



WWW.DAYTONASHRAE.ORG

ISSUE IV | 2024

# DAYTON CHAPTER

**April 15th—In Person Only**

**Main Presentation: Technical Tour of  
Sinclair CC: HVAC Lab**

**Presentation will be at: Sinclair Community College  
Building 5 in Basement, Room 5-021  
From 5:30 to 7:30  
Food and drink provided**

**Please join us for a talk and technical tour of the HVAC  
lab at Sinclair Community College.**

**\*\*Parking info on page 5**



**Please use the Eventbrite link to [sign up by April 10th](https://www.eventbrite.com/e/dayton-ashrae-chapter-meetingtechnical-tour-tickets-875324056817?aff=oddtcreator).**  
**The Eventbrite link for the March meeting is LIVE. Please register, if you plan to attend. <https://www.eventbrite.com/e/dayton-ashrae-chapter-meetingtechnical-tour-tickets-875324056817?aff=oddtcreator>**

## CURRENT OFFICERS

### **PRESIDENT**

**Jennifer Eller**  
jmeller@heapy.com  
Heapy

### **PRESIDENT-ELECT**

**Kevin Sturm**  
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Uptime Solutions

### **TREASURER**

**Zak Schultz**  
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Ferguson Enterprises, Inc.

### **SECRETARY**

**Mark Mehicic**  
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Ketchum-Walton

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# FROM THE PRESIDENT

A big Thank you to Patrick Fernbach for presenting us with the Ohio Code Updates in March. We appreciate all who joined us for the meeting. Also a shout out to the AIA for the joint meeting and attending in such numbers!

Don't miss this months meeting/Technical Tour of Sinclair 's HVAC Lab. They have a lot of cool things going on and new projects getting started. Make sure to sign up.

Get your clubs out and start practicing your swing. Our 2024 Golf Scramble will be held again at Pipestone Golf Club on May 24th!! See page 6 for Sign up.

We are still looking for someone to Help out with YEA (Young Engineers association), and Refirgeration Chair. Feel free to reach to anyone on the Board if you are interested.

Warm Regards,  
*Jennifer Eller*  
President, Dayton ASHRAE

## Upcoming Events

**March 11th**  
ASHRAE Chapter Mtg.  
11:30 AM, Meeting

**March 20th**  
Board of Governors  
8:00 AM, Hybrid Meeting

**April 8th**  
ASHRAE Chapter Mtg.  
Technical Tour  
5:30 PM, Meeting

**April 17th**  
Board of Governors  
8:00 AM, Virtual Meeting

[See Additional  
Events & Volunteer  
Opportunities Here](#)

## CHAPTER HISTORY (1973-1975)

President:	James Tudas	Trane Co.
Vice Pres:	John Kolb	Lorenz & Williams
Secretary:	George Reinker	Honeywell
Treasurer:	Jack Rosati	Chrysler Airtemp
BOD:	Almar Fraley	Hughes Bechtol
	Gene Hughes	Hughes Bechtol
	Ken Wehrkamp	Helmig & Lienesch
Education:	Howard Brown	
Research Pro.:	JR Patterson	Trane Co.
Membership:	Frank Mauro	Johnson Services

*Meetings held at the Carillon Cafeteria  
CRC held in Dayton  
Regional Director: Chuck Sepsy*

## Committee Chairs

### **MEMBERSHIP**

**Vincent Caudill**

Vcaudill@ecomfortohio.com  
Environmental Comfort, LLC

### **HISTORY**

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Waibel Energy Systems

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### **CTTC**

**Evan Nutt**

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### **GOVERNMENT AFFAIRS**

**Jennifer Butsch**

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Emerson

**YEA (Chair)**

## Board of Governors

**Rick Pavlak**

Heapy

**Larraine Kapka**

Sinclair College

**Brian Turner**

Elitaire

# MEMBERSHIP

## New Members

**The Dayton Chapter is happy to welcome its newest members. If you see them please give them a warm welcome!**

### March:

**No new Members**

## **Do you know a colleague that would benefit from joining ASHRAE?**

You can go to [http://web.ashrae.org/connect\\_a\\_colleague/](http://web.ashrae.org/connect_a_colleague/) and quickly sign up for ASHRAE to send an email to ask them to sign up on your behalf.

## Membership Recognition

We would like to recognize the following members who have been with ASHRAE for the following years! Thank you for all your contributions to the field!

