



Sept 2014 Newsletter

Energy Efficient WV (EEWV) Request

Tyler Cannon <tcannon1892@gmail.com> is looking for some good commercial or industrial projects that EEWV could visit and showcase in an upcoming publication. They can be good IAQ, low energy and/or "green". Tyler will decide. Great opportunity for engineering, architect and contractor firm exposure. JOBS have to be in WV. Email Tyler.

WVU ASHRAE Student Branch is starting this month.

Ken Means, WVU Professor advised the first ASHRAE Student Branch Meeting is set for this Thursday, Sept 25, at 11:30 in Morgantown. They will be eating pizza, organizing, selecting program for the year and electing student officers. The WV ASHRAE Chapter supports the new Student Branch with speakers, grants and potential scholarships. All Student Branch Members are ASHRAE Members. Most are Engineering Seniors. If you are willing to support the student branch or the WV ASHRAE Chapter Scholarship Program contact Todd Zachwieja. todd.zachwieja@zdsdesign.com

Upcoming Events

Sept 26 Chapter Meeting – Fireside Grill 11:30 am – Do Rooftops meet the latest WV Energy Code? Art Hallstrom, P.E. and panel discussion. For more info - www.wvashrae.org/meetings.html

Oct 2 – Engineering and Construction Exchange. Shawnee Park in Dunbar, WV. Day long. Multiple free presentations and a free lunch. At 2 PM - WV ASHRAE Member Sam Butzer, P.E. is presenting on “Codes, Standards and Energy Efficiency in WV”. To sign up contact Tommy Isaacs at tgisaacs@terracon.com.

October 4-7 – Annual SRAPPA Meeting - WV ASHRAE Board Member Ray Wohlfarth will be speaking at the annual Southeastern Regional Association of Physical Plant Administrators convention in Huntington, WV. He is the Membership Co-Chair for WVAPPA. [SRAPPA Convention](#)



Nov 13 – WV ASHRAE/AIA/USGBC Sponsored Lunch and Tech Session 11:30-12:45

Marriott Charleston Town Center Hawk's Nest

Weil McLain is the lunch sponsor. The lunch tech session will highlight application considerations for commercial condensing boilers, and commercial condensing boilers paired with standard efficiency boilers in a hybrid arrangement. A review of rating conditions (water temperatures) boiler manufacturers are required to use, will be followed by some sample boiler selections. Presenter: Dave Burggren of Weil McLain. Dave has been in the HVAC business for 15 years, many with Carrier and Weil McLain. Dave holds the following degrees. BS in Applied Science from Portland State University - MS in Engineering Management from the University of Missouri-Rolla - MBA in Business from George Fox University.

Nov 13 – Afternoon Technical Sessions (1 – 4 PM) Marriott Charleston Town Center Hawk's Nest

DANIEL H. NALL, FAIA, P.E., BEMP, HBDP Senior Vice President, Syska Hennessy Group
Mr. Nall is a Senior Vice President of Syska Hennessy Group in New York. Registered Architect, Professional Engineer, a LEED Accredited Professional, a certified Building Energy Modeling Professional

and a High Performance Building Design Professional. ASHRAE activities include the ASHRAE Sustainability Oversight Committee, TC 4.7, the Building Energy Quotient Ad-Hoc and Oversight Committees, and the ASHRAE Advanced Energy Design Guide Steering Committee.

Designing Green Communities: Sustainable Infrastructure

GBCI Approved | 1 CE Hour | 0090006542 AIA Approved | 1 LU | DGC001

Community planners have the opportunity for significant reduction of the environmental impact of human activity. The current interest in green buildings often overlooks the far greater conservation potential of sustainable communities. Creating net zero energy and net zero water usage communities is much easier than creating single buildings with the same performance. Pursuing these issues at the community level addresses issues at the most effective scale.

Innovative Systems for Energy and Water Conservation: Four Corporate Headquarters

GBCI Approved | 1 CE Hour | 0090008184 AIA Approved | 1 LU | ISEWC2012

Fundamentals of energy and water conservation in buildings, focusing on building mechanical systems. Presents how these principles have been implemented in four corporate headquarters offices buildings around the world. Different approaches to energy conservation are presented, ranging from architecturally integrated HVAC systems to innovative applications of packaged equipment

LEED 3.0 Energy and Atmosphere Credits

GBCI Approved | 1 CE Hour | 0090006392 AIA Approved | 1 LU | EAO001

Synopsis of the LEED v3.0 Energy and atmosphere credits. Detailed discussion of EAc1, looking at the how the points are awarded, at the flow chart of the process of accruing points. Then follows an in depth discussion of whole building simulation and a detailed discussion of ASHRAE 90.1, Appendix G.

