November Meeting
Tuesday, November 13, 2018

Main Meeting:
APPLYING NEEDLEPOINT COLD PLASMA IN COMMERCIAL APPLICATIONS TO REDUCE VENTILATION AIR, CONSTRUCTION/RENOVATION COSTS, ENERGY AND MAINTENANCE
RESEARCH PROMOTION

Please see page 4 for more information.

Where:
Embassy Suites Hotel and Conference Center
550 Winter Street
Waltham MA, 02451

Meal Menu:
3 Course Plated Dinner Menu

Time:
5:30 - 6:30 PM Networking
5:30 - 6:15 PM Technical Session
6:30 - 7:00 PM Social/Registration/Dinner
7:00 - 8:00 PM Main Presentation

Cost:
ASHRAE Boston Members: $50
Non-ASHRAE Boston Members: $60

Please register online at www.ashraeboston.org
If you have any questions, you may contact Lucas Rowe or Alex Gilman, Attendance Chair, at ashraebostonattendance@outlook.com.

Thank You

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.
Hello Members,

We would like to send a special thanks to Joe Singerling of Fulton Steam on his presentation on “How NOT to Design Steam System”, renamed “STEAM SYSTEM DESIGN” by the PIE society. His insight and knowledge of steam design was very informative, his presentation was well received and enjoyed by the members and guest that evening. During our meeting our Chapter Historian, Eric Edman covered a brief story of his early year in the sheet metal industry. Our Student Activity chair Yuka Narisako covered some student activity items and our Membership Promotion chair William Cunningham covered some information relating to membership status.

The November meeting has two presentation. Our main speaker will be Charles “Charlie” Waddell and our tech session topic will be by Jim Beaver for further info on the topics and presenter’s bio, please refer to their information below.

Please check out our social media websites, came and join us at LinkedIn https://www.linkedin.com/groups/5053857/, please continue to check out our website event page at http://www.ashraeboston.org/eventspage for information of upcoming chapter meetings, current officers listing, chapter newsletters, and contact information, along with other information.

The Boston Chapter has been assigned a Research Promotion (RP) goal of $27,090 for the 2018-19 calendar. I am writing to ask you to help the chapter reach its assigned goal by making a contribution of $100 to the ASHRAE Research – Boston Chapter Endowment before Nov. 10. By designating the RP donation to The Boston Chapter Endowment, you will help build up the Chapter’s endowment, get us closer to our assigned goal. Most if not all our BOG and committee chairs have already done so, and I am asking that our members to donate as well. Head to the link https://www.ashrae.org/about/support-ashrae and click on the green “DONATE NOW” under ASHRAE RP Campaign and a form similar to below will come up, fill it out like the example below and provide you other info that is requested by you and make you donation, thank you.

Thank you for your continued support of ASHRAE and ASHRAE Boston Chapter.

Continued....
CHAPTER PRESIDENT’S MESSAGE

By: Dan Carington

Presidential Award of Excellence

Boston Chapter - 2018-2019

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<th>Chapter Members</th>
<th>Membership Promotion Points</th>
<th>Student Activities Points</th>
<th>Research Promotion Points</th>
<th>History Points</th>
<th>Chapter Operations Points</th>
<th>Chapter Technology Transfer Points</th>
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Invest in ASHRAE and Help Shape our Future

I would like to financially support ASHRAE's mission, programs, and member services indicated below: (Indicate the amount you wish to contribute in U.S. dollars to any or all resources below)

U.S.$ [ ] ASHRAE Research [ ] ASHRAE Research Canada
U.S.$ [ ] ASHRAE Learning Institute and educational programs
U.S.$ 100 [ ] Endowed Research via ASHRAE Foundation.

[ ] By checking the box, I indicate that I understand that these are endowed funds and permanently restricted for the support of ASHRAE Research.

