



# THERMOGRAM



The New Jersey Chapter of ASHRAE Newsletter

www.njashrae.com

October 2012

reply@njashrae.com

## CHAPTER OFFICERS

### President

James Sarno, PE  
732-938-2666

### President - Elect

Scott Smith, PE  
973-227-8666

### Vice-President

Open

### Treasurer

John Tellefsen, PE  
(973) 565-7622

### Secretary

Chris Lambert  
732-225-6729

## Board of Governors

Dave Halko  
732-623-7136

Dorrie Mercurio, PE  
732-761-0108

Chris Phelan  
973-777-6700

James Rossetti  
908-782-7364

Roger Shults  
973-396-4152

## Committees

### Attendance/ Reception

Chris Lambert  
732-225-6729

### Audit

Roger Shults  
973-396-4152

### Budget

James Sarno, PE  
732-938-2666

### Chapter Bylaws

Open

## **Broadening ASHRAE's Horizons**

Tuesday, November 13, 2012

Speaker's Topic:

***BEAM ME UP, SCOTTIE! Transport Energy:  
Motors, Fans, and Pumps***

Speaker: Hank Jackson, P.E.  
Principal  
ETech Solutions



**Cost: Members \$50.00  
Non-members \$55.00  
YEA members \$25.00  
Students \$5.00**

**Time: 4:30 pm Board of Governors Meeting  
5:30 pm Sign In and Networking  
6:30pm Chapter Announcements, Dinner and  
Speaker to follow**

**Location: Renaissance Woodbridge Hotel  
515 US Highway 1 South  
Iselin, NJ  
732-634-3600**

**RSVP: [REPLY@NJASHRAE.COM](mailto:REPLY@NJASHRAE.COM)  
(click on hotlink above to email)  
or Call 732-218-7463 and leave a message**

**Certificates Of Attendance Will Be Provided For NJ PE's  
That Require Them**

Statements made in this publication are not the expressions of the Society or of the Chapter and shall not be reproduced without permission of the Chapter

**COMMITTEES**  
(continued)

**CTTC**

John Tellefsen, PE  
973-565-7622

**Historian**

Open

**Honors & Awards**

Open

**Membership**

Scott Smith  
973-227-8666

**Newsletter Ads & Editor**

James Sarno, PE  
732-938-2666

**Nominating**

Chris Phelan  
973-777-6700

**Programs**

James Sarno, PE  
732-938-2666

**Refrigeration**

Dave Halko  
609-520-1600

**Research/Promotion**

Roger Shults  
973-396-4152

**Scholarships**

James Sarno, PE  
732-938-2666

**Seminars**

Open

**Special Events/ Golf Outing**

Chris Phelan  
973-777-6700

**Student Activities**

Spencer Reynolds

**Technical Sessions**

Open

**Web Page Editor**

Dorrie Mercurio, PE

[www.njashrae.com](http://www.njashrae.com)

[reply@njashrae.com](mailto:reply@njashrae.com)

732-218-7463

**ASHRAE Society**

Toll Free Number  
1-800-527-4723

Inside this issue:

President's Message	3
PAOE Points Scorecard	3
Dinner Speaker Bio	4
Calendar of Events	5
Region I Executive Committee	6
ASHRAE News	7 - 11
ASHRAE Government Affairs Updates	12-14
Advertising with NJ ASHRAE	14

**SAVE THE DATE; April 18, 2013**

**1:00 pm – 4:00 pm EDT**

**FREE ASHRAE Webcast**

*Assessing Building Energy Performance:  
From Principles to Practice*

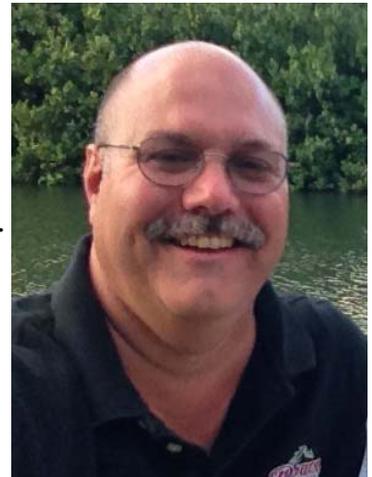
This webcast will feature industry experts who will explain the importance of building energy performance and its far-reaching implications in both new and existing buildings. Viewers will also learn about the various tools and approaches that are available, as well as the many opportunities that assessing building energy performance presents.

This FREE webcast program will broadcast live via the internet.

Visit [www.ashrae.org/ABEPwebcast](http://www.ashrae.org/ABEPwebcast) for additional information about the program, sponsorships, continuing education credits, speakers, and registration.

## President's Message

### By Jim Sarno



I hope that this edition of the Thermogram find you all safe and sound and hopefully with power. Due to the disaster and interruption of power and mail, the invitations to the Past Presidents were unable to be mailed out in advance. Therefore, our Past Presidents Night will be rescheduled for the December meeting.

