



DAYTON CHAPTER

WWW.DAYTONASHRAE.ORG

ISSUE III | 2023

CURRENT OFFICERS

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SECRETARY

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March 16 Hybrid Meeting!!!



**Main Presentation: Building
Decarbonization Basics**
Presenter: Donald Colliver, Ph.D,
Vice Chair ASHRAE Task Force for Bldg.
Decarbonization

Social Hour: 11:30-11:55am
Chapter Business: 11:55-Noon
Main Presentation: Noon

Presentation will be at: Engineers Club: 110 E Monument Ave

Theme: Joint Meeting with AIA

This lecture will present the basics of building decarbonization. Items to be discussed include: the driving forces for decarbonization; buildings' contribution to carbon emissions; key descriptive parameters; pillars and potential for reduction of carbon emissions related to buildings; and key issues related to achieving zero carbon emissions.

Donald "Don" Colliver has been involved in the energy usage and efficiency of buildings for over 40 years. He is Professor in the Biosystems Engineering Department, and formerly Director of Graduate Studies in the BAE Department and Director of the Kentucky Industrial Assessment Center at the University of Kentucky. He is a licensed Professional Engineer in the Commonwealth of Kentucky.

Don has lectured in 20 countries with his teaching emphasis in solar PV systems design; indoor environmental control; industrial energy auditing; building energy modeling and analysis; decarbonization; and sustainable design.

Please use the Eventbrite link to sign up by March 10th. The Eventbrite link for the March meeting is LIVE. Please register, if you plan to attend. <https://www.eventbrite.com/e/dayton-ashrae-chapter-meeting-tickets-524827863267>

Join Zoom Meeting Information:

<https://www.eventbrite.com/e/dayton-ashrae-chapter-meeting-tickets-524827863267>

FROM THE PRESIDENT

Thank you to everyone that was able to attend our Chapter lunch at the Helix Innovation Center by Emerson. Thank you to Stephen Spletzer for presenting the Updates to the 2022 Edition of ASHRAE Standard 15 for Flammable Refrigerants. This was a joint meeting with HARDI so I would like to thank all of their members who were able to attend.

Our next chapter meeting is scheduled for Thursday, March 16th. Donald Colliver will present "Building Decarbonization Basics". This is a joint meeting with AIA-Dayton and will be held at the Engineers Club. Social hour begins at 11:30 am and the presentation starts at 12:00 pm.

Our 2023 Golf Scramble will be held at Pipestone Golf Club on May 26th. Please get your foursome registered.

We are looking for a Government Affairs Chair and a Secretary for the 2023/2024 ASHRAE year. Please reach out to a member of the board if you are interested.

Thank you, *Matt Dill* – President, Dayton ASHRAE

Upcoming Events

March 15th

Board of Governors
8:00 AM, Virtual Meeting

March 16th

ASHRAE Chapter Mtg.
11:30 AM, Hybrid Meeting

April 19th

Board of Governors
8:00 AM, Virtual Meeting

April TBD

ASHRAE Chapter Mtg.
—, Hybrid Meeting

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

CHAPTER HISTORY (1959-1960)

President:	Norman Mitchel	Honeywell
Vice Pres:	Thomas lutz	Chrysler
Secretary:	Frank Doench	Helmig & Lienesch.
Treasurer:	Jerry Ely	Chrysler

BOD:

Education:
Research Pro.:
Membership:

Regional Director: Mr. Crider

Meetings were held at the Dayton Engineering Club.

Committee Chairs

MEMBERSHIP

Vincent Caudill

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Environmental Comfort, LLC

HISTORY

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Heapy

Board of Governors

Rick Pavlak

Heapy

Lorraine Kapka

Sinclair College

Jennifer Eller

Heapy

MEMBERSHIP

New Members

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

February:

Samuel Thompson
Hieu Dang
Nathan Gagnon



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

You can go to 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!

25 Years: **Hugh Schweitzer**



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 or by calling 513-512-5359.

Membership Application Here

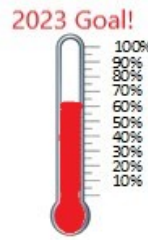
ASHRAE RP

Spring is right around the corner! Thank you to everyone who have contributed to the 22-23 ASHRAE campaign thus far. We have four months left in our 22-23 campaign, and we still have have a ways to go to meet our goals. We will meet our goals with your help. For those looking to contribute, 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 .