Existing Fund Name (If known): [ ]
[ ] Click here to see existing endowments

Boston Chapter

U.S.$ [ ] ASHRAE Scholarships (endowed scholarship support)
Select One

[ ] If "Other" is selected, please enter the name of the Scholarship

U.S.$ [ ] ASHRAE General Fund
U.S.$ [ ] Young Engineers in ASHRAE (YEA) Support

U.S.$ [ ] Total contribution to be charged to credit card

Please check one:
[ ] Personal Contribution [ ] Company Contribution [ ] Chapter Contribution

(Honor Roll level contributions listed in ASHRAE's October Journal Issue start at $100.00 for individuals and $250.00 for companies.)

Look forward seeing everyone the evening of November 13th!
Any comments or questions I can help you out with please contact me at c001@ashrae.net
UPCOMING MEETING INFORMATION

Main Section Title of presentation: Applying Needlepoint Cold Plasma in Commercial Applications to Reduce Ventilation Air, Construction/Renovation Costs, Energy and Maintenance

Presentation Outline:

1. To understand both methods in ASHRAE 62 for determining ventilation rates
2. To become familiar with cold plasma technology
3. Understand how cold plasma technology reduces first cost and annual energy consumption in commercial applications when combined with the ASHRAE 62 IAQ Procedure
   Understand how the technology reduces maintenance and improves IAQ

Speaker Bio:

Charles Waddell, is the President, CEO and founding member of global plasma solutions, a Savannah, Georgia, based air purification engineering and manufacturing company that specializes in government, education and healthcare air quality and energy saving solutions. Charlie’s experience includes designing HVAC systems in the residential, commercial, and industrial markets as well as for the aviation and hand dryer industries. Charlie holds a BSEE from Old Dominion University. Prior to GPS, Charlie was the general manager of North America for Desiccant Rotors International, the Executive Vice President of Meadwestvaco Air Systems, a division of MeadWestvaco and a sales manager for Des Champs/Munters.

Charlie is an active member of ASHRAE and currently a participant of ASHRAE TC 2.3, SSPC 62.1 and formerly the secretary of TC 8.12. Charlie was a member of the USGBC Indoor Air Quality Assessment Committee, which set the guidelines for “acceptable air quality” within LEED certified buildings. Charlie has over 18 years of hvac design experience and has presented at over 50 different ASHRAE Meetings. Charlie’s latest accomplishments include sixteen patents granted, multiple patents pending, having an article published in engineered systems magazine on desiccant dehumidification, winning the 2016 IAQ product of the year award by ACHR News Magazine for the new self-cleaning, no maintenance, universal voltage input, GPS-DM48-AC and having Global Plasma Solutions be a Top 40 Most Innovative technology company in Georgia in 2017 by the Technology Association of Georgia.

Tech Section Title of presentation: UV Lighting

Speaker Bio:

Jim Beavers, and his 28 years of HVAC experience, has been named Director–Commercial Sales at Fresh-Aire UV.

Fresh-Aire UV—div. of Triatomic Environmental Inc., a manufacturer of indoor air quality (IAQ) products in North America, has named indoor environmental quality (IEQ) industry expert James Beavers as its Director–Commercial Sales.

The 28-year HVAC veteran will initially begin filling in Fresh-Aire UV’s developing North American network of specifying engineers and channel partners that sell and specify ultraviolet germicidal irradiation and PCO/activated carbon IAQ commercial solutions. Beavers will be targeting educational, hospitality, industrial, commercial and healthcare properties. Beavers will also actively assist with international sales and new IAQ product solutions.

"We’ve done a pretty good job on the residential side, but now we’re looking forward to Jim spearheading the great growth opportunities that lie ahead for us in the healthcare, institutional and other commercial markets,” said Ron Saunders, vice president, Fresh-Aire UV.

Prior to working in the UV industry, Beavers held director of sales and director of international business development positions for 13 years at ECR International. Beavers also spent seven years with the White Rodgers div. of Emerson Electric. He also holds a Bachelor of Science in finance/business management; and a Master of International Management in international business operations from the University of Maryland, College Park, Maryland.
Meet our Officers

By: Liz Desmarais

Tell us a little bit about your background (where you grew up, education, current position and what it entails)

I was born in Dominican Republic, but I spent most of my childhood in Puerto Rico. I moved to the US when I was 14. I have a Bachelors in mechanical engineering from Northeastern University. I’m currently a Business development manager for Siemens Building Technologies. My role consists of working with the Consulting engineering community in the greater Boston area, and supporting them with any technical questions they have about HVAC controls and integration.

