

Contact: Patrice Sayre

CAMPUS SUSTAINABILITY ANNUAL REPORT

Action Requested: Receive the annual report on the Campus Sustainability Plan

Executive Summary: In March 2009, the Board of Regents adopted the Campus Sustainability Plan as presented by the Regent institutions. The Plan is designed to provide an integrated and collaborative effort towards greater sustainability to make the Regent institutions leaders in the nation on:

- Operational practices
- Education
- Research
- Economic development

Sustainability has been defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations Bruntland Commission, 1987). As stated by the Association for the Advancement of Sustainability in Higher Education (AASHE), there is no commonly accepted and fully understood definition of sustainability or “campus sustainability,” let alone agreement on what indicators to use in measuring it. Regent institutions apply campus sustainability broadly – in the general operations of each institution, in the curriculum and experiences of students and employees, in effectively partnering with industry and government, and in technology transfer.

The Regent institutions, with their more than 4,000 on-campus and 1,000 off-campus acres (excluding farm acreage), approximately 35 million gross square feet of space, more than 70,000 students, over 45,000 employees, and hundreds of thousands of visitors to the campus annually (including more than 700,000 clinic visits to UIHC), have a significant environmental impact. Conducting significant research with distinguished faculty, Iowa’s public universities are positioned within the state and nationally to lead in the greening of buildings, purchasing and transportation. Regent institutions have an educational responsibility to students to expand discussion about sustainability, create student awareness and provide programming incorporating the principles of sustainability.

In this year’s report, the Sustainability Coordinators have highlighted selected accomplishments in the area of sustainability (attached).

Sustainability Coordinators

Elizabeth Christiansen – SUI, Director, Office of Sustainability
Merry Rankin – ISU, Program Manager, Office of Sustainability
Eric O’Brien – UNI, University Sustainability Coordinator

UNIVERSITY OF IOWA
June 2012

The annual sustainability report compiled by the Office of Sustainability reflects the University of Iowa's commitment to sustainability. The report highlights the accomplishments of many faculty, staff and students whose drive and passion for a more sustainable world have resulted in improved practices and innovative solutions. The following highlights of the past year position the University toward meeting its 2020 Vision for Sustainability.

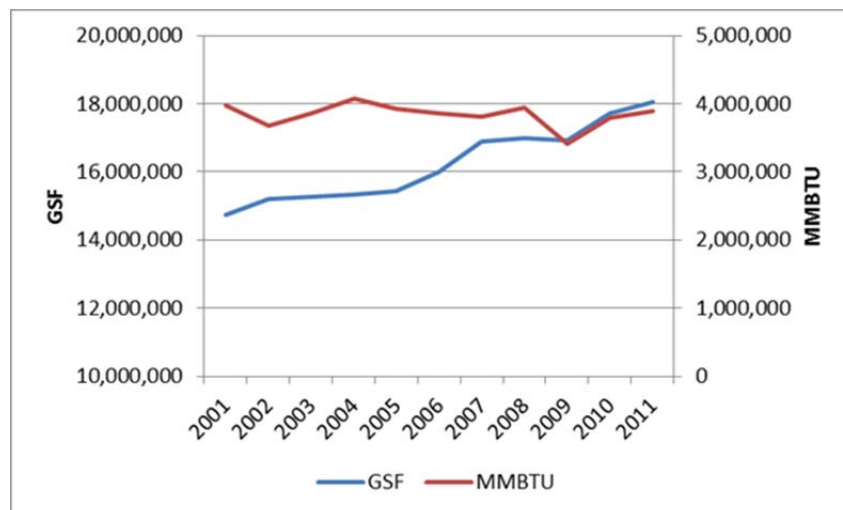
OPERATIONS

Energy Conservation

Energy conservation saves natural resources, reduces energy costs and is the first step in building a sustainable energy system. The energy conservation goal outlined in the SUI's 2020 Vision is to attain net-negative energy growth through the decade (consuming less energy in 2020 than in 2010). Through a variety of energy conservation tools and teams, the University of Iowa has leveled its energy use, see table below. However, these early accomplishments reflect eliminating most of the "low hanging fruit." Future reductions will be more challenging.

