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# ASHRAE LONDON CANADA CHAPTER #116

**TOPIC:**

**Thermal Energy Storage in the Era of Sustainability**

**GBCI Approved | 1 CE Hour | 0920014272**

**AIA Approved | 1LU/HSW | BAHNFLETH03**

**Presenter:**

**William P. Bahnfleth, PhD, PE, FASHRAE,  
FASME, FISIAQ**

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**March 16<sup>th</sup>, 2021**

**5-7 PM – Hosted virtually on ‘GoToMeeting’**

**Cost = \$30.00\***

**Registration link: <https://forms.gle/qnW2Ezkt7qaF7Htf6>**

**\*One-time fee for full year of meetings – if you have registered for a previous meeting no action required!**

Hosted by ASHRAE Windsor in joint online meeting with ASHRAE London

**March Topic****Thermal Energy Storage in the Era of Sustainability**

During the 1980s and 1990s, cool thermal energy storage (TES) was a key technology in US utility demand-side management (DSM) programs. Interest in TES declined steeply as incentives disappeared during utility deregulation. Today, the focus of design has shifted from energy cost savings toward sustainability and it is reasonable to ask whether TES has anything to offer in this environment. This presentation will review the essentials of cool thermal energy storage and examine its relevance to sustainable design. Specific issues examined will include the impact of TES on site and source energy consumption, the economic case for TES without the incentives of the DSM era and the role of TES in achieving net zero energy buildings and communities.

**GBCI Approved | 1 CE Hour | 0920014272**

**AIA Approved | 1LU/HSW | BAHNFLETH03**

**March Presenter****William P. Bahnfleth**

William Bahnfleth is a professor of architectural engineering at the Pennsylvania State University (Penn State) in University Park, PA, where he has been employed since 1994. Previously, he was a Senior Consultant for ZBA, Inc. in Cincinnati, OH and a Principal Investigator at the U.S. Army Construction Engineering Research Laboratory in Champaign, IL. He holds BS, MS, and PhD degrees in Mechanical Engineering from the University of Illinois, where he also earned a bachelor of music degree in instrumental performance. He is a registered professional engineer. At Penn State, Dr. Bahnfleth teaches undergraduate courses in HVAC fundamentals, HVAC system design, and controls and graduate courses in chilled water systems, hot water and steam systems, and indoor air quality. His research interests cover a wide variety of indoor environmental control topics including chilled water pumping systems, stratified thermal energy storage, protection of building occupants from indoor bioaerosol releases, ultraviolet germicidal irradiation systems, and others. He is the author or co-author of more than 170 technical papers and articles and 14 books and book chapters. He consults on the design of chilled water thermal energy storage systems and has been involved in more than 20 projects world-wide.



Dr. Bahnfleth is a fellow of ASHRAE, the American Society of Mechanical Engineers (ASME) and the International Society for Indoor Air Quality and Climate (ISIAQ). He has served ASHRAE in a variety of capacities, including Student Branch Advisor, Chapter Governor, Technical Committee and Standing Committee Chair, and as Director-at-Large, Vice President, Treasurer, and 2013-14 Society President. His honors include a 1st place ASHRAE Technology Award, Transactions Paper Award, Distinguished Service and Exceptional Service Awards, The Louise and Bill Holladay Distinguished Fellow Award, the E.K. Campbell Award of Merit and the F. Paul Anderson Award. He is also a recipient of the Penn State Engineering Alumni Society's World-Class Engineering Faculty Award.

## Chapter President's Message

To ASHRAE London Chapter Members

I am Andrew Crowley, your ASHRAE London Chapter President for 2020/2021. I am an industrial refrigeration engineer, Engineering Manager for Drennan Refrigeration Inc. in London ON.

It has been an interesting year for all of us, challenging for most, and I hope this email finds you and your family in good health and spirits.

As you are aware, our usual way of conducting ASHRAE business is different this year, and I want to update everyone on some important changes:

- Chapter meetings, until at least January but more than likely all year, will take place virtually on Go to Meeting.
- Most meetings will begin at 4:30pm. The first hour will be ASHRAE business and technical presentation. The second hour will be Q & A and a "virtual" social.
- London and Windsor Chapters will alternate hosting meetings, combining members from both chapters. There are currently 8 meeting dates scheduled
- There will be a one-time fee of \$30 to attend any or all the virtual meetings this year. Any proceeds raised from this will be donated to Research Promotion and other charity. A sign up form will be sent out shortly.
- We will be taking advantage of the virtual year and booking many DL speakers!

