

RCM NEWS

RCM News for August 2011

A newsletter for Resource Conservation Managers in the Northwest

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Boilers

Boiler Systems Engineering is a section of articles in the June 2011 issue of *HPAC Heating/Piping/AirConditioning Engineering*; a strong emphasis on increasing energy efficiencies runs through the following selection of five articles:

1. "[Navigating an Energy Audit](#)," by Steve Connor, Cleaver-Brooks, distinguishes between two kinds of energy audits, the simple system audit and the complete facility audit. How they are conducted, their costs, and how long they can be expected to take are all covered.
2. "[Reducing Hospital CO2 Emissions with Condensing Boilers](#)" was written by Ramez Naguib, PE, LEED AP, CEM; Harsco Industrial Patterson-Kelley. Predictions for the reductions are based on modeling.
3. "[Optimizing Efficiency with Multiboiler Systems](#)" was authored by Larry J. Ashton, Raypak, *HPAC Heating/Piping/AirConditioning Engineering*. With several boilers onsite, only some will be needed most of the time. The rest can remain unfired until needed.
4. "[Modulating Fan-Powered Economizers](#)," by Steen Hagensen, Enerflex Inc., shows how these economizers are superior to traditional economizers. Both types are described and compared; performance tables for each are included.
5. "[The Quest for Maximum Boiler-System Efficiency](#)," by Ron Rajecki, Senior Editor, is a discussion of the newer boiler technologies and control systems for water flow.

Buildings

"[Historic Preservation by Creating a Geothermal District](#)," by John Horst, Radcliffe Institute for Advanced Study, et al, was published in the May 2011 issue of *Geo-Heat Center Quarterly Bulletin*. The institute's historic Fay House was able to be added to a large five-well geothermal system that had been designed for the building next door.

"[Strategic Planning](#)" was written by Ngugi Mathu, RA, LEED AP, Project Architect, Lord, Aeck & Sargent. It was published in the June 2011 issue of *Sustainable Facility*. It reports on the success of the LEED-Gold, total renovation of the Duthie Center for Engineering at the University of Louisville.

Building Science

"With Building Exterior, Efficiency is Skin Deep" was authored by David Cook, Principal Architect in Structural and Architectural Evaluation and Co-Chair for the Green Solutions Practice Group, CTLGroup.

Part 1 is [Building Envelopes Affect Energy Use, so Make Sure Yours Isn't Just a Pretty Face](#). The author takes the reader through steps to take when considering any alterations to the building envelope.

Part 2 is [For Efficient Exteriors, Start with the Outside, Looking In](#). This is a discussion of windows and cladding and how to decide about replacement, repair, over-cladding, and more.

Data Centers

"[Keeping It Simple with Data Center Cooling](#)," by Buddy Phillips, Atlas Sales & Rentals Inc., was published in the June 2011 issue of *HPAC Heating/Piping/AirConditioning Engineering*. The author discusses how spot coolers can, effectively and relatively inexpensively, help cool data centers and server rooms.

Geothermal

"[Report: Campuses Tapping into Benefits of Geothermal Energy, Cutting Costs](#)" is an article that was published in the May 2011 issue of *Geo-Heat Center Quarterly Bulletin*. It reviews the findings of [Going Underground on Campus: Tapping the Earth for Clean, Efficient Heating and Cooling](#), a National Wildlife Federation report that is available with free registration. The article explains that over 160 academic institutions in the U.S. have installed geothermal systems for their heating and cooling; they are saving energy dollars and reducing their carbon footprints. However, many, many more universities and colleges could invest in geothermal and experience dramatic energy dollar savings.

Green Products

"[The 411 on EPDs](#)," by Kylie Wroblaski, Associate Editor, *Buildings*, was published in the June 2011 issue of that journal. An environmental product declaration (EPD) is a document in which the life cycle assessment (LCA) of a product is made and reported by a third party. EPDs are used to judge how green or eco-friendly a product is. It is very valuable because, unlike other green standards, it meets ISO (International Organization for Standardization) standards so products can be cross-compared. The article includes a sidebar, "Eco-Labels Explained."

Performance Contracting

"[Energy Efficiency: Partnering Successfully with an ESCO](#)" is an archived interview, published in *Higher Ed Impact* on March 18, 2010. (It links to an earlier article that is worth reading, "[Cash-Strapped Colleges Turn to Businesses for Energy-Saving Deals](#)" which described some university/ESCO (Energy Service Company) partnerships that ran into serious problems.) This article gives very good advice on what to do and what to avoid for the university/ESCO partnership to meet with success.

