

RCM NEWS

RCM News for July 2012

A newsletter for Resource Conservation Managers in the Northwest

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Buildings

"Educational Buildings" was co-authored by Ben Stanley, LEED AP, BD&C, and Senior Sustainability Manager at YRG Sustainability; and by Dan LeBlanc, Senior Project Manager. It is a three-part article carried in the May 2012 issue of *Building Operating Management*. It suggests putting energy management largely in the hands of students and offers two successful examples of that policy, in high schools in Colorado:

Part 1 is "[Getting Students Involved in Energy Efficiency Can Lead to Big Energy Cost Savings for School Districts](#)."

Part 2 is "[Douglas County School District Sees Big Gains from Involving Students in Energy Efficiency](#)."

Part 3 is "[Ponderosa High School Involved Students in Teaching Value of Saving Energy](#)."

"[10 Tips for Green Certification](#)," by Janelle Penny, Associate Editor, was published in the June 2012 issue of *Buildings*. It offers valuable and in-depth discussion of each of the ten tips. The article ends with a very helpful examination of each of eight certifications as to origin, philosophy, certification requirements, renewal requirements, applicable building types covered by the certification, and more.

Data Centers

The following two articles were published in the May 2012 issue of *HPAC Heating/Piping/AirConditioning Engineering*:

1. "[Adaptations in Data-Center Cooling](#)" was written by Kevin Dunlap, Product Manager for Cooling at Schneider Electric. The adaptations include energy-efficient air management using equipment that includes improved components and that is subject to certain standards.

2. "[Growing IT-Solutions Provider Chooses Modular Plants for Mission-Critical Cooling](#)," by staff, discusses the benefits of the modular approach.

Geothermal

"[Geothermal: The New Big Man on Campus](#)" was written by Michael Luster, PE, LEED AP MEP Associates, LLC; it was published in the April 2012 issue of *HPAC Heating/Piping/AirConditioning Engineering*. This is a discussion of the application of geothermal systems campus-wide rather than to individual campus buildings. The article includes basic engineering information about how to proceed, beginning with an analysis of utility data, a determination of how the new system would fit with the campus master-plan (which would include expectations for future expansion), and knowledge of the campus monthly-load. This will bring the engineer to an understanding of the campus' base simultaneous load, instantaneous load, unbalanced heating load, and unbalanced cooling load. All of those help determine system sizing and more.

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

"[Maximizing Efficiency with Hydronic Boilers](#)," by Alan Wedal Cleaver-Brooks, in the June 2012 issue of *HPAC Heating/Piping/AirConditioning Engineering*, makes the case for highly-efficient hydronic boilers.

Motors – Pumps

"[Mechanical Seal Failure in Pumps](#)," by Howard W. Penrose, Ph.D., CMRP, was published in the June 2012 issue of *Maintenance Technology*. This is a quick, but very useful, examination of where the leakages occur and why.

Plumbing

"[AIA Course: High-Efficiency Plumbing Systems for Commercial and Institutional Buildings](#)" can be read as an excellent, in-depth, stand-alone article that can, also, be an opportunity to gain Continuing Education credit; it was published in the June 2012 issue of *Building Design + Construction*.

Property Management

"[People, Planet, and Profit](#)" was authored by Clare Morris Broderick PE, LEED AP, and Chief Operating Officer, Building Systems Engineering Division - MEP Group, at Birdsall Services Group; it was published in the May 2012 issue of *ED+C (Environmental Design + Construction)*. Attention to the "triple bottom line" (the "people, planet, and profit" of the article's title) by property management businesses can ensure they survive and thrive.

Solar

Two new fact sheets on community-focused solar development are available from the U.S. Department of Energy:

1. "[Increasing Community Access to Solar: Designing and Developing a Shared Solar Photovoltaic System](#)" is a one-page, June 2012, fact sheet by Molly Riddell, NREL; it was published by the U.S. Department of Energy (DOE). This is a guide for those interested in developing community-wide solar power. It is meant to assist community organizers, utilities, and local governments.
2. "[Powering Your Community With Solar: Overcoming Market and Implementation Barriers](#)" is a one-page, June 2012, fact sheet by Molly Riddell, NREL; it was published by the U.S. Department of Energy (DOE). The successful Solarize Portland (Oregon) program is the model for groups of consumers and for utilities and local governments to use as they plan solar projects, purchase solar systems, and alter market possibilities in favor of expanding solar in the future.

Water

"Ask an Expert: Water Efficiency" is a three-part article, by staff, in the May 2012 issue of *Building Operating Management*. It offers a few basic approaches to quickly and inexpensively reduce water use in high-rises while avoiding the most common mistakes. It, also, includes a quick review of new technologies, codes, and policies – all of which have contributed to a new environment where conserving water is much more easily accomplished than in the past:

Part 1 is "[The Best Way to Reduce Water Use in High-Rise Buildings.](#)"

Part 2 is "[Avoid Common Mistakes When Looking at Water Efficiency Improvements.](#)"

Part 3 is "[Advances in Water Efficiency Technology, Codes, and Policies.](#)"

"[H2O, Redux](#)," by Lori Lovely, was published in the May 2012 issue of *Water Efficiency*. It describes the need for water conservation and the connections between water efficiency and energy efficiency. To meet the growing needs of a growing world population, water will need to be conserved and re-used, paid for at higher prices, and made potable only for drinking and related uses.

Upcoming Events & Training Opportunities

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 complete list.