Jan 8, 2015 WVU Student Branch Meeting, Morgantown Chapter Meeting

Jan 24-28, 2015 ASHRAE Winter Meeting and AHRI Expo, Chicago, Ill

March 25, 2015 (EXPO) – WV ASHRAE Chapter Meeting and six technical presentations

Recent DOE News:

DOE Issues Determination of Energy Savings for Commercial Buildings

The U.S. Department of Energy (DOE) has published a [Notice of Determination](#) for ANSI/ASHRAE/IES Standard 90.1-2013, affirming that the updated code will result in energy savings in commercial buildings. DOE analysis indicates that buildings meeting Standard 90.1-2013 (as compared with buildings meeting the previous 2010 edition) would result in national source energy savings of approximately 8.5 percent, and site energy savings of approximately 7.6 percent, of commercial building energy consumption, as regulated by the Standard. (Editor Note: This code intended std uses about 36% less energy than ASHRAE 90.1-2007, the current WV State Energy Code.)

Following an affirmative DOE determination, each State is required by statute to certify that it has reviewed the provisions of its commercial building code regarding energy efficiency, and updated their code to meet or exceed the revised Standard. (Editor Note: The State of WV is looking at impact of adopting the newer 90.1-2010 ASHRAE Energy Std. for Commercial Buildings. ASHRAE 90.1-2010 is required for LEED® 4.0 certification.)

ACEE News: New Air Conditioner Standards Would Rank as Biggest Energy Saver in U.S. DOE History

Proposed Standards Would Save Businesses Billions

Washington, D.C. (September 18, 2014): The Department of Energy (DOE) proposed new efficiency standards today that would slash commercial rooftop air conditioner energy use by about 30%. The proposed

standards would achieve the largest national energy savings of any standard ever issued by the U.S. Department of Energy.

"DOE's new standards are a breath of cool air for businesses since air conditioners account for about 10 percent of a typical commercial building's electricity cost," said Steve Nadel, executive director of the American Council for an Energy-Efficient Economy. "The new standards will drive innovative, energy-efficient air conditioners into buildings across America, not only saving businesses money, but also reducing electricity demand and environmental emissions."

DOE estimates that over the lifetime of units sold over thirty years, the proposed standards would save businesses between \$16 and \$50 billion and reduce electricity consumption by about 1.3 trillion kilowatt-hours, or enough energy to cool all the commercial buildings in the U.S. for 7 years. The new standards would net a typical building owner between \$3,500 and \$16,500 over the life of a single commercial rooftop air conditioner. Overall savings will often be higher since most buildings have multiple units. For example, a big-box store can have more than 20 rooftop air conditioners.

Rooftop air conditioners are commonly used in low-rise buildings such as schools, restaurants, big-box stores, and small office buildings. They cool about half of the total commercial floor space in the United States. (Most of the other half is cooled by chilled water systems, residential-type central air conditioners, or individual air conditioners mounted in windows or external walls.)

The current efficiency standards for rooftop air conditioners measure efficiency at full capacity despite the fact that air conditioners rarely operate at that level except on the hottest days. The new proposed standards are instead based on a metric called IEER (integrated energy efficiency ratio) which captures efficiency at 25, 50, 75, and 100% of full capacity and better reflects real-world performance. Typical new rooftop air conditioners that just meet the commercial building energy code have efficiency levels of about 9.5 to 11.5. However, DOE's [High Performance Rooftop Unit Challenge](#) has helped spur several manufacturers to develop and bring to market high-efficiency rooftop air conditioners. Equipment on the market today achieves IEER levels as high as 21. [Today's proposed standards would set minimum efficiency levels of 12.3 to 14.8 depending on equipment type and capacity.](#)

WV ASHRAE Board Member Ray Wohlfarth has a new published book

Lessons Learned: Connecting New Boilers to Old Pipes is now in print. It is a great guide for anyone replacing a hydronic boiler.

[Connecting New Boilers to Old Pipes](#)

Are you still investing with banks?

Energy projects are generating 300-400\$ returns on investment. [Great Investments](#)

ASHRAE Research helps every aspect of life.

ASHRAE research is involved with everything from making buildings more efficient to making them safer. It is a great organization and every dollar donated is used for research. The link below will take you to the site for more information and a place to contribute. Tax deductible. [ASHRAE Research](#)

Regional News: Kentucky Receives \$20 million Grant for Energy Study

Kentucky is set to receive a five-year, \$20 million award made to the state for the "Powering the Kentucky Bioeconomy for a Sustainable Future" project, a collaborative, multi-institutional research effort. [Read more about grant](#)

