

Shaping Tomorrow's Built Environment Today

LONDON CANADA CHAPTER #116

http://LondonCanada.AshraeChapters.org

Mon March 27/2017

BOARD OF GOVERNORS President Khalid El-Kadri ph: 519-681-1977 khalid@somersep.com

Vice President Phil Cook 226-984-8637 pcook@ehpricesales.com

Treasurer John Freeman 519-266-3587 jfreeman@gpainc.ca

Secretary James Scudamore 519-457-1904 (202) jscudamore@airiabrands.com

COMMITTEE CHAIRS Technology Transfer Omar Gharib John Freeman

Membership Promotion Rajarajan Deenadayalan Andrew Crowley

Research Promotion Jordan Foster

Student Activities Matt Moore

> **YEA** Amer Djulbic

Grassroots Gov Activity James Scudamore

> History Eric Shaw

Newsletter Tom Pollard

Region 2 Assistent Regional Chair Ibrahim Simhatl **Topic Air Movement for Energy Efficient Comfort in Conditioned Spaces**

Speaker **Patrick Wilson and Max Beaumont** National Sales Manager and AE Specialist BIG ASS SOLUTIONS Toronto

Meeting - MONDAY MARCH 27/2017 MEMBERSHIP PROMOTION NIGHT

5:15 Social 6:15 Dinner 7:15 Presentation

PLEASE USE <u>PAYPAL</u> ADVANCED PAYMENT BEFORE MEETING

see chapter web site to register and pay http://LondonCanada.AshraeChapters.org

Meeting Location Ivey Spencer Leadership Centre 551 Windermere Rd., London



<u>President's Message</u>

Spring is here! Warmer weather, but definitely not as warm as the temperatures that we were seeing in February. In any case, it is spring with longer days and hopefully more sunshine.

I would like to thank our DL speaker last month Dr. Drury B. Crawley for an informative presentation on climate change. Throughout his presentation, Dr. Drury included data reflecting the Canadian climate change, tailoring it specifically to our audience. Dr. Drury also did a presentation at Western University on Standard 189.1, which was well received by the HVAC II students.

The theme for this meeting is membership. Our local membership chair, Andrew Crawley, is working hard to achieve the objectives that were set at the beginning of this ASHRAE calendar year. Andrew will be updating us on the progress of membership committee at the meeting. Our guest speakers this month will be Max Beaumont and Patrick Wilson from Big Ass Solutions. They will be presenting on: "Air Movement for Energy-Efficient Comfort in Conditioned Spaces".

Last but definitely not least, our famous annual golf tournament is scheduled for June 5, 2017. Online Registration is now open. Please see more details in the newsletter and on the website. Please be sure to reserve your team today so that you don't miss out. Historically this tournament has always sold out!

I hope to see everyone at the upcoming chapter Meeting. Khalid El-Kadri Chapter President 2016-2017 ASHRAE London Canada Chapter

2017 ASHRAE ANNUAL CONFERENCE

Long Beach, California | June 24-28, 2017



Upcoming Meetings

(check chapter web site for latest information) Thu April 20/2017 - Society Webcast: Take Control: Using Analytics to Drive Building Performance Mon June 5/2017 - Golf Tournament Greenhill Golf Club **** Registration now open **** https://goo.gl/forms/GOifok0Hm7mZA3K22

Other Meetings

June 24 to 28, 2017 = ASHRAE Annual Conference - Long Beach, CA Oct 19 to 22, 2017 = ASPE Technical Symposium - Montreal Quebec American Society of Plumbing Engineers (aspe.org) Jan 20 to 24, 2018 = ASHRAE Winter Conference - Chicago, IL Jan 22 to 24, 2018 = AHR Expo - Chicago, IL June 23 to 27, 2018 = ASHRAE Annual Conference - Houston, TX Jan 12 to 16, 2019 = ASHRAE Winter Conference - Atlanta, GA Jan 14 to 16, 2019 = ASHRAE Annual Conference - Kansas City, MO Feb 3 to 5, 2020 = AHR Expo - Orlando, FL Jan 25 to 27, 2021 = Chicago Jan 31 to Feb 1, 2022 = Las Vegas





