



73300 students

65400 solar panels

17500 bicyclists on campus daily

1600 tons of material recycled yearly

36 LEED certified buildings

18.2 MWdc of solar power

4 campuses

1 goal

Sustainability

Sustainability Operations

Arizona State University

Annual Review 2012



Sustainability Operations at ASU

Arizona State University is a model for sustainability operations and practices around the country and has made significant strides in several key areas. Through four overarching sustainability goals – **climate neutrality, zero solid and water waste, active engagement, and principled practice** – ASU takes seriously reducing consumption, maximizing efficiency and rethinking products and actions.

Our efforts have been recognized nationally as well, through various awards and recognition programs. For the fourth consecutive year, *The Princeton Review* named ASU to its 2013 Green Rating Honor Roll, which is reserved for colleges and universities that receive a score of 99 (the highest possible rating) in its green rating system.

Additionally, ASU was awarded a Climate Leadership Award by the American College and University Presidents' Climate Commitment in May 2012 for demonstrating unparalleled campus innovation and climate leadership that helps transition society to a clean, just and sustainable future. In October 2011, ASU was named the Solar Partner of the Year by the Solar Electric Power Association (SEPA).

In September 2012, Valley Forward Association awarded an Environmental Technologies Award of Merit to The PowerParasol™, an innovative 2.1-megawatt, 5.25-acre solar photovoltaic array on the Tempe campus. In October 2012, the U.S. Green Building Council's Arizona chapter bestowed ASU two awards for its accomplishments in LEED construction: Highest LEED Achievement for the most LEED certifications in Arizona (36 buildings totaling three million square feet) and LEED New Construction for the most LEED Gold buildings (21). ASU has the second largest number of LEED-certified buildings among U.S. universities.

The ASU sustainability vision begins internally with university-wide business practices and policies. The Global Institute of Sustainability advances sustainability efforts that are made possible by partners from across ASU. Sustainability practices are implemented in the areas of energy, water, carbon neutrality, transportation, buildings and grounds, food services, waste and recycling, and purchasing, all of which fall within the four primary sustainability goals ASU has established, climate neutrality, zero waste, active engagement and principled practice.

Visit <http://sustainability.asu.edu/practice> for more information.

18.2 MWdc generation capacity



Climate Neutrality

ASU is committed to become a climate-neutral institution by 2025 in relation to greenhouse gas emissions from building energy sources, and completely climate neutral, including elimination of emissions related to travel and other sources, by 2035.

- **ASU's solarization program** is growing exponentially. Photovoltaic and thermal production capacity as of Dec. 31, 2012 is 18.2 MWdc, approximately 36 percent of the university's daytime peak load. The estimated annual electricity production of 26,030 megawatt hours avoids 15,548 metric tons of carbon dioxide equivalent (MT CO₂e) per year and reduces ASU's carbon footprint approximately 6.2 percent.
- The **ASU U-Pass** and **Platinum Pass** allow students and employees, respectively, unlimited rides on the METRO light rail and Valley Metro buses throughout the year at deeply discounted prices. ASU Parking and Transit issued 10,828 passes in 2012, resulting in the reduction of hundreds of thousands of miles driven by ASU commuters. To meet occasional parking needs, 109 Sun Devils took advantage of the Eco-Pass, a flexible, low-cost parking program for people who do not drive to campus daily.
- **The Sustainability Initiatives Revolving Fund (SIRF)** provided \$3.66 million in funding for a dozen campus energy and water-conservation projects.
- **ASU's Parking and Transit Services partnered with ECotality**, a leader in clean electric transportation solutions, to provide six Level 2 Blink electric vehicle (EV) charging stations on the Tempe campus.
- With more than **17,500 bicycles on campus daily**, bicycle co-ops on the Tempe, Polytechnic and Downtown Phoenix campuses provide free minor repairs and tire changes. Bicycle use by ASU students and employees reduces greenhouse gas emissions by about 4,000 metric tons of carbon dioxide equivalent per year.
- An optional **Environmental Impact Fee** program launched in October 2011 allows university departments an option to be assessed a fee for employees and students on ASU business-related travel to offset greenhouse gas emissions. As of November 2012, the program has offset the equivalent of 300 metric tons of carbon dioxide.