How long have you been an ASHRAE member?

1.5yrs

Why did you join in the first place?

Networking

What positions have you held at ASHRAE and what is your current position?

I’m currently on the board serving for 1yr

What value do you derive from being a member?

The relationships I’ve developed are the most valuable thing. The monthly meetings give an opportunity to reconnect with people in the industry that I often see at other events

What is your favorite thing about ASHRAE?

The people (And free wine lol)

What would you tell young people just entering our profession?

There are so many things we can do with an engineering degree in the HVAC industry, everything from the design to sales. Try different roles in your first 5yrs so that you have a better understanding what kind of career path you want to follow and the type of job you’d love doing.

Outside of the world of HVAC and ASHRAE what do you enjoy doing in your off hours?

I run after my 2.5yr old daughter. I enjoy spending time with my husband traveling and socializing. I’ve also been a part of Big Sister of greater Boston for the last 6yrs.
October is Energy Awareness Month

President George H. W. Bush first designated October as Energy Awareness Month in 1991. This month now is recognized annually by the U.S. Department of Energy to encourage the government and organizations to raise awareness of the importance of sustainably managing energy resources.


The report showed that the world's energy intensity fell by 1.7% in 2017, resulting in the smallest improvement to energy efficiency in over a decade. IEA attributes the decline to a slowdown in the implementation of energy efficiency policies. The 174 page report provides analysis for buildings and appliances and highlights that "two out of three countries lack mandatory building energy codes and 60% of the energy use for appliances is not covered by standards."

Canadian Energy Efficiency Budget Priorities in New Report

Efficiency Canada, an operating unit of the Carleton Sustainable Energy Research Centre, released a new report entitled, "Building a Competitive Economy Through Energy Efficiency," which lays out an energy efficiency strategy for Canada's Budget 2019, arguing that this strategy should boost competitiveness and growth for Canada.

Supreme Court Denies Appeal for HFC Case

The Supreme Court denied an appeal by manufacturers and environmentalists to rehear Honeywell v. Mexichem Fluor, a case that struck down an Obama-era EPA rule requiring the phase-down of hydrofluorocarbons (HFC). The case, which was last ruled on in 2017 by the U.S. Circuit Court of Appeals for the District of Columbia, allows for the continued use of HFCs that have high global warming potential (GWP).

DOE's Electricity Advisory Committee Meets to Discuss Grid Modernization

The U.S. Department of Energy (DOE) held an Electricity Advisory Committee (EAC) meeting on October 17 covering the topics of grid resilience and grid modernization. Assistant Secretary of the Office of Electricity Bruce J. Walker and Gil Bindewald, the Director for Advanced Grid R&D at DOE addressed attendees.

DOE Announces Research Funding for Solar Generation Projects

The U.S. Department of Energy (DOE) announced up to $46 million in research funding for solar generation that will help advance "holistic solutions that provide grid operators the situational awareness and mitigation strategies against cyber and physical threats."

Legionella Outbreaks Confirmed in Illinois and Wisconsin

Continued….
In Illinois, six residents from Champaign County have been diagnosed with the disease since September 15. Several locations are being investigated as the site of the infection, including a church where the patients may have participated in wedding activities.

In Wisconsin, at least four cases have been diagnosed where patients all stayed at the Osthoff Resort in Elkhart Lake.

Up to 18,000 Americans become ill annually because of Legionella growing in building water systems such as cooling towers. ASHRAE's response is Standard 188.

Permanent Rulemaking in California on Proposition 65

The California Office of Environmental Health Hazard Assessment (OEHHA) has given notice of permanent rulemaking on The Safe Drinking Water and Toxic Enforcement Act of 1986, more commonly known in that state as Proposition 65. This initiative, passed in November 1986, mandates that a list of chemicals known to cause cancer or reproductive toxicity must be maintained and updated. Notice has been given that OEHHA proposes to establish two Proposition 65 Maximum Allowable Dose Levels (MADLs) for exposure to n-hexane by amending Section 25805(b) of Title 27 of the California Code of Regulations. The proposed oral MADL for n-hexane is 28,000 micrograms per day and the proposed inhalation MADL for n-hexane is 20,000 micrograms per day.

