

Shaping Tomorrow's Built Environment Today

November 2023 Page 1

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ASHRAE LONDON CANADA CHAPTER #116

TOPIC: Reducing Carbon Emissions and Achieving Enhanced Indoor Environments in a Portfolio of Buildings

<u>Presenter:</u> Darryl K. Boyce, P.Eng. 2019-2020 ASHRAE President

Monday November 20th, 2023 – Student Night

5:00pm to 6:00pm = Social; 6:00pm to 7:00pm = Dinner; 7:00pm = Presentation

Rec Room Masonville 1680 Richmond Street



Registration Link https://forms.gle/ofMdazTJLtJBrmD89

\$85 - Members | \$25 - Students





November Topic

Reducing Carbon Emissions and Achieving Enhanced Indoor Environments in a Portfolio of Buildings

The presentation will provide a roadmap to evaluate the opportunities to reduce the Energy use and Carbon emissions in existing buildings while improving the indoor environment. The presentation will demonstrate several evaluation tools that can be used to prioritize the in initiatives to be implemented in each facility.

November Presenter

Darryl K. Boyce, P.Eng. 2019-2020 ASHRAE President

Darryl K. Boyce, P.Eng., Fellow/Life Member ASHRAE, was the ASHRAE President for the 2019-2020 term. Boyce has previously served on the board of directors as treasurer, vice president, Director, and Regional Chair Region 2 and director-at-large. More recently Boyce served as the Chair of the Society Government Affairs committee (2022-23) and currently serves as the Vice-Chair of the societies Development Committee and the Headquarters Building Ad hoc.



Boyce is retired and was previously special advisor to the vice-president (Finance and Administration) – and the assistant vice president of facilities management and planning – at Carleton University in Ottawa, Ontario

Throughout his time spent with ASHRAE and in the HVAC industry, Boyce has worked on various projects to increase energy efficiency and improve indoor environmental air quality. His most recent projects include the SNOLAB project in Sudbury, Ontario, where he is responsible for the design and construction of a world class research facility for underground science.

Boyce is a 1982 graduate of the University of Alberta with a Bachelor of Science in Engineering and earned his Engineering Diploma from the British Columbia Institute of Technology in 1973.



http://LondonCanada.AshraeChapters.org

November 2023 Page 3

2023-2024 Chapter President's Message

To ASHRAE London Chapter Members,

To introduce myself – I am Jeff Armstrong, your ASHRAE London Chapter President for 2023/2024. I've been working in the local industry for the past 8 years and have been involved with ASHRAE for the duration of my career so far. I believe it is important to have a local industry group that facilitates professional development and as well as peer to peer networking.

Our goal for this year is to refine the chapter operations so that our local members can extract as much value out of participating as they possibly can. We are still navigating the trends of the post-covid world and as such we are still trying to customize and refine our processes and meetings in the direction that our members want it to be.

An initiative we have will be to provide participation certificates to members that they can keep for PDH hours. With the recent guidelines from PEO this will be an important item for industry professionals to keep track of.

We have an excellent board of governors of volunteers who share the same goal of growing the chapter by providing value to the members. The first half of the meetings are planned at venues that we have not tried before and we are excited to receive feedback on the meetings. Everything the chapter decides to do is based on feedback we have received so it is highly encouraged to please pass on any thoughts or comments about anything the chapter decides to do. This is your local chapter and our priority is providing value to our local members.

Also I want to highlight your donations to chapter and society help us to run the chapter operations as well as achieving ASHRAE's mission to serve humanity through continuous research in HVAC/R industry. Please continue your support and feel free to donate using link in chapter website.

If any members are interested to volunteer for the chapter, please contact me at <u>jeff.armstrong@trane.com</u> or anyone listed on the board!

Jeff Armstrong, P.Eng.

