

2008 Energy Expo

Managing Your Carbon Footprint

Tuesday, October 14, 2008

7:30AM – 4:30PM

Four Points Sheraton Minneapolis

1330 Industrial Boulevard
Minneapolis, Minnesota 55413

Presented By



The Minnesota Chapters of the –

Association of Energy Engineers

And

American Society of Heating, Refrigerating

& Air Conditioning Engineers

Schedule and Location of Sessions

Time	Activity	Location
7:30 -	Registration	Ballroom Foyer
7:30 – 8:15	Continental Breakfast	Foyer & Ballroom
8:15– 9:00	Program Introduction	Minnesota Grand
9:15 – 10:15 Karen Utt Tony Lee Dan Thatcher	Session 1 <i>Carbon Management 101 Green with ASHRAE Standards Magnetic Bearings, Oil Free Compressors</i>	Minnesota Grand Natchez/New Orleans Memphis
10:30 – 11:30 Hollis Linehan David Burggren Jeff Maxwell	Session 2 <i>Opus's 50% Reduction Heat/Energy Reclamation Geo Exchange Heat Pump System</i>	Minnesota Grand Natchez/New Orleans Memphis
11:30 – 12:00	Trade Show	Throughout
12:00	Lunch Begins	Minnesota Grand
12:15 – 1:30 Janet Streff Doug Maust	Lunch Program <i>America's Carbon Footprint Panel Introduction/Moderator Panel Discussion; Q&A with: Hollis Linehan, Kathy Radosevich, David Eijadi</i>	Minnesota Grand
1:45 – 2:45 David Eijadi Jeremy Kaeding Jeff Urlab & Earl Rudolph	Session 3 <i>Building Design and Carbon Glazing Shading Control Thermal Storage & LEED</i>	Minnesota Grand Natchez/New Orleans Memphis
3:00 – 4:00 Kathy Radosevich Dennis Meyer Ralph Jacobson	Session 4 <i>Carbon, Warming & Regulations Advanced Heat Pump Systems Solar Installations</i>	Minnesota Grand Natchez/New Orleans Memphis
4:00 – 4:30	Wrap Up and Prizes Minnesota Wild Tickets & More!!	Minnesota Grand

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5-Time ENERGY STAR Winner



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Also Showing:

Energy Efficient Resources

Filtration Systems, Inc

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Entherm, Inc

Harris Companies

ClimateMaster

USA Coil & Air

Ice Kube Systems/ Eco Kube

Honeywell International

Ryan Company

IPS Solar

Calmac

Uponor NA

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Schwab Vollhaber Lubratt, Inc

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Sage Electronics

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Hays Fluid Controls

U.S. Energy Services, Inc

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Speakers & Presentations



Speaker: David Burggren, Commercial Sales General Manager, Building Systems and Services, Carrier Corporation.

Topic: Two building optimization projects are examined for their reduction in energy usage and corresponding carbon footprint, within the architecture of LEED for New Construction. Heat reclaim uses waste heat produced by the air conditioning process to preheat water used in the building. Microsteam turbine generation uses the pressure reduction in steam to produce supplemental electricity for the building.

Profile: Dave has 15 years experience with Carrier working in all aspects of HVAC sales, installation, maintenance, repair, and optimization strategies. His position as general manager, building systems and services, gives him a broad perspective to offer optimal solutions for HVAC systems.

Dave holds a Bachelors degree in Applied Science from Portland State University, a Masters degree in Engineering Management from the University of Missouri, Rolla, and an MBA from George Fox University, Newberg, Oregon.



Speaker: Jeremy Kaeding, Regional Sales Manager for SAGE Electrochromics, Inc.

Topic: Innovative designs for electronically tinting windows allow control over heat gain, natural lighting, glare and aesthetics to provide employees with a good working environment while reducing energy bills and carbon usage.

Profile: Jeremy earned a bachelor's degree in mechanical engineering from Iowa State University. Following graduation, he worked in commercial sales for Carrier Corporation. Most recently, Jeremy served as vice president of sales at Daylight Designs, Inc.

Jeremy belongs to the Mississippi Headwaters chapter of the U.S. Green Building Council. He is a member of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.; the American Society of Mechanical Engineers; and the Construction Specifications Institute.



Speaker: Hollis Linehan, LEED AP, Manager – Mechanical / Electrical Engineering for Opus Architects & Engineers.

Topic: Mr. Linehan will be highlighting the process, challenges, and configurations of the Opus Corporate Center Expansion in Minnetonka, MN as they relate to the target of achieving a 50% energy cost reduction from ASHRAE 90.1-2004. The project is currently under construction with an anticipated occupancy date of January 2009 and is seeking LEED® NC – Gold certification.

