



# *Giga-Joule*

October, 2012

<http://www.ashrae4greenville.com/newsletter.php>

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## *Meeting Announcement*

The October meeting will be held on Thursday, October 11th at the Roper Mountain Science Center. The details are listed on the Programs Page. For more information, please contact our Secretary, Liz Ambrose, at [secretary@ashrae4greenville.com](mailto:secretary@ashrae4greenville.com)

## *A Message from the President*

Thank you all who joined us last month for Stephanie Burton's presentation on LEED Litigation. This month Bill Caldwell of Waldrop Mechanical Services will be delivering a presentation entitled "Today's Project Design Challenges...A Contractor's Perspective." I am sure this will be a great presentation with plenty of discussion and feedback. I look forward to seeing everyone there.



Please mark your calendars for the November meeting covering the Building Energy Quotient (bEQ). Tom Phoenix, ASHRAE Society Treasurer, will be delivering the presentation and Randy Jones, ASHRAE Region IV DRC, will also be in attendance. Mr. Phoenix serves as chair of the bEQ committee, so please come prepared to ask the expert. We hope to have good attendance for this meeting, so please mark your calendars early.

We appreciate all of your support and participation. As always, we welcome your feedback, and would like to hear any suggestions on how we can improve ASHRAE Greenville. We are always looking for new faces to participate on a committee or serve on the Board of Governors. If you would just like to hear more information on what this would entail, please let me know.

**Ryan Tonnsen**  
**Greenville ASHRAE President**  
[president@ashrae4greenville.com](mailto:president@ashrae4greenville.com)

## Membership Corner

It's FALL – Ya'all!!! The first ASHRAE Meeting of the season is always bittersweet, to me, as it generally means that summer is over and a new season lies ahead. It was great to see everyone last month at our kick-off meeting of the ASHRAE season. Welcome to our newest Members and as always it's great to welcome back to our existing Members.



**New to Ashrae?? Here's a little Tid Bit:** Membership in ASHRAE – the American Society of Heating, Refrigerating and Air-Conditioning Engineers – is open to any person associated with heating, ventilation, air conditioning or refrigeration through such disciplines as indoor air quality and energy conservation, for example. Membership in ASHRAE allows access to state-of-the-art HVAC&R technology and provides many opportunities to participate in the development of that technology.

We are looking forward to continued growth in our Greenville Membership and need your help in achieving this...we have some great programs and even some social events, golf tournaments etc. planned throughout the season to encourage you invite your friends and colleagues. Thanks to all members who recently joined via a Membership Promotion Meeting, a transfer in, or just the desire to be a Member, we appreciate your support. Welcome back to our existing members, and especially those who serve on the board...we could not do this without everyone's participation. Membership Promotion meetings will be on our schedule and special offerings for those new to ASHRAE – first one will be coming up this Fall with the second one scheduled in the early Spring. More to come...

Now...we need you to share with your friends and colleagues the benefits of being a Member of the Greenville Chapter of ASHRAE. **Invite, invite, and then invite some more...**any new potential Non-Members. Don't forget about those Young Engineers – ASHRAE offers a special membership for engineers currently under the age of 35 to encourage them to be involved...these are our future leaders.

**Existing MEMBERS** – Ask Me about Upgrading your Membership by going online to [www.ASHRAE.org](http://www.ASHRAE.org) to update and complete your BIO...this process will automatically upgrade your membership based on the information that you supply...it's quick and it's easy ~ After all it's all about YOU!

**Just a reminder: Chapter Members** in good standing (paid dues) **\$10.00** per meeting – lunch included.

**Non-Chapter Members** **\$15.00** per meeting – lunch included.

**ATTENTION Chapter MEMBERS:** This year you will have the opportunity to pay in advance for (4) Meetings and attend the 5th Free – PLEASE SEE ME AT THE SIGN IN TABLE IF INTERESTED. These cards will be issued in the ASHRAE Member's Name (not company name) and are NOT transferable – Cards will be available for purchase at each meeting throughout the year.

I am always available to discuss your questions and concerns, or if you have a good idea or suggestion on how we can increase membership – We are interested!

Drop me an email [Membership@ASHRAE4GREENVILLE.COM](mailto:Membership@ASHRAE4GREENVILLE.COM) or call me at 444-0219.

Best Regards,  
Dorothy Bertolini  
Membership Chair – ASHRAE Greenville SC  
[membership@ashrae4greenville.com](mailto:membership@ashrae4greenville.com)

## ***Chapter Programs***

This month's technical presentation is "Today's Project Design Challenges ..... A Contractor's Perspective." Please RSVP so that we can make arrangements to have the appropriate amount of food available.

