



# ENERGY EFFICIENCY

Inside this issue



SUSTAINABILITY  
ENERGY EFFICIENCY

Sustainability and Energy Efficiency  
Conference

Environmental Research Program

Better Buildings: Better Business  
Conference

The Energy Center shares *Inspiring Energy  
Efficiency Impact Award*

## Leading the way—Sustainability and Energy Efficiency for Wisconsin Buildings

Inspiring designers and builders to create healthy, resource-efficient buildings is a passion shared by the Energy Center of Wisconsin and the Wisconsin Green Building Alliance (WGBA). We have joined forces to present the Sustainability and Energy Efficiency (SE<sup>2</sup>) Leadership conference on October 12–13 in Oconomowoc, Wisconsin. Targeting developers, building owners and the real estate community as well as architects, engineers and contractors, SE<sup>2</sup> aims to move sustainable, energy efficient building into the mainstream. Go to [www.wgba.org](http://www.wgba.org) for more information or to register for the conference.

The SE<sup>2</sup> conference unites WGBA's *Greening the Built Environment* and the Energy Center's *Building Expectations: High Performance Buildings* conferences. It features targeted tracks geared toward building a toolbox that participants can use for developing, designing and managing sustainable, energy efficient buildings.

Robert Cassidy, editor in chief of Building Design & Construction, will deliver the conference keynote speech. He authored the *White Paper on Sustainability: A Report on the Green Building Movement*. Mr. Cassidy will speak about the challenges green building faces in becoming “business as usual.”

A highlight of the conference will be the presentation of the first annual SE<sup>2</sup> Leadership awards. AIA Wisconsin, the Energy Center of Wisconsin, Wisconsin Green Building Alliance, Focus on Energy and the Wisconsin sections of ASHRAE, IES and IFMA jointly developed the award to encourage and reward excellence and innovation in architectural and engineering projects that integrate environmentally responsive design strategies. The awards recognize leadership in energy efficient and sustainable design, construction and operation of Wisconsin commercial and other non-residential buildings and

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OF WISCONSIN

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Thrivent Financial Bank, Appleton, Wisconsin

*continued from page 1*

related systems. Awards will be given in three categories: excellence, merit and special citations. Award partners and endorsers hope to encourage greater collaboration among owners, designers, builders and operators by highlighting the value of projects that enhance the built environment.

In addition to the conference session, there will be a trade show and exposition showcasing the latest innovations in building technologies, systems and materials. ☻

CONFERENCE SESSIONS INCLUDE:



SUSTAINABILITY  
ENERGY EFFICIENCY

- Building Green for Engineers: The New ASHRAE Green Guide
- Construction Waste Recycling Makes Good \$ and Sense
- Modeling Software for Energy Efficient Design
- Energy Management—A Tale of Two Companies
- Begin With The End In Mind!
- SE<sup>2</sup> in Multi-Family Investment Properties
- SE<sup>2</sup> Leadership for Developers/ Owners
- Re- & Retro Commissioning: A Checklist of Why & How to Do It
- What's New in the World of Sustainable Finishes & Furnishings?
- Here Comes The Rain! Storm Water Mitigation Technologies That Work
- SE<sup>2</sup> Leadership for Developers/ Owners: The LEEDING Edge

