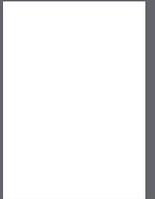




SUSTAINABILITY

PLAN UPDATE 2017



Utah State University Sustainability Policy 106.1

Introduction

Utah State University (USU) is one of the nation's premier, student-centered, land-grant, and space-grant universities. The University is committed to enhancing the quality of life for individuals and communities by promoting sustainability in its operations and academic and service missions.

USU will develop appropriate systems for managing environmental, social, and economic sustainability programs with specific goals and objectives. This policy supports the goal of the USU statewide system to prepare students, faculty, and staff to proactively contribute to a high quality of life for present and future generations.

In the 10 years since Utah State University became a signatory to the American College & University Presidents' Climate Commitment, much has changed. The university's scope 1 and 2 greenhouse gas emissions have decreased 18.5% per weighted campus user. To advance USU's goals toward carbon neutrality by 2050, new buildings meet LEED Silver certification or above. For the energy serving classrooms and research labs that serve the university's mission, renewable energy is increasingly important, and USU staff continue to explore opportunities for larger installations. Sustainability in operations extends beyond energy to water, procurement practices, food sourcing, waste management, and more topics covered in this plan.

Perhaps the longest standing piece of USU's efforts in sustainability is the Aggie Shuttle. When it started in 1979, it is unlikely anyone knew it would facilitate over a million trips per year. Aggie Shuttle is now complemented by Cache Valley Transit District, Aggie Blue Bikes, carshare, ride-share, and Aggie Commuter Club programs to serve the transportation needs of the USU community. These accomplishments support clean air while providing resources students need to be successful inside and outside the classroom.

Pursuing the university's primary missions of education, service, and research, students are learning about sustainability in the classroom to prepare them for the challenges of the 21st century. Destinations: Planetary Thinking in the Curriculum began in 2016 to increase awareness among faculty and increase the number of students exposed to sustainability concepts. Seventeen faculty each year from diverse academic backgrounds workshop their ideas to add sustainability to new and existing courses while they network with other participants. If all Planetary Thinking faculty include sustainability in all of their courses, thousands of students learn about sustainability each year.

Outside the classroom, the Student Sustainability Grant program lets students shape the university to reflect their vision of the future. Grants have enabled students to install water bottle filling stations, place bike racks, launch campus-wide recycling, establish pre-consumer composting, and start the USU Farmers Market. Furthermore, students working with the Student Sustainability Office, Sustainability Council, Student Organic Farm, Aggie Blue Bikes, EcoHouse, Aggie Sustainability, and other clubs meet weekly to coordinate initiatives in the Student Sustainability Corps. Students are as active as they ever have been in making the world better for present and future generations.

Overall, Utah State's sustainability programs are thriving. Beyond student initiatives, the university completed its second Sustainability Tracking, Assessment & Rating System (STARS) report, rating at the Silver level. USU is a Bicycle Friendly University at the Silver level in a Bicycle Friendly Community. The Sustainability Council and its cross-campus membership are celebrating 10 years of advancing sustainability on the Utah State University campus, building on decades of efforts from people who came before. This update to the Sustainability Plan establishes goals that take the university to 2020 and beyond, building to the goal of carbon neutrality in 2050 and a safe, healthy future for our students, alumni, community, and their children.

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Acronyms

- » AASHE- Association for Advancement of Sustainability in Higher Education
- » ABB- Aggie Blue Bikes
- » ACUPCC- American College and University Presidents' Climate Commitment
- » BGG- Blue Goes Green
- » CAP- Climate Action Plan
- » CO₂e- Carbon dioxide equivalent
- » CSA- Community Supported Agriculture
- » CVTD- Cache Valley Transit District
- » DFCM- Division of Facilities Construction and Management
- » EUI- Energy use intensity
- » FTE- Full time equivalent
- » FY- Financial Year
- » GHG- Greenhouse Gas
- » IAQ- Indoor air quality
- » IPM- Integrated pest management
- » LEED- Leadership in Energy & Environmental Design
- » LID- Low Impact Development
- » MPG- Miles per gallon
- » SC- Sustainability Council
- » SOAR- Student Orientation, Advising, and Registration
- » SSC- Student Sustainability Corps
- » SSO- Student Sustainability Office
- » STARS- Sustainability Tracking, Assessment and Rating System
- » TDM- Transportation Demand Management
- » USU- Utah State University
- » USUSA- Utah State University Student Association
- » VOC- Volatile organic compound

Utah State University Goals

The work groups of the Sustainability Council have developed the following goals to update the University's sustainability plan. Each work group's section describes specific goals in detail. Together they form a vision of sustainability at Utah State University for the future.

1. SUSTAINABILITY EDUCATION & ENGAGEMENT

- a. Engage 15% of the USU FTE student enrollment in sustainability by FY 2020
- b. Engage 15% of students in on-campus housing in sustainability by FY 2020
- c. Engage 5% of faculty and staff in sustainability

2. GREENHOUSE GAS REDUCTION

- a. Energy
 - i. Reduce energy 5% per square foot annually through FY 2020.
- b. Transportation
 - i. Reduce carbon emission from the university fleet from an estimated 1,900 metric tons CO₂e per year to 1,750 metric tons CO₂e per year by 2020.
 - ii. Increase the share of low-carbon transportation alternatives (carpool, bus, and non-motorized transportation) by students and employees by 5% by 2020.

3. WASTE REDUCTION

- a. Reduce waste by 20% per weighted campus user by FY 2020 from FY 2007.
- b. Increase waste diversion to 35% by FY 2020 from 25% in FY 2012

4. PRINCIPLED PRACTICE

- a. Purchase 25% of food served in university-owned facilities that is grown or produced or both within 250 miles of Logan by FY 2020.
- c. Implement water management or benchmarking program.
- b. Establish green cleaning standards. Work toward LEED Existing Building requirements for green cleaning by FY 2020.

Curriculum MISSION: The Curriculum Work Group is charged with developing methods to educate the campus and move Utah State towards sustainability by facilitating faculty and students in the development of intellectual tools and practical skills to become caring and competent stewards of the planet, its people, and resources.

BACKGROUND

The Curriculum Work Group of the Sustainability Council is working towards providing all USU students with an educational experience related to sustainability principles and environmental literacy.

- » In 2008, the Curriculum Work Group proposed changes to USU General Education Breadth Courses to encourage inclusion of sustainability principles in new courses. Although this proposal did not pass, Work Group members participate and encourage the University's General Education Committee to include sustainability principles in USU 1300-level general education science courses and continue to look at other avenues for including sustainability in the curriculum.
- » In 2016, the *Planetary Thinking: Sustainability in the Curriculum* workshop launched to provide faculty with resources and connections to include sustainability in their courses.
- » The Curriculum Work Group assisted in the compilation of sustainability course offerings for STARS reporting, and has supported the publication of these offerings to the University at large.

2013 GOALS UPDATES

1. Promote ecological literacy and innovation by highlighting university accomplishments, investments, infrastructure, and operations as an example for the students, faculty, and society.
 - a. Inform students of ways they could engage in environmentally responsible behaviors as part of the campus community through collaboration with the marketing work group.
 - » Students receive a *Get Involved* brochure at student orientation sessions before school begins in the fall. Read the engagement section for more information.
 - b. Establish a list of sustainability-related field trips, guest speakers, and research opportunities available on campus by FY 2015.
 - » A list of field trips and guest speakers is available online (see appendix A). Research opportunities are partially covered through the Sustainability Grant idea page and Service Learning project opportunities.
 - c. Develop and publicize USU's Ecological Footprint Barometer to measure and monitor the accomplishments of the University community towards becoming an environmental university and reducing our ecological footprint by 2015.
 - » USU's Sustainability Tracking, Assessment and Rating System (STARS) reports are available publicly online, as are USU's greenhouse gas inventories.
4. Meet or exceed National Wildlife Foundation Criteria for Exemplary Schools and sustainability education characteristics by expanding the undergraduate environmental or sustainability related major and minor degree throughout the University by 2020.
 - » The university tracks sustainability majors, minors, and learning outcomes through STARS, rather than the National Wildlife Foundation. Undergraduate programs related to sustainability at USU include the Environmental Studies major and Sustainable Systems and Climate Change & Energy minors.
5. Reach 75% of all students with at least one sustainability-focused or related course by 2018

- a. Work within the General Education Committee of the University to incorporate sustainability principles into the criteria for all breadth designated general education courses.
 - » 7.4% of all students graduate from a program with at least one sustainability outcome. However, more graduates took at least one course including sustainability.
 - » 74% of departments have at least one sustainability course offering
- b. Work within the General Education Committee to develop requirements for all students at USU to complete a sustainability-focused or sustainability-related course as a requirement for the completion of their undergraduate degrees as a way of introducing all USU students to the concepts and principles of sustainability.
 - » No progress has been made in this area. However, the curriculum work group will attempt to develop a sustainability-focused general education criteria for all general education areas during AY 2018-2019.
- c. Develop an in-house faculty training program on environmental and sustainability literacy to support the development of these principles in curricula throughout the University by 2018
 - » Planetary Thinking launched in 2016 and has reached 33 faculty members.
4. Support and expedite the creation of an environmental institute on campus. Such an institute would coordinate and increase University environmental research and course offerings and create opportunities for undergraduate and graduate students to participate in environmental research.
 - » Turnover in the leadership at the university and limited federal and state support have limited progress on this goal. A Climate Adaptation Science program began in 2017 and serves graduate students by combining research, collaborations, education, and internship experiences.
5. Ensure that sustainability ignorance is NOT an option for anyone leaving USU.

