

# RCM NEWS

## RCM News for June 2013

A newsletter for Resource Conservation Managers in the Northwest

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### ENERGY STAR Portfolio Manager®

[EPA's Portfolio Manager tool is getting an upgrade.](#) The newly updated tool launches July 10 with a new interface, streamlined functionality and improved usability. Web services such as automated benchmarking services will be upgraded, and users will find graphical reports easier to generate and improved sharing features. Portfolio Manager will be unavailable from June 26 through July 9 while data is migrated to the new version. There is no change to data, or the calculations behind the ENERGY STAR 1-100 scale.

### Facilities Management

["The Virtuous Cycle of Organizational Energy Efficiency: A Fresh Approach to Dismantling Barriers"](#) is an ACEEE, 15-page paper from the *2012 ACEEE Summer Study on Energy Efficiency in Buildings*; it was written by Emily Reyna, Jake Hiller and Chris Riso, all of the Environmental Defense Fund; and by Jason Jay, MIT Sloan School of Management. The authors identify five main barriers to adopting company-wide and ongoing energy efficiency efforts, and how to successfully address those barriers.

["Improved Energy Performance is One of Many Goals for New LEED-EBOM"](#) was written by Greg Zimmerman, Executive Editor, *Building Operating Management*; it was published in the April 2013 issue of that journal. The new version, LEEDv4, is to be released in the autumn of 2013; it will require a higher Energy Star score to ensure that LEED continues to play a leadership role in resource savings. Alternatively, buildings that perform poorly in terms of energy use and emissions will continue to be able to take another path for LEED certification, Energy Jumpstart (Pilot Credit 67).

### HVAC/R (Heating, Ventilation, Air Conditioning, and Refrigeration)

The following two articles appeared in the May 2013 issue of *HPAC Heating/Piping/AirConditioning Engineering*.

1. "[Air Infiltration: The Hidden Energy Efficiency: Standards -- and Architects' and Engineers' Responsibilities -- Are Changing](#)" was written by Nate Gillette, AIA, LEED AP, CEM, at Energy Finance Analytics LLC HPAC Engineering. The author explains how air infiltration can be harnessed to accomplish meaningful energy efficiency.
2. "[Guide to Selecting Control Valves](#)," by Honeywell Inc. staff, helps the selector understand the application and how to best meet application requirements.

"[Condenser Water System Components](#)" by Mick Schwedler and Beth Bakkum, both of Trane, was published in the April 2013 issue of *HPAC Heating, Plumbing, Air Conditioning Magazine*. The components – cooling towers, condenser water pumps, and chillers – are described, with attention given to how they react to changing conditions. This short article packs a lot of well-written information.

## Lighting

"[Illuminated Savings](#)," by Carol Brzozowski, is a six-Web-page article, published in the May 2013 issue of *Distributed Energy*. The author explains many of the complexities involved when an energy-efficiency lighting retrofit is in the offing and selections have to be made. The article addresses issues of importance for utilities and others that crop up in many commercial and industrial applications.

Three brief articles were published in the March/April 2013 issue of *A-L Architectural Lighting*; the first two are on new technologies, all written by Blaine Brownell, the third article on residential LEDs was written by Wanda Lau:

1. "[Illuminating Concrete](#)" includes an excellent photo of illuminated street-pavers. The pavers are embedded with phosphorescent crystals which store solar energy in the day and glow at night.
2. "[Scientists Create Warm-White LED](#)" explains that a particular phosphor gives off a warm white light when the phosphor is lit by a blue LED chip.
3. "[Light Years Ahead](#)" discusses the challenges and benefits of using LEDs to replace other lamps in the residential setting.