Energy Measures on State Ballots

Voters in many states will decide hundreds of statewide and local ballot measures in November 2018.

Arizona – voters in Arizona will vote on Proposition 127, Renewable Energy Standards Initiative. This initiative, if passed by the voters, would amend the state’s constitution to require electric utilities in Arizona to acquire a certain percentage of electricity from renewable resources each year, with the percentage increasing annually from 12 percent in 2020 to 50 percent in 2030. California – voters in Alameda County will vote whether or not to establish a 30-year plan, known as Vision 2050, intending to achieve a more resilient and sustainable infrastructure system, and to ensure that Berkeley is “resilient and prepared for the impacts of global warming.”

Nevada – Nevada Question 3, The Energy Choice Initiative, and Nevada Question 6, Renewable Energy Standards Initiative have to do with electric utilities and their renewable resource requirements. Information can be found on pages 25 and 66 here.

Oregon – a clean energy measure is on the ballot in Multnomah County that would require Portland retailers with total annual revenue over $1 billion and Portland annual revenue over $500,000 to pay a one percent surcharge on gross revenue from certain retail sales.

Washington – Initiative 1631, a ballot initiative that would assess a carbon fee that would charge polluters for the right to emit carbon dioxide and greenhouse gases.
As each month rolls around, I frequently find myself searching for something historical to write about. Put yourself in my shoes, and think about what you would write about ...

(I actually like to hear your suggestions at our monthly meetings)

I have had some ideas in the past, here is one: Trying to find the oldest operational boiler in the area, and look for the design engineer-or the firm(s) that had a hand in building it. Quite hard to do.

I also thought about the oldest building in Boston-and the heating, or cooling systems within. This presents quite a challenge as well, we have torn down lots of buildings, while others have rotted away.

I finally thought to myself, The Old Corner Bookstore (My Grandmother used to take me there) would likely be the oldest building in Boston-and still intact-maybe? I just happened to look for it physically, guess what? It closed, sold out, and is now the location of a fast food chain. I guess my old T square and electric eraser will be cast away someday as well. I was totally demoralized learning this was the fate of a Boston Landmark!!

What next? How about crafting a story of HVAC History at Boston Children’s Hospital? This would be quite an undertaking to get the historical facts assembled-I could spend the entire ASHRAE season doing this, and fail to write a monthly news article.

I decided instead to think about what we focus on this time of year-and this month in particular: Thanksgiving.

What was Thanksgiving like in 1620 or 1621? I always wondered exact versus our Normal Rockwell images. There certainly was a lot of work required to keep warm in November. So, I will say thanks to all our founding fathers who invented wood stoves, gas furnaces, oil boilers, electric heaters, chimneys, and fans, air conditioners, and ALL the myriad of items we take for granted every day (until they don’t work).

Give yourself a pat on the back for doing what you do to make the planet a bit more comfortable. Others may not thank you directly, but, rest assured, someone, somewhere is the better for what you do.

Have a wonderful Thanksgiving holiday with your family.
On Wednesday, October 17th our own Eric Edman brought one of our student chapters, the Northeastern University Sustainable Building Organization (NUSBO), on a tour of the Boston Children's Hospital. The tour focused on the history of BCH and the mechanical systems of multiple wings of the hospital, including the James Mandell building. About 25 students received some excellent insight about the evolution of HVAC systems in the hospital along with the unique challenges faced with designing mechanical systems in a hospital. The students even got to take a peek at the construction of the Hale Family Clinical Building and the increased gardens and green space that will be implemented there. The NUSBO student chapter organizes a weekly speaker series about sustainability in the built environment and puts on a few tours each semester. You can find them at [www.NUSBO.org](http://www.NUSBO.org) or on their social media accounts (NUSBO on Facebook and NUSBO16 on Instagram). If you are interested in speaking or want to get in touch, reach out to NUSBO at nusbo16@gmail.com.

