

# RCM NEWS

## RCM News for October 2015

A newsletter for Resource Conservation Managers in the Northwest



*In this issue:*

Daylight Savings Time  
Building Internet of Things  
Building Upgrades  
Infrared Thermography  
Shop Talk  
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.*

### **Karen Messmer's retirement**

Long time WSU Energy Program staff member, and previous editor of the RCM Newsletter, Karen Messmer, has retired. For those of you who know her, you will understand how much we will miss her energetic intelligence and pursuit of energy efficiency. Join me in wishing Karen M a much deserved and happy retirement. We know she will stay as active as ever.

### **Daylight Savings Time!**

As we set clocks back one hour on November 1, the Building Operator Certification program reminds you to also adjust your timer controls and programmable thermostats, check lighting timers, and clean lamps, reflectors, and lenses. Check out [BetterBricks](#) for more information about building scheduling.

### **Building Internet of Things**

The October 2015 issue of *Building Operating Management* features articles about the Internet of Things (IoT) as it pertains to facility managers. A four-part article written by Naomi Millán, Senior Editor, takes a look at how the Building IoT benefits facility managers, occupants, and tenants. The Building IoT has the potential to allow a facility manager to be everywhere at once. For example, data from sensors could be processed in a cloud-based program, then information about problems or needed maintenance can be relayed back to the facility manager. The Building IoT can help make buildings more efficient, and also improve occupant safety and comfort, leading to greater productivity. Still, privacy concerns and the confidence facility managers need to handle building IoT are challenges that need to be addressed.

Part 1: [IoT Is Next Step for Facilities, but Understanding and Trust Must Catch Up](#)

Part 2: [Benefits to Facility Managers of IoT Capability, Sensors](#)

Part 3: [How Building IoT Offers Accountability to Occupants](#)

Part 4: [Making Facilities Ready to Optimize IoT for Tenants](#)

A four-part article in the October 2015 issue of *Building Operating Management*, written by Robert Knight, discusses how IoT works with green buildings. Green buildings have been using elements of IoT, such as energy management systems and sensors, for a while. The IoT has the potential to enable buildings to run even more efficiently when devices, sensors, and data are connected and communicate effectively. New devices may be multi-purpose, including lighting control systems that use one sensor per light fixture to measure light level, temperature, occupancy, and more.

Part 1: [Value of Internet of Things to Green Buildings](#)

Part 2: [IoT Lighting Controls Taking the Lead in Efficient, Green Applications](#)

Part 3: [Complexity of Commercial Buildings a Challenge to IoT Applications](#)

Part 4: [Big Future Predicted for IoT, but a Simple Definition Is Elusive](#)

## Building Upgrades

A three-part article written by Desiree J. Hanford in the October 2015 issue of *Building Operating Management* on energy efficiency, discusses the need for energy system upgrades because of the increased emphasis on green buildings. Planning upgrades from the start is crucial to ensure that they meet their efficiency goals. It's important to understand the original design and use of the building, current equipment, and baseline energy use when planning an upgrade. Start measurement and verification as the upgrade is being completed. Metering can verify a project and be used for continual commissioning. Finally, communication with contractors and managers is just as important as the numbers to ensure a successful upgrade.

Part 1: [Energy Upgrades Begin with Careful Planning, Knowledge of Equipment and Building Design](#)

Part 2: [Role of Measurement and Verification in Energy Upgrade](#)

Part 3: [Communication Is Key in Energy Upgrade](#)

## Infrared Thermography

Infrared imagers are the focus of a three-part article in the October 2015 issue of *Facility Maintenance Decisions*, provided by The Snell Group. Infrared imaging technology is easier to use, edit, and analyze than 15 years ago and it's less expensive also. Advancements have also made generating reports easier and more useful. Imagery can be used to identify problems, but they do not measure temperatures accurately nor can they predict failures.