**5 Years: Joe Amend**



## **Membership Promotion Committee**

Looking for a way to get involved with your local ASHRAE chapter and meet new people? The membership promotion committee is looking for volunteers to join the committee. The committee's primary responsibility is to recruit new members and retain existing members. If you are interested in serving please contact **Vincent Caudill** at [vcaudill@ecomfortohio.com](mailto:vcaudill@ecomfortohio.com) or by calling 740-971-7795.

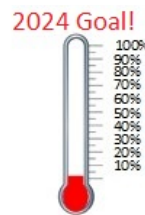
## Membership Application Here

# ASHRAE RP

March Madness has come and gone. Just like that, Easter has past and now we find ourselves in early stages of spring. For those of you that are excited to dust off the golf clubs, keep in mind the Dayton ASHRAE golf outing is scheduled for May 24<sup>th</sup>. This outing helps fuel our fundraising efforts for ASHRAE RP. Registration for the event has begun, and you can sign up at [Daytonashraegolf2024.eventbrite.com](http://Daytonashraegolf2024.eventbrite.com). For those that aren't golfers, but would like to contribute to Dayton ASHRAE, please consider donating to ASHRAE RP / Education / Scholarships. See the link BELOW to donate today!

Please note again that in order to be recognized with a commemorative coin, and have your name published in the ASHRAE Journal, the minimum donation is \$150 for individuals and \$500 for Corporate Donors .

2022 Goal = \$ 19,680  
YTD = \$ 2,300  
To go = \$ 17,380



% to 2023-24 GOAL: 12%

## Partner Level

## Honor Roll

## Bronze Level

Lorraine Kapka  
Steven Meier  
Brian Turner  
Bryan Schenck  
Evan Nutt  
Rick Pavlak  
Matt Dill  
Jennifer Eller  
Kevin Sturm  
Jennifer Butsch

## Silver Level

## Honorable Mention

Mark Mehicic  
David Crosley  
Jeremy Fauber

Thanks for all your help and support. If you would like to donate NOW simply click this link:

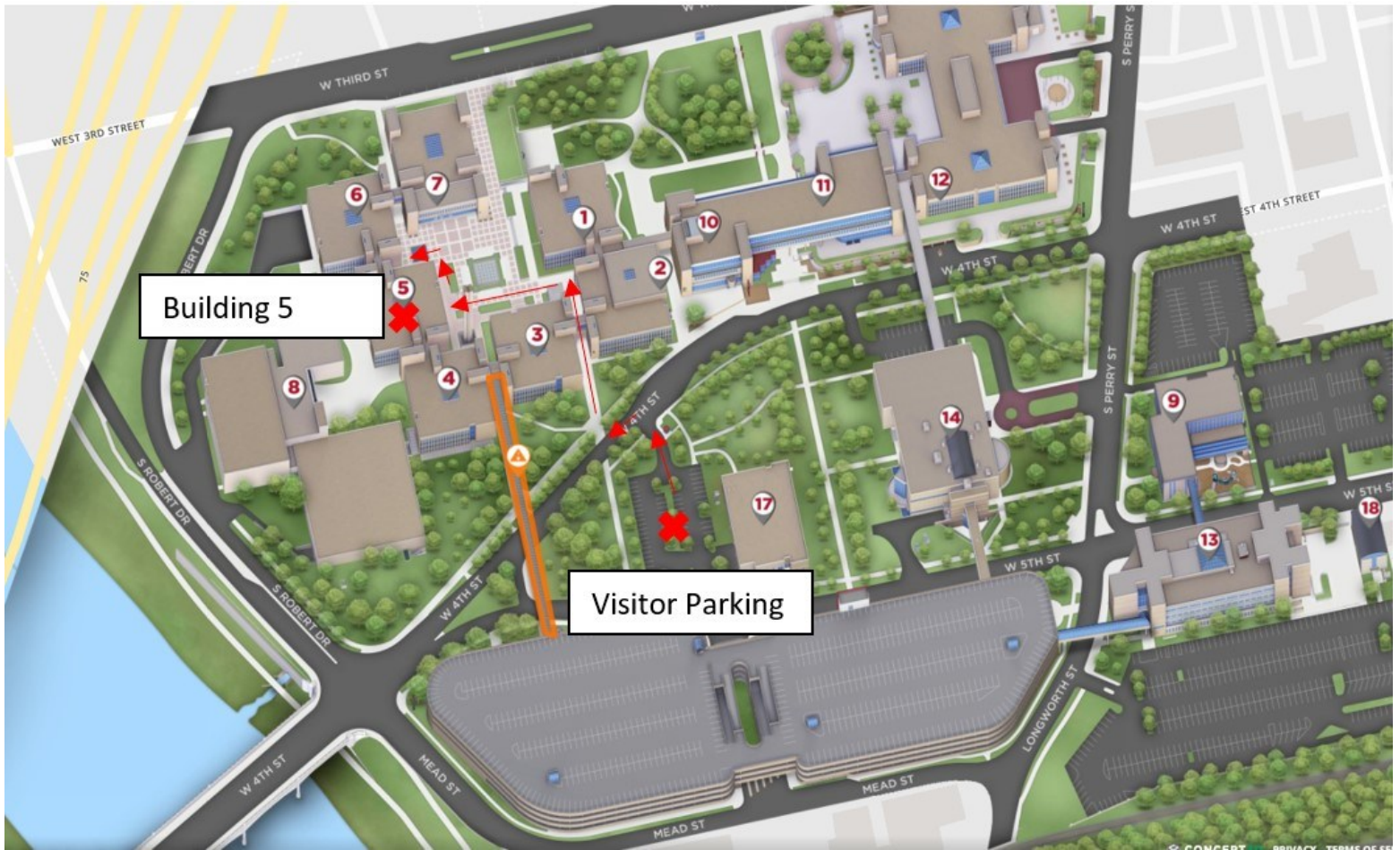


**DONATE NOW**

And make your donation to help ASHRAE in its Research Efforts. Thank you so much!!



# Government Affairs



Building 5

Visitor Parking

Parking will be in the Visitor's parking garage A. Park on West side and use the Orange highlighted walkway to bldg. 4. Do not use the parking lot next to bldg. 17.

- \* You can use the elevator in bldg. 4 to go to basement and turn right out of the elevator to go to bldg. 5.
- \* Or you can take the stairs in bldg. 5 all the way down to the basement.
- \* Or you can walk over.



ANSI/ASHRAE Standard 228-2023

## Standard Method of Evaluating Zero Net Energy and Zero Net Carbon Building Performance

Approved by the ASHRAE Technical Committee on February 4, 2023; by the ASHRAE Board of Directors on February 6, 2023; and by the American National Standards Institute on March 6, 2023.

The Standard is under continuous maintenance by a Working Technical Program Committee (WTPC) for which the Technical Committee has established a documented program for regular publication of addenda or revisions, including procedures for public comment, consensus voting, or requests for change to any part of the Standard. Instructions for how to submit a change can be found on the ASHRAE website at [www.ashrae.org/standards](https://www.ashrae.org/standards).

The latest edition of an ASHRAE Standard can be purchased from the ASHRAE website ([www.ashrae.org](https://www.ashrae.org)) or from ASHRAE Customer Service, 1801 Alexander Parkway, Reston, VA 20191. It shall understand that the ASHRAE logo, the ASHRAE name, and the ASHRAE logo are trademarks of ASHRAE, Inc. and shall not be used without the express written permission of ASHRAE, Inc. for any other purpose.

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ISBN 1599-0615-2

ASHRAE includes standards for consensus integration. Click a reference to a section, table, figure, or equation and jump to its location in the document.



## ASHRAE's First Zero Energy Standard

ASHRAE Standard 228 sets requirements for evaluating whether a building or group of buildings meets a definition of "zero net energy" or a definition of "zero net carbon." Learn more.

# ASHRAE News

## THE ANNUAL DAYTON ASHRAE GOLF SCRAMBLE



May 24, 2024

PipeStone Golf Club

Shotgun Start at 8:30 am

Drink Tickets Sponsored by Trane



**TRANE**<sup>®</sup>

Mulligans Sponsored by Point 2 Point Systems



**Point to Point  
Systems**

**SOLID BLEND**  
WATER MANAGEMENT SOLUTIONS

*safe. clean. sustainable.*

Bloody Mary Bar and Lunch Sponsored  
by Solid Blend Technologies

Register at [Daytonashraegolf2024.eventbrite.com](https://Daytonashraegolf2024.eventbrite.com)

EMAIL QUESTIONS TO [bturner@ELITAIRE.COM](mailto:bturner@ELITAIRE.COM)

## Amazon's AWS Just Bought a Nuclear-Powered Data Center

Amazon Web Services (AWS) has secured a nuclear-powered data center campus as part of a \$650 million agreement with Texas-based electricity generation and transmission company Talen Energy. AWS's acquisition includes the Cumulus data center complex, situated next to Talen's 2.5 gigawatt Susquehanna nuclear power plant in northwest Pennsylvania. As part of the agreement, Talen will continue to supply Amazon with direct access to power produced by its Susquehanna nuclear power plant, which could reach heights of 960 megawatts in the coming years. While nuclear energy may be a controversial power source, AWS's acquisition aligns with its commitment to carbon-free and renewable energy sources. [Read more](#)

## DOE Issues Model Energy Code Determination for ASHRAE Standard 90.1-2022

ASHRAE received a determination issued by the U.S. Department of Energy (DOE) stating that [ANSI/ASHRAE/IES Standard 90.1-2022](#), *Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings*, will increase energy efficiency in commercial buildings subject to the code. The standard achieved this determination through the DOE's technical analysis estimating that buildings meeting 90.1-2022 (as compared to the previous 2019 edition) would result in national average site energy savings estimate increases from 9.8% to 14% (referenced as "net" savings). [Read more](#)

## Ohio Research Proposes Coupling Geothermal With Direct Air Carbon Capture

A study at the Ohio State University proposes a method for developing a system combining direct air CO<sub>2</sub> capture technologies (DAC) with CO<sub>2</sub> Plume Geothermal, allowing for large-scale carbon dioxide removal with few emissions, creating a climate-benign direct air CO<sub>2</sub> capture, utilization and storage system. The study introduces a strategy for geologic CO<sub>2</sub> in a deep, porous and permeable aquifer with sufficient geothermal heat flux. [Read more](#)

## ASHRAE Advocates for Use of Standard 90.4 for Federal Government Data Centers

On February 29, [ASHRAE sent a letter](#) to the U.S. General Services Administration recommending use of ANSI/ASHRAE Standard 90.4-2022, *Energy Standard for Data Centers*, in the Minimum Requirements for New Federal Data Centers. These requirements were included in the Federal Data Center Enhancement Act of 2023, which was incorporated into the [National Defense Authorization Act](#), Title LIII, "Federal Data and Information Security." To read the full letter, please visit [here](#).



**NEW! Certified  
Decarbonization  
Professional (CDP)**  
Apply by June 7 / Test  
June 25 – July 21

Apply by June 7 to earn the NEW!  
ASHRAE

# ASHRAE News

## **ASHRAE Sends Letter of Support for Colorado Legislation Enabling HVAC Infrastructure Improvements in Schools**

On March 1, ASHRAE sent a letter to the Colorado House Education Committee in support of HB 24-1307, which is focused on providing healthy, safe and energy efficient school facilities. The bill already references ASHRAE Standard 52.2-2017, *Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size*, and the letter suggests that the bill should also include Standard 62.1-2022, *Ventilation and Acceptable Indoor Air Quality*, Standard 241 -2023, *Control of Infectious Aerosols*, and Standard 180-2018, *Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems*. Including these standards would help ensure that the improvements made through this bill would be consistent with best practices and well maintained into the future. The letter can be found on the ASHRAE website [here](#). The bill will be considered by the House Education Committee in a hearing on Thursday, March 7.

## **The Future of Artificial Intelligence in Buildings**

Artificial intelligence (AI) has the potential to operate buildings more energy efficiently, sustainably and comfortably. Many potential applications exist for AI in the built environment sector, including building design, building performance optimization, energy management and monitoring and building maintenance and operations. The significance of AI in optimizing the performance of buildings and its applications and limitations are discussed in this work. [Download here](#)

## **DOE Issues Updated Model Energy Code Determination for ASHRAE Standard 90.1-2022**

On February 26, the Department of Energy issued a determination that the 2022 edition of ANSI/ASHRAE Standard 90.1, *Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings*, will achieve greater energy efficiency in commercial buildings. This determination sets in motion a statutory requirement that within two years of DOE publishing its affirmative determination, each State is required to certify that it has reviewed and updated its commercial building code such that it meets or exceeds the revised standard. Under the 2022 update of ASHRAE Standard 90.1, energy savings for commercial buildings are approximately 9.8% savings in site energy, 9.4% in source energy, 8.9% in energy costs, and 9.3% in carbon emissions, as compared to the 2019 edition of the standard. Additionally, the average site energy savings are estimated to increase from 9.8% in the 2019 edition to 14% in the new edition. The 2022 edition has several significant changes from previous editions, including an expanded scope that addresses building sites and onsite renewables. More information on the new determination can be found on the DOE website.

## **Legislation Introduced to Incentivize Energy-Efficiency in Bars and Restaurants**

The Creating Hospitality Economic Enhancement for Restaurants and Servers (CHEERS) Act (H.R. 7577) was introduced this month by [Representatives Darin LaHood \(R-IL\) and Steven Horsford \(D-NV\)](#). This [legislation](#) would expand the Section 179D tax incentive “to apply to new keg, tap, and draft line property on commercial property in bars, restaurants, and entertainment venues” to encourage the use of energy-efficient systems in these establishments. For the last 20 years, Section 179D has allowed tax deductions for qualifying upgrades to energy efficient systems on commercial property. The CHEERS Act would also encourage the use of sustainable draft containers and investment in energy efficient draft systems for small businesses.



## ASHRAE New York City Chapter Announces Healthcare Decarbonization Guide

On March 1, the New York City Chapter of ASHRAE issued a comprehensive guide for decarbonization of health care facilities. This was the culmination of an ongoing collaboration among the New York State ASHRAE Chapters, state agencies, hospital systems, industry firms, and professional associations. The guide is focused on strategies for reducing carbon emissions through facility design, facility construction, maintenance, and operations in the healthcare sector. It is a roadmap with specific tools and checklists for healthcare organizations to develop decarbonization initiatives. Currently, hospitals and healthcare-related buildings are responsible for approximately 8.5% of carbon emissions across the U.S., and about 4.4% of carbon emissions worldwide. Having tools to address the issues specific to this sector are essential to reducing its contributions to the climate crisis while also maintaining a high standard of medical care. The guide can be found online [here](#). Congratulations to the New York City Chapter and its partners for their efforts in creating this valuable resource!

## First-Ever All-Electric, Net Zero, Carbon Speculative Industrial Building Development in Ontario

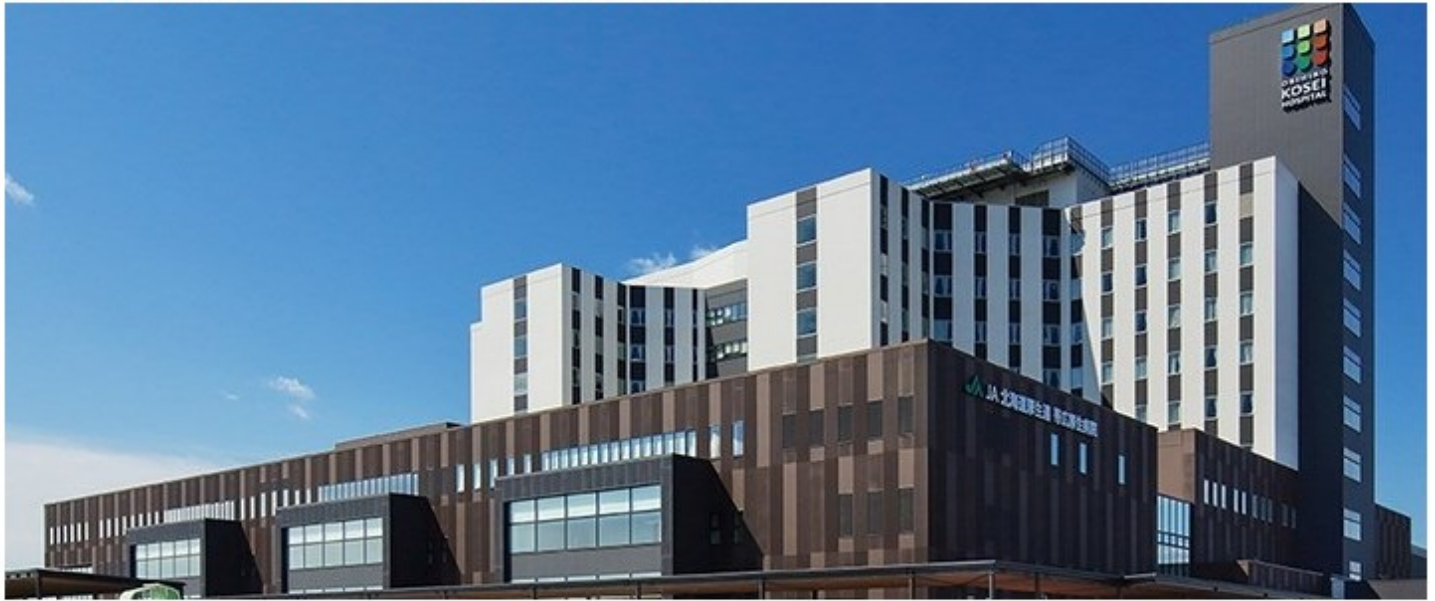
Fifth Line Business Park in Milton, Ontario, features the first all-electric, net zero, carbon speculative industrial building. This 234,061 ft<sup>2</sup> industrial building offers state-of-the-art net zero carbon specifications including an all-electric HVAC system that is 200%-300% more efficient than standard systems and a 500 kW rooftop solar array that negates 100% of annual greenhouse gas emissions. Energy and carbon savings, with help from the rooftop solar array, will result in a projected 59% reduction in annual operating costs in the first year, compared to those from a traditional new construction building. [Read more](#)



*The facility in Milton, Ontario, also includes an enhanced envelope and precast panel insulation to reduce air leakage. Credit: BGO*

# ASHRAE News

Technology Award from the March 2024 ASHRAE Journal



## Award of Engineering Excellence: Advanced Energy Design for Obihiro Kosei Hospital

By Hiroki Yokoyama, P.E.JP., Member ASHRAE

This article covers the 2024 Award of Engineering Excellence winning building, which is part of the 2024 ASHRAE Technology Awards. The 10-story Obihiro Kosei Hospital, located in the southeastern part of Hokkaido, has the biggest outdoor temperature range in Japan; therefore, this region requires a large amount of energy for HVAC, and domestic hot water heating energy is required for a large hospital. The hospital uses innovative approaches to achieve a significant reduction of gas fuel consumption and CO<sub>2</sub> emissions. [Read more](#)



ASHRAE Journal Podcast Episode 34

### Paths to Leadership in ASHRAE

It can be hard to know how to get involved when you're just starting out in ASHRAE, but the rewards that come with finding out can be exponential for your personal and professional development. Join Billy Austin, Sarah Maston and Host Erica Powell as they discuss their own experiences, paths to ASHRAE leadership and how to make the most of your first Technical Committee meeting.



From left, Billy Austin, P.E., BCxP, BEAP, BEMP, CHD, HBDP, HFDP, OPMP, Fellow ASHRAE, Society Vice President; Sarah Maston, P.E., BCxP, Member ASHRAE; and Erica Powell, Associate Member ASHRAE, President, Southern Piedmont Chapter

# ASHRAE News



## 2024 ASHRAE Annual Conference



ASHRAE is looking forward to convening in Indianapolis at the Marriott Indy Place June 22-26, 2024 for the 2024 ASHRAE Annual Conference.

Join us as we welcome new Society Officers, connect at social events, and explore solutions to the demands of our ever-changing industry.

Register before April 29 for the best rates.

[Race to Register](#)

# ASHRAE News

## Get Ready to Ignite Your Career!

Join us for the inaugural Women in ASHRAE Leadership Symposium, a groundbreaking event that's not just a conference, but a career-changing experience! Set in the vibrant city of Chicago on the "Magnificent Mile" on September 26-27, 2024, this symposium is the place to be for aspiring and current leaders in the HVACR industry.

## Empower, Connect, Innovate!

Dive into engaging discussions, draw inspiration from seasoned professionals, and discover powerful strategies to champion inclusivity for women in our field. This isn't just another industry event; it's a launchpad for your future!



## Highlights Include:

- **Real Talk:** Engage in candid conversations about the challenges and triumphs unique to women in HVACR.
- **Empowerment Toolkit:** Gain valuable insights with actionable tools, guidelines, and lessons for success.
- **Mentor Magic:** Connect with mentors who can guide your journey and amplify your impact.
- **Allyship in Action:** Learn how to be an effective ally and sponsor, turning advocacy into action.
- **Emotional Intelligence:** Master strategies for handling tough situations with grace and confidence.
- **Networking:** Forge lasting connections that will propel your career to new heights.

## The Adventure Begins

Kick off Thursday afternoon, September 26, with a keynote that will set the stage for an unforgettable symposium. Then, gear up for a full day of transformative sessions on Friday, September 27.

Don't miss out on this game-changing symposium! Mark your calendars, get excited, and be part of the movement shaping the future of women in ASHRAE and the HVACR industry.



**Learn More Here!**  
Registration opens May 2024.