

# OREGON STATE UNIVERSITY **SUSTAINABILITY REPORT**

Fiscal Year 2023

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**OSU SUSTAINABILITY OFFICE**

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# Executive Summary

Oregon State University continues to garner national attention as a sustainability leader and strives to be in the top 10 colleges and universities in the United States for excellence in sustainability. Since Fiscal Year 2010 (FY10), OSU has utilized the Sustainability Tracking, Assessment and Rating System (STARS) to track and report sustainability performance. Oregon State was the first institution to submit ten STARS reports and continues to show national and international leadership in sustainability assessment by submitting more STARS reports than any other institution. With each report, OSU has achieved a Gold rating from STARS.

Fiscal Year	Submission Date	STARS Version	STARS Score
2010	Jan 31, 2011	1.0	69.74
2012	May 11, 2013	1.2	68.95
2013	Apr. 30, 2014	2.0	70.94
2014	Apr. 30, 2015	2.0	72.78
2015	Mar. 4, 2016	2.0	73.27
2016	Feb. 28, 2017	2.1	72.21
2017	Jan. 31, 2018	2.1	72.23
2018	Dec. 20, 2018	2.1	72.61
2019	Dec. 20, 2019	2.1	74.57
2020	Dec. 23, 2020	2.2	74.29
2021	Dec. 8, 2021	2.2	74.49
2022	Dec. 9, 2022	2.2	73.38
2023	Jan. 4, 2024	2.2	72.34

Table 1 - Oregon State University's STARS submissions

STARS Ratings (all versions)	
Platinum	9
Gold	161
Silver	207
Bronze	64
Reporter	23

Table 2 - STARS participant ratings

In August 2019, the STARS assessment tool moved to version 2.2, which included a streamlined set of credits, auto-calculated metrics, and a collaborative review and revision process. Where possible, this report both attempts comparisons and examines the limitations of those comparisons. The table below summarizes and trends OSU's sustainability performance by [STARS subcategories for FY23](#).

OSU's FY23 sustainability performance by STARS subcategories	
<b>Positive trending STARS subcategories, FY22-FY23</b> <ul style="list-style-type: none"> <li>No categories reported a change greater than +5%</li> </ul>	<b>Negative trending STARS subcategories, FY22-FY23</b> <ul style="list-style-type: none"> <li>Curriculum</li> <li>Food &amp; Dining</li> <li>Water</li> </ul>
<b>High performing STARS subcategories, FY23</b> <ul style="list-style-type: none"> <li>Research</li> <li>Campus Engagement</li> <li>Public Engagement</li> <li>Coordination &amp; Planning</li> <li>Diversity &amp; Affordability</li> </ul>	<b>Low performing STARS subcategories, FY23</b> <ul style="list-style-type: none"> <li>Air &amp; Climate</li> <li>Buildings</li> <li>Energy</li> <li>Food &amp; Dining</li> <li>Wellbeing &amp; Work</li> </ul>

Table 3 - performance by STARS subcategory

Some low performing and downward trending areas are due to changes in data availability and other assessment factors, but most indicate actual opportunities for performance improvement. As with many large organizations, some improvements will be more easily attained than others.

# Introduction

Oregon State University (OSU) took larger steps toward creating a more sustainable university and community during Fiscal Year 2023 (FY23). With performance that puts OSU in [The Princeton Review's Guide to 388 Green Colleges: 2023 Edition](#), and other awards detailed below, sustainability has become business as usual for Oregon State.

This report highlights accomplishments and provides a summary of indicators for the period between approximately July 1, 2022 and June 30, 2023. OSU's sustainability indicators are based largely on the now widely adopted [Sustainability Tracking, Assessment and Rating System](#) (STARS).

## Assessment, Awards and Recognition



Recognition from external entities has been key to the visibility of OSU's sustainability success. Increasing visibility is an effective recruiting tool. In FY10, OSU for the first time participated in STARS, administered by the [Association for the Advancement of Sustainability in Higher Education](#) (AASHE). Used by over 950 higher education institutions, STARS is more comprehensive and standardized than any other sustainability rating or ranking system for higher education and serves as the platform for the key performance indicators in this report. Critically, STARS is also the mechanism by which data are shared with entities like Princeton Review, saving staff time and resources, and standardizing – to the greatest degree practicable – the assessment process. In addition to the STARS assessment, OSU's awards, ratings and rankings for FY23 are listed below.

Visit the [sustainability recognition page](#) for information on these and other awards.

AASHE recognized OSU in the [2022 Sustainable Campus Index](#) for being a Top Performer in the Coordination & Planning category, and for submitting the FY22 report with very few accuracy issues.



The [Princeton Review's 2023 Guide to 388 Green Colleges](#): OSU was recognized for sustainability practices such as food sourcing, transportation, and green building, as well as opportunities to focus on the environment and sustainability in curriculum and energy efficiency.

**League of American Bicyclists Bicycle Friendly University program:** OSU maintained a Gold designation as a bicycle-friendly campus for students, staff and visitors.



**Tree Campus USA:** OSU has been recognized each year since 2010 for effectively managing campus trees, developing connectivity with the community beyond campus borders to foster healthy, urban forests, and engaging students in learning opportunities centered on campus and community forestry events.

# Fiscal Year 2023 Sustainability Highlights

## Energy secretary, senators, governor tour Oregon State wave lab, learn about green energy

U.S. Department of Energy Secretary Jennifer Granholm, Oregon U.S. Sens. Ron Wyden and Jeff Merkley and Oregon Gov. Kate Brown visited the O.H. Hinsdale Wave Research Laboratory at Oregon State University on Tuesday afternoon, with Granholm touting wave energy as “the elixir that we need” to address climate change by ending the nation’s reliance on fossil fuels.



During the 80-minute visit to the wave lab, the secretary, senators and governor mingled with graduate students who provided presentations on their research. The leaders also discussed the future of green energy with OSU faculty from the colleges of Engineering and Earth, Ocean, and Atmospheric Sciences.

## OSU College of Forestry hired Cristina Eisenberg as director of tribal initiatives



Cristina Eisenberg, an Oregon State University alumna with a background in restoration ecology, wildlife biology and Traditional Ecological Knowledge, was named the OSU College of Forestry’s first associate dean for inclusive excellence and director of tribal initiatives.

Eisenberg’s role includes serving as director of the college’s new Office for Tribal Initiatives, acting as the primary liaison with Native American Tribes throughout the Northwest, overseeing the execution of the college’s strategic plan for diversity, equity and inclusion, and working to improve the recruitment and retention of underserved student populations.

