

RCM NEWSBRIEFS

RCM News for March 2011

A newsletter for Resource Conservation Managers in the Northwest

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Highlight: Energy/Facilities Connections

Now...More than Ever is the theme for the 2011 Energy/Facilities Connections conference, taking place in Leavenworth, WA May 11-13. Join attendees from schools, universities, municipalities, state and provincial agencies, tribes, non-profits, private industry and utilities in a focused environment to share best practices, learn innovative technologies and proven practices, and hear nationally-renowned speakers.

<http://www.energy.wsu.edu/PublicFacilitiesSupport/PlantOperations/Conferences.aspx>

Buildings

The following two case studies were published in the Winter 2011 issue of *High Performing Buildings* (an ASHRAE publication):

1. "[Early Adopter](#)," by John E. Petersen, Ph.D., Environmental Studies and Biology, Oberlin College, describes the very forward thinking that propelled the sustainable design of the 1992 Adam Joseph Lewis Center at Oberlin State College. The Center's energy-saving features are well-described. The building's integration with the local ecology is used as a teaching tool in the environmental and biology classes held there.
2. "[Sustainable Foundations](#)," by Kent Duffy, FAIA, *et al.*, describes the major renovation of Shattuck Hall at Portland State University in Oregon. Shattuck Hall's building systems are exposed so as to serve as a teaching aid for the future architects who study there. The extensive work on the building is described along with impressive energy savings.

Building Systems

The following three articles were published in two different issues of *Engineered Systems (ES)*, but they go hand-in-hand:

1. "[Building Automation: Set It and Forget It?](#)" by Paul Ehrlich, PE, and Ira Goldschmidt, PE, (February 2011) explains how a good system is designed and installed and how to keep it performing well with initial and ongoing commissioning.
2. "[Commissioning: Facilities Staff Design Involvement](#)," by Rebecca Thatcher Ellis, PE, (January 2011), urges the input of facilities operators in the design of building systems because of the connections among the input, the subsequent commissioning, and the performance of the systems.
3. "[Commissioning: Owner Expectations at the End of Construction](#)," by Rebecca Thatcher Ellis, PE, (February 2011), describes the effects of *not* including the requirements of savvy facilities operators in the design process and what happens to commissioning as a result.

CHP and CCHP

CHP refers to cogeneration or combined heat and power while CCHP is trigeneration or combined cooling, heat, and power. Both CHP and CCHP are, generally, produced onsite and connected to the grid. "[Harnessing Heat](#)," by Carol Brzozowski, is a five-web-page article published in the February 2011 issue of *Distributed Energy*. It takes an in-depth look at how and why CHP and CCHP are more and more seen as applicable for small to medium facilities. Smaller campuses (government or university) and school districts might be able to take advantage of these technologies.

Efficiency

"[MIT Energy Savings Program Beats First Year Goal](#)," By Dian Schaffhauser, was published on February 2, 2011, in *Campus Technology*. It describes the cooperative and highly successful effort of the Massachusetts Institute of Technology and the gas and electric utility, NSTAR, to reduce energy use and emissions on the MIT campus.

Energy Management

"[Distributed Efficiencies](#)," by David Engle, is a three-web-page article in the February 2011 issue of *Distributed Energy*. It makes the case for energy efficiencies as the major component in energy management and for auditing as the chief tool to accomplish the efficiencies. It shows the role ARRA (American Recovery and Reinvestment Act) has played in stimulating the expansion of the auditing sector and in providing funding for long-needed efficiency efforts. It, also, discusses the problem of unused ARRA funds which remain in some states – New Jersey is given as an example. Four case studies are included. The first is about the National Parks Service whose one project included all major federal parks in the country; in this project, the annual inventory and facility assessment taken at each park is to be integrated with the audit, for more effective results.