If you have any questions in the meantime please reach out to the BOG. You can also contact me directly at

**Andrew Crowley**  
Drennan Refrigeration Inc.  
[acrowley@drennan.on.ca](mailto:acrowley@drennan.on.ca)

We are looking forward to a successful year!  
From your ASHRAE London Chapter BOG

## A Word About Meeting Costs...

As there are no chapter meals that help contribute to the chapter operation and offset some meeting expenses, the chapter still needs some funds due to ongoing expenses such as bank charges, ASHRAE Region 2 dues on behalf of chapter members, and to contribute to ASHRAE Research. The low-cost fee of \$30 will help the ASHRAE London Chapter and board members continue to provide services to the chapter members.

If there are any comments/concerns please reach out to any of the board members, we are happy to receive all feedback.



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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**

### **Tuesday, March 16 – Chapter Meeting**

- Hosted by ASHRAE Windsor

### **Monday, April 26 – Chapter Meeting**

- Hosted by ASHRAE London

**\*\*\* be sure to check web site for latest information \*\*\***

<http://LondonCanada.AshraeChapters.org>

## **ASHRAE LONDON CANADA**

The Chapter always welcomes new members who would like to get involved and assist the chapter in any way you are able. If this is of interest, please forward your name to any one of the board of governors.

## **Coronavirs COVID-19 Response Resources**

ASHRAE has compiled a list of industry reviewed and recommended resources on COVID-19 guidelines and FAQ's. Please follow the below link to access to these resources:

[www.ashrae.org/covid19](http://www.ashrae.org/covid19)



**Guide to the COVID-19 Pages**  
Follow the links on the infographic

LEARN MORE



**Core Recommendations**  
for Reducing Airborne Infectious Aerosol Exposure

LEARN MORE



**Questions Answered**  
Frequently Asked Questions and Glossary of Terms

FAQ / GLOSSARY



**One Page Guidance Documents**

VIEW GUIDANCE

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and includes also on the chapter  
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contact:

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or

**Treasurer**

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## **ASHRAE 2021 Annual Conference To Be Held Virtually**

2021 ASHRAE Annual Conference Now Virtual

The 2021 Annual Conference originally scheduled to be held June 26-30, 2021 in Phoenix, AZ is now going to be held online in a virtual format. The conference will include a mixture of live, pre-recorded and on-demand sessions. Additional details about the conference and committee meetings will be available in the coming weeks.

FOR IMMEDIATE RELEASE

MEDIA CONTACT:

Karen Buckley Washington  
kbwashington@ashrae.org

ATLANTA (February 16, 2021) – ASHRAE announced that its 2021 Annual Conference, scheduled to be held in Phoenix, will now take place virtually.

Designed to provide the latest insights from industry leading expert in the built environment, the 2021 ASHRAE Virtual Annual Conference will provide focused, actionable and innovative content to support HVAC&R and building systems professionals.

“Our pivot to virtual conferences over the past year has been met with great success,” said 2020-21 ASHRAE President Charles E. Gullledge III, P.E. “Engagement from members and industry professionals from around the world in these events is a testament to the quality of our conferences and the importance of staying connected within the ASHRAE community. The 2021 ASHRAE Virtual Annual Conference will be a wonderful forum to share fresh ideas and unique approaches to tackle the challenges of our rapidly changing world. I look to extending our digital connection and I anticipate an immense level of interest and participation.”

Conference attendees can expect:

Technical sessions from industry experts and thought leaders.

Online networking and social opportunities.

A chance for professionals to come together and connect with collaborators around the world.

A keynote presentation, roundtable discussions and expanded learning opportunities.

Updates and announcements from Society leaders.

Additional information on the 2021 ASHRAE Virtual Annual Conference, including committee meetings and registration details, will be made available in the coming weeks. For full information, visit [www.ashrae.org/2021annual](http://www.ashrae.org/2021annual)

## **ASHRAE RESEARCH**

Hello ASHRAE London Members,

My name is Kate Mayberry and I am your Chapter Research Promotion Chair for this year. Our Research Promotion goal for this year is \$12,550 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 Honour Roll Individual Donors:**

Tom Pollard, Jeff Armstrong, Kate Mayberry, Ibrahim Semhat

### **Current Honour Roll Corporate Donors:**

### **Current Corporate Major Donor Silver:**

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

If any questions, please contact:

**Kate Mayberry**

**519-471-6667 x202**

[kmayberry@sbmltd.ca](mailto:kmayberry@sbmltd.ca)



ASHRAE's Building EQ Portal provides a quick energy analysis that benchmarks a building's energy performance. Building EQ assists in the preparation of an ASHRAE Level 1 Energy Audit to identify means to improve a building's energy performance including low-cost, no-cost energy efficiency measures and an Indoor Environmental Quality survey with recorded measurements to provide additional information to assess a building's performance.

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 metered energy information.
- **As Designed** compares potential energy use based on the building's physical characteristics and systems with standardized energy use simulation.

Learn more on how to access the portal, initiate a project, and begin a submission:

<https://www.ashrae.org/technical-resources/building-eq/building-eq-portal>