What is AASHE?

AASHE is an association of colleges and universities that are working to create a sustainable future. AASHE’s mission is to empower higher education to lead the sustainability transformation. The organization provides resources, professional development and a network of support to enable institutions of higher education to model and advance sustainability in everything they do, from governance and operations to education and research. For more information about AASHE, visit www.aashe.org.

In early 2010, Western Kentucky University became a charter member of the Association for the Advancement of Sustainability in Higher Education’s Sustainability Tracking, Assessment and Rating System (STARS). STARS® is a voluntary, self-reporting framework that provides a guide for advancing sustainability in all sectors of higher education. WKU leaders and Sustainability Committee members recognize that STARS® is a common standard of measurement for sustainability in higher education and that it can serve as a tool that promotes a comprehensive understanding of sustainability.

Western Kentucky University has received a STARS® Bronze Rating in recognition of their sustainability achievements from the Association for the Advancement of Sustainability in Higher Education (AASHE).
AASHE’s STARS® program is the only one of its kind that involves publicly reporting comprehensive information related to a college or university’s sustainability performance. Participants report achievements in three overall areas: Education & Research, Operations, and Planning, Administration & Engagement. STARS® is designed to:

- Provide a framework for understanding sustainability in all sectors of higher education.
- Enable meaningful comparisons over time and across institutions using a common set of measurements developed with broad participation from the campus sustainability community.
- Create incentives for continual improvement toward sustainability.
- Facilitate information sharing about higher education sustainability practices and performance.
- Build a stronger, more diverse campus sustainability community.

For more information about the STARS® program, visit stars.aashe.org.

This is how AASHE STARS® assigns points. Up to 100 points can be earned in each major area. Final scores are the result of the average score in each of the three major areas (ER, OP, PAE), plus up to four “extra credit” points for innovations.

**The Scoring System**

Average of the 3 categories + Innovation Credits = Total possible score

**WKU**

Education and Research 41.57
Operations 27.60
Planning, Administration & Engagement 34.10
Average 34.42
Innovation Points 4.00
Total score 38.42

• An institution’s STARS® score is based on the average of the percentage of applicable points it earns in each of the three main categories of STARS® credits. Any Innovation Credits earned are then added to this average determining the total STARS® score.

• STARS® Rating levels are not awarded for the score achieved in an individual category (i.e. if an institution earns an average of 50% for the Education and Research Category, it does not achieve a STARS® Silver Rating in this category). STARS® Rating levels represent the total score achieved by the institution.

This is how WKU scored in its first STARS® rating. We’ve done well by earning a bronze rating. The short-term goal is to earn a silver rating within the year. That will require increasing our score by an average of 6 points among the three major areas.

For more information on the STARS® reporting tool, or a complete report on WKU’s score, visit stars.aashe.org/institutions/western-kentucky-university-ky/report/2011-06-02.

Please take a look at the following pages to see what we have accomplished and ways we can improve.
Co-Curricular Education
Sustainability learning experiences outside the formal curriculum

We received credit for
Student Sustainability Educators Program
Student Sustainability Outreach Campaign
Sustainability Outreach and Publications
Student Group
Organic Garden
Sustainable Enterprise
Sustainability Events
Outdoors Program

Where we could do more
Sustainability in New Student Orientation
Model Room in a Residence Hall
Themed Housing
Themed Semester or Year

Student Sustainability Outreach Campaign
Each year students, faculty and staff collaborate on the annual WKU Earth Day Festival. Campus and community members are invited to share best practices, ideas, music, art, food, and fun, all in celebration of the Earth.

Housing and Residence Life partner with the Office of Sustainability and WKU Recycling on a variety of outreach programs each year including:
- M.A.S.T.E.R. Plan move in cardboard drive and bike ride
- Reduce Your Use
- Lighten Your Load

We also celebrate Campus Sustainability Day at WKU with guest speakers, best practice tours, workshops, and a special menu in Fresh Foods Dining Hall.