2021 Goal = \$ 19,680
YTD = \$ 13,150
To go = \$ 6,530

% to GOAL: 67%



Partner Level

Emerson

Honor Roll

Steve Meier
Lorraine Kapka
Brian Turner
Jennifer Eller
Evan Nutt
Bryan Schenk
Matt Dill
Rick Pavlak
David Crosley
Jeremy Fauber
Kyle Schroeder

Bronze Level

Russell Marcks
Uptime Solutions

Silver Level

Honorable Mention

Zak Schultz
Kort Kugel
Vincent Caudill

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!!



ASHRAE Info



ASHRAE REGION 5 TECH AWARDS

The Award form and the rules can be downloaded from this link, [ASHRAE Tech Awards, updated June 2022](#)

April 30th is the Region 5 Deadline to submit the Tech Awards entries to Aru Sau, RVC, CTTC – runa-bha@gmail.com

[Winners from the Region will go to the National Level.](#)

Building Owner's Release is required for 2023 entries for National Level; not required for the Regional submissions.

National Deadline September 1st, 2023

Category – check one and indicate New, Existing, or Existing Building Commissioning (EBCx)

Commercial Buildings	New	Existing	EBCx
Institutional Buildings	New	Existing	EBCx
Educational Facilities	New	Existing	EBCx
Other Institutional	New	Existing	EBCx
Health Care Facilities	New	Existing	EBCx
Industrial Facilities or Processes	New	Existing	EBCx
Public Assembly	New	Existing	EBCx
Residential (Single and Multi-Family)	New	Existing	EBCx



APRIL 30TH
REGIONAL
DEADLINE

ONE YEAR OF
OPERATIONAL DATA IS
NOT REQUIRED FOR
REGIONAL
SUBMISSIONS.

SHORT FORM
(UPTO 4 PAGES)
IS GOOD FOR
REGIONAL
ENTRIES

LONG FORM
(MAX 10 PAGES) IS RE-
QUIRED FOR
NATIONAL

MAJOR
SIMPLIFICATION ON
THE TECH AWARDS
FORM

Any questions, please contact
Aru Sau, Reg 5 RVC, CTTC – runa-bha@gmail.com or asau@energy-solution.com

ASHRAE Info

Save the Date!!!

2023 ASHRAE

Annual Golf Scramble



**Friday May 26th, 2023
Pipestone Golf Course
4344 Benner Rd, Miamisburg**

Registration covers the green fee, cart, lunch, two drink tickets, and one mulligan. This year as opposed to doing mulligan cards, every participant will have one traditional mulligan. Click below to sign up and for detailed info!!

<https://Daytonashraegolf2023.eventbrite.com>



ASHRAE Info

Heat from an Amazon Data Center Is Warming Dublin's Buildings

On January 3, 2023, the 5,000 students who attend Technological University Dublin returned from their winter holiday to their cold suburban campus in Tallaght. At a time of year when the temperature often falls to near freezing, they would have rushed through the revolving door into the toasty, enveloping air of the main building's glass entrance. [READ MORE](#)

Utilities May Use Their Pipes for Geothermal Heat Instead of Gas

Vermont's only natural-gas company is exploring possible sites for its first networked geothermal project. The heating and cooling technology could be a great fit for a company already skilled at designing and constructing piping systems. Legislation pending before Vermont's House Committee on Environment and Energy could help speed up such geothermal innovation. The bill directs the state Public Utility Commission to adopt rules for permitting thermal energy networks. [Read more](#)



ASHRAE Concludes Successful Winter Conference and AHR Expo in Atlanta

The ASHRAE 2023 Winter Conference concluded in Atlanta, with a strong focus on building decarbonization strategies. The conference took place February 4-8, with more than 3,000 HVAC&R industry professionals in attendance. The AHR Expo occupied 486,805 ft² of exhibit space at the Georgia World Congress Center and showcased the latest technologies and services in the HVAC&R industry. The AHR Expo featured a total of 1,779 exhibitors, including 425 international exhibitors, with an estimated 42,794 people attending the Expo over the course of three days.