University of Iowa Energy Use in MMBTU (Million BTU) Versus Gross Square Feet (GSF):

2001-2011



This past year significant progress in energy conservation was made through American Recovery and Reinvestment Act (ARRA) funding, and internal reallocations, to install the latest generation occupancy sensors in eleven buildings on campus. These projects incorporated sensor integration with existing building automation systems to control lighting, room temperature and ventilation rates based on the building's occupancy.

Funding was also provided to install heat recovery systems in two laboratories. Cost avoidance of over \$800,000 is predicted. The effectiveness of these projects will be monitored through the University's award-winning Energy Control Center.

Energy conservation projects this year also included additional lighting and heating/ventilation/air conditioning upgrades in the Main Library, the Hardin Library for Health Sciences, and the Boyd Law Building.

Energy Control Center – The Proteus optimization program for the Power Plant and chilled water plants will be completed and fully implemented this year. Using advanced data-mining techniques, this program combines weather forecast information, current energy prices and historical operating data to optimize campus energy costs. Each hour, the program recommends the lowest-cost operational combination of boilers, turbine-generators and chillers, given the current energy prices.

Energy Hawks and Retro-commissioning Teams – As of May 2012, specialized teams have evaluated over 30 buildings for energy conservation measures and 12 buildings have been evaluated for retro-commissioning, a quality assurance process which will optimize building performance in older buildings.

Lab Fume Hood Program – The elimination of obsolete/unnecessary fume hoods is an energy conservation measure. The first phase of the campus-wide laboratory fume hood study is completed. Through this effort, unnecessary fume hoods will be identified for de-commissioning (the first one has already been de-commissioned). A committee is investigating incentives that can be used effectively to remove unneeded and outdated fume hoods.

Recycling

Recycling is an important and visible part of the University of Iowa's commitment to sustainability. The UI has adopted a 60% waste diversion goal by 2020. To increase recycling program efficiency, increase participation and maximize material recovery, a new sort-free recycling program was launched in September 2011. The new program allows participants to place all recyclables together in one container, eliminating the need to sort materials into different containers. More materials can be recycled in the new program, including more plastics and metals.

Additional investments have been made to increase visibility and access to recycling. Over 100 new large recycling collection containers and several thousand smaller desk-side recycling containers have been placed across campus.

Recycling education efforts have been expanded with new posters, placards and pocket recycling guides. A monthly newsletter keeps campus faculty, staff and students up-to-date on activities. Almost 200 people have received training in the new program. Over

40 staff attended “Train the Trainer” sessions in order to become recycling leaders in their office areas.

Taking the waste diversion challenge to a new level, administrators have eliminated trash containers in classrooms in the English-Philosophy Building and the College of Public Health. The result has been an increase in recycling and a decrease in waste.

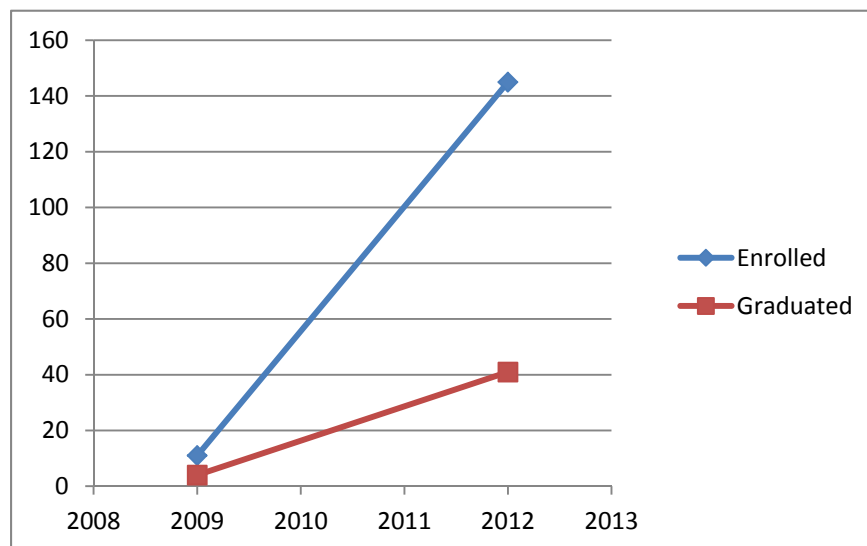
The response to the new, easier sort-free recycling program is promising and an assessment of progress will be made one year from the program launch.