## OSU College of Forestry hosted listening session regarding research forests’ management plan

The Oregon State University College of Forestry invited community members to a listening session Wednesday, Aug. 31, regarding the development of a new management plan for the McDonald and Dunn research forests owned by OSU.

Together the two forests cover roughly 12,000 acres in the Coast Range foothills northwest of Corvallis and are used by the public for a range of recreational activities.



The listening session aimed to generate suggestions for how the [goals](#) of the research forests can be incorporated into the new forest management plan. Participants had the opportunity to provide input on the following:

- What should the plan include to ensure the forests provide opportunities for innovative education, research and outreach?

- What should the plan include to ensure the forests provide opportunities to learn about and demonstrate how sustainable management can balance multiple objectives?
- What should the management plan include to ensure the forests provide opportunities for recreation and community connections?

## OSU College of Forestry, Pacific Northwest Tribes teamed up on \$5 million forest restoration project



Faculty in the Oregon State University College of Forestry teamed up with Pacific Northwest Tribal nations on a three-year forest restoration effort whose goal is to improve the resilience of the region’s woodlands to climate change through Traditional Ecological Knowledge.

The U.S. Department of the Interior is funding the \$5 million pilot project, which will include collecting the seeds of culturally and ecologically significant plants on Bureau of Land Management lands.

Potential tribal partners included the Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians, the Confederated Tribes of the Grand Ronde, the Confederated Tribes of the Siletz, the Coquille Indian Tribe and the Cow Creek Band of the Umpqua Indians. The Oregon State University College of Forestry invited community

## OSU Received \$50 million Grant to Develop Climate-Smart Potatoes

Faculty in Oregon State University was awarded a \$50 million grant from the U.S. Department of Agriculture to work with farmers and Native American Tribes on cropping practices that can enhance soil health and reduce the carbon footprint of the Pacific Northwest potato industry.



Oregon State University is collaborating with the University of Idaho and Washington State University, Tribal nations, commodity groups and potato processing businesses on the five-year project that funded under the [USDA’s Partnerships for Climate-Smart Commodities program](#).

It is one of 70 projects totaling up to \$2.8 billion funded by the USDA to support America’s farmers, ranchers and forest owners and to strengthen U.S. rural and agricultural communities by building markets for what the USDA is calling climate-smart commodities, meaning implanting green and climate resilient practices in food and agriculture.

## Construction Started on OSU Agrivoltaics Farm



Construction is underway on a \$1.5 million project that will allow Oregon State University researchers to further optimize agrivoltaic systems that involve co-developing land for both solar photovoltaic power and agriculture.

The five-acre [Solar Harvest project](#) is located at Oregon State's North Willamette Research and Extension Center in Aurora, Oregon, 20 miles south of Portland. It is the result of a partnership between Oregon State and the Oregon Clean Power Cooperative, which developed the solar array, and whose members financed construction of the solar array.

Additional financing for construction came from a grant from Portland General Electric's Renewable Development Fund, and an investment by the Roundhouse Foundation.

## 80-Foot-Tall Sequoia Sculpture Was Installed at OSU to Evoke Changing Climate Threat Against Old-Growth Forests

An 80-foot illuminated art sculpture was installed at Oregon State University's Corvallis campus, where it was suspended in midair for 14 months among three 80-year-old sequoia trees.

Named "[Emeritus](#)," the sculpture was created by internationally renowned artist [John Grade](#) and is constructed from more than 100,000 pieces of resin and Alaskan yellow cedar that took the form of a ghostly fourth sequoia. From below, visitors were able to look up through its hollow trunk. At night, the piece was illuminated, drawing spectators into the sequoia grove on the north side of OSU's Memorial Union Quad.



Parts of the sculpture were superficially burnt, a nod to the thick, resilient bark of sequoias that helps them survive wildfire — but not necessarily withstand the sustained, extreme wildfires that are becoming more common with climate change.

## OSU College of Forestry Hosted Listening Session Regarding Research Forests' Management Plan



The Oregon State University College of Forestry invited community members to participate in a listening session Monday, Nov. 7, regarding the development of a new management plan for the McDonald and Dunn research forests.

Combined, the two forests owned by OSU cover roughly 12,000 acres in the Coast Range foothills northwest of Corvallis and provide an outdoor living laboratory and classroom for students and researchers. Many areas of the forests are open to the public as well and are used for a range of recreational activities.



The college's vision for the forests is to serve as a model for an actively and sustainably managed forest system that advances forestry through scientific inquiry, education and the application of new knowledge to inform best practices of forest management. Revenue generated through timber harvesting within the research forests is used to meet these objectives, as well as to support the college's education, research and outreach mission.

## OSU received \$4.2 Million to Study Stressors Facing Dungeness Crab, Other Marine Life Under Climate Change

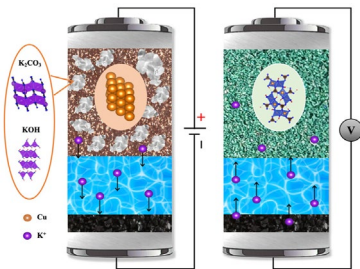
The National Oceanic and Atmospheric Administration was [awarded](#) Oregon State University and its research partners \$4.2 million to investigate how multiple climate change-related stressors are impacting marine ecosystems off the coast of Oregon, Washington and Northern California.



The researchers will focus on two key species: Dungeness crab, which plays a significant economic and cultural role in Indigenous and other coastal communities and is considered the most valuable single-species fishery in Oregon; and krill, which are tiny crustaceans that play a critical role in the ocean's food web and serve as a bellwether for ocean health.

Both species are facing threats from multiple stressors, including ocean acidification; low oxygen conditions, also known as hypoxia; marine heatwaves; increasing ocean temperatures; and harmful algal blooms.

## Oregon State Received \$3M From U.S. Dept. of Energy to Explore a More Sustainable Battery



The U.S. Department of Energy has awarded \$3 million to an Oregon State University researcher to lead the development of a new, high-energy-density battery that does not rely on rare elements.

As more and more lithium-ion batteries are manufactured to electrify the transportation sector, global demand for the nickel and cobalt necessary for the batteries' cathodes has soared, said Xiulei "David" Ji, professor of chemistry at Oregon State.

Preliminary results from Ji and other principal investigators on the project show that anion-storage batteries can deliver energy density comparable to current batteries on the market while using cost-effective carbon or metals such as copper as the electrodes.

