



November 2008

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NOVEMBER DINNER MEETING

Date: Tuesday, November 25, 2008

Location: **Annie Moore's**
50 East 43rd Street
(Between Madison & Vanderbilt)
212.986.7826

AGENDA

5:30 – 6:30 PM: Social Hour
6:30 – 7:30 PM: Dinner (*If anyone has special dinner requirements, please email Joseph Azzopardi one week prior to the meeting at lazzow@yahoo.com)*)

7:30 – 8:30 PM: Technical Presentation
Speaker: Steven J. Strong
Solar Design Associates

Topic: **Solar & Wind Powered Buildings**
The Path toward a Sustainable Energy Future

Theme: **History Night**

Cost: Student Members - \$20
YEA Members - \$30
NY Chapter Members - \$35
Non-Members - \$40

CASH OR CHECKS ONLY

ASHRAENY will assess a \$10 service charge for ANY IOU's for attendees not paying the full attendance fee at the door.

Smoking is Prohibited at All ASHRAE Dinner Meetings.
PE's are eligible for 1 PDH Credit Pending

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NOVEMBER DINNER SPEAKER/TOPIC

The program is presented by Steven J. Strong. He is Founder and President of Solar Design Associates, Inc., a group of Engineers and Architects dedicated to the design of environmentally responsive buildings, and the engineering and integration of renewable energy systems which incorporate the latest in innovative technology.

He founded the firm in 1974 after serving as an energy-systems engineering consultant on the Alaskan pipeline where he became convinced there were easier, less-costly, more environmentally desirable ways to provide comfort and convenience to the consumer than "going to the ends of the earth to extract the last drop of fossil fuel".

Drawing on his background in architecture and engineering, he has earned the firm an international reputation for the pioneering integration of renewable energy systems - especially solar electricity - with environmentally responsive building design.

Over the last 25 years, he has designed dozens of homes and buildings powered by solar electricity. In 1984, working with New England Electric, he completed the world's first PV-powered neighborhood in central Massachusetts. In 1996, he worked with Olympic village architects to power the 1996 Summer Games in Atlanta with solar electricity using the world's largest roof-top PV power system. His firm consults to private and public clients and architects in the design of solar-powered buildings as well as to industry on product development for building integration.

He has represented the US on the International Energy Agency's expert working group on Solar Electricity in the Built Environment for the past 8 years and has served as an advisor on energy and environmental issues to 4 Governors, 4 US Congressman, 8 US Senators and 4 presidential candidates as well as a number of electric utilities.

He is the author of *The Solar Electric House and Solar Electric Buildings*, an *Overview of Today's Applications and the editor and contributing author of Photovoltaics in the Built Environment*, a *Design Guide for Architects and Engineers* as well as contributing author to *Photovoltaics in Buildings and Building with Photovoltaics*.

Articles about him and his work have appeared in some 100 publications including *TIME Architecture*, *Architectural Record*, *Environmental Design and Construction*, *World Architecture*, *Popular Science*, *Spectrum*, *Wired*, *New Age*, *Fortune*, *Forbes* and *Business Week* and on television and in energy and environmental documentaries.

Steven received the first 'Inherit the Earth Award' from Connecticut College in 1993 for his 'pioneering work in furthering sustainable energy'. In the spring of 1999, *TIME* magazine named him an 'Environmental Hero of the Planet'. In the spring of 2001, the American Solar Energy Society honored him with its Charles Greeley Abbot award – the Society's highest honor - for lifetime achievement in advancing solar energy. In the spring of 2003, the Audubon Society named him its 'Environmental Entrepreneur of the Year'. In March, 2007, *TIME* Magazine again recognized Steven in its special issue on Climate Change as an: "Innovator building a greener world".

In the summer of 2002, Steven designed and oversaw the installation of three solar energy systems at the White House in Washington, DC. He completed a new 'solar skin' for the US Mission to the United Nations in Geneva, Switzerland and, powered the San Francisco Giants' AT+T Park and the new PBS studio complex in Boston with solar electricity.

Topic

The last two decades have brought significant changes to the design profession. In the wake of traumatic escalations in energy prices, shortages, embargoes and war along with heightened concerns over pollution, environmental degradation and resource depletion, awareness of the environmental impact of our work as design professionals has dramatically increased. The built environment is responsible for a large percentage of energy consumption and architects are responsible for a large percentage of the built environment.

Architects and engineers with vision have come to understand it is no longer the goal of good design to simply create a building that's aesthetically pleasing - buildings must be environmentally responsive as well. Rather than merely using a little less non-renewable fuels and creating less pollution, buildings of the 21st century will rely on renewable resources to produce some and, eventually, all of their own energy to become carbon-neutral. Solar photovoltaics, solar thermal and wind energy system are ready to do their part.

Photovoltaics (PV) is a truly elegant means of producing electricity on site, directly from the sun, without concern for energy supply or environmental harm. These solid-state devices simply make electricity out of sunlight, silently with no maintenance, no pollution and no depletion of materials.

There is a growing consensus that distributed photovoltaic systems that provide electricity at the point of use will be the first to reach widespread commercialization. Chief among these distributed applications are PV power systems for individual buildings. Interest in the building integration of photovoltaics, where the PV elements actually become an integral part of the building, often serving as the exterior weather skin, is growing world-wide. Innovative architects and engineers in Europe, Japan and the US are now exploring creative ways of incorporating solar electricity into their work. A whole new vernacular of Solar Electric Architecture is beginning to emerge.