Mon March 27/2017

Meeting Topic

Air Movement for Energy Efficient Comfort in **Conditioned Spaces**

As we move increasingly towards market viable net-zero buildings with initiatives like ASHRAE Vision 2020 and the 2030 Challenge, we must reevaluate the role that typical building components play in a facility's energy efficiency. ASHRAE 55 has highlighted the impact of elevated air speed on thermal comfort, and in recent years innovative designs ha reestablished air movement as an integral part of occupant comfort and energy conservation Furthermore, recent changes to Appendix G of ASHRAE 90.1 allow the inclusion of energy savings from using elevated air speed in energy simulations. When integrated into new building designs, air movement allows a reduction of air conditioning capacity and ductwor In the winter, low speed air circulation redirects heated air trapped at the ceiling, resulting i significant energy savings. Project teams working on net-zero buildings have proven the effectiveness of incorporating air movement in building plans as part of an integrated desig strategy.

Learning Objectives:

Primary factors affecting human thermal comfort and basics of ASHRAE Standard 55 1. 2010 and the ASHRAE Thermal Comfort Tool.

2. Use of elevated air speed for increased air distribution efficiency & energy savings within air conditioned spaces.

Additional design benefits of minimizing ductwork, lower HVAC first cost, improved 3. ventilation rates, and condensation reduction.

4. Stratification & Destratification, and the significant energy saving potential from destratifying a large open space

Presentors

Patrick Wilson

National Sales Manager at Big Ass Solutions, leads the team responsible for continuing education and technical assistance in the building design process. He works with architects engineers and designers to help maximize air movement and lighting layouts. His goal is to ensure clients meet their energy efficiency, green building and interior design goals. Patrick brings eight years' experience in the HVLS fan industry to his work with architects and designers.

Max Beaumont

Through his career, Max Beaumont has presented on a variety of subjects to more than 10 companies nationally, including Bank of Montreal, General Mills, Salesforce, and TD Bank, well as at several United Way speaking engagements.

Max Beaumont, AE specialist for Big Ass Solutions, provides continuing education courses and technical assistance for architects, engineers and small to large size national organizations to help them understand the benefits of air movement and HVLS fans in their designs. Max serves as a first point of contact and a close partner for firms and agencies interested in learning more about Big Ass Solutions, and through this educational and business developmental role, Max has been largely responsible for the growth of Big Ass Solutions in Eastern Canada. Max brings a background in fundraising, education and business development to his work at Big Ass Solutions.

ENVIRONMENTAL PRODUCTS INC.	www.somersep.com
Daryl Somers, <i>cet</i>	
96 Meg Drive, London, Ontario I <i>Phone:</i> 519-681-1977 <i>Fax:</i> 519 <i>Email:</i> daryl@somersep.com	N6E 3T7 9-686-9324 <i>Cell:</i> 519-670-7720
Norm Clark District Mana TRANE Trane Cana 8 Belleisle C London, On	e, P. Eng. ager da ourt N5V 4L2
Tel 51945 Fax 51945	3 3010 3 3024
Windsor Tel Sarnia Tel	519 256 7922 519 337 0740
Jason Vandenberghe Techn	ical Sales Representative
AQUA	IECH
Sales & Marketing Inc.	DN 171 502
Bus: (905) 631 5815 Fax: (90.	5) 637 8655
G.T.A. Bus: (647) 288 0980 C Email: jasonv@aguatech.ws	ell: (519) 670 8066
www.aquatech.ws	
Jim Bender, P.Eng., LEED AP® Contracting Sales jim.bender@hts.com C 519.871.0886 HTS London 320 Neptune Cres. London, Ontario N6M 1A1 T 519.457.6700 Ext. 2601 F 519.457.8900	HTS
Toll Free 800.341.3110 ontario.htseng.com	MANAGED
Belnor.	1 Royal Gate Boulevard, Unit J Vaughan, ON Canada L4L 8Z7
innovative control solutions	
Account Executive	
Tel: 905-264-6372 Ext. Fax: 905-264-6432	204
aarora@belnor.com	www.beinor.com
CDV	Paul Glendenning
	Regional Sales Manager SPX Cooling Technologies, Inc.
	4141 Sladeview Crescent, Unit 19 Mississauga, Ontario L5L 5T1 CANADA
	MOB 416 464 0838 TEL 905 607 6446 x347
> Marley	FAX 905 607 6447 paul.glendenning@spx.com
>Recold	spxcooling.com