Water

"Saving Water, Saving Money" is a three-part article by Tara O'Hare, Implementation and Recruiting Lead, WaterSense Program at the U.S. Environmental Protection Agency; published in the June 2011 issue of *Building Operating Management*, it is applicable to government and academic as well as commercial facilities:

Part 1 is [A Close Eye on Water Use and Waste can Keep Your Bottom Line from Drying Out](#). It describes how to design a comprehensive plan for water management, beginning with input from stakeholders on goals. It includes advice on assessing current water use for a baseline that can be used for comparative purposes after efficiencies and conservation have been initiated. The author, also, makes suggestions for using mechanical systems and plumbing fixtures as water saving opportunities.

Part 2 is [Outdoor Water Use Needs to be Watched Closely as Well](#). A good deal of water can be wasted or saved in the area outside a building. The author discusses some approaches to vastly reducing outdoor water losses.

Part 3 is [Alternatives and Best Practices for Water Management](#). Part 3 includes discussion of alternative sources such as capturing rainwater for use, reusing stormwater and treated gray water, and reclaimed water supplied by the local municipality. Best Practices includes the currently available Portfolio Manager software and an information resource under development.

Upcoming Events & Training Opportunities

AEE (Association of Energy Engineers) Realtime Online Seminars

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. Refer to website for more classes.

- Advanced Lighting Retrofit Options – Sept. 6 and Dec. 12, 2011
- Developing an Energy Management Master Plan – Sept. 7 and Nov. 14, 2011
- Justifying Energy Efficiency as a Business Investment – Sept. 9 and Dec. 9, 2011
- Pitfalls & Profits in Performance Contracting – Sept. 12 and Nov. 14, 2011
- Mechanical Engineering Fundamentals for Non-Mech. Engineers – Sept. 12 and Dec. 12, 2011
- Energy Auditing Fundamentals – Sept. 26 and Dec. 12, 2011
- Converting Energy Audits to Business Plans – Nov. 18, 2011
- Boiler & Steam System Cost Control – Nov. 29, 2011
- Interior Lighting: LED vs. Traditional – Dec. 1, 2011

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

Portland General Electric Seminars

- Fundamentals of Efficient Lighting & Controls
 - Sept. 7, 2011 in Oregon City
 - Sept. 28, 2011 in Gresham
 - Oct. 11, 2011 in Salem
- Energy Monitoring for Energy Savings
 - Sept. 14, 2011 in Beaverton
- Energy Monitoring Workshop for Energy Expert Users
 - Oct. 5, 2011 in Wilsonville
- The Emerging Smart Grid-Current Opportunities, the Future & How it Affects You
 - Oct. 6, 2011 in Portland, OR
- Improve EE in your Building – HVAC, Building Tune-Up & Commissioning
 - Oct. 12, 2011 in Wilsonville
- Energy & Water Efficiency
 - Oct. 13, 2011 in Portland

- Industrial Fan Systems
 - Oct. 19, 2011 in Wilsonville, OR
- Industrial Pump Systems
 - Oct. 20, 2011 in Wilsonville, OR
- Are LEDs Ready for Prime Time?
 - Oct. 25, 2011 in Salem
 - Oct. 26, 2011 in Portland

http://portlandgeneral.com/business/news_classes/classes/default.aspx

Energy Star Benchmarking Workshop

Free hands-on workshop to support compliance with the City of Seattle's building energy benchmarking and disclosure ordinance.

- Sept. 8, 2011 in Seattle, WA
- Sept. 29, 2011 in Auburn, WA

BetterBricks, City of Seattle

<http://esbworkshop.eventbrite.com/>

Portland General Electric Webinars

One-hour webinars led by expert instructors. These provide highlights from PGE's half or all-day seminars.

- Intro to Efficient Lighting & Controls – Sept. 8, 2011
- Intro to Building Tune-Ups for Energy Savings – Sept. 22, 2011
- Intro to Solar Thermal & Photovoltaic Systems – Oct. 18, 2011
- Intro to Energy Monitoring for Energy Savings – Oct. 27, 2011
- Intro to Energy Systems & Managing Costs – Nov. 1, 2011
- Intro to Compressed Air Systems – Nov. 10, 2011

http://portlandgeneral.com/business/news_classes/classes/default.aspx

Low Cost/No Cost Lighting Strategies for Cost Savings - Technical Webinar

- Sept 8, 2011

Building Operator Certification

<http://www.theboc.info/m-live-webinars.html>

Fundamentals of Pumping System Assessments

This awareness webinar gives an overview of the ASME Energy Assessment for Pumping Systems Standard.

- Sept. 13, 2011 webinar
- Oct. 20, 2011 webinar

Hydraulic Institute

<https://pumpsevents.webex.com/mw03051/mywebex/default.do?siteurl=pumpsevents>

ASHE – E2C Peer Technical Forums

Online series specific to hospital energy savings. Free and open to ASHE members and their staff.

- Computer Power Management – Sept. 19, 2011
- Reporting and Relationships for Success: Legacy Health – Oct. 20, 2011
- Case Study of Energy Management: Kadlec Medical Center – Nov. 17, 2011

American Society for Healthcare Engineers (ASHE), BetterBricks and Energy Star

<http://asheregion10e2c.betterbricks.com/calendar>

Lighting Design Lab Fall 2011 Education Series

- What's New in Lighting: 2011 (morning class)
- Matching Technologies to Applications (afternoon class)

These two classes, intended for those familiar with basic lighting terminology as well as those entering the lighting industry, are offered on various dates at various locations:

- Sept. 20, 2011 in Tacoma, WA
- Sept. 27, 2011 in Portland, OR
- Sept. 30, 2011 in Boise, ID
- Oct. 6, 2011 in Everett, WA
- Oct. 12, 2011 in Missoula, MT
- Oct. 19, 2011 in Bellevue, WA
- Oct. 25, 2011 in Seattle, WA

<http://www.lightingdesignlab.com/classform.php>

Building Operator's Certification

- **BOC Level I**
One day a month of training and project work in building systems maintenance.
- October 13, 2011, ending Mar 29, 2012 in Silverdale, WA
- **BOC Level II**
One day a month of training and elective coursework in equipment troubleshooting and maintenance.
- Oct 18, 2011, ending Mar 6, 2012 in Renton, WA

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

Future Energy Conference

Session tracks include Energy Efficiency, New Technology Updates, Financing Energy, Energy in Context and Washington State Energy Summit.

- October 18-19, 2011 in Seattle, WA

Northwest Environmental Business Council, Washington State Department of Commerce

<http://www.futureenergyconference.com/cities/seattle/>

Idaho Energy and Green Building Conference

- Oct. 19-21, 2011 in Boise, ID

NEEA, BetterBricks, ID Office of Energy Resources

<http://idahocities.org/index.aspx?nid=229>

Resources for You

BetterBricks Videos - Building Night Walks and Interpreting Electric Meter Data

BetterBricks [Building Night Walk Video series](#) help guide you through night walks of your building in order to identify operational energy issues. A six-page brief on night walks complements and enhances the videos. BetterBricks also has a nine-part video training series on [Interpreting Electric Meter Data](#), including what to do with the data once you get it, and examples of load shapes and common problems.

Conduit

Conduit is a new, web-based resource that facilitates information sharing, coordination and collaboration among energy efficiency professionals in the Northwest. As a Conduit member, you can share resources with your peers, join a group, begin discussions, learn about trainings and other opportunities, and follow groups or people that are of interest. Information can be filtered by sector, function (e.g. training, implementation or evaluation), topic and/or group. Conduit is implemented by Northwest Energy Efficiency Alliance (NEEA) with support from Bonneville Power Administration (BPA).

<https://conduitnw.org/Pages/Welcome.aspx>

Plant Operations Support Consortium Summer Newsletter

The summer edition of [Shop Talk](#) is now available online. Articles include recent successes of WSU Extension Energy's Shared RCM program and *The Ingredients for Effective Facilities Leadership* from nationally renowned leaders. Check out the last page of the newsletter to see if your agency or organization is a member of the WSU Extension Energy Program Plant Operations Support Consortium.

<http://www.energy.wsu.edu/PublicFacilitiesSupport/PlantOperations.aspx>

Energy Events Calendar

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

Washington RCM Support

Washington State University Energy Program RCM Support

Check out the "RCMx". 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.

<http://www.energy.wsu.edu/PublicFacilitiesSupport/ResourceConservation/RCMx.aspx>

Oregon RCM Support

Oregon Department of Energy RCM Support

<http://oregon.gov/ENERGY/CONS/RCM/rcmhm.shtml>

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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).

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