- CEM Preparatory Course for Energy Managers – Aug. 1, 2012
- Designing and Maintaining an Energy Manager Position – Aug. 3, 2012
- Justifying Energy Efficiency as a Business Investment – Aug. 7, 2012
- Saving Energy in HVAC Systems – Aug. 8, 2012
- Smart Metering, Load Profiling & Demand Response – Aug. 15, 2012
- Energy Auditing Fundamentals – Aug. 16, 2012
- Pitfalls & Profits in Performance Contracting – Aug. 20, 2012
- Important Criteria to Specify & Purchase LED Products – Aug. 23, 2012
- Advanced Lighting Retrofit Options – Aug. 27, 2012
- High Bay Lighting Advances – Sept. 6, 2012

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

Developing an Energy Plan

This webinar provides tools and resources to help you develop and implement a successful energy management plan.

- Aug. 3, 2012 webinar

<http://neea.org/get-involved/calendar>

NEEA *BetterBricks* and City of Seattle

GovEnergy

- Aug. 19-22, 2012 in St. Louis, MO

The annual event for the federal energy management community.

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

Adjustable Speed Drive Applications and Energy Efficiency

- Aug. 21, 2012 in Pocatello, ID

- Aug. 23, 2012 in Billings, MT

This course addresses choices available and relevant issues regarding the use of adjustable speed drives with electric motors, and demonstrates energy cost savings and other benefits.

<http://neea.org/get-involved/calendar>

NEEA Industrial Training Project, Northwestern Energy, ID Power, ID Office of Energy Resources, Montana DEQ, BPA, WSU Energy Program, NW Food Processors Assoc.

Energy Benchmarking using Energy Star Portfolio Manager – Seattle

Intended to support compliance with the City of Seattle's building energy benchmarking and disclosure ordinance, this hands-on session teaches how to benchmark your building's energy performance.

- Aug. 22, 2012 in Seattle

<http://esbenchmarkingworkshop02.eventbrite.com/>

NEEA BetterBricks and City of Seattle

Portland General Electric Seminars and Webinars

Portland General Electric offers educational seminars and webinars free of charge to its commercial, industrial, and institutional customers. Similar customers of other utilities are welcome to attend for a small fee.

- Intro to HVAC & Building Tune Ups for Energy Savings – Aug. 22, 2012 online webinar
- Intro to Efficient Lighting & Controls – Aug. 30, 2012 online webinar
- Energy Efficiency for Small and Mid-sized Businesses – Sept. 5, 2012 online webinar

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

Portland General Electric, Energy Trust of Oregon, NEEA, Better Bricks

Building Operator's Certification

74 hours of training and project work in building systems maintenance.

- Washington State
 - Level II – Aug. 28, 2012 through Jan. 12, 2013 in Seattle (*just added*)
 - Level II – Oct. 31, 2012 through Feb. 12, 2013 in Renton

<http://www.theboc.info/wa/wa-schedule.html>
- Oregon
 - Level I – Sept. 2012 through Mar. 2013 in Medford, OR
 - Level I – Sept. 12, 2012 through Dec. 5, 2012 in Tigard, OR
 - Level II – Sept. 2012 through Feb. 2013 in Wilsonville, OR

http://www.nweei.org/images/pdf_files/current_master_oregon_sched.doc

Energy Diagnostics Using Data Loggers

- Sept. 13, 2012 in Auburn, WA

A half day class to learn the basics of using data loggers to record performance data, and how to use that data for diagnosing and troubleshooting energy-related issues in commercial and institutional buildings. BOC graduates receive 3.5 continuing education credits for attending.

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

Building Operator Certification

Energy Savings through Recovery

Learn about energy recovery ventilation (ERV), a cost-saving strategy for meeting the ASHRAE ventilation & energy standards. Open to everyone. BOC graduates receive CEU for successful completion of webinar and quiz.

- Sept. 19, 2012 – live technical webinar

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

Building Operator Certification

Resources for You

Energy Efficiency Grant Opportunities

Public higher education institutions and local governments are eligible to apply for 2012 energy efficiency grants from the Washington State Department of Commerce. Round one is now closed. Round two applications are due December 31, 2012. <http://www.commerce.wa.gov/site/1403/default.aspx>.

K-12 school districts are also eligible for energy grants, specifically for energy operational cost savings, through the Office of Superintendent of Public Instruction. Applications due November 9, 2012 for round one, and February 15, 2013 for round two. School districts must conduct an investment grade audit, and use either Energy Savings Performance Contracting or traditional design-bid-build contracting method. <http://www.k12.wa.us/SchFacilities/Programs/EnergyImprovement/EnergyGrantProgram.aspx>.

Facilities Web Resources

[WSU Energy Program Plant Operations Support Consortium](#) staff selects web resources to best assist you in maintaining and operating your facility.

Building Operations Tools and Technical Advice

[BetterBricks](#), the commercial building initiative of the Northwest Energy Efficiency Alliance (NEEA), provides tools and resources to help operate, maintain, and build more energy efficient buildings.

March to Savings

March to Savings is a call to action to encourage all Washington state employees to save energy during the spring of 2012. Yet it's so much more than that – it's useful for all employees and managers everywhere. Designed and implemented by WSU Energy Program, in partnership with the Department of Enterprise Services, the program features the [March to Savings website](#) providing myriad resources such as fact sheets to save energy at work, links for saving energy at home, interesting how-to videos, tips on changing work habits, examples of energy-saving success stories, and plenty of resources for more information.

Energy Experts eNews

You can now get energy-related news from EnergyExperts.org and other energy-related organizations on Facebook and Twitter. <http://www.energyexperts.org/NewsFeeds.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>

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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



www.energy.wsu.edu