



DAYTON CHAPTER

WWW.DAYTONASHRAE.ORG

ISSUE V | 2023

CURRENT OFFICERS

PRESIDENT

Matt Dill

mdill@emersonswan.com
Emerson Swan, Inc.

PRESIDENT-ELECT

Kort Kugel

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Aeroseal

TREASURER

Zak Schultz

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Ferguson Enterprises, Inc.

SECRETARY

Kevin Sturm

ksturm@uptime-inc.com
Uptime Solutions

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&

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THE ANNUAL DAYTON ASHRAE GOLF SCRAMBLE



May 26, 2023

PipeStone Golf Club

Shotgun Start at 8:30 am

Drink Tickets Sponsored by Trane



TRANE



Mulligans Sponsored by Point 2 Point Systems



SOLID BLEND
WATER MANAGEMENT SOLUTIONS
safe. clean. sustainable.

Bloody Mary Bar and Lunch Sponsored
by Solid Blend Technologies

Register at Daytonashraegolf2023.eventbrite.com

EMAIL QUESTIONS TO MWEISMAN@ELITAIRE.COM

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>

FROM THE PRESIDENT

Thank you to everyone that attended our April meeting at Aeroseal. A special thank you to Kort Kugel for hosting as well as giving his presentation regarding Duct & Air Sealing Technology.



The ASHRAE Golf Scramble is right around the corner. Our 2023 Scramble is being held at Pipestone on May 26th. Please get your teams foursome signed up.



We are looking for a Government Affairs Chair. 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 (1994-1995)

President:	Mark Neiheisel	Uptime Solutions
Vice Pres:	John Mosgo	Siebe Barber Colman
Secretary:	Jim Hocker	Stan & Associates
Treasurer:	Dave Deger	Air Control Equipment
BOD:	All officers & Committee Members	
Education:	Russ Marcks	Sinclair Community Coll.
Research Pro.:	Mark steiner	Barge, Waggoner, Summer & Cannon
Membership:	Joe Ferdelman	Heapy Engineering

Regional Director: Bob Caplpetletti

Meetings were held at the Dayton Engineering Club.
CRC was held in Akron/Canton

Committee Chairs

MEMBERSHIP

Vincent Caudill

Vcaudill@ecomfortohio.com
Environmental Comfort, LLC

HISTORY

Bryan Schenck

Brian.Shenck@GoWaibel.com
Waibel Energy Systems

COMMUNICATIONS

Nathan Lammers

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Waibel Energy Systems

RESEARCH PROMO

Brian Turner

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Elitaire

STUDENT ACTIVITIES

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Sinclair Community College

CTTC

Evan Nutt

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ElitAire

GOVERNMENT AFFAIRS

Brian Scullin

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Emerson

YEA (Chair)

Phillip Reid

PAReid@heapy.com
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!

April: Juma Hameed



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!

5 Years: Matthew Dill
10 Years: Steven Elrich & Nathan Lammers
15 Years: Shane Angle
45 Years: Mark Rapier



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

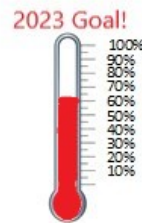
ASHRAE RP

Thank you to everyone who have contributed to the 22-23 ASHRAE campaign thus far! Hopefully, we will see you all at the ASHRAE golf outing this month. Your participation enables the chapter to meet our commitments to ASHRAE RP. We are coming down the home stretch with our 22-23 campaign, and we still have a ways to go to meet our goals. 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 = \$ 14,900
To go = \$ 4,780

% to GOAL: 76%



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
Sam Tobias

Silver Level

Dave Waibel

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!!



CONGRATULATIONS!!



Thank you Russ for all of your hard work over the years! Here is a re-cap of your dedication to ASHRAE.

- ♦ Started as Education Chair in 1992-93 year. Russ later became the Student Activity Chair.
- ♦ Served as Treasurer 1999-2000
- ♦ Served as Vice President in 2000-01
- ♦ Served as President in 2002-03
- ♦ Returned to Student Activity Chair the following year up until current.

We all appreciate the work you did thru ASHRAE and at Sinclair Community College!!

We all hope that as Russ goes into the next phase of his life, that he enjoys the very best it has to offer.

Best wishes and
Smooth sailing!!



Going Sailing...

