



Upcoming Events

- **March 14th** -
Joint meeting with
Lower Hudson Valley AIA
- **April 11th** -
Save the date
- **May 9th** -
Save the date
- **June 13th** -
Golf Outing

Inside this issue:

President's Message	2
Officers and Governors Directory	4
Region I Executive Committee	5
Employment Ads & Sponsorship	7
Next Meeting Information	8

Meeting Wednesday February 8, 2012

Presentation: Analysis of Bills by James Coyle of ARCADIS

A complete analysis of a facility's energy bills requires a detailed knowledge of the rate structures in effect for the facility. To determine accurate costs of operating individual pieces of equipment, separate energy bills into their components. E.g. demand charge and energy charges for the electric bill. This breakdown also allows more accurate savings calculations for Energy Management Opportunities (EMOs) such as high-efficiency equipment, rescheduling of some on-peak electrical uses, etc.

Place: Casa Rina, 886 Commerce Street, Thornwood, NY 10592

Program: 5:30 - 6:00 PM Attitude Adjustment Time
6:00 - 7:30 PM Buffet Dinner
7:30 - 8:30 PM Main Presentation

\$25 Members, \$30 Non-Members

Engineering students: complimentary admission

The general public is invited and encouraged to attend.

Directions to Casa Rina

From Saw Mill Parkway - North or South
Exit at Marble Avenue - Exit # 27
Make right - continue to second traffic light
Make right onto Commerce Street
Casa Rina is the second house on your left.
Parking is on your right.

Please make reservations by contacting:

Nicholas Salomone ashraebistate@gmail.com

President's Message

By Nicholas Salomone

I would like to thank everyone who came out for January's meeting to start off the New Year. The February meeting will change the pace of the normal MEP focus to utility bill analysis. The March meeting will be a joint venture between the Lower Hudson Valley AIA and ASHRAE Bi-State, so stay tuned for more details! The end of the year will be approaching fast, so be sure to look for Golf Outing details and scholarship recipient awards.

Nicholas Salomone
Bi-State Chapter President

2011 Version of Green Standard Now Available from ASHRAE, USGBC, IES

Changes to help make buildings and systems more sustainable are part of the newly published version of the high performance green building standard from ASHRAE, the U.S. Green Building Council (USGBC) and the Illuminating Engineering Society (IES). ANSI/ASHRAE/USGBC/IES Standard 189.1-2011, Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings, provides a green building foundation for those who strive to design, build and operate high performance buildings. It covers key topic areas of site sustainability, water-use efficiency, energy efficiency, indoor environmental quality and the building's impact on the atmosphere, materials and resources. When first introduced in 2009, the standard was the first code-intended commercial green building standard in the United States.

"Since Standard 189.1 was first published, we have received much input from the industry offering suggestions on how to strengthen it in all areas," chair Dennis Stanke said. "This 2011 version incorporates much of that input. More importantly, the 2011 version incorporates updated connections to its referenced standards – primarily ANSI/ASHRAE/IES 90.1-2010 and ANSI/ASHRAE 62.1-2010. Compliance with these updated provisions will result in further improvements to indoor environmental quality, while further reducing energy use and environmental impact through high-performance building design, construction and operation."

The most significant change in energy-related provisions results from new requirements in ANSI/ASHRAE/IES Standard 90.1-2010, Energy Standard for Buildings Except Low-Rise Residential Buildings, adding to and superseding requirements in the 2007 version. In October 2011, the U.S. Department of Energy found that the 2010 version of Standard 90.1 contains significant energy savings over the 2007 standard. The energy savings in the Standard 90.1-2010 provisions also result in energy savings for building projects complying with Standard 189.1, according to Stanke.

In addition, mandatory and prescriptive renewable energy requirements were clarified to reduce confusion and simplify calculations; now both mandatory provisions to prepare for on-site renewable energy and provisions to produce prescribed levels of renewable energy must be met. Additionally, buildings that meet the prescriptive requirement for renewable energy production are now deemed to comply with the mandatory requirement for renewable energy site-preparation.

