

RCM NEWS

RCM News for August 2017

A newsletter for Resource Conservation Managers in the Northwest

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Boilers

A three-part article on “Boilers”, written by Ryan Berlin, Managing Editor, appears in the August 2017 issue of *Facility Maintenance Decisions*. While converting a tower building from its original intent to mixed use, including offices and a surgical hospital, the two boilers were found to be oversized with about a 30 percent efficiency. After other improvements were made and the building’s load leveled off, new smaller boilers were able to be sized. They resulted in a much better turndown ratio and are running at a 90 percent efficiency.

Part 1 - [Boilers: Capital Improvements for Energy Efficiency](#)

Part 2 - [Boilers: Replacement Based on Building Load](#)

Part 3 - [Boilers: Upgrades That Deliver Results](#)

Internet of Things

“Building Internet of Things” is a two-part web article written by Joseph Aamidor for the August 2017 issue of *Building Operating Management*. Understanding the Building Internet of Things (IoT) is necessary in order to choose appropriate products and services. Core components of a technology “stack”, such as on-premise networking and software and cloud applications, are discussed, as well as the differences between horizontal and vertical solutions. Horizontal solutions integrate more easily with existing systems, while vertical solutions can replace old systems.

Part 1 - [Understanding Your Building Internet of Things Options](#)

Part 2 - [Building IoT: Should You Choose a Horizontal or Vertical Solution?](#)

Part 3 - [INFOGRAPHIC: Elements of a Building Internet of Things Platform](#)

Lighting

A three-part “Lighting” article in the August 2017 issues of *Facility Maintenance Decisions*, written by John Lutz, discusses considerations for upgrading to an LED system. LED systems have evolved such that the cost is less an issue than previously, and LEDs fit more applications as well. Drawbacks such as directional lighting, monochromatic light, and inability to fit more applications continue to be improved upon. The last section of the article features questions that, when answered, can help ensure that a retrofit project meets the intended needs and budget.

Part 1 - [LEDs: Making Upgrades Work](#)

Part 2 - [LEDs: Strategies to Reduce Energy Costs](#)

Part 3 - [LEDs: Ensuring Bottom-Line Benefits](#)

“[4 Common Mistakes with LEDs](#)” is written by Eric Woodroof for the 8/9/2017 issue of *Building Magazine*. When planning and implementing LED retrofits, it is important to avoid some mistakes that are commonly made. Test sample fixtures since the light will be different than the one being replaced, buy quality products, make sure the project qualifies for utility rebates if so desired, and plan ahead for replacements. Chances are that the LEDs installed today will be obsolete when they begin to fail. Consider budgeting now for that eventuality.

Plug Loads

An 8/1/2017 article in *Building Magazine* titled “[Engage Occupants in Slashing Plug Loads](#)” recognizes the difficulties in reducing electricity use from plug loads. Electrical devices used by building occupants are a large component of plug loads. Involving occupants by sharing information and data about their energy use, and holding friendly competitions to reduce energy use are a couple of suggested strategies.

Upcoming Events & Training Opportunities

E3T Showcase Webinars

A series of free, lunch-hour webinars bringing you information about energy efficient emerging technologies and strategies, sponsored by Bonneville Power Administration and provided by WSU Energy Program. Register for the E3T listserv to receive email notifications of upcoming webinars at subscribe-e3tnw@listserv.energy.wsu.edu. All are online webinars. Registration not yet available for most of these.

- Super-Efficient Dryers: Field and Lab Test Results – Sept 7
- Window Attachments – Sept 20
- Alternative Refrigerants – Sept 28

[Click here for information](#) (registration not yet available for all webinars)

WSU Energy Program, BPA

Portland General Electric Education

Classes and workshops are free to PGE business customers, others may attend based for a fee.