Submitted by Eric Landry, NU

Eric is currently a student pursing a Bachelor’s Degree in Civil Engineering at Northeastern University. He is interested in Green Building Practices and the methodology of sustainable construction.
B2Q Associates is a growing Consulting Engineering firm located in Andover, MA. Our environment is fun, flexible, and rewarding, with a tremendous opportunity for professional and financial growth. We are looking for an HVAC/Mechanical Energy Engineer to continue the growth of our engineering group.

The ideal candidate would have a diverse background with experience in energy auditing and designing energy efficiency measures for healthcare, college and university, and manufacturing/industrial facilities. If you like variety, this is the place for you! The candidate must have excellent communication and interpersonal skills, strong technical knowledge, believe in continuous improvement, and be a team player. Ideally the candidate’s skills would include:

- Three to seven years of experience in energy auditing, calculations, and report writing.
- Building and Process energy auditing and design experience: universities, commercial buildings, cleanrooms, science labs, healthcare, central plants, cogeneration, and building controls.
- Clear, organized calculations and very well-written documentation of energy efficiency measures.
- Experience commissioning new and existing facilities.
- Very strong skills with building controls and equipment operating strategies.
- Highly proficient with MS Word and Excel.
- Depth of knowledge of eQuest, Trace or other load calculation tools
- Interpret client requirements, identify and address operating parameters and engineering problems, and ensure solutions are implemented accurately and on budget. Capable of critical thinking, long term organization and system planning, and analysis to ensure success of projects.
- Experience with LEED and other green building standards.
- Depth of knowledge of Building and Energy Codes.
- Experience with AutoCAD and Revit.

At B2Q, we have a strong commitment to energy efficiency and making buildings and equipment operate at peak performance. The ideal candidate would share similar values regarding energy efficiency, and integrate those values into all aspects of their work. We offer a competitive salary commensurate with experience, a comprehensive benefits package, and a fun, dynamic, growing environment. If you would like to apply, please review our website at www.b2qassociates.com to find out more about us, and send a brief cover letter explaining why your experience and personality would be a good match for B2Q and include salary requirements. We are interested in every qualified candidate who is eligible and authorized to work in the United States.
STUDENT ACTIVITIES

By: Yuka Narisako

We held one of our two (2) annual student nights at the October meeting, and we are looking forward to our next student night next spring. In October the chapter hosted the Northeastern University student branch, NUSBO (Northeastern University Sustainable Building Organization) for a tour of the mechanical systems at Boston Children’s Hospital. I was impressed by the attentiveness and passion these students have for sustainable building design, and I am confident that these young engineers will make a powerful impact in our industry’s future.

The application for this year’s annual scholarship funded by the ASHRAE Boston Chapter will be regulated through the ASHRAE society. Please stay tuned to https://www.ashrae.org/communities/student-zone/scholarships-and-grants/ashrae-chapter-local-scholarship-programs for the Boston Chapter scholarship information!

Student branches should be expecting their annual student branch checks shortly. If you are a student branch advisor and have not yet received your check, please do not hesitate to email me!

Please contact me at c001sa@ashrae.net with any additional questions!

Webmaster’s Notes

By: Alex Gilman

Please make sure to add admin@ashraeboston.org to your “safe sender” list to prevent emails from going to your spam folder.

Please feel free to send comments and suggestions to c001web@ashrae.net

Here are some additions to look forward to for THE ASHRAE Boston Chapter Site in the following weeks.

• Updated monthly pictures of previous from previous ASHRAE meetings
• Schedule of future ASHRAE Events

EDITOR’S NOTE

By: Sophia Scoon


Please submit employment/want ads in .pdf, .doc or .jpg format. A company logo may also be included. Feel free to send any ideas you would like to share or include in next issue.

For additional information, refer to our website at www.ashraeboston.org.