The standard also updates the performance option for energy efficiency (Appendix D) so that it refers to Appendix G of Standard 90.1-2010, which is now a normative appendix. Appendix G of 90.1 applies to projects seeking to reduce annual energy cost more than would be possible by merely meeting the requirements of that standard. Appendix D in Standard 189.1, on the other hand, provides a performance option for compliance as an alternative to the less-complex prescriptive option; it must show that the project design results in annual energy cost equal to or less than would be possible by meeting the mandatory plus prescriptive requirements of the standard, according to Stanke.

Additional changes to the 2011 standard include:

- More stringent Lighting Power Density allowances due to the change in reference to Standard 90.1-2010. Both interior and exterior values are now set as a percentage of the Standard 90.1 allowances, based on building, space or area type.
- Automatic controls are now required for lighted signs visible during daytime hours; controls must reduce the lighting power to 35 percent of full power. For other outdoor signs, automatic controls must now turn off lighting during daytime hours and reduce the lighting power to 70 percent of full power after midnight.
- Open-graded (uniformed size) aggregate and porous pavers (e.g., open-grid pavers) qualify as a hardscape surface for heat island mitigation with no further testing. Permeable pavement and permeable pavers must meet a minimum percolation rate rather than a minimum solar reflectance index (SRI).

Standard 189.1 is currently a jurisdictional compliance option in the International Green Construction Code developed by the International Code Council, ASTM International and the American Institute of Architects.

ASHRAE Recognizes Outstanding HVAC&R Industry Achievements

Thirty-six people were recognized by ASHRAE for their contributions to the Society and the building industry at the Society's 2012 Winter Conference held in Chicago recently.

The Hall of Fame honors deceased members of the Society who have made milestone contributions to the growth of HVAC&R technology. The recipient is Presidential Member Roderick Kirkwood, Fellow ASHRAE, Life Member.

Fellow ASHRAE is a membership grade that recognizes distinction in the arts and sciences of environmental technology and is earned through achievement as a researcher, designer, educator or engineering executive. The Society elevated 13 members to the grade of Fellow ASHRAE:

- Constantinos Balaras is research director, Institute for Environmental Research and Sustainable Development, National Observatory of Athens, Greece.
- Van Baxter is senior research and development engineer, Oak Ridge National Laboratory, Oak Ridge, Tenn.
- Vin Gupta is senior principal engineer, 3M Company, St. Paul, Minn.
- Mark Modera is professor, civil environmental engineering, mechanical and aerospace engineering, and director, Western Cooling Efficiency Center, University of California at Davis.
- Darin Nutter is associate professor of mechanical engineering, University of Arkansas, Fayetteville.
- Tom Phoenix is principal and vice president, Moser Mayer Phoenix Associates, Greensboro, N.C.
- Arshad Sheikh is owner/principal consultant, SES Consulting Engineers, Lahore, Pakistan.
- Edward Vineyard is group leader, building equipment research, Oak Ridge National Laboratory, Oak Ridge, Tenn.
- Iain Walker is scientist, Lawrence Berkeley National Laboratory, Berkeley, Calif.
- Brian Warwicker is consultant, Brian Warwicker Partnership, Ltd., London, U.K.
- Bill Worek is professor and director, Energy Technology Laboratory, University of Illinois-Chicago
- Xudong Yang is Chang-Jiang professor and deputy director, Institute of Built Environment, School of Architecture, Tsinghua University, Beijing, China
- Jianshun Zhang is professor and director, building energy and environmental systems lab, department of mechanical engineering and aerospace engineering, Syracuse University, Syracuse, N.Y.

The ASHRAE Technology Awards recognize outstanding achievements by members who have successfully applied innovative building designs, which incorporate ASHRAE standards for effective energy management and indoor air quality. Six projects received first-place ASHRAE Technology Awards:

- Roland Charneau, P.Eng., ASHRAE Fellow, ASHRAE Certified Healthcare Facility Design Professional, Pageau Morel & Associates, Montreal, Quebec, Canada in the new commercial buildings category for Mountain Equipment Co-op, Longueuil, Quebec, Canada. The building is owned by the co-op
- Ken Sonmor, Ecovision Consulting, Montreal, Quebec, Canada in the existing commercial buildings category for the IKEA Brossard Distribution Center, Quebec, Canada. The building is owned by IKEA Distribution Services.
- René Dansereau, Dessau, Longueuil, Quebec, Canada the new educational facilities category for the Université de Sherbrooke—Campus de Longueuil, Quebec, Canada. The building is owned by the university.
- Paul Marmion, Stantec Consulting, Ltd., Vancouver, British Columbia, Canada in the new health care facilities category for Abbotsford Regional Hospital and Cancer Centre, British Columbia, Canada. The building is sponsored by Laing Investments Management Services and owned by the hospital.
- Blake Ellis, P.E., Burns & McDonnell, Kansas City, Mo. in the new industrial facilities or professes category for thermal energy storage at Texas Medical Center, Houston, Texas. The owner is Thermal Energy Corp.
- Luc Simard, Compressor Systems Control (CSC), Inc., Les Coteaux, Quebec, Canada in the existing industrial facilities or presses category for the Arena Marcel Dutil, St-Gédéon-de-Beauce, Quebec, Canada. The building is owned by the Municipalite St-Gédéon-de-Beauce.

Officers and Governors 2011—2012

Position	First Name	Last Name	Email	Phone	Fax
Officers					
President	Nicholas	Salomone	ashraebistate@gmail.com		
President-Elect	Carmen	Yellen	Carmen.Yellen@gmail.com		
Vice President	Erica	Ross	eross@balticare.net	(646) 380-9486	
Secretary	Carmen	Yellen	cbyellen@arbpe.com	(914) 238-5433 ext 122	(914) 238-4472
Treasurer	Dennis	LaVopa	dlavopa@dIFlowTech.com	(845) 265-2828	(845) 265-2745
Governors					
Past President/Delegate	Enzo	Carlesimo	ecarlesimo@collado-eng.com	(914) 332-7658	(914) 332-7659
BOG (term ends June 2014)	Steven	Abbattista	sabbattista@olace.com	(914) 747-2800	(914) 747-0453
BOG (term ends June 2014)	Cliff	Konitz	c.konitz@verizon.net	(845) 297-5864	(845) 297-5864
BOG (term ends June 2014)	Joseph	Trongone	jatrong@optonline.net	(914) 741-1290	
BOG (term ends June 2013)	Michael	Circosta	mjcarmonk@optonline.net		
BOG (term ends June 2013)	Albert	Collado	acollado@collado-eng.com	(914) 332-7658	(914) 332-7659
BOG (term ends June 2013)	Robert	Roston	bob@rostonfamily.com	(914) 761-3364	(914) 761-1811
BOG (term ends June 2012)	James	Dolan	jdolan@olace.com	(914) 747-2800	(914) 747-0453
BOG (term ends June 2012)	John	Fusco	jfusco@olace.com	(914) 747-2800	(914) 747-0453
BOG (term ends June 2012)	Lawrence	Sturgis	smacna.seny@verizon.net	(914) 592-1776	(914) 592-1904
Committee Chairs					
CTTC	Carmen	Yellen	Carmen.Yellen@gmail.com		
Research Promotion	Terry	Connor	Terry.Connor@jci.com	(914) 593-5223	(914) 593-5201
Student Activities	Carmen	Yellen	Carmen.Yellen@gmail.com		
TEGA	Lawrence	Sturgis	smacna.seny@verizon.net	(914) 592-1776	(914) 592-1904
Membership Promotion	Terry	Connor	Terry.Connor@jci.com	(914) 593-5223	(914) 593-5201
Refrigeration	John	Fusco	jfusco@olace.com	(914) 747-2800	(914) 747-0453
Webmaster	Cliff	Konitz	c.konitz@verizon.net	(845) 297-5864	(845) 297-5864
Newsletter Editor	Michael	Gordon	gordonm@emfcontrols.com	(914) 747-1007	(914) 747-1054
Historian	Robert	Roston	bob@rostonfamily.com	(914) 761-3364	(914) 761-1811
Reception	Joseph	Trongone	jatrong@optonline.net	(914) 526-3441	
Attendance	Cliff	Konitz	c.konitz@verizon.net	(845) 297-5864	(845) 297-5864
Golf	Steven	Abbattista	sabbattista@olace.com	(914) 747-2800	(914) 747-0453

Why Be Involved in a Local Chapter?