Research
Sustainability research to help the world understand sustainability challenges and develop new technologies, strategies, and approaches to address those challenges

We received credit for
Sustainability Research Identification
Departments Involved in Sustainability Research

Where we could do more
Faculty Involved in Sustainability Research
Sustainability Research Incentives
Interdisciplinary Research in Tenure and Promotion

Departments Involved in Sustainability Research
There are at least ten different academic departments that conduct sustainability related research. Those included in the 2011 STARS® Report were:

- Odgen Environmental Water Quality Laboratory- Water Analysis Training Education and Research Services (WATERS)
- Department of Agriculture/ WKU Farm/ Baker Arboretum
- Department of Engineering/ Institute for Combustion Science and Environmental Technology
- Department of Geography & Geology / The Hoffman Environmental Research Institute and Center for Cave and Karst Studies
- Department of Biology/ Center for Biodiversity Studies
- School of Teacher Education/ WKU Center for Environmental Education and Sustainability (CEES)
- Architectural & Manufacturing Science Institute
- Gender and Women’s Studies
- Institute for Citizenship and Social Responsibility
- Department of Physics and Astronomy/ The Applied Physics Institute

If you know of others that we have missed, please let us know by emailing sustainability@wku.edu so that we may include them in the next reporting period.

Education for Sustainability Faculty Development Retreat
In 2010 WKU’s Center for Environmental Education and Sustainability, Office of Sustainability, and Institute for Citizenship and Social Responsibility hosted the first ever Education for Sustainability faculty development retreat. The two-day retreat was held at Barren River State Park and guest speakers included AASHE Director Paul Rowland. The retreat presented faculty with opportunities to learn from experts and each other about concepts, pedagogies, innovative programs and resources to help them incorporate sustainability into classes across the curriculum, with the ultimate goal of providing future citizens the education and skills necessary in the transition to a sustainable society.

We received credit for
Sustainability Course Identification
Sustainability-Focused Courses
Sustainability-Related Courses
Sustainability Courses by Department
Sustainability Learning Outcomes
Sustainability Immersive Experience
Incentives for Developing Sustainability Courses
Undergraduate Program in Sustainability
Graduate Program in Sustainability

Where we could do more
Sustainability Literacy Assessment

Education & Research
Buildings

Provide a safe and healthy indoor environment for inhabitants while simultaneously mitigating the building’s impact on the outdoor environment.

We received credit for
Building Operations and Maintenance
Building Design and Construction
Indoor Air Quality

Where we could do more
WKU’s commitment to building all new and renovated spaces to LEED® standards and certification ensures that this credit will be earned in future STARS® reporting.

Criteria for Buildings

Must own and operate buildings that are:
1. Certified under the LEED® for Existing Buildings: Operations & Maintenance (O&M) Green Building Rating System, and/or
2. Operated and maintained in accordance with sustainable operations and maintenance guidelines and policies that cover the following:
   • Impacts on the surrounding site
   • Energy consumption
   • Usage of environmentally preferable materials
   • Indoor environmental quality
   • Water consumption

For more information on green buildings, please visit www.wku.edu/sustainability/greenbuildings.php

Climate

Measure and reduce greenhouse gas emissions

We received credit for
Greenhouse Gas Emissions Inventory

Where we could do more
Greenhouse Gas Emissions Reduction
Air Travel Emissions
Local Offsets Program

Dining Services

• Use food purchases to support our local economy
• Encourage safe, environmentally-friendly farming methods
• Help alleviate poverty for farmers

We received credit for
Food Purchasing
Trayless Dining
Vegan Dining
Trans-Fats
Pre-Consumer Food Waste Composting
Food Donation
Recycled Content Napkins
Reusable Mug Discounts

Where we could do more
Guidelines for Franchisees
Post-Consumer Food Waste Composting
Reusable To-Go Containers

WKU a Fair Trade University

In spring 2011, WKU became the fourth Fair Trade University in the United States. This achievement was the result of work by students in WKU Americans for an Informed Democracy (AID), in collaboration with Dining Services, Student Government Association, and Faculty Senate. President Ransdell signed the Resolution on March 19th, 2011 at the annual United Students for Fair Trade Convergence, hosted by WKU.