Profile: The Opus Group, a \$2.2 billion national real estate development company, has been building clients' expectations and fulfilling their development visions for 55 years. With headquarters in Minneapolis, Opus has nearly 2,000 employees in 26 offices throughout North America. To date, Opus has completed 2,438 projects totaling 238 million square feet and has 35 million square feet planned or under development across the country.



Speaker: Kathy Radosevich, C.E.M., Business Development Manager, NTIC

Topic: Carbon Cycle, History of Global Warming, Current and Future Regulation of Carbon Dioxide.

This presentation gives the history of carbon in the industrial era, the science behind the global warming concern, and current and pending regulations that will affect the way we do business.

Profile: Kathy is the Business Development Manager for Polymer Energy, a division of Northern Technology International (NTI). Her responsibilities include developing new business opportunities, implementing new marketing strategies and coordinating with partners and customers on successful installation and operations of Polymer Energy units worldwide.

Prior to joining NTI, Kathy managed the procurement and installation of the gas and electric infrastructure for ethanol plants. Her professional background also includes engineering and executive experience in energy recovery, designing and manufacturing of air-to-air heat exchangers for industrial processes and commercial applications. Kathy was president of two custom air handling companies that specialized in energy recovery and created a joint venture in the United States for American and Italian fan manufacturers. Kathy received a degree in Mechanical Engineering, specializing in heat transfer, from the University of Minnesota. She is Certified Energy Manager (CEM) with the certification received from the Association of Energy Engineers.



Speaker: David Eijadi, FAIA, Principal at the Weidt Group

Topic: Carbon Calculation in Design: Setting a Good Foundation

Reduced carbon footprint of new buildings is achieved through parametric analysis relative to benchmarks and codes. Market transformation programs can play a role in carbon reduction but may make carbon credits less certain for the participants. Mr. Eijadi will speak to the optimal time to engage in parametric analysis and directions toward turning these studies into defensible carbon or environmental credits.

Profile: David Eijadi is a Principal at The Weidt Group, directing the firm's Design Assistance services for sustainable design and high performance buildings. He is a LEED Accredited Professional with 30 years of experience in environmentally-appropriate design.



Speaker: Jeff Maxwell, P. Eng., President of TRAK International, a division of Harris Companies.

Topic: New approaches using Geo Exchange based systems for energy efficiency and environmental benefits in new and retrofit buildings.

Profile: Following studies in Metallurgical Engineering and Mechanical Engineering Design, a Science Degree including languages, economics, mathematics, and energy physics studies in Canada and Germany, Jeff graduated from Lakehead University in Thunder Bay, Ontario with a Bachelor's Degree in Mechanical Engineering. Post Graduate studies at St. Thomas University in Minneapolis in the Masters of International Management (MIM) program helped refine the TRAK businesses as they are known today. TRAK has 18 years experience with energy efficient engineering in the business community installing HVAC systems in schools and hospitals in Northern Ontario, and high-end condominium developments in British Columbia. Jeff is a member of the Alberta, British Columbia, and Ontario Professional Engineering Associations. TRAK International is a green building solution. Current projects include an arena retrofit at the St. Cloud Municipal Athletic Complex and a number of large scale, high-end, multi-use LEED developments in Western Canada.



Speaker: Dan Thatcher, Vice President of Aftermarket Businesses, Danfoss-Turbocor.

Topic: Reduce Emissions by Increasing Cooling Efficiency with Modern Frictionless Compressors

Profile: For 32 years, Dan was associated with ACCO Engineered Systems in California with 30 years experience in the development of energy retrofit projects throughout California. As the Director of Energy Projects for ACCO, he completed the first Danfoss Turbocor retrofit of a built-up DX system in North America. He received a Bachelor of Arts degree from Occidental College in Los Angeles, CA, and is a member of ASHRAE, AEE, Energy Services Marketing Society of AEE, and AEE Southern California. Dan has made presentations on energy conservation for the World Energy Conference, ASHRAE, various public utilities, municipalities, and other industry organizations.



Speaker: Ralph Jacobson, CEO, IPS Solar

Topic: Zero Emission Technology

Profile: Ralph is a certified solar installer and energy auditor with over twenty-five years experience as a building contractor. He is certified by the North American Board of Certified Energy Practitioners (NABCEP) for both solar electric and solar thermal systems.

Ralph is also the co-creator and general contractor for the Southeast Como “Sign Me Up for Solar” project, the first community solar thermal project in the Minneapolis St. Paul area.

Ralph has a B.S. in Materials Engineering from the University of Minnesota.



Speaker: Tony Lee, Control Applications Engineer at Trane.