## Oregon State Partnered with Daimler Truck as Part of \$199M Federal Push for Cleaner Cars and Trucks

Researchers in the Oregon State University College of Engineering are partnering with Daimler Truck North America to develop a zero-emissions heavy-duty truck capable of regional and long-haul freight deliveries.

OSU's Yue Cao and Alan Fern will use advanced electrical propulsion and artificial intelligence research to create



the power electronics, motor drive technology and energy management tools for a hydrogen fuel cell truck tractor with a 600-mile range, a 25,000-hour cell life and a payload capacity equivalent to that of a diesel truck.

Cao, assistant professor of electrical and computer engineering, and Fern, professor of computer science, have received \$860,000 for their role in the four-year Daimler [“SuperTruck”](#) project.

## Oregon State Opened Applications for New Polar Science Experience Program for Educators



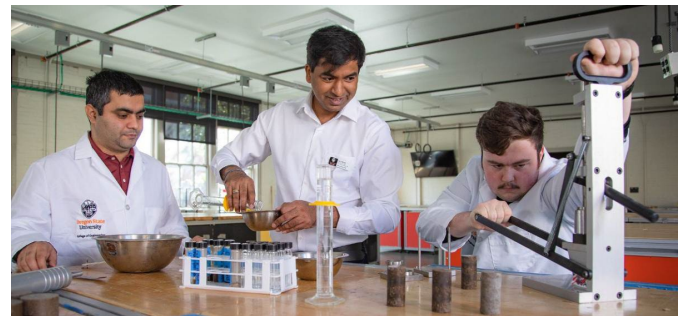
The application period opened Feb. 20 for the first round of research experiences for educators through Polar STEAM, a new Oregon State University-led program to promote the importance of research in the Arctic and Antarctic through education and the arts.

Polar STEAM, which stands for science, technology, engineering, arts and math, offers virtual and in-person research residencies for educators, artists and writers. It is funded through a multi-year, [\\$4 million award from the National Science Foundation](#).

“The program’s goal is to increase the impact and visibility of scientific work in the Arctic and Antarctic,” said Julie Risien, lead principal investigator for Polar STEAM.

## Oregon State Got a Grant to Explore Carbon Sequestration in 3D-Printed Building Materials

Oregon State University and Sandia National Laboratory have received a three-year, \$540,000 grant from the U.S. Department of Energy to explore capturing carbon dioxide from industrial emissions and sequestering it in a mineralized form in 3D-printed building materials.



Pavan Akula, assistant professor of civil engineering in the OSU College of Engineering, will team up on the project with researchers from Sandia, the Indian Institute of Science and the Indian Institute of Technology Roorkee and two industry partners, Graymont and Verdant Building Alternatives.

The researchers’ goal is to take a sector of the economy that’s a big emitter of carbon dioxide and make it significantly greener, Akula said.

## Researchers Developed Electrolyte Enabling High Efficiency of Safe, Sustainable Zinc Batteries



Scientists led by an Oregon State University researcher have developed a new electrolyte that raises the efficiency of the zinc metal anode in zinc batteries to nearly 100%, a breakthrough on the way to an alternative to lithium-ion batteries for large-scale energy storage.

The research is part of an ongoing global quest for new battery chemistries able to store renewable solar and wind energy on the electric grid for use when the sun isn't shining and the wind isn't blowing.

Xiulei "David" Ji of the OSU College of Science and a collaboration that included HP Inc. and GROTHUSS INC., an Oregon State spinout company, reported their findings in [Nature Sustainability](#).

## OSU Extension's Master Naturalist Program Earns International Award

Oregon State University Extension Service's [Oregon Master Naturalist Program](#) received the 2022 Program of the Year award from the Alliance of Natural Resources Outreach and Service Programs, an international professional development organization.



The award recognizes an especially innovative ANROSP member program for its unique, cutting edge, risk-taking educational programming, according to Jason O'Brien, statewide coordinator of the OSU Master Naturalist Program.

"I'm proud that the Oregon Master Naturalist Program was recognized by professional peers. This award reflects the dedication and hard work of many people," said O'Brien, who is chair of the organization's membership committee. "It takes countless partners and the amazing OSU Extension colleagues I work with to make the program what it is today."

## Oregon State University Researchers Receive Top Global Forestry Award from Swedish King



Darius Adams, professor emeritus in the Oregon State University College of Forestry, is one of three researchers sharing the international [Marcus Wallenberg Prize](#) for developing a pair of groundbreaking forest economic models.

The annual prize, one of the highest honors in the field of forestry is named for the late Marcus Wallenberg Jr., a banker, industrialist and member of Sweden's long-influential Wallenberg family.

Adams is the second Wallenberg awardee from the College of Forestry in the last three years. In 2020 another OSU professor emeritus, Richard Waring, was honored for developing a revolutionary computer model to predict forest growth in a changing climate.

## OSU-Cascades Researcher Explores AI Solution for Tracking and Reducing Household Food Waste

A researcher at Oregon State University-Cascades has received funding to develop a smart compost bin that tracks household food waste.

The project led by Patrick Donnelly, assistant professor of computer science in the OSU College of Engineering, seeks to make a dent in a multi-billion-dollar annual problem in the United States: More than one-third of all food produced in the U.S. goes uneaten.



“At every other step of the agricultural supply chain, food waste is tracked, measured and quantified,” Donnelly said. “However, approaches to measuring post-consumer food waste are costly, time-intensive, prone to human error and infeasible at a large scale.”

Donnelly and OSU colleagues Jason Clark of the College of Engineering and Quincy Clark of the colleges of Agricultural Sciences and Education are aiming to create a kitchen compost container that automatically measures household food waste.

## OSU Researchers to Study Climate Fluctuations in the Ocean Along Washington’s Olympic Coast

A team of Oregon State University researchers is leading a three-year effort to learn more about climate fluctuations in Olympic Coast National Marine Sanctuary using more than 20 years of oceanographic data.

The sanctuary is located off the coast of the Olympic Peninsula in Washington. It has been named a sentinel site for ocean acidification. Monitoring of ocean conditions in sentinel sites can provide early warning of changing ocean conditions, in this case along the Pacific Northwest coast, including conditions that could impact economically and culturally important fisheries.

The researchers will collaborate with Tribal scientists and resource managers from the Northwest Indian Fisheries Commission, the Columbia River Inter-Tribal Fish Commission and the Quinault Indian Nation as well as researchers from the National Oceanic and Atmospheric Administration.