For more information, please e-mail nordeastaire@gmail.com
ASHRAE and ASPE Strengthen Partnership with Signing of New MoU Agreement

Media Contact:
Allen Haynes
404-446-1677
ahaynes@duffey.com

ATLANTA (Oct. 12, 2018) – ASHRAE and the American Society of Plumbing Engineers (ASPE) have signed a new Memorandum of Understanding (MoU) formalizing the organizations’ relationship.

The MoU was signed by 2018–2019 ASHRAE President-Elect Darryl Boyce, ASHRAE Executive Vice President Jeff Littleton, 2016–2018 ASPE President Mitch Clemente, CPD, FASPE, and ASPE Executive Director/CEO Billy Smith, FASPE, on Oct. 1. The agreement defines parameters on how the two societies will collaborate more closely to continue furthering and promoting the advancements of a more sustainable built environment.

These include but are not limited to: general advocacy; research; technical committee coordination; joint conferences and meetings; training and education programs; publication distribution and chapter collaboration.

“We are excited about exploring collaborative ventures with ASPE,” says Sheila J. Hayter, 2018–2019 ASHRAE President. “Many ASHRAE members work in firms that provide a full spectrum of mechanical, electrical, and plumbing (MEP) services. The water-energy nexus in buildings is becoming more pronounced as we push buildings to perform using integrated building design tools and techniques.”

“Working with other professional societies in the broader engineering community is critical in today's fast-paced world of evolving technologies and engineering methods,” says Smith. “We look forward to working together with ASHRAE to promote ongoing education, best practices, networking and new technologies for a more sophisticated and sustainable indoor environment.”

About ASHRAE
ASHRAE, founded in 1894, is a global society advancing human well-being through sustainable technology for the built environment. The Society and its more than 56,000 members worldwide focus on building systems, energy efficiency, indoor air quality, refrigeration and sustainability. Through research, standards writing, publishing, certification and continuing education, ASHRAE shapes tomorrow’s built environment today. More information can be found at www.ashrae.org/news.

About ASPE
ASPE is the only professional organization devoted to the training and certification of plumbing engineers and designers. ASPE and its 6,400 worldwide members are dedicated to protecting the health, welfare, and safety of the public through the dissemination of technical data and information to expand the base of knowledge among plumbing engineers, designers, contractors, code officials, inspectors, and manufacturers. For more information, visit www.aspe.org.
ASHRAE, founded in 1894, is a global society advancing human well-being through sustainable technology for the built environment. The Society and its members focus on building systems, energy efficiency, indoor air quality, refrigeration and sustainability within the industry. Through research, standards writing, publishing and continuing education, ASHRAE shapes tomorrow’s built environment today. ASHRAE was formed as the American Society of Heating, Refrigerating and Air-Conditioning Engineers by the merger in 1959 of American Society of Heating and Air-Conditioning Engineers (ASHAE) founded in 1894 and The American Society of Refrigerating Engineers (ASRE) founded in 1904. In 2012, as part of a rebranding, ASHRAE began doing business as “ASHRAE” vs. using its full legal name of the American Society of Heating, Refrigerating and Air-Conditioning Engineers. Use of ASHRAE reflects the Society’s worldwide membership and that services will continue evolving globally.

ASHRAE’s Mission and Vision

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

**Vision:** 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.  

Learn More

With more than 56,000 members from over 132 nations, ASHRAE is a diverse organization representing building system design and industrial processes professionals around the world.

BECOME A MEMBER
ASHRAE’s Building Energy Quotient program takes your building on the next step beyond benchmarking. The program provides a quick energy analysis, assists in preparation of an ASHRAE Level 1 Energy Audit, and provides actionable recommendations for improving a building’s energy performance including low-cost, no-cost energy efficiency measures and an Indoor Environmental Quality survey with recorded measurements.