Wind For Schools

[Wind Powering America: Wind for Schools](#) links to the home page of a program of the Energy Efficiency and Renewable Energy (EERE) Office of the U.S. Department of Energy. The program takes a two-pronged approach to encouraging the development of wind as a viable renewable source of energy: it installs small turbines at rural schools (K-12) and locates Wind Application Centers in academic institutions. While the early focus of this program has been on the Mid-Western states that offer high wind potential, there has been some activity elsewhere. The website offers a rundown on projects, planned or developed.

"[Wind for Schools: A Wind Powering America Project](#)" is an eight-page, August 2007, brochure from EERE. It provides the information a resource conservation manager would need to know to lead an effort to develop wind energy for the RCM's school or school district.

College-level Education Opportunities

As spring is often the time to enroll in fall college courses, here are some Northwest RCM and RCM-related college-level educational opportunities.

Resource Conservation Management Degree Option, Northwest Energy Education Institute (NWEEI) at Lane Community College, Eugene, OR

A two-year Resource Conservation Management option is available as part of the Energy Management Technician Associate of Applied Science degree. **Apply soon**, as these classes are often full by spring. <http://www.nweei.org/rcm.html>

For information on the Energy Management degree, go to <http://www.nweei.org/em.html>.

NWEEI also offers two-year degrees in water conservation and renewable energy, as well as various certification courses.

Edmonds Community College, Edmonds, WA

This energy management program offers a variety of energy management degrees (both two- and four-year) and short-term certificates. For preparation in the fields of RCM, energy auditor, energy project manager, and energy efficiency technician. Building Operations and Maintenance for Energy Efficiency is a new certificate program.

<http://www.edcc.edu/energy/>.

Cascadia Community College, Bothell, WA – Energy Management Specialist Certificate

The Energy Management Specialist Certificate prepares a person for employment in careers such as energy auditor, energy analyst, building technician, resource conservation manager, and system technician.

http://www.cascadia.edu/programs/professional_technical_certificates/energy_management_specialist.aspx

South Seattle Community College, Georgetown Campus – Green & Sustainable Training Programs

Existing Energy Audit Courses and Certification prepares students for national certification programs such as the Building Performance Institute and Energy Star. Other programs include Conservation and Weatherization, Building Sustainability Managers intended for current building managers, and a Pre-Apprenticeship Program to prepare students for energy utility, green building, and electrical green jobs fields.

http://www.southseattle.edu/green/georgetown_campus.html

Upcoming Events & Training Opportunities

Energy Star Benchmarking Workshop

- April 28, 2011 in Auburn, WA

Hands-on session teaching how to utilize Energy Star Portfolio for energy management and energy savings.

Better Bricks

<http://benchmarkingworkshop.eventbrite.com/>

Energy/Facilities Connections Conference

- May 11-13, 2011 in Leavenworth, WA

Technical and operational education and training events presented by high-end experts, connecting energy and facilities. Valuable to those who work in facilities, energy, construction, custodial, business, safety, regulatory and associated fields.

Plant Operations Support Consortium, WSU Extension Energy Program

<http://www.energy.wsu.edu/PublicFacilitiesSupport/PlantOperations/Conferences.aspx>

Energy Management Certification (EMC)

- July 11-22, 2011 in Eugene, OR

This is an advanced certification program that requires the student to implement an energy-saving project and measure the results. This program goes beyond the fundamentals and teaches a broad spectrum of energy management principles and techniques.

Northwest Energy Education Institute

<http://www.nweei.org/emc.html>

Lighting Solutions for IEQ and Energy Performance: 2011 BOC Technical Webinar Series

- New Lighting Technology: A showcase of products and applications
July 21, 2011
- Low Cost/No Cost Lighting Strategies for Cost Savings
Sept 8, 2011

Live instructional webinars. Open to all, BOC graduates receive CEUs.

Building Operator Certification

<http://www.theboc.info/m-live-webinars.html>

Building Operator's Certification – Oregon

• BOC Level I

- Sept 2011 through Mar 2012 in Portland OR

One day a month of training and project work in building systems maintenance.

