; in fact climate change’s centrality to our academic life is reflected in a Guiding Principle of this Sustainability Strategy. We’re going to follow through on our sustainability commitment by embarking on a major energy planning process to drastically reduce the Seattle Campus district heating system’s demand for fossil fuels, and reduce our dependence on utility energy with solar photovoltaic power on all our campuses.

*This Target is relative to a 2005 baseline, for consistency with Washington State law. All other Targets in the UW Sustainability Plan are relative to a 2020 baseline.*

## ACTION: Electrify UW Transportation Services



The UW manages a fleet of more than 700 vehicles and over 100 surface parking areas or garages for commuters and guests, with the potential to host over 14 megawatts (MW) of photovoltaic capacity in the form of solar canopies. By 2030, the UW aspires to convert its fleet to all-electric and hybrid-electric vehicles (with the exception of snow plows and other emergency maintenance vehicles), deliver a full complement of vehicle charging equipment for fleet and public use in campus parking facilities and supplement renewable electricity with solar canopies on campus parking facilities.

The estimated 14 megawatts (MW) of installed solar capacity possible on UW transportation assets could produce approximately 14 gigawatt hours (GWhs) of electricity per year, if fully deployed. About 20 percent of the current UW surface parking area would be required to service an all-electric UW Fleet, potentially offsetting 3.5 million miles travelled, or 2.8 million pounds of CO<sub>2</sub>e per year. If all 14 MW of potential capacity were realized, the system of solar canopies could power 50 million vehicle miles traveled per year, reducing commuter emissions by about 18,000 metric tons of CO<sub>2</sub>e per year (about 40% of commuting related emissions).



### Steps we will take in FY 2021

1. Complete and approve a strategy for transitioning the UW Fleet to electric vehicles by 2030, excepting emergency maintenance vehicles. Anticipated completion: December, 2020.
2. Complete and approve a strategy, including funding mechanisms, to develop electric vehicle charging infrastructure across UW parking facilities by 2030. Anticipated completion: March, 2021.
3. (concurrent with Step 2) Review and approve a strategy and funding methodology for developing solar canopy infrastructure on campus parking assets by 2030. Anticipated completion: March, 2021.

### Responsible party

Transportation Services

### Statuses and linkages

Analysis of the opportunity to electrify the UW Seattle fleet and parking services, and capacity for parking to house solar canopies, has been completed, and a report will be released for review in Fall, 2020. The same analysis can be applied to the Bothell and Tacoma campuses in Fall, 2020. There are linkages between these targets and actions, and the goal of reducing commuting to campus via single occupancy vehicle.

### Financing

Electric vehicles will be gradually added to the UW Fleet as older vehicles are retired. Steps 2 and 3, the development of charging infrastructure and solar canopies respectively, will require capital investment, but can recover cost through surcharges on the electricity delivered to plugged-in EVs. Seed funding will be required for the first two biennia (four years), but thereafter electric sales revenue can be used to continue expanding buildout of chargers and canopies in the form of a revolving fund.

Full buildout of 14 MW of solar is estimated to require a total \$28 - \$30 million in capital expenditures plus an additional \$438,000 for electrical distribution upgrades. Besides the funding stream from electric surcharges, we forecast \$46 - 48 million in cost avoidance from vehicle fuels.

### Metrics

- Progress toward completion of the Action will be measured by:
- Percentage of UW fleet vehicles that are plug-in electric vehicles. Plug-in hybrid electric vehicles will be included in the count.
  - GW of charger-connected solar capacity.
  - Percentage of parking spaces having charger access.

This Action can gain points in STARS credits OP-6 *Clean & Renewable Energy* where UW shows a point gap of 3.93.

**3.93** AASHE STARS  
POINTS OPPORTUNITY

## ACTION:

### Plan to Repower the Seattle Campus



The single largest source of greenhouse gas (GHG) emissions at UW is the central heating & cooling plant on the Seattle Campus. The central plant relies on fossil gas to provide steam heat and related services to over 13 million square feet of building space (136 buildings). Emissions from the central plant have not changed appreciably since 2009, despite the Seattle campus enrollment increasing 12% and building footprint increasing 20% during this time. In fact, on a per-square-foot basis, UW GHG emissions are improving. Yet, to meet greenhouse gas reductions required by Washington state law we will need to radically change the nature of how thermal energy is generated in Seattle.

UW aspires to complete, by December 31, 2021, a Campus Energy Plan that features a pathway for a significant decarbonization of the Seattle campus heating & cooling plant by 2030, or earlier. Development of the plan will be piloted by a Energy Program Manager. During the process of creating the Campus Energy Plan, the Energy Program Manager’s team will consider every possible technology available for achieving the carbon reduction goals while maintaining reliable service – including heat and steam sterilization – to the hospital and other campus buildings.

Besides technological innovation, this project will require financial innovation as well. Modernizing the Seattle campus district heating system will be among UW’s largest capital projects to date, and multiple financing models need to be compared.