Steven will present a highly visual world overview of buildings powered by renewables using the best built examples of solar- and wind-powered residences and commercial-scale buildings from Europe, Japan and the US. These early solar- and wind--powered buildings provide a window into the coming new era of environmentally responsive, energy-producing buildings where this elegant, life-affirming technology will become commonplace as an integral part of the built environment.

Steven weaves technology, politics and social policy together with humor and compelling graphics to clearly demonstrate that the end of the era of cheap oil is upon us and that renewable energy is ready here and now to help define the path to a sustainable energy future in the post-petroleum world.

PRESIDENT'S MESSAGE

by Om Taneja, P.E.

November is the Thanksgiving month. In spite of the economic downturn, we are thankful that our Industry overall is still in strong footing. Our energy costs are high and there is growing recognition that for a sustainable future, we need high performance equipment and buildings, renewable energy sources and conservation of water. Competition in the global marketplace is increasing and the need for innovative ideas is stronger than ever. Therefore, this is not time for any complacency or slowdown, but an opportunity to discover methods and measures for bringing further across-the-board improvements in the HVAC & R industry.



Innovative ideas stem from ASHRAE's Research and Educational Programs. These Programs are what keeps our industry and profession on the leading edge. Therefore, ASHRAE NY is focusing on educational programs covering

the art and science of environmental controls, indoor air quality, sustainability and energy efficiency for the design, construction, operations and maintenance areas through monthly dinner meetings, seminar and committee meetings.

However, we need to further support ASHRAE's Research & Resource Promotion Areas. For that we need contributions from the industry as well as private individuals. Such contributions have a high payback to the society since innovations brought through Society's research has demonstrated long term benefits for the whole community. For a sustainable future, every dollar invested in Research Promotion for ASHRAE will payback many times over and will benefit people all over the world.

Therefore, let us be thankful that we work in an industry that aspires to remain at the forefront and contribute whatever we can towards Research and Resource Promotion. Contributions can be made through ASHRAE NY Research Promotion Committee Chair, Brian Rylewicz by completing the contribution form in the bulletin or by contacting him at 212-685-7077 or at br@chimneydesignsolutions.com and he will assist you with the paperwork. Contributions can also be made by completing on-line contribution form located at www.ashrae.org/contribute.

ASHRAE NY will reach its 100 years as a Chapter in the Year 2010. Historical perspective of the NY Chapter becomes very important as we reach the first century mark. In that regards, ASHRAE NY's November 25th Dinner Meeting is History Night. Therefore, we want all the Young, Middle Aged and Senior Members to join us for this Dinner Meeting to enjoy our History Night.

We wish you all a Joyous Thanksgiving. Hope more and more of you would join ASHRAE and enjoy invaluable benefits from your active participation.

PROGRAM COMMITTEE REPORT

by Steven Baumgartner, P.E.

Reaching out to the membership in NY is critical, and the best avenue we have is through our programs. It should be known, that "programs" are so much more than just the dinner meetings. ASHRAE is continuously providing avenues for technical knowledge-sharing through lectures, seminars and other events throughout the community.

In addition to this committee's focus on finding and scheduling powerful and engaging dinner topics, it has goals to:

1. Re-align ASHRAE NY with its commitment to high-performance building topics;
2. Provide lectures, half-day seminars, and full day events;
3. Collaborate with other societies and organizations such as USGBC, AIA, IFMA, BOMA, IBSPA, et al.;
4. Raise ASHRAE awareness; and
5. Engage and promote youth and diversity at our meetings.

I want to extend thanks to all who joined us at last week's dinner meeting on the topic of Geothermal Systems. If you looked around, hopefully you saw the many new faces of people who have joined us from environmental design firms, architecture shops, and green-building organizations!

We could not be happier about this new transition and promise to continue to offer topics that embrace all walks of the built environment. ASHRAE is so much more than HVAC as exemplified by ASHRAE's diverse programs and goals of the Program Committee.

STUDENT REPORT

by Alexander Weiss, P.E.
NY Chapter Student Activities Chair

ASHRAE New York Chapter visits Technical Career Institutes (TCI) Student Branch: On November 6, 2008, during the Student Aid Hour at the Technical Career Institutes Ernest Gallo, ASHRAE NY Chapter Treasurer and Michael Accardi of Accardi Companies gave an excellent presentation on one of the key aspects of the Green Sustainable Technologies: Module of the “ Variable Frequency Drive ” to the HVAC&R, Facilities Management Technology (FMT) Students and Instructors.

The Classroom Laboratory was packed with interested Students and Faculty. The audience was extremely happy with this very informative and illustrated presentation. Ernest and Michael lectured on applied electrical fundamentals that go into the design of Variable Frequency Drives. They also demonstrated the practical operation of the VFD Module designed and manufactured by the Accardi Companies.

The HVAC&R, FMT Students and the Faculty of the Technical Career Institutes were grateful for the very educational Presentation. ASHRAE NY is committed to advancing education and training of college students into HVAC&R and FMT fields. Therefore, it welcomes such presentation that can be brought to college campuses to engage more students. In addition, ASHRAE NY wants to award more scholarships to students committed to the HVAC&R and FMT fields. For arranging other presentations as well as for submitting applications for scholarships and grants, please contact Alex Weiss at Weisseng@yahoo.com or contact him at 718-251-1154.



