

RCM NEWS

RCM News for May 2017

A newsletter for Resource Conservation Managers in the Northwest

In this issue:

Building Control Systems
Data Analytics
Energy Management Systems
Lighting Controls
Water Conservation
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.

→ **Upcoming RCM Webinar on June 6 – see events below.**

Building Control Systems

[“How to Design Your Control System to Take Advantage of a Building Analytics Engine”](#), by Jon Schoenfeld, appears in *High Performing Buildings*. Three crucial aspects of designing the control system for building analytics are network speed, data storage, and including the appropriate type of data. Follow a strict point naming convention, and consider using an existing methodology for metadata tagging.

Data Analytics

“Smart Buildings” is a four-part article written by Loren Snyder for the May 2017 issue of *Building Operating Management*. Data analytic software, which aggregates information points and creates trends to help improve building operations and avoid costs, are used in different ways by different agencies. Some agencies use Excel spreadsheets successfully instead of analytics. Using analytics, agencies have been able to solve problems with occupant temperature complaints, and work through problems of two building automation systems (BAS) which do not communicate with each other. Even with automation, facilities staff must be trained and customer-focused.

Part 1 – [Smart Buildings Success Includes Dashboards, Data Analytics, Monitoring](#)

Part 2 – [Data Management Software Aggregates, Trends BAS Information](#)

Part 3 – [Low-Tech Solutions Still Offer Data Analytics Successes](#)

Part 4 – [Big Data Success Still Requires Human Expertise](#)

Energy Management Systems

“Zen and the Art of EMS” is the cover story in the May 2017 *Building Operating Management*, written by Greg Zimmerman, Executive Editor. With an enormous amount of data available from an energy management system (EMS), it is of prime importance to find and use the subset of data that makes a critical difference in improving operations. Real-time energy monitoring with fault detection and an appropriate number of alarms can contribute to improving operations. In addition, real-time monitoring helps lower cost by avoiding peak demand charges and allows for more accurate billing of organizations who use the campus. The article focuses on the success of EMS at the University of Arizona at Tucson.

Part 1 – [Active Energy Management Gives FMs a Leg-Up on Efficiency](#)

Part 2 – [Real-Time Energy Monitoring Avoids Peak Demand Charges, Helps Bill Accurately](#)

Part 3 – [Training, Hands-On Experience Critical for FMs as Competencies Shift](#)

Part 4 – [Mobile Technology Aids Real-Time Energy Monitoring](#)

Lighting Controls

“Green Building Report 1”, a two-page article written by Craig DiLouie in the May 2017 *Building Operating Management*, discusses LED lighting controls, which are increasingly used in existing buildings. Understanding how controls function, and what they are capable of, is important in order to evaluate and offer the best lighting solutions for the building occupants. Three types of controls are reviewed (traditional, luminaire and room-based, and building/enterprise-based), and basic terms and control systems are explained. For example, in addition to dimming and switching lamps and luminaires, LED controls also allow for adjusting color output and producing data.

Part 1 – [8 Lighting Controls Technologies Offer Energy Efficiency, Smart Building Gains](#)

Part 2 – [Lighting Controls 101: Understand Switching, Dimming, and LEDs](#)

Water Conservation

The two-part “Plumbing” article in *Facility Maintenance Decisions* is dedicated to water conservation, and written by Ryan Berlin, Managing Editor, in the May 2017 issue of *Facility Maintenance Decisions*. A facility-wide water audit, done internally or by a third-party, is the first step to identify water saving opportunities. Determine total water use to verify savings after water conservation methods are installed.

Part 1 – [Water Conservation: Assessing Facility Water Waste](#)

Part 2 – [Water Conservation: Product Advances Help Lower Water Usage and Utility Costs](#)

Upcoming Events & Training Opportunities

2017 Oregon APEM Summer Forum

“Problems? What Problems” – A Look at Boilers and Chillers and How to Make Them Work More Efficiently.

