

RCM NEWS

RCM News for January 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

"[Audits and Adaptation](#)," by Paul Hull, is a four-web-page article in the November/December 2012 issue of *Distributed Energy*. The article begins by defining audits, using both a general three-level type and an ASHRAE-developed three-level guideline. In both cases each of the three levels is explained so the facilities manager can decide which might be suitable for the facility in question. The audit discussion sets the stage for the author's focus on energy management systems in the rest of the article.

Building Information Modeling (BIM)

"[University of Virginia's Jordan Hall: Use of BIM in a Laboratory Renovation](#)" was written by Stefan Dombay, PE, LEED AP, RMF Engineering Inc., and published in the November 2012 issue of *HPAC Heating/Piping/Air Conditioning Engineering*. A 40-year-old lab's HVAC system was completely and successfully redone. BIM was central to this huge undertaking.

Energy Conservation

[Energy conservation spares Lake Stevens School District from cuts](#) is a short article from the KING5.com website on December 23, 2012. The article mentions how much the district has saved in energy costs, and the EPA "ENERGY STAR Award" it received.

Energy Information

"Energy Information: Five Ways to Target Energy Waste" was published in the December 2012 issue of *Building Operating Management*. It consists of a five-part article by Karen Kroll, Contributing Editor at *Building Operating Management*, and a Part 6 sidebar by Charles G. Goulding, Energy Tax Savers:

Part 1: "[Five Sources of Data Can Help Facility Managers Analyze Energy Use](#)."

Part 2: "[Energy Star Automated Benchmarking Services \(ABS\) Can Aid Building Energy-Data Gathering.](#)"

Part 3: "[Submeters Help Measure Energy Used by Specific Building Area.](#)"

Part 4: "[Use Building Automation System to Learn Information on Energy Use.](#)"

Part 5: "[Data Loggers Offer Specifics of Equipment's Energy Use.](#)"

Part 6: "[Proposed EPC Act Deduction Extension Would Create Deep Retrofit Tax Incentive.](#)"

Facility Plans

"Educational Facilities", authored by Josh Gentry, EI, LEED GA, CEM, and Mechanical Designer, SHP Leading Design, was carried in the December 2012 issue of *Building Operating Management*. It is a discussion of the value of the facility master plan. Including currently unbudgeted, yet necessary, future measures in the plan ensures that those measures will not be forgotten and can be attended to later. Further, the plan may be better developed with the help of energy professionals who can analyze current utility bills and compare them with similar buildings in the area. The plan should be based on an energy analysis to show payback for conservation and efficiency measures, if the payback is attractive enough, those measures may be implemented sooner rather than later. Here is the three-part article:

[Part 1: Facility Master Plan Can Help with Energy Efficiency in Educational Facilities](#)

[Part 2: Energy Consultants Can Help Integrate Energy Conservation Measures with Facility Master Plan](#)

[Part 3: Energy Calculations Help Determine Payback of Energy Conservation Measures in Facility Master Plan.](#)

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

"Close-Up: HVAC" was written by Daniel H. Nall, PE, FAIA, LEED Fellow, and Corporate Director of Sustainable Design, WSP Flack + Kurtz; it appeared in the December 2012 issue of *Building Operating Management*. The author cautions that before attending to the HVAC system's performance, other systems that determine how hard the HVAC has to work should be examined and their weaknesses should be addressed. Next, heating and cooling distribution should be analyzed and improved. Finally, the author explains how to approach the optimization of source equipment for heated water and chilled water while respecting the fact that optimized source equipment and a high-performing distribution system are antithetical to one another. This is a three-part article:

[Part 1: Tips For Designing Energy Efficient HVAC Systems](#); includes the sidebar "Five Strategies for Improving the Performance of Building Systems."

[Part 2: HVAC Opportunity: Improve The Efficiency Of The Heating And Cooling Distribution Systems](#)

[Part 3: For HVAC Efficiency, Optimize Source Equipment For Hot Water And Chilled Water.](#)

The following three articles appeared in the November 2012 issue of *Buildings*:

1. "[Ensure Boiler Maintenance Avoids Energy Waste](#)," by staff, makes a number of suggestions for avoiding the errors in boiler maintenance that will compromise boiler health and performance.
2. "[Is Your Facility Leaking Heat and Money in Winter?](#)" by Bernie Daily, Founder, Daily Operations Inc., answers common questions about how to find out if a building is leaking heat and what to do about it.
3. "[Optimize Your Air Handlers](#)" written by J.R. Howard, Facility Manager Administrator, Certified Facility Manager, and LEED AP was published in the December 2012 issue of *Buildings*. The author promises that suggested efficiencies will net "significant" savings.