Elenin Rodriguez, TCI Student receiving ASHRAE NY Chapter Scholarship during September Dinner Meeting

William Cajas, TCI Student receiving ASHRAE NY Chapter Scholarship during September Dinner Meeting



ASHRAE - NY Sustainability Committee



by Steven Baumgartner, P.E.

We have a focused mission:

To advance the arts and sciences of the design, construction and operation of the built environment to promote a more aware, responsible and environmentally progressive New York City, region and world.

This mission may read to you like any number of other groups that are around NY talking about ‘green’ buildings and discussion technologies. It’s not. Please read it again.

There is something new happening in ASHRAE. There is a paradigm shift happening. Engineering is the NEW architecture. Never before have those who can speak intelligently about energy and water flows been able to shape architecture so strongly. Architects are asking about the Standard 189 Design of High-Performance Green Buildings. Landscape engineers are asking questions about the new Standard 191 for Water Efficiency. Glass buildings all over the world are finding it cost prohibitive to meet LEED requirements, and engineers are showing them how to bypass these cost barriers.

From global thinking to local action:

- Climate Change has risen to the forefront of geopolitical agendas.
- The US must lead the world in the next technological revolution: ET Environmental Technology. “Drill! Baby, Drill!” must be silenced with “Innovate, Baby, Innovate!” (Tom Friedman)
- New York City is the epicenter of innovation and creative thought in the world.
- Buildings make up nearly 70% of the energy consumed in NY City (see plaNYC).
- ASHRAE is THE organization leading the way on standards, guidelines, and research on high-performance building design, energy and water solutions to the built environment.

All of these points lead to one conclusion: ASHRAE NY’s main focus must be about relaying high-performance technical content to New York. ASHRAE is SO much more than just HVAC, and must lead New York, and the world, on relaying its vast technical resource to the masses.

This committee is here to help that movement.

We are 30-firms strong... and growing; architects, sustainable design firms, and engineering consultancies have all gotten on board. Our main goal is to get those who have hungered for quality, technological, high-performance building content, what they have been missing in NY. There’s no better avenue for this than through ASHRAE.

We have got a great start, but we need your help and ideas.

Please email steven.baumgartner@burohappold.com

ASHRAE WORKSHOP REPORT

by Alexander Weiss, P.E.
NY Chapter ASHRAE CTTC Chair

Improving Data Center Energy Efficiency and Best Practices

ASHRAE workshop by on improving data center energy efficiency sponsored by NYSERDA was held on November 5, 2008 at Baruch College in New York City. The program is of great interest to designers and consultants, data center operators, data center facility operators, and Chief Information Officers. Ever increasing Data Center density and energy consumption necessitates the action of ASHRAE to promote energy efficient design and operation of Data Centers and best practices.

The meeting room was filled to capacity. More than 200 people participated in the workshop. I was glad to see at the meeting New York Chapter ASHRAE members Chester T. Vogel, P.E., Fellow ASHRAE member, Past President, Harvey Brickman, P.E., Fellow ASHRAE member, Albert Nicolas, Past President, Jerome Falk, Life member, and Alex Balsam, P.E., member. Stephen Comstack, Publisher/Director of Publications & Education, ASHRAE, organized this workshop very well. Attendees received free ASHRAE literature and more books were available for purchase. Data com books can be purchased online at www.tc99.ashraetcs.org. I had an opportunity to meet NYSERDA representative Joseph Borowiec, Senior Project Manager, Building Research. NYSERDA strives to facilitate change through the widespread development and use of innovative technologies to improve the State's energy, economic, and developmental well being.

Attendees asked many questions showing how important it is to design and operate data centers in most efficient way.



JAPANESE SUSTAINABILITY MISSION REPORT

by Kevin Gallen, PE, LEED AP
President-Elect, New York Chapter

On Monday, November 17, 2008, the ASHRAE-NY chapter hosted a group of engineering industry leaders and professors from Japan, who were visiting to learn more about how sustainable design is being approached in the United States and in New York City. The group consisted of 11 individuals, led by Professor Masaya Okumiya of Nagoya University.

The morning started with a breakfast introductory meeting at Buro Happold's NYC office. Kevin Gallen, the President-Elect of the New York Chapter, welcomed the group, and introduced the other facilitators of the event: Garry Myers, the Director and Regional Chair of ASHRAE Region 1; Om Taneja, the President of the New York Chapter; Steven Baumgartner, the chair of the sustainability committee for the New York Chapter; and Adam Hinge of Sustainable Energy Partnerships. Steven gave an overview of the events for the day, followed by a dialogue about what the group hoped to achieve with their visit. Adam followed up with a presentation on many of the sustainable buildings that have been built and are being built in Manhattan. Mr. Shiro Sakoo of and Nerissa Moray of Buro Happold served as interpreters, which greatly helped with communication throughout the day.

Shillpa Singh of the New York Chapter of the US Green Building Council joined the group for the tours later in the day. After the morning presentation, the group went on a tour of the cogeneration plant at Astor Wine & Spirits at 399 Lafayette Street, which was arranged by Monica Perl, the Vice President of the New York Chapter. Bruce Beckwith of RSP Systems led the group on a tour of the cogeneration plant, which included Capstone microturbines which use gas to provide electricity and hot water. The hot water then is used for space heating, domestic water heating, or for creating chilled water with a Broad hot water absorption chiller.