ENVIRONMENTAL PRODUCTS INC.			
Scott Turner, Technical Sales Rep			
96 Meg Drive, London, Ontario N6E 3T7 96 Meg Drive, London, Ontario N6E 3T7 Phone: 519-681-1977 Fax: 519-686-9324 Cell: 519-673-9182 Email: scott@somersep.com			
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John Xiang, P.Eng., LEED AP BD+C - Systems Manager johnx@durellcontrols.com			
Phone (519)685-5432 Ext. 602			
95 Enterprise Drive, London, Ontario N6N 1A6			



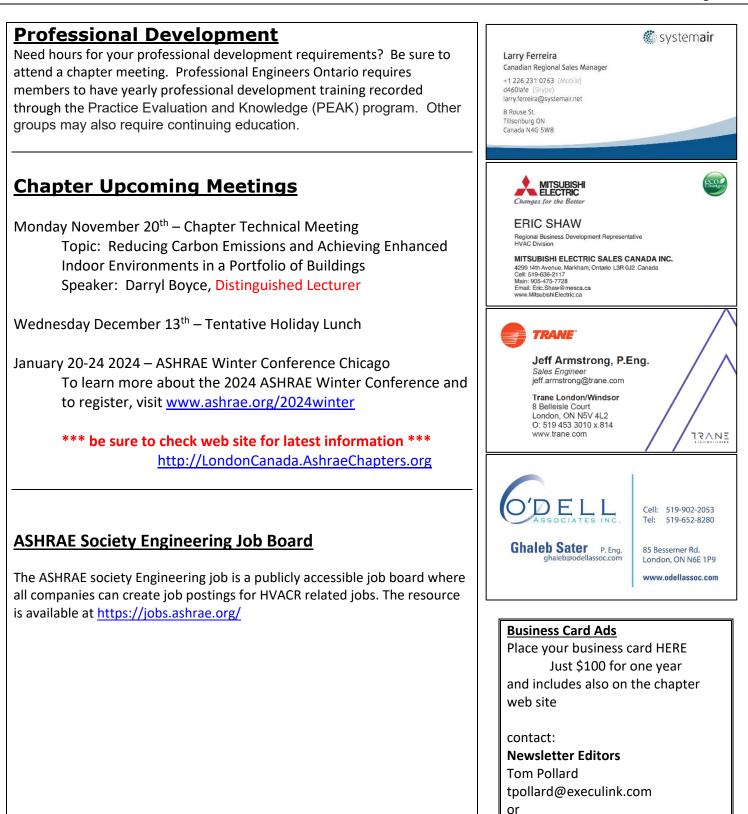
ASHRAE LONDON CANADA CHAPTER #1160

Scott Sinclair

scott.sinclair@chorley.com

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November 2023 Page 4





Shaping Tomorrow's Built Environment Today

ASHRAE RESEARCH

Hello ASHRAE London Members,

My name is Glenn Kernaghan and I am the Chapter Research Promotion Chair for this year. Our Research Promotion goal for this year is \$10,000 and look forward to reaching this goal through your continued support.

This year we will be recognizing donors at a RP Donor Recognition meeting by displaying individual and company donors prior to one of the technical presentations. Donors will also be recognized in the monthly newsletter and on the London Chapter website. To donate online please visit: <u>http://www.ashrae.com/donate</u>

Current Donors:

Glenn Kernaghan

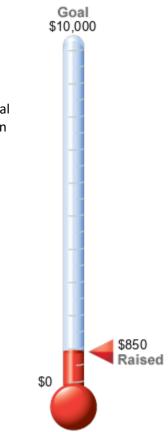
<u>Current Honour Roll Individual Donors:</u> Jeff Armstrong

Current Honour Roll Corporate Donors:

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Contribution Levels	Individual	Company
Honour Roll	\$150 +	\$500 +
Major Donor (Bronze)	\$250 - \$999	\$500 - \$999
Major Donor (Silver)	\$1000 - \$2,499	\$1000 - \$2,499

If any questions, please contact: Glenn Kernaghan glennkernaghan@gmail.com





November 2023 Page 6

2024 ASHRAE Winter Conference to Focus on Decarbonization, Climate Change, AI and More

ATLANTA (October 26, 2023) – ASHRAE has unveiled the <u>preliminary technical program</u> for its highly anticipated <u>2024</u> <u>ASHRAE Winter Conference</u>, taking place January 20-24, 2024, in Chicago, IL. The technical program can be found online and in the <u>ASHRAE 365</u> app.

