

# RCM NEWS

## RCM News for July 2013

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.*

### Audits

"[The Science behind Virtual Energy Audits Versus Traditional Audits](#)" was co-written by Hugh Gaasch and Chris Muth, both of Retroefficiency; it was posted on the Greentech Media website on May 15, 2013. It explains how virtual audits are conducted and with what kinds of data. The article refers to two other recent ones posted on the same website: "[Why Virtual Energy Audits Don't Go Far Enough](#)" (by Jeff Beck) and "[Intelligent Efficiency: Innovations Reshaping the Energy Efficiency Market](#)" (by Stephen Lacey).

### Buildings

A three-part article, by Jennifer Warnick and published on the GreenBiz website, is about Microsoft's effort to make the smart buildings on its main campus even smarter in order to increase their efficiency levels:

1. "[How Microsoft Quietly Built the City of the Future](#)," published May 6, 2013, gives a bit of the history of the Microsoft campus in Redmond, Washington and explains how campus buildings, built at different times with different building systems, sensors, and controls could eventually be managed as one. A team developed a new system that enables facilities engineers to read data from all systems from their desktops, in order to discover and correct underperformance.

2. "[Inside Microsoft's Living, Breathing Building](#)," published May 7, 2013, elaborates on the sea change in the workload experienced by facilities engineers when the buildings were able to deliver reliable data on a large scale. Further, it discusses how the software works and how the engineers interact with it.
3. "[How Microsoft Plans to Transform Buildings Worldwide](#)," published May 8, 2013, explains that Microsoft will make its smart buildings software available to all building facilitators.

"[Blueprint for Change](#)," by Joann Gonchar, AIA, Special Contributing Editor, was published in the May 2013 *GreenSource*. It is a case study of the high-profile Bullitt Center in Seattle. Aimed for net-zero energy, the building is designed for the very high conservation of resources, from building materials to construction to the day-to-day use of heat, light, and water by its occupants.

"[Persistence Payoff](#)," by Nadav Malin, in the May 2013 issue of *GreenSource*, revisits an office building in Manitoba Hydro Place in Winnipeg that was a [case study in an earlier GreenSource](#) issue. During the first year of occupation, the integration of the building systems was fine-tuned. On the whole, the building is performing very well, but there have been some lessons learned about the original design.

"[Detecting Heat Loss Through the Envelope](#)" was published in the June 2013 issue of *Buildings*; and written by its Associate Editor, Janelle Penny. It explains how to find where air and moisture leak into the structure, discusses the importance of codes for any renovation, and cautions the reader to pick the solution best suited to the problem.

## Energy Efficiency

"Driving Deeper Energy Retrofits" was jointly written by Scott Muldavin and Roy Torbet, both of the Rocky Mountain Institute (RMI) and was published in the June 2013 issue of *Building Operating Management*; it offers substantial advice on how to justify and finance what can be rather expensive "deep" retrofits once less expensive approaches have been exhausted:

[Part 1: Deep Energy Retrofits Offer Cost Savings As Well As Health, Productivity, and Risk Mitigation Benefits](#)

[Part 2: Rocky Mountain Institute's VBECS Metric Helps Calculate Value of Deep Energy Retrofits](#)

[Part 3: How to Present the Business Case for the Value of Energy Retrofits](#)

[Part 4: Property Assessed Clean Energy Emerges As Capital Source for Deep Energy Retrofits](#)

## Energy Retrofits

"[Advanced Energy Retrofit Guide: Practical Ways to Improve Energy Performance, K-12 Schools](#)" is a February 2013, 214-page publication from NREL (National Renewable Energy Laboratory Publication). It is a comprehensive guide designed mostly for energy managers to help school districts plan, design and implement energy improvement projects in their facilities. The document gives practical guidance for starting the process and maintaining momentum throughout the project life cycle.

## Green Roofs

"5 Benefits of Vegetative Roofing" is a three-part article by Ric Vitiello, President of Benchmark Services Inc.; it was carried in the June 2013 issue of *Building Operating Management*.

[Part 1: Vegetative Roofs Re-Emerge As Viable Option for Commercial Facilities](#)

[Part 2: Vegetative Roof Financial Benefits Include Increased Property Values, Tax Incentives and Reduced Energy Costs](#)

[Part 3: Vegetative Roofs: Installation in Stages and Installation over Existing Roof](#)

## Green Schools

[“State names Olympia Schools a ‘Green District Leader’](#)” is a newspaper article appearing in the July 9, 2013 Olympian, written by staff writer Lisa Pemberton. The 9200-student district is recognized for its conservation and energy improvements. For more details about the district’s RCM program, visit their [website](#).

## Lighting

[“Benefits of a Metal-Halide System,”](#) by Joseph R. Knisley, *EC&M*, was published in the June 2013 issue of that journal. It is a four-Web-page article that includes three sidebars:

1. [“Next Generation Energy Concerns”](#)
2. [“MH Improvements on the Horizon”](#)
3. [“Benefits of Ceramic Metal-Halide \(CMH\) Lamps.”](#)

## Submetering

[“Submetering Trends in Commercial Buildings,”](#) by Tom Zind, *EC&M*, appeared in the June 2013 issue of that journal; it includes two sidebars:

1. [“Power Measurement Market On the Rise”](#)
2. [“Wireless Meters May Get Push With DOE Challenge.”](#)

## Water

[“The Water Resources Utility of the Future: A Blueprint for Action”](#) is a 48-page document from the National Association of Clean Water Agencies (NACWA), the Water Environment Research Foundation (WERF), and the Water Environment Federation (WEF). The document examines barriers to industry change, suggests incentives for innovation, and compiles a series of actions for water resource utilities to be more energy efficient, generate energy, reduce and reuse water, and partner with the community for planning.