Following this tour, the group had lunch at a nearby restaurant, and proceeded up to midtown to tour the Thermal Storage facility at 1155 Avenue of the Americas. Adam arranged with Mark MacCracken of Calmac to provide this tour. Brian Silveti of Calmac led the group on this tour, which showed how the ice chillers and ice storage system interacted with the water chillers to reduce overall building peak loads, and ultimately reduce energy costs.

The New York Chapter would like to thank the individuals mentioned above for their time and effort in making this event a success, and a special thanks to Buro Happold, Calmac, RSP Systems, Astor Wine & Spirits, the Durst Organization for generously providing resources for this event.

ASHRAE RETURNS TO CHICAGO FOR WINTER CONFERENCE AND AHR EXPO



Chicago, with one of the most recognizable skylines in the United States, has long-standing status as a livable urban center. That the city has stood the test of time makes it the perfect backdrop for this year's ASHRAE Winter Conference theme:

*Sustainable Urban Design:
Engineering Tomorrow...Today.*

The Palmer House Hilton will once again host ASHRAE January 24 – 28, with the ASHRAE co-sponsored AHR Expo taking place Jan. 26-28 at McCormick Place. The conference promises to be a great way to kick off the new year, with opportunities to interact with colleagues, learn technical information, and hear Keynote Speaker Chris Luebke of Arup speak on sustainability and thoughtful design and Technical Plenary speaker Adrian Bejan, Ph.D., explain technical evolution through “constructal theory” which he says can predict how everything flows through time and space.

The technical program highlights the conference theme and will feature presentations on energy conservation, indoor environmental quality, sustainability efforts and more that will help you earn your PDHs. Seeking to create additional value for Expo and Conference attendees, ASHRAE is launching “Wednesday Welcome,” at which all ASHRAE technical program sessions on Jan. 28 take place at McCormick Place. The “Wednesday Welcome” includes 18 hands-on, applications-type programs, held from 9 a.m. to 1:30 p.m., leaving the afternoon open to tour the Expo with more than 1,850 exhibits covering a world of equipment, systems, components and technology for the building industry. Admission to the “Wednesday Welcome” is included with your full ASHRAE Winter Conference registration or you can purchase a ticket for the full day for \$99.

You can also earn PDHs and CEUs at Professional Development Seminars and Short Courses brought to you by the ASHRAE Learning Institute.

Networking opportunities and chances to see Chicago are plentiful at the ASHRAE Winter Conference. Meet with old friends at the Welcome Party, Presidents Luncheon and Member's Night Out. Technical tours of the city take you to the Intercontinental Hotel and The Art Institute of Chicago and you can see mansions and temples of the city, or take a cooking class on one of the general tours.

For complete, updated information and to register for the ASHRAE Winter Conference, go online to www.ashrae.org/chicago. Visit www.ahrexpo.com to learn more about the AHR EXPO.

BOARD OF GOVERNORS HIGHLIGHTS

Ever wonder what we're talking about at our monthly Board meetings a week before the monthly dinner meetings? We discuss overall Chapter Operations and here are some of the items that we're discussing at present:

- ASHRAE awarded three scholarships to students totaling \$6,000 for the academic year.
- Please check your e-mail to verify that you are receiving the bulletin – our new service provider is still receiving voided addresses. Please send your updated e-mail addresses to bulletins@ashraeny.org.
- Chapter is seeking membership from Practicing Institute of Engineers. This will help to serve our membership better with PDH awarding.
- Holding Student and Membership Promotion Nights at our dinner meetings and award membership certificates and scholarships.
- And last, but certainly not least, how best to serve our Membership...YOU!

And much, much more! Sound interesting? Anyone who is interested in helping out the Board of Governors on any one of our committees, events or activities, please contact Om Taneja.

RESEARCH PROMOTION

Brian W. Ryglewicz, Research Promotion Chair

The Research Promotion Campaign annually raises funds to support ASHRAE’s research program. It is conducted by the Society’s membership through local chapter volunteers and receives over 7,000 contributions each year from the membership and companies associated with the HVAC&R industry. Of these 7,000 contributors, about 50 are from our chapter.

This annual support totals more than \$1.5 million annually and is matched dollar-for-dollar by ASHRAE from the proceeds of the annual winter AHR Exposition. Since ASHRAE pays all the fund raising expenses, 100% of every donor’s invested dollar goes into the research program.

The New York City Chapter is expected to raise approximately \$25,250.00 towards the overall goal, but I believe our chapter is capable of much greater. After discussion our goal with ASHRAE Life Member Dick Batherman, I believe that the New York City Chapter should set its goal at \$30,000. The Chapter is counting on the continued support of our past contributors who generously supported us last year. We also look forward to gaining the support of new contributors. The Chapter will be recognizing contributors at the Monthly Dinner Meetings, in the Monthly Bulletin and at the Chapter’s website.

You can make your contribution several different ways:

- Attend a Monthly Dinner Meeting and deliver your personal check (made payable to “ASHRAE Resource Promotion”) to me. I will send the donation to ASHRAE for you.
- Attend a Monthly Dinner Meeting, prepare a Contribution Form and contribute via a major credit card.
- Go to https://www.ashrae.org/aboutus/resource_promotion.asp.
- Complete the form on this page and mail to:

NYC ASHRAE Research
c/o Chimney Design Solutions, Inc.
110 W. 40th Street #307
New York, NY 10018

All four methods require your ASHRAE membership number and the NYC Chapter’s number (008). Thank you again for all your support and I look forward to a great year!