Our Speaker this month is Hank Jackson and he will speak about Transport Energy. Hank is an ASHRAE Distinguished Lecturer and during Hank's presentation, participants will learn how to evaluate motor loads due to pumps and fans, how to determine motor energy usage, and how variable speed drives function and how they can be applied to save energy. This is a topic that applies across many fields in the HVAC world.

With the positive success of the Post Dinner Meeting YEA event at last month's meeting, it will be repeated after this meeting. All YEA members are invited to stay after the meeting to meet as a group with Hank Jackson.

Note that our December meeting will be a Back To Basics Night so please get the word out to the younger HVAC engineers as well as us 'seasoned' ones as the presentation on the Fundamentals of Psychrometrics will have information for the newer folks in the HVAC field as well as act as a refresher for those who have been in the field for many years.

There is no way to escape the devastation that has hit the Garden State when Sandy struck and now a Nor'easter is forecast. This Newsletter was almost greatly abbreviated (more than this) due to lack of power but luckily, we received power less twenty four hours ago and much of what you see what put together prior to the storm. Still there are many of our fellow New Jerseyans who are less fortunate...many who have lost everything.

Please take the time to check on those who are still in need. This can be as simple as letting family and friends use your power (assuming you have power) to charge their cell phones and giving them a place to warm up, to helping out at a local shelter that has been set up to aid those who lost everything. In many instances, social media has been utilized to help get the word out to folks as to where the need for help is greatest. In my town, the messages were posted later in the day of what was forecast to be required. One day it was a clothing drive and bottled water collection and the next it was help with obtaining food to supply the local soup kitchen that was now serving two meals a day to those who lost their homes or simply had no power or heat. What I'm getting at is you don't have to go out and help re-build a house...there are many opportunities to go out and help your fellow New Jerseyans in their time of need...check local papers or websites and give back to your community and your state.

Be safe and hope to see you at the meeting.

Jim

## 2012—2013 Presidential Award of Excellence (PAOE) Summary

Chapter Members	Member Promotion	Student Activities	Research Promotion	History	Chapter Operations	CTTC	NJ Chapter PAOE Point Total
-	Min = 500	Min = 300	Min = 800	Min = 100	Min = 400	Min = 450	-
-	Par = 800	Par = 500	Par = 1,050	Par = 300	Par = 1,000	Par = 1,050	-
695	0	0	215	0	205	100	520

Speaker Bio: Hank Jackson, P.E.

ETech Solutions

Weaverville, NC

Presentation Title: BEAM ME UP, SCOTTIE! Transport Energy: Motors, Fans, and Pumps

Hank Jackson, owner and principal of ETech Solutions, has provided technical training and consulting services in the energy efficiency marketplace since 1979. He holds a Bachelor of Aerospace Engineering (1974) and a Master of Science in Aerospace Engineering (1978), both from the Georgia Institute of Technology, Atlanta, Georgia. Originally registered in Georgia, Mr. Jackson currently practices in North Carolina.

Mr. Jackson served as director of the Georgia Industrial Energy Extension Service program at the Georgia Institute of Technology prior to entering a private consulting practice. During a five year hiatus from consulting (1999 - 2005), he was department chair of Mechanical Engineering Technology at Asheville-Buncombe Technical Community College in Asheville, North Carolina.

Mr. Jackson specializes in energy management consulting and custom design of energy-efficient mechanical systems for residential, commercial, and industrial buildings. He has provided training for numerous public electric and natural gas utilities, including Georgia Power, Midwest Gas, Pacific Gas and Electric, Southern California Edison, and Niagara Mohawk Power. He has also traveled abroad to Jamaica and Central America to conduct energy audits and to provide technical training, including a lecture series in Spanish.

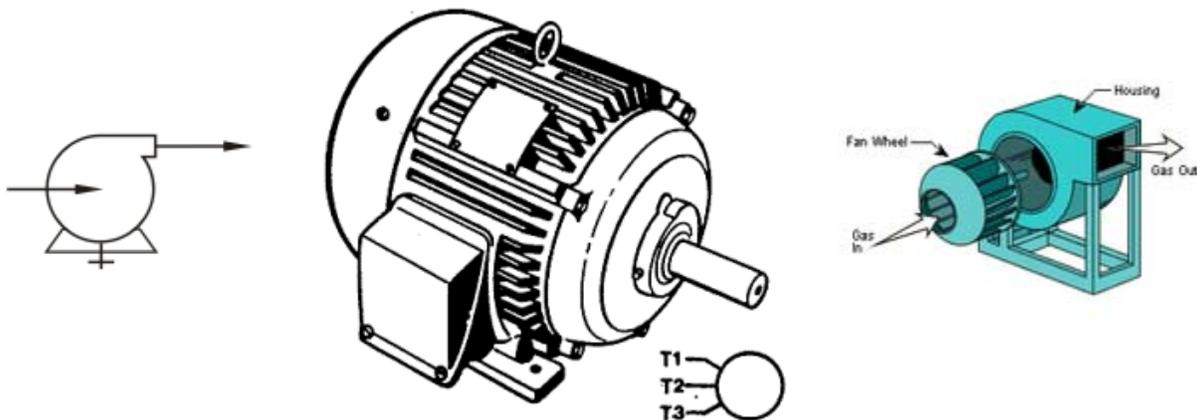
Mr. Jackson is a member of ASHRAE and the Geothermal Heat Pump Consortium.

