

RCM NEWS

RCM News for June 2015

A newsletter for Resource Conservation Managers in the Northwest

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Building Controls

A three-part article in the July 2015 issue of *Building Operating Management*, written by Loren Snyder, gives information that can help plan for BAS/EMS control system upgrades. Forming a team to assess the current system, ensure that a new system will work with existing equipment, and recognize the capabilities of staff to learn and run the new system are essential for the upgrade. Training operating staff so that they're comfortable operating the new system is one of the best investments that can be made to assure that controls run equipment as designed.

Part 1: [Getting the Most Out of a Building Controls Upgrade](#)

Part 2: [Timing, Human Factors Are Key in Building Control Upgrades](#)

Part 3: [2 Approaches to Building Controls Upgrade Projects](#)

ENERGY STAR

ENERGY STAR and Portfolio Manager are the topics in "Ask the Expert", a four-part article appearing in the July 2015 issue of *Building Operating Management*. Lauren Hodges, director of communications at Energy Star for Commercial Buildings & Industrial Plants, answers questions and corrects misperceptions about ENERGY STAR. The next Commercial Buildings Energy Consumption Survey is due out within a year, at which time the ENERGY STAR score will be updated. Ms. Hodges stresses that ENERGY STAR is more than just Portfolio Manager. ENERGY STAR offers many energy management tools and resources. Buildings that are not yet able to receive a score from Portfolio Manager still use ENERGY STAR to track key performance indicators like energy use and costs, water use and costs, and greenhouse gas emissions. Next year buildings will also have the ability to track solid waste disposal and costs.

Part 1: [Degree of Recognition of Energy Star and Portfolio Manager](#)

Part 2: [Status of Update to CBECS Database](#)

Part 3: [Benchmarking Improves Energy Performance](#)

Part 4: [Correcting Misperceptions About Energy Star](#)

HVAC

The three-part HVAC article in the June 2015 issue of *Building Operating Management*, written by James Piper, features descriptions of variable refrigerant flow systems, rooftop units, and geothermal systems. These three HVAC systems have had some of the greatest technological improvements to reduce HVAC energy use. How they work, suitable applications, benefits, and drawbacks are explored for each of the systems.

Part 1: [3 Options for Energy Savings in HVAC Systems](#)

Part 2: [Understanding Rooftop HVAC Units as an Energy-Saving Option](#)

Part 3: [Understanding Geothermal Systems as Energy-Saving Option](#)

Net Zero Energy

“[Working Example](#)”, written by Michael Hummel, Galen Grant, Byron Benton, and Kim Duettel Desmond for the Summer 2015 edition of *High Performing Buildings*, is a case study of the Zero Net Energy Center in northern California. The building was transformed from a 1980s suburban office building into a zero net energy showcase, home of the Zero Net Energy Center which offers hands-on learning on cutting-edge technology and electrical systems. Using integrative design, the retrofit project was able to both stay on budget and meet net zero energy goals. The case study discusses elements of the project such as lighting, roof monitors, and plug loads, and shares lessons learned.

Shop Talk articles

The Spring 2015 edition of [Shop Talk](#), the newsletter of the WSU Energy Program Plant Operations Support Consortium, features articles of particular interest to RCMs. “King County Emphasizes Education in Tackling Energy Goal” on page 4, written by Phil Partington of the Consortium, highlights the effort that King County is making to reduce normalized energy use by 20 percent in county buildings by 2020. “Slash Plug Loads in 6 Steps” appears on page 5, and was written by Janelle Penny, senior editor of *Buildings Magazine*. Space and water heating with a natural refrigerant is the subject of “Carbon Dioxide Refrigerant Heat Pumps – An Introduction to a Game-Changing Technology”, the front page article written by Ken Eklund with the WSU Energy Program.

Upcoming Events & Training Opportunities

Energy Management Certificate

Registration is in full swing for the annual “energy bootcamp” at the Northwest Water & Energy Education Institute. This is an advanced certificate program covering a wide array of energy management topics and requires the student to implement and measure results from an energy-efficiency project. **Sign up with a colleague and both receive a \$500 discount!**

- July 13-24, 2015 in Eugene, OR

[For more information](#)

NWEEI

ENERGY STAR® and Portfolio Manager® Trainings

All are online webinars.

- Energy Star Treasure Hunt – July 22
- Portfolio Manager 101 – July 28
- Portfolio Manager 201 – July 29
- Portfolio Manager 301 – July 30

[Click here for more webinars and information](#)

US EPA

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 usually meet one or two full days a month over a period of four to six months.

All dates below are for the first class.

- Washington State
 - Level I – Sept. 23 in Renton
 - Level II – Oct. 21 in Renton

[Click for BOC Washington State information](#)
- Oregon
 - Level I – Sept 24, 2015 in Portland
 - Level II class coming in winter 2015/2016

[Click for BOC Oregon information](#)

Building Operators Certification

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.aeeprograms.com/realtime/>.

Resources for You

Equipment Scheduling

If your building is closed this July 3, give it a holiday by turning off unnecessary equipment for the three-day weekend. Setting your building's management system to a holiday schedule is a great way to reduce energy use. For more information, check out further information about [equipment scheduling](#) on the Better Bricks website.

Retrofit Savings Estimator

The New Buildings Institute has developed a free tool for use in commercial buildings to help evaluate potential energy savings with existing retrofit strategies. Custom building energy simulations are created when basic building information, along with potential energy-savings measures, is entered into the web-based [Retrofit Savings Estimator](#). By selecting all or a subset of recommended measures, different energy impacts can be seen. Energy impacts are shown as percent savings compared to current usage.

New Buildings Institute

While we're talking about [New Buildings Institute](#) (NBI), check out some of their other resources. These include the Zero Buildings Database with information on commercial buildings with low- and zero-energy performance, case studies on zero net energy and deep energy retrofits, and plug load best practices.

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 - janowitz@energy.wsu.edu