Research Promotion Contribution Form

PLEASE COMPLETE THE INFORMATION & RETURN WITH YOUR CONTRIBUTION TO:

NYC Chapter of ASHRAE
c/o Chimney Design Solutions, Inc.
110 W. 40th Street #307
New York, NY 10018
212-685-7077

Please accept my research investment in the amount of \$ _____

Name _____ ASHRAE Member _____

Company _____

Address _____

City/State/Zip Code _____

Please check one of the following: () Individual Contribution () Corporate Contribution

Charge my donation to: () Visa () MasterCard () American Express

Credit card # _____ Expiration Date _____

Signature _____

Donors will be recognized at the Monthly Dinner Meetings, in the Monthly Bulletin and at the Chapter’s website. Honor Roll donors are listed in the ASHRAE Journal (October 2009) and will receive a commemorative coin. Honor Roll level is \$100 for individual donors and \$150 for corporate donors. Contributions of \$250 or more are considered Major Donors. For recognition and other information regarding Major Donors, please contact Brian Ryglewicz at 212-685-7077. All contributions are tax deductible.

ASHRAE GOVERNMENTAL UPDATES

DOE Solar Codes Board Releases Three New Reports

The Solar America Board for Codes and Standards (Solar ABCs), funded by the U.S. Department of Energy (DOE), has released three new reports of importance to the solar industry on the topics of interconnection and net metering, solar access laws, and utility external disconnect switches.

The first report, *A Comprehensive Review of Solar Access Law in the United States*, documents legal issues for solar access and solar rights and recommends language for model statutes that can be used by state and local governments to protect access to solar resources for new and existing buildings.

The second report, *Comparison of the Four Leading Small Generator Interconnection Procedures*, reviews and compares four sets of interconnection procedures that regulators commonly consider when developing their own state and local procedures. Effective interconnection procedures will encourage solar projects.

The third report, *Utility External Disconnect Switch: Practical, Legal, & Technical Reasons to Eliminate the Requirement*, documents the safe operation of photovoltaic (PV) systems without a utility external disconnect switch (UEDS) in several large jurisdictions. It explains the rationale for eliminating UEDS. Among the reasons presented are: its functionality is redundant, it fails to provide expected protections, and it adds unnecessary cost to a PV system.

Solar ABCs is a collaborative effort among experts to formally gather and prioritize input from the broad spectrum of solar photovoltaic stakeholders including policy makers, manufacturers, installers, and consumers resulting in coordinated recommendations to codes and standards making bodies for existing and new solar technologies. The U.S. Department of Energy funds Solar ABCs as part of its commitment to facilitate widespread adoption of safe, reliable, and cost-effective solar technologies.

For more information, visit <http://www.solarabc.org/>.

Report Illustrates Challenges of Meeting Energy Targets for Federal Buildings

Federal agencies may have to make significant process changes to meet the mandated 30 percent energy reduction in federal building by 2015, according to a new report. Produced by attendees of a workshop held by representatives of the Federal Facilities Council and private-sector organizations, the report details the challenges of meeting the requirements of the Energy Independence and Security Act (EISA).

One of the main changes recommended by attendees is alteration of funding mechanisms by Congress. Appropriators and oversight committees need to recognize that previous funding patterns may need to change, as additional upfront funds may be needed to implement energy savings, but long-term costs will fall with lower energy expenditures.

One suggested strategy for funding improvement is establishing a government-wide revolving fund for energy improvements and energy efficient equipment purchases, to be funded in part by the energy savings agencies would realize from long-term improved energy efficiency efforts. The report also mentions the hope that agencies be given greater flexibility in managing their portfolios by selling unneeded assets and retaining funds to improve existing buildings.

Technical feasibility is also a major consideration in meeting EISA's requirements. An integrated design process for both construction and renovations is essential; bringing together appropriators, procurement officers, design and construction teams, facility managers, project managers, training teams, and building occupants from the first phases of a project can encourage the kinds of collaboration necessary to making energy-saving decisions.

Other key areas of interest include:

- Education and training. These areas must be addressed, with opportunities for all agency employees with a focus on their particular roles within the organization—whether as building occupants, facilities management personnel, or procurement officers. Also, as new technologies are implemented, training—particularly of operations and maintenance staff—is necessary to assure these technologies operate at their ideal state to achieve energy savings.
- Case study development to assist agencies and the private sector in developing best practices and learning from previous projects. Effective case studies of energy-efficient buildings will rely on measurement and verification of energy use and other data.

ASHRAE plans to hold a legislative briefing in February to discuss federal agencies' progress in meeting the requirements and the needs identified in the report. For a copy of the report see www.ashrae.org/docLib/20081103_FedBldgReport.pdf.