#### BEAM ME UP, SCOTTIE! Transport Energy: Motors, Fans, and Pumps

Significant power and energy is expended transporting water and air through buildings and process systems.

In this workshop, participants will learn how to evaluate motor loads due to pumps and fans, how to determine motor energy usage, and how variable speed drives function and how they can be applied to save energy.

Through sample application problems, the attendees will be asked to evaluate the potential for energy savings using variable speed drives, low-slip drive belts and pulleys, and through proper motor sizing.





## Calendar of Upcoming Meetings/Events



Date	Speaker	Topic	Theme
October 2, 2012	Jerry Sipes, PE Price Industries	ASHRAE Standard 170 Pertaining To Patient Rooms Using Displacement Ventilation or Chilled Beams	Welcome Back
November 13, 2012	Hank Jackson, PE ETech Solutions	Beam Me Up Scottie! Transport Energy; Motors, Fans & Pumps	-
December 4, 2012	Tyler Malm Trane North Jersey	Fundamentals of Psychrometrics	Past President's Night And Back To Basics Night
January 9, 2013	Anirban Basu Sage Policy Group	Economic Policy	Joint Meeting With NJ ASPE & NJ MCA
February 5, 2013	Jeff Barat D&B Engineering	High Performance Chilled Water Systems	Research Promotion Night
March 5, 2013	Nick Gmitter DLB Associates	Energy Modeling Of Existing Buildings	Membership & History Night
April 2, 2013	Ben Mueller Ostergaard Acoustical Associates	Noise Complaint Case Study	Student & YEA Night
May 7, 2013	James Trainor JCI	The Benefits Of Using Variable Speed Drives In Central Plants With Multiple Chillers	Installation of New Officers & Scholarship Award
June 2013	Summer Social	To Be Determined	Spouse's Night

## ASHRAE Region I 2012-13 Executive Committee & Society

### DRC – Director & Regional Chair

Joseph L Furman  
Automated Logic  
16 Country Way  
Wallingford, CT 06492-5356  
W: (203)678-2208  
[joe.furman@automatedlogic.com](mailto:joe.furman@automatedlogic.com)

### ARC – Assistant Regional Chair & Treasurer

Spencer Morasch  
Jersey Central Power & Light  
331 Newman Springs Rd  
Bldg. 3 Suite 325  
Red Bank, NJ 07701-5688  
W: (732)212-4133  
[smorasch@firstenergycorp.com](mailto:smorasch@firstenergycorp.com)

### Nominating Committee Member

Emery Otruba, P.E.  
Evergreen Engineering  
262 Johnson Hill Rd  
Hoosick Falls, NY 12090-4615  
W: (518)225-2771  
[eotruba@verizon.net](mailto:eotruba@verizon.net)

### Nominating Committee Alternate

Russell J Stuber  
U & S Services Inc  
233 Fillmore Ave Ste 11  
Tonawanda, NY 14150-2316  
W: (716)693-4490  
[stuberr@usservicesinc.com](mailto:stuberr@usservicesinc.com)

### Nominating Committee 2<sup>nd</sup> Alternate

Darcy A Carbone  
Stebbins-Duffy, Inc.  
6 Damon Rd  
Medford, MA 02155-2903  
W: (617)957-2567  
[dcarbone@stebbinsduffy.com](mailto:dcarbone@stebbinsduffy.com)

### RVC Membership Promotion

Richard E Vehlouw, PE  
NYS OGS BU1  
33Rd Fl Corning Tower  
Albany, NY 12242-0001  
W: (518)474-2471  
[Rev1969@gmail.com](mailto:Rev1969@gmail.com)

### RVC Research Promotion

Chris Phelan  
Thermco  
228 Scoles Ave  
Clifton, NJ 07012  
W: (617)957-2567  
[chrishphelan@thermcoreps.com](mailto:chrishphelan@thermcoreps.com)

### RVC Chapter Technology Transfer

Alexander Weiss, PE  
8 Bergen Beach Pl  
Brooklyn, NY 11234-5743  
W: (718)251-1154  
[weisseng@gmail.com](mailto:weisseng@gmail.com)

### RVC Student Activities

Om Taneja, PhD, Dr.  
USDSA  
79 Summit Dr  
Basking Ridge, NJ 07920-1960  
W: (212)264-4465  
[om.taneja@gsa.gov](mailto:om.taneja@gsa.gov)