EDUCATION & RESEARCH

Sustainability Certificate Success

To build sustainability literacy and skill sets in the next generation of leaders, innovators and entrepreneurs, the University of Iowa undergraduate Certificate in Sustainability was established and made available to students in fall 2009. Since that time, it has grown to become a popular certificate program on campus. In 2009-2010, eleven students were enrolled in the program and three students graduated with the certificate; by spring 2012, the number of students enrolled in the program increased to 145 and 41 students graduated with the certificate – a thirteen-fold growth. Over 26 majors are represented in the certificate program.

Growth in UI Sustainability Certificate Program: 2009-2012



Collaborative Sustainable Water Resources Research

Motivated by one of 14 Grand Challenges from the National Academy of Engineering -- "provide access to clean water" -- the University expanded its existing strength in interdisciplinary research on water, including its availability, quality, reuse, and health

impacts. Economics, policy, and law, as well as the natural sciences and engineering, are all engaged to solve the problems of water.

The University of Iowa has established a Water Sustainability Initiative, including 10 new faculty positions for interdisciplinary "cluster hiring" to advance research, education, and outreach on water sustainability. The hiring process is almost complete with two positions remaining open.

The faculty alliance on water sustainability encompasses the Colleges of Liberal Arts and Sciences, Public Health, Law, Engineering, the Graduate College, and the Public Policy Center. Among the various resources already developed to advance the initiative are the Iowa Flood Center, the UI Office of Sustainability, and the undergraduate Certificate in Sustainability.

Biomass Planning Effort

Increasing the use of biomass fuel holds potential to achieve SUI's 2020 target of 40 percent renewable energy. Because of a unique partnership with Quaker Oats, the University of Iowa has been incorporating biomass into its fuel mix for the Power Plant since 2003. This has allowed the UI to achieve between 9 and 13 percent in renewable energy in its energy portfolio.

In order to focus work specifically on developing additional opportunities, a year-long planning process is underway to develop the basis for increased biomass use and to address the issues of fuel procurement; pricing; logistics and fuel yard needs; fuel preparation; the availability of industrial wood and fiber residuals, timber stand improvement and invasive species removal for fuel sources; impact on ecological services; and policy implications. Grant funding for the planning process was successfully secured from the Leopold Center for Sustainable Agriculture and an investigation team was established. Team members include representatives from US Fish & Wildlife, Natural Resources Conservation Service (USDA), US Forestry Service (USDA), Iowa State University, University of Northern Iowa, the Johnson County Conservation Board, the Amana Society, Iowa Farm Bureau, John Deere, the Iowa Department of Natural Resources and the Iowa Department of Agriculture and Land Stewardship. Seven working groups have been established and the entire group meets every six months. The next meeting of the group will be July 27, 2012 at Iowa State University.

The goal of SUI's planning effort is to develop the outline for achieving 40 percent renewable energy use on campus by 2020 through the use of alternative solid fuel. By seeking a solution that addresses the triple bottom line of sustainability – people, planet and profit - the use of locally-available biomass fuel can have a positive impact on Iowa's society, environment, and rural economy.

A pilot project involving a timber stand improvement project at F.W. Kent Park (rural Tiffin, Iowa) is planned for winter 2012/13.

OUTREACH

Iowa Initiative For Sustainable Communities and the City Of Dubuque:

Sustainable communities are healthy, vibrant and resilient. The University of Iowa's School of Urban and Regional Planning is participating in a two-year partnership with the City of Dubuque to promote the community's sustainability planning. During the academic year 2011/2012, the School's students will be focused on completing five projects:

1. Indicators and measurements for Dubuque's 11 Sustainability Principles – to define metrics and develop data collection models.
2. Renewable energy asset mapping – to assist in the development of locally-produced renewable energy including geothermal, solar, wind and biomass.
3. Portrait of poverty in Dubuque – to define poverty in the community and among its residents, as well as to recommend models for improvement and success in defeating its deleterious impacts.
4. Local foods and local institutions – in partnership with the four local colleges, to examine local food models to identify opportunities for the expanded procurement of local foods and opportunities for growth in local producers.
5. Design of green and healthy homes – to improve State and local program delivery in low-income areas for lead abatement, safety, weatherization and energy efficiency (based on the 2011 Green and Health Homes Collaborative Pilot).



