

RCM NEWS

RCM News for March 2014

A newsletter for Resource Conservation Managers in the Northwest

In this issue:

Audits
Building Efficiencies
Building Systems
Lighting
Upcoming Events & Training Opportunities
Resources for You

While every URL in RCM News is checked for accuracy prior to distribution, URLs may change, and servers may temporarily fail to connect to working URLs.

Audits

“Eye on Energy: Which Energy Audit is Right for Your Facility?” is a four-web page article written by David Cosaboon in the March issue of *Facility Maintenance Decisions*. The article describes in very clear terms four types of commercial building audits as developed by ASHRAE – Levels I, II, and III, and a preliminary energy-use analysis which lays the foundation for the others. Differences of each audit are explained, such as best use for that level audit, the expected outcome, and toward whom the audit is geared. The author also lists steps that managers and others can take afterwards to implement the audit’s recommendations.

Part 1: [Which Energy Audit Is Right For Your Facility?](#)

Part 2: [Examining Energy Audits At Ground Level](#)

Part 3: [Level II Energy Audit Provides Detailed Building Information](#)

Part 4: [Focusing Energy Audits on Capital-Intensive Projects](#)

Building Efficiencies

“[Existing Buildings Make Waves in Zero Net Energy Sphere](#)”, written by Janelle Penny in the March 2014 issue of *Buildings*, discusses the increase of buildings with zero net energy (ZNE) consumption. According to New Buildings Institute, renovated buildings make up almost a quarter of all buildings verified as consuming zero net energy.

An article in the February 2014 issue of *Buildings*, “[Energy Ratings in the Public’s Eye](#)”, written by Chris Olson, Chief Content Director of the same magazine, discusses using EUI, or energy use intensity, as a way of measuring a building’s energy consumption and using that measurement to compare with other

buildings. However, energy use per square foot can be misleading because it doesn't take into account number of occupants nor if the building is generating its own electricity.

[“Challenging Conventional”](#), written by Jon Wiener, AIA, and published in the Spring 2014 issue of *High Performing Buildings*, describes a 72,000 square foot building addition at Chemeketa Community College in Salem, Oregon which uses passive cooling strategies, not mechanical air conditioning. The building uses 60% less energy than code, costs the same as conventional design, saves in operational costs, and provides a comfortable, healthy building. Integrated design strategies were central to the project's approach.

Building systems

[“Right-Size Your Ventilation Needs”](#) is a three-webpage article in the January 2014 issue of *Buildings*, written by Jennie Morton, senior editor of the magazine. Demand control ventilation (DCV) can increase energy efficiency by adjusting ventilation when actual occupancy changes throughout the day, as compared with a set fixed ventilation rate. There are different ways to monitor occupancy, and care must be taken to integrate the methods properly with the HVAC system.

[“Vaunting VRF: An Energy Slashing System is on the Rise”](#) is an article written by Christopher Curtland, assistant editor of *Buildings*, and published in the January 2014 issue. Variable refrigerant flow (VRF) is an energy efficient system used for heating, cooling, and ventilation that has been a dominant technology worldwide for over twenty years, yet it has been slow to be adopted in the U.S. The article explains VRF applications and benefits, and provides four case studies.

Lighting

[“6 Lighting Retrofits with Dramatic Benefits”](#), published in the January 2014 issue of *Buildings* describes cost-effective lighting retrofits that can save a bundle in lighting electricity demand. This is from a report by the Center for Building Performance and Diagnostics at Carnegie Mellon University.

[“Rethinking Daylighting”](#) is an eight-page pdf article, written by Robert Anthony Hans, PE, and Kenny Stanfield, AIA, and published in the Spring 2014 issues of *High Performing Buildings*. Richardsville Elementary in Kentucky is the first net zero school in the U.S., yet it was completed in 2009 before current innovations in LED lighting technology. This article takes a look at hypothetically redesigning daylighting for classrooms based on current LED lighting and less expensive photovoltaics.

Upcoming Events & Training Opportunities

Engaging Building Occupants to Reduce Energy Use

Hear how three Better Buildings Challenge partners reduce energy use through employee involvement.

- April 1 online webinar

[Click for registration information](#)

DOE's Better Buildings Challenge

Portland General Electric Seminars and Webinars

Portland General Electric offers online webinars and paid courses open to everyone, and seminars and workshops free of charge to its commercial and industrial customers. All classes in Oregon or online.

- Efficient Irrigation Systems – April 2 in Wilsonville
- Better Lighting, Lower Costs Workshop – April 9 in Oregon City
- Efficient Irrigation Systems – April 10 online webinar
- Discover the Power of Energy Monitoring – A Hands-on Workshop – April 30 in Hillsboro

[PGE Energy Education Classes](#)

Portland General Electric, Energy Trust of Oregon, NEEA, BetterBricks

Be A School IAQ Detective: Using the Walkthrough to Identify and Solve common IAQ Problems

- April 8 online webinar

[Click for registration information](#)

EPA

Maintenance Practices for LED Streetlights

This webinar discusses how to take maintenance and reliability into account when planning for a transition to LED streetlights, as well as looking at lessons learned.