### October Meeting

**Program: "Today's Project Design Challenges ..... A Contractor's Perspective"**

**Presenter: Bill Caldwell**

With a construction industry career spanning nearly 40 years, Bill Caldwell has held various executive operations and sales management positions in both the general contracting and mechanical subcontracting fields. Caldwell assumed the role of President of Waldrop in December 2009, following five years as Vice President of Operations. During that time, Caldwell spearheaded a strategic initiative to expand Waldrop's services, market sectors and geographic footprint — growing the business from \$10 million in revenues to \$31.5 million, and more than doubling the firm's employee base. Under his leadership, Waldrop became the first mechanical contractor in South Carolina to implement a registered apprenticeship program for its employees. The company also celebrated an impressive safety milestone, achieving 1.7 million safe man-hours without a lost-time accident.

Before joining Waldrop's management team in 2004, Caldwell served as Vice President of Operations for an established South Carolina specialty contracting firm. Caldwell expanded that company's geographic presence and led the firm to unprecedented levels of profit growth. A most prized accomplishment was achieving 1.0 million safe man-hours without a lost-time accident over a four-year time period — a new record among mechanical contracting firms in the Carolinas.

At the heart of Caldwell's career history is nearly 25 years with Fluor Daniel where he started as a project accountant immediately following graduation from the University of South Carolina's business school. Caldwell soon grew into increasingly responsible positions in project management, eventually becoming an Executive Director. In this role, Caldwell led the company's effort to diversify and move into the global hospitality marketplace, and also played an integral role in expanding the firm's worldwide presence in the commercial sector.

Caldwell speaks to business and collegiate groups about the construction industry. He is an active proponent of workforce development, focusing on bridging the gap between the construction industry and the educational community.

**Location:** Roper Mountain Science Center ([www.ropermountain.org](http://www.ropermountain.org))

**Date:** Thursday, October 11, 2012

**Time:** 11:30 a.m. Doors Open  
11:35 a.m. Lunch Served  
11:45 a.m. to 12:00 p.m. Chapter Business  
12:00 p.m. to 1:00 p.m. Main Program

**Cost:** Lunch Program: \$10/chapter member \$15/non-chapter member (catered lunch)

**Education Credit:** This program qualifies for 1.0 PDH (including NC PE) for the full program

**Please RSVP to [secretary@ASHRAE4greenville.com](mailto:secretary@ASHRAE4greenville.com)  
No later than Noon Tuesday, October 9, 2012**

# Chapter Technology Transfer

## BUILDING CODES

On April 2, 2012, South Carolina adopted the 2009 IECC as the South Carolina Energy Standard to become effective on January 1, 2013. The 2009 IECC allows ASHRAE/IESNA 90.1-2007 as an option to demonstrate compliance. However, if ASHRAE/IESNA 90.1-2007 is used, it must be used for all parts of code compliance; envelope, lighting, mechanical or service water heating.

A detailed comparison of ASHRAE 90.1-07 and 2009 IECC is available on <http://www.energycodes.gov>.



### **BUILDING CODE ABBREVIATIONS**

(Courtesy of Devon Cortright)

IBC = International Building Code  
IRC = International Residential Code  
IFC = International Fire Code  
IMC = International Mechanical Code  
IPC = International Plumbing Code  
IPSDC = International Private Sewage Disposal Code  
IFGC = International Fuel Gas Code  
IgCC = International Green Construction Code  
IECC = International Energy Conservation Code  
IPMC = International Property Maintenance Code  
IEBC = International Existing Building Code  
ISPSC = International Swimming Pool and Spa Code  
ICCP = International Performance Code  
IWUIC = International Wildland Urban Interface Code  
IZC = International Zoning Code  
ICC700 = National Green Building Standard



The South Carolina Building Code Council has also begun to review of the 2012 family of I-codes. Recent investigation and analysis by Mathis Consulting Company for the 2012 IECC for South Carolina for Residential buildings showed cost effective and significant energy and peak power benefits to the state. The findings of the study showed a modest cost increase averaging \$1,186 to move to the 2012 IECC. The energy modeling showed that these costs were significantly (or completely) offset by the resultant energy savings and reduced operating costs. When financed with the mortgage, the added costs averaged \$7 per month, with

monthly savings on energy bills ranging from \$23 to \$45 per month. The energy modeling showed net positive cash flow to the homebuyer from day one with simple payback on the added costs of 2.3 to 4.2 years.

