

# RCM NEWS

## RCM News for October 2013

A newsletter for Resource Conservation Managers in the Northwest

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### Building Science

“[Retrocommission for a Better Building](#),” by Jennie Morton, Associate Editor of *Buildings*, appeared in the September 2013 issue. The article discusses retrocommissioning (sometimes known as EBCx, existing building commissioning) and how it can be employed even when there was never a commissioning done in the first place and regardless of performance expectations in the original design.

### HVAC/R (Heating, Ventilation, Air Conditioning, and Refrigeration)

The following two articles appeared in the September issue of *Building Operating Management*; they discuss several different approaches to HVAC efficiencies; together they can assist the facilities manager in saving energy and increasing occupant comfort:

1. “Ask an Expert: Jim Newman, Newman Consulting Group,” is a four-part article that covers several important aspects of HVAC systems including effective maintenance for good efficiencies and energy savings and choosing replacement equipment based on a proper evaluation of a facility’s current needs.

[Part 1: Unexplored Potential in HVAC Systems](#)

[Part 2: Ensuring HVAC Operational Efficiency](#)

[Part 3: The Details of Commissioning and Retrocommissioning](#)

[Part 4: Determining the Correct HVAC Equipment Replacement](#)

2. “3 Energy-Saving HVAC Opportunities” by Loren Snyder, Contributing Editor for *Building Operating Management*, focuses on three other areas of opportunities for HVAC efficiencies.

[Part 1: Fan Efficiency Grades Can Help Decrease HVAC Energy Usage, Cut Energy Costs](#)

[Part 2: Variable Refrigerant Flow HVAC Systems Can Save Energy, Money](#)

[Part 3: Energy Recovery Is Becoming Common Way to Save on HVAC Costs](#)

## Lighting

“[Shedding Light on Retrofits](#),” by Elizabeth Smyth, appeared in the August 2013 issue of *Interiors & Sources*. She reports that most pre-1980 buildings in the commercial sector “are using the same lighting technology now that they have used for the past 30 years.” She discusses the basic choices that can be made to make a lighting retrofit an excellent option.

## Pumping

“[Pump Retrofits and Upgrades](#),” by Carol Brzozowski, is a five-Web-page article that was published in the September 2013 issue of *Water Efficiency*. Water pumping accounts for 90% of the electric energy used at water utilities. Older pump motors meet efficiencies of only 60-65% while newer ones can be up to 85% efficient. Thus, it becomes crucial to keep older pumps properly maintained and to replace them when appropriate. There are cost-effective ways to optimize older pumping systems and the U.S. DOE (Department of Energy) has programs for industrial plants to help in this area. DOE’s Superior Energy Performance program and its Pumping System Assessment Tool (PSAT) are discussed. Further, the author describes newer challenges to pumping systems in this information-rich article.

The following four articles were carried in the September 2013 issue of *Pumps & Systems*:

1. “[Color-Coding Systems Establish Best Practice](#),” by Patrick Fasse, Fluid Defense, is a two-Web-page article that describes the advantages of well-designed, color-coded lubrication systems and cautions against inadequate ones.
2. “[Magnetic Drive Pumps Versus Canned Motor Pumps](#),” by Guillermo Bueno, M PUMPS S.R.L., describes the differences between the two that, in certain cases, have narrowed in recent years due to technological advances.
3. “[The Revised API 682 Mechanical Seal Standard](#)” is a four-Web-page article authored by Thomas Böhm and Markus Fries, both of EagleBurgmann. The revisions are carefully described in this valuable piece.
4. “[The Smart Pump Market](#)” is a two-Web-page article by Anand Gnanamoorthy & Laurel Donoho, both of Frost & Sullivan. The expanded use of the integrated chip has resulted in intelligent pumping systems. The authors describe the changes that have resulted, the problem of the lack of standards for devices and software, and the path that smart pumping will likely take in the near future.

## Water

The following two articles were published in the September 2013 issue of *Water Efficiency*:

1. “[Losing the ‘Ick’ Factor](#),” by Dan Raftor, is a four-Web-page article on the successful effort in Orange County, California, to treat wastewater so that it meets technical standards of potability and is, at the same time, acceptable to its residents. In the arid Southwest, this may need to become the norm.

2. "[Minimizing Costs Associated with Undetected Leaks](#)," by staff, discusses a product that enables facilities operators to track water usage in real time, as energy already is, so that leaks can be more easily detected. The author explains how this wireless tool works.