CONNECT-A-COLLEAGUE

Informing colleagues about ASHRAE takes less than 1 minute now with Connect-a-Colleague. During #MarchIntoMembership contest you could win a \$500 American Express gift card when your colleagues join ASHRAE through your customized email referral. Connect-a-Colleague simply creates an automated email on your behalf and the more people you invite during the month of March, the more chances you have to win.

ASHRAE member referrals continue to be the top reason new members join. As an ASHRAE member, your referral is a very powerful tool that can benefit your colleagues, your Society, and the HVAC&R industry. Please take a minute to Connect-a-Colleague today.

Get started now: www.ashrae.org/connect

ASHRAE JOB BOARD

The updated ASHRAE job board is proving to be the new hot spot for connecting candidates and hiring managers. Over 1300 jobs are currently posted, and users can post resumes anonymously. Learn more

www.jobs.ashrae.org.

Sign up for job alerts today on ASHRAE Job Board and you will be notified as soon as the jobs you want are posted!

Research

The following have contributed to ASHRAE Research so far this fiscal year. Honor Roll level contributors will be listed in the ASHRAE Journal. All honour roll donors will be listed in the Newsletter and on the website for the duration of the fiscal year. Donate early!

Individual Donors - \$100-\$249 (Honor Roll Level)

Tom Pollard James Scudamore Norm Clarke John Freeman Peter Golem

Ibrahim Semhat John Freeman Ben Oliver Eric Shaw Matt Moore

Individual Donors - \$250-\$499 (Major Donor Level - Antique) Jerry Lavender, Derek Vakaras

Corporate Donors - Up to \$250 CJ Zettler & Associates Ltd Roberts Bros Sheet Metal Contractors Ltd JMR Electric

Corporate Donors - \$250+ (Honor Roll Level) **Baymar Supply O'Dell Associates Curney Mechanical**

Jordan Foster Khalid El-Kadri

Amer Djulbic

Terry Arcese

Phil Cook

ASHRAE Insights - Feb 2017 issue (check out page 3)



London Canada Chapter Recognizes Local 2015/2016 RP Donours



ASHRAE LONDON CANADA CHAPTER #116 http://LondonCanada.AshraeChapters.org Page 4

Mon March 27/2017



IBRAHIM M. SEMHAT P.ENG, LEED® AP BD+C Account Executive, Building Systems & Service Building Efficiency

Johnson Controls Canada LP 90 Bessemer Road London, ON N6E 1R1 Canada Direct 519-691-3138 Mobile 519-852-1470 Fax 519-681-9322 lbrahim.Semhat@jci.com www.johnsoncontrols.com









SAVE THE DATE www.ashrae.org/webcast <u>ASHRAE Webcast - Thur April 20</u> <u>Using Analytics to Drive Building Performance</u>

FREE PDHs for your participation! The Webcast has also been approved for three (3) AIA HSW Learning Units (LU/HSW) and three (3) GBCI Continuing Education Hours (CEs).