Lighting

The following two articles on lighting in a distributed energy environment appeared in the November/December 2012 issue of Distributed Energy:

1. "[Illuminating Center Stage](#)," by Ed Ritchie, is a three-Web-page article focusing on technologies, voluntary and mandated standards, and incentives and legislation that are driving the dash to lighting efficiencies in new construction and retrofits. The education sector is expected to continue to take advantage of savings from lighting efficiencies. Those in the commercial sector who recognize the higher production of workers resulting from the new and higher quality lighting are expected to benefit greatly.
2. "[Upgrading to Savings](#)," by Dan Rafter, is a four-Web-page article that features several facilities, including Sam Houston State University and the San Francisco Federal Building, whose lighting systems have yielded dramatic energy savings with short paybacks. The commercial sector is said to lag behind education and government in advanced lighting installations because so many commercial building owners do not compute the full value of their efficiencies.

Water

"Showcase: Water Efficiency" was written by H.W. (Bill) Hoffman, Principal, H.W. (Bill) Hoffman and Associates, LLC, and Senior Technical Advisor, Water Management, Inc. The article, published in the December 2012 issue of *Building Operating Management*, covers why it is more pressing than ever to save water and how to accomplish real efficiencies:

Part 1: "[Increasing Water, Wastewater Costs Demand Improved Efficiency](#)."

Part 2: "[Restrooms, Landscaping Offer Opportunities for Water Savings](#)."

Part 3: "[Cooling Towers Are Overlooked as Water Users](#)."

Part 4: "[Water Efficiency Showcase: New Products](#)."

Upcoming Events & Training Opportunities

Energy Benchmarking Using ENERGY STAR® Portfolio Manager

This workshop provides an introduction to using Energy Star Portfolio Manager, including how to establish energy and water baselines, assess your building's energy performance, and set targets for improving performance over time. Free for Kilowatt Crackdown participants.

- Feb. 6, 2013 – online webinar

[Click here for registration information](#)

BOMA, NEEA, BetterBricks, City of Portland, Idaho Power

Free BOC (Building Operator Certification) Information Webcast

This webcast describes the Level I and Level II BOC courses and training, who benefits from attending the training, and how BOC graduates improve their facilities.

- Feb. 7, 2013 – online webinar

[Click here for registration information](#)

BOC

AEE (Association of Energy Engineers) Realtime 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. Dates following course names below are start dates.

Below is a sampling of courses – refer to website for a complete list.

- Converting Energy Audits to Business Plans – Feb. 8, 2013
- Boiler & Steam System Cost Control – Feb. 11, 2013
- Energy Auditing Fundamentals – Feb. 14, 2013
- Understanding, Making & Using Energy Metrics – Feb. 21, 2013

<http://www.aeepgrams.com/realtime/>

AIA+2030 Professional Series

The Seattle Chapter of American Institute of Architects presents a series of ten sessions offering strategies to achieve 60 percent reduction in fossil fuel greenhouse gas emissions and giving design professionals knowledge to create super-efficient buildings. Appropriate for facilities managers, policymakers, construction professionals, architects and engineers. Must register for entire series.

- First class is Feb. 8, 2013, and monthly thereafter

[Click here for more information](#)

AIA Seattle, BetterBricks, City of Seattle, Architecture 2030

Showcase for Emerging Technologies Webinar

Demand Controlled Ventilation for Commercial Kitchens is the topic of the February webinar.

- Feb. 13, 2013 online webinar

[Click here for more information](#)

WSU Energy Program, BPA, WAPA

Using Data Loggers to Get Building Information

Learn about the types of data loggers to use to gather information about building performance.