Zero Waste

ASU has committed to zero solid waste by 2015 and zero water waste by 2020.

- **Canon**, in its **Digital University partnership with ASU**, has helped ASU cut paper use by 107,000 reams per year, and reduced greenhouse gas emissions by 500 metric tons of carbon dioxide equivalent per year.
- In January 2012, **ASU and Waste Management, Inc.** entered into a strategic partnership to achieve zero waste. In Spring 2012, a waste-characterization project mapped waste and recycling infrastructure on all four ASU campuses, and developed a comprehensive suite of projects to address the diversion and diversion of materials that currently go to landfill. The ASU Roadmap to Zero Waste plan will be issued in Spring 2013.
- Beginning in fall 2012, **Zero Waste Ambassadors** educated Sun Devil fans about ASU's zero-waste goals and provided information on how fans can help ASU achieve them. During the 2012 football season, the ambassadors contacted more than 5,000 fans.
- November 2012 marked the launch of **ASU's Green Bin program**, which diverts food scraps and compostable paper to composting operations. Once the Green Bin program is fully implemented, 2,000 tons of organic materials will be diverted from landfills annually.



283,600 less pounds of paper used



Active Engagement

- In fiscal year 2012, **ASU's Tempe Farmers Market** achieved gross sales of \$83,963 to vendors and farmers and attendance topped more than 4,000 students, faculty and staff, further promoting healthy eating and sustainability among the ASU community.
- In Fall 2012, **University Sustainability Practices** offered SOS-HON 394 Campus Sustainability Applications, which gives students an opportunity to develop a proposal for new sustainability-related projects on all ASU campuses.
- **Atlasta deployed a zero-waste catering program** through the University Club on the Tempe campus. With only a few minor exceptions, dining services partner ARAMARK purchases only compostable food service items.
- **Campus Harvest engages the ASU community** in planting and harvesting food from ASU's extensive urban campus to provide fresh, local produce for campus kitchens, charity and sale. During 2012, ARAMARK used 3,395 pounds of Campus Harvest oranges within its dining facilities.



12 tons of landscaping waste composted monthly



Principled Practice

ASU is the first university to integrate sustainability criteria into its personnel evaluations. All employees are evaluated partly on the basis of their contribution to ASU sustainability efforts.

- To date, **1,645 employees have been awarded completion certificates** for Sustainability Literacy Education. The interactive, online education program is twofold for ASU staff and management, providing examples of how they can engage in and support ASU's sustainability commitment as well as including necessary facts to fulfill the sustainability requirement for their yearly work-performance evaluations.
- The **Sustainable Food Task Force** has developed a statement of food values and has determined how the university community prioritizes them. The task force will develop recommendations for food service vendors in 2013.
- **University Sustainability Practices (USP)** has developed an array of programs to help employees and students further engage in sustainability practices. These programs include Green Offices, Green Labs, Green Classrooms and Green Events. To date, USP has worked with 80 university offices through its Green Office Program, with 28 offices certified to level one, 9 offices to level two, and 12 offices to level three. The Green Labs Program supports ASU's sustainability practices through the implementation of energy and resource conservation practices within labs. ASU has certified 211 Green Labs as of December 2012. Additionally during 2012, 65 campus gatherings were certified as Green Events. Also in 2012, USP began developing the Green Shops Program.
- **Canon, through its Digital University program**, has reduced the number of printers on campus by 32 percent.
- More than **500 native-species trees** – Mesquite, Ironwood, Desert Willow and Palo Verde – have been planted on the Polytechnic campus. The trees provide shade, beautiful xeric landscaping, and an enhanced campus habitat for native fauna.
- ASU was the second U.S. university to become a member of the **Green Sports Alliance**, a coalition of teams, venues and leagues that aim to identify and adopt environmental initiatives while sharing best practices and experiences.

Data in this document reflect statistics through Dec. 31, 2012.

Arizona State University
University Sustainability Practices
Global Institute of Sustainability
P.O. Box 875402
Tempe, AZ 85287

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