This webcast will feature industry experts who will define the importance of, and why we should strive for, better building operations through improved controls and analytics. Viewers will be able to describe key elements of controls and analytics for building operations, and identify steps required to deploy analytics in building projects, including commissioning. This program will quantify how applying best practice controls improve building performance, and will recognize the value of analytics in building operations to achieve a reduced cost and increased performance.

Membership

Hello fellow ASHRAE London members.

My name is Andrew Crowley and I have had the privilege of serving as this year's Membership Promotion Chair. As the 2016/2017 ASHRAE year is nearing its end, I thought this would be a good time to review this year's membership statistics.

- 170 London chapter ASHRAE members33 YEA members
- YTD new members7YTD new student members15YTD cancelled members5YTD cancelled student members4YTD transfers IN2YTD transfers OUT0

From the statistics above, I am pleased to report a net gain of 4 members, and a net gain of 11 student members!

It has been a pleasure serving as this year's MP chair and we can all look forward to further success next year!

Andrew Crowley, P.Eng ASHRAE London Canada - MP Chair

ASHRAE TORONTO http://www.torontoashrae.com/ Toronto HVAC Design Training May 2017

https://www.ashrae.org/education--certification/hvac-design-and-operation-training/toronto-hvac-design-training-may-2017

May 8 - 10, 2017 HVAC Design: Level I - Essentials

Bonus – Free Copy of ASHRAE Green Buildings Standard and User's Manual
<u>May 11-12, 2017 HVAC Design: Level II - Applications</u>
Bonus – Free Copy of ASHRAE GreenGuide: The Design, Construction, and Operation of Sustainable Buildings, 4th ed.

See web site for more information and registration (Early Bird Discount available up to April 8/2017)

2017 CAREER FAIR

Where: Centennial College, 941 Progress Ave, Toronto ON M1K 5E9 When: March 29th 9:00 AM - 1:30 PM

ASHRAExCHANGE

Want to stay updated with ASHRAE instantly? Log onto to ASHRAExCHANGE to ask questions, discuss industry news and connect with other engineers!



Business Card Ads Place your business card HERE contact: Newsletter Editor Tom Pollard <tpollard@execulink.com> or Chapter Treasurer John Freeman <jfreeman@gpainc.ca>



Improving Existing Building Operation When: May 18 - 19, 2017 | Chicago, IL

cago, IL Cost: \$599 (ASHRAE Member: \$499)

ASHRAE's Improving Existing Building Operation training focuses on identifying ways to improve existing HVAC system efficiencies and reducing utility expenses while maximizing performance of the building systems. The training details proper system operation and maintenance, as well as introducing methods for evaluating potential system improvements.

In two days, gain knowledge and understanding of the proper operation and maintenance of existing HVAC systems to increase building performance. The training equips attendees with the techniques to measure existing building performance to make their facilities operate more efficiently and economically.

BONUS! Get a FREE copy of ASHRAE STANDARD 100-2015! A \$100 Value!

https://www.ashrae.org/education--certification/hvac-design-and-operation-training/improving-existing-building-operation

ASHRAE's 2017 Annual Conference

The future of net-zero energy buildings is already here. Stay in the forefront by attending ASHRAE's 2017 Annual Conference June 24-28, in Long Beach, CA. Early bird registration is now open.

What To Expect

An exciting Welcome Party held at the Aquarium of the Pacific, complete with otters! An inspiring, world-renowned keynote speaker, Derreck Kayongo, Founder of the Global Soap Project. Nine tracks that address design strategies for net zero energy buildings, various forms of commissioning, extensive fundamentals and applications programs, and others.