- Energy Expert (software) Workshop – Sept 12 in Wilsonville
- Air Handling Systems – Sept 13 in Wilsonville
- Advanced HVAC Systems – Sept 14 in Wilsonville
- Motivate Your Employees to Save Energy – Sept 21 in Portland
- Choosing the Right Lighting Retrofit & Control System – Oct 3 webinar

[Click here for more information](#)

PGE, Energy Trust of Oregon

ENERGY STAR® and Portfolio Manager® Trainings

All are online webinars.

- Portfolio Manager 101 – Sept 12
- Just Add WaterSense to Your Energy Efficiency Efforts – Sept 13
- Benchmark Your School and Hold an Efficiency Treasure Hunt – Sept 13
- Trends in Tracking Waste Data – Sept 19
- Portfolio Manager 201 – Sept 21
- Portfolio Manager 301 – Sept 28
- Ask the Expert – Every Wednesday at 9:00 AM Pacific time

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

US EPA

Better Buildings Webinars

- Old RTUs: Turning a Liability into an Asset – Sept 12
- Back to School: Including Energy Efficiency in K-12 Classrooms – Sept 12

[Click here for information](#)

U.S. Department of Energy

Spark Tool Webinar

Spark is an interactive tool that helps determine if your building is a candidate for a deep energy retrofit.

- Sept 13 online webinar

[Click here for more information](#)

BetterBricks

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 classes
 - Sept 26, 2017 in Renton
 - Oct 24, 2017 in Olympia
 - Oct 25, 2017 in Everett
 - March 2018 in Seattle
 - Sept 2018 in Renton
- Oregon
 - Level I – TBA in Sept 2017 in Portland area

[Click for BOC Washington State information](#)

[Click for BOC Oregon information](#)

Building Operators Certification

Building Operator Certification Technical Webinar Series

- Addressing Hot and Cold Calls, What's Your Procedure? – Sept 27, 2017
- Building Re-tuning without a Building Automation System – Oct 18, 2017

[Click here for more information](#)

Building Operators Certification

New Buildings Institute Webinar Series

Presented by the National Grid

- Zero Net Energy School Retrofit Readiness – Sept 28 Webinar
Highlights findings from a study that identifies opportunities for K-14 schools to achieve ZNE
- Benchmarking – A Practical Approach 101 – Sept 28 Webinar
Presented by National Grid, covers first steps in assessing building performance
- Benchmarking – A Practical Approach 102 – Oct 12 Webinar
Presented by National Grid, covers how to build on basic benchmarking covered in previous webinar.

[Click here for more information](#)

New Buildings Institute, National Grid

2017 Oregon APEM Fall Forum

The Changing Energy Landscape in the Pacific Northwest

- September 29, 2017 in Portland

[Click here for more information](#)

Oregon Association of Professional Energy Managers

Resources for You

Two-year College Degree

Lane Community College (LCC) Energy Management Technician Program, which is the national model for energy efficiency education, is now offering an online degree. The two-year degree program includes online courses in addition to providing hands-on skills with “real world” field projects and cultivating employment opportunities with regional employers. Applications for the expanded online Energy Management Technician Program are currently being accepted for Fall 2017 enrollment at www.lanecc.edu/nweei. For more information, contact Roger Ebbage, Coordinator, Energy and Water Education Programs, Lane Community College, 541-463-6160, ebbager@lanecc.edu.

Zero Energy Resource Hub

The “Getting to Zero” National Forum website, co-hosted by New Buildings Institute and Rocky Mountain Institute, features a [Zero Energy Resource Hub](#). Find examples of plans and policies on zero energy buildings from states and local jurisdictions, technical resources such as feasibility and cost studies, tools to share knowledge and definitions zero energy, and resources targeting schools. The National Forum takes place in Pittsburgh in April 2018, but you don't need to attend to access these zero energy resources.

Tracking Electric Demand in Portfolio Manager

Energy Star® Portfolio Manager® now features a way to enter and track [electric demand](#) and demand cost for each electricity bill. A [two-page guide](#) walks you through the steps to enter the data and pull demand metrics into custom reports.

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](#) 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.

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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