The following two articles, written for facilities managers, appeared in the April 2013 issue of *Building Operating Management*:

1. "Getting Started On Lighting Upgrades," by staff, is a four-part article that suggests ways to approach a lighting upgrade project to help ensure an excellent outcome:

[Part 1: Getting Started on Upgrades to Older Lighting Systems](#)

[Part 2: Fluorescents, Metal Halides, LEDs Are Among Choices to Replace Incandescents](#)

[Part 3: Delamping Has to Be Properly Planned to Avoid Problems, Save Energy](#)

[Part 4: Installing Basic Lighting Controls Can Provide Energy Savings.](#)

2. "Squeezing More Savings Out Of The Lighting System," by staff, is a four-part article on gaining substantially higher efficiencies from lighting systems that are already efficient:

[Part 1: Advances In Lighting Technology Give Facility Managers New Options for Savings](#)

[Part 2: Daylight Harvesting, Other Dimming Strategies Help Lower Energy Costs](#)

[Part 3: Advanced Lighting Control Strategies Like Light Level Tuning, Demand Response Save Energy](#)

[Part 4: Financial Incentives Available for Lighting Upgrades](#)

["The Art of Lighting,"](#) by Aaron Seward, was published in the March/April 2013 issue of *A-L Architectural Lighting*. It is a case study of the lighting project for the newly-relocated Barnes Foundation's world-famous collection of post-impressionist paintings. Photos of the project highlight the creative use of natural lighting combined with fluorescents.

["The LED Dimming Dilemma"](#) was written by James Brodrick, Ph.D., Solid-State Lighting Portfolio Manager for the U.S. Department of Energy; it was published in the April 2013 issue of *EC&M (Electrical Design, Construction & Maintenance)*. To date, dimming can be a problem for LEDs. The author explains why this is the case and cautions that the best way to know how the dimmable LED will perform is to test it in a mock up. He includes a link to ["Dimming LEDs: A Work in Progress"](#) a manufacturer guidance sheet for the purchase of products, by brand name and lighting type, which includes the author's cautions.

## Pools

The [Pool Energy Use Calculator](#), provided by the Western Area Power Administration on its Energy Experts website, is described with links to more information and to the Calculator itself.

## Pumps

The following two articles were published in the May 2013 issue of *Pumps & Systems*:

1. ["Drives Enhance Energy Efficiency in Wastewater Aeration"](#) was written by Jim Klauer, Danfoss. It is a case study of the upgrades to the blower motors in the water treatment plant of the small city of Mayer, Minnesota. Variable frequency drives were the key to more efficient blower operation.
2. ["Replacement Submersible Pumps Increase Lift Station Efficiency"](#) is a two-Web-page case study of the water and wastewater utilities' Lift Station No. 9 at Thief River Falls, Minnesota. Two failing pumps that were inexpensive, of poor quality and purchased from a company with little customer service were replaced with efficient, reliable ones.

As with the Pool Energy Use Calculator the [Pumping System Efficiency Calculator](#) is provided by the Western Area Power Administration on its Energy Experts website. The Calculator is described with links to more information and to the Calculator itself.

## Water

["The Water-Energy Nexus"](#) was co-authored by Angela R. Ruberto, Student Research Assistant, Juneseok Lee, Assistant Professor, and Adam Bayer, Facilities Director, at San Jose State University; it was carried in the May 2013 issue of *Water Efficiency*. Water and energy-use data for several years show that a decrease in one goes hand-in-hand with a decrease in the other.

## Upcoming Events & Training Opportunities

[Energy Management Certification](#)

Also known as the EMC Boot Camp, this is an advanced certification program which goes beyond fundamentals and teaches a broad spectrum of energy management principles and techniques. It requires the student to implement an energy-savings project and measure the results.

- July 8 - 19, 2013 in Eugene, OR

[Click for information and registration](#)

*Northwest Water & Energy Education Institute (NWEEI)*

### 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.

- Energy & Water Trends – July 10 in Portland
- What's New with Electric Vehicles? – July 11 online webinar
- Calculating Energy Costs – July 16 online webinar

[PGE Energy Education Center webpage](#)

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

### ENERGY STAR® Portfolio Manager Training

Portfolio Manager users will want to attend one of the webinars set up to introduce and demonstrate the core functionality of the newly upgraded Portfolio Manager tool. Attendees learn how to navigate, add a property with details, enter energy and water consumption data, share properties, and generate performance reports.