GOALS

1. Increase from 4.1% to 10% of classes include sustainability by 2020.
2. Increase from 7.4% to 15% of majors with a sustainability outcome by 2020.
3. Implement a pilot pre- and post-sustainability assessment in a subset of students by 2020.

METRICS

To assess progress in the expansion of environmental literacy and sustainability fundamentals throughout the curriculum, periodic assessment of the number and distribution of course offerings and degrees available to undergraduate and graduates students occurs. Metrics required for STARS reporting provide a baseline for the collection and evaluation of these data:

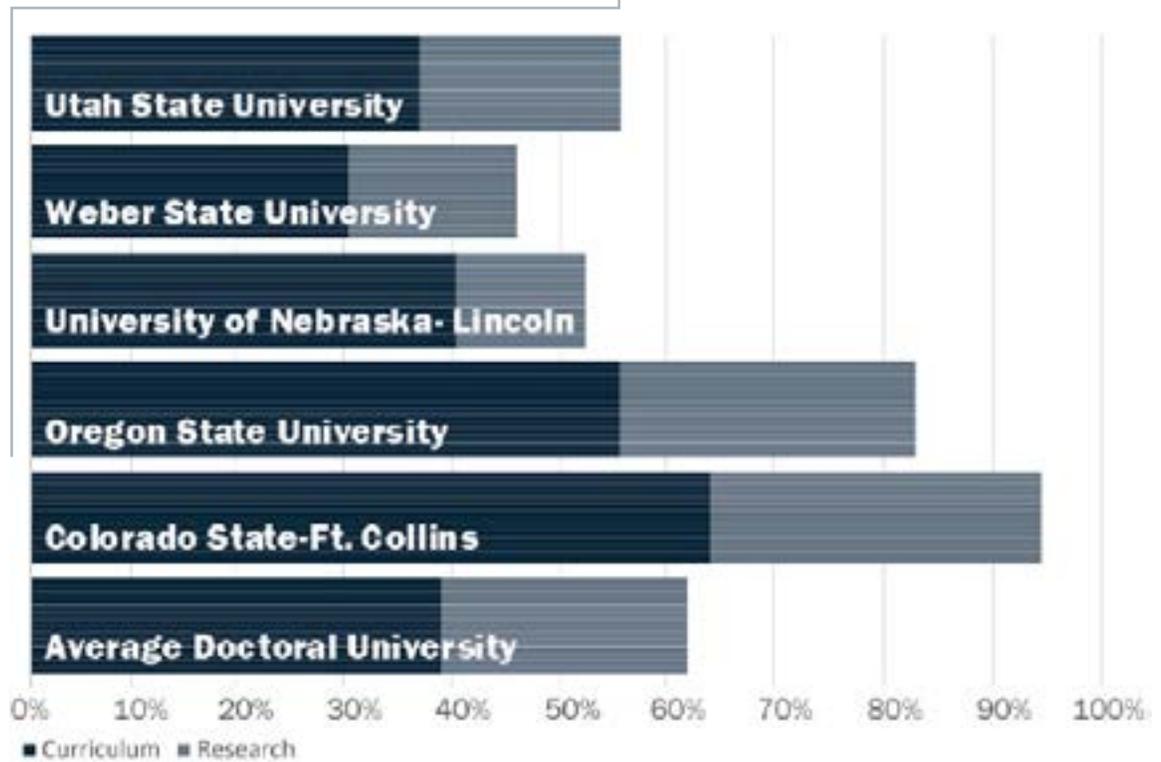
- Sustainability courses offered
- Students graduating from a program with a sustainability outcome
- Scores on a pre- and post-sustainability assessment

Further metrics that were proposed in 2013 would still be helpful indicators. However, the collection of these data has not been feasible. These include:

- Identification of courses that include the study and research of campus environmental issues, and the number of students involved in such campus related activities.
- Identification of student research projects that have resulted from these courses and any campus environmental programs that were subsequently implemented from this work.

STARS Benchmark

The graphs in each section represent the Sustainability Tracking Assessment & Rating System (STARS) scores of USU, selected peer institutions, and the average of doctoral institutions that have completed STARS reporting.



MISSION: Create, maintain, and operate an environmentally responsible campus built environment that will minimize energy and water consumption, reduce greenhouse gas emissions, and promote the development and use of renewable energy sources

BACKGROUND

USU is committed to improving energy efficiency and reducing greenhouse gas emissions. The university meters electricity, natural gas, water, chilled water, and steam condensate for most facilities on campus to support this goal. In 2015, approximately 14% of electricity used was hydro and solar. The remaining electricity was coal and natural gas. Heating is either natural gas or waste heat from the gas turbine producing electricity. To move toward carbon neutrality, USU is improving efficiency and exploring renewable energy options.

ACCOMPLISHMENTS

1. Policy
 - New buildings meet commitments to ACUPCC LEED Silver standards and DFCM high performance building standards.
 - Twelve LEED certified buildings are on USU campuses, including two LEED Platinum and five LEED Gold. An additional five buildings are pending.
 - USU Policy 525: Energy Conservation and Efficiency, which includes behavior change components, passed in 2012.
 - New electronics, appliances, and equipment must meet Energy Star requirements.
2. Existing Buildings
 - A commissioning plan for all buildings on campus on a rotating schedule ensures all buildings are operating efficiently.
 - Energy auditing includes education programs for each building on campus.
 - USU has expanded metering, metering capabilities, and data access.
3. Energy
 - Electric Vehicle & Roadway Research Facility and Industrial Science Pump House both include solar photovoltaic projects.
 - Occupancy sensors are connected to HVAC and lighting controls where they are applicable.
 - The Energy Wars competition expanded from Housing to academic buildings in 2016.
 - Campus reporter app for Android and IOS allows students, faculty, and staff to easily report issues of energy and water waste.
4. Water
 - Bathroom fixtures include low flow toilets and urinals and motion sensor sinks.
 - Water bottle filling stations reduce water usage and waste.
 - Water wise plants are encouraged on new constructions. Small turf areas are discouraged.
 - Hydropoint Weather TRAK Pro3 irrigation system adjusts irrigation based upon the weather.
 - Approximately 80% of irrigation water on campus is non-potable canal water.
 - Every two years, the water lines are audited for leaks.

2013 GOALS UPDATES

1. Energy
 - a. 5% Energy Reduction in FY 2014 & 10% Energy Reduction in FY 2015
 - » From FY 2013 to FY 2015 the EUI reduced 8.5%.

- b. Increase renewable energy as opportunities arise– hydro, solar, wind.
 - » USU has added 90 kW of solar since 2013.
 - c. Establish a process to base capital investment on life cycle costs by FY 2016.
 - » USU did not make progress on this goal but may address it in the future.
 - d. Work with Marketing Committee to promote energy Initiatives.
 - » Blue Goes Green interpretive signage accompanies energy projects proposed by students. Additionally, decals in bathrooms encourage people to report energy and water waste through the Campus Reporter App.
2. Water
- a. Set goals for water reduction.
 - » See the 2017 goals.
 - b. Work with Marketing Committee to promote water Initiatives.
 - » Information was distributed about the landscape watering schedule, and some new Blue Goes Green signs have been placed near water efficient fixtures.
 - » The Campus Reporter app facilitates reporting water waste.
3. Sustainability in the built environment
- a. Continue certification as a Tree Campus USA.
 - » USU is still a Tree Campus USA.
 - b. Investigate options for VOC reduction.
 - » As part of the LEED process, new buildings follow the flush-out requirements to reduce VOCs emitted from construction materials.
 - c. Establish green cleaning standards.
 - » USU has established an IPM policy and worked toward a green cleaning policy.