Two different evaluations can be used independently to compare a candidate building to other similar buildings in the same climate zone or together for an assessment of a building’s design potential compared to actual operation:

**In Operation** compares actual building energy use
- Based on actual metered energy use of a building
- Assists in preparation of on-site ASHRAE Level 1 Energy Audit
- Measurements confirm that indoor environmental quality is not compromised for energy savings

**As Designed** compares energy use based on the building’s physical characteristics and systems
- Simulated standardized energy use model
- Independent of operational and occupancy variables

**Benefits:**
- Includes metered energy data exchange from ENERGY STAR® Portfolio Manager
- Median EUI calculation aligned with ENERGY STAR Portfolio Manager
- Details actionable recommendations to improve a building’s performance
- Streamlines and improves the audit process
- Utilizes standard and consistent process for tracking improvement over time
- Creates an opportunity to reassess building performance following implementation of energy efficiency improvements to assess effectiveness (improved performance/rating)
- Provides a Building EQ performance score (efficiency) to benchmark building
- Offers a building label to recognize high performance buildings

For additional information, please visit ashrae.org/BuildingEQ.
## ANNUAL CORPORATE SPONSOR PROGRAM

Support the ASHRAE Boston Chapter by becoming a Sponsor and shining the spotlight on your organization.

### EVENT BEVERAGE SPONSOR

- Donation of $300 in your company name to ASHRAE Research – Boston Chapter Endowment
- Company name listed in the ASHRAE Insight and earn Honor Roll Corporate Status
- Company name display and recognition on name badges at the sponsored event
- One (1) complimentary tickets to the Annual Sponsor Recognition Event

### SILVER LEVEL SPONSOR

- Donation of $1000 in your company name to ASHRAE Research – Boston Chapter Endowment
- Company name listed in the ASHRAE Insight and earn Honor Roll Corporate Status
- Company name display on ASHRAE Boston Chapter website and monthly meetings for one year*
- Full-page ad in the Boston Chapter Roster & Product Guide for one year*
- Recognition on name badges at all events for one year*
- One (1) complimentary tickets to the Annual Sponsor Recognition Event

### GOLD LEVEL SPONSOR

- Donation of $1500 in your company name to ASHRAE Research – Boston Chapter Endowment
- Company name listed in the ASHRAE Insight and earn Honor Roll Corporate Status
- Company name display on ASHRAE Boston Chapter website and monthly meetings for one year*
- Full-page ad in the Boston Chapter Roster & Product Guide and half-page ad in the Boston Chapter newsletter – NortheastAire for one year*
- Recognition on name badges at all events for one year*
- Two (2) complimentary tickets to the Annual Sponsor Recognition Event
- Complimentary hole sponsor sign at the annual ASHRAE Boston Chapter Golf Tournament

### PLATINUM LEVEL SPONSOR

- Donation of $2500 in your company name to ASHRAE Research – Boston Chapter Endowment
- Company name listed in the ASHRAE Insight and earn Honor Roll Corporate Status
- Company name display on ASHRAE Boston Chapter website and monthly meetings for one year*
- Full-page ad in the Boston Chapter Roster & Product Guide and the Boston Chapter newsletter – NortheastAire for one year*
- Recognition on name badges at all events for one year*
- Four (4) complimentary tickets to the Annual Sponsor Recognition Event
- Company name on event name badge lanyards for one year*
- Complimentary hole sponsor sign at the annual ASHRAE Boston Chapter Golf Tournament

*ASHRAE Calendar Year – July 1 to June 30 of the following year
COMMITMENT FORM

I would like to become a sponsor for the ASHRAE Boston Chapter!

SPONSORSHIP LEVEL
Please check one

☐ PLATINUM $5000
☐ GOLD $3000
☐ SILVER $2000
☐ EVENT $1500

PAYMENT METHODS
PayPal – http://ashraeboston.org/oursponsors
Check – please mail the completed form and check to:

Chris Pietrocarlo
10 Guest St
4th Floor
Boston, MA 02135

SPONSORSHIP CHECKLIST
Please submit the following when you register to become a sponsor

☐ Sponsorship Commitment Form completed
☐ Company ad in high-resolution ESP or JPG format to be place in the Roster & Product Guide and/or the NortheastAire.
☐ Company logo in high-resolution ESP or JPG format to be place on the pre-meeting presentation and/or the Boston Chapter homepage

Questions? Please contact any of the ASHRAE Boston Chapter Corporate Sponsorship Committee members.