Plenary - Saturday, June 24, 3:15 pm Keynote Speaker, Derreck Kayongo CEO of the Center for Civil and Human Rights & Founder of the Global Soap Project

To register and cmore conference information see: www.ashrae.org/LongBeach

<u>CONFERENCE - WINDSOR</u> <u>ENERGY AND NATURAL RESOURCES 2017</u> https://www.environmentalenergyinstitute.com/eanr2017 June 22-23/2017 UWINDSOR

The sustainable production and use of energy is critically linked to our invaluable natural resources. Both renewable and fossil energy sources are reliant on the availability of elements essential to our living environment. Energy and Natural Resources (EANR) 2017 will set a vital focus on the interconnectivity between energy and the environment. The outcomes driven event is bent on connecting ALL relevant stakeholders - such that the most pressing issues are moved forward with quantifiable and sustainable momentum.

TOPIC FOCUS

EANR2017 will explore the following topics. It is important to emphasize that each of technology, policy, and financial aspects of these topics will be examined.

Renewable and Fossil Energy Generation Innovative Energy Finance and Market Dynamics Carbon Sequestration Water's Role in Energy Extraction and Generation Energy's Role in Water Treatment and Transportation

Energy Storage Carbon Mitigation Strategies Mini/Microgrids Geo-Energy Interaction Energy Systems Design and Integration Carbon Capture Greenhouse Energy Systems Northern Energy Systems Island/Isolated Energy Systems



ASHRAE Seeks Practitioners and Designers for 2017 Building Performance Conference Activities

ATLANTA – ASHRAE is seeking presenters for its new Building Performance Analysis Conference as well as teams for its annual LowDown Showdown modeling competition.

The ASHRAE Building Performance Analysis Conference takes place Sept. 27-29, 2017, in Atlanta, Ga. The modeling competition is part of that event.

"This conference engages the design aspect of modeling and simulation," Dennis Knight, conference chair, said. "Our goal is to serve practitioners with the most up-to-date best practices, work flows and processes required to plan, design, construct and operate high performing, low energy consuming, environmentally responsive and responsible, safe, secure and healthy buildings for human occupancy."

A call for presenters is now open for presentations that address topics of interest to practitioners, modelers and designers.

Also, the ASHRAE LowDown Showdown modeling competition returns for its third year. Participants will model an existing building that includes both office space and climate controlled archival warehouse space.

The 2017 competition features two changes: it is now a competition vs. a challenge, and conference attendees can now form their own teams to retrofit an existing building.

For more information about the conference, to submit a presentation proposal or sign up for the modeling competition, visit www.ashrae.org/BuildPerform2017.

ASHRAE Announces Delhi, India as Site for 2017 Developing Economies Conference ATLANTA – ASHRAE has announced that its second Developing Economies Conference will take place Nov. 10 and 11, 2017, in Delhi, India.

The conference addresses the challenges developing countries face in infrastructure and urbanization as well as air pollution, refrigerant phasedown and lack of trained manpower.

"Developing economy countries are in many ways leapfrogging technologies while simultaneously handicapped due to inadequate education and regulations," Ashish Rakheja, conference chair, said. "At the same time, there is increasingly more new construction and demand on energy sources and a corresponding demand for excellent technical information to cope with these demands."

The conference theme is titled "Trends, Opportunities and Challenges for the Built Environment in Developing Economies."

The conference is focused on trends that are affecting the built environment in developing economies and the opportunities and challenges presented by these trends.

"This conference seeks to provide consulting engineers, building professionals and policymakers with guidance that will help them successfully meet the challenges in their countries," he said.

The conference attempts to bring together experts from all over the world. A call for conference presenters is now open. Presentations are sought on the following topics:

Technologies that are game changers in building design

Solutions to challenges, such as outdoor and indoor pollution, refrigerant phasedown, lack of trained manpower and expensive technologies Standards, measurement and rating standards being developed and adopted to bring a common language for built environment evaluation, such as ASHRAE's Building EQ, local standards, etc.

Regulatory changes and direction affecting the building industry, such as energy codes

Evolving economic models and their impact on building planning and use.

The presentations and sessions cover aspects of energy efficiency, comfort, indoor air quality, wellness and environmental impact of buildings in developing economy countries as affected by the air-conditioning, heating and ventilating systems for the buildings. Abstracts (400 or less words in length) are due July 7, 2017. For more information or to submit a presentation proposal, visit www.ashrae.org/Developing2017.

