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# ASHRAE LONDON CANADA CHAPTER #116

**TOPIC:**

**Applying Indoor Air Quality Procedure (IAQP) and  
ASHRAE 241 (Controls of Infectious Aerosols)**

**Presenter:**

**Anurag Goel**  
**Director of Sales & Application Engineering at enVerid  
Systems, Inc.**

**Monday January 15, 2024**

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

**The Clubhouse at The Factory**  
**100 Kellogg Lane**



**Registration Link**

**<https://forms.gle/Q3bsSqzFM95ApViJ6>**

**\$85 – Members | \$25 - Students**

## **January Topic**

### **Applying Indoor Air Quality Procedure (IAQP) and ASHRAE 241 (Controls of Infectious Aerosols)**

The Indoor Air Quality Procedure (IAQP) has a long history going back to ASHRAE Standard 62.1 1981 version. It is a performance-based approach that allows the designer to take credit of source control, air cleaning, and dilution to determine the needed mechanical ventilation rates to keep the design compounds below their established targets. Recently the procedure was updated to remove the barriers to adoption of the IAQP. This seminar describes the history, updates, and two case studies describing how to apply the IAQP procedure to achieve both energy efficiency and acceptable IAQ. This session will also include information on ASHRAE 241 and how it impacts minimum ventilation rates and filtration requirements.

## **January Presenter**

### **Anurag Goel Director of Sales & Application Engineering at enVerid Systems, Inc.**

Anurag is a passionate engineer and writer, focused on sustainable building design and operation. He has professional experience performing building systems design, energy audits (ASHRAE Level I, II, and III), MEP condition assessments, utility incentive analyses, LEED certification, and commissioning. Anurag has a background in mechanical engineering and sustainable design with significant energy modeling and energy analysis experience. He is proficient with energy management, capital planning, energy code compliance, and project management. Anurag also has extensive industry experience designing HVAC systems that contribute to enhanced indoor air quality using the ASHRAE 62.1 Indoor Air Quality Procedure (IAQP).



## 2023-2024 Chapter President's Message

Happy New Year from the ASHRAE London Board of Governors!

We are excited to continue the momentum from last year developing our local industry community. We are currently finalizing the last details of the remainder of our schedule and are excited to pass on all of the information to the membership.

The golf tournament is going to be held in the spring again and we will be returning to Fire Rock Golf course! Stay tuned for details.

In the last half of this year we are going to request donations for our research promotion goal to ensure that we hit our target. We will be continually reviewing our financial position and ensuring that we are operating the meetings in a sustainable manner. The meeting participation helps allow our chapter to fund the operations of reserving speakers and meeting space/food and the increased participation has been excellent in helping facilitate that,

All research dollars raised stay in Canada and help achieve 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 [jeff.armstrong@trane.com](mailto:jeff.armstrong@trane.com) or anyone listed on the board!

Jeff Armstrong, P.Eng.



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## **Professional Development**

Need hours for your professional development requirements? Be sure to attend a chapter meeting. Professional Engineers Ontario requires members to have yearly professional development training recorded through the Practice Evaluation and Knowledge (PEAK) program. Other groups may also require continuing education.

## **Chapter Upcoming Meetings**

Monday January 15<sup>th</sup> – Chapter Technical Meeting  
Topic: Applying Indoor Air Quality Procedure (IAQP) and ASHRAE 241 (Controls of Infectious Aerosols)  
Speaker: Anurag Goel

January 20-24 2024 – ASHRAE Winter Conference Chicago  
To learn more about the 2024 ASHRAE Winter Conference and to register, visit [www.ashrae.org/2024winter](http://www.ashrae.org/2024winter)

February – TBD

Monday March 18th

**\*\*\* be sure to check web site for latest information \*\*\***  
<http://LondonCanada.AshraeChapters.org>

## **ASHRAE Society Engineering Job Board**


The ASHRAE society Engineering job is a publicly accessible job board where all companies can create job postings for HVACR related jobs. The resource is available at <https://jobs.ashrae.org/>




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contact:  
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## **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:

<http://www.ashrae.com/donate>

### **Current Donors:**

Glenn Kernaghan, Aaron Hampel, Tom Deslippe

### **Current Honour Roll Individual Donors:**

Jeff Armstrong, Tom Pollard

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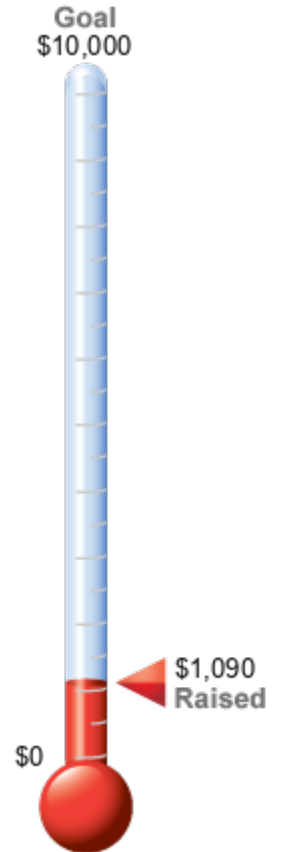
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<u>Contribution Levels</u>	<u>Individual</u>	<u>Company</u>
Honour Roll	\$150 +	\$500 +
Major Donor (Bronze)	\$250 - \$999	\$500 - \$999
Major Donor (Silver)	\$1000 - \$2,499	\$1000 - \$2,499