- April 14 online webinar

[Click for registration information](#)

DOE's Municipal Solid-State Street Lighting Consortium

LED Color Stability: 10 Important Questions

Learn why LED color shift occurs over time, established tolerances for color shift, and how to describe color stability in LED lighting, plus more related issues.

- April 15 online webinar

[Click for registration information](#)

DOE's Building Technologies Office

Building Operators Certification

BOC Level I certification is 74 hours of training and project work in building systems maintenance. Level II certification is 61 hours of training and elective coursework in equipment troubleshooting and maintenance. Classes usually meet one or two full days a month over a period of four to six months.

All dates below are for the first class.

- **Washington State**
 - Level I – April 15, 2014 in Everett
 - Level I – Oct. 23, 2014 in Longview
 - Level II – Sept. 11, 2014 in Spokane
 - Level II – Sept. 11, 2014 in Olympia
 - Level II – Sept. 24, 2014 in Seattle
 - Level II – Oct. 1, 2014 in Everett

[Click for BOC Washington state information](#)

- **Oregon**
 - Level I – April 15, 2014 in Bend

[Click for BOC Oregon information](#)

Building Operators Certification

Lighting Design Lab Spring 2014 Education Series

Two intermediate-level classes are offered in one day – choose to take the morning or afternoon class, or both. *The A to Zs of LED* is a snapshot of state-of-the-art technology, while *Understanding Lighting Controls* demonstrates how to design controls for various commercial settings.

- April 16 in Bellevue
- April 23 in Tacoma
- May 7 in Seattle
- May 13 in Everett
- May 15 in Portland
- May 22 in Boise

[Click here for more information](#)

Lighting Design Lab and lots of partners

Pumping System Optimization

At this whole day workshop you will learn about pumping system efficiency, why it's important, how to screen and analyze systems, improving the life of your system, and more.

- April 16 in Tacoma

[Click here for more information](#)

NEEA and other co-sponsors

Advanced Energy Retrofit Guide for Healthcare Facilities

This webinar is part of a series that presents proven practices that help energy managers take specific actions to reduce energy use.

- April 17 online webinar

[Click for registration information](#)

DOE's Building Technologies Office

ENERGY STAR® Portfolio Manager Trainings

All are online webinars.

- Engaging Employees with Energy Treasure Hunts – April 23
- Portfolio Manager Office Hours: Understanding Energy Metrics – April 24
- Register for the 2014 EPA ENERGY STAR National Building Competition – April 30

[Click here for more information](#)

US EPA

2014 BOC Technical Webinar Series (new date)

Discusses how to determine if your building is ready to integrate solar PV.

- Are you Solar PV Ready? – April 24 webinar

[Click here for more information](#)

BOC

Energy/Facilities Connections Conference 2014

Registration is now open for the 10th annual Energy/Facilities conference sponsored by WSU's Plant Operations Support Consortium. The conference features workshops on plant operations, facilities management and efficiency.

- May 6-8, 2014 in Leavenworth, WA

[Click for registration information](#)

WSU Energy Program

Better Buildings Summit

A national summit to catalyze investment in energy efficiency across the public, private, commercial and other sectors.

- May 7-9, 2014 in Washington, D.C.

[Click for registration information](#)

U.S.DOE EERE Better Buildings

AEE (Association of Energy Engineers) Real-time Online Seminars

Webinars and live interactive courses you can take from your computer. Programs are generally two to three hours long, over a period of days. Topics include energy auditing, lighting controls, HVAC systems and much more. Visit their website for a complete list:

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

Resources for You

ENERGY STAR Treasure Hunt Guide

EPA's ENERGY STAR program recently released a 31-page guidebook titled [Energy Treasure Hunt Guide: Simple Steps to Finding Energy Savings](#). An Energy Treasure Hunt is a best practice where employee teams identify day-to-day operational energy efficiency improvements during an onsite three-day event. The process, including preparation, training, the event itself, and follow-up, not only identifies low- and no-cost efficiency improvements, but also promotes a culture of continuous improvement in the organization. A web conference on this topic is scheduled for April 23 (see ENERGY STAR trainings in the section above).

Washington Green Schools

All public and private K-12 schools in Washington state can participate in [Washington Green Schools](#), a nonprofit program providing educational resources to create sustainable school environments. They now have a [blog](#) to increase communication among Green Schools network educators, parents, and students so they can share success stories and ideas, ask advice, get support, and learn from each other's experiences.

Do you have newsletters, websites and links to share? Do you have RCM questions?

RCM News is always looking for interesting information, tips and resources to share with other resource conservation managers. Our goal is to increase your success by sharing what you and your colleagues are doing – with energy efficiency measures, problem-solving, communication, data tracking, presentations, and more. In addition, WSU Energy Program can help find solutions to your RCM program's technical and programmatic questions. [Email Karen J](#) to share and ask!

Energy Events Calendar

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

Washington RCM Support

The Washington State University Energy Program provides RCM support. Check out the "RCMx" website: <http://www.energy.wsu.edu/PublicFacilitiesSupport/ResourceConservation/RCMx.aspx>. 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.

RCM News is prepared by the Washington State University 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.

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).

We welcome comments or ideas for articles. Please send to Karen Janowitz - janowitzk@energy.wsu.edu



www.energy.wsu.edu