The conference is co-organized by ASHRAE, the ASHRAE India Chapter and ISHRAE.



ASHRAE Reaches Highest Membership in 14 Years

ATLANTA – ASHRAE, long known for its contributions to the built environment technology industry, now boasts more than 56,000 members. ASHRAE membership is individual based, reflecting the Society's diverse representation of building system design and industrial processes professionals around the world.

"This growth reflects ASHRAE's influence on building standards and best practices around the world," Tim Wentz, ASHRAE president, said. "Our members recognize that the Society increasingly provides opportunities to network with the global built environment's best and brightest."

In 2016, ASHRAE reached 56,105 members, its highest in 14 years. ASHRAE currently has 181 chapters, 41 sections and 234 student branches around the globe, with members in 130 countries.

Seventy nine percent of ASHRAE's total membership is based in the U.S. and Canada, while 21 percent is from other countries, an increase from 18 percent from two years ago.

ASHRAE's Region-at-Large, which encompasses the Middle East, Pakistan, Sri Lanka, India, Africa and Europe, had the largest percent gain in membership in the Society year of 2015-16.

"From expansion into residential markets to providing resources for the quickly changing refrigerant industry, ASHRAE will continue to use the expertise of its members to further the technology of tomorrow," Wentz said. "At the same time, ASHRAE is partnering with other organizations dedicated to working toward a more sustainable environment, creating a worldwide best-practices databank of innovative and successful technologies that will serve the built environment community."

ASHRAE currently has more than 130 published standards and guidelines and is one of only six standards-developing organizations in the U.S. that can self-certify that its standards have followed American National Standards Institute's (ANSI) standards development procedures.

The Society is also one of the only HVAC&R organizations that maintains its own research program, which currently has 56 active research projects with a combined value of more than \$9 million. That research is overseen by some 100 technical committees representing 4,200 people.

ASHRAE produces hundreds of publications, including the ASHRAE Handbook, books on specialized topics within the field, and various CDs and DVDs. The Society also publishes the peer-reviewed monthly ASHRAE Journal, quarterly High Performing Buildings and bimonthly Science and Technology for the Built Environment.

Through the ASHRAE Learning Institute, ASHRAE offers more than 100 courses in a variety of formats, including eLearning, professional development seminars, short courses and self-directed learning courses. In addition, ASHRAE offers six certification programs for individuals.

Three ASHRAE Professional Certifications Earn ANSI Accreditation

ATLANTA – Three ASHRAE certifications have received accreditation from the American National Standards Institute (ANSI), joining the High Performance Building Design Professional (HBDP) certification that was accredited last year.

Accreditation was approved May 23 for ASHRAE's Building Energy Assessment Professional (BEAP), Building Energy Modeling Professional (BEMP) and Commissioning Process Management Professional (CPMP) under International Organization for Standardization (ISO)/ International Electrotechnical Commission (IEC) 17024:2012.

"Obtaining accreditation from ANSI speaks to the credibility of ASHRAE's certification program, while demonstrating to the industry the value of those who hold the certifications," David Underwood, P.Eng., CPMP, said. "As a holder of ASHRAE's CPMP, I am grateful for the added value that comes from ANSI approval."

The certifications that were accredited are:

Building Energy Assessment Professional (BEAP)

The BEAP certification program validates competency to audit, assess and analyze residential, commercial and industrial building energy use and develop related recommendations. Certified BEAPs also qualify to perform In Operations ratings for ASHRAE's Building Energy Quotient (bEQ) program.

Building Energy Modeling Professional (BEMP)

The BEMP certification program validates competency to model new and existing building and systems with the full range of physics, and evaluate, select, use, calibrate and interpret the results of energy modeling software where applied to building and systems energy performance and economics. Certified BEMPs also qualify to perform As Designed ratings for ASHRAE's Building Energy Quotient (bEQ) program.

