

RCM NEWS

RCM News for January 2016

A newsletter for Resource Conservation Managers in the Northwest

In this issue:

Building Automations Systems
HVAC
Plug Loads
Zero Energy Buildings
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.

Building Automation Systems

A four-part article on building automation systems (BAS), written by Thomas Grimard and Kieran Long, appears in the January 2016 issue of *Building Operating Management*. Wireless options, virtualization, and analytics are three BAS technologies explained in the article. Four wireless options are further described, including WiFi, ZigBee, and Z Wave.

Part 1: [Know the 3 Technologies Reshaping BAS](#)

Part 2: [Wireless Options Becoming More Prevalent with BAS](#)

Part 3: [Understanding Benefits of Virtualization in World of BAS](#)

Part 4: [Big Data Helping BAS Operate at Peak Performance](#)

HVAC

A three-part article on HVAC written by James Piper in the January 2016 issue of *Building Operating Management*, examines the actions needed to decide if your HVAC system needs replacing or an upgrade. To achieve an efficient well-performing system that meets the needs of the occupants and operation of the agency, as well as current environmental and energy regulations, it is necessary to first perform a very thorough evaluation of the existing HVAC system. This includes not just the equipment, but also factors influencing the system such as building size, system location, climate, and the needs and comfort of occupants.

Part 1: [Thorough Evaluation of Existing HVAC System Should Precede Upgrade](#)

Part 2: [Communication an Important Step in HVAC System Evaluation](#)

Part 3: [Performance Measurements Help Evaluate Existing HVAC System](#)

Diagnostic tools used to detect problems in HVAC systems is the subject of a three-part article on HVAC in the January 2016 issue of *Facility Maintenance Decisions*, written by James Piper. Infrared imagers such as include spot radiometers and thermal imaging cameras can identify heat loss from system

components and the building envelope. Power-quality analyzers that monitor and measure the electrical distribution system can detect voltage or current issues that decrease optimal operations. Finally, the importance of training to learn how to use these diagnostic tools, as well as understanding the results, is extremely important.

Part 1: [Energy Efficiency: Looking for Trouble in HVAC Systems](#)

Part 2: [Infrared Thermography Helps Detect Issues in HVAC Systems](#)

Part 3: [Power-Quality Analyzers Help Improve HVAC System Efficiency](#)

Plug Loads

With improvements in the efficiency of HVAC and lighting systems, and an increase in personal technologies, plug loads have become a larger percentage of energy use in buildings. "[Will Plug Loads Be the Next Frontier in Energy Efficiency?](#)", written by Carl Weinschenk for the January 6, 2016 online edition of *Energy Manager Today*, points to simple plug-load management systems and attention to detail to reduce energy use and costs.

Zero Energy Buildings

Although your agency probably doesn't have a zero energy building, nor perhaps have plans for one, key findings from interviews with zero energy building design teams provide helpful guidance for RCMs and energy managers of all buildings. A study by the New Buildings Institute, as reported in "[Controls Crucial to Achieving Net Zero Energy](#)", published January 1, 2016 in *Buildings*, found that problems with building controls are common, yet controls integration is crucial. Other findings include the important role that occupants play and the emphasis of efficiency first to reduce the load for renewables.

Upcoming Events & Training Opportunities

Downstream Savings: from Water Efficiency to Energy Savings

- Feb 2 online webinar

[Click here for information](#)

DOE, Better Buildings

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.

- Calculating Energy Costs – Feb 3 online webinar

[PGE Energy Education Classes](#)

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

Building Operators Certification

Free informational webcast to learn about the BOC

- Feb. 3, 2016 online

[Click here for more information](#)

Building Operator Certification

Smart Buildings Center Industry Demonstration Workshop: Fluke Energy Metering Equipment Training

- Feb 9 at the Smart Buildings Center, Seattle, WA

[Click here for information](#)

Northwest Energy Efficiency Council

Building Operators Certification Technical Webinars

- Building Tool Diagnostics #1: Temperature & CO2 Loggers – Feb 10
- Building Tool Diagnostics #2: Managing your Plug Loads – Mar 16

[Click here for more information](#)

Building Operator Certification

ENERGY STAR® and Portfolio Manager® Trainings

All are online webinars.

- Portfolio Manager® 101 – Feb 16
- Portfolio Manager® 201 – Feb 17
- Portfolio Manager® 301 – Feb 18
- Ask the Expert – an open Q&A session every Wednesday at 9:00 AM Pacific time

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

US EPA

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 30, 2016 in Seattle
 - Level I – May 23, 2016 in Silverdale
 - Level I – Fall 2016 in Renton
 - Level I – Fall 2016 in Moses Lake
 - Level II – Fall 2016 in Tacoma

[Click for BOC Washington State information](#)

- Oregon
 - Level II – March 2, 2016 in Portland

[Click for BOC Oregon information](#)

Building Operators Certification

Energy Management Information Systems (EMIS): Enabling Whole-Building Approaches to Energy Efficiency

Oregon APEM 2016 Spring Forum

- March 18, 2016 in Portland

[Click here for information](#)

Oregon Association of Professional Energy Managers

Energy/Facilities Connections Conference

Plan now to attend this annual conference.

- May 3-5, 2016 in Leavenworth, WA

[Click here for information](#)

WSU Energy Program Plant Operations Support Consortium

Resources for You

Reduce Your Plug Loads

The [Better Buildings Alliance Technology Team](#) at the U.S. Department of Energy has produced a packet of decision guides to help identify strategies to reduce energy consumption from the use of plug-in devices. The 20-page PDF, [Decision Guides for Plug and Process Load Controls](#), offers solutions such as awareness campaigns and advanced power strips, assumptions such as cost and implementation complexity, and their applicability for seven different building types. The guides are easy to use, with links to additional resources.

Portfolio Manager 2016 Priorities

Solid waste tracking and the ability to share your entire portfolio, not just one property at a time, are two major initiatives planned for [Portfolio Manager](#) in 2016. Four more initiatives are planned, based on voting results from program users. These include a new dashboard with property details, development of a tool to show electric demand, and new line graphs to enhance historical trends reporting. Other improvements are planned as well, such as identifying the user who last modified a property, and displaying child meters when downloading parent campuses. [Volunteers are being sought to be a user tester](#).

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.

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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