[Read more](#)

Iowa City, Iowa, Looks to 3D Printing for Affordable Housing

Iowa City-based Alquist 3D is hoping to address the housing shortage facing Johnson County by creating affordable, sustainable and innovative homes using 3D printing technology. Construction is expected to start this summer.

TNS) — Local partners are looking to address the need for affordable housing in Johnson County in an innovative way — by using 3D printing.

Developer Better Together 2030 is working with Alquist 3D, Hodge Construction, Axiom Consultants and Neumann Monson Architects on a 3D-printed build in Iowa City that the partners believe would be the first multistory, multiunit residential building printed in North America.

[READ MORE](#)

Governor of Tennessee, Mayors of Arlington and Fort Worth, Texas, and Charlotte, NC issue “Engineers Week” Proclamations

We would like to highlight three ASHRAE chapters’ participation in Engineers Week 2023.

The Southern Piedmont Chapter, headed by President Ben Coy, successfully solicited a [Mayoral Proclamation from Charlotte Mayor Vi Lyles](#). In an exchange with the mayor’s staff, Piedmont Chapter member and ASHRAE Vice President Billy Austin wrote “ASHRAE continues to pursue making our new and existing buildings more energy efficient, less carbon intensive, and with a healthy indoor environment where contagious viruses and harmful bacteria are minimized. We are always available to provide technical guidance to the City of Charlotte as policy is made regarding our buildings.”

Likewise, ASHRAE’s Fort Worth Chapter successfully solicited not one, but two proclamations! The Mayors of both Arlington, Texas, and Fort Worth, Texas issued proclamations honoring engineers and ASHRAE members. This outstanding work in Texas can be seen in the Proclamations of [Arlington](#) and [Fort Worth](#).

Finally, ASHRAE’s Nashville Chapter GAC Chair, Jessica Gardner, successfully solicited a [Gubernatorial Engineers Week Proclamation](#) from the state of Tennessee. Governor Bill Lee signed a proclamation at Ms. Gardner’s request declaring February 19th to the 25th as National Engineers Week.

Congratulations to our amazing ASHRAE chapters and members!

Senate Energy and Natural Resources Committee Holds Hearing on DOE and IJA

On February 2nd, The Senate Energy and Natural Resources Committee held a hearing to examine the U.S. Department of Energy’s (DOE) implementation of the Infrastructure Investment and Jobs Act. DOE was represented by Deputy Energy Secretary David Turk, who assured the committee that the \$62 billion in clean energy grants from the recent legislative packages were being administered with a sense of urgency. The committee pushed Secretary Turk on why DOE was not giving more consideration and funding to carbon capture, utilization and sequestration technology. Secretary Turk also clarified the recent miscommunications regarding gas stoves, telling the committee there are no plans to ban gas stoves rather, DOE is seeking to make new gas stove models more energy efficient.

See story: [DOE Proposes Efficiency Rules for Gas Stoves](#)

ASHRAE News

Someone made a beer out of air conditioner condensation

When your air conditioner is working correctly, it's not just cooling the air itself — it's also conditioning the humidity in the air. In the summer, for example, it should ideally be pulling moisture out of the cooled air before it pumps into your house (because quite frankly, 65 degrees with an 85% relative humidity level is like the world is groping you with clammy hands). This is why that air conditioner on the second floor (or even above that!) is always slowly dripping down into the walkway below. [Read More](#)

Construction Aspects of Hybrid Water-Filled Building Envelopes

Water-filled building envelopes are hybrid constructions with a solid and a fluid component, typically a glass or steel shell filled with water. The paper introduces the challenges of developing a water-filled façade structure and evaluates the possibility to utilise it as a viable construction system on a building scale. Water-filled glass (WFG) has been researched in the past and it was presented as an independent window element of a conventional building, where energy savings are achieved by using the absorption of the water layer for energy management of the building envelope. The results suggest that WFG's efficiency could be improved further if the system is assembled as a united building envelope in which the fluid can flow between panels and building parts. The paper presents two experimental 'water house' buildings with these design parameters, designed and constructed by the author. The importance of these buildings is that a connected water-filled envelope is built for the first time. The discussion presents two construction methods for water-filled façades, evaluates their viability for different climates, introduces the design-construction aspects of the technology, and offers a comparison with existing construction methods. [READ MORE](#)

How teaching kids energy efficiency in schools can benefit families at home

Students' enthusiasm for energy efficiency can ripple outward, making an impact beyond the classroom.