## New OSU Press Book Explores the Destruction of Celilo Falls from a Child’s Perspective

In 1957 Celilo Falls, a fishery that was pivotal to the lives of many Native Americans along the Columbia River, was lost when it was flooded and destroyed by the construction of The Dalles Dam.

A new children’s book by Warm Springs Elder Linda Meanus captures those life-altering events from her perspective. The book, “My Name is



LaMoosh,” will be published by Confluence and OSU Press in June.

Meanus grew up with her grandparents, Flora and Chief Tommy Thompson, near Celilo Falls, about 100 miles east of Portland. Her life was forever altered by the falls’ destruction, but she now uses her experiences to teach young people about the Indigenous ways of the Columbia River, inspired by her grandmother Flora, a longtime advocate for fishing rights and for Celilo Falls.

## USDA Awards \$10 Million to OSU to Serve as Coordinator of Innovative Projects for Youths in Agriculture



Oregon State University Extension Service will use a five-year, \$10 million grant from the U.S. Department of Agriculture to serve as coordinator of USDA-funded projects that aim to cultivate the next generation of research, education and Extension professionals in food and agricultural sciences.

Together for Innovating Youth in Agriculture, housed at OSU and designating OSU Extension as a National Center of Excellence for Youth Development, will emphasize support, collaboration and technology to ensure the success of projects that promote positive youth development in agriculture, both regionally and nationally. OSU is the sole institution that will maintain the Youth Innovators Empowering Agriculture Across America Coordination Network (YEA-CN).

With the grant, OSU Extension will integrate racial justice, equity and opportunity frameworks in programs, training and evaluation. In addition, OSU Extension will lead the development of youth climate change curriculum with an emphasis in “climate smart” agriculture and forestry.

## OSU Hosted the 2023 Washington and Oregon Higher Education Sustainability Office

The Washington Oregon Higher Education Sustainability Conference (WOHESC) is a platform for inspiring change, facilitating action, and promoting collaboration around sustainability and social justice within the Cascadia region's higher education institutions. Hosted at the CH2M Hill Alumni Center on March 6-8, 2023, WOHESC aimed to establish a sense of connection with both environment and other people, inspire learning from emotions, and offer insights on coping, adaptation, and resilience.

The conference theme was “Mindscape and Landscape: The Intertwined Nature of Mental, Social, and Planetary Health”, and it encouraged attendees to consider holistic well-being as a tool to further an equitable and sustainable world.

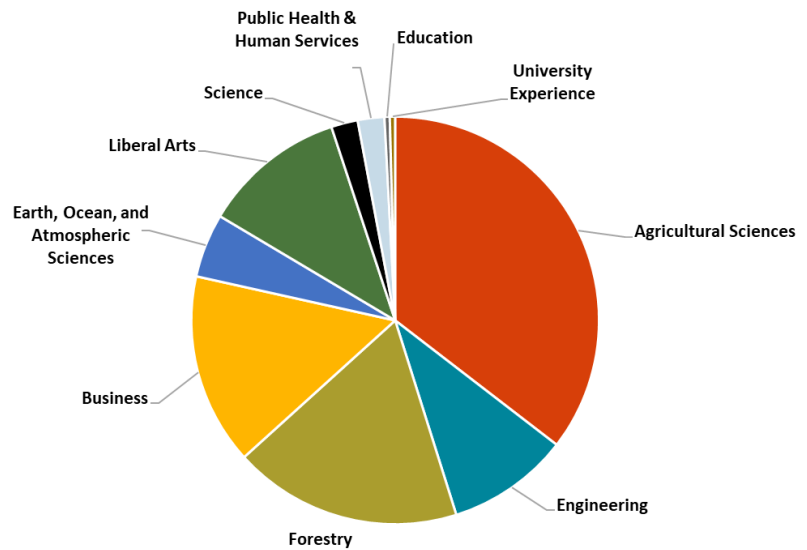


## The Sustainability Double Degree

The Sustainability Double Degree (SDD) exposes students to real-world problems and fosters knowledge, skills and abilities to address these problems in communities and workplaces. In step with the interdisciplinary nature of sustainability, the degree is designed to complement all OSU degree programs and be earned as a second bachelors in addition to a major area of study. Students take a sustainability "core" consisting of five courses: environmental science, sustainable communities, sustainability assessment, and a choice of several economics and sociology courses. In academic year 2022-2023, there were 237 students enrolled in the SDD

consisting of Corvallis campus students (38%), Ecampus students (57%) and Cascades Campus students (5%). The majority of SDD students have senior class standing (61%), 17% are juniors, 8% are sophomores, 1% are freshmen and 11% are post-baccalaureate. The inter-disciplinary SDD program includes students from all academic colleges as shown in the chart.

Sustainability Double Degree Students' Primary College



## The Sustainability Minor

The sustainability minor was first offered at OSU in Fall 2015. This minor's interdisciplinary approach teaches students to think critically about complex issues facing society and how to develop possible solutions to mitigate them. It includes core sustainability courses and tailored elective courses to expand students' knowledge and experience of their primary major in the context of sustainability principles and frameworks. Completion of the sustainability minor requires 27 credits within the 180-credit minimum for graduation. In academic year 2022-2023, there were 104 students enrolled in the sustainability minor consisting of Corvallis campus students (61%), Ecampus students (27%) and Cascades Campus students (13%). The majority of students have senior class standing (64%), 21% are juniors, and 13% are sophomores, and 1% are post-baccalaureate.

## Community Engagement and Leadership Programs Create Culture of Sustainability

Community Dialogues is an initiative offered in partnership with the Office of Institutional Diversity to advance a culture of dialogue and deliberation on campus. It is a once-per-term series which seeks to cultivate connection and deep learning through exploration of critical and contentious issues. Utilizing the National Issues Forum Model, it engages students, faculty, staff, and community members in dialogue which:

- Deepens understanding of critical issues and the tensions within them
- Encourages insight into different perspectives
- Creates connection between participants through their stories and experiences



- Guides exploration of personal ethics, morals, and values
- Inspires socio-political action, both individually and collectively.

## Continued Excellence in Solid Waste Programs

**Campus Recycling** and its partners continued programming that moved OSU toward waste reduction. Specific highlights are below.

**Repair Fairs:** The Waste Watchers, a student volunteer team coordinated by Campus Recycling, ran their fourth year of an event series called the **Repair Fairs**. At these events, volunteers from the on- and off-campus community offered free repairs for common items such as appliances, bicycles, clothing and more.