### Regional Chapter Programs Chair

Peter Oppelt  
R.F. Peck Co.  
191 Moorland Rd  
Rochester, NY 14612-3421  
W: (585)227-1720  
[poppelt@rfpeck.com](mailto:poppelt@rfpeck.com)

### Regional Refrigeration Chair

Mark Cambria, PE  
M/E Engineering, PC.  
433 State Street, Suite 410  
Schenectady, NY 12305  
(W) 518.533.2171  
[mcambria@meengineering.com](mailto:mcambria@meengineering.com)

### Regional Historian

Alexander Weiss, PE  
8 Bergen Beach Pl  
Brooklyn, NY 11234-5743  
W: (718)251-1154  
[weisseng@gmail.com](mailto:weisseng@gmail.com)

### Regional Electronics Communication Committee Chair & Newsletter Judge

Heather L. Platt, P.E.  
SCMC, LLC.  
PO Box 1031  
Niagara Falls, NY 14304  
W: (716)255-1462  
[HPlatt@SenecaCM.com](mailto:HPlatt@SenecaCM.com)

### Regional Electronics Communication Committee Alternate

Kevin Gallen, P.E.  
Gallen Engineering, PC  
W: ( ) -

### Regional Representative

Garry N. Myers  
WSP Flack + Kurtz  
73 Bonnie Way  
Allendale, NJ 07401-1127  
W: (212)951-2815  
[Garry.Myers@wspfk.com](mailto:Garry.Myers@wspfk.com)

### Regional Young Engineers in ASHRAE

Cara S Martin  
Novus Engineering  
25 Delaware Ave.  
Delmar, New York 12054  
W: (518)439-8235  
[cmartin@novusengineering.com](mailto:cmartin@novusengineering.com)

### Director of Member Services

Carolyn Kettering  
ASHRAE  
1791 Tullie Circle, N.E.  
Atlanta, GA 30329  
404.636.8400  
[ckettering@ashrae.org](mailto:ckettering@ashrae.org)

### Director of Communications and Publications

Jodi Scott  
ASHRAE  
1791 Tullie Circle, N.E.  
Atlanta, GA 30329  
404.636.8400  
[jdunlop@ashrae.org](mailto:jdunlop@ashrae.org)

## Students Read Up on Their Practical Design Knowledge to Win ASHRAE Design Competition

ATLANTA—ASHRAE's 2012 Student Design Competition had participants staying up late and doing their research of HVAC&R system selection and design calculations as well as integrated building design to encourage practical design.

This year's competition featured a mock design of the newly constructed Joe and Rika Mansueto Library located in Chicago, Ill. The library consists of a glass dome covering 15,000 square feet of usable area on the ground floor, half of which is dedicated to a reading area and half to a preservation laboratory. The lower level of the building consists of a large warehouse for archived publications and materials.

Among the entries from around the world, three were awarded first place in the three categories that the competition offers.

First place in HVAC System Design Calculations is awarded to John Bisacquino, Josh Dennis and Travis Westover of Temple University, Philadelphia, Pa. Their faculty advisor is Steven Ridenour, Ph.D., P.E.

The team chose a ground source heat pump system to generate hot and chilled water for the entire building. In order to eliminate the necessity of a cooling tower, a ground source water loop rejects heat to the earth in the cooling mode and absorbs heat in the heating mode. Ground source heat pumps have a lower operating and maintenance cost and analysis showed any additional cost of installation would be covered in as little as 10 years.

For the interior rooms on the ground floor, packaged water to air heat pumps were specified, which can be incorporated in spaces with smaller heating and cooling load requirements. For the larger areas of the ground floor (grand reading room, etc.), air handling units with water to water heat pumps will be installed to meet the larger capacities required for heating and cooling. Water to water heat pumps generate hot and chilled water, while the air handling unit filters and supplies the conditioned air to the space.

In order to maintain strict temperature and humidity levels in the basement storage area, a constant air volume with system will be installed. Due to the high volume of books being stored in the basement, the air must circulate continuously to maintain the target temperature and humidity levels specified by the owner. Since strict humidity levels are desired, a desiccant dehumidifying system was designed.

First place in HVAC System Selection is awarded to Alaina Booth, Adam Buck, Jami Harper, John May and Patrick MacBride of the University of Nebraska-Lincoln, Nebraska. Their faculty advisor is Joe Hazel, P.E., ASHRAE-Certified Healthcare Facility Design Professional.

After analyzing three system designs for the library, the team selected a ground coupled heat exchanger (GCHE) to serve a modular packaged heat recovery chiller system with variable air volume air handling units for the upper level of the library, and constant air volume air handling units for the periphery of the upper level and the lower level archive area.

The GCHE consists of a geothermal loopfield that transfers heat as needed for the primary system; the loops converge at the packaged heat recovery chiller to transfer energy to and from the field to the building systems. The air handling units for the upper level serve both terminal boxes in office areas, and a displacement ventilation system in the open areas of the library. The constant volume air handling unit serving the archive area includes a dual energy recovery unit to tightly control humidity. In order to better serve the high ceiling space, two air circulation units are placed at either end of the archive area so that stratification cannot occur.