[“We Are Not Making New Water,”](#) by Elizabeth Cutright, Editor, *Water Efficiency*, was carried in the May 2013 issue of that journal. The view of many water specialists is that there is enough water to meet needs, but there might not be enough if conservation measures are not in effect. This article includes links to articles and studies of interest from Live Science, Ceres, and others.

“Water Credential: Why It’s Time” by H.W. (Bill) Hoffman was carried in the June 2013 issue of *Building Operating Management*. It is a three-part article on professional water certification for facilities managers:

[Part 1: Rising Water Prices Mean It’s Time for a Professional Water Certification for Facility Managers](#)

[Part 2: Water Credential for Facility Managers Would Focus on Efficiency, Metering and Usage](#)

[Part 3: Water Credential Would Need to Include Information on Codes, Standards, Regulations and Rating Systems](#)

## Upcoming Events & Training Opportunities

### Goal-Based Contracting for Energy Efficient Buildings

A Federal Energy Management Program online seminar covering best practices, examples and lessons learned from real experiences in implementing performance-based contracts.

- Aug. 1 online webinar

[Click for registration information](#)

*U.S. Dept. of Energy – Energy Efficiency & Renewable Energy*

### Buildings Performance Database

Webinars include an overview of BPD's goals and design principles, a live demo of the tool, how to contribute data, and a question and answer session.

- Aug. 6 online webinar
- Aug. 26 online webinar

[Click for registration information](#)

*U.S. Dept. of Energy – Buildings Technology Office*

### Commercial Building Energy Data Access: A Success Story

Learn about underlying barriers to energy data access, and solutions across the country.

- Aug. 6 online webinar

[Click for registration information](#)

*U.S. Dept. of Energy – Better Buildings, SEE Action Network*

### Building Operator Certification Informational Webcast

Newcomers to the BOC program will learn about eligibility and certification requirements from this webcast.

- Aug. 7 online webinar

[Click for registration information](#)

*BOC*

### 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.

- Energy Monitoring Basics – Aug. 7 online webinar
- Intro to Solar Thermal & Photovoltaic Systems – Aug. 14 online webinar
- Intro to HVAC & Building Tune-Ups – Aug. 21 online webinar
- Intro to Efficient Lighting & Controls – Aug. 29 online webinar

[PGE Energy Education Center webpage](#)

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

### ENERGY STAR® Portfolio Manager Trainings

“Office Hours” are meant for questions about the general features and calculations of Portfolio Manager, and applicable for everyone.

- Portfolio Manager “Office Hours” – Aug. 8 online webinar

[Click here for more information](#)

*US EPA*

### E3T Showcase for Emerging Technologies Webinar

Non-Intrusive Load Monitoring, or NILMs, is a method used to monitor energy usage of individual electrical devices in buildings from a single point of access and without the need for submetering.

- Non-Intrusive Load Monitoring – Aug 14 online webinar

[Click here for more information](#)

*WSU Energy Program, BPA, WAPA*

### Energy Efficiency and Data Centers

This course focuses on system interactions and the potential for improved energy efficiency.

- Aug. 22 in Pocatello, ID

[Click for registration information](#)

*NEEA, BPA, WSU Energy Program, NWFPA, Idaho Power, IDOER, Rocky Mtn Power*

### Introduction to Energy Data Management: A Hands-on Workshop

This training presents methods, tools, and resources to analyze energy use.

- Aug. 27 in Missoula, MT

[Click for registration information](#)

*NEEA, NorthWestern Energy, Ravalli County Electric Coop, MT DEQ, BPA, WSU Energy Program, NWFPA*

### 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 I – Sept. 10, 2013 through Mar. 12, 2014 in Renton
  - Level I – Sept. 17, 2013 through Mar. 5, 2014 in Tri-Cities
  - Level I – Sept. 25, 2013 through Mar. 11, 2014 in Olympia
  - Level II – Oct. 2, 2013 through Feb. 12, 2014 in Lacey
  - Level II – Oct. 3, 2013 through Feb. 13, 2014 in Everett
- **Oregon**
  - Level I – Sept. 11 through Dec. 11, 2013 in Portland
  - Level I – Oct. 1, 2013 through Mar. 4, 2014 on the Oregon Coast (TBA)
  - Level I – Dec. 4, 2013 through Jun 4, 2014 in Clackamas

<http://www.theboc.info/wa/wa-schedule.html>

[Click for BOC Oregon information](#)

*Building Operators Certification*

### Measuring and Controlling Plug Loads

This webinar looks at the growth in plug loads and how they can be managed.

- Sept. 18 online webinar

[Click for registration information](#)

*BOC*

### 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.aeepprograms.com/realtime/> .

### World Energy Engineering Congress

September 25-27 in Washington, DC

<http://www.energycongress.com/>

*Association of Energy Engineers*

## Resources for You

### Lighting Resources

Find great information about lighting all in one place. The [Lighting Design Lab \(LDL\) publications page](#) includes webpages and PDFs on everything from lighting fundamental guides, such as Steps to Better Light Quality and Color Temperature, to articles, presentations, newsletters and lighting layout guides.

### Buildings Performance Database

Launched in June 2013, the [Buildings Performance Database](#) has a dataset of more than 60,000 residential, commercial and public buildings from across the country. Data includes location, age of building, function, electricity and fuel consumption, and other energy performance data. See webinars in the events section above.

### 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)