## Upcoming Events & Training Opportunities

### Intra-organization Energy Efficiency Competitions

Listen to two agencies share experiences leveraging friendly in-house competitions to increase energy efficiency within their organizations.

- Nov. 5 online webinar

[Click for registration information](#)

*U.S.DOE, EERE Better Buildings*

### Portland General Electric Seminars and Webinars

Portland General Electric offers online webinars and paid courses open to everyone, and seminars and workshops free of charge to its commercial and industrial customers.

- Electrical Safety Awareness – Nov. 6 in Wilsonville, OR
- Employee Engagement in EE Workshop – Nov. 7 in Portland
- Energy Expert Workshop – Nov. 13 & 14 in Wilsonville, OR
- Discover the Power of Energy Monitoring, a Hands-on Workshop – Nov. 14 in Wilsonville
- Energy Expert Webinar – Nov. 20 online webinar

[PGE Energy Education Center webpage](#)

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

### ENERGY STAR® Portfolio Manager Trainings

All are online webinars.

- How to Apply for the ENERGY STAR – Nov. 7
- How to Launch an ENERGY STAR Energy Efficiency Competition – Nov. 13
- Portfolio Manager 101 – Nov. 19
- Water: Benchmarking and Best Practices from WaterSense – Nov. 20
- Portfolio Manager "Office Hours" – Nov. 21
- Portfolio Manager 201 – Nov. 25

[Click here for more information](#)

*US EPA*

### Cooling Tower Water Treatment

Learn about water treatment programs to keep your system running efficiently.

- Nov. 12 online webinar

[Click for registration information](#) and scroll down

*BOC*

### Introduction to Strategic Energy Management

This training will give you the knowledge and tools to implement an energy management system at your place of business.

- Nov. 12 in Hermiston, OR

[Click for registration information](#)

*NEEA, Umatilla Electric Coop, Pacific Power, ETO, ODOE, BPA, WSU Energy Program, NWFPA*

### 2013 DOE Solid-State Lighting Market Introduction Workshop

Two days of in-depth discussions on solid state lighting led by industry experts.

- Nov. 12-14 in Portland

[Click for registration information](#)

*U.S.DOE, EERE*

### E3T Showcase for Emerging Technologies Webinars – Data Centers Energy Efficiency

Two webinar presentations in November feature promising energy efficient emerging technologies for small to mid-size data centers, identified by the IT TAG – a technical advisory group of regional and national experts. Technologies include solid state drives, power management, air-side economizers and direct server cabinet cooling.

- IT TAG Data Center: IT Equipment & Power Management – Nov. 20 online webinar
- IT TAG Data Center: HVAC – Nov. 26 online webinar

[Click here for more information](#)

*WSU Energy Program, BPA, WAPA*

### Pacific Northwest Smart Grid Implementation and Applications – Oregon APEM Winter Forum

The Oregon APEM Winter Forum offers discussions on smart grid topics and includes a tour of the PGE – Salem Smart Grid Center.

- Dec. 6 in Salem, OR

[Click for registration information](#)

*Oregon APEM*

### 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 are usually one or two full days a month.

- **Washington State**
  - Level II – Fall 2014 in Everett  
<http://www.theboc.info/wa/wa-schedule.html>
- **Oregon**
  - Level II – Feb. 26 through Jun 11, 2014 in Portland, OR

[Click for BOC Oregon information](#)

*Building Operators Certification*

### 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

### Advanced RTU Campaign

Replacing or retrofitting your building's older, inefficient commercial rooftop unit (RTU) air conditioning system can save money, increase your building's energy efficiency, and make your building more comfortable. The [Advanced RTU Campaign](#), a collaboration between ASHRAE and the Retail Industry Leaders Association with technical support from Better Buildings Alliance and FEMP, is a recognition and guidance program designed to encourage building owners and operators to take advantage of savings opportunities from high efficiency RTUs. The website includes savings and financial calculators, information on financial resource and technical assistance, and how to join.

### 2014 Green Ribbon Schools and Districts Recognition Award

Public, private, and independent schools and public districts can apply to be recognized as a [Green Ribbon School or District](#) in Washington State. State finalists have the chance to be recognized as a national award recipient. Using a variety of green benchmarks, schools and districts are recognized by reducing environmental impact and costs, improving the health and wellness of students and staff, and providing effective environmental and sustainability education. Applications are due to the Office of Superintendent of Public Instruction by January 6, 2014.

### 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!

### Energy Events Calendar

<http://www.energyexperts.org/TrainingEducationandEmployment/EventsCalendar.aspx>

### 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)