**FY23 Residence Hall Move-Out Donation Drive:** Campus Recycling, Surplus Property and University Housing and Dining Services again coordinated a **donation drive** to give residents the tools to recycle and donate materials they do not want to bring home with them upon moving out. In FY23, 32,210 pounds of donations were collected and processed.

## Continued Partnerships with the Corvallis Sustainability Coalition

Oregon State's extensive connections with and support of the **Corvallis Sustainability Coalition** continued in FY23. Activities included:

- Staffing various committees and action teams, including the Coalition Steering Committee and Executive Committee
- OSU staff leading several action teams, leveraging university resources through these channels
- Using the campus as a living laboratory for Coalition action team projects
- Offering OSU students internship opportunities with multiple Coalition projects and programs
- Students, faculty and staff volunteering at multiple events, projects and programs
- Promoting Coalition events and opportunities to the campus community through a wide variety of channels.

# Sustainability Indicators

OSU continues to experience growth in enrollment and an overall increase in building square footage. Between FY10 and FY23, total student enrollment grew an astonishing 56.09%, from 21,969 to 34,292. Twenty five percent of this increase were “distance education only” students enrolled in Ecampus courses; they were not physically present at the Corvallis campus. University building square footage also increased. For 2010, we reported an estimated 7 million square feet. Using more accurate and comprehensive methods for FY23, that number is approximately 10.59 million square feet. Other changes in assessment methods are discussed in more detail in this report.

Short narratives for three report subsections follow:

1. areas of significant performance change (improvements or declines greater than +/- 5%)
2. areas of consistently high performance
3. areas for potential improvement.

The following table shows OSU’s STARS category scores for FY23.

STARS 2.2 category name	Points Possible	FY23		FY22-FY23 % Change
		Score	%	
Academics (AC)	58	40.1	69.1%	-4.8%
Engagement (EN)	41	33.6	81.9%	0.5%
Operations (OP)	66	37.4	56.7%	0.3%
Planning & Administration (PA)	33	24.2	73.5%	-0.6%
<b>Total</b>	<b>198</b>	135.3	68.34%	-1.4%

Table 4 - STARS score summary table

These high level category scores reveal:

- High performance in Academics and Engagement
- Continued strong performance in Planning & Administration
- Weaker performance in Operations.

As shown in the tables above, OSU’s overall score decreased 1.4% between FY22 and FY23.

Like the report for FY22, this report performs analysis at the STARS subcategory level. However, **past analyses** are still relevant to OSU’s progress. While this and subsequent reports focus on subcategory trends, readers are encouraged to explore the full set of credit scores in this document’s appendix.



## Subcategories of significant change between FY22 and FY23

This section details performance changes between FY22 and FY23 within STARS subcategories. “Significant change” is considered here to be greater than +/- 5% for STARS subcategory scores; **those scores are bolded below in Table 5**. The narratives following the table discuss possible reasons for subcategory score changes. As evident in the table, the number of points possible within a STARS subcategory heavily influences that subcategory’s impact on the institutional score. A lower score in Grounds, for example, is more than offset by an improved score in Curriculum.

STARS 2.2 sub-category name	Points Possible	FY22		FY23		FY22-FY23 % Change
		Score	%	Score	%	
<b>Curriculum</b>	<b>40</b>	<b>27.5</b>	<b>68.7%</b>	<b>24.2</b>	<b>60.4%</b>	<b>-8.3%</b>
Research	<b>18</b>	15.4	85.7%	15.9	88.5%	2.8%
Campus Engagement	<b>21</b>	17.2	81.7%	17.3	82.3%	0.7%
Public Engagement	<b>20</b>	16.2	81.1%	16.3	81.5%	0.4%
Air & Climate	<b>11</b>	6.1	55.5%	6.2	56.6%	1.2%
Buildings	<b>5</b>	3.2	39.4%	1.9	38.0%	-1.4%
Energy	<b>10</b>	4.8	48.1%	4.8	47.5%	-0.6%
<b>Food &amp; Dining</b>	<b>8</b>	<b>3.5</b>	<b>43.6%</b>	<b>3.0</b>	<b>37.3%</b>	<b>-6.4%</b>
Grounds	<b>4</b>	3.1	76.3%	3.1	76.3%	0.0%
Purchasing	<b>6</b>	3.7	62.2%	3.9	65.3%	3.2%
Transportation	<b>7</b>	4.2	59.9%	4.3	61.9%	2.0%
Waste	<b>9</b>	5.9	59.4%	5.6	62.7%	3.3%
<b>Water</b>	<b>6</b>	<b>5.0</b>	<b>83.2%</b>	<b>4.6</b>	<b>76.7%</b>	<b>-6.5%</b>
Coordination & Planning	<b>9</b>	9.0	100.0%	9.0	100.0%	0.0%
Diversity & Affordability	<b>10</b>	7.9	78.9%	8.0	80.4%	1.5%
Investment & Finance	<b>7</b>	3.9	56.0%	3.7	53.0%	-3.0%
Wellbeing & Work	<b>7</b>	3.6	51.9%	3.5	49.9%	-2.0%
<b>Total</b>	<b>198</b>	<b>140.15</b>	<b>69.38%</b>	<b>135.31</b>	<b>68.34%</b>	<b>-1.0%</b>

Table 5 - STARS subcategory comparison – areas of significant change.

### Curriculum (FY22-FY23 change: -8.3%)

An institution earns the maximum points in the Academic Courses credit if 20 percent or more of all courses offered are sustainability-focused or sustainability-inclusive and if 90 percent or more of academic departments offer at least one sustainability-focused or sustainability-inclusive course. In FY22, 15.79% of OSU’s courses were sustainability course offerings, compared to 11.72% in FY23. Also, in FY22 OSU’s percentage of academic departments with sustainability course offerings was 83%, compared to 75% in FY23.

### Food & Dining (FY22-FY23 change: -6.4%)

An institution earns the maximum points available for this subcategory when the weighted cost of products that are sustainably/ethically produced and/or plant-based is equivalent to 100 percent or more of total food and beverage expenditures. OSU’s percentage of total annual food and beverage expenditures on products that are sustainably or ethically produced was 10.28% in FY22, compared to 4.67% in FY23. Similarly, OSU’s percentage of total annual food and beverage expenditures on plant-based foods was 29.15% in FY22, compared to 23.35% in FY23.