The selected system shows a 73 percent improvement in energy efficiency compared to the ASHRAE Standard 90.1 baseline building model and is projected to reduce operating costs approximately \$1.35 million over 20 years.

First place in Integrated Sustainable Building Design is awarded to Dustin Altschul, Prathamesh Chakradeo, Ravik Chandra, Saikrishna Ganesan, Timothy Hertel, Varun Krishnan and Charles Stratton of the University of Cincinnati, Cincinnati, Ohio. Their advisor is Raj M. Manglik, Ph.D.

To meet the electrical demand of the building, the students decided that photovoltaic glass would be used on the dome of the library. Daylighting also played a large role in the students' design, and window glazing was selected to offer a balance between solar heat gain and visible transmittance.

Due to the specific humidity requirements of the archives of the library, the team determined that two individual air distribution systems were necessary, which ultimately allowed for more control and energy operating costs savings. Geothermal heating was selected as the central heating system, which requires little maintenance and has a low operating cost.

## Students Read Up on Their Practical Design Knowledge to Win ASHRAE Design Competition (continued)

Additionally, exterior insulated concrete walls, which allow for no air infiltration, minimize noise and the transference of heat and cold and a switch to dual flush toilets, along with rainwater harvesting, will reduce water consumption by 22 percent.

The competition recognizes outstanding student design projects, encourages undergraduate students to become involved in the profession, promotes teamwork and allows students to apply their knowledge of practical design.

The projects are shared at the 2013 Winter Conference in Dallas, Texas Jan. 26-30.

## Groundbreaking Information for Data Center Energy Efficiency Guidance ASHRAE Releases Third Edition of Thermal Guidelines for Data Processing Environments

ATLANTA - Four new data center classes that can enable fulltime economizers for a number of applications in many climates are contained in the latest edition of the principal book in the ASHRAE Datacom Series of publications.

Since its first edition in 2004, ASHRAE's "Thermal Guidelines for Data Processing Environments," published by ASHRAE's Technical Committee (TC) 9.9, Mission Critical Facilities, Technology Spaces and Electronic Equipment, has become the de-facto reference material for unbiased and vendor-neutral information on the design and operational parameters for the entire datacom (data centers and telecommunications) industry.

Based on the latest information from major IT equipment manufacturers, which are an integral part of the committee, it has never been easier to obtain the most meaningful data to guide data center designers and operations staff to design and run their facilities in the most energy efficient manner possible, including how to operate in a completely "chillerless" environment. Further, the guidance enables a more energy efficient operation without compromising the reliability or "mission" of the data center.

"This third edition creates more opportunities to reduce energy and water consumption but it is important to provide this information in a manner that empowers the ultimate decision makers with regards to their overall strategy and approach," Don Beaty, chair of the Publications Subcommittee of TC 9.9, said. "The idea is to provide objective data, methodology and guidance, but at the same time, respect the right of the data center designers, owners and operators to optimize the operating environment of their data center based on the criteria most important to their business needs."

Highlights in this third edition include new air and liquid equipment classes and expanded thermal envelopes for facilities that are willing to explore the tradeoffs associated with the additional energy saving of the cooling system through increased economizer usage and what that means in terms of the impact to IT equipment attributes such as reliability, internal energy, cost, performance, contamination, etc.

"The most valuable update to this edition is the inclusion of IT equipment failure rate estimates based on inlet air temperature," Beaty said. "These server failure rates are the result of the major IT original equipment manufacturers (OEM) evaluating field data, such as warranty returns, as well as component reliability data. This data will allow data center operators to weigh the potential reliability consequences of operating in various environmental conditions vs. the cost and energy consequences."

The book is part of the ASHRAE Datacom Series, developed to provide a more comprehensive treatment of datacom cooling and related subjects. Other books in the series are "Green Tips for Data Centers," "Particulate and Gaseous Contamination in Datacom Environments," "High Density Data Centers - Case Studies and Best Practices," "Design Considerations for Datacom Equipment Centers," "Best Practices for Datacom Facility Energy Efficiency," "Datacom Power Trends and Cooling Applications," "Real-Time Energy Consumption Measurements in Data Centers," "Liquid Cooling Guidelines for Datacom Equipment Centers" and "Structural and Vibration Guidelines for Datacom Equipment Centers."

The cost of "Thermal Guidelines for Data Processing Environments, Third Edition," is \$54 (\$46, ASHRAE members). To order, contact ASHRAE Customer Contact Center at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), fax 404-321-5478, or visit [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore).

## ASHRAE Brings Technology, People Power in Support of Engineering for Change

ATLANTA - ASHRAE has joined forces with an international engineering program to encourage its members to use their knowledge and technology to meet humanitarian challenges across the globe.

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.”