With a focus on addressing the pressing challenges of decarbonization and climate change, the conference will feature 11 technical tracks and over 100 sessions, offering attendees a wealth of knowledge and insights. Participants will have the opportunity to earn Professional Development Hours (PDHs) while exploring tracks such as Decarbonization and Climate Change, Clean Spaces and Mission Critical Facilities, Tall Buildings Design, Artificial Intelligence, Refrigeration and Refrigerants and more.

"The conference gives attendees an unparalleled opportunity to discover practical and timely solutions to some of the greatest challenges facing the built environment," said Suzanne LeViseur, 2024 ASHRAE Winter Conference chair. "ASHRAE's decarbonization focus is included within all of the technical tracks, so that we can provide effective strategies on a variety of topics through the conference sessions."

Some examples of decarbonization related sessions include:

- Decarbonization in Cold Chain Process (Refrigeration and Refrigerants Track)
- The Logical Way to Tap Into Decarbonization: Hydronic District Energy Systems (Hydronic Systems Track)
- Beneficial Electrification (HVAC&R Systems and Equipment Track)
- Grid-Interactive Buildings for a Decarbonized World (Decarbonization and Climate Change Track)
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Additional trending session include:

- Laboratory Superhero: The Critcal Plan to Save
- Pulling Back the Curtain on DEI
- Standard 241: You Have Questions; We Have Answers
- Artificial Intelligence for Buildings Performance Simulation
- Harmony in Action: ASHRAE Standards Paving the Way for Building Decarbonization
- What's the Fuss About Zero Trust Cyber Security for BAS Control Systems
- Who's Afraid of the Net Zero Wolf?

During the Plenary session, Canadian climate change solutions expert Chris Turner will give a keynote presentation on the global shift towards clean energy. ASHRAE Executive Vice President and Secretary Jeff Littleton will provide Society updates in his report and the accomplishments of ASHRAE's members will be recognized during the Honors and Awards ceremony. At the President's Luncheon, 2023-24 ASHRAE President Ginger Scoggins will deliver her State of the Society address, marking progress toward initiatives outlined in the current Society theme, "*Challenge Accepted: Tackling the Climate Crisis.*" The <u>ASHRAE Learning Institute</u> will offer 18 courses during the conference. All courses are approved for continuing education credits toward maintaining P.E. licensure.

Four new courses are being offered:

- Starting the Path to Net-Zero Buildings Using ASHRAE 90.1-2022
- Understanding ASHRAE Standard 241 Control of Infectious Aerosols Background, Overview, and Key Requirements
- V in HVAC Health and Energy Improvements Using the Indoor Air Quality Procedures
- Is Your Building Ready? Applying ASHRAE Standard 241 Control of Infectious Aerosols Facility Assessment, Planning, and Implementation

ASHRAE certification exams will also be administered during the week and business, committee and technical meetings will be conducted in the weeks leading up to, and during the conference.

The cost to attend the conference in-person is \$755 for ASHRAE members (\$1,010 for non-members, which includes an ASHRAE membership for one year). Early bird discounts are available for registrations completed prior to November 26. Company packages are available for virtual registrants. Conference registration includes free entry to the co-sponsored 2024



November 2023 Page 7

<u>AHR Expo</u>, January 22-24, 2024. Please check the conference webpage for additional pricing. Members of the media may receive a <u>complimentary press registration</u> to attend the conference and AHR Expo, with a special invitation to join President Scoggins at a press coffee event.

Tickets for tours, select social events, and ASHRAE Learning Institute Courses can be purchased during the registration process.

To learn more about the 2024 ASHRAE Winter Conference and to register, visit ashrae.org/2024winter.

ASHRAE Releases Guide on the Role of Grid Interactivity in Decarbonization

ATLANTA (November 2, 2023) – ASHRAE has released a new guide focusing on the critical role of grid interactivity in the decarbonization process.

The <u>Grid-Interactive Buildings for Decarbonization: Design and Operation Resource Guide</u> is the second in a series of guides developed by the <u>ASHRAE Task Force For Building Decarbonization (TFBD)</u> and provides information on maximizing carbon reduction through buildings' interaction with the electric power grid.