Download a pdf of the Fair Trade University Resolution here: http://digitalcommons.wku.edu/cgi/viewcontent.cgi?article=1001&context=ustfa

Installation of natural gas boiler #2 in spring 2011. This boiler completed the Central Heating Plant upgrade, allowing for complete heating with natural gas. The project was funded by utility budget savings resultant from conservation and efficiency programs.

Decreasing our Carbon Footprint

According to the AASHE STARS® website, climate change is expected to have myriad negative impacts throughout the world, including increased frequency and potency of extreme weather events, sea level rise, species extinction, water shortages, declining agricultural production, and spread of diseases. The impacts are expected to be particularly pronounced for poor communities and countries.

WKU is working to decrease it’s campus carbon footprint in a variety of ways, including energy efficiency and conservation efforts, conversion from coal to natural gas for campus heating, and solid waste reduction.

To review the WKU Greenhouse Gas Emissions Inventory, visit: www.wku.edu/sustainability/energy.php
Energy

• Reduce energy consumption through conservation and efficiency
• Switch to cleaner and renewable sources of energy

We received credit for


Where we could do more
Clean and Renewable Energy

Energy Savings Performance Contract

Energy use on the main WKU campus has been reduced 15% since 2005. In 2010, WKU partnered with Johnson Controls, Inc. to perform an Energy Savings Performance Contract, including:
- Upgrade/ replacement of more than 35,000 light fixtures inside buildings, including installation of 1,402 occupancy sensors
- 1,743 exterior lighting upgrades
- 2,114 water fixtures being upgraded or replaced to save water.

In two locations on campus and at the WKU Farm, rainwater is being harvested for irrigation. The Preston Health and Activities Center swimming pool is now solar-heated.

Overall, the project is projected to result in electric reductions of 11%, coal/natural gas by 14%, and water by 15%. At current rates, WKU will save more than $1 million on utility bills each year or $15.7 million over the life of the project.

Energy use at WKU can be monitored in real time. Take a look at http://buildingdashboard.net/wku.

We received credit for

Computer Purchasing Cleaning Products Purchasing

Where we could do more
Office Paper Purchasing Vendor Code of Conduct Historically Underutilized Businesses Local Businesses

Purchasing

• Use purchasing power to choose environmentally and socially preferable products and services
• Support companies with strong commitments to sustainability

We received credit for

Computer and Cleaning Products Purchasing

The WKU IT department purchases Electronic Product Environmental Assessment Tool (EPEAT®) Certified computers. EPEAT® Certified electronics meet criteria for:
- Reduction/elimination of environmentally sensitive materials
- Use of recycled content or renewable materials
- Design for product longevity, energy conservation, end of life management, and environmental packaging.

For more information visit the EPEAT® website at: www.epeat.net/default.aspx

WKU Department of Facilities Management Building Services’ Green Cleaning program uses certified green products whenever possible. All cleaning chemicals are diluted at low, safe levels with cold water. Paper products such as paper towels and toilet paper are recycled content.

WKU Building Services has also implemented the use of ‘green’ equipment:
- FaST® Auto Scrubbers – Water is oxidized and ‘energized’ to clean with no chemicals.
- “BOOST” floor scrubbers – Remove wax from floors using only water.
- All vacuums provide HEPA filtration.

We received credit for


Where we could do more
Clean and Renewable Energy

Lots of Trees

WKU owns 1,200 acres of land on the upper Green River known as the Upper Green River Biopreserve. Not only is this area protected as a biopreserve, but much of it is being restored to native grasses and riparian forest. Visit greenriver.wku.edu.

Additionally, the main campus landscaping includes wildlife gardens and habitat plantings. As a Tree Campus USA®, WKU is recognized by the National Arbor Day Foundation as a campus committed to natural wildlife.