Commissioning Process Management Professional (CPMP)

The CPMP certification program validates competency to develop and manage the whole building commissioning process with the owner.

More information about the program can be found at www.ashrae.org/certification.

Workforce Development in Canada

There is a pressing need in the HVAC&R industry to meet employer demand for highly-skilled, wellpaying jobs. By 2022, an estimated 115,000 HVAR&C technicians will be needed to fill openings as a result of industry growth and retirements. In response, ASHRAE banded together with the organizations below to form the HVACR Workforce Development Foundation. The Foundation consists of several organizations with Canadian members (such as ASHRAE) including:



ASHRAE's Canadian and Global Alliances

ASHRAE works closely with several Canadian organizations, including the Canadian Green Building Council, the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI), and the Building Owners and Managers Association (BOMA) of Canada. The Society also has a strong relationship with the United Nations Environmental Programme (UNEP) and works with professional organizations in over 50 countries through the ASHRAE Associate Society Alliance. The technical expertise generated by this global network helps foster innovation around the world.

Supporting Women & Minorities

ASHRAE is focused on encouraging minorities and women to enter careers in the HVAC&R industry. ASHRAE is a supporter of Women in HVAC&R, an organization formed at the 2002 AHR Expo in Chicago, Illinois, which is cosponsored by ASHRAE and the Air-Conditioning, Heating, & Refrigeration Institute (AHRI).

Elementary and Secondary Education: The Need for Science, Technology, Engineering, and Mathematics As professionals focused on design, construction, operation, and maintenance of the Canada's buildings and infrastructure, and as educators of future generations of engineers, ASHRAE members recognize the importance of a solid foundation in science, technology, engineering and mathematics (STEM), and as a result, many are active in their local communities and national programs, bringing exciting science and engineering programs to students.

ASHRAE strongly believes that education in STEM subjects is needed at the elementary and secondary school levels to develop the future supply of technicians, engineers, and scientists to meet future workforce needs and ensure our future standard of living. We further believe that parents, educators, governments at all levels, and the private sector have important roles in ensuring that future generations possess the skills and critical competencies necessary to be successful in a highly competitive, global, and technologically sophisticated economy. We must work cooperatively to ensure that children receive the STEM training essential for future success.

Consulting engineers Contractors Manufacturers College Students University Professors Architects

ASHRAE MEMBERS

Founded in 1894, is a global society advancing human well-being through sustainable technology for the built environment. The Society and its more than 55,000 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.

www.ashrae.org/GovernmentAffairsUpdates



Shaping Tomorrow's **Built Environment Today**



Canada is home to 5,900+ ASHRAE Members, 16 Chapters and 36 Student Branches

www.ashrae.org

Public Policy Priorities: Taking Action on Shared Values

ASHRAE's Role in Climate Change Mitigation and Environmental Stewardship

ASHRAE believes the overwhelming scientific research that climate change is the most formidable environmental challenge faced by the global community today.

ASHRAE's Adaptation to Climate Change	
Fund	scientific research on the impact of greenhouse gases (GHGs) and climate change through our expertise in heating, ventilating, air conditioning and refrigerating (HVAC&R) technologies and applications.
Analyze	the impact of climate change through lower global warming potential (GWP) refrigerants and energy efficient HVAC&R technology.
Contribute	to the successful phase out of ozone-depleting chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs).
Promote	responsible use of refrigerants and efforts to advance technologies that minimize impact on the environment while enhancing performance, cost effectiveness, and safety.

Integrate

energy efficient HVAC&R systems and building designs to lower GHG emmissions and make progress towards climate change goals.

Environmental Stewardship

Living in Environmental Harmony without Compromise: The Promise and Reality of High-Performance, Green Buildings High-performance, green buildings are in many ways the future of the built environment, as they bring together elements such as site sustainability, water use efficiency, energy efficiency, indoor environmental quality, and other elements that collectively take into consideration the building's full impact on the ecosystem. High-performance buildings foster better health, well-being and productivity.

