

# RCM NEWS

## RCM News for April 2017

**A newsletter for Resource Conservation Managers in the Northwest**

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*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.*

### **New Online Energy Management 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.

The program is piloting a methodology for students to be able to accomplish technical hands-on activities remotely by working with utilities to connect students to fieldwork mentors in their area (with the assistance of Northwest Water and Education Institute). The field work mentors are industry experts who will guide training activities specific to the student’s coursework. Students will have access to education and fieldwork training independent of their geographic location, work-schedule or family obligations. This opens opportunities for diversifying student demographics that are unavailable in current classes and absent within the energy industry.

Applications for the expanded online Energy Management Technician Program are currently being accepted for Fall 2017 enrollment at [www.lanecc.edu/nweei](http://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](mailto:ebbager@lanecc.edu).

## Boilers and Hot Water Heaters

A five-part article on Boilers and Water Heaters, written by Daniel Baker appears in the April 2017 issue of *Facility Maintenance Decisions*. The number of heating-degree days for a particular location can determine a building's load requirements and reduce energy waste in boilers and heaters. Many other no-cost measures can help reduce energy use, such as adjusting fuel-to-air ratios, maintaining piping systems, and performing regular maintenance. A sidebar (part 4) provides energy efficiency resources, and a few efficient boiler and water heater products are described in part 5.

[Part 1: Boosting Boiler and Water Heater Efficiency](#)

[Part 2: Increasing Boiler Efficiency by Using Proper Maintenance](#)

[Part 3: Seasonal Schedules and Climate Play a Factor in Boiler Efficiency](#)

[Part 4: SIDEBAR: Energy-Efficiency Resources](#)

[Part 5: Product Focus: Boilers and Water Heaters](#)

## Demand Control Ventilation

[“Derive Savings From Demand Control Ventilation”](#), was published in the April 2017 issue of *Facility Executive*, and written by Rob Boyajieff. Demand Controlled Ventilation (DCV), also known as airside efficiency, offers the best amount of building ventilation for a situation, and includes the flexibility to monitor indoor environmental quality effectively. Especially in laboratories, DCV can be very cost-effective due to the high ventilation needs of such a space.

## Lighting

A six-part article on Lighting (three parts are case studies) in the April 2017 issue of *Facility Maintenance Decisions*, written by Dan Hounsell, Editor-in-Chief, highlights LED lighting retrofits at a school district in Wisconsin. The facility staff performed ten lighting upgrades in the past seven years, each with quality advanced technology lighting. Benefits of advanced lighting technologies include not only lower utility costs, but more reliability and quality as well. Case studies in the article focus on other facilities.

[Part 1: LED Lighting Upgrades Deliver Savings](#)

[Part 2: LED Upgrade Benefits School's Pool](#)

[Part 3: Planning for an LED Upgrade](#)

[Part 4: CASE STUDY: Illuminating History: Center Shines after LED Upgrade](#)

[Part 5: CASE STUDY: Smart Choice: LEDs Deliver Savings, Lighting Quality](#)

[Part 6: CASE STUDY: LED Lessons: School District Taps into Benefits of Upgraded Lighting](#)

## Zero Energy Buildings

Zero Energy Buildings is a three-part article by David Park written for the April 2017 issue of *Building Operating Management*. To achieve net-zero status, a building must go through a deep energy retrofit before assessing details for a renewable energy system. Although costly, opportunities for such intensive building improvements may occur if, for example, they can be combined with other necessary improvements, the building needs to be updated to code, or doing nothing costs more because of severe inefficiency. If the cost is prohibitive, limited building improvements may still produce significant energy savings.

[Part 1: How Existing Buildings Are Moving Toward Net Zero Energy](#)

[Part 2: Deep Energy Retrofits: First Step Toward Zero Energy Existing Buildings](#)

[Part 3: How To Use Renewable Energy To Achieve Zero Energy Existing Buildings](#)

## Upcoming Events & Training Opportunities

### Energy/Facilities Connections Conference

Register today (!) for the 13<sup>th</sup> annual Energy/Facilities Connections (EFC) conference. The EFC conference offers hands-on interactive training and excellent networking opportunities with professional facilities staff from Washington and beyond.

- May 2-4, 2017 in Leavenworth, WA

[Click here for information](#)

*WSU Energy Program Plant Operations Support Consortium*

### Portland General Electric Education

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

- Chilled Water Systems – May 2 in Wilsonville
- Cooling Tower Efficiency – May 3 in Wilsonville
- Motors, Pumps and Drives – How They Interact – May 9 in Oregon City
- Pump System Troubleshooting – May 10 in Oregon City
- Water/Waste Water Pump System Troubleshooting – May 11 in Tigard

[Click here for more information](#)

*PGE, Energy Trust of Oregon*

### NW Clean & Affordable Energy Conference

- May 4-5, 2017 in Boise, ID

[Click here for information](#)

*NW Energy Coalition*

### ENERGY STAR® and Portfolio Manager® Trainings

All are online webinars.

- Rolling out waste tracking across your portfolio – May 9
- WaterWednesday Showcase – May 10
- Tips for hosting your own energy competition – May 11
- Portfolio Manager 101 – May 23
- Portfolio Manager 201 – May 24
- Portfolio Manager 301 – May 25
- Ask the Expert – Every Wednesday at 9:00 AM Pacific time

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

*US EPA*

### Better Buildings Summit

- May 15-17, 2017 in Washington, D.C.

[Click here for information](#)

*U.S. Department of Energy*

### Building Operator Certification Technical Webinar Series

- Troubleshooting Common Air Handler Problems – May 17, 2017

[Click here for more information](#)

*Building Operators Certification*

### Powerful Business Energy Conference

Essential energy-saving ideas presented, for operations staff, engineers, owners, managers, etc.

- May 25, 2017 in Lynnwood, WA

[Click here for information](#)

*Electric League of the Pacific Northwest*

### 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*

### Portland Lights Trade Show & Conference

Free and open to all

- June 7 in Portland

[Click here for more information](#)

*Portland General Electric*

### CleanTech Innovation Showcase

- 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](#)

*NWEI*

### 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

### Spring Tool Road Show

The [Tool Lending Library](#) at the Smart Buildings Center is going on the road this Spring! If you work at an organization in Washington State, you can request a free hands-on demonstration customized for your agency's needs. Among the dozens of diagnostic tools available are infrared cameras, power metering equipment, and temperature and humidity data loggers. Attendees will receive a participation letter documenting the tool training for credential maintenance, including IFMA and BOC certifications

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