• BOC Level II

- Oct 2011 through Mar 2012 in Portland OR

One day a month of training and elective coursework in equipment troubleshooting and maintenance.

Northwest Energy Education Institute

<http://www.nweei.org/boc.html>

Building Operator's Certification – Washington State

• BOC Level I

- October 13, 2011, ending Mar 29, 2012 in Silverdale, WA

One day a month of training and project work in building systems maintenance.

• BOC Level II

- Oct 18, 2011, ending Mar 6, 2012 in Renton, WA

One day a month of training and elective coursework in equipment troubleshooting and maintenance.

<http://www.theboc.info/wa/wa-schedule.html>

AEE (Association of Energy Engineers) Realtime Online Seminars

Live interactive courses you can complete from your computer. Internet and telephone needed. Programs are generally two to three hours long, but may cover a couple days or more. Check the schedule for more great courses.

- Life Cycle Costing for Energy Professionals
- Energy Auditing Fundamentals
- Developing an Energy Management Master Plan
- Advanced Lighting Retrofit Options
- Quality Lighting for High Performance Buildings
- Converting Energy Audits to Business Plans
- Fast Track CEM Preparatory Course for Energy Managers

- Fast Track CRM Preparatory Course for Carbon & GHG Reduction Managers
- Fundamentals of Lighting Efficiency (CLEP Certification Prep)
- Boiler & Steam System Cost Control: 100 Ways to Save Boiler Fuel
- Motors: Operation, Efficiency & Economics

<http://www.aeeprogams.com/realtime/>

On-Line AEE Self Study Professional Training Courses

Course titles such as “Basics of Energy Management”, “Fundamentals of HVAC Systems” and “Finance & Accounting for Engineers & Technicians” (new) are available in a home-study format.

<http://www.aeecenter.org/training/>

Building Operator Certification (BOC) – Recorded Technical Webinars

Technical webinars that offer practical maintenance solutions for your facility. Includes “Energy Tune-up Opportunities”, “IAQ”, “Lighting Retrofits”, and “Using Data Loggers”. For a list of webinars go to:

<http://www.theboc.info/m-prerecorded-webinars.html>.

BEEP Energy Program

This six-course series offers the information, strategies, technologies, how-to guides, and resources you need to reduce energy and costs...all without leaving your office.

<http://www.boma.org/TrainingAndEducation/BEEP/Pages/curriculum.aspx>

Resources for You

Energy Events Calendar

<http://www.energyexperts.org/TrainingEducationandEmployment/EventsCalendar.aspx>

Plant Operations Support Consortium Orientation Video

Provides information on member advantages, and on the services that members of the Plant Operations Support Consortium receive.

<http://www.energy.wsu.edu/PublicFacilitiesSupport/PlantOperations/OnlineTrainings.aspx>

Washington RCM Support

Washington State University Energy Program RCM Support

Check out the “RCMx”. We appreciate any feedback on this site and would also appreciate items to add to our resources such as tools, examples of policies, and job descriptions.

<http://www.energy.wsu.edu/PublicFacilitiesSupport/ResourceConservation/RCMx.aspx>

Oregon RCM Support

Oregon Department of Energy RCM Support

<http://oregon.gov/ENERGY/CONS/RCM/rcmhm.shtml>

RCM News is prepared by the Washington State University Extension Energy Program

This activity is funded by the U.S. Department of Energy State Energy Program.

Funds provided through the Washington Department of Commerce Energy Division.

This project is funded in whole or in part by funds made available through the American Recovery and Reinvestment Act (ARRA). This funding was awarded by the US Department of Energy through the Energy Policy Division of the Washington State Department of Commerce under Energy Efficiency and Conservation Block Grant No.DE-EE0000849

Previous issues of RCM News may be viewed at <http://www.energy.wsu.edu/PublicationsandTools.aspx>
(click on Resource Conservation in the right hand column).
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WASHINGTON STATE UNIVERSITY
 EXTENSION ENERGY PROGRAM

www.energy.wsu.edu