GOALS

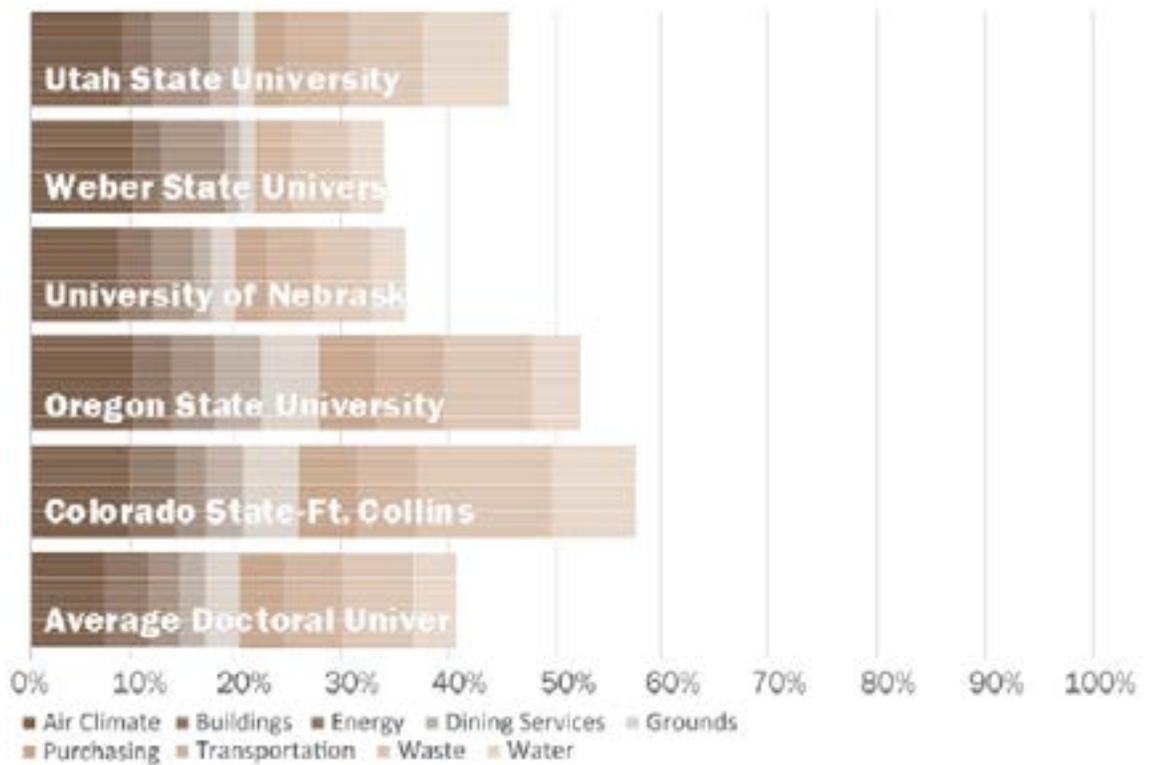
1. Energy
- a. Reduce energy 5% per square foot annually in FY 2018, FY 2019, and FY 2020. (Goals are based on EUI targets for each building category on campus.)
 - i. Retro-commission the entire campus every 5 years.
 - ii. Shift to continuous commissioning by monitoring building performance through meters
 - iii. Pursue energy efficiency projects
 - iv. Work with Marketing Committee to promote energy initiatives.
 - b. By 2030, 50% of electricity utilized on campus to be from a renewable resource
 - i. Increase small scale renewable energy projects– hydro, solar, wind.
 - ii. Work with electrical utility providers to purchase more renewable electricity.
 - iii. Develop community partnerships to leverage large scale renewable power purchases at more affordable rates.
2. Water
- a. Implement water management or benchmarking program, including rainwater management policies, plans or guidelines that incorporate green infrastructure and Low Impact Development (LID) practices.
 - b. Install smart water meters on all new campus buildings.
 - c. Systematically replace and update turbine water meters across campus water system.
 - d. Continue to fine-tune irrigation use through WeatherTRAK's advanced program capabilities.

3. Sustainability in the built environment
 - a. Implement a indoor air quality (IAQ) management policy or protocol
 - b. Continue certification as a Tree Campus USA.
 - c. Establish green cleaning standards. Work toward LEED Existing Building requirements for green cleaning by FY 2020, including 85% of products and materials meeting sustainability criteria by cost and all new equipment purchases meeting sustainability criteria.

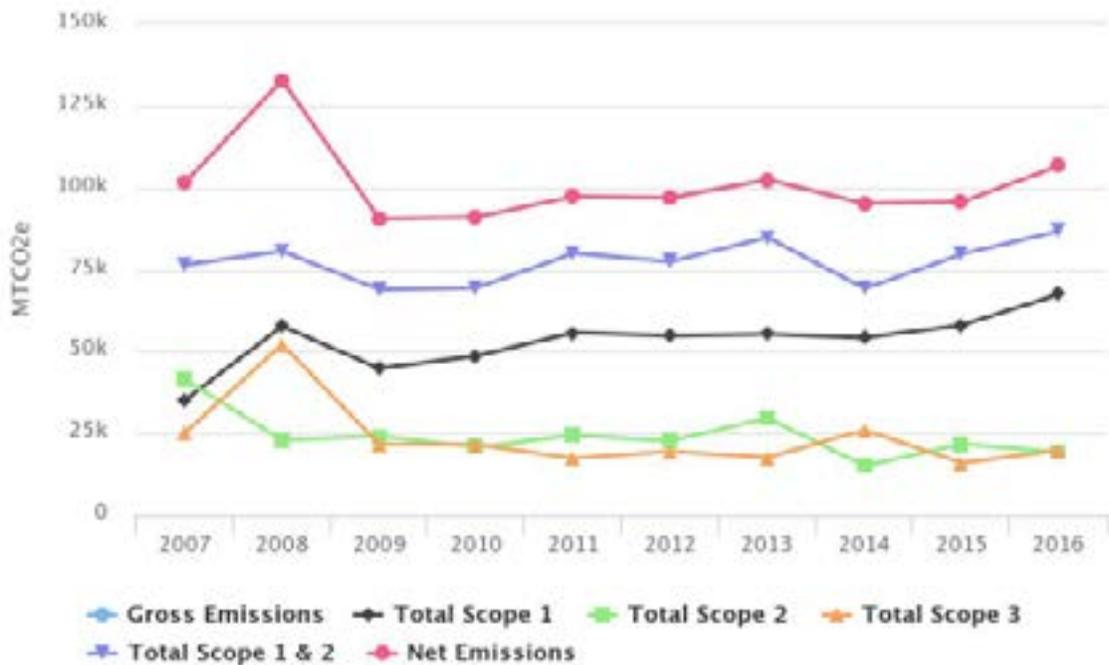
METRICS

- Greenhouse gas inventory
- Water use (potable & non-potable)
- Energy use by fuel source
- Building energy usage intensity
- LEED buildings