“We are delighted to welcome ASHRAE to the E4C coalition,” Noha El-Ghobashy, president of Engineering for Change, said. “ASHRAE’s longstanding commitment to the promotion of engineering excellence in the service of sustainability and humanity makes it a natural ally for the work of the E4C coalition. We look forward to working together with ASHRAE and its distinguished membership for years to come.”

The initiative is part of Watson’s presidential theme Broadening ASHRAE’s Horizons, which emphasizes the role of ASHRAE members as leaders in the application of sustainable design and practices in our communities worldwide.

Under E4C ([www.ashrae.org/e4c](http://www.ashrae.org/e4c)), ASHRAE members can get involved with existing projects or start new ones. Watson noted that there is a wide range of projects - from refrigeration to hospitals to indoor air quality - to which members could contribute their technical expertise.

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.

## Cold Climate HVAC Conference Advances Building Research and Design

ATLANTA – Papers providing an international perspective on the current state of design and practice of buildings in cold climates will be presented at the 7th International Cold Climate HVAC Conference, Nov. 12-14, 2012, in Calgary, Alberta, Canada.

ASHRAE is hosting and organizing the conference with support from the Federation of European Heating and Air Conditioning Associations (REHVA), a co-sponsor, and the Scandinavian Federation of Heating, Ventilation and Sanitary Engineering Associations (SCANVAC), the conference originator. This is the first time the conference is being held in North America.

The conference features keynote speakers, technical tours and social programs, and a technical program with some 55 papers organized on the following topics: Building Envelope, Ventilation Applications, Vacuum Insulation Panels and Phase Change Materials, Air Cleaning Technologies, Ventilation and IAQ, Codes and Standards, HVAC Systems and Equipment, Big Building Applications, Wind, Stack and Envelope Airtightness, and Alternate Energy Sources and Generation.

The papers cover a number of different applications, including office buildings, hospitals, laboratories, shopping malls, oil and gas facilities, supermarkets, schools and houses and present practices in Sweden, China, Canada, Russia, Greenland and South Korea, among other countries.

Similarly, the range of papers address moisture conditions in exterior walls; exterior insulation envelope retrofits in sub-arctic environments; field studies of displacement ventilation in Canadian schools; energy performance and IAQ in Greenland; run-around energy recovery systems in cold climate zones; case study of typical Canadian high arctic construction; energy derived from wastewater; new approach to mechanical insulation; integration of energy efficient technologies in arctic communities; high performance laboratory design for sub-arctic conditions; solar-assisted heat pump system; cogeneration with absorption heat pump for district heating; and a 600 Kw bio-mass power plant.

The conference concludes with a planning session seeking attendees’ comments and insight on the development of a new ASHRAE Cold Climate Design Guide.

To register or for more information, go to [www.ashrae.org/ColdClimate](http://www.ashrae.org/ColdClimate).

## ASHRAE, AHR Expo Return to Dallas, Texas for 2013 Winter Conference

ATLANTA— Deep in the heart of Texas, where the stars at night are big and bright, ASHRAE is convening for its 2013 Winter Conference to corral energy use and blaze the way in high performing building design.

The 2013 Winter Conference takes place Jan. 26-30 at the Sheraton Dallas. To register and for complete Conference information, visit [www.ashrae.org/dallas](http://www.ashrae.org/dallas).

The International Air-Conditioning, Heating, Refrigerating Expo®, held in conjunction with the Winter Conference, will run Jan. 28-30. The Expo, [www.ahrexpo.com](http://www.ahrexpo.com), is held at the Dallas Convention Center.

In keeping with ASHRAE's goal of continuing education the Conference offers some 200 Professional Development Hours, as well as Continuing Education Units, which can be applied toward a professional engineering license.

The technical program features more than 200 sessions addressing energy conservation; facility management: operations, technology and energy improvements; large building design; standards, guidelines and codes; HVAC&R systems and equipment; HVAC&R fundamentals and applications; and refrigeration. One particular track of note is Industrial and Transportation Ventilation, focusing on the industrial and manufacturing sector prevalent in Texas. The full Technical Program offers the opportunity to earn a year's worth of PDHs, NY PDHs, AIA LUs and LEED AP credits and runs Jan. 27-30.

Five Professional Development Seminars and 15 Short Courses are offered to help industry professionals stay current on HVAC technology, including how to apply the newest ASHRAE standards. The ASHRAE Learning Institute (ALI) is offering five new half-day short courses on everything from the basics of laboratory design to techniques for optimizing HVAC systems and components. The full-day professional development seminars focus on the commissioning process; data center energy efficiency; healthcare facilities; complying with Standard 90.1-2010 and energy modeling best practices. ALI courses are approved for renewal of professional engineer and professional architect licenses, as well as for industry certification programs. [www.ashrae.org/Dallascourses](http://www.ashrae.org/Dallascourses).