Such buildings currently exist, but help is needed today to pave the way to the future. ASHRAE has developed and cosponsored a number of standards, guides, and professional certifications, some of which are highlighted below:

- ANSI/ASHRAE/USGBC/IES 189.1 Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings as an alternate compliance path to the International Green Construction Code.
- International Green Construction Code (IgCC)
- 2015 National Green Building Standard[™] (NGBS)
- High-Performance Building Design Professional Certification

ASHRAE also promotes the use of cutting-edge best practices, practical solutions, and technologies in the building industry through case studies in High Performance Buildings Magazine, a quarterly, free publication.







ASHRAE Canada Research

Standard 90.1 Appendix G 2013

to a contrast or the book patient of the other with the second seco

ASHRAE) 🎇 🌚

Since 1959, ASHRAE has a significant research presence in Canada. These research projects are funded in large part by donations from approximately 800 Canadian members and companies.

ASHRAE's role in Canadian standards development

The national Canadian government prepares the National Model Construction Codes. In developing the codes, Canada draws heavily from ASHRAE standards, such as ANSI/ ASHRAE/IES Standard 90.1-2013 Energy Standard for Buildings Except Low-Rise Residential Buildings. The model codes are then adopted, modified if desired, and enforced by provinces and territories.

on how to meet the design challenges created by cold climate conditions, from initial planning to completion.

Indoor Environmental Quality

Improving Building Occupant Health, Comfort, and Productivity While Increasing Building Energy Efficiency People spend about 90 percent of their time indoors, as a result, indoor environmental guality (IEQ) has a direct impact on health, comfort, and work productivity. IEQ includes factors such as the concentrations of indoor air pollutants, temperature, humidity, lighting, and noise. Well-established research has linked poor IEQ to illnesses such as Legionnaires' Disease, lung cancer, pulmonary tuberculosis, severe acute respiratory syndrome (SARS), carbon monoxide (CO) poisoning, and asthma attacks. HVAC&R and other building systems play a central role in IEQ.

Superior indoor air quality enhances quality of life while boosting the economy by improving health (thus reducing healthcare costs and absenteeism), school and work performance. ASHRAE has developed a number of standards and guidelines to address the need for good indoor air and environmental quality. In concert with these documents, ASHRAE encourages policymakers to act on the following recommendations:

- ventilation and IAQ standards.
- A several fold increase is needed in government and foundation support for IAQ research to address the high priority research agenda described in this document.
- Sustainable building performance codes, programs and standards should be based on thorough consideration of the many parameters impacting IAQ to ensure that limited resources are used effectively and IAQ is not compromised for other goals.
- It is critical to maintain acceptable IAQ as significant changes are made to building design and operation to dramatically reduce energy consumption in response to the threat of global climate change.

In a move to further broaden the impact of IAQ expertise, ASHRAE also recently consolidated with the Indoor Air Quality Association (IAQA) - a large trade association with over 2,600 members and more than 20 local Chapters throughout Canada and the United States.



IAQ Conference Held in Canada In a move to deepen understanding of the balance between energy efficiency and IEQ, and provide direction for future research, education, and policy, in 2013, ASHRAE held a conference in Vancouver, British Columbia, Canada entitled "Environmental Health in Low Energy Buildings". The international conference brought together experts from a number of fields and was the 17th in the series of ASHRAE IAQ Conferences that began in 1986. The next such conference will take place from September 12 to 14, 2016 in Alexandria, Virginia, United States and is entitled "Defining Indoor Air Quality: Policy, Standards and Best Practices."



Designing for the Unique Challenges Posed by Cold Climate

ASHRAE's Cold-Climate Buildings Design Guide identifies strategies



• National, provincial, and territorial governments should support the adoption into codes of ASHRAE's