Missouri Voters Approve a Renewable Energy Requirement

Missouri voters have approved a measure that will require the state's investor-owned utilities to draw on renewable energy for 15% of their electricity supply by 2021. The Missouri Clean Energy Initiative, or Proposition C, passed easily, garnering approval from 66% of the state's voters and passing in every county but one. The statutory ballot measure defines

renewable energy as wind power, solar thermal power, solar photovoltaic power, small hydropower, a variety of biomass energy sources, and fuel cells powered by hydrogen from renewable energy sources, but it also allows the Missouri Department of Natural Resources to designate new renewable energy sources. The measure requires at least 2% of the requirement to be met with solar energy, and it requires the utilities to offer their retail customers rebates of \$2 per watt for customer-owned solar power systems, up to a limit of \$50,000.

The ballot measure also allows utilities to buy their renewable power from out of state and to meet up to 100% of the requirement through the purchase of renewable energy credits (RECs), which can be bought from renewable energy facilities throughout the country. However, utilities cannot meet the requirements through the voluntary purchase of renewable energy by their customers, an approach known as "green pricing." Utilities that fall short of the requirement have to pay twice the going rate of the RECs needed for compliance, and the state will use that money to buy RECs and to support renewable energy and energy efficiency requirements. And to limit the impact of the measure on consumers, the cost impact of complying with the renewable energy requirement is capped at a 1% cost increase. The renewable requirement starts at 2% of sales in 2011 and gradually ratchets up to the 15% requirement by 2021. See the Missouri Clean Energy Initiative Web site (<http://www.missouricleanenergy.org/>).

Boulder Voters Follow Berkeley with Clean Energy Financing

Voters in Boulder County, Colorado, have approved a ballot issue for the county to provide financing for energy efficiency and renewable energy improvements to residential and commercial properties, an approach also recently adopted by Berkeley, California. Boulder County Ballot Issue 1A passed easily, with unofficial results showing 63.63% of voters approving the measure. The voter approval allows Boulder County to issue up to \$40 million in special assessment bonds to finance the clean energy improvements. Homeowners and businesses that elect to participate in the program will repay the county over a number of years through special assessments that are added to their property taxes. Because the measure has just passed, many details of the program remain to be worked out, but the county hopes to begin accepting applications as early as February 2009. See the county's overview of the measure

http://www.bouldercounty.org/bocc/Ballot_Issues/2008/1A.htm

The Boulder County measure follows a nearly identical financing effort now being launched as a pilot program by the City of Berkeley, California. In September, the Berkeley City Council approved an ordinance that allows the city to issue up to \$80 million in bonds to finance energy efficiency and

renewable energy projects. Called the Berkeley FIRST program (short for "Financing Initiative for Renewable and Solar Technology"), it is initially being launched as a program to finance solar photovoltaic electric systems on residential or commercial properties, with a cost cap of \$37,500 per installation. Property owners will repay the city over 20 years through a special tax on their property, paying interest at a rate similar to a mortgage. As in Boulder, the tax will stay with the property, even if it is transferred or sold. Read an overview of the program from the city's Office of Energy and Sustainable Development

<http://www.ci.berkeley.ca.us/ContentDisplay.aspx?id=26580>

California Approves \$1 Billion for Low-Income Energy Efficiency

The California Public Utilities Commission (CPUC) has approved a budget of \$1 billion over the next three years for the state's Low Income Energy Efficiency program. The program provides energy efficient appliances and weatherization measures at no cost to California households with low incomes. Stressing that the program must reach much higher numbers of households than in the past, the CPUC calls for all eligible customers to be given an opportunity to participate in the program by 2020, and it also calls for the program to evolve toward energy efficiency strategies that have longer-term payback times. The ruling also allows certain measures that improve health, comfort, and safety, even if the cost effectiveness of those measures is low. The program is administered by the state's four large investor-owned utilities: Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, and Southern California Gas Company.

The CPUC ruling calls for utilities to identify the poorer neighborhoods in their customer base and then identify energy efficiency opportunities by examining the energy use of each household in the targeted neighborhoods. The ruling also calls for comprehensive energy audits in each participating home, followed by a "whole house" approach to identifying energy efficiency improvements. In other words, the CPUC wants to avoid piecemeal strategies, such as handing out free compact fluorescent light bulbs (CFLs), in favor of more integrated energy efficiency programs. The CPUC also wants the utilities to move toward an integrated, statewide program for marketing, education, and outreach, focusing on adopting energy efficiency as a way of life, rather than on specific measures like CFLs. See the CPUC press release http://docs.cpuc.ca.gov/PUBLISHED/NEWS_RELEASE/93446.htm

PROFESSIONAL DEVELOPMENT HOURS

Available to P.E.'s at our Monthly Dinner Meetings

As I am sure all New York State licensed P.E.'s are aware, NYS Education Law Article 145 states: *"During each triennial (three-year) registration period an applicant for registration shall complete a minimum of thirty-six hours of acceptable continuing education..."*

What is meant above by "continuing education" are Professional Development Hours or PDH's and a NYS licensed Professional Engineer must accumulate thirty-six PDH's during each three-year registration period in order to be able to renew their P.E. license.

A Professional Engineer may be eligible to receive one (1) PDH for attending a monthly ASHRAE New York Chapter Technical Dinner Presentation.

The New York Chapter holds eight (8) dinner meetings a year, which means a P.E. attending all eight (8) meetings may be eligible to receive up to eight (8) PDH's for that year. That combined with a Chapter All Day Seminar awarding up to seven (7) PDH's (equaling a potential total of 15 PDH's for a year), means a P.E. may be able to accumulate **ALL** the PDH's they need in one year from the New York Chapter.