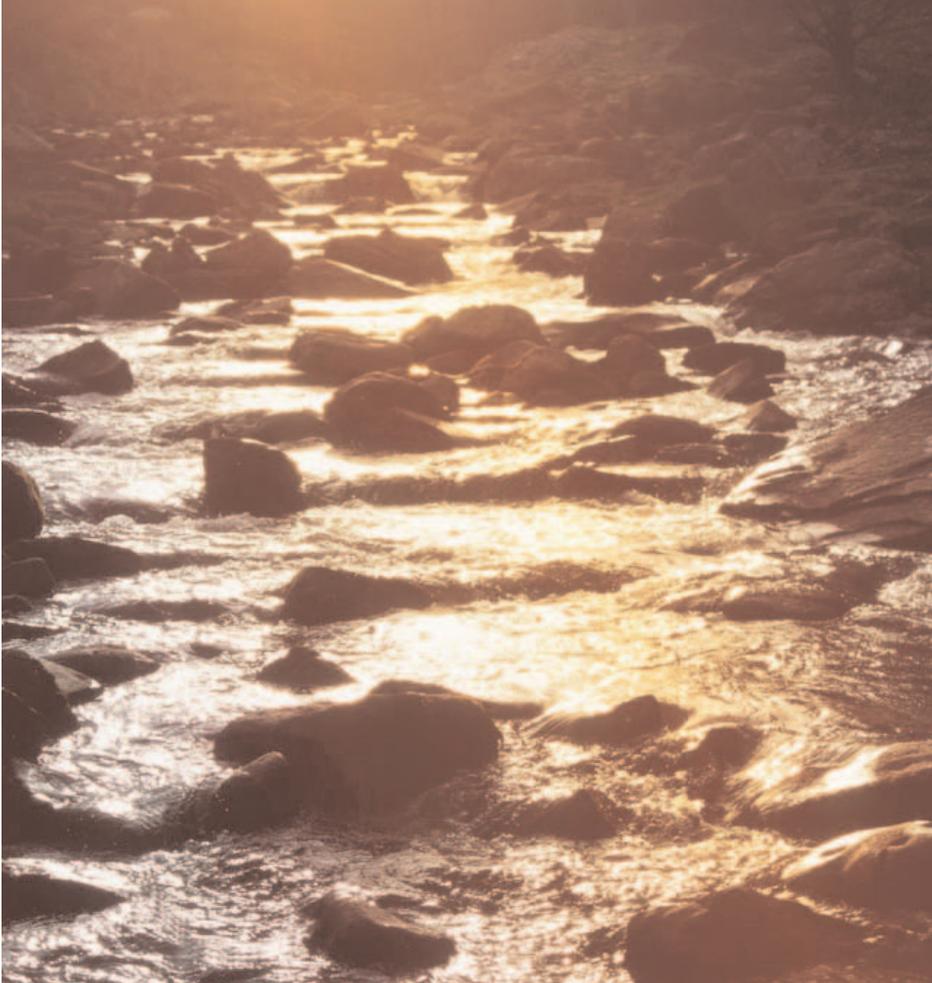
The conference also provides a platform for the introduction of the *Advanced Buildings™ Guidelines* for commercial building design, with conference sessions on:

- *Advanced Buildings*: Design & Envelope
- *Advanced Buildings*: Lighting/Daylighting
- *Advanced Buildings*: Envelope

CONFERENCE SPONSORS



# Environmental Research Program yields first reports



The Energy Center of Wisconsin is pleased to announce that results from two Focus on Energy Environmental Research Program (ERP) projects are in! Researchers have submitted the final reports from the first two projects to be completed for the program. *“Quantifying Carbon Storage in Wisconsin Forests”* and *“Ecological Effects of Fragmentation Related to Transmission Line Rights-of-Way: A Review of the State of the Science”* are now available on the Focus on Energy web site (see sidebar). As the Program Administrator, the Energy Center has overseen the review and approval of these reports.

The Energy Center has administered ERP since its inception in 2002, and has been active in designing as well as implementing the program. ERP has completed two grant cycles and funded seventeen research projects studying the environmental effects of electrical generation and transmission in Wisconsin. The Environmental Research Forum, a group appointed by the Wisconsin Department of Administration, Division of Energy establishes research needs and reviews proposals and makes funding recommendations. Go to [www.focusonenergy.com](http://www.focusonenergy.com)

for more information about the Environmental Research Program.