Part 1: [Technology Advances Help Managers Maximize Infrared Imaging Investment](#)

Part 2: [Clearing Up Infrared Imaging Misconceptions](#)

Part 3: [Impact of Infrared-Imaging Continues to Increase](#)

## Shop Talk

The fall 2015 issue of [Shop Talk](#), a newsletter by the WSU Energy Program Plant Operations Support Consortium, is now available. In it you'll find articles about the vision for an optimal strategic plan by the facilities manager of the Washington Soldiers Home and Colony, the new Smart Building Center Tool Lending Library in Seattle, and comparison of different salts for melting ice.

## Upcoming Events & Training Opportunities

### ENERGY STAR® and Portfolio Manager® Trainings

All are online webinars.

- ENERGY STAR® Treasure Hunt – Nov 4
- Benchmarking Water/Wastewater Treatment Facilities in Portfolio Manager® – Nov 5
- Portfolio Manager® 101 – Nov 10
- Portfolio Manager® 201 – Nov 11
- Portfolio Manager® 301 – Nov 12

- Save Water & Energy with EPA's WaterSense® Program – Nov 19

[Click here for more webinars and information](#)

*US EPA*

### Portland General Electric Seminars and Webinars

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

- Discover the Power of Energy Monitoring Workshop – Nov 4 in Portland

[PGE Energy Education Classes](#)

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

### You Decided to Buy a VFD. Now What?

A free, three-part webinar about Variable Frequency Drives.

- Nov 9, 11, and 13

[Click here for information](#)

*WEG Electric, Hydraulic Institute*

### Energy Efficiency of Chilled Water Systems and Cooling Towers

Price discount for attending both workshops.

- Chilled Water – Nov 12 in Bellevue
- Cooling Towers – Nov 13 in Bellevue

[Click here for information](#)

*NEEA, Puget Sound Energy*

### Lighting Design Lab Fall Classes

Take the morning class, the afternoon class, or both. These classes are intermediate level, and are offered through the fall in different locations.

- CFL and HID Fixtures. LED Retrofit or Replace – morning
- Design Strategies for Existing Buildings – afternoon
- One date left – Nov 13 in Seattle, WA

[Click here for information](#)

*Lighting Design Lab*

### Ultrasonic Flow Meter Training

Free Smart Buildings Center Industry Demonstration Workshop

- Nov 17 in Seattle

[Click here for information](#)

*NEEC, PCE Pacific, Inc*

### E3T Showcase Webinars

- A Coming of Age: Low-E Storm Window Retrofits – Dec 2 online

[Click here for information](#)

*WSU Energy Program*

### Improving Energy Efficiency Now & In the Years to Come

Oregon APEM 2015 Winter Forum

- Dec 4 in Vancouver, WA

[Click here for information](#)

*Oregon Association of Professional Energy Managers*

## 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 – March 2016 in Seattle
  - Level I – Fall 2016 in Renton

[Click for BOC Washington State information](#)
- Oregon
  - Level II – Feb 24, 2016 in Portland

[Click for BOC Oregon information](#)

## Building Operators Certification

## Realizing the Potential of Underutilized ECMs in ESPCs

A five-module on-demand training focusing on four energy conservation measures that are underutilized in energy savings performance contracts. Federal Energy Management Program (FEMP) training courses are free and open to all, although courses are designed for federal agency energy and facility managers.

- On-demand

[Click here for information](#)

*FEMP, US DOE EERE*

## 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

### Draft Seventh Northwest Power Plan

The [Draft Seventh Northwest Power Plan](#) is now available for public comment through December 18. The Northwest Power and Conservation Council, authorized by the U.S. Congress in 1980, develops a plan every five years to ensure the region's power supply and acquire cost-effective energy efficiency. The seventh plan, to be adopted in February 2016, finds that cost-effective efficiency can meet all electricity load growth in the region through 2035. Visit the website linked above for more information about the plan and the council.

### Green Ribbon Schools

Do you know a school or school district in Washington state that deserves an award for being "green"? The Office of Superintendent of Public Instruction (OSPI) recognizes PreK-12 schools and districts that work toward reducing environmental impacts, improving the health of schools and students, and providing sustainability education. Applications are now available at the [OSPI website](#) for the 2015-2016 Green Ribbon Education Award. Deadline for submission in January 8, 2016, but don't delay!

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!

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



[www.energy.wsu.edu](http://www.energy.wsu.edu)