For more information on WKU as Tree Campus USA® visit: www.wku.edu/sustainability/treecampus.php

We received credit for

Integrated Pest Management Native Plants Wildlife Habitat Tree Campus USA® Snow and Ice Removal Compost

WKU earned full credit in this category!

Grounds

Plan, plant and maintain campus grounds while minimizing the use of toxic chemicals, protecting wildlife habitat, and conserving water and resources

We received credit for

Integrated Pest Management Native Plants Wildlife Habitat Tree Campus USA® Snow and Ice Removal Compost

WKU earned full credit in this category!
Waste
Mitigate the need to extract virgin materials and reduce the flow of waste to incinerators and landfills by reducing, reusing, recycling, and composting.

We received credit for
- Waste Reduction
- Waste Diversion
- Electronic Waste Recycling Program
- Hazardous Waste Management
- Materials Exchange
- Limiting Printing
- Materials Online
- Move-In Waste Reduction
- Move-Out Waste Reduction

Where we could do more
- Construction and Demolition Waste Diversion
- Chemical Reuse Inventory

Move-In and Move-Out Waste Reduction
The Lighten Your Load and M.A.S.T.E.R. Plan cardboard drive programs were originally initiated by students and now are standard operating procedure through partnership between Dept. of Facilities Management and Housing and Residence Life. Lighten Your Load encourages students to leave gently used but unwanted items in collection bins in residence hall lobbies, rather than throwing good items away. The results: thousands of items, including clothes, lamps, electronics, appliances, and food are donated to charity each spring.

The cardboard drive is a great way to welcome new students and kick off the school year. Up to seven tons of cardboard have been diverted from move-in dumpsters in one week!

For more information on the WKU Recycling and Surplus Program, please visit www.wku.edu/recycling

Transportation
- Model sustainable transportation systems
- Reduce dependence on petroleum-based fuels
- Encouraging bicycling and walking

We received credit for
- Campus Fleet
- Student Commute Modal Split
- Employee Commute Modal Split
- Bicycle Sharing
- Facilities for Bicyclists
- Bicycle Plan
- Mass Transit
- Condensed Work Week
- Telecommuting
- Carpool Matching

Where we could do more
- Cash-out of Parking
- Carpool Discount
- Local Housing
- Prohibiting Idling
- Car Sharing

Big Red Bikes
The Big Red Bikes bicycle lending program refurbishes abandoned or donated bicycles for loan to students, faculty, and staff at no cost. The WKU GreenToppers, started the program in 2007 to promote bicycle use. It remains a student-run project, but is managed by the Office of Sustainability.

Big Red Bikes is supported by the Department of Facilities Management, Parking and Transportation Services, the Parents Advisory Council, and the Outdoor Recreation and Activities Center. In 2011, Big Red Bikes received the Paula Nye Memorial Education Grant from the Kentucky Bicycle and Bikeways Commission, which allowed for significant upgrade to the mechanic shop and expansion of the program.

In addition to lending bicycles, the program spreads bicycle awareness and knowledge throughout the campus community through bicycle maintenance and safety workshops. Anyone interested in learning more about bicycles or helping the program can volunteer and help manage, restore, and maintain the bicycle fleet; no previous experience is required. If you are interested in volunteering, have a bicycle to donate, or want to borrow a bike, please inquire with the Office of Sustainability.

Water
- Conserve water and protect water quality
- Manage storm water effectively
- Reduce the need for effluent discharge into local surface water supplies

We received credit for
- Water Consumption
- Stormwater Management
- Building Water Metering
- Non-Potable Water Usage
- Xeriscaping
- Weather-Informed Irrigation

Where we could do more
- Non-Potable Water Usage
- Weather-Informed Irrigation

In 2011, rainwater collection cisterns were installed at several spots around campus. The rain water collected is used to water sod, landscaping and pressure washing areas on campus. This allows us to minimize the use of potable water in another effort to lower utility costs. The existing collection systems allow for collection and diversion of approximately 30,000 gallons of rain water.