- Learn about the latest technologies presented in the program sessions
- Attain continuing education credits
- Meet industry associates and discuss local concerns
- Network amongst designers, installers, vendors, educators, in your local area to help improve business for all
- Share experiences with others
- Enjoy a social hour
- Carry out ASHRAE's mission on a local level

"To advance the arts and sciences of heating, ventilating, air conditioning and refrigerating to serve humanity and promote a sustainable world."

ASHRAE Region I Roster 2011-12 Executive Committee

DRC – Director & Regional Chair

Spencer Morasch
Jersey Central Power & Light
331 Newman Springs Road, Bldg. 3 Suite 325
Red Bank, NJ 07701 –5688
732-212-4133
smorasch@firstenergycorp.com

RVC Student Activities

Om Taneja, PhD, Dr.
USDSA
79 Summit Dr
Basking Ridge, NJ 07920-1960
212-264-4465
om.taneja@gsa.gov

ARC – Assistant Regional Chair & Treasurer

Joseph Furman
Automated Logic
16 Country Way
Wallingford, CT 06492-5356
203-678-2208
joe.furman@automatedlogic.com

Regional Chapter Programs Chair

Peter Oppelt
R.F. Peck Co.
191 Moorland Rd
Rochester, NY 14612-3421
585-227-1720
poppelt@rfpeck.com

Nominating Committee Member

Emery Otruba, P.E.
Evergreen Engineering
262 Johnson Hill Road
Hoosick Falls, NY 12090 –4615
518-225-2771
eotruba@verizon.net

Regional Refrigeration Chair

Steven D Friedman, PE, HFDP, LEED AP
AKF Engineers, PC.
330 West 42nd Street. 14th floor
New York, NY 10036
212-548-1412
sfriedman@AKFGroup.com

Nominating Committee Alternate

Russell J Stuber
U & S Services Inc
233 Fillmore Ave Ste 11
Tonawanda, NY 14150-2316
716-693-4490
stuberr@usservicesinc.com

Regional Historian

Alexander Weiss, PE

8 Bergen Beach Pl
Brooklyn, NY 11234-5743
718-251-1154
weisseng@gmail.com

RVC Membership Promotion

Richard E Vehlow, PE
NYS OGS BU1
33Rd Fl Corning Tower
Albany, NY 12242-0001
518.474.2471
Rev1969@gmail.com

Regional Electronics Comm. Chair & Newsletter Judge

Heather L. Nowakowski, P.E.
Roswell Park Cancer Institute
Elm & Carlton Streets
Buffalo, NY 14263
716-845-3521
heather.nowakowski@roswellpark.org

RVC Research Promotion

Darcy A Carbone
Stebbins-Duffy, Inc.
6 Damon Rd
Medford, MA 02155-2903
617-957-2567
dcarbone@stebbinsduffy.com

Director of Member Services

Carolyn Kettering
ASHRAE
1791 Tullie Circle, N.E.
Atlanta, GA 30329
404-636-8400
ckettering@ashrae.org

RVC Chapter Technology Transfer

Steven L Rosen
EYP
24 School St.
Boston, MA 02108-5113
617-305-9865
srosen@eypae.com

Director of Communications and Publications

Jodi Scott
ASHRAE
1791 Tullie Circle, N.E.
Atlanta, GA 30329
404-636-8400
jdunlop@ashrae.org

ASHRAE Region I Roster 2011-12 Executive Committee (continued)

Regional Representative

Garry N Myers
WSP Flack + Kurtz
73 Bonnie Way
Allendale, NJ 07401-1127
212-951-2815
Garry.Myers@wspfk.com

Regional Young Engineers in ASHRAE

Cara S Martin
Novus Engineering
25 Delaware Ave
Delmar, NY 12054
518-439-8235
cmartin@novusengineering.com

DOE Reports Show Major Potential for Wave and Tidal Energy Production Near U.S. Coasts

The U.S. Department of Energy (DOE) recently released two nationwide resource assessments showing that waves and tidal currents off the nation's coasts could contribute significantly to the United States' total annual electricity production, further diversify the nation's energy portfolio, and provide clean, renewable energy to coastal cities and communities. These new wave and tidal resource assessments, combined with ongoing analyses of the technologies and other resource assessments, show that water power, including conventional hydropower and wave, tidal, and other water power resources, can potentially provide 15% of our nation's electricity by 2030. The reports represent the most rigorous analysis undertaken to date to accurately define the magnitude and location of America's ocean energy resources. The information in these resource assessments can help to further develop the country's significant ocean energy resources, create new industries and new jobs in America, and secure U.S. leadership in an emerging global market.