Mark Leonard
c001rp@ashrae.net
Dan Carington
c001@ashrae.net
Deanna Adkison
c001vp@ashrae.net

Bob Persechini
rpersechini@nv5.com
# 2018-2019 Meeting Schedule

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<tr>
<th>Date</th>
<th>Main Meeting/ Tech Session</th>
<th>Speaker</th>
<th>PDH Credits</th>
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<td>September</td>
<td><strong>Main Event:</strong> MIT NANO</td>
<td>Facility Manager Greg Shenstone</td>
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<td>Tuesday</td>
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<td>Joe Sterling</td>
<td>Yes</td>
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<td>Tuesday</td>
<td><strong>Main: Applying Needlepoint Cold Plasma In Commercial Applications To Reduce Ventilation Air, Construction /Renovation Costs, Energy And Maintenance</strong></td>
<td>Charlie Waddell</td>
<td>1.5</td>
<td>Embassy Suites 550 Winter St. Waltham</td>
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<td>December</td>
<td><strong>RADIANT METAL CEILINGS</strong></td>
<td>John Matuszek, MBA</td>
<td>TBD</td>
<td>Metro Meeting Centers 101 Federal St. Boston</td>
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<td>Tuesday</td>
<td><strong>Tech Session:</strong> TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>WIA</td>
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<td>January</td>
<td><strong>Tech Session:</strong> TBD</td>
<td>TBD</td>
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<td>Past President/ History &amp; Hall of Fame Induction</td>
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<td>Tuesday</td>
<td><strong>SUSTAINABILITY AND RESILIENCE - EXAMPLE OF COMMUNITY AND CAMPUS ENERGY ASSESSMENTS</strong></td>
<td>Chonghui Liu (CL), PE</td>
<td>Yes</td>
<td>Embassy Suites 550 Winter St. Waltham</td>
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<td>March</td>
<td><strong>Tech Session:</strong> TBD</td>
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<td>Membership Promotion/YEA/Student Activity Night</td>
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<td>Tuesday</td>
<td><strong>SUSTAINABILITY AND RESILIENCE - EXAMPLE OF COMMUNITY AND CAMPUS ENERGY ASSESSMENTS</strong></td>
<td>Chonghui Liu (CL), PE</td>
<td>Yes</td>
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<td>March 9</td>
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<td>April</td>
<td>WBGH Tour</td>
<td>David Price</td>
<td>N/A</td>
<td>Granite Links 100 Quarry Hill Dr. Quincy, MA 02169</td>
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<td>Thursday</td>
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<td>Membership Promotion/YEA/Student Activity Night</td>
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<td>April 9</td>
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<tr>
<td>May</td>
<td><strong>2019-2020 Installation of Officers</strong></td>
<td>TBD</td>
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<td>May 10</td>
<td><strong>2019-2020 Installation of Officers</strong></td>
<td>TBD</td>
<td>TBD</td>
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<td>May XX, 2019</td>
<td><strong>2019-2020 Installation of Officers</strong></td>
<td>TBD</td>
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<td>June</td>
<td>Golf Outing</td>
<td>TBD</td>
<td>N/A</td>
<td>Granite Links 100 Quarry Hill Dr. Quincy, MA 02169</td>
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<td>Tuesday</td>
<td><strong>Golf Outing</strong></td>
<td>TBD</td>
<td>N/A</td>
<td>Research Promotion</td>
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</tbody>
</table>
OFFICERS

President
Dan Carington
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November 2018
Mail Check (Payable to “ASHRAE Research”) to:

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Mark Leonard  
c/o Bard, Rao + Athanas Consulting Engineers  
10 Guest St. 4th Floor  
Brighton MA 02135

Name:_____________________________________________________________________________________________

Company: __________________________________________________________________________________________

Address: ___________________________________________________________________________________________

TEL: _____________________________________________________

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<th>INDIVIDUAL</th>
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<td>Other:</td>
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Your contribution puts us closer to achieving our goal. Please send what you can today!

Individual contributions of $100 or more and Corporate contributions of $150 or more receive this year’s Commemorative Coin and Honor Roll Contribution status.

CONTACT Mark Leonard at c001rp@ashrae.net