Topic: Going Green with ASHRAE Standards

This presentation details two energy-saving control strategies – Fan Pressure Optimization based on ASHRAE Standard 90.1 – 2007 and Ventilation Optimization based on ASHRAE Standard 62.1 – 2007. The discussion will cover the theory behind the strategies, how the strategies are implemented and how they may be used to earn LEED credits.

Profile: Since 1984 he has also worked for Marathon Electric, Woodward Governor Company and Aladdin Industries where his jobs have included Field Engineer, Sr. Applications Engineer and Director of Engineering. Tony has responsibilities with the design of control systems for high pressure cleaning equipment and aircraft fuel system test stands, designing electric motor windings and integrating them with variable speed drives and lead instructor in Trane's College of Building Automation. In his current role, Tony is the team lead for Trane's Pre-Packaged Solutions program developing standardized programming for HVAC applications.

Tony holds a Bachelor of Science degree from the University of Wisconsin – Madison and is a member of ASHRAE.



Speaker: Karen Utt

Topic: Carbon Footprint Management 101: This entry-level presentation will broadly focus on 3 key questions: 1) What is my carbon footprint and why do I need to manage it? 2) How do I measure if it's getting smaller? 3) What is a CO₂ offset and what happens when I trade it?

Profile: Karen Utt is a Senior Environmental Analyst in the Environmental Services Auditing and Risk Management Group at Xcel Energy and has been employed by the company since 1999.

Ms. Utt's primary areas of focus are corporate greenhouse gas accounting, carbon risk management, and environmental management system design. From 1994 through 1998, Ms. Utt was an environmental scientist and attorney for the Cooperative Power Association in Eden Prairie, Minnesota. Karen obtained her law degree from Hamline University School of Law and was admitted to the Minnesota Bar in 1994. She also holds a B.A. in Biology from Southwest State University in Marshall, Minnesota.



Co-Speaker: Earl Rudolph, Midwest Sales Manager, Calmac Manufacturing

Co-Speaker: Jeff Urlaub, P.E. President MEP

Topic: Thermal Energy Storage and LEED

Profiles: Earl has been with Calmac since 2002 and is the Regional Sales Manager. Prior to Calmac Earl was with Tecumseh as the International General Sales Manager and Honeywell.



Jeff has led MEP to the forefront of technology, recognizing innovative, environmentally responsible designs as cost effective and long-term solutions. Through various professional organizations, Jeff is active in continuing to explore new technologies that enhance our Client's ability to achieve their goals.

Jeff has over 16 years experience in HVAC design, project management, design of engineered systems and mechanical service. Specific areas of expertise include design of geothermal and conventional HVAC systems, project management of new and retrofit HVAC systems, and energy analysis and feasibility studies of geothermal projects. Jeff is a Registered Professional Engineer in 17 States.

Speaker: Dennis Meyer



Topic: Cutting Edge Geothermal Equipment, Trends and Refrigerants

Profile: Dennis is the Regional Sales Manager of ClimateMaster a leading manufacturer of geothermal heat pumps.

After graduating from Purdue University in 1988, Dennis worked 3 years as a Design Engineer for United Technologies Electronic Controls developing electronic controls for the HVAC industry. Dennis has a bachelor's degree in Electrical Engineering from Purdue University. He also holds a Master's of Science Degree in Industrial/Organizational Psychology from the University of Saint Francis



Lunch Speaker: Janet Streff, MN Department of Commerce

Topic: "So why does American have such a big carbon footprint?"

Profile: Janet has been a manager in the Office of Energy Security in the MN Department of Commerce since 1999. In this capacity she directs professional staff with responsibilities for the state's utility Conservation Improvement Program. She also manages two U.S. Department of Energy-funded programs. One promotes energy efficiency and renewable energy by providing technical assistance and consumer information; the other, the Weatherization Assistance Program, provides energy conservation improvements to low-income homes.

She is the Immediate Past Chair of the Midwest Energy Efficiency Alliance, and current Vice Chair of the National Association of State Energy Officials

Prior to joining the State Energy Office in 1995, Janet managed commercial construction. She is a certified building official, holds degrees from the University of North Dakota and Hamline University.



Lunch Panel Moderator: Doug Maust, P.E., LEED AP, Principal Hammel, Green and Abrahamson, Inc.

Topic: Doug will moderate a panel discussion "**Carbon Management, On the To Do list?**"

Profile: Mr. Maust is a Professional Engineer who leads multi-disciplinary teams in the development of complex construction projects. He has served as a consulting engineer to institutional and corporate customers for domestic and international projects. In addition to his consulting role he managed business development and growth in the district heating and cooling industry. Recent work includes the design of renewable energy assets for institutional clients.