#### Steps we will take in FY 2021

1. Hire an Energy Program Manager with the engineering and finance qualifications to oversee the heating plant and district energy renewal from start to finish.
2. Issue an RFP for, and contract, a consultant (owner’s advocate) capable of helping UW select the best mix of technologies for the Seattle campus.
3. Develop engineering scope and funding pathway for a pilot project to use waste condenser heat from the West Central Utility Plant to reduce steam heating in nearby buildings.

#### Responsible party

UW Facilities

#### Statuses and linkages

In March 2020, UW Facilities issued a Request for Information (RFI) to solicit ideas from experts around the country for planning, building, and financing a low-carbon energy system. These responses are currently being reviewed by the Energy Roadmap Team which includes support from the Engineering Services and UW Sustainability departments.

Several other universities have completed or launched similar projects. Stanford University recently completed a new combined heating and cooling plant that is perceived as a particularly successful example. The new Stanford plant, when combined with solar power procurement, reduced Stanford GHG emissions by about 72 percent from its peak levels.

#### Financing

A thorough review of the engineering and financial options is needed before assigning a budget estimate to such a large scale project. UW is targeting development to start in 2023, with first phase completion in 2028.

#### Metrics

- Completion of each listed FY2021 Step shall serve as the measure of progress during FY2021.

Decarbonization (whether partial or total) of the Seattle campus central heating & cooling system will gain points in STARS credits OP-2 *Greenhouse Gas Emissions* where UW shows a point gap of 3.91. Depending on the fuel used for energy generation, the project may also gain points toward OP-6 *Clean & Renewable Energy* where UW shows a point gap of 3.93.

**3.91** AASHE STARS POINTS OPPORTUNITY

**3.93** AASHE STARS POINTS OPPORTUNITY



## ACTION: Implement Campus Solar Plan



Installing solar photovoltaic panels on buildings reduces the need to purchase electricity from utilities. This investment provides a low-carbon source of energy and helps buffer the impact of rising utility costs, which historically have increased faster than inflation, around 5% each year. On the Seattle campus, 172 of 306 buildings evaluated are suitable for solar photovoltaic and could support 15 megawatts of power capacity. (This is in addition to the 14 MW of solar potential on parking areas described in action Electrify UW Transportation Services.) In Seattle’s climate, this means approximately 15 gigawatt-hours (GWh) of annual electricity production. UW Solar is scheduled to expand this assessment to the UW Bothell and Tacoma campuses later this fall.

UW hopes to complete, by March 31, 2021, a solar plan for the three campuses, with assessments of all buildings and a strategy for implementation.



### Steps we will take in FY 2021

1. UW Solar Group will complete a plan and strategy for developing solar assets on the buildings of the three campuses by 2030. Anticipated completion: December 31, 2020.
2. Review and approve the strategy, with funding mechanisms, for developing solar assets on campus buildings by 2030. Anticipated completion: March 31, 2021.

### Responsible party

UW Facilities Asset Management

### Statuses and linkages

Solar installations on UW campuses also reduce building energy usage intensity, and can be integrated into thermal systems for compounded savings. On the Seattle campus, solar energy reduces the peak load demand for electricity, buying time to make larger scale investments needed to decarbonize the power plant. UW hosts solar photovoltaics developed by

the UW Solar Group, part of the UW Clean Energy Institute, on the Mercer A Apartments (35 kW), Alder Hall (50 kW), Elm Hall (25 kW), Maple Hall (25 kW), the Life Sciences Building (105 kW), in rooftop and solar shading fins). In addition, research and student projects have resulted in arrays on the IMA Building, Merrill Hall, Power Plant roof, and the Mechanical Engineering Building. University of Washington’s Bothell campus also hosts 122 kW of solar photovoltaic, on the library building and parking garages.

### Financing

The capital cost of systems envisioned for the Campus Solar Plan is estimated to be \$26-28 million, while the cost savings from avoided utility payments are estimated to be \$55 million over the 25 years of the warranted life of these solar assets. Solar, with reduced utility costs as returns on investment, fit the parameters for finance with a revolving fund. There is also potential for investments from local utilities, the U.S. Department of Energy, donors, or other parties.

### AASHE STARS Scoring

This Action may impact STARS credit OP-5 *Building Energy Efficiency* where UW shows a points gap of 2.16.

**2.16** AASHE STARS POINTS OPPORTUNITY

## SUSTAINABILITY IS IN OUR NATURE

Sustainability efforts are ongoing at the UW. **UW Sustainability** is a central resource office for information regarding activities, projects, initiatives, campus engagements and programs.

Visit **green.uw.edu** to stay up to date.

Keep informed on the Sustainability Action Plan FY21 quarterly progress by visiting:  
**green.uw.edu/dashboard.**

This information will be updated quarterly.

We welcome your comments and feedback for the FY21 Plan.

Please send inquiries to:

**sustainability@uw.edu**

The online version of this and future Sustainability Action Plan documents, as well as any updates to elements of this plan will be posted at **green.uw.edu/plan.**

**BE BOUNDLESS**  
FOR WASHINGTON

FOR THE WORLD