

## RCM News for April 2012

A newsletter for Resource Conservation Managers in the Northwest

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### Data Centers

"The New Wave in Data Center Energy Efficiency," by James McEnteggart, highlights trends in data center operations that address energy efficiency in new ways; it was published in the February 2012 issue of *Building Operating Management*.

[Part 1](#) is about PUE (power use effectiveness) as a tool to judge performance.

[Part 2](#) reports on the use of air-side economizers and evaporated coolers to help cool servers.

[Part 3](#) features two energy-saving strategies: employing the UPS in energy-saver mode, and running the DC power supply at high voltage.

[Part 4](#) focuses on how commissioning saves energy.

"[Induction and Plasma Technologies Prove Superior for Streetlighting and High Lumen Applications](#)" was written by Bruce Hartnett, Director of Marketing & Sales, Deco Lighting; it was published in the February 2012 issue of *Advanced Lighting Systems*. The author makes a case for plasma lighting over LEDs in certain outdoor applications.

"10 FAQs about LEDs," by Liesel Whitney-Schulte, appeared in the February 2012 issue of *Building Operating Management*; it was written for the facilities manager and is in four parts:

[Part 1](#) includes background information on LEDs.

[Part 2](#) is about applications and possible problems.

[Part 3](#) focuses on fixtures.

[Part 4](#) connects the reader with further information about LEDs.

## Green Buildings

["What Do You Think Is the Country's Greenest Building? It May Be the Old Facility You Manage and Occupy Today"](#) was written by Chris Olson, Chief Content Director, *Buildings*. Appropriately upgrading the old facility will not impact the environment in the ways that any new building, even a high-performing one, must. The environmental impacts of a new building will not be overcome by its energy and other resources savings until one to several decades have passed. The article is based on ["The Greenest Building: Quantifying the Environmental Value of Reuse,"](#) a January 2012 report from the Preservation Green Lab of the National Trust for Historic Preservation, in partnership with Cascadia Green Building Council. The report quantifies the variables that together add up to "green."

## Lighting

["8 Tips to Consider before LED Installation,"](#) by staff, appeared in the March 2012 issue of *Building Design+Construction*. Every bit as applicable to a lighting retrofit project as it is to new construction, this article gives sound advice to the resource conservation and facilities manager about how to make the best decisions about LEDs and non-directional, area-lighting OLEDs.

["School Lights: School Lighting Strategies Can Cut Energy Use and Save Money"](#) was written by Janelle Penny, Associate Editor, *Buildings*; it was published in the February 2012 issue of that journal. The article provides some guidance on how to perform a walk-through of a facility to take stock of the energy use and efficacy of the lighting. Suggestions for what changes to make are offered. The article includes the sidebar "Six Strategies for Efficient Lighting."

## Solar

["Solar Schools Assessment and Implementation Project: Financing Options for Solar Installations on K-12 Schools"](#) was jointly written by J. Coughlin and A. Kandt, both of the National Renewable Energy Laboratory. This is a specific example of how the Solar America Showcase program of the U.S. Department of Energy (DOE) can effectively assist in an organization's development of Solar Master Plans for its facilities. In this case, a foundation is aiding three California school districts in their effort.

## Trees

["Shade Your Way to Savings: Learn How a Tree Can Reduce Your Utility Bill"](#) was written by Jennie Morton, Associate Editor, *Buildings*; it appeared in the March 2012 issue of that journal. Shade trees can protect the environment and – the focus of this article – save energy. The investment is longer term than some other efforts because trees take a substantial time to grow and it will take several years before the utility bill reductions are realized. The article includes advice on what types of trees may be best in certain situations.

## Water

["From the Ground Up,"](#) by Ed Ritchie, appeared in the March-April 2012 issue of *Water Efficiency*. It addresses the products developed that can assist resource managers and others in their efforts to reduce water use outdoors. Intelligent irrigation products such as sensor and control systems relay data about moisture in the soil so that irrigating is reduced to what is actually needed in real time. The University of Michigan saves over \$140,000 a year because of a control system that reduces water used for irrigation by 68%. Homeowner associations expend a lot of money for the water used in landscape irrigation; the Dorchester Condominium Association in Palm Beach has seen dramatic savings as a result of its new water management system. Professional landscapers and corporations are also conserving water with similar new products.

## Upcoming Events & Training Opportunities

### Building Operator's Certification

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

- Washington State
  - Level I – May 1, 2012 through Oct. 30, 2012 in Lacey (**FULL**)
  - Level I – May 3, 2012 through Aug. 16, 2012 in Renton (**NEW CLASS**)
  - 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](http://www.nweei.org/images/pdf_files/current_master_oregon_sched.doc)

### 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.

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

- Understanding & Profiting from Electricity Tariffs – May 2, 2012
- Thermodynamics: Principles & Practicies – May 7, 2012
- Boiler & Steam System Cost Control – May 14, 2012
- High Bay Lighting Advances – May 16, 2012
- Smart Metering, Load Profiling & Demand Response – Jun. 6, 2012
- Advanced Lighting Retrofit Options – Jun. 12, 2012
- Choosing and Using Lighting Controls – Jun. 21, 2012

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

### Energy Benchmarking using Energy Star Portfolio Manager – Seattle compliance

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.