Weather-Informed Irrigation
In 2011, a “smart” irrigation system was installed on the main campus, athletic fields, and intramural fields. The new irrigation system and low flow irrigation heads reduce campus water consumption. The system measures soil evapo-transpiration rates and responds accordingly, and shuts water off in the event of precipitation.

For more information, please visit www.wku.edu/sustainability/water.php

Non-Potable Water Usage
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A cardboard drive program diverts thousands of pounds of cardboard from landfill-bound dumpsters.
Coordination and Planning

- Dedicate resources to sustainability coordination
- Incorporate sustainability into primary campus plans
- Develop plans to implement sustainable changes

We received credit for
- Sustainability Coordination
- Strategic Plan

Where we could do more
- Physical Campus Plan
- Sustainability Plan
- Climate Plan

Strategic Plan

Sustainability and Efficiency are included in the WKU Strategic Guide 2010-2012. It is stated that, "The broad matter of creating a sustainable campus environment and conserving campus resources has risen to a level of high priority since 2007. There are two primary reasons. First, WKU students, faculty, and staff recognize that they are responsible for the role that a university must play in serving as a model for environmental stewardship and in conserving our limited natural resources. The second reason why these matters have risen on our priority list is because good sustainable practices help us save money. A University Sustainability Committee has been created and is leading the way for campuswide resolve to both model sustainability in our operations and services, and to educate for sustainability as a university core value. WKU, therefore, will strive in every practical way to contribute to a healthy environment, grow in ways that are sustainable, and conserve energy and other consumable commodities."

Sustainability will also be addressed in the Strategic Plan currently under development for release in 2012.

Diversity and Affordability

Advance campus diversity and affordability to allow diverse groups to collaboratively address sustainability challenges and create a more equitable world

We received credit for
- Diversity and Equity Coordination
- Support Programs for Under-Represented Groups
- Support Programs for Future Faculty
- Affordability and Access Programs

Where we could do more
- Measuring Campus Diversity Culture
- Gender Neutral Housing
- Employee Training Opportunities
- Student Training Opportunities

Human Resources

Make fair and responsible investments in human capital by offering appropriate benefits, wages, and other assistance that serve to respectfully and ethically compensate workers

We received credit for
- Sustainable Compensation
- Employee Satisfaction Evaluation
- Childcare
- Employee Wellness Program
- Socially Responsible Retirement Plan

Where we could do more
- Staff Professional Development in Sustainability
- Sustainability in New Employee Orientation
- Employee Sustainability Educators Program

Diversity and Equity Coordination

Western Kentucky University places a premium on teaching and student learning and growth; therefore, it is important for the University to seek achievement of diversity among its faculty, staff and student populations. As stated in the University’s Strategic Plan, Challenging the Spirit, three (3) of the five (5) Strategic Goals relate to the importance of diversity in the development of culturally responsible citizens, growing a high quality and diverse student body, and enhancing the climate for diversity and collegiality. The Strategic Plan’s performance indicators include the engagement of the Chief Diversity Officer who has direct access to the President. A Presidentially appointed Diversity Enhancement Committee serves in an advisory capacity to the Chief Diversity Officer who is responsible for overseeing diversity initiatives, continuous improvement in meeting diversity goals, and establishing a Diversity Plan for the University.

For more information, please visit www.wku.edu/odp

Campus Childcare Center

The WKU Campus Childcare Center offers Early Head Start and Head Start programs. For families that meet income guidelines (KY Poverty), half-day child care is free. Participants may pay for the other half-day, or enroll in a child care subsidy organization. Qualifying families have the opportunity to receive a half a day of quality care for free to allow them to work, continue education, etc. About 60% of the families that participate in the child care program are students, and many faculty and staff participate in the program as well.

Employee Wellness Program

WKU’s Employee Wellness Program has a mission to help enhance the personal and professional lives of WKU employees by providing educational opportunities, programs, and services that promote and support healthy lifestyle behaviors.

For more information, please visit www.wku.edu/wellu
Investment

Make transparent and democratic investment decisions that promote sustainability by investing in companies and funds that are committed to social and environmental responsibility.