IOWA STATE UNIVERSITY
June, 2012

Beginning the fourth year of the Live Green! Initiative, Iowa State University is pleased to provide the following update report highlighting accomplishments of the past year. The report focuses on a few select initiatives and achievements in the areas of Operations, Education and Research, and Planning, Administration, and Engagement. These highlighted initiatives not only build upon Iowa State University's commitment toward leadership in sustainability, they also align toward achievement of the Iowa Board of Regents Sustainability Goals as well as benchmarking within the AASHE STARS Performance Criteria.

A full listing of all efforts and accomplishments, undertaken and achieved by students, faculty, and staff over the past year (and applicable to the Iowa Board of Regents report in its entirety) can be found in the Sustainability Annual Report Addendum www.livegreen.iastate.edu/about/accomplishments/

Operations

Energy Conservation

Efforts and accomplishments continued and diversified related to energy conservation and increasing efficiencies over the past year. The 15% campus energy reduction goal (based upon a three-year average) was achieved, in spite of increased gross square footage of building space. A number of efforts are in place to sustain and build upon these accomplishments.

Energy Efficiency Targeted Projects - The Live Green Revolving Loan Fund achieved its first revolution during 2011-2012 with realized savings from funded projects providing loan payback and being available to fund additional projects. Twenty-one Live Green Revolving Loan Fund Applications have been reviewed for funding since the start of the loan fund in 2008. Of these 21 applications, four identified alternative funding sources and four are completing further research and identifying additional alternatives to optimize return on investment. To date, 13 projects have borrowed from the Live Green Revolving Loan Fund. Eight of these projects have been completed: five over the past year. Total funding allocated to date is \$1,303,661 with an annual estimated return on investment of \$309,015 (24%).

One project of specific note, which received funding over the past year, targets comprehensive campus lighting efficiency. Facilitated, managed, and tracked through Facilities Planning and Management, this project focuses on evaluating current campus building lighting and replacing inefficient systems. A summary of funded projects is included below.

Specific information on the Live Green Revolving Loan Fund and funded projects may be found at: www.livegreen.iastate.edu/loan/.

Project Name	Approved Loan Amount/Annual Estimated Return on Investment	Project Status	Project Focus
Monona County Extension	\$5,230/\$1,046	Complete	Energy Efficient Remodel
College of Design	\$100,000/\$20,000	Complete	Lighting – Phase 1
College of Design	\$100,000/\$20,000	Complete	Lighting – Phase 2
ISU Athletics	\$30,000/\$5,000	Complete	HVAC
ISU Dining	\$45,000/\$9,000	Complete	Composting
College of Human Sciences	\$3,039/\$49,000	Complete	Information Technology
College of Engineering - Black Engineering	\$165,500/\$33,000	Complete	Lighting
College of Human Sciences	\$2,250/\$2,059	Complete	HVAC
ISU Power Plant	\$37,035/\$7,080	Complete	Lighting
College of Liberal Arts and Sciences	\$36,607/\$7,030	In Progress	Lighting
Facilities Planning and Management	\$500,000/\$100,000	In Progress	Campus Lighting
Memorial Union	\$279,000/\$55,800	In Progress	HVAC and Lighting

Sustainable Design and Construction – Placing priority on energy efficient design and construction, as well as renovation and improvement, two additional buildings achieved LEED Gold certification over the past year. To date, Iowa State University has four LEED-certified buildings (one silver, two gold, and one platinum certified). An additional seven buildings are currently pending certification (two gold) or are in construction with a goal of certification (four gold, one silver). Ongoing focus is given towards a university goal of LEED Gold certification for all new construction and major renovation projects.

Education and Research

During the past year, considerable emphasis was placed upon offering students opportunities to be immersed in new sustainability courses, research, and degree programs focused on sustainability, as well as providing experiences for out-of-classroom connection.

Sustainability Minor - An interdisciplinary sustainability minor was finalized and offered to students Spring 2012 (www.las.iastate.edu/sustainability/). The minor is a collaborative effort of the Colleges of Agriculture and Life Sciences, Design, Engineering, and Liberal Arts and Sciences and involves 23 departments.

In addition, efforts are currently in place for finalizing additional sustainability degree opportunities including: Minors in Wind Energy and Energy Systems, a Master of Design in Sustainable Environments, a Master of Urban Design, and a multi-institutional graduate training program in Wind Energy Science, Engineering and Policy aimed at providing doctoral students with multidisciplinary training in the skills required for conducting research at the disciplinary interface between engineering, atmospheric science/meteorology, agriculture/economics, and journalism/communication.