Collecting data over time on pollution levels is essential to monitoring environmental quality. Two ERP projects (Wisconsin National Atmospheric Deposition Program [NADP] National Trends Network and Wisconsin Mercury Deposition Network) not only collect data for Wisconsin, but contribute to national networks collecting data on the chemistry of precipitation for monitoring geographical and temporal long-term trends. The NADP established the National Trends Network in 1978. This network comprises over 200 sites spanning the continental United States, Alaska, Puerto Rico and the Virgin Islands. Precipitation is collected weekly and analyzed for hydrogen (acidity as pH), sulfate, nitrate, ammonium, chloride, and base cations (such as calcium, magnesium, potassium and sodium). The Mercury Deposition Network (MDN) was formed in 1995 to collect weekly samples of precipitation which are analyzed for total mercury. The MDN’s objective is to monitor the amount of mercury in precipitation on a regional basis in order to provide information crucial for researchers to understand what is happening to the nation’s lakes and streams. Data from these networks are available at <http://nadp.sws.uiuc.edu/>

The more we know about how electrical generation and transmission affect the Wisconsin environment, the greater our chances are of preventing pollution in the future. ERP’s research contributes to the information we need to make wise decisions about new generation plants and transmission lines and how to reverse environmental damage that has already occurred.

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**TO DOWNLOAD SUMMARIES OR REPORT**  
See sidebar on page 4



**Don't you dare miss it!**



**It's a jungle out there**

The 3rd annual **Better Buildings: Better Business Conference** will be held February 1–2, 2005 at the **KALAHARI** Resort in Wisconsin Dells. Join us for this unique learning, networking and business development opportunity tailored to Wisconsin's residential building and remodeling industry.

Enjoy the family-friendly resort featuring America's Largest Indoor Waterpark.



**REGISTER NOW AT**  
[www.ecw.org/betterbuildings](http://www.ecw.org/betterbuildings)

DOWNLOAD SUMMARIES OR REPORTS



Download executive summaries or full reports from ERP projects at [www.focusonenergy.com](http://www.focusonenergy.com)

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*Quantifying Carbon Storage in Wisconsin Forests* by Elliot Campbell, Jeremie Moen and Jerald L. Schnoor of the University of Iowa and Richard A. Ney of Sebesta Blomberg & Associates, Iowa City, Iowa. *April 2004*

This study augments existing inventories of energy-related emissions by quantifying the carbon sequestration benefits that accrue in Wisconsin forestlands. Using gross statewide and mapped regional values for soil and biomass carbon, this report examines the volume and annual changes of the state's carbon stocks. Results were validated against published carbon sequestration results for different regions and methodologies.

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*Ecological Effects of Fragmentation Related to Transmission Line Rights-of-Way: A Review of the State of the Science* by Cassandra J. Willyard, Susan M. Tikalsky and Patricia A. Mullins, Resource Strategies, Inc., Madison, Wisconsin. *June 2004*

This project provides a review of existing research into the effects of transmission line rights-of-way on local flora and fauna. It focuses on four areas: the current state of scientific research; how this research relates to transmission line rights-of-way in Wisconsin; insight into the limitations of current research; and recommendations for research in the future. The report includes a list of all cited references, abstracts of Wisconsin-based research and information about Wisconsin species with special ecological requirements.

WEBSITE LAUNCHED



Advanced Buildings launches poweryourdesign.com providing technical resources and guidance to improve the way buildings are designed, built and used. The Web site features a suite of products and tools that can be downloaded, information on Advanced Buildings training and a private library of technical information for training program participants.

power your design

# Energy Center of Wisconsin shares "Inspiring Energy Efficiency" Impact Award

The Energy Center of Wisconsin is one of five Midwest sponsors of the Compressed Air Challenge® sharing the Midwest Energy Efficiency Alliance's 2004 Inspiring Energy Efficiency Impact Award. The other Midwest sponsors are the Iowa Energy Center, State of Illinois, Compressed Air and Gas Institute, and Association of Ingersoll Rand Distributors. The Inspiring Energy Efficiency Awards recognize individuals and organizations for their efforts to increase energy efficiency awareness and practices in the Midwest region. The Compressed Air Challenge develops and provides resources to educate industry and encourage changes in practices that will improve the efficiency and productivity of compressed air systems. An evaluation of CAC training participants found that 75% of the end users made efficiency improvements to their compressed air systems. The average value of savings achieved by program participants who implemented these improvements was \$7,428.



## SUPPORTING OUR MISSION



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The Energy Center of Wisconsin is a private nonprofit organization dedicated to providing objective research information and education on energy issues to businesses, professionals, policymakers and the public.

Please email Melanie Lord, mlord@ecw.org with comments and questions about e<sup>2</sup>.

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