The United States uses about 4,000 terawatt hours (TWh) of electricity per year. DOE estimates that the maximum theoretical electric generation that could be produced from waves and tidal currents is approximately 1,420 TWh per year, approximately one-third of the nation's total annual electricity usage. Although not all of the resource potential identified in these assessments can realistically be developed, the results still represent major opportunities for new water power development in the United States, highlighting specific opportunities to expand on the 6% of the nation's electricity already generated from renewable hydropower resources.

The two reports—“[Mapping and Assessment of the United States Ocean Wave Energy Resource](#)” and “[Assessment of Energy Production Potential from Tidal Streams in the United States](#)”—calculate the maximum kinetic energy available from waves and tides off U.S. coasts that could be used for future energy production, and which represent largely untapped opportunities for renewable energy development in the United States.

The West Coast, including Alaska and Hawaii, has especially high potential for wave energy development, while significant opportunities for wave energy also exist along the East Coast. Additionally, parts of both the West and East Coasts have strong tides that could be tapped to produce energy.

Earlier this year, DOE [announced](#) the availability of its national tidal resource database, which maps the maximum theoretically available energy in the nation's tidal streams. This database contributed to the “[Assessment of Energy Production Potential from Tidal Streams in the United States](#)” report, prepared by Georgia Tech.

The wave energy assessment report, titled “[Mapping and Assessment of the United States Ocean Wave Energy Resource](#),” was prepared by the Electric Power Research Institute (EPRI), with support and data validation from researchers at Virginia Tech and DOE's National Renewable Energy Laboratory (NREL). The report describes the methods used to produce geospatial data and to map the average annual and monthly significant wave height, wave energy period, mean direction, and wave power density in the coastal United States.

The Energy Department's National Renewable Energy Laboratory incorporated the data from the wave resource assessment into its [U.S. Renewable Resource atlas](#), where viewers can pan, zoom, and filter through graphically displayed data layers. In the future, 30 years of wave and weather data will be incorporated into the database to inform technological requirements and risks associated with wave energy development projects.

Georgia Tech's tidal streams database displays online maps that allow the public, policy makers, and water power developers to easily explore potential marine and hydrokinetic power-producing regions in the United States.

For more information about other [water power resource assessments](#), visit the Energy Department's [Water Power Program](#) website.

Notice to business card advertisers:

We are currently accepting business card advertisements for this year's newsletters. The cost of a business card ad is \$125.00. The newsletter is published monthly, September through June (ten issues). That means for \$125.00 (\$12.50 an issue), your business card ad will circulate to approximately 300 recipients a month or an advertising cost of approximately 4 cents/recipient.

If you are interested in placing an ad, please forward a business card and check (payable to ASHRAE Bi-State) to:

ASHRAE Bi-State Chapter
 DL Flow Tech
 2421 Route 52
 Hopewell Junction, NY 12533



Walter E. Greenwood (Chio)
 PRESIDENT
 (914) 747-1007 Phone
 (914) 747-1054 Fax
 (914) 403-4702 Cell
 greenwoodw@emfcontrols.com

Energy Management of Facilities, Inc.
 5 West Cross St., Suite 5G
 P.O. Box 176
 Hawthorne, NY 10532
 http://www.emfcontrols.com

Partner of


Certified Energy Management System Contractor
 Facility Automation • HVAC Controls • Security • Access Control • CCTV

Dennis LaVopa
 Tel 845-265-2828
 Fax 845-265-2745



2421 Rt. 52 Hopewell Jct., NY 12533
 www.dlflowtech.com
 dLaVopa@dlflowtech.com



a.c.i.
 Facility Automation
 Access Control
 Digital Video/CCTV
 Systems Integration
 24 Hour Monitoring

Preston M. Bruenn
 President

578 Commerce Street, Thornwood, NY 10594
 PH: 914-769-8880 FAX: 914-769-2753
 pbruenn@automatedcontrollogic.com

Dedicated to engineering sustainable solutions.