If any questions, please contact:

**Glenn Kernaghan**

[glennkernaghan@gmail.com](mailto:glennkernaghan@gmail.com)





## **ASHRAE To Present Integrative Building Decarbonization Solutions at COP 28**

ATLANTA (27 November 2023) – ASHRAE, a global leader in sustainable technology resources for the built environment, will present innovative building decarbonization solutions at the upcoming 2023 United Nations Climate Change Conference (COP 28). The conference, hosted by the COP 28 UAE Presidency, will take place in Dubai from 30 November to 12 December 2023 and will bring together industry leaders, elected officials, policymakers, scientists and businesses to collaborate on climate action and shape a more sustainable future.

During the conference, ASHRAE will showcase the power of design-thinking and consensus-based standards in providing integrated solutions for the entire lifecycle of buildings, aiming to decarbonize the sector as a whole. With the Society's expertise in developing standards and guidance, ASHRAE offers a scalable framework that empowers governments, building owners and operators in adopting sustainable building practices.

"Decarbonization of our existing global building stock is one of the greatest challenges in achieving sustained reductions in greenhouse gas (GHG) emissions," said 2023-24 ASHRAE President Ginger Scoggins, P.E., Fellow ASHRAE. "ASHRAE's commitment to developing consensus-based standards and guidance provides an excellent foundation for governments and municipalities to make the transition to a more sustainable future. We are proud to support the goals of COP28 and consider it a privilege to collaborate with like-minded industry partners from around the world on solutions that accelerate our goal for all buildings to operate at net zero by 2050 or sooner."

ASHRAE leadership will participate in an official COP 28 Side Event titled "Design Thinking, Global Standards, & Integrative Solutions for a Net Zero Built Environment," 08 Dec 2023, from 15:00 – 16:30 GST (6:00 – 7:30 AM EST). During this event, ASHRAE will participate in a panel discussion focusing on how the building sector plays a leadership role in reducing GHGs and present resources available from ASHRAE to help achieve carbon reduction goals. This livestreamed side event is organized by the American Institute of Architects (AIA), ASHRAE, the Australian Forest Products Association (AFPA), the IVL Swedish Environmental Research Institute Ltd. (IVL) and the Royal Institute of British Architects (RIBA).

ASHRAE, along with the International Code Council (ICC) and Architecture 2030, will feature an exhibit titled Buildings and Infrastructure | Core Solutions, 01 December thru 03 December 2023. In this exhibit, ASHRAE will share information on existing building and energy codes/standards, green technologies and design solutions and how to use them in the reduction of global GHG emissions.

ASHRAE, and several of the world's leading building industry organizations, issued a letter to government representatives attending COP 28 committing to their leadership role in achieving net zero greenhouse gas emissions in all new buildings in operation by 2030 and pledging support for representatives in attendance.

"ASHRAE and the signatories of the building industry letter that we issued to governments participating in COP 28, underscores our collective commitment to advancing sustainable building practices and reducing the environmental impact of the built environment in the climate crisis. By leveraging our extensive networks of expertise and knowledge to promote the adoption of net zero technologies, we aim to drive the global building stock towards a more sustainable and resilient future," said Scoggins.

For more information about ASHRAE's participation in COP 28, including access to the livestreamed side event, a list of signatories to the building industry letter to governments and the Society's involvement in past conferences, visit [ashrae.org/COP28](http://ashrae.org/COP28).



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

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

Additional trending session include:

- *Laboratory Superhero: The Critical 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 [ASHRAE Learning Institute](#) 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](#)



[AHR Expo](#), January 22-24, 2024. Please check the conference webpage for additional pricing. Members of the media may receive a [complimentary press registration](#) 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](http://ashrae.org/2024winter).

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## **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 [Grid-Interactive Buildings for Decarbonization: Design and Operation Resource Guide](#) is the second in a series of guides developed by the [ASHRAE Task Force For Building Decarbonization \(TFBD\)](#) 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 [ASHRAE Bookstore](#) 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 [ASHRAE Task Force For Building Decarbonization \(TFBD\) webpage](#) 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 [ASHRAE Position Document on Building Decarbonization](#), to achieve net zero GHG emissions in operation for all new buildings by 2030.





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 [2024 ASHRAE Winter Conference](#), January 20-24, 2024 in Chicago. Conference registration is open now.

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### **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-ventilation-refrigeration-10th-ed>

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### **New ASHRAE Certification Study Guide**

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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)**.

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### **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.

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