STARS Benchmark

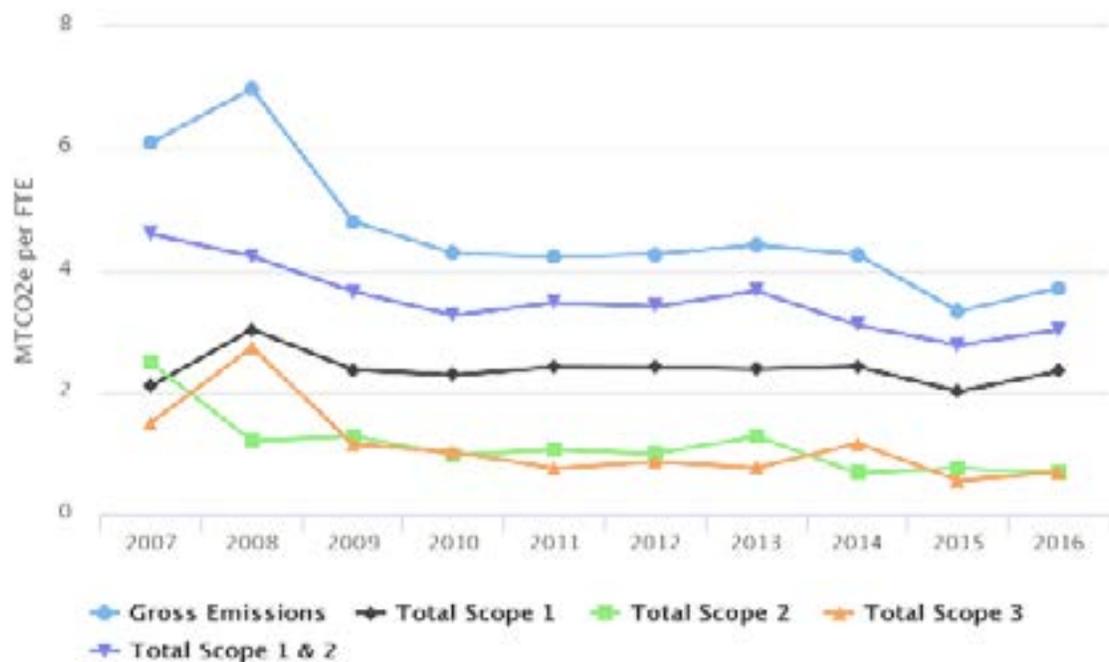


Utah State Emissions MTCO₂e



In 2007, Utah State University committed to becoming carbon neutral by 2050. To track progress, the university reports greenhouse gas emissions annually. Against a 2007 baseline, emissions per full time equivalent are down 39%. Overall, they are up approximately 5%.

Utah State Emissions MTCO₂e per FTE



MISSION: Engage students and the broader campus community in sustainability efforts and integrate sustainability education into learning experiences outside the classroom.

BACKGROUND

The Engagement Work Group coordinates efforts between the SSO, Council, Housing, student involvement and others to raise awareness and increase participation in sustainability outside the classroom.

ACCOMPLISHMENTS

1. Student Sustainability Office and Blue Goes Green Fee
 - » Students proposed the Blue Goes Green Fee in the 2011 USUSA elections. The fee passed at \$0.25 per credit hour, not to exceed \$3 per student per semester.
 - » The Student Sustainability Office (SSO) was created in 2012 and is housed in Center for Civic Engagement and Service-Learning, along with Aggie Blue Bikes, Val R. Christensen Service Center, and Utah Conservation Corps.
2. Student Orientation
 - » A Sustainability Council representative distributes information at a table during summer Student Orientation & Registration (SOAR) sessions.
 - » Approximately, 6-8 Connections classes receive a sustainability orientation presentation every year. An additional video is available to other students.
3. Many engagement programs events support other areas of sustainability. See Appendix B for a complete listing of programs and events.
 - » Coreps continues to offer course credit to students for learning and teaching peers about sustainability
 - » USU Farmers Market launched in 2016.
 - » Energy Wars expanded from being a competition to reduce energy exclusively in Housing to including seven academic buildings.
 - » Open Streets Festival temporarily closes Aggie Boulevard to traffic and opens it to active transportation, tabling, and recreation.
 - » RecycleMania has been USU's primary recycling education event since 2005.
 - » Earth Day is celebrated annually. The 2017 event featured an art opening and Questival-style scavenger hunt to promote awareness.
 - » In honor of Earth Hour, the lit A on Old Main symbolically goes dark for the hour.
 - » True Blue Reuse Move-out Sale has been diverting student move-out waste since 2008.
 - » The USU National Bike Challenge started in 2013. USU won the university division in 2013, 2015, and 2016 with 100-200 participants and over 75,000 miles.
 - » Other events are scheduled throughout the semesters, such as February Film Series.
4. Student Organizations
 - » The Student Sustainability Corps (SSC) meets weekly to coordinate sustainability projects. The SSC includes the SSO, Council, Student Organic Farm, and Aggie Blue Bikes AmeriCorps members and representatives from EcoHouse and student clubs.
 - » Aggie Sustainability works with the Student Sustainability Office and Service Center to organize student activities on campus.
 - » SOSNR (Student Organization for Society and Natural Resources) works to bridge the gap between humans and the natural environment through service opportunities and other fun events.

2013 GOALS UPDATES

1. Engage 10% of the USU FTE student enrollment in sustainability events or activities by FY 2016
 - a. Have a sustainability represented in all the major campus marketing events
 - » Sustainability is represented at all SOAR sessions and several other tabling events, such as the Day on the Quad and the Wellness Expo
 - b. Cosponsor an event with at least one other campus organization each year.
 - » 2014: Housing launched EcoHouse, a sustainability-theme housing area.
 - » 2015: Katharine Hayhoe spoke at USU and downtown, a collaboration with the Cache Clean Air Consortium
 - » Green Day at First Dam launched to reach Connections, a partnership with student orientation and co-hosted with Housing & Residence Life
 - » Caine College of the Arts and the Sustainability Council co-hosted a Crossroads Project concert.
 - » 2016: The USU Bike Challenge worked with the Bike Pedestrian Advisory Committee and other organizations to launch and promote the Cache Valley Bike Challenge.
 - » Caine College of the Arts hosted the first college-based sustainability fellow.
 - » 2017: Patagonia Worn Wear tour visited as a collaboration with the Outdoor Product Design & Development Program.
 - c. Send materials for sustainability events to USU Public Relations & Marketing and the SC marketing work group.
 - » Sustainability articles appear in student media approximately once a month.
 - d. Add sustainability video to Connections.
 - » Connections incorporates an optional sustainability module.
 - e. Collaborate with the waste and recycle work group to make at least one Student Involvement event no waste.
 - » The 2016 Pow Wow was a no waste event.
2. Engage 10% of students in on-campus housing in sustainability events or activities by FY 2016
 - a. Explore the possibility of sustainability-themed housing.
 - » In 2014, Housing established EcoHouse.
 - b. Continue and expand the Ecoreps program.
 - » Ecoreps is offered. Enrollment has stayed small but consistent.
 - c. Continue and expand the Energy Challenge. Consider competition between academic buildings in addition to housing.
 - » Energy Wars expanded to five academic buildings in 2016 and seven in 2017.
 - d. Continue and expand RecycleMania.
 - » RecycleMania changes each year and maintains consistent participation.

GOALS

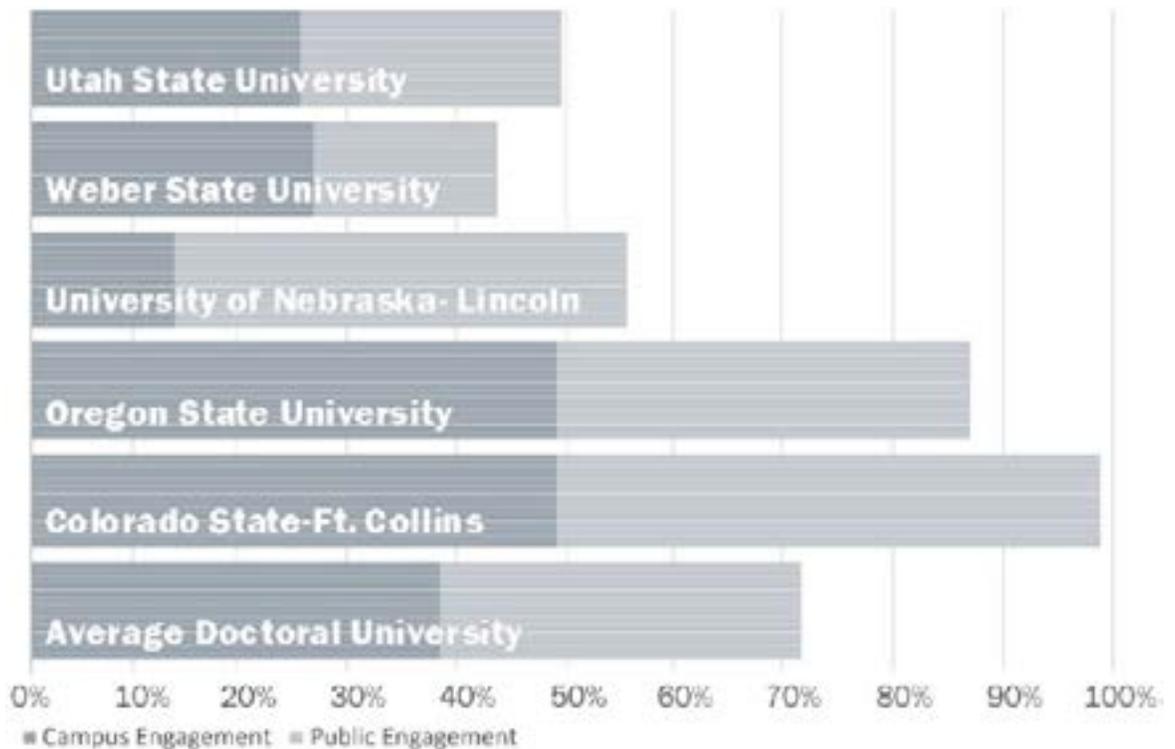
1. Engage 15% of the USU FTE student enrollment in sustainability events or activities by FY 2020
 - a. Maintain and increase participation in existing programs and events.
 - b. Maintain 10 active members in the Aggie Sustainability Club who organize two