**O'LEARY
 LYNCH
 ABBATTISTA**
 CONSULTING ENGINEERS

- MEP Engineering Design
- Energy Modeling
- Life Cycle Cost Analysis
- Commissioning

50 Broadway, Hawthorne, NY 10532 tel 914.747.2800 fax 914.747.0453
 www.olace.com

Engineering Consultant

Bob Roston, P.E.
 6 Pligm Road
 White Plains, NY 10605-3703

Tel: 914 761-3364
 Fax: 914 761-1811
 Mobil: 914 646-8322
 e mail: bob@rostonfamily.com

**chimney
 DESIGN
 solutions**

800-685-7077 FAX: 212-685-4777
 chimney design solutions.com



D.P. Wolff Inc.
 Service & Mechanical Contractors

Vikash Patel, LEED AP ■ Vice President
 vpatel@dpwolff.com

143 Bedford Road ■ Katonah, New York 10536
 914/767.0515 ■ 212/689.7801 ■ 914/767.3596 FAX
 914/767.0515 24 HOUR EMERGENCY



LAWRENCE STURGIS
 EXECUTIVE VICE PRESIDENT

1 PAULDING STREET
 ELMSFORD, NY 10523

PHONE: 914-592-1776
 FAX: 914-592-1904
 e mail: larrysturgis@gmail.com

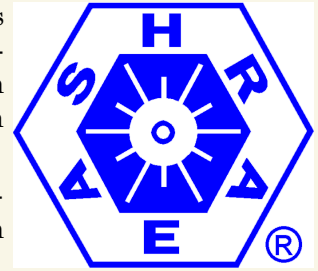
Westchester, Putnam, Rockland, Orange
 Ulster, Sullivan, Dutchess,
 Fairfield & Litchfield, Ct.

Employment Opportunities

Employment ads may be submitted for inclusion in **The Exchanger** as follows:

1. \$100.000 from companies placing ad for one (1) month.

The American Society of Heating, Refrigerating and Air-Conditioning Engineers advances the arts and sciences of heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world. Membership is open to any person associated with the field including indoor air quality, building design and operation, and environmental control for food processing and industry.



ASHRAE will be the global leader, the foremost source of technical and educational information, and the primary provider of opportunity for professional growth in the arts and sciences of heating, ventilating, air conditioning and refrigerating.

Upcoming Meetings

Month	Date	Promotion	Main Presentation	Tech Session
February	2/8/2012	Research Promotion	Analysis of Facility's Energy Bills	
March	3/14/2012	Membership Promotion	Joint Meeting with Lower Hudson Valley AIA	
April	4/11/2012	Sustainability		
May	5/9/2012	Student Activities		
June	6/13/2012	Student Scholarships	Golf Outing	

U.S. Regains Position as Largest Investor in Clean Energy

The United States in 2011 invested more in clean energy programs than China for the first time since 2008, according to a new report by analysis company Bloomberg New Energy Finance. Total new investment in clean energy increased by 5% to \$260 billion from 2010 to 2011. This enabled the U.S. to regain its position as the world's largest clean energy investor. A 36% increase in U.S. solar energy investment led the growth. Last year also saw the one trillionth dollar invested in clean energy globally since Bloomberg started compiling data in 2004.

'Melting' Buildings to Save Energy

A new building on the campus of the University of Washington was built with phase-change materials (PCMs) that solidify at night and melt with the heat of the day, which is expected to cut the amount of energy needed to cool the building by 98 percent. PCMs can absorb and release large amounts of energy while maintaining a stable temperature, so it melts ice with the same amount of energy it takes to heat it. The UW building has in its walls and ceilings a "bioPCM" gel derived from vegetable oils that is charged each night when the windows are opened to bring in cool night air. It then melts the next day as it absorbs heat, similar to the way thick concrete or adobe walls control temperature but with much less material required. The gel is just 1.25 centimeters thick but behaves as if it were a 25-centimeter slab of concrete. Some other uses of PCMs include the use of carbon dioxide to keep data centers cool and boosting solar power capabilities by replacing the liquid salts currently used to store heat with PCMs that can reduce the volume of storage material by up to two-thirds. A recent report from Lux Research predicted that sales of PCMs, which are currently zero, could bloom to \$130 million by 2020.

Statements made in this publication are not expressions of the Society or of the Chapter and may not be reproduced without special permission of the chapter.