- Feb. 13, 2013 online webinar

[Click here for more information](#)

BOC

ENERGY STAR® Webinars

- ENERGY STAR® and Green Building Rating System – Feb. 14, 2013
- Data Center Energy Efficiency Opportunities – Feb. 14, 2013
- The Basics of Benchmarking in Portfolio Manager – Feb. 19, 2013
- Computer Power Management with ENERGY STAR® – Feb. 21, 2013
- Benchmark Energy Performance using Portfolio Manager, for Energy Efficiency Program Sponsors – Feb. 25, 2013
- Financing Energy Efficient Upgrades with ENERGY STAR® – Mar. 5, 2013

[Click here for more information](#)

US EPA

Boiler & Chiller Maintenance for Maximum Efficiency

- Feb. 19, 2013 online webinar

[Click here for more information](#)

NW Regional Industrial Training

Portland General Electric Seminars and Webinars

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

- Understanding LEDs – Feb. 21, 2013 online webinar

- Strategic Energy Management Workshop – Feb. 27 in Salem
- Strategic Energy Management Workshop – Feb. 28 in Portland
- HVAC, Building Tune-Up & Commissioning – Mar. 7 in Portland

[Click here for complete course schedule](#)

[PGE Energy Education Center webpage](#)

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

Motor Systems Management Best Practices

- Feb. 27, 2013 in Yakima, WA

[Click here for more information](#)

NEEA, WSU, Pacific Power, Avista, BPA, NWFPA, DOE

Energy Efficiency for Air Cooled Refrigeration Systems

- Feb. 28, 2013 in Shelton, WA

[Click here for more information](#)

NEEA, Cascade Energy, WSU, Mason County PUD3, Grays Harbor PUD, City of Pt Angeles PUD, BPA, NWFPA

Oregon APEM Spring Forum

This year's spring forum is "The Building that Teaches, A Case Study of the Integrated Design of LCC's New Downtown Campus," which features speakers and a tour of the new innovative energy-efficient building.

- Mar. 8, 2013 in Eugene, OR (*corrected date*)

[Click here for more 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**
 - Level I – Apr. 3 through Oct. 10, 2013 in Seattle
 - Level I – Apr. 24 through Oct. 24, 2013 in Spokane
 - Level I – May 14 through Sept. 17, 2013 in Redmond
 - Level I – May 21 through Nov. 5, 2013 in Renton
 - Level I – Sept. 17, 2013 through Mar. 5, 2014 in Tri-Cities
 - Level I – starting Sept 2013 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 – Mar. 21 through Jul. 13, 2013 in Salem
 - Level I – Apr. 9 through Jul. 23, 2013 in Bend
 - Level II – Apr. 11 through Jun. 27, 2013 in Pendleton

[Click for BOC Oregon information](#)

Building Operators Certification

9th Annual Energy/Facilities Connections Conference

“From Coveralls to the Corner Office” is the title of the 2013 conference, which is a 2½-day event that brings together experts and colleagues for workshops, hands-on training, networking and useful information related to facilities and energy.

- May 7-9, 2013 in Leavenworth, WA

[Click for registration information](#)

WSU Energy Program

Resources for You

Water Use Tracking Resources

ENERGY STAR Portfolio Manager users are tracking water use in over 50,000 buildings – nearly 20 percent of all buildings in Portfolio Manager. ENERGY STAR has produced a [Data Trends Water Use Tracking](#) fact sheet that identifies water consumption by building type or state. Water Use Intensity (WUI) has been measured, for example, by office use per worker and hospital use per bed. [WaterSense](#) is an EPA Partnership Program that helps commercial and institutional facilities identify and implement water management programs. It includes Best Management Practices for various water uses and highlights [ENERGY STAR resources](#).

Plant Operations Support Consortium

The purpose of the [WSU Plant Operations Support Consortium](#) is to increase the efficiency and sustainability of facility operations by providing timely and creative technical assistance, education and consultation to support facility construction, operation and maintenance. Eligible members include state and local governments, tribal governments, and nonprofit organizations. Members receive a variety of services specifically adapted to their needs, including energy audits and assessments, energy data tracking and interpretation, facility management assistance, custodial operations support, equipment brokering and locating, and other services such as technical assistance and consultation. Call 360-956-2055 or email plantops@energy.wsu.edu for more information about what a memberships.

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