- activities per month for students from all academic disciplines.
- c. Cosponsor an event with at least one other campus organization each year.
- 2. Engage 15% of students in on-campus housing in sustainability events or activities by FY 2020
 - a. Maintain and increase participations in existing programs and events. Measure improvement through participation levels and feedback (surveys).
 - b. Expand Ecoreps to include one representative from each Housing area, two off-campus representatives, and one representative from each college per year by FY 2020.
- 3. Engage 7% of faculty and staff in sustainability events and activities per year by FY 2020.
 - a. Continue outreach for Sustainability Council, Sustainability Grants, Green Drinks, sustainability-related Service Learning, Green Office Program, and Planetary Thinking.
 - b. Investigate opportunities for an employee educators program.
 - c. Investigate demand for an staff professional development.
 - d. Request feedback from faculty on sustainability programs and resources.

METRICS

- Attendance at university-wide sustainability events and activities
- Attendance in housing sustainability events and activities
- Feedback surveys on sustainability programs
- Enrollment in Ecoreps
- Participation in Student Sustainability Corps, Aggie Sustainability Corps, Aggie Sustainability Club, and Student Sustainability Grant program
- Connections students exposed to sustainability concepts

STARS Benchmark



Food **MISSION:** Promote a local, seasonal, healthy, and organic closed loop food system for the USU community.

BACKGROUND

USU Dining Services has been a long-time supporter of economic, social, and environmental sustainability initiatives in its operations. Likewise, as an agricultural school, students and faculty have pushed sustainability initiatives in education, leading to the establishment of the Student Organic Farm and student-run community-supported agriculture programs. The Food Work Group has begun tracking these efforts and setting goals to establish a more sustainable dining experience on campus and a stronger food education program for the campus community.

USU Food Work Group faces a few challenges in executing its mission. Locally grown foods and varieties of produce have a short growing season in Cache Valley. Additionally, locally raised animals and animal products are often more expensive than non-local products. Finally, students, staff, and faculty are often uninformed or apathetic about the university's food system, which means consumer demand for more sustainable food options is low. In the case of recycling and post-consumer composting in dining areas, apathy can lead to contamination.

ACCOMPLISHMENTS

1. Reduce energy by sourcing local produce and support local agriculture.
 - In 2008, faculty and students began a living laboratory for students to learn organic farming practices. Student managers and volunteers run the farm and sell produce at a weekly market and through a Community Supported Agriculture (CSA) program.
 - Dietetic students began a soup and bread CSA in 2013 to provide dietetics students with experience and customers with healthy soup from vegetables frozen at their peak.
 - Extension Sustainability, Landscape Architecture & Environmental Planning, and Nutrition, Dietetics & Food Science established a permaculture garden in 2014.
 - USU Farmers Market launched in 2016.
 - USU Dining Services began tracking local food purchases and matching menus with locally available produce in 2012. Food purchases grown or manufactured within 250 miles of Logan or third-party certified constituted 18% of food purchases by total expenditure in 2012. The STARS reporting guidelines changed in version 2.1, so the university tracked food grown and manufactured or third-party certified in 2015, which was 13%.
2. Reduce waste and increase recycling.
 - » In 2008, Dining Services stopped its use of food trays, resulting in a large amount of food and water saved.
 - » Since 2012, Dining Services has given excess meat scraps to the Willow Park Zoo, now Zootah at Willow Park, to feed animals.
 - » In 2015, Utah State University purchased an in-vessel composter. Approximately, 32 tons per year of pre-consumer food waste are diverted from the landfill each year.
 - » In 2016, Dining services implemented shadow boxes to demonstrate items suitable for trash and recycling at the majority of dining facilities.
 - » In 2017, Dining Services began implementing post-consumer composting and implemented hinged doors over compost bins to help maintain a clean compost product.

2013 GOALS UPDATES

1. Purchase 30% of food served in university-owned facilities that is grown or produced or both within 250 miles of Logan by FY 2016.
 - » Food purchases grown and manufactured within 250 miles of Logan or third-party certified constituted 13% of food purchases by total expenditure in 2015. This number does not match USU's STARS report number, due to differing criteria.
2. Implement a pre-consumer waste compost program by FY 2016.
 - » USU purchased and installed an in-vessel composter in January 2015.

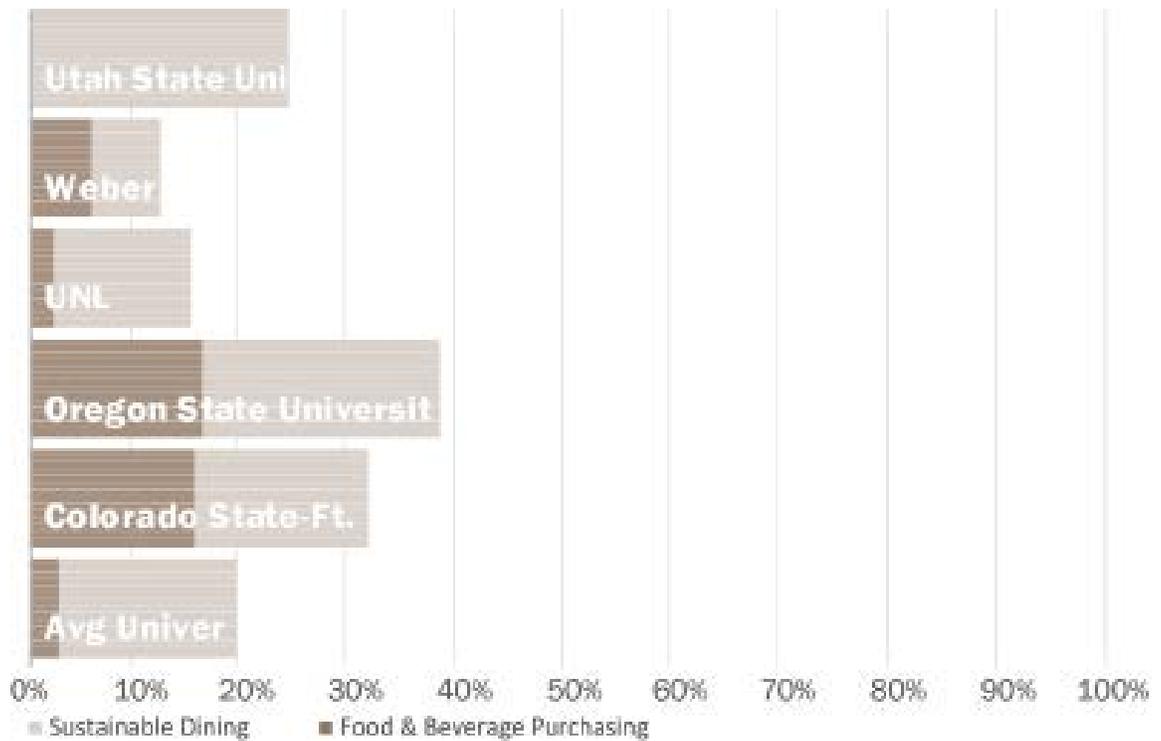
GOALS

1. Complete a waste audit for the whole of Dining Services by FY 2019.
2. Implement recycling and composting at the West Stadium Center by FY 2018.
3. Implement a post-consumer compost program in all campus cafes by FY 2020.
4. Purchase 25% of food served in university-owned facilities that is grown or produced or both within 250 miles of Logan by FY 2020.

METRICS

- Local and third-party certified food
- Food recovery weight
- Compost weight

STARS Benchmark



MISSION: Develop sustainability messages to reach the USU community and increase participation and interaction in sustainability activities and discussions.

BACKGROUND

The Marketing Work Group has been promoting sustainability through website updates, press releases, newspaper ads, posters, tabling, radio interviews, community calendars, Facebook, Twitter, and Instagram. Since the beginning of the Sustainability Council, members of this group have been exploring ways to make the invisible sustainability actions on campus visible to the community.