"Grid-interactive buildings actively engage with the energy grid. They utilize smart technologies, renewable energy sources, and energy storage systems to optimize energy consumption and generation. This allows them to respond in real-time to grid signals, thereby reducing overall demand and GHG emissions," said ASHRAE TFBD chair Kent Peterson P.E., Presidential Fellow. "Integrating buildings with the electrical grid is a critical component in the decarbonization process. It's an emerging focus for building professionals, and ASHRAE is thrilled to provide new guidance as we collectively work towards a more sustainable, resilient, and energy-efficient built environment."

Decarbonizing the electric grid necessitates a fundamental shift towards a dynamic, two-way relationship between buildings and the grid. This approach enables buildings to respond flexibly to grid conditions, including time-varying carbon emissions rates. In recent years, the significance of this two-way communication has grown, driven by the integration of renewable energy sources, grid reliability concerns and the impact of extreme weather conditions. These factors have prompted utilities, grid operators and the building community to reassess the role buildings can play in supporting grid reliability and decarbonization by reshaping their energy consumption patterns.

The guide offers best practices, design considerations and operational guidelines to target the three primary value streams of grid integration:

- 1. **Reduced Carbon Emissions:** Learn how to make significant contributions to reducing carbon emissions through smart building-grid interaction.
- 2. **Cost Savings:** Discover strategies to optimize energy usage and save on operational costs.
- 3. **Resiliency:** Enhance your building's ability to withstand and adapt to changing grid conditions, ensuring uninterrupted operations.

While the guide primarily focuses on commercial and multifamily buildings, it also includes relevant aspects for the residential and industrial sectors. In addition to design guidance, the resource guide provides operational recommendations for both new and existing buildings, empowering them to optimize their available demand flexibility. The Grid-Interactive Buildings for Decarbonization: Design and Operation Resource Guide can be purchased from the <u>ASHRAE Bookstore</u> or by contacting ASHRAE Customer Service by phone at 1-800-527-4723 (United States and Canada), 404-636-8400 (worldwide) or fax 678-539-2129.

The <u>ASHRAE Task Force For Building Decarbonization (TFBD) webpage</u> includes technical resources, information, videos and publications to expedite the adoption of climate change mitigation policies and reaffirms the Society's goals stated in the ASHRAE Vision 2020 report, approved by ASHRAE's board of directors, as well as the <u>ASHRAE Position Document on Building</u> <u>Decarbonization</u>, to achieve net zero GHG emissions in operation for all new buildings by 2030.



November 2023 Page 8

ASHRAE will host the seminar "*Grid-Interactive Buildings for a Decarbonized World*" where the guide, as well as project case studies that helped in the guide's development, will be presented. The seminar will take place at the <u>2024 ASHRAE Winter</u> <u>Conference</u>, January 20-24, 2024 in Chicago. Conference registration is open now.

ASHRAE Pocket Guide 10th Edition

Now available in the ASHRAE Bookstore! The ASHRAE Pocket Guide 10th edition serves as a user-friendly, offline reference for engineers without easy access to complete ASHRAE Handbook volumes. This latest edition has been revised to include updates from the four current volumes of the ASHRAE Handbook series, from the 2019 editions of ASHRAE Standards 15, 34, 62.1, 62.2, and 90.1, and the 2020 edition of Standard 55. Learn more about what is included in the 10th edition and purchase your copy today.

https://www.ashrae.org/technical-resources/bookstore/ashrae-pocket-guide-for-air-conditioning-heating-ventilationrefrigeration-10th-ed

New ASHRAE Certification Study Guide

Now available in the ASHRAE Bookstore

The NEW **Certification Study Guide: Building Commissioning Professional (BCxP)** joins the growing suite of ASHRAE Certification tools to help you reach your professional goals.

Looking for something else? Also available are the **Certification Study Guides for Certified HVAC Designer (CHD)** and **Building Energy Modeling Professional (BEMP)**.

Tune-in to the ASHRAE Journal Podcast

Tune into conversations between leading ASHRAE experts as they discuss what HVAC engineers need to know to design better systems and grow the HVAC&R industry. Available on all podcast platforms.

https://www.ashrae.org/news/ashraejournal/ashrae-journal-podcast