What kids learn at school doesn't stay at school. So by teaching students about energy efficiency in the classroom, a nonprofit hopes to help families save energy — and money — at home.

"If I'm learning at school, 'We need to turn off all the classroom lights when we walk out the door,' I'm certainly, when I go home, going to say to my mom, 'How come the lights in the kitchen or the hallway or the bathroom are on if we're leaving the house?'" says Paula Glover, president of the Alliance to Save Energy.

The Alliance runs a [K-to-12 energy education program](#) used in hundreds of schools across 10 states.

[READ MORE](#)

ASHRAE News

Color-Changing Material Could Warm or Cool Buildings

Researchers have created a chameleon-like building material that changes its infrared color—and how much heat it absorbs or emits—based on the outside temperature. On hot days, the material can emit up to 92% of contained infrared heat, helping cool the building. On colder days, the material emits just 7% of its infrared, helping keep a building warm. [Read more](#)



\$4.5 Million in Cash Prizes to be Awarded to Local Educational Agencies

The Energy Champions Leading the Advancement of Sustainable Schools (CLASS) Prize is a grant-prize competition that will provide training and cash prizes to school districts that make energy management a sustainable and permanent feature in their communities. The goal of the program is to achieve substantial reductions in utility costs, improved indoor air quality, and better learning environments. Through the U.S. Department of Energy's State and Community Energy Program Office, a total of \$4.5 million will be awarded to fund energy management professionals training and work for local educational agencies. Local agencies apply with their preliminary plans online, and if they receive grants from the prize fund, move on to further phases of the challenge. The first set of submissions are due **February 28th**. More information on the challenge, FAQs, and information about how to apply can be found [here](#)

CIBSE/ASHRAE Technical Symposium 2023 Registration is Open

Taking place at the University of Strathclyde, Glasgow on 20-21 April 2023, the 2023 Technical Symposium, supported by ASHRAE, will present a range of peer-reviewed papers and presentations outlining the latest developments in practice, technology and policy and will showcase the latest guidance for building services engineers. It will provide practitioners with up-to-date information about the latest developments in meeting the net zero carbon imperatives and on the latest building safety-related reforms in the U.K. industry. ASHRAE members can use code **ASHRAE23** to register for just £285. Non ASHRAE members can register for £360. [Read more](#)

Mini Nuclear Reactors Could Soon Power Data Centers

A new report suggests that nuclear power could be a viable option to provide clean power to some of the world's largest data centers. Analysts argue that small modular reactors (SMRs) could become prevalent in future years, replacing the need for data centers to draw power from the grid with their very own environmentally-friendly alternative. [Read more](#)

EPA RFI and Webinars on Embodied Carbon and EPDs

EPA Preparing to Invest \$350 Million to Reduce Embodied GHG

The U.S. Environmental Protection Agency (EPA) announced it is seeking input from public stakeholders on how to best invest \$350 million included in the Inflation Reduction Act (IRA) to reduce embodied greenhouse gas (GHG) emissions. In addition to providing an opportunity to submit written comments (RFI listed [here](#). Deadline: May 1, 2023) the EPA is hosting three public engagement webinars for different topics on reducing embodied GHG:

- **March 2, 2023, 2:00 – 3:30 p.m. EST: Reducing Embodied Greenhouse Gas Emissions: Construction Materials Prioritization and Environmental Data Improvement** – This webinar will ask for feedback on how to prioritize construction materials and products and how to improve data on embodied greenhouse gas emissions through measurement, standardization, transparency and reporting criteria. [Register here](#).
- **March 22, 2023, 2:00 – 3:30 p.m. EST: Reducing Embodied Greenhouse Gas Emissions: Grants and Technical Assistance for Environmental Product Declarations** – This webinar will ask for feedback on new grant and technical assistance programs to help businesses calculate and report the greenhouse gas emissions data for construction materials and products through Environmental Product Declarations (EPDs). [Register here](#).
- **April 19, 2023, 2:00 – 3:30 p.m. EST: Reducing Embodied Greenhouse Gas Emissions: Carbon Labeling** – This webinar will ask for feedback on how EPA could develop a carbon labeling program for construction materials and products with substantially lower embodied greenhouse gas emissions. [Register here](#).