ACCOMPLISHMENTS

- » The Council launched the Blue Goes Green (BGG) website in 2008 (updated 2014 and 2016) to provide public access to a clearinghouse for sustainability information at USU.
- » The Council ran a weekly sustainability ad in The Statesmen in Spring 2008 and 2013.
- » The marketing group designed interpretive signage to feature BGG and other sustainability project in 2013 and has added new signs for a total of 33 signs.
- » The Blue Goes Green Facebook group was launched in 2009 and the page in 2010. The page and group were consolidated in 2013. It has 930 likes.
- » A Twitter account opened in 2012. It has 715 followers.
- » The sustainability email newsletter started in 2013. It currently has 930 subscribers.
- » An Instagram account opened in 2015. It has 1008 followers.

2013 GOALS UPDATES

1. Reach more people with sustainability
 - a. Add 15 interpretive signs to sustainability projects on campus by FY 2014, and add an average of at least one interpretive sign to new Blue Goes Green projects each year.
 - » The university now has 33 signs for sustainability projects on campus.
 - b. Require student sustainability orientation education for all Connections students by FY 2016.
 - » All Connections students have access to sustainability presentations if their instructor requests the presentation. An additional short video is available. Sustainability education is not required for all Connections students.
 - » All SOAR sessions have a sustainability table at their information fair.
2. Double media reach by FY 2016
 - a. Double Facebook likes from 158 (as of July 1, 2013) to 316 by FY 2015.
 - » In 2017, the Facebook page has 930 likes.
 - b. Double Twitter followers from 82 to 164 by FY 2015.
 - » In 2017, the Twitter account has 715 followers.
 - c. Double email newsletter subscriptions from 135 to 270 FY 2015.
 - » In 2017, the newsletter has 930 subscribers.

GOALS

1. Reach more people with sustainability
 - a. Promote press coverage of one article per month in the Herald Journal, Utah Statesman, Utah Public Radio, or other news sources
 - b. Increase social media account engagement by 20% per year.
 - c. Add an average of two new Blue Goes Green interpretive signs to campus each year
 - d. Reach 20% of Connections students with sustainability

METRICS

- Facebook likes
- Twitter followers
- Instagram followers
- Newsletter subscribers
- Interpretive signage



Trans- portation

MISSION: To advance safe, efficient, low-carbon transportation to, from, and on the USU campus by students, employees, and visitors

BACKGROUND

Transportation accounts for 20-25% of university greenhouse gases with a large portion coming from directly financed air travel. In order to reduce transportation emissions, USU offers several amenities and services. Aggie Shuttle offers more than a million rides per year. Video conferencing for educational and conference purposes is available. Programs such as Aggie Blue Bikes and the Commuter Club support commuters who use low carbon transportation options. Furthermore, planning initiatives such as the Open Space & Recreation Plan and the Transportation Study have outlined physical campus improvements in addition to programmatic recommendations to create a safer, more accessible, and healthier transportation system for the USU community.

ACCOMPLISHMENTS

1. Policy

- Utah State University passed a Vehicle Use Policy 514.7 in 2006:
 - » Increases minimum fuel efficiency for sedans to 30 miles per gallon.
 - » Instates mandatory emissions testing program for all USU vehicles, which will likely transition to the Cache Valley testing schedule in the near future.
 - » Encourages the purchase of “right-sized” vehicles, optimally sized for the purpose.
- Compliance with Utah’s goal to increase energy efficiency by 20% by 2015 and HB 110 “State Fleet Efficiency Requirements”:
 - » USU’s fleet of 705 vehicles includes
 - 2 electric vehicles
 - 11 Compressed natural gas vehicles
 - 38 hybrids vehicles
- USU policy 525 Energy Conservation and Efficiency became effective in 2012 and sets an idle-free policy for campus.
- USU adopted a transportation study that was closely coordinated with Logan City’s Bicycle & Pedestrian Master Plan in 2015. Implementation is planned in stages.
- Student Affairs and Facilities offer the Bicycle Commuting Reimbursement (26 U.S.C. sec. 132(f)) to benefited employees. This benefit is in jeopardy under federal tax reform.

2. Transportation Options

- » Aggie Shuttle serves 1.2 million rides per year.
- » USU launched a carshare program in November 2013.
- » A rideshare board is available to employees and students.

3. Programs

- » Aggie Blue Bikes was established in 2005 and loans out approximately 250 bicycles.
- » Aggie Blue Bike Coordinator position now includes 25% time on TDM coordination.
- » The Aggie Commuter Club began as a pilot in 2015 to reduce barriers to choosing low carbon transportation options.
- » The Clear the Air Carbon Offset Fund allows travelers to choose to donate \$10 of their travel reimbursement to the fund for local carbon offset projects.
- » The university posts signage to remind people about the idle free policy.

- » Events such as Open Streets Festival, National Bike Challenge, Bike toWork Week, and Earth Week engage and educate about transportation options on campus.
- » Bike Friendly Silver

2013 GOALS UPDATES

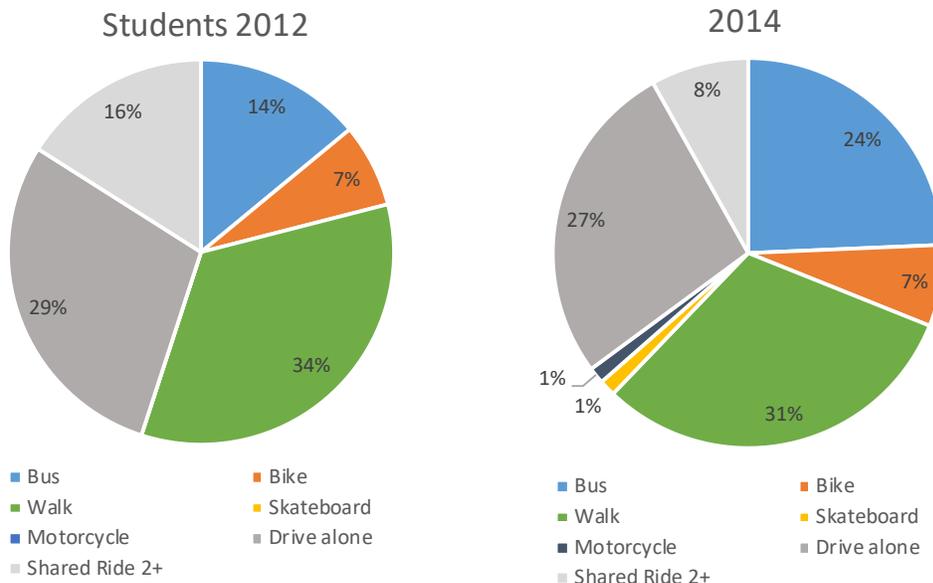
1. Increase fuel efficiency average to 20 MPG for university-owned vehicles by 2020.
 - » USU MPG fuel consumption is increasing while mileage is decreasing, due to departments purchasing more load-bearing vehicles* and better reporting on fuel consumption.

FISCAL YEAR	GALLONS	ACTUAL MILEAGE	MILES PER GALLON
2013	172,614.26	4,323,416	25.05
2014	209,036.27	4,259,735	20.38
2015	215,010.01	3,976,967	18.50
2016	213,815.02	3,895,878	18.22

2. Maintain 2013 adjusted total miles for university-owned vehicles.
 - » USU vehicle mileage is decreasing.
3. Increase the share of low-carbon transportation alternatives (carpool, bus, and non-motorized transportation) by students and employees by 5% by 2016.
 - » The student single occupancy vehicle mode share dropped 2% between the 2012 and 2014 student surveys, which used different surveys. USU has not had a campus wide survey since 2014. The 2014 survey collected data on faculty, but the 2012 survey did not.