Sustainability Course Directory - To assist students in identifying sustainability related and focused courses as part of pursuing a degree program, or to supplement their curriculum portfolios, an online Sustainability Course Directory was developed as part of a summer Live Green! intern project. It was made available to incoming students for the 2011-2012 academic year (www.livegreen.iastate.edu/docs/2011sustainablecoursesatisupublic.xlsx).

Faculty Curriculum Workshop - In partnership with the Provost's Office, the Council on Sustainability, and faculty leaders from the College of Liberal Arts and Sciences, a Sustainability Curriculum Workshop for Iowa State University faculty, *The Tall Grass Prairie Project*, has been finalized and will be held Summer 2012.

The workshop offers faculty from multiple disciplines the opportunity to share and acquire ideas, successes, resources, and strategies related to infusing sustainability into curriculum through a faculty learning community-style environment. The workshop format and vision is based upon other university workshops and frameworks for sustainability-infused curriculum including the Ponderosa Project of Northern Arizona University (<http://www2.nau.edu/~ponder-p/>) and the Piedmont Project of Emory University (<http://sustainability.emory.edu/page/1021/Piedmont-Project/>).

Long-term goals are to offer annual workshops to ISU faculty to establish faculty learning communities focused on sustainability infusion opportunities. Evaluation of this summer's workshop, incorporation of workshop action items into fall curriculum, and future planning and strategizing will continue through the 2012-2013 academic year. Iowa State University will be the first among peer institutions to offer a workshop for faculty and establish a sustainability curriculum development program.

US Green Building Council Research to Practice Program - Through collaboration of the Council on Sustainability, Facilities Planning and Management, and the College of Design, ISU was one of 35 educational institutions that took part in a national research initiative offered by the US Green Building Council – Research to Practice Program (www.centerforgreenschools.org/r2p2.aspx).

The initiative focused on comparative research related to building design and performance in LEED versus Non-LEED designed and built buildings to identify efficiency opportunities as well as opportunities to incorporate green practices and design in general. ISU's research focused

specifically on five research facilities and encompassed a full-circle consideration of opportunities ranging from building envelope to lighting to equipment procurement.

Findings from this research have been compiled and work will continue through the summer to add more research buildings to the study with the intent to propose a comprehensive Live Green Revolving Loan Fund Project that would focus on laboratory operations efficiency. As well as providing significant education and awareness related to energy conservation and savings to the campus community, this research also offered hands-on research opportunities to a team of 13 students.

Living and Learning Community - Through collaboration of the Department of Residence, the Center for Excellence in Learning and Teaching, Live Green!, and the Environmental Studies Department in the College of Liberal Arts and Sciences, planning and resources have been finalized to offer a Sustainability Living and Learning Community to Iowa State University students starting Fall 2012.

Planning, Administration, and Engagement

Community Engagement

To optimize community engagement and partnerships related and relevant to sustainability and living green, priority was placed on collaborative opportunities with the City of Ames and other community partners and organizations to enhance and increase engagement of students, faculty, and staff during the past year.

City of Ames Shared Position - At the end of the first year of sharing the ISU Director of Sustainability with the City of Ames, the document, "City of Ames Sustainability Plan for Electrical Consumption Reduction" was completed through a facilitated discussion and implementation process involving a seven-sector Sustainability Task Force and submitted to the Ames City Council.

(<http://www.cityofames.org/modules/showdocument.aspx?documentid=5054>)

A second report, "City of Ames Sustainability Education and Awareness Initiatives and Activities" was also completed, as a separate deliverable and submitted to the Council.

(<http://www.cityofames.org/modules/showdocument.aspx?documentid=5053>)

In addition, facilitated work was completed with the City of Ames Sustainability Task Force to provide a proposal to the City Council focused on long-term strategic planning and visioning for community sustainability.

Currently in the second year of this position sharing, proposed action items in the sustainability plan for electrical consumption are in progress and will be taking place throughout Summer and Fall 2012. Specific action items targeted for implementation include the following:

- Completion of a Business Energy Symposium event focusing on electrical energy efficiency and conservation opportunities, engagement, and resources for the Ames business community.
- Completion of a series of focus group discussions with community sectors including schools, non-city government, business, civic organizations, and builders/developers. Discussions will specifically target suggestions and feedback related to increasing awareness, interest, and engagement in electrical consumption reduction activities and initiatives.
- Development of an online, interactive electrical energy consumption tracking tool for the residential sector.