The Conference's Plenary will feature former Pittsburgh Steelers quarterback Rocky Bleier. Despite being wounded in both legs during the Vietnam War, he embarked on a two-year road to recovery, and eventually pressed on to become one of the Steelers' top leading ground-gainers, passing the 1,000-yard rushing mark in one season, and contributing to four Super Bowl victories. Bleier's speech, "Be the Best You Can Be," motivates audiences to keep on striving for greater accomplishments. He shares his remarkable story during the Plenary, 3:15 p.m., Saturday, Jan. 26.

Additionally, ASHRAE offers a special administration of all six certification examinations on Wednesday Jan. 30: Building Energy Assessment Professional (BEAP), Building Energy Modeling Professional (BEMP), Commissioning Process Management Professional (CPMP), High-Performance Building Design Professional (HBDP), Healthcare Facility Design Professional (HFDP) and Operations & Performance Management Professional (OPMP). ASHRAE's certification program recognizes industry professionals who have mastered knowledge and skills reflecting best practices in certain aspects of building design and operations. More information on each certification can be found at [www.ashrae.org/certification](http://www.ashrae.org/certification).

ASHRAE Conference technical tours give you a first-hand look at technology developed by members to further the industry. Tours include the Southern Methodist University, the Baylor Charles A. Sammons Cancer Center and Cowboys Stadium.

## Additional Compliance Path Proposed for ASHRAE/IES Energy Standard

ATLANTA - A proposed optional third path for compliance with the ASHRAE/IES energy standard would provide more flexibility for the industry.

Addendum bm to ANSI/ASHRAE/IES (Illuminating Engineering Society) Standard 90.1-2010, Energy Standard for Buildings Except Low-Rise Residential Buildings, is currently open for public review from Oct. 12 until Nov. 26, 2012. For more information, visit [www.ashrae.org/publicreviews](http://www.ashrae.org/publicreviews).

The proposed addendum would add a compliance path to Standard 90.1 to allow modeling in accordance with Appendix G (Performance Rating Method), provided the percentage improvement of at least 45 percent over a baseline design. In addition, this addendum proposes to make the baseline consistent with the prescriptive requirements of 90.1-2004, and it will remain that way in future versions of the standard.

The current paths in the standard - the Energy Cost Budget method and the Performance Rating Method - can lead to different modeling protocols for different functions, according to Michael Rosenberg, a member of the Standard 90.1 committee. All require slightly different rules, and a single project could require two or more different baselines.

“By allowing an additional compliance option, the standard provides more credit for integrated design resulting in energy savings such as efficient use of building mass, optimized building orientation, efficient HVAC&R system selection and right sizing of HVAC&R equipment,” Rosenberg said.

The baseline could stay the same for beyond code programs as well such as the U.S. Green Building Council’s (USGBC) Leadership in Energy and Environmental Design (LEED®) rating program, ANSI/ASHRAE/USGBC/IES Standard 189.1, Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings, and the federal tax incentive programs. Each simply chooses their own “% better than” target, according to Rosenberg.

“In addition, the performance path will no longer lag behind the prescriptive path as in the past it was not possible to incorporate prescriptive changes that occurred near publication date into the performance path ,” he said. “It also allows for a deliberate and consistent trend for energy reduction in each version of the standard, instead of just following the prescriptive path.

## *ASHRAE Government Affairs Update*

### Licensure Concerns Hit Vermont

A few months ago, then-ASHRAE President Ron Jarnagin issued a call for information and coordination of action by the regions and U.S. chapters on the “master’s-or-equivalent” (MOE [sometimes called “bachelor’s-plus-30”]) issue, which entails requiring all those sitting for the PE exam to have at least a master’s degree or its equivalent.

In recent times, MOE has reared its ugly head in several state and ASHRAE - along with partnering engineering societies (collectively, the Licensing that Works [LTW] Coalition) - is trying to stem the tide before such proposals become the rule rather than the exception.

The newest battleground appears to be Vermont. A new member of the Board of Professional Engineering is a vocal advocate for MOE. He has already coordinated a presentation on the issue through his affiliations with ASCE and NSPE, the most prominent supporters of MOE. Now, the time has come for the other side of the story to be told.

On October 4, the Board met and during this meeting, ASHRAE Presidential Member Dick Hayter and a representative from ASME (our primary partner in the LTW Coalition) presented on this issue to the Board via webinar. Also, current ASHRAE President Tom Watson and ASME President Marc Goldsmith signed and sent to Board members a letter encouraging opposition to any future discussion and, surely, approval of MOE regulations.

As has been previously reported, this issue will undoubtedly be a top priority issue for the inaugural iteration of the Grassroots Government Activities Committee (GGAC), which will commence activities in Society Year 2013-14. The GGAC will be the primary body within ASHRAE coordinating greater engagement of members and chapters Society-wide with governments, as well as act as a clearinghouse for all things grassroots advocacy-wise.

Look for a report on this hearing in the October 19th edition of the *Update*.