DOE is requesting written comments, suggested revisions and enhancements on all DOE code change proposals for the development of the 2015 IECC and IEBC by October 19, 2012.

The COMcheck product makes it easy for architects, builders, designers, and contractors to determine whether new commercial or high-rise residential buildings, additions, and alterations meet the requirements of the IECC and ASHRAE Standard 90.1, as well as several state-specific codes. COMcheck also simplifies compliance for building officials, plan checkers, and inspectors by allowing them to quickly determine if a building project meets the code.



SC, NC and GA can all use COMCheck, in addition to the majority of US States.

[www.energycodes.gov/comcheck](http://www.energycodes.gov/comcheck).

There is also a REScheck product for residential buildings available at [www.energycodes.gov](http://www.energycodes.gov).

Need to learn more about Building Energy Codes? There are a number of FREE informative videos on <http://www.energycodes.gov/resource-center/eLearning> including videos on ASHRAE 90.1 (including Appendix G).

## ENGINEERING FOR CHANGE



ASHRAE is now a network supporter of Engineering for Change (E4C). E4C is a growing community of engineers, technology professionals, designers, scientists, non-governmental organizations (NGOs) and local community advocates who are working together

to design, apply and share innovative and sustainable technical solutions to a broad range of humanitarian challenges in local communities around the world.

“By partnering with Engineering for Change, our members can contribute their knowledge and our technology to help improve the quality of life for people around the world,” ASHRAE President Tom Watson said. “Our involvement allows us to match the technology to the need, to find affordable solutions that benefit communities and ourselves.”

Projects include designing low cost homes with supporting power generation to replace slums in India to designing a “Dirt Powered Battery” from microbes living in soil for use in Africa.

All ASHRAE members interested in learning more about E4C are encouraged to attend the E4C webinar scheduled for 12 pm EST on Tuesday, October 30, 2012. This is a free webinar that is tailored to help ASHRAE members understand the mission of E4C and how you can get involved. Further information is available at [www.ashrae.org/e4c](http://www.ashrae.org/e4c).

Watson also is encouraging ASHRAE members and chapters to examine ways to get more involved in their local communities. Another effort underway is ASHRAE’s Community Sustainability Project program ([www.ashrae.org/community](http://www.ashrae.org/community)), which is designed to encourage members to volunteer with local non-profits or other associations for activities such as engineering and installation of energy efficiency measures for their facilities. Perhaps there is an opportunity for our local chapter to become involved?

**Myrna Dayan, CEM, LEED Green Associate**  
**Chapter Technologies Transfer Chair, Greenville Region IV**  
[ctt@ashrae4greenville.com](mailto:ctt@ashrae4greenville.com)



**ASHRAEwiki**

**NEED A DEFINITION?** The ASHRAEwiki launched this May, contains terminology related to buildings, with a particular focus on mechanical, envelope, electrical, lighting, load calculations, design, water design/conservation, and energy use and measurement metrics. Each term has one or more primary definition(s) and an indication denoting in which standard(s) the term is used. Some definitions have been reviewed by ASHRAE Technical Committee (TC) 1.6, Terminology. It is recommended that all new publications use the primary definitions of terminology found on this site. <http://wiki.ashrae.org>

## Tentative Event Dates for 2012-2013

Thursday 09/13/2012	LEED Litigation	Presenter: Stephanie Burton
Thursday 10/11/2012	Today's Project Design Challenges ..... A Contractor's Perspective	Presenter: Bill Caldwell
Thursday 11/8/2012	Building Energy Quotient (BEQ)	Presenter: Thomas Phoenix
Thursday 12/13/2012	Solar Thermal Additional Seminar: Primary Secondary vs. Variable Primary debate	Presenter: Chris Edmondson, Distinguished Lecturer
Thursday 01/10/2013	Mold Control	Presenter: Andy Schauder
Thursday 02/14/2013	Acoustics/Vibration Best Practices for HVAC Equipment	Presenter: Dwight Landry
Thursday 03/14/2013	March Chapter Meeting: TBD	Presenter: TBD
Thursday 04/11/2013	Responsible Use of Refrigerants Additional Seminar: Thermal Storage-Peak Load Avoidance	Presenter: Julian De Bullet, Distinguished Lecturer
Friday 4/26/2012	ASHRAE Golf Tournament	
Thursday 05/9/2013	May Chapter Meeting: TBD	Presenter: TBD



**ASHRAE**  
Technology for a Better Environment

**Region IV**  
**Greenville Chapter**