GOALS

1. Reduce carbon emission from the university fleet from an estimated 1,900 metric tons CO₂e per year to 1,750 metric tons CO₂e per year by 2020.
 - a. Increase hybrid and electric purchases for passenger vehicles.
 - b. Maintain 2016 adjusted total miles for university-owned vehicles.
 - c. Implement preference for electric landscape equipment when feasible. This includes lawn



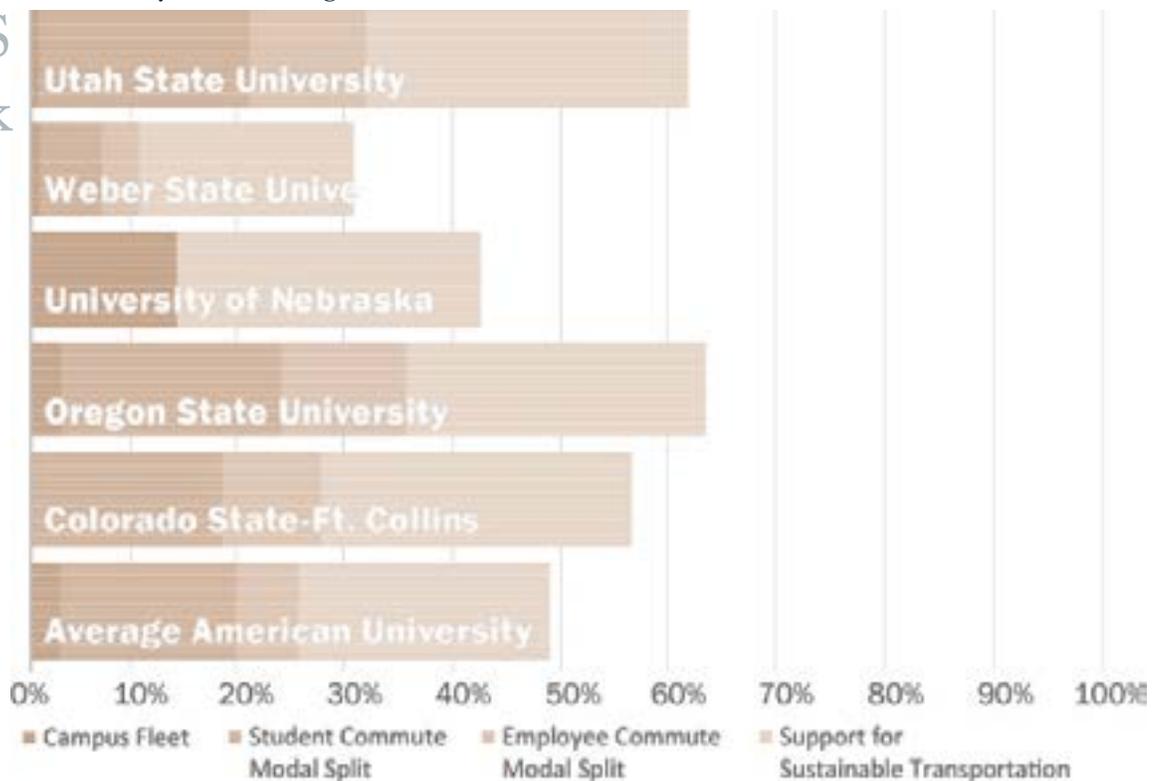
* Utah State University is a land grant institution and hosts programs that do field research, which require offroad capabilities from vehicles.

- mowers, leaf blowers, mules, heavy equipment, snow plows, etc.
2. Increase the share of low-carbon transportation alternatives (carpool, bus, and non-motorized transportation) by students and employees by 5% by 2020.
 - a. Institute a transportation survey among faculty, staff and students every other year.
 - b. Increase Commuter Club participation from 61 members to approximately 7% of employees, 175 members, by 2020.
 - c. Improve bicycle and pedestrian infrastructure and amenities.
 - i. Add bike lanes, bike boulevards, and increased markings for these improvements.
 - ii. Implement cyclist/pedestrian construction detours.
 - iii. Implement bike share and investigate e-bike share.
 - iv. Lower speed limits campus-wide to 20 miles per hour.
 - v. See recommendations in the Transportation Study.
 - d. Continue to improve Aggie Shuttle and CVTD.
 - i. Prepare 700 N for safer and more efficient bus, bicycle, and pedestrian infrastructure, as addressed in the Transportation Study.
 - ii. See other recommendations in the Transportation Study.
 3. Improve communication of air quality conditions through outreach.
 - a. Add air quality sensors on campus.
 - b. Promote state air quality app.
 - c. Collaborate with non-profits to engage the campus community in air quality outreach.

METRICS

- Student commute modal split
- Employee commute modal split
- University vehicle efficiency
- University vehicle mileage

STARS Benchmark



Waste & Recycling

MISSION: Identify best practices and opportunities to reduce, reuse, and recycle materials produced or used by the USU community and to raise awareness among the campus community of the environmental and social benefits of using resources wisely.

BACKGROUND

Since 2007, the University weighted campus user* population has increased from 11,869 to 13,179 (this is the Logan campus only, as opposed to the 2013 plan, which included regional campuses) as garbage increased from 1,773 tons to 1,812 tons. This results in a 13% decrease in waste generated per weighted campus user. Utah State University Recycling Center and composting divert approximately 25% of the university's waste stream from the landfill. The Waste & Recycling Work Group has set goals to reduce waste and increase recycling. Additionally, USU Surplus sells reusable university property. The True Blue Reuse Sale sells reusable donations from students.

ACCOMPLISHMENTS

1. Waste Reduction
 - Dining Services implemented reusable to-go containers.
2. Recycling
 - New recycling stations were installed on campus with landfill, paper, and container bins.
 - Outdoor recycling bins were installed in fall 2017.
 - Recycling bins have also been added to Maverik Stadium and Spectrum.
 - The Aggie Sustainability Club has implemented tailgate recycling for the majority of home football games.
 - In 2016, the Pow Wow became USU's largest zero waste event.
 - All new buildings are LEED Silver or above, which requires recycling in the building.
3. Compost
 - The university installed a commercial composter in 2015, which has been so successful that demand already exceeds capacity.
4. Data Collection
 - Since 2013, students have conducted studies on waste in
 - » Civil & Environmental Engineering
 - » Education
 - » Housing
 - » Howl event
 - » The Hub
 - » Human Services Research Center
 - » Industrial Science
 - » Swing Club events
 - Additionally, waste reduction measures such as hand dryers as alternatives to paper towels have been studied.

2013 GOALS UPDATES

1. Gather data on the waste stream by FY 2016.
 - » See the accomplishments section for waste audits conducted since 2013.
2. Reduce waste by 3% by FY 2016 from a FY 2012 baseline.
 - » Although the university has increased composting, recycling and garbage have both decreased. Only when considering weighted campus users has USU improved in waste disposal.

* (on campus residents x 1) + (non-residential full-time students and employees x 0.75) + (non-residential, part-time students and employees x 0.5) = weighted campus user

3. Increase waste diversion to 35% by FY 2016 from 25% in FY 2012.
 - » The goal to increase diversion to 35% is on going. The university is still at around 25% waste diversion, with compost filling in while recycling has decreased in weight.