### Senate Passes Energy Efficiency Bill, Encouraging Advanced Metering and Data Management in Federal Buildings

The Senate unanimously passed the Enabling Energy Saving Innovations Act (H.R.4850). Originating in, and previously passed by the House, this bill was primarily aimed at changing energy efficiency requirements for walk-in cooler or freezer components that meet or exceed energy efficiency goals. The bill was subsequently amended in the Senate by U.S. Senator Jeanne Shaheen (D-NH), and now also addresses industrial energy efficiency and federal building energy efficiency. Specifically, the bill would encourage advanced metering, energy management, and data collection. Significantly, the bill would also allow the U.S. General Services Administration (GSA) to update projects for which design is substantially completed but construction has not yet begun, to meet federal building energy efficiency standards (e.g., ASHRAE Standard 90.1-2010). This would help reduce the number of federal buildings built to out-of-date standards.

Because the bill was amended it must be passed by the House again before going to the President and possibly becoming law. The next opportunity for this to happen is when Congress returns in November from its election season recess.

## *ASHRAE Government Affairs Update*

### Life-Cycle Cost and Commissioning Requirements for Federal Buildings Gain Support in the U.S. House

Efforts to promote life-cycle cost considerations and building commissioning gained an important victory when a subcommittee of the House Transportation and Infrastructure Committee approved two amendments to the Public Buildings Reform Act (H.R.6430).

Offered by U.S. Representative Russ Carnahan (D-MO), the two amendments were drawn from the Congressman's High-Performance Federal Buildings Act (H.R.3371). One of the amendments would require GSA to consider life-cycle costs during the design of buildings for structures whose estimated construction costs top \$1 million, and where the federal government is paying more than half of the construction expenses. Under the bill, life-cycle costs would include the sum of investment, capital, installation, energy, operating, maintenance, and replacement expenses over the greater of either 50 years or the projected use period of the building. The amendment would also require GSA to report on life-cycle cost savings for buildings that GSA acquires or leases.

Mr. Carnahan's other amendment would require GSA to issue regulations that establish federal building commissioning standards that are modeled on existing private sector standards and guidelines, which could include ASHRAE Guideline 0 - The Commissioning Process. Buildings that GSA constructs or alters would be required to meet the commissioning standards GSA issues.

While these victories should be celebrated, the future of the Public Buildings Reform Act, which now includes Mr. Carnahan's amendments, remains uncertain, as the bill still faces approval from the full Transportation and Infrastructure Committee before being considered on the House floor for passage, and would then need to overcome similar hurdles in the Senate. Given the congested post-election Congressional agenda, hope for this bill may indeed be slim, though still present, as these issue have bipartisan support.

### October is National Energy Action Month!

It's never a bad idea to encourage energy efficiency - and there are often added economic, social, and safety benefits that flow from the smart use of resources. With this in mind, President Barack Obama recently issued a proclamation declaring October 2012 as National Energy Action Month.

To read the proclamation, visit <http://www.whitehouse.gov/the-press-office/2012/10/01/presidential-proclamation-national-energy-action-month-2012>.

### USGBC Now Accepting Comments on LEED v4

The U.S. Green Building Council (USGBC) has opened its fifth public comment period on the next version of its Leadership in Energy and Environmental Design (LEED) green building program. The comment period closes on Monday, December 10<sup>th</sup>. A robust dialogue on LEED has been ongoing between USGBC and members of the building community, and the results of this discussion, and the final version of this program will have a significant impact on the built environment for years to come.

To find out more information and join the conversation on LEED v4, visit <https://new.usgbc.org/leed/v4/#comment>.

## *ASHRAE Government Affairs Update*

### ASHRAE Senior Officers Meet with Government, Nonprofit Leaders in Washington, DC

In early October, ASHRAE's President, President-Elect, Treasurer, and Executive Vice President met with several technical society and federal government leaders as part of their annual fall sojourn to Washington, DC to discuss strategic priorities, explore new opportunities, and help keep relationships warm and productive. Agencies and organizations met with included:

- Alliance to Save Energy
- National Association of Energy Officials
- National Institute of Building Sciences
- Sheet Metal and Air Conditioning Contractors' National Association
- Science, Technology, Engineering, and Mathematics (STEM) Education Coalition
- U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy
- U.S. Environmental Protection Agency
- U.S. General Services Administration

Advertise with NJ ASHRAE  
**Advertise with NJ ASHRAE**

### Advertising Rates

#### Newsletter Ad Includes:

- ◆ Business Card ad in 3 Newsletters (next newsletter is November), will be published the end of the month)

*COST:* \$75

#### Website Ad Includes:

- ◆ Business card ad on website for 1 year (starts month payment and business card are received)
- ◆ Link to your website

*COST:* \$300

#### Newsletter and Website Includes:

- ◆ Business card ad in newsletters through June 2013
- ◆ Business card ad on website for 1 year
- ◆ Link to your website

*COST:* \$350