- Nine 1½ hour webinars from July 15 through July 31

[Click here for more information](#)

*US EPA*

### Boiler and Chiller Maintenance for Maximum Efficiency

This webinar identifies proven maintenance practices that will achieve maximum fuel and electric efficiency by keeping your boilers and chillers working at peak performance.

- July 16 online webinar

[Click for registration information](#)

*NEEA, BPA, WSU Energy Program, NWFPA*

### Showcase for Emerging Technologies Webinar

Hour-long noon webinars featuring emerging technologies topics.

- Behavior-based energy efficiency programs (tentative) – July 17

[Click here for more information](#)

*WSU Energy Program, BPA, WAPA*

### Building Automation System Screen Checks

This webinar discusses development and use of key performance indicators to ensure continued proper performance with building automation systems.

- July 17 online webinar

[Click for registration information](#)

*BOC*

### Adjustable Speed Drive Applications and Energy Efficiency

This course demonstrates the energy cost savings and other benefits that adjustable speed drives with electric motors can offer.

- July 23 in Nampa, ID

[Click for registration information](#)

NEEA, BPA, WSU Energy Program, NWFPA, Idaho Power, IDOER

### Retrofit the Right Way – Save Energy & Reduce Costs with Lighting Controls

This webinar discusses the concepts behind lighting controls, the technology and opportunities, as well as how controls can save energy in new and existing buildings.

- July 25 online webinar

[Click for information](#)

Lutron

### 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/> .

### 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 are usually one or two full days a month.

- **Washington State**
  - Level I – Sept. 10, 2013 through Mar. 12, 2014 in Renton
  - Level I – Sept. 17, 2013 through Mar. 5, 2014 in Tri-Cities
  - Level I – Sept. 25, 2013 through Mar. 11, 2014 in Olympia
  - Level II – Oct. 2, 2013 through Feb. 12, 2014 in Lacey
  - Level II – Oct. 3, 2013 through Feb. 13, 2014 in Everett
- **Oregon**
  - Level I – Sept. 11 through Dec. 11, 2013 in Portland
  - Level I – Oct. 1, 2013 through Mar. 4, 2014 on the Oregon Coast (TBA)
  - Level I – Dec. 4, 2013 through Jun 4, 2014 in Clackamas

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

[Click for BOC Oregon information](#)

*Building Operators Certification*

### Resources for You

#### ENERGY STAR® Green Team Checklist

ENERGY STAR has created a two-page guide to help you form a green team at your workplace. The [Green Team Checklist](#) has four steps – get organized, plant the seeds of success, grow green together and help it bloom – with creative ideas and links within each step. As a Resource Conservation Manager, the guide is useful to create or revitalize your agency's green team to further energy savings.

## Building Night Walks

BetterBricks has a six-page [Night Walks](#) brief that complements its [Building Night Walk Video Series](#). For buildings unoccupied at night, walking through at this time can inform you how the building's systems are working, and what operation and maintenance issues can be addressed to increase energy efficiency.

## Energy/Facilities Connections Conference Presentations

Presentations from the 9<sup>th</sup> annual Energy/Facilities Connections Conference that took place in May are now available online. There were three presentations by RCMs: 1) Energy Integration at the Olympia School District by Bonnie Meyer, RCM, with Greg Deer, 2) Shared RCM Insights into Solid Waste Management by Jay Donnaway, RCM at Sumner SD with Debbie Campbell, and 3) Rapid Energy Saving\$, a Case Study by David Cone at the Evergreen SD. [Click here](#) for access to those and other presentations of interest to RCMs and facilities managers.

## 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.

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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](mailto:janowitzk@energy.wsu.edu)