Where we could do more
Committee on Socially Responsible Investment
Shareholder Advocacy
Positive Sustainability Investments
Student-Managed SRI Fund
Socially Responsible Investment Policy
Investment Disclosure

Community Sustainability Partnerships
WKU enjoys many strong partnerships with local community groups to support a variety of initiatives that promote sustainability, including BG Green (the Bowling Green citizens for sustainability group), Habitat for Humanity, Big Brothers and Sisters, the Interfaith Coalition on Earth Care, and others.

Additionally, the WKU ALIVE Center for Community Partnerships exists to support community development locally and abroad through campus and community partnerships. The ALIVE CCP connects students, faculty, staff, and community members to resources and opportunities for meaningful service and engaged scholarship.

Bowling Green Farmers’ Markets
There are two local Farmers’ Markets in Bowling Green, the SKY Farmers’ Market and the Community Farmers’ Market. Each market includes items grown or produced by WKU students, faculty and staff and both are well-supported by the WKU community. The Community Farmers’ Market is located on University property at the intersection of Nashville Road and Campbell Lane, next to the Center for Research & Development.

Public Engagement

Give back to the community through community service, engagement, and partnerships

We received credit for
Community Sustainability Partnerships
Inter-Campus Collaboration on Sustainability
Community Service Participation
Community Service Hours
Community Service on Transcripts
Farmers’ Market

Where we could do more
Sustainability in Continuing Education
Sustainability Policy Advocacy
Trademark Licensing
Graduation Pledge
Innovation credits are reserved for new, extraordinary, unique, ground-breaking, or uncommon outcomes, policies, and practices that greatly exceed the highest criterion of an existing STARS® credit or are not covered by an existing STARS® credit.

Institutions may earn up to 4 innovation credits. An institution’s overall score is increased by the number of innovation credits it earns. For example, if an institution achieved an overall score of 30 based on the three main categories, earning 2 innovation credits would raise its final score to 32.

WKU earned all four innovation credits for the following initiatives:

Innovation 1:

The WKU Green Tour

The WKU Green Tour is presently under development. The tour will include physical signage and a web-based virtual tour to highlight sustainability features and programs on campus. The first phase of the Green Tour was completed in Fall 2011, and includes signage highlighting best practices in water conservation, energy conservation, and ecologically designed parking lots.

Innovation 2:

WKYU/PBS Studio 1 Lighting Renovation

In 2010, the campus WKYU/PBS Studio underwent a major lighting makeover. An LED (light emitting diode) lighting system replaced an aging, 40 year old incandescent system that regularly malfunctioned, required expensive specialized bulb replacement, wasted energy, and generated much unnecessary heat. The LEDs will reduce energy consumption by 97% and last tens of thousands of hours. The bulbs will never need replacement and produce only a small amount of heat. Most importantly, WKU broadcast production students have the opportunity to use the most innovative lighting technology found in a university television studio. The Emmy award-winning studio is the only one of its kind at any university campus in the world.

Innovation 3:

Building Dashboard®

To engage students, faculty and staff in energy conservation efforts, WKU has invested in a real-time energy feedback web-based Building Dashboard® by Lucid Design for residence halls and academic and administrative buildings. The dashboard is interactive, provides information on energy use and allows for competitions and social networking related to conservation commitments and challenges. Take a look at http://buildingdashboard.net/wku.

Innovation 4:

Preston Center Solar Thermal Array

As part of WKU’s Energy Saving’s Performance Contract, a solar thermal array has been installed on the Preston Activities Center roof that uses the sun’s radiant energy to heat the 350,000-gallon swimming pool. The collectors are expected to perform 10 months per year, as measured by Solar British Thermal Unit (BTU) output. WKU is guaranteed to save at least $10,963 annually by reducing the amount of natural gas required for heating as a result of this installation. With an initial project investment of $96,410, these annual savings result in a project payback of 8.8 years.

Solar thermal collectors were installed in Fall 2010. The collectors are manufactured by Heliocol and are distributed and installed by SunQuest Energy LLC.