EVENT MENU

Breakfast

Fresh Fruit
Assortment of Muffins, Danishes and Pastries
Juice
Coffee

Lunch

Garden Salad w/ French & Ranch Dressing
Marinated Vegetable Pasta Salad
Grilled Flank Steak, Wild Mushroom Merlot Sauce
Roasted Chicken Breast, Red Pepper Cream Sauce
Four Cheese Potato Casserole
Wild Rice Pilaf
Fresh Seasonal Vegetables
Warm Rolls & Butter
Fresh Baked Fruit Pies
Coffee, Tea, Ice Tea & Milk

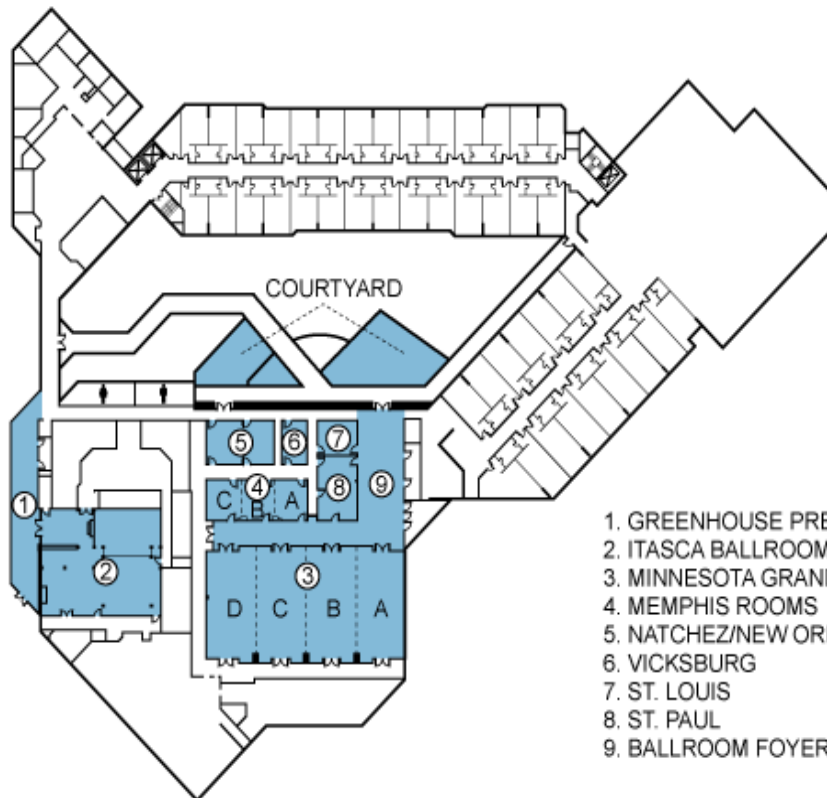
Register at: https://echapter.ashrae6.org/mtg_meetings.php?CHAPTERNBR=052

Or for more information contact:

Kevin Zwiefelhofer at (651) 602-6564 or Todd Gray at (651) 265-0630

Minneapolis Informational Guide

A guide to where everything is located



FIRST FLOOR

Registration Information

AEE/ASHRAE Energy Expo
Tuesday, October 14, 2008
8:00 am – 4:30 pm

Registration Type	Includes	Cost After Oct 1
AEE / ASHRAE Member	Refreshments, Lunch & All Seminars	\$125
Non-AEE / ASHRAE Member	Refreshments, Lunch & All Seminars	\$150
AEE / ASHRAE Student Members	Refreshments, Lunch & All Seminars	FREE

PROFESSIONAL DEVELOPMENT HOURS (PDHs) ARE AVAILABLE

Online Registration and Credit Card Payment thru October 13th 2008 at:

<http://www.mnashrae.org/>

Scroll down under the General Information area - select "Online Meeting Registration"

MAIL IN REGISTRATION FORM

MAKE CHECKS PAYABLE TO: **MINNESOTA ASHRAE**

2008 ENERGY EXPO
TUESDAY, OCTOBER 14, 2008

ENCLOSED IS MY CHECK FOR \$ _____

I AM A CHAPTER MEMBER OF ASHRAE / AAE _____

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I AM A STUDENT MEMBER _____

REGISTRATION MUST BE RECEIVED BY
MONDAY, OCTOBER 13th 2008

NAME: _____ COMPANY: _____

PHONE: _____ EMAIL: _____

SEND REGISTRATION TO:

Mail in Registration: Kevin Zwiefelhofer
Harris Companies
909 Montreal Circle
St Paul, MN 55102

Questions?
Contact Kevin Zwiefelhofer
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