Events - Through a collaborative effort between Live Green!, the Council on Sustainability and the student organization, The Green Umbrella, three large-scale sustainability events were offered to the ISU and Ames communities during the 2011-2012 academic year.

- National Campus Sustainability Day, held in October, showcased campus sustainability initiatives and student organizations, as well as the sustainability efforts, products, and services of local businesses in the Ames community. The two-hour event featured interactive displays, free bike tune-ups, and the opportunity for participants to earn a reusable coffee mug.
- *Sustainapalooza* (www.livegreen.iastate.edu/symposium/2012/), held in February, served as this year's annual campus sustainability event. *Sustainapalooza* focused on reflecting on and celebrating the University's sustainability journey and accomplishments from 2008-2011 as well as looking forward to new goals and opportunities. The two-hour event featured a Sustainability Projects and Initiatives Poster Session, Empowering Stations, presentation of the Building Energy Conservation Award winners, a Live Green! Carpet, and the Wall of Cardinal Gold, and Green.
- Live Green! Village at VEISHEA, held in April during the campus' annual day-long VEISHEA event, showcased campus sustainability initiatives and student organizations as well as expanded VEISHEA (campus-wide) greening efforts. The Village featured interactive displays and the opportunity to take part in a sustainability challenge.



LIVING the
cardinal, gold
and GREEN!



UNIVERSITY OF NORTHERN IOWA
June 2012

UNI am leaving a smaller footprint. 🐾

The University of Northern Iowa is pleased to highlight select accomplishments in the area of sustainability over the past year. In order to create a concise and easy to follow document, the 2011-2012 UNI Sustainability Report to the Board of Regents, State of Iowa will only focus on one highlight in each of the three categorical areas from the Sustainability Tracking Assessment and Rating System (STARS) assessment. All areas from the Board of Regents, State of Iowa Sustainability Goals are tracked quantitatively within the STARS reporting structure.

Please note that this report does not highlight all of the efforts undertaken and maintained on campus over the last year. The comprehensive sustainability data set from UNI's STARS report can be found at <https://stars.aashe.org/>. The University of Northern Iowa Sustainability Advisory Council has made the decision to update the data in our STARS report at least biennially.

Education & Research

Background: One of the primary functions of colleges and universities is to educate students. By training and educating future leaders, scholars, workers, and professionals, higher education institutions are uniquely positioned to prepare students to understand and address sustainability challenges. This STARS category recognizes institutions that have formal education programs and courses, as well as sustainability learning experiences outside the formal curriculum.

Highlighted Project: An essential role of higher education is to prepare students with the knowledge, skills, and habits of mind needed to actively engage them in creating a sustainable future. Key players in achieving this momentous task are the faculty who write course syllabi, develop student learning outcomes, and serve on curriculum committees.

Over the last year at UNI, 26 core faculty leaders strongly committed to sustainability education, and participated in a year-long series of workshops focused on integrating sustainability into curriculum across campus. The core, representing 19 diverse disciplines, participated in a two-day leadership workshop that immersed them in sustainable thinking and action (Table 1). This workshop series, supported by the UNI Provost's Office, was just one of 20 of its kind in North America.

Through a focus on systems thinking as a framework for sustainable thinking, carefully selected presentations on topics such as environmental justice and energy for sustainable agriculture, and multidisciplinary discussion-based activities, each participant investigated, researched, and learned how sustainability could be integrated into their courses, while also broadening and enriching the context of what they teach.

Post-workshop evaluations and reflections by participants and workshop coordinators demonstrated the invaluable usefulness of the multidisciplinary approach, the importance of a supportive administration, and the provision of a structured but flexible space in which to explore the complex connections of sustainability to their courses.

The unique multidisciplinary approach received positive responses from students who felt that this enriched their academic experience at UNI. This project was so successfully implemented and integrated into the classroom that it was recently selected for presentation at the Rio+20, United Nations Conference on Sustainable Development, in Rio de Janeiro, Brazil. This presentation will occur July 20-22, 2012.

Table 1. UNI faculty members participating in the Faculty Leadership in Education Program indicating their college and departmental affiliations (number of participants in each department indicated in parentheses).