ASHRAE News

New Coconut, Lemon Material Could be Used to Heat, Cool Homes



To find alternative solutions to keep our homes cool, a team of researchers from KTH Royal Institute of Technology in Stockholm has developed an eco-friendly material that can be used to cool and even heat our homes. The group created a building material out of coconuts, lemons and modified wood. These renewable resources serve as a “wood composite thermal battery.” Given an ambient temperature of 24°C, the team estimates that 100 kilos of this material can save about 2.5 kWh per day in heating or cooling. [Read more](#)

ASHRAE, Leading Industry Organizations to Host 2023 Decarbonization Conference for the Built Environment

ASHRAE is now accepting [presentation proposals](#) for the [2023 Decarbonization Conference for the Built Environment](#), which will be held October 25-27, 2023 in the Washington, D.C. metro area at the Renaissance Arlington Capital View Hotel. The conference is organized by ASHRAE, the American Institute of Architects (AIA), International Facility Management Association (IFMA), APPA and Building Owners and Managers Association (BOMA). [Read more](#)

End Use Analysis of ANSI/ASHRAE/IES Standard 90.1-2019

The United States’ national model energy standard for commercial buildings is ANSI/ASHRAE/IES Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings, which provides minimum energy efficiency guidelines for designing, constructing, operating and maintaining new construction and renovated buildings. This article is a detailed review of the simulation results that formed the basis of the report “Energy Savings Analysis: ANSI/ASHRAE/IES Standard 90.1-2019” in support of DOE’s Determination, which details the qualitative and quantitative comparison of Standard 90.1-2019 to Standard 90.1-2016 to determine its energy savings impacts. [Read more](#)

Comparing Convection vs. Radiant Air-Conditioning Systems in Office

Technology Award Winner Shinryo Shinjo Building is a Tokyo office building that boasts two energy-saving air conditioning systems—convection and radiant, which were developed and installed in the same shaped floor. The convection type is a variable airflow system that uses the Coanda effect to deliver air to the entire room with 83% less fan power without ducts. The radiant type is a variable temperature/water volume control system designed to maximize the use of a free-cooling system throughout the day. [Read more](#)

Developing Economies Conference 2023

Don't miss the opportunity to attend the Developing Economies Conference 2023 May 10-11 in Mumbai, India. The conference theme is “Decarbonizing and Sustaining Growth of Healthcare and Residential Infrastructure in Emerging and Future Markets.” Learn more and register today [here](#)



High Performing Homes

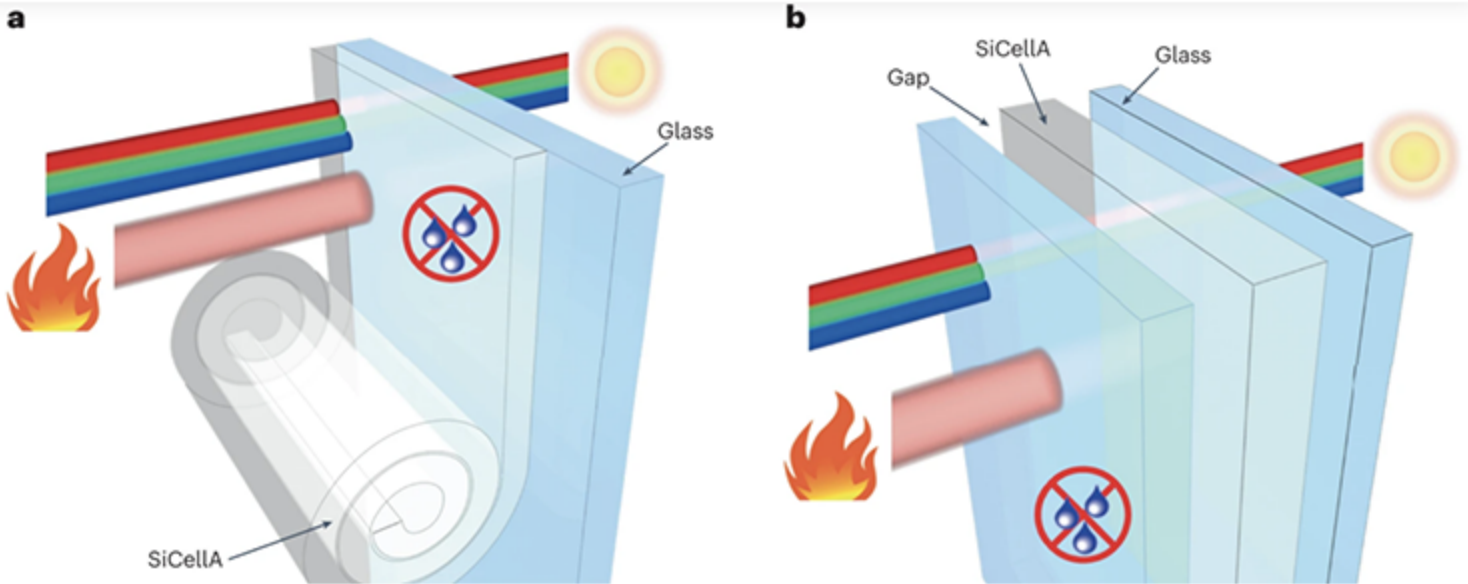
A Butterfly Roof Tops an 'Upside-Down' House Built for Aging in Place

The English home, located in Cambridgeshire, has been designed with passive house principles at its heart and is positioned on the property to receive ample sunlight throughout the year. Built with a prefabricated passive house timber frame system and triple glazing, the design makes for a well-insulated and highly sealed home. