

**SFI weekly newsletter for the week of June 15, 2009**  
**A weekly service of SFI**



**SFI NEWS AND ANNOUNCEMENTS**

1. SFI Poster Session Open to the Public Monday -- June 22, in MUB, Ballroom 2 from 1 to 2:15 p.m.

**SUSTAINABILITY NEWS**

1. [June Issue of University Business Focuses on Sustainability](#)
2. [Wayne State U Hosts Community Farmers' Market](#)
3. [Opportunity to Submit Campus Sustainability Case Study](#)
4. 'Cash-Poor, Bond-Rich' June 18, 2009 Inside Higher Education
5. For Colleges, Small Cutbacks Add Up to Big Savings

**FUNDING & AWARD OPPORTUNITIES**

1. *Advancing Public Health Protection through Water Infrastructure Sustainability*
2. Exploring Linkages Between Health Outcomes and Environmental Hazards, Exposures, and Interventions for  
3. Great Lakes Protection Fund
4. DOE National Energy Technology Laboratory
5. DOE National Energy Technology Laboratory

**NEW RESOURCES**

1. Sustainable Landscaping on Campus
2. Water-wise Car Washing from the Union of Concerned Carwashing
3. Call for contributions on the topic of "The Base of the Pyramid in Latin America"

**EVENTS & CONFERENCES**

1. Footprint Forum 2009: The Opportunity of Limits Siena, Italy September 9 - 11, 2009  
Send announcements of your publications, presentations, awards, and names of awarded proposals to Denise Heikinen at [dmheikin@mtu.edu](mailto:dmheikin@mtu.edu).

**SFI NEWS AND ANNOUNCEMENTS**

**1. SFI Poster Session Open to the Public Monday -- June 22, in MUB, Ballroom 2 from 1 to 2:15 p.m.**

SFI is sponsoring a poster session on Monday, June 22, in Memorial Union Ballroom 2 from 1 to 2:15 p.m. The event is open to the campus and local communities. Undergraduates, graduate students and faculty members from across the campus community will be displaying posters illustrating sustainability research and other sustainability initiatives. These posters represent a broad range of sustainability action taking place at SFI and on the Michigan Tech campus.

The poster session coincides with meetings of the SFI Advisory Board. Attendees will have the chance to meet and mingle with board members, who represent the following corporations and agencies: Caterpillar, Dow Corning, General Motors, The Great Lakes Commission, Kimberly-Clark, US Air Force, Steelcase, Motorola, Los Alamos National Laboratory of the Department of Energy, Southern University and A&M College, and the USDA Forest Service.

This poster session is intended to strengthen the network of scholars interested in promoting the important research, education, and outreach work in sustainability on the Michigan Tech campus and in the community.

## SUSTAINABILITY NEWS SUSTAINABILITY NEWS

### 1. [June Issue of University Business Focuses on Sustainability](#)

The June issue of *University Business* includes several articles on higher education sustainability initiatives that seek to save money and reduce environmental impacts. Topics include green cleaning at Eastern Kentucky University; composting at Green Mountain College (VT), Ohio University, University of Washington, and University of Minnesota; solar panels at Unity College (ME); indoor air quality initiatives at Central Michigan University and Sewanee: The University of The South (TN); biomass projects at the University of Minnesota, the University of Minnesota, Morris, Virginia Tech, University of Illinois, North Carolina State University, and Texas A&M University; green renovations at Northeast Wisconsin Technical College and Florida International University; car-sharing at University of California, San Diego, Virginia Tech, Washington University in St. Louis (MO), and Stanford University (CA), electronics recycling at Temple University (PA); and green procurement at Arizona State University and University of California, San Diego.

<http://universitybusiness.com/viewpage.aspx?pagename=staticpage/sustainability2009.html>

### 2. [Wayne State U Hosts Community Farmers' Market](#)

Wayne State University (MI) has begun hosting a community farmers' market on its campus. The market, which is held every Wednesday from June to October, offers fruits, vegetables, herbs, flowers, and prepared foods. The weekly event was established after two successful pilots last year.



### 3. [Opportunity to Submit Campus Sustainability Case Study](#)

The National Wildlife Federation Campus Ecology Program invites submissions of campus sustainability case studies. Campus Ecology gathers these case studies to document and celebrate the great work being done at colleges and universities across the country, and to help others learn from these projects. Schools are welcome to submit more than one case study if they are working on multiple projects in different areas of sustainability. Submissions are due

June 30, 2009.

### 4. ['Cash-Poor, Bond-Rich' June 18, 2009 Inside Higher Education](#)

California colleges are bracing for state cuts, but at LA's two-year institutions, green building is booming.

<http://www.insidehighered.com/news/2009/06/18/lagreeen>

### 5. [For Colleges, Small Cutbacks Add Up to Big Savings](#)

New York Times June 19, 2009 By Tamar Lewin

To whittle away at costs, colleges are scrapping cafeteria trays and landlines while buying student labor.

This article several colleges that have launched sustainable programs to save money, including

- virtual swim meet, saving saved \$900 on bus travel
- Relaxing housekeeping standards, saving Oberlin \$22,300
- turning down thermostats to save on heating
- going trayless, saving almost \$30,000 a semester
- installing low-flow shower heads and energy-saving light bulbs and holding contests to see which dorm can most reduce its electricity costs, saving almost \$3,000
- switching from bottled water to tap at most college events

[http://www.nytimes.com/2009/06/19/education/19college.html?\\_r=1&emc=eta1](http://www.nytimes.com/2009/06/19/education/19college.html?_r=1&emc=eta1)

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## FUNDING & AWARD OPPORTUNITIES

*To submit research proposals through the Sustainable Futures Institute, add "SFI" to the DEPT/CENTER/INSTITUTE(S) column for identifying the PI's and co-PI's. SFI Director, John Sutherland, will sign the transmittal sheet on page 3. (If John Sutherland is unavailable for signing transmittal sheets, Qiong (Jane) Zhang can also sign for SFI). Submitting proposals under SFI provides wider publicity and recognition for your research as well as a 10% return on your incentive account.*

### **1. Advancing Public Health Protection through Water Infrastructure Sustainability**

U.S. Environmental Protection Agency Office of Research and Development  
National Center for Environmental Research--Science to Achieve Results (STAR) Program

Approximately 8 regular awards, 4 early career awards      *Anticipated* Amount: Approximately \$6 million total  
For a regular award, up to a total of \$600,000, including direct and indirect costs, with a maximum duration of 4 years. Early career awards are limited to a total of \$300,000, including direct and indirect costs, with a duration of 4 years. Cost-sharing is not required.  
Deadline: August 17, 2009

The U.S. Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, is seeking new and innovative research applications that link opportunities to advance public health protection with improvements in the condition and function of the water infrastructure. For purposes of this RFA, the water infrastructure includes centralized and decentralized systems that convey, store, and distribute potable and non-potable water and collect and manage municipal and industrial wastewater, stormwater, and on-site rainwater. Innovation can take the form of wholly new applications or applications that build on existing knowledge and approaches for new uses. The focus of the solicitation is on improving the effectiveness of the water infrastructure for protecting public health. Projects should clearly demonstrate an integrated, multi-disciplinary approach that leads to advances in design, operation, and management of the water infrastructure and should directly tie those advances to public health protection in conjunction with improving water efficiency and reducing energy requirements.

[http://epa.gov/ncer/rfa/2009/2009\\_star\\_water\\_infrastructure.html](http://epa.gov/ncer/rfa/2009/2009_star_water_infrastructure.html)

### **2. Exploring Linkages Between Health Outcomes and Environmental Hazards, Exposures, and Interventions for Public Health**

Tracking and Risk Management      U.S. Environmental Protection Agency  
Office of Research and Development      National Center for Environmental Research      Science to Achieve Results (STAR) Program  
Deadline: August 5, 2009

Approximately 5 regular awards, 2 early career awards  
Approximately \$3 million total for all awards  
For a regular award, up to a total of \$500,000, including direct and indirect costs, with a maximum duration of 3 years.  
Early career awards are limited to a total of \$250,000, including direct and indirect costs, with duration of 3 years.  
No Cost-sharing.

The EPA is seeking applications to develop new or improved environmental public health indicators (EPHIs) to build linkages between environmental hazards, human exposures, and public health outcomes. The aim of the research is to develop indicators that can be used for long-term tracking and surveillance of environmental public health, making better informed decisions, and assessing the actual impacts of environmental risk management decisions. Proposed projects should capitalize on existing knowledge bases, data sources, or cohorts to develop EPHIs that reflect a better understanding of the relationships between environmental conditions, human exposure, and/or public health outcomes. Novel application of statistical methods or models may be needed to establish probable relationships between existing datasets or investigate the consequences of environmental actions and policy changes.

[http://epa.gov/ncer/rfa/2009/2009\\_star\\_ephi.html](http://epa.gov/ncer/rfa/2009/2009_star_ephi.html)

### **3. Great Lakes Protection Fund**

The Great Lakes Protection Fund welcomes pre-proposals for projects that enhance the health of the Great Lakes ecosystem. Applicants should propose projects that will return the greatest ecosystem benefits. The ultimate criterion used to select projects is the anticipated benefit to the health of the Great Lakes ecosystem. Projects must identify a significant, tangible ecological outcome and a pragmatic plan to achieve it. Pre-proposals should identify the expected outcome of the work to be undertaken as precisely as possible. Projects must also lead to benefits for the entire Great Lakes ecosystem. The fund prefers to support projects that take concrete actions to achieve basin-wide ecological results. Support for activities such as conferences, environmental education, and basic research will be considered for support only when they are part of a broader, regional action strategy that is designed to impact the entire ecosystem. Projects must supplement existing efforts to protect and restore the health of the Great Lakes ecosystem. <http://fundingopps.cos.com/alerts/27057>

#### 4. DOE National Energy Technology Laboratory

Combined Heat and Power Systems Technology Development and Demonstration

Closing Date for Applications: Jul 07, 2009 Archive Date: Oct 08, 2009 Funding Instrument Type: Cooperative Agreement

Category of Funding Activity: Energy

Category Explanation: Expected Number of Awards: Estimated Total Program Funding: Award Ceiling: \$30,000,000 Award Floor: \$250,000 CFDA Number(s): 81.087 -- Renewable Energy Research and Development Cost Sharing or Matching Requirement: Yes The three (3) Areas of Interest are based on the output range of the CHP system, as follows: Area of Interest 1: Large CHP Systems (less than or equal to 20 MW) Area of Interest 2: Medium CHP Systems (less than or equal to 1MW to less than 20 MW) Area of Interest 3: Small CHP Systems (less than or equal to 5kW to less than 1 MW) All three Areas seek applications that will perform research, development and demonstration of technologies that increase the efficiency and reduce the cost of CHP systems. This FOA is targeted at meaningful technical advancements that will broaden CHP economic and environmental value propositions in vastly under exploited vertical market segments. Concurrently, strategic demonstrations are sought that will address the risk averse nature of potential CHP users, including concerns on the impact on electricity grid operations, regulatory paradigms and business models that have the effect of inhibiting CHP growth. Demonstrations should be aimed at accelerating the project development process through collaborative partnerships with key industry partners. Key technologies are those capable of sizable energy savings and corresponding GHG emissions while providing a least cost approach to compliance with relevant emissions regulations. All technologies shall have a defined pathway to commercialization. All three Areas of Interest seek applications that will substantially improve the energy efficiency of the U.S. industrial sector through funding cost-shared R D projects in developing innovative technologies that are: (1) highly efficient, (2) meet future emission requirements, and (3) replace or mitigate natural gas usage. Because of the critical impact that natural gas increases have had across industry the applications will focus on technologies that typically use gaseous fuels. In addition to more efficient use of natural gas, the use of alternatives such as landfill gas, digester gas, coal derived synthetic gas, oil field waste gas, or other alternative gaseous fuels would be appropriate. Applications are sought for Research, Development, and Demonstration projects which will continue through Stage 4. Projects shall include an integrated CHP system demonstration in Stage 4. A minimum of three months of operation will be required.

<http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&opId=47858>

#### 5. DOE National Energy Technology Laboratory

Recovery Act - Systems Level Technology Development, Integration, and Demonstration for Efficient Class 8 Trucks (SuperTruck) and Advanced Technology Powertrains For Light-Duty Vehicles (ATP-LD)

Current Closing Date for Applications: Sep 09, 2009

Expected Number of Awards: 11

Estimated Total Program Funding:

Award Ceiling: \$95,000

Award Floor: \$45,000

CFDA Number(s): 81.087 -- Renewable Energy Research and Development

Cost Sharing or Matching Requirement: Yes

The goal of Area of Interest 1 is to develop and demonstrate a 50% improvement in overall freight efficiency on a heavy-duty Class 8 tractor-trailer measured in ton-miles per gallon. This improvement will be achieved through the application of advanced vehicle system technologies and advanced engine technologies. At least 20% of the improvement will be through the development of an engine capable of achieving 50% Brake Thermal Efficiency (BTE). Over the 3 to 5 year period of this activity, the selected participants will develop, test, and ultimately demonstrate these advanced technologies on a full-scale vehicle. A pathway to compliance with prevailing federal safety and environmental regulations must be shown. Candidate vehicle system technologies may include reductions in aerodynamic drag, vehicle mass, and rolling resistance, and other technologies as appropriate. Electrical or mechanical drivetrain hybridization, including energy storage/regeneration and main engine idle and other ancillary load reductions, may also be considered. In an effort to bring the best possible resources to bear on this transformational vehicle development, teams are expected to include but are not limited to a vehicle OEM, engine manufacturers and critical suppliers. The project will be organized in phases with well-defined stage gates at the end of each phase. An in-depth review will be held at the end of each phase and a determination made concerning continuing the project into the next stage. Changes to DOE program priorities as well as the current state of technology and the marketplace will be factors considered when making decisions to proceed. The goal of Area of Interest 2 is to accelerate the development of cost-competitive engine and powertrain systems for light-duty vehicles capable of attaining breakthrough thermal efficiencies while meeting future emissions standards. Development of the engine and powertrain system can include improvements to in-cylinder combustion, engine mechanics, waste heat recovery, friction reduction, emission control, fuels, materials, electrification, and reduced ancillary load requirements. The engine system can be designed to accommodate a hybrid system, CVT or other advanced transmission. The project will be organized in phases with well-defined phase gates at the end of each phase. Over the three-to-five year period of this activity, the selected participants will develop, test and eventually demonstrate

these advanced technologies and the associated efficiency gains on an engine dynamometer and full-scale vehicle. Emissions will be measured to show compliance. Technologies that are compatible with or can support future fuels and are adaptable to bio-fuels with relatively minor modifications will be taken into consideration during the comprehensive merit evaluation process. Achievement of the stated fuel economy goals may require improvements to the entire powertrain system although engine system efficiency improvements will play a significant role in this effort. In order to bring the best possible resources to bear on this problem, appropriate teaming arrangements among suppliers, national labs, universities, and vehicle OEMs are encouraged. Proposed activity coincides with the multi-year program plan and Fiscal Year 2010 to 2014 budgets. <http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&oppld=47867>

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## NEW RESOURCES

### 1. Sustainable Landscaping on Campus



AASHE (aashe.org) has posted a new resource on sustainable landscaping on campus. The resource contains links to information about sustainable landscaping practices, policies, and plans, and is available to both AASHE members and non-members.

<http://www.aashe.org/resources/campus-sustainability-landscaping-policies>

### 2. Water-wise Car Washing from the Union of Concerned Carwashing

June 2009

Taking your car to the local car wash instead of washing it at home might seem like a guilty pleasure, but from an environmental perspective it is often the better choice. When you wash your car in the driveway or street, contaminants such as grease and brake dust (as well as the detergent itself) flow into storm sewers, which discharge directly into our waterways. Car washes, on the other hand, are required to drain their water into sanitary sewers (which direct sewage to treatment facilities) or to filter and reuse it on-site. Water efficiency is also a benefit of many commercial car washes.

An analysis by the Maryland Department of the Environment found that car washes use approximately 50 to 75 gallons of water per car (assuming the water is not being recycled); using the self-service bay consumes only 15 gallons. A typical garden hose, on the other hand, which has an average flow rate of seven gallons per minute, would exceed a car wash's water consumption after two minutes compared with the self-service bay or seven minutes compared with the automated wash if the hose were left running. The site offers additional advise about washing methods and products.

<http://www.ucsusa.org/publications/greentips/>

### 3. Call for contributions on the topic of "The Base of the Pyramid in Latin America"



Greenleaf Publishing invites contributions for a special issue of Greener Management International (GMI) on the topic of "THE BASE OF THE PYRAMID IN LATIN AMERICA", to be edited by Miguel Angel Gardetti, Center for Study of Corporate Sustainability, Argentina. This special issue will focus on three interrelated themes concerning the the Base of the Pyramid in Latin America:

- The Base of the Pyramid (BoP) not only as a new market for products and services, but also as a source for the co-creation of new sustainable business ventures highlighting the role of local entrepreneurs.
- The role of technology and innovation in meeting the needs of BoP customers.
- The concept of sustainability within BoP strategies; considering the impact of economic growth and social pressures on our planet.

[http://campaign.constantcontact.com/render?v=0017kyvroomFgQfUh3YK39eQkI4DU\\_W-tTy7WPgMcZyoHjNxCFpaC5M5-oURTQe3JO3kn1\\_WyC313Hp3GO3I2E\\_mmdJDcMiof8V7p0LMNWnSnm0%3D](http://campaign.constantcontact.com/render?v=0017kyvroomFgQfUh3YK39eQkI4DU_W-tTy7WPgMcZyoHjNxCFpaC5M5-oURTQe3JO3kn1_WyC313Hp3GO3I2E_mmdJDcMiof8V7p0LMNWnSnm0%3D)

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## EVENTS & CONFERENCES

### 1. Footprint Forum 2009: The Opportunity of Limits Siena, Italy September 9 - 11, 2009



Deadline for registration is August 17. Early registration rate available until July 1, 2009

Can we have a viable economy without causing harm to our finite biosphere?

What is the relationship between the ecological crisis and the financial crisis?

What kinds of investments must your organization or government make today for a sustainable future?

These are the types of questions participants will tackle at Global Footprint Network's Footprint Forum 2009: The Opportunity of Limits in Colle di Val d'Elsa, Italy, just outside of Siena, Italy. In the heart of beautiful and historic Tuscany, participants of this unique event will tackle the most pressing issues humanity is facing, and take action toward a sustainable future. For three days, you will have your choice of a diverse line-up of sessions, affecting everything from corporations to government to our food and water. Each session is designed to stimulate breakthrough thinking and spark new collaborations that would not have occurred outside this venue.