- May 9, 2012 in Seattle
- May 30, 2012 in Seattle
- Jun. 13, 2012 in Seattle

<http://neea.org/participate/calendar.aspx?eventID=3553>

*NEEA BetterBricks and City of Seattle*

### 2012 Energy/Facilities Connections Conference

- May 9-11, 2012 in Leavenworth, WA

This is an invaluable annual conference that brings together experts and colleagues for workshops, hands-on training, networking, and useful information related to facilities and energy.

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

### Pumping System Assessment Tool

A three-day, in-depth workshop to increase end user awareness and knowledge of energy efficiency improvement opportunities for pumping systems. Prior industrial or municipal experience with pumping systems is recommended to attend.

- May 15-17, 2012 in Eugene, OR

<http://neea.org/participate/calendar.aspx?eventID=3388>

*NEEA Industrial Training, et al*

### 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. Topics include energy management, lighting, commercial and industrial systems, as well as special topics such as water, smart grid, and leased space issues.

- Webinar – Intro to Efficient Lighting & Controls – May 16, 2012
- Owning & Operating Efficient Motors - May 22, 2012 in Wilsonville, OR
- Variable Frequency Drives – May 23, 2012 in Wilsonville, OR
- Air Handling Systems – May 24, 2012 in Wilsonville, OR
- A CFO's Perspective of Energy Efficiency & Renewables – Jun. 5, 2012 in Portland
- Smart Lighting Seminar & Portland Lights Trade Show – Jun. 6, 2012 in Portland
- Energy Champions Workshop – Jun. 20, 2012 in Portland

See website for more events.

[http://portlandgeneral.com/business/news\\_classes/classes/docs/class\\_schedule.pdf](http://portlandgeneral.com/business/news_classes/classes/docs/class_schedule.pdf) or

[http://portlandgeneral.com/business/news\\_classes/classes/default.aspx](http://portlandgeneral.com/business/news_classes/classes/default.aspx)

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

### Advances in Lamps and Ballasts - webinar

- May 17, 2012 webinar

<http://neea.org/participate/calendar.aspx?eventID=3404>

*NEEA*

### Introduction to Utility Energy Service Contracts - Webinar

- May 22, 2012
- Jun. 21, 2012

This webinar provides an overview of contracting options and services available from local utility companies.

[http://apps1.eere.energy.gov/femp/training/course\\_detail\\_live.cfm/CourseDateld=457](http://apps1.eere.energy.gov/femp/training/course_detail_live.cfm/CourseDateld=457)

*Federal Energy Management Program, EERE*

### Choosing a Temp/RH Data Logger to Meet Your Needs – webinar

- May 23, 2012 webinar

This webinar will review the suite of HOBO data loggers for monitoring temperature and humidity, with the aim of selecting the best one for your data goals.

<https://www2.gotomeeting.com/register/579461954>

*onset HOBO data loggers*

### West Coast Energy Management Congress

- May 23-24, 2012 in Seattle, WA

Energy conference and technology expo.

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

### Energy Management Certification (“Boot Camp”) – NW Energy Education Institute

- July 9 through 20, 2012 in the classroom, Eugene, OR

This “boot camp”, taught by energy professionals, goes beyond just the fundamentals to teach a broad spectrum of energy management principles and techniques. The certification consists of three parts – classroom instruction, workplace project, and presentation of results. Appropriate for engineers, technicians, architects, and facility, maintenance, and energy managers, the program fills up quickly.

<http://www.nweei.org/emc.html#content>

### GovEnergy

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

Registration is now open for this annual event training for federal energy management community.

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

## Resources for You

### BOC Technical Series – recorded webinars

The Building Operator Certification group offers [recorded technical webinars](#) taught by industry experts on topics such as HVAC equipment, lighting controls and retrofits, measurement tools for building energy diagnostics, energy tune-up opportunities, and using data loggers. Continuing education credits are available for BOC graduates upon successful completion of the webinar and quiz.

### Lighting Design Lab Newsletter

Check out the [Spring 2012 Lighting Design Lab newsletter](#) for information on lighting power allowance and new color terminology. The [Lighting Design Lab website](#) also has LED product lists, LED specifications, how to check the status of your LED product, and other energy efficiency lighting information.

### 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, and for longer than just March. 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](mailto:janowitzk@energy.wsu.edu)



[www.energy.wsu.edu](http://www.energy.wsu.edu)