**Water (FY22-FY23 change: -6.5%)**

It is valuable to look at a longer trend of the Water subcategory's largest (and only changing) credit: Water Use. Each year since FY10, OSU has held water consumption lower than the FY05 baseline established for STARS, which awards full points for the Water Use credit when institutions achieve a 30% or greater reduction relative to the baseline. OSU's FY23 percentage reduction in potable water use per weighted campus user from baseline was 28.4%, compared to 32.4% in FY22.

<b>Reporting Year</b>	<b>Water Use (gallons)</b>	<b>Water Use per full time equivalent student (gallons)</b>
FY05 (baseline year)	267,228,984	14,865.05
FY17	243,053,624	9,162.50
FY18	256,157,836	9,535.07
FY19	251,054,980	9,375.10
FY20	202,819,452	7,478.59
FY21	205,727,384	7,861.19
FY22	212,196,204	7,695.24
FY23	230,861,972	8,076.33

*Table 8 - OSU Corvallis campus water consumption*

## Subcategories of high performance

Categories of “high performance” are those where OSU achieved 80% or more of STARS points in the most recent submission. Those subcategories are bolded in the table below.

STARS 2.2 sub-category name	Points Possible	FY22		FY23		FY22-FY23
		Score	%	Score	%	% Change
Curriculum	<b>40</b>	27.5	68.7%	24.2	60.4%	-8.3%
<b>Research</b>	<b>18</b>	<b>15.4</b>	<b>85.7%</b>	<b>15.9</b>	<b>88.5%</b>	2.8%
<b>Campus Engagement</b>	<b>21</b>	<b>17.2</b>	<b>81.7%</b>	<b>17.3</b>	<b>82.3%</b>	0.7%
<b>Public Engagement</b>	<b>20</b>	<b>16.2</b>	<b>81.1%</b>	<b>16.3</b>	<b>81.5%</b>	0.4%
Air & Climate	<b>11</b>	6.1	55.5%	6.2	56.6%	1.2%
Buildings	<b>5</b>	3.2	39.4%	1.9	38.0%	-1.4%
Energy	<b>10</b>	4.8	48.1%	4.8	47.5%	-0.6%
Food & Dining	<b>8</b>	3.5	43.6%	3.0	37.3%	-6.4%
Grounds	<b>4</b>	3.1	76.3%	3.1	76.3%	0.0%
Purchasing	<b>6</b>	3.7	62.2%	3.9	65.3%	3.2%
Transportation	<b>7</b>	4.2	59.9%	4.3	61.9%	2.0%
Waste	<b>9</b>	5.9	59.4%	5.6	62.7%	3.3%
Water	<b>6</b>	5.0	83.2%	4.6	76.7%	-6.5%
<b>Coordination &amp; Planning</b>	<b>9</b>	<b>9.0</b>	<b>100.0%</b>	<b>9.0</b>	<b>100.0%</b>	0.0%
<b>Diversity &amp; Affordability</b>	<b>10</b>	<b>7.9</b>	<b>78.9%</b>	<b>8.0</b>	<b>80.4%</b>	1.5%
Investment & Finance	<b>7</b>	3.9	56.0%	3.7	53.0%	-3.0%
Wellbeing & Work	<b>7</b>	3.6	51.9%	3.5	49.9%	-2.0%
<b>Total</b>	<b>198</b>	<b>140.15</b>	<b>69.38%</b>	<b>135.31</b>	<b>68.34%</b>	<b>-1.0%</b>

Table 7 - STARS subcategory comparison – areas of high performance.

### Research (FY23 score: 88.5%)

With OSU’s Carnegie Classification as a high research intensity institution, and as one of only two land, sea, space and sun grant universities in the U.S., high scores in Research are not surprising. An institution earns the maximum points available when 15 percent or more of its employees that conduct research are engaged in sustainability research, and when 75 percent or more of departments that conduct research are engaged in sustainability research. For FY23, OSU demonstrated engagement from 61.6% of departments that conduct research. Similarly, the percentage of the institution's faculty and staff researchers engaged in sustainability research in FY23 was 39.1%.

### Campus Engagement (FY23 score: 82.3%)

Oregon State continues to be a place of great opportunity for students who want to become engaged with campus sustainability projects, services and programs. OSU’s strong commitment to student engagement around sustainability by Community Engagement and Leadership, Campus Recycling and the Sustainability Office, covered all student-oriented credits within this subcategory.

### Public Engagement (FY23 score: 81.5%)

Oregon State continues to support students, faculty, and staff who want to become engaged with community partners. OSU’s strong commitment to community engagement around sustainability is led by Community Engagement & Leadership, the Sustainability Office, and the Continuing Education Program.

## Coordination & Planning (FY23 score: 100%)

In FY23, OSU has attained full scores for:

- 1) having sustainability staff and committees;
- 2) having formal participatory or shared governance bodies through which students, academic staff, and non-academic staff can regularly participate in the governance of the institution;
- 3) having women and/or individuals who do not self-identify as men, comprise at least 20 percent of the official members of the institution's highest governing body;
- 4) hosting or supporting one or more formal bodies through which external stakeholders (i.e., local community members) have a regular voice in institutional decisions that affect them; and
- 5) having a published plan or plans that include measurable sustainability objectives that address student, employee, or community engagement for sustainability ([the Path to Carbon Neutrality](#)).

## Diversity & Affordability (FY23 score: 83.8%)

Oregon State continues to demonstrate strengths in the topics covered by this subcategory. Assessment of diversity initiatives continues to be qualitative and OSU has again scored full points in the diversity related credits of this subcategory.

	FY22	FY23
The percentage of entering students that are low-income	22	25.4
The graduation/success rate for low-income students	55.4	60.6
Percentage of need met, on average, for students who were awarded any need-based aid	51.7	50.6
Percentage of students graduating without student loan debt	46	50

*Table 9 - Indicators that the institution is accessible and affordable to low-income students*

## Subcategories of potential improvement

This section details areas of potential score improvement and reasons for lower performance in some areas. Generally, subcategories for which the university scored 59.9% or fewer of available points are included in this section.