We at the New York Chapter are very excited about this opportunity to be a "one-stop-shop" to provide our P.E.'s with all their Professional Development Hours (PDH's) and hope you will take advantage by attending all our meetings.

To be eligible to receive PDH's at our meetings, all you have to do is sign in on the separate Sign-In Sheet at the dinner meeting registration table and that's it. **Be sure to have your PE License number available when you sign in.** For meetings that have been approved for a PDH, a certificate stating you attended the meeting will be made available at the subsequent dinner meeting. For example, the certificate stating that you attended the September dinner meeting will be available for you at the October dinner meeting and so forth. If you are unable to pick up your certificates at the dinner meetings, they will be mailed to you in June.

Please note, it costs \$20 for Student Members, \$30 for YEA Members, \$35 for NY Chapter Member and \$40 for Non-Members to attend a NY Chapter dinner meetings. **No additional cost to ASHRAE members and ASHRAE non-members will be enacted for the PDH service, however, regardless of whether or not you eat dinner, you still have to pay the full attendance fee.**

We at the Chapter invite all P.E.'s to attend our dinner meetings in 2008 to help usher in this new era of Professional Development. If anyone has any questions, please do not hesitate to contact:

Ed Falsetti
Professional Development Committee
 212.334.2025
ed.falsetti@burohappold.com

ASHRAE NEW YORK IS NOW PAPERLESS

EFFECTIVE AUGUST 2005, ASHRAE New York began e-mailing all monthly bulletins. This has helped defray the high cost of production, printing and mailing of the bulletin. Our monthly bulletins are also available on our web site for downloads.

By utilizing e-mail, ASHRAENY is also able to send reminders and other pertinent information to our membership in a relatively short manner.

If you have any concerns regarding our e-mail listing and privacy usage, please contact any member of the ASHRAENY Board of Governors. Contact information can be found at the back of this bulletin. Thank you in advance for your cooperation.

Likewise, if you are moving or change your address for any reason, please make sure to contact ASHRAE Society and update your information. We don't want to lose you!

Thank you for your patience as we shifted to a "paperless" bulletin and e-mail system. Please e-mail your updated e-mail address to bulletins@ashraeny.org to maintain your current address or get on the e-mail list.

CALL FOR NEW MEMBERS

Do you have a colleague, coworker, friend or acquaintance that is interested in joining ASHRAE? If so, please pass this information along to them...

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) is an international organization of over 55,000 professional and 5,000 student members. ASHRAE's mission is to advance the arts and sciences of heating, ventilation, air conditioning, refrigeration and related human factors to serve the evolving needs of the public and ASHRAE members.

Membership in ASHRAE is open to any person associated with heating, ventilation, air conditioning or refrigeration (HVAC&R). As a member you will have access to state-of-the-art HVAC&R technology. Your membership will also provide many opportunities to participate in the development of that technology.

In addition to the NY Chapter, participation is available through membership on Society committees, such as standards projects committees, which are responsible for the development of standards and technical committees which advise the Society on research needs, emerging technologies, and technical matters. Technical education and information is the greatest benefit of ASHRAE membership.

Others include:

- ASHRAE Handbooks - the most widely cited reference source for HVAC&R technology in the world. ASHRAE members receive one volume of the ASHRAE Handbook (which sells for \$144) each membership year at no charge.
- ASHRAE Journal - a monthly magazine, reviews current HVAC&R technology of broad interest through publication of application-oriented articles.
- ASHRAE Insights - a monthly newspaper that provides news about ASHRAE at the chapter, region and Society levels.
- ASHRAE publications - some 300 current titles, which members are able to purchase at a 20% discount.
- ASHRAE educational products - ranging from the Society's semiannual conferences to home study courses.

For additional information on ASHRAE membership, please contact Ernest Gallo, NY Membership Chair at 718.793.6900.

MEMBERSHIP

The New York Chapter of ASHRAE is encouraging everyone to invite interested applicants to ANY Dinner Meeting to become a member of the Society. If you bring an applicant to any meeting you and the new member will receive a complimentary dinner. To receive the complementary dinner, the candidate must bring a completed application or fill in an application at the door. A **\$165 membership fee** is also required. Please bring cash or a check made payable to ASHRAE.

To all of our members we appreciate your membership and support. If you show up at a Dinner Meeting and your name is not on the list as a member of the New York Chapter we encourage you to check with ASHRAE and make sure you are listed under the New York Chapter. The New York City Chapter code is 008. If you don't specifically tell ASHRAE you will default to your listed address. Thanks again for your support." For additional information please contact the New York Membership Chair, Ernest Gallo at 718.793.6900, or via email at egallo@accardicompanies.com.

ASHRAE CODE OF ETHICS

As a member of a Society "organized and operated for the exclusive purpose of advancing the arts and sciences of heating, refrigeration, air conditioning, and ventilation, the allied arts and sciences, and related human factors for the benefit of the general public," ASHRAE Bylaws, June '97.

We recognize that honesty, fairness, courtesy, competence and integrity must characterize our conduct. With the foregoing in mind: Our efforts shall be directed at all times to the enhancement of the public health, safety and welfare; Our services shall be offered only in areas of our competence; Our products shall be offered only in areas of their suitability; Our public statements shall be issued only in an objective and truthful manner; Our endeavors shall carefully avoid conflicts of interest; The confidentiality of clients' and employers' business affairs, proprietary information, and procedures shall be respected.