- June 2 in Tualatin, OR

[Click here for more information](#)

Oregon Association of Professional Energy Managers

[WSU RCM Webinar: Improving Building Performance through Controls and Analytics](#)

This webinar looks at direct digital control (DDC) of some commonly used heating, ventilation, and air conditioning systems as well as the architecture of DDC networks. Examples of using analytics include discharge air temperature control and duct static pressure control. Presenters are Pacific Northwest National Laboratory staff scientists Srinivas Katipamula and Ronald Underhill.

- June 6 online webinar

[Click here to register](#)

WSU Energy Program

[ENERGY STAR® and Portfolio Manager® Trainings](#)

All are online webinars.

- What You Should Know About Financing Energy Efficiency Upgrades – Jun 6
- How to Reduce Waste and Track Progress – Jun 13
- Portfolio Manager August 2017 Schema Changes – June 13
- WaterSense Sanitary Fixtures and Equipment – Jun 14
- Portfolio Manager 101 – Jun 27
- Portfolio Manager 201 – Jun 28
- Portfolio Manager 301 – Jun 29
- Seeking Savings Indoors and Outdoors with WaterSense – Jul 12
- Ask the Expert – Every Wednesday at 9:00 AM Pacific time

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

US EPA

[Portland Lights Trade Show & Conference](#)

Free and open to all

- June 7 in Portland

[Click here for more information](#)

Portland General Electric

[Spark Tool Webinar](#)

The Spark tool is a free, interactive online tool to assess a building's readiness for a deep energy retrofit.

- June 14 online webinar

[Click here for more information](#)

BetterBricks, Smart Buildings Center

[Lighting Design Lab Classes](#)

Each session includes Lighting Design Considerations, LED Replacements for T8 and T5 Fluorescent Lamps, and Luminaire Level Lighting Controls. Session runs from 8:30 to 11:30 a.m., with networking at 8:00 a.m.

- June 15 in Lynnwood
- June 20 in South Seattle
- June 30 in Seattle

[Click here for information](#)

Lighting Design Lab

The Ins and Outs of Campus Energy Data

University of Nebraska-Lincoln Director of Facilities Systems describes the school's energy management program and campus-wide benefits.

- June 15 online webinar

[Click here for more information](#)

EnergyCAP

CleanTech Innovation Showcase

This event features the latest cleantech innovations, ideas, and initiatives.

- June 26 in Seattle

[Click here for more information](#)

CleanTech Alliance

Energy Management Certificate

Limited number of \$1,000 scholarships available! Register now for the annual 2-week "energy bootcamp" offered by the Northwest Water & Energy Education Institute. This advanced certificate program is designed for RCMs, Engineers, Technicians, and Facility Managers - it goes beyond the fundamentals and teaches a broad spectrum of energy management principles and techniques.

- July 10-21, 2017 in Eugene, OR

[For more information](#)

NWEEI

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 – Sept 26, 2017 in Renton
 - Level I – Oct 24, 2017 in Olympia
 - Level I – Oct 25, 2017 in Everett

[Click for BOC Washington State information](#)

- Oregon
 - Level I – Sept 6, 2017 in Portland

[Click for BOC Oregon information](#)

Building Operators Certification

Resources for You

High School Energy Management Internships

High school students can learn core energy management skills to become an energy management intern, delivering energy management and conservation services to clients remotely using online

software through a [program sponsored by AEM Intern, New Energy Technology \(NET\), and Energy Star](#). It's a win-win opportunity. Students get professional training and a real-world paid job position, agency energy managers are able to reduce energy consumption using the intern's energy-use analysis, and the environment benefits. An in-depth summer bootcamp provides training on skills such as using energy management software, reading energy data, generating reports, and how to make professional presentations.

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.lanec.edu/nweei. For more information, contact Roger Ebbage, Coordinator, Energy and Water Education Programs, Lane Community College, 541-463-6160, ebbager@lanec.edu.

Four-year College Degree

[South Seattle Community College](#) offers the first four-year Bachelor of Applied Science (BAS) in Washington State, in Sustainable Building Science Technology. The program focuses on the complexities of building science, energy codes, building codes, and facility management. A great opportunity for those currently working in industry to become building science professionals and meet the workforce demand.

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.

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