STARS 2.2 sub-category name	Points Possible	FY22		FY23		FY22-FY23 % Change
		Score	%	Score	%	
Curriculum	40	27.5	68.7%	24.2	60.4%	-8.3%
Research	18	15.4	85.7%	15.9	88.5%	2.8%
Campus Engagement	21	17.2	81.7%	17.3	82.3%	0.7%
Public Engagement	20	16.2	81.1%	16.3	81.5%	0.4%
<b>Air &amp; Climate</b>	<b>11</b>	<b>6.1</b>	<b>55.5%</b>	<b>6.2</b>	<b>56.6%</b>	1.2%
<b>Buildings</b>	<b>5</b>	<b>3.2</b>	<b>39.4%</b>	<b>1.9</b>	<b>38.0%</b>	-1.4%
<b>Energy</b>	<b>10</b>	<b>4.8</b>	<b>48.1%</b>	<b>4.8</b>	<b>47.5%</b>	-0.6%
<b>Food &amp; Dining</b>	<b>8</b>	<b>3.5</b>	<b>43.6%</b>	<b>3.0</b>	<b>37.3%</b>	-6.4%
Grounds	4	3.1	76.3%	3.1	76.3%	0.0%
Purchasing	6	3.7	62.2%	3.9	65.3%	3.2%
Transportation	7	4.2	59.9%	4.3	61.9%	2.0%
Waste	9	5.9	59.4%	5.6	62.7%	3.3%
Water	6	5.0	83.2%	4.6	76.7%	-6.5%
Coordination & Planning	9	9.0	100.0%	9.0	100.0%	0.0%
Diversity & Affordability	10	7.9	78.9%	8.0	80.4%	1.5%
Investment & Finance	7	3.9	56.0%	3.7	53.0%	-3.0%
<b>Wellbeing &amp; Work</b>	<b>7</b>	<b>3.6</b>	<b>51.9%</b>	<b>3.5</b>	<b>49.9%</b>	-2.0%
<b>Total</b>	<b>198</b>	<b>140.15</b>	<b>69.38%</b>	<b>135.31</b>	<b>68.34%</b>	<b>-1.0%</b>

Table 10 - STARS subcategory comparison – areas of potential improvement.

Because Food & Dining has been discussed previously in the subcategories of significant change section of this report, it will not be included in the discussion here.

### Air & Climate (FY23 score: 56.6%)

In Air and Climate, OSU obtained 4.5 out of 8 points for FY23. As shown in OSU's annual greenhouse gas inventory reports, even though gross emissions decreased since FY22, OSU still needs to get closer to achieving zero adjusted net Scope 1 and 2 GHG emissions, and include Scope 3 GHG emissions from purchased goods and services, capital goods, and waste generated in operations, to get a higher score in this category.

### Buildings (FY23 score: 38.0%)

In this category, an institution earns the maximum score by having all eligible building space certified at the highest achievable level under a multi-attribute, green building rating system focused on the operations and maintenance (O+M) of existing buildings, in addition to certification of new construction. Incremental points are awarded based on the percentage of building space that is certified at each level and/or maintained in accordance with a sustainable operations and maintenance policy/program. OSU space is **operated and maintained** in accordance with either a single-attribute or a multi-attribute, sustainable management policy/program, but not **certified** under an O+M rating system. Without third-party certified space, only partial points are available to OSU.

### **Energy (FY23 score: 47.5%)**

An institution earns the maximum points of the Clean and Renewable Energy credit for this subcategory by obtaining energy from clean and renewable sources and/or by purchasing unbundled renewable energy products equivalent to 100 percent of total campus energy consumption. OSU's percentage of total energy consumption from clean and renewable sources was 1.18%, which greatly contributed to this low score.

### **Wellbeing & Work (FY23 score: 49.9%)**

The low score in this subcategory is due to a decrease in percentage of employees that receive a living wage. In FY23 the percentage of employees that receive a living wage was 79.96%; in FY22 it was 80.83%.

# Appendix

## STARS 2.2 Credit Score Detail Table

	Points	FY22		FY23		% Change
	Possible	Score	%	Score	%	
<b>Curriculum</b>	<b>40</b>	<b>27.47</b>	<b>68.8%</b>	<b>24.15</b>	<b>60.4%</b>	<b>-8.4%</b>
AC-1: Academic Courses	14	11.87	84.8%	9.69	69.2%	-15.6%
AC-2: Learning Outcomes	8	3.60	45.6%	2.46	30.8%	-14.9%
AC-3: Undergraduate Program	3	3.00	100.0%	3.00	100.0%	0.0%
AC-4: Graduate Program	3	3.00	100.0%	3.00	100.0%	0.0%
AC-5: Immersive Experience	2	2.00	100.0%	2.00	100.0%	0.0%
AC-6: Sustainability Literacy Assessment	4	0.00	0.0%	0.00	0.0%	0.0%
AC-7: Incentives for Developing Courses	2	0.00	0.0%	0.00	0.0%	0.0%
AC-8: Campus as a Living Laboratory	4	4.00	100.0%	4.00	100.0%	0.0%
<b>Research</b>	<b>18</b>	<b>15.42</b>	<b>90.9%</b>	<b>15.93</b>	<b>88.5%</b>	<b>-2.4%</b>
AC-9: Research and Scholarship	12	10.42	94.8%	10.93	91.1%	-3.7%
AC-10: Support for Research	4	3.00	75.0%	3.00	75.0%	0.0%
AC-11: Open Access to Research	2	2.00	100.0%	2.00	100.0%	0.0%
<b>Campus Engagement</b>	<b>21</b>	<b>17.15</b>	<b>81.7%</b>	<b>17.29</b>	<b>82.3%</b>	<b>0.7%</b>
EN-1: Student Educators Program	4	3.07	77.3%	3.21	80.3%	3.0%
EN-2: Student Orientation	2	2.00	100.0%	2.00	100.0%	0.0%
EN-3: Student Life	2	2.00	100.0%	2.00	100.0%	0.0%
EN-4: Outreach Materials and Publications	2	2.00	100.0%	2.00	100.0%	0.0%
EN-5: Outreach Campaign	4	4.00	100.0%	4.00	100.0%	0.0%
EN-6: Assessing Sustainability Culture	1	0.00	0.0%	0.00	0.0%	0.0%
EN-7: Employee Educators Program	3	1.83	60.3%	1.83	61.0%	0.7%
EN-8: Employee Orientation	1	1.00	100.0%	1.00	100.0%	0.0%
EN-9: Staff Professional Development	2	1.25	62.5%	1.25	62.5%	0.0%
<b>Public Engagement</b>	<b>20</b>	<b>16.22</b>	<b>79.1%</b>	<b>16.30</b>	<b>81.5%</b>	<b>2.5%</b>
EN-10: Community Partnerships	3	3.00	100.0%	3.00	100.0%	0.0%
EN-11: Inter-Campus Collaboration	3	2.50	83.3%	2.50	83.3%	0.0%
EN-12: Continuing Education	5	5.00	100.0%	5.00	100.0%	0.0%
EN-13: Community Service	5	1.72	26.2%	1.80	36.0%	9.8%
EN-14: Participation in Public Policy	2	2.00	100.0%	2.00	100.0%	0.0%
EN-15: Trademark Licensing	2	2.00	100.0%	2.00	100.0%	0.0%
<b>Air &amp; Climate</b>	<b>11</b>	<b>6.10</b>	<b>56.1%</b>	<b>6.23</b>	<b>56.6%</b>	<b>0.5%</b>
OP-1: Emissions Inventory and Disclosure	3	1.73	57.7%	1.73	57.7%	0.0%
OP-2: Greenhouse Gas Emissions	8	4.37	55.5%	4.50	56.3%	0.7%
<b>Buildings</b>	<b>8</b>	<b>3.15</b>	<b>39.4%</b>	<b>1.90</b>	<b>23.8%</b>	<b>-15.6%</b>
OP-3: Building Design and Construction	3	1.25	41.7%	0.00	0.0%	-41.7%
OP-4: Building Operations and Maintenance	5	1.90	38.0%	1.90	38.0%	0.0%
<b>Energy</b>	<b>10</b>	<b>4.81</b>	<b>51.3%</b>	<b>4.75</b>	<b>47.5%</b>	<b>-3.8%</b>
OP-5: Building Energy Efficiency	6	4.76	84.7%	4.72	78.7%	-6.0%
OP-6: Clean and Renewable Energy	4	0.05	1.3%	0.03	0.8%	-0.5%