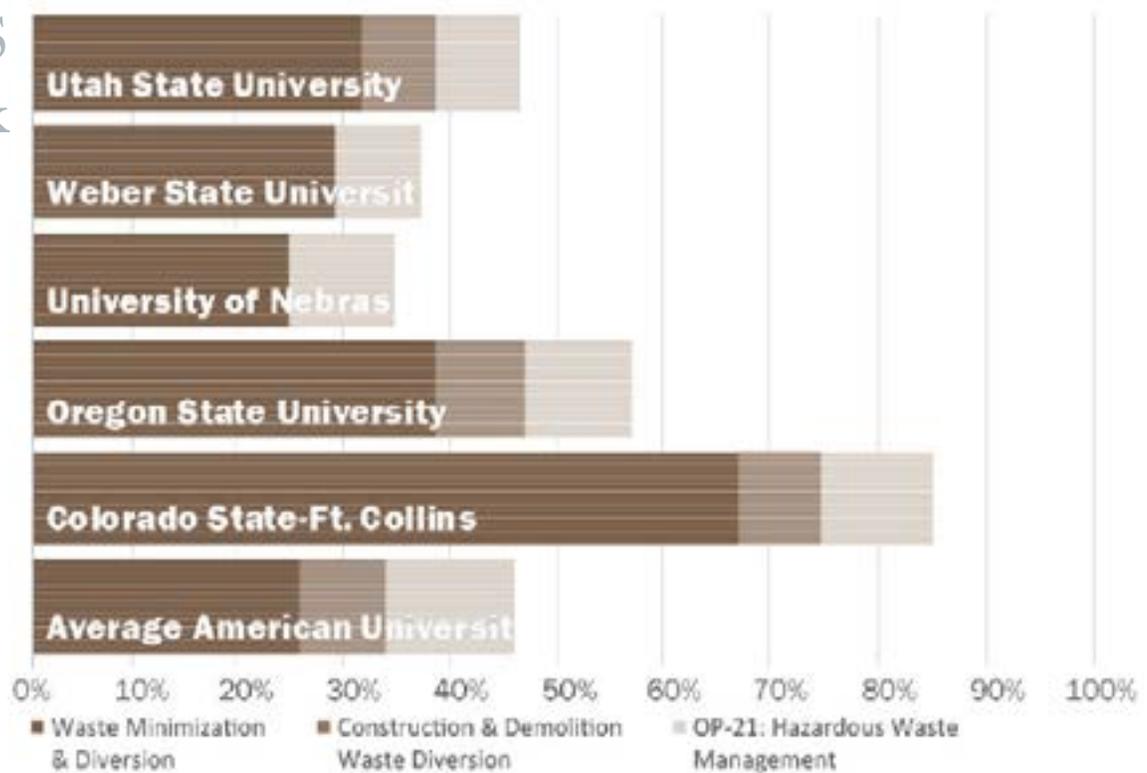
GOALS

1. Reduce waste by 18% per weighted campus user by FY 2020 from a FY 2007 baseline.
 - a. Explore options for more campus processes becoming digital.
 - b. Encourage reusable plates, bottles, and bags among the campus community.
 - c. Look into other measures such as hand dryers and combined shipping that could reduce waste and save money.
2. Increase waste diversion to 35% by FY 2020 from 24.5% in FY 2007
 - a. Explore methods to track diversion through True Blue Reuse and USU Surplus.
 - b. Explore post-consumer compost options.
 - c. Evaluate current recycling receptacles and encourage use through RecycleMania.
 - d. Work with USU Housing & Residence Life to increase the accessibility of recycling to campus residents.

METRICS

- Waste produced
- Recycling weights
- Composting weights
- Surplus weight
- True Blue Reuse Sale weight

STARS Benchmark





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[Faculty/Staff](#)
[Students](#)
[Grants](#)
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[Sustainability Council](#)
[Contact Us](#)
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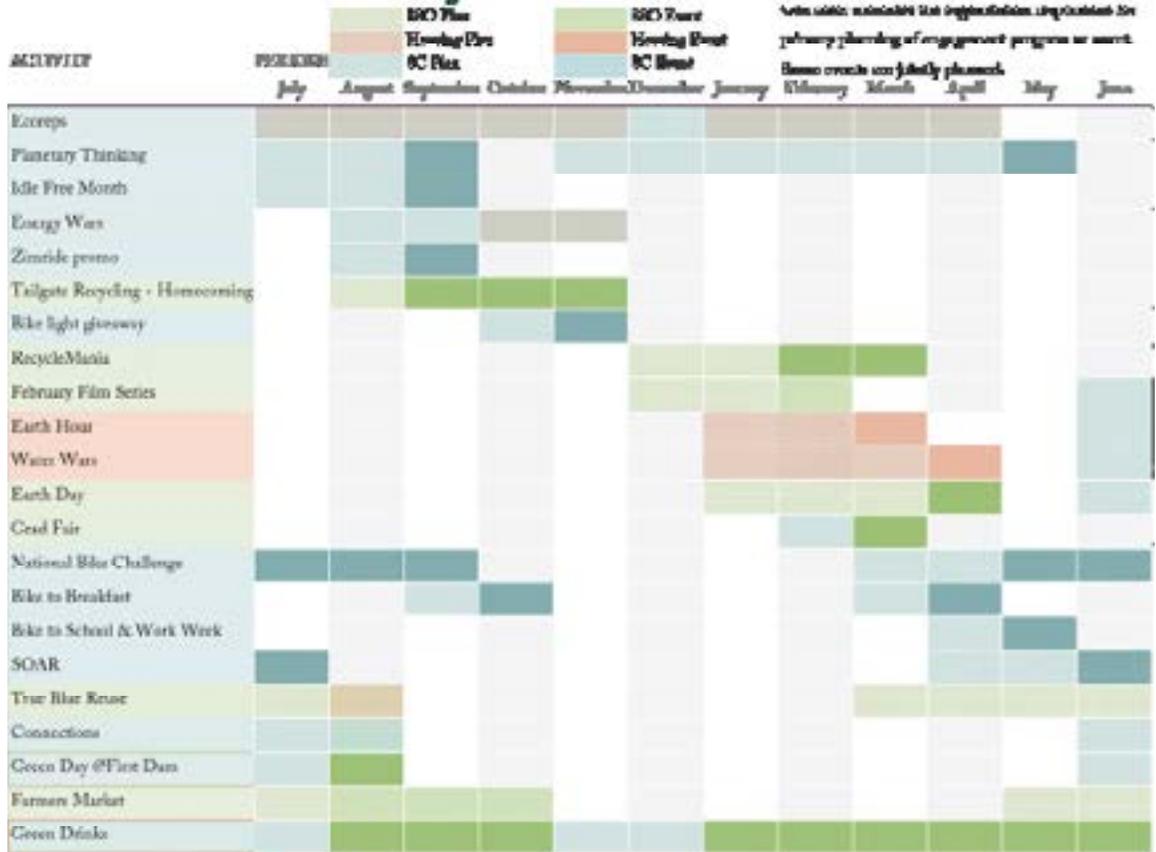
Faculty Resource Warehouse

First Name	Last Name	Email	College/Affiliation	Resource Type	Resource Title
Dave	Anderson	david.anderson@usu.edu	Agriculture & Applied Sciences	guest lecture	Sustainable practices at the USU Botanical Center
Dave	Anderson	david.anderson@usu.edu	Agriculture & Applied Sciences	tour	Wetland Discovery Point classrooms at the USU Botanical Center LEED Platinum building
Michelle	Baker	michelle.baker@usu.edu	Science	guest lecture	Water sustainability project - UTAH EPSCoR
Michelle	Baker	michelle.baker@usu.edu	Science	potential student project	We can share student opportunities (application information) at you can link to the opportunities page on our website / (http://utahepsc.org/opportunities.shtml).
Roslynn	Bran	roslynn.bran@usu.edu	Natural Resources	guest lecture	Community Based Social Marketing IVC from Moab
Roslynn	Bran	roslynn.bran@usu.edu	Natural Resources	guest lecture	Sustainability communications IVC from Moab
Jordy	Guth	jordy.guth@usu.edu	Facilities	tour	College of Agriculture LEED building
Suzanna	Janecka	suzanna.janecka@usu.edu	Science	guest lecture	National Bike Challenge as motivation to bike more, the success of USU in this challenge, and how other universities are not involved. Solar panels; Effective use of buses to reduce air pollution
Karen	Kapheim	karen.kapheim@usu.edu	Science	guest lecture	The importance of bees as pollinators and environmental factors that affect bee health and reproduction
Alexi	Lamm	alex.lamm@usu.edu	Facilities	guest lecture	Sustainability programs on the USU campus

Appendix

B

Sustainability Events



Credits

WORK GROUP CHAIRS & CONTACTS

- » Zac Cook, Utilities Senior Energy Manager
- » Corey Cozzens, Dining Services Chef de Cuisine
- » Ryan Dupont, Professor of Civil & Environmental Engineering
- » Jordy Guth, Assistant Director of Planning
- » Jamie Hart, Water Quality Engineer
- » Alexi Lamm, Sustainability Coordinator
- » Margaret McCarthy, Aggie Blue Bikes Coordinator
- » James Nye, Director of Parking & Transportation
- » Gary Phillips, USU Housing & Residence Life Area Coordinator
- » Nate Schwartz, Recycling Coordinator
- » Kate Stephens, Assistant Director of the Center for Civic Engagement and Service-Learning

WORK GROUP MEMBERS & AFFILIATES

- » Alden Erickson, Aggie Shuttle Supervisor
- » Glynn Hadley, Energy Management Engineer
- » Jim Huppi, Landscape Architect
- » Steve Jenson, Executive Director of Housing & Residence Life
- » Randy Martin, Associate Professor of Civil & Environmental Engineering
- » Paige Morgan, student
- » Lorin Mortensen, Mechanical Engineer
- » Reid Olsen, Central Energy Plant Manager & Senior Engineer
- » Matthew Payne, Stormwater Inspector
- » Ryan Reigle, Energy Manager of Housing & Residence Life
- » Alonzo Rhodes, student
- » Matt Rogers, Senior Electrical Engineering Technician
- » Sarah Beth Ross, student
- » Ed Stafford, Associate Department Head & Professor of Business
- » Paul Stead, student
- » Megan Wilson, student