College	Department (number of participants)
Natural Sciences	Biology (2) Industrial Technology (4) Mathematics (1) Physics (1)
Social and Behavioral Sciences	Geography (2) Graduate Program in Counseling (1) History (1) Psychology (1) Social Work (1) Sociology, Anthropology, and Criminology (2)
Humanities and Fine Arts	Art (1) English Language and Literature (2) Leadership Studies/Communication Studies (1) Philosophy and World Religions (1) Theatre (1)
Education	Curriculum and Instruction (1) Health Promotion and Education (1) Leisure, Youth & Human Services (1)
Business	Management (1)

Campus Operations

Background: This STARS category encompasses everything that goes into the daily operation of a campus. It includes quantitative data reporting in the areas of Building Operation, Climate, Dining Services, Energy, Grounds, Purchasing, Transportation, Waste, and Water Usage. This overarching category notes that institutions can design, build, and maintain a campus in ways that provide a safe and healthy environment for the campus community. It recognizes the outstanding efforts to maintain a more sustainable campus environment.

Highlighted Project: Over the last several years, UNI Facilities Services has worked toward creating a more energy efficient campus. This includes many projects focusing on upgrades to lighting and mechanical systems within buildings. In a recent series of projects, funded partially by the Iowa Office of Energy Independence, UNI worked on energy upgrades in five buildings. Select highlights and estimated savings from those projects, among others are shown below.

Table 2. Energy Efficiencies and Savings

<u>Project</u>	<u>Highlights</u>	<u>Annual Savings</u>
UNI-Dome	<ul style="list-style-type: none"> •Replaced 392 (1000 W) light fixtures with 128 (1500 W) light fixtures •New control system allows multiple lighting levels to match activity requirements •Reduced connected power load from 392,000 W to 192,000 W •Focused illumination on the field 	\$24,000
Curriss Business Building	<ul style="list-style-type: none"> •Replaced all the light fixtures, excluding the corridors •Occupancy sensors were added to all offices, classrooms, conference rooms and restrooms •Reduced connected power load by 50% •Improved the lighting in the space 	\$10,650
Industrial Technology Center	<ul style="list-style-type: none"> •Replaced all the light fixtures in the building, approximately 500 •Occupancy sensors were added to all offices, classrooms, shop areas, conference rooms and restrooms •Reduced connected power load by 65% •Improved the lighting in the space 	\$15,000
Maucker Union	<ul style="list-style-type: none"> •Replaced inefficient lighting in the food service and dining area •Installed electronic controls on variable air volume boxes on the main and lower levels •Installed variable frequency drives on the air handling unit that serves the main and lower levels 	\$50,000
Pedestrian LED Pole Lights	<ul style="list-style-type: none"> •Installed near the CEEE and BCS, continuing North as replacement light fixtures are needed •LED fixtures are 40 watts each versus 125 watts each for standard fixtures •Life span of LED fixtures is 25 years 	\$23 per pole light (\$13,850 once entire campus is LED)

Leadership and Outreach

Background: This STARS category encompasses a wide variety of planning, engagement and outreach areas. It includes quantitative and qualitative data reporting in the areas of Coordination and Planning, Diversity and Affordability, Human Resources, Investment, and Public Engagement. This overarching category notes that institutions of higher learning can make significant contributions to sustainability throughout society by sharing their experiences and expertise with others. Sharing best practices and lessons learned can help other institutions, communities, and individuals realize efficiencies that they otherwise may not have considered.

Highlighted Project: Solar Splash is the World Championship of intercollegiate Solar/Electric boating. Last year the five-day Solar Splash competition was hosted by UNI in June. That 2011 event, held at George Wyth State Park, served as a tremendous outreach opportunity, reaching hundreds of people in the Cedar Valley. The competition itself served as host to over 150 competitors from 22 teams from three different countries (United States, Mexico, and Turkey). The five-day event was estimated to provide an \$85,000 economic boost to the Cedar Valley.

Once again, UNI will serve as host school for the 2012 Solar Splash event. The event is expected to be even larger than last year with teams from across the United States in attendance. Additionally, teams from Mexico, Turkey, and the United Kingdom, as well as representatives from the DONG Solar Energy Challenge competition in The Netherlands will be present. Serving as a tremendous outreach opportunity for UNI to the local community, the event is a cultural think-tank for engaged student leaders from around the world working to solve tomorrow's problems today.

Figure 1. UNI Solar Powered Boat