In addition, EPA will issue a [Request for Information](#) to solicit written comments on the design of these new programs. Upon publication of the Federal Register notice, comments on any of the questions outlined should be submitted to docket EPA-HQ-OPPT-2022-0924 on www.regulations.gov by May 1, 2023.



ASHRAE's Weather Data Viewer 2021

ASHRAE's Weather Data Viewer 2021 is now available for an annual subscription. The subscription includes cloud-based access to climatic design information for 9,237 weather stations worldwide, including quantities such as dry-bulb temperature, dew-point temperature, wet-bulb temperature, wind speed, and wind direction at various frequencies of occurrence over a long period (8+ years) as well as access to the underlying frequency data for further analysis and visualization. Learn more...

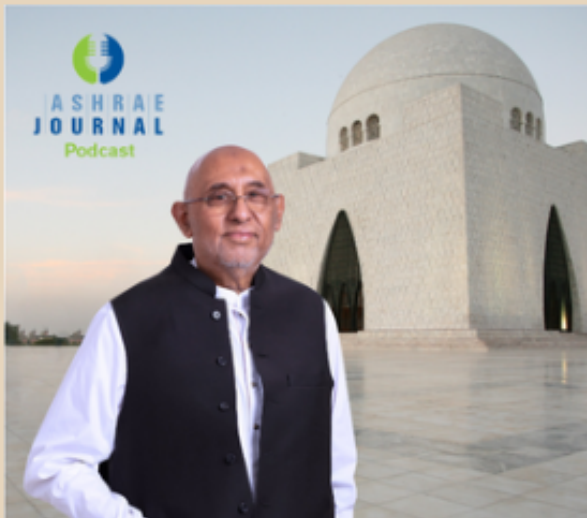
ASHRAE News



Join Lucy on an Engineering Adventure!

Grab your hard hats and let's go on Lucy's Engineering Adventure, a new children's book from ASHRAE! With its rhymes and beautiful illustrations, this book is a great introduction to building and HVAC engineering through a young girl's visit to an unfinished building. Follow along as Lucy goes to work with her father and learns how beams and columns, electrical systems, and HVAC ducts work like the human body to make buildings what they are. Read more...

ASHRAE Journal Podcast Presents...



Securing Our Future With Farooq Mehboob

2022–2023 ASHRAE president, Farooq Mehboob, P.E., is spotlighted in this episode, which was recorded live at the 2023 AHR Expo in Atlanta. This interview focuses on Mehboob's rich life experience as a building science engineer and consultant, which started in his native country of Pakistan in the 1970s—a time of great civil and political unrest—and covers pressing industry trends like decarbonization, AI in building systems, and the important groundwork accomplished at COP27 in Egypt last year. Co-hosted by *ASHRAE Journal* Managing Editor Kelly Barraza and Assistant Editor Kaitlyn Baich.

[Play Episode](#)

ASHRAE Job Board

[Aircraft Systems Engineer \(Multiple Positions\)](#) Bell Flight; Fort Worth, Texas

[Mechanical Engineer](#) University of Michigan; Ann Arbor, Mich.

[Foundry Design Engineer](#) General Kinematics; Cedar Rapids, Iowa

[Senior Test Systems/Electrical and Instrumentation Engineer](#) Vital Materials, Inc.; Bowling Green, Ohio

[Building Science Engineer](#) Joulea; Atlanta, Ga.

[Industrial Electrical Engineer](#) The RMH Group, Inc.; Boulder, Colo.

[Director of Engineering Services](#) Tremco CPG; Clearwater, Fla.

[Central Energy Plant Engineer](#) Cornell University; Ithaca, N.Y.

[Electrical Manufacturing Engineer](#) CNH Industrial; Fargo, N.D.

[Plumber/HVAC Engineer](#) Equinix; Dublin, Ireland

[View All](#)