Approved by the Board of Directors, June 22, 1986. The ASHRAE Code of Ethics is applied to all members and compliance is required for honors and awards nominees. The Code is posted online at www.ashrae.org

FROM THE EDITOR’S DESK

The ASHRAE Chapter Bulletin should reflect the opinions, activities and needs of its members. We represent an active membership and the Bulletin can provide a valuable and enjoyable forum for news of our individual members. Any announcements of interest, as well as letters, opinions, questions or comments should be address to: Neville Burrows, EME Group Consulting Engineers, 159 West 25th Street, New York, NY 10001 – nburrows@emegroup.com.

DISCLAIMER

"ASHRAE has compiled this publication with care, but ASHRAE has not investigated, and ASHRAE expressly disclaims any duty to investigate any product, service, procedure, design or the like which may be described herein. The appearance of any technical data, editorial material, or advertisement in this publication does not constitute endorsement, warranty, or guaranty by ASHRAE of any product, service, procedure, design or the like. ASHRAE does not necessarily agree with any statement or opinion in this publication. The entire risk of the use of any information in this publication is assumed by the user. Statements made in this publication are not expressions of the Society or of the Chapter and may not be reproduced without special permission".

To view current resumes and/or employment opportunities, check out our new student center, or get the latest ASHRAE information, visit our web site at: www.ashraeny.org. To post resumes or job opportunities, please contact Neville Burrows at 212.529.5969 or nburrows@emegroup.com.

Remember you must be a current ASHRAE member to utilize this service.



MONTHLY DINNER LOCATION

Annie Moore’s
 50 East 43rd Street
 New York, NY
 (Between Madison & Vanderbilt)
 212.986.7826

PARKING INFORMATION

If you are driving to the meeting, we suggest you park at the Edison Park Fast at the Hippodrome Garage. It costs \$14 if you enter after 5:30pm. If you enter before 5:30pm and after 4:00pm, the cost is \$23.

**Hippodrome Garage (Edison Park Fast)
 44th Street @ 6th Avenue**

(Rates include tax. Not to be combined with the Parking License Card. Oversized vehicles slightly higher)

2008/09 DINNER MEETING SCHEDULE

Note: The schedule below is tentative and subject to change.

| Date | Topic/Speaker |
|--|--|
| November 25, 2008 History Night | Solar & Wind Powered Buildings <i>Steven Strong</i> |
| January 28, 2009 Refrigeration Night | Variable Refrigerant Flow <i>Speaker TBD</i> |
| February 24, 2009 Young Engineer’s Night | Microturbines <i>Speaker TBD</i> |
| March 24, 2009 Research Promotion Night | ASHRAE Standard 189 <i>Dr. Tom Lawrence</i> |
| April 24, 2009 | Absorption Chillers <i>Speaker TBD</i> |
| May 26, 2009 Past President’s Night | Thermal Storage <i>Speaker TBD</i> |

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| Ed Falsetti, P.E. | 212/334.2025 | Alexander Weiss, P.E. | 718/251.1154 |

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| | |
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| BULLETIN | Neville Burrows, Kevin Gallen, Steven Baumgarten |
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| CRC ACTION | Ernest Gallo, Brian Ryglewicz |
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| DINNER DANCE JOURNAL | Joseph Thuman, Om Taneja, Keven Gallen |
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| HONORS & AWARDS | Bill Madden, Monica Perl |
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| MEMBERSHIP ROSTER | Joseph Thuman |
| NOMINATING | Bill Madden |
| PROFESSIONAL DEVELOPMENT (PDH) | Ed Falsetti, Alex Weiss, Brian Ryglewicz, Om Taneja |
| PROGRAM | Steven Baumgartner |
| PUBLIC RELATIONS | Monica Perl |
| RECEPTION | Joseph Azzopardi, Brian Azara |
| REFRIGERATION | Alexander Weiss |
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| STUDENT ACTIVITIES | Alexander Weiss, Joseph Azzopardi, Javier Aleman |
| SUSTAINABILITY | Steven Baumgartner |
| TEGA/CTTC LIAISON | Alexander Weiss, Lou Rugulo |
| WEB SITE/"PAPERLESS" BULLETIN | Kevin Gallen, Alexander Weiss |
| YOUNG ENGINEERS NIGHT | Ernest Gallo, Javier Aleman |

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| <u>RVC RESEARCH PROMOTION</u> | <u>RVC CHAPTER TECHNOLOGY TRANSFER</u> | <u>RVC STUDENT ACTIVITIES</u> | <u>REGIONAL CHAPTER PROGRAMS CHAIR</u> | <u>REGIONAL REFRIGERATION CHAIR</u> |
| Ron Swarthout 921 Forest Road Endwell, NY 13790 607/754.7590 rswarthou@cs.com | Lee Loomis Center for Environmental Information 55 St. Paul St. Rochester, New York 14604 585/738.3079 leeloom@aol.com | Richard Vehlow NYS Office of General Services, 33rd floor Corning Tower GNARESP Albany, NY 12242 518/486.1510 Rev1969@gmail.com | Peter Oppelt R.F. Peck Co. 889 Atlantic Ave. Rochester, NY 14609 585/697.0836x103 poppelt@rpeck.com | <i>Position Vacant</i> |
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