<b>Food &amp; Dining</b>	<b>8</b>	<b>3.49</b>	<b>43.6%</b>	<b>2.98</b>	<b>37.3%</b>	<b>-6.4%</b>
OP-7: Food and Beverage Purchasing	6	1.49	24.8%	0.98	16.3%	-8.5%
OP-8: Sustainable Dining	2	2.00	100.0%	2.00	100.0%	0.0%
<b>Grounds</b>	<b>4</b>	<b>3.05</b>	<b>76.3%</b>	<b>3.05</b>	<b>76.3%</b>	<b>0.0%</b>
OP-9: Landscape Management	2	1.05	52.5%	1.05	52.5%	0.0%
OP-10: Biodiversity	2	2.00	100.0%	2.00	100.0%	0.0%
<b>Purchasing</b>	<b>6</b>	<b>3.73</b>	<b>60.7%</b>	<b>3.92</b>	<b>65.3%</b>	<b>4.7%</b>
OP-11: Sustainable Procurement	3	2	66.7%	2	66.7%	0.0%
OP-12: Electronics Purchasing	1	0.65	65.0%	0.80	80.0%	15.0%
OP-13: Cleaning and Janitorial Purchasing	1	0.86	74.0%	0.90	90.0%	16.0%
OP-14: Office Paper Purchasing	1	0.22	25.0%	0.22	22.0%	-3.0%
<b>Transportation</b>	<b>7</b>	<b>4.19</b>	<b>61.3%</b>	<b>4.33</b>	<b>61.9%</b>	<b>0.6%</b>
OP-15: Campus Fleet	1	0.09	9.0%	0.09	9.0%	0.0%
OP-16: Commute Modal Split	5	3.50	72.0%	3.64	72.8%	0.8%
OP-17: Support for Sustainable Transportation	1	0.60	60.0%	0.60	60.0%	0.0%
<b>Waste</b>	<b>10</b>	<b>5.94</b>	<b>75.8%</b>	<b>5.64</b>	<b>56.4%</b>	<b>-19.4%</b>
OP-18: Waste Minimization and Diversion	8	4.42	71.5%	4.64	58.0%	-13.5%
OP-19: Construction and Demolition Waste Diversion	1	0.52	86.0%	0.00	0.0%	-86.0%
OP-20: Hazardous Waste Management	1	1.00	100.0%	1.00	100.0%	0.0%
<b>Water</b>	<b>6</b>	<b>4.99</b>	<b>85.3%</b>	<b>4.60</b>	<b>76.7%</b>	<b>-8.7%</b>
OP-21: Water Use	4	2.99	78.0%	2.60	65.0%	-13.0%
OP-22: Rainwater Management	2	2.00	100.0%	2.00	100.0%	0.0%
<b>Coordination &amp; Planning</b>	<b>9</b>	<b>9.00</b>	<b>93.8%</b>	<b>9.00</b>	<b>100.0%</b>	<b>6.3%</b>
PA-1: Sustainability Coordination	1	1.00	100.0%	1.00	100.0%	0.0%
PA-2: Sustainability Planning	4	4.00	87.5%	4.00	100.0%	12.5%
PA-3: Participatory Governance	3	3.00	100.0%	3.00	100.0%	0.0%
PA-4: Reporting Assurance	1	1.00	0.0%	1.00	100.0%	100.0%
<b>Diversity &amp; Affordability</b>	<b>10</b>	<b>7.89</b>	<b>78.9%</b>	<b>8.04</b>	<b>80.4%</b>	<b>1.5%</b>
PA-5: Diversity and Equity Coordination	2	1.56	78.0%	1.56	78.0%	0.0%
PA-6: Assessing Diversity and Equity	1	1.00	100.0%	1.00	100.0%	0.0%
PA-7: Support for Underrepresented Groups	3	3.00	100.0%	3.00	100.0%	0.0%
PA-8: Affordability and Access	4	2.33	58.3%	2.48	62.0%	3.8%
<b>Investment &amp; Finance</b>	<b>7</b>	<b>3.92</b>	<b>46.3%</b>	<b>3.71</b>	<b>53.0%</b>	<b>6.7%</b>
PA-9: Committee on Investor Responsibility	2	0.50	25.0%	0.50	25.0%	0.0%
PA-10: Sustainable Investment	4	2.42	43.5%	2.21	55.3%	11.8%
PA-11: Investment Disclosure	1	1.00	100.0%	1.00	100.0%	0.0%
<b>Wellbeing &amp; Work</b>	<b>7</b>	<b>3.63</b>	<b>65.4%</b>	<b>3.49</b>	<b>49.9%</b>	<b>-15.6%</b>
PA-12: Employee Compensation	3	0.85	52.3%	0.80	26.7%	-25.7%
PA-13: Assessing Employee Satisfaction	1	0.36	36.0%	0.36	36.0%	0.0%
PA-14: Wellness Program	1	1.00	100.0%	1.00	100.0%	0.0%
PA-15: Workplace Health and Safety	2	1.42	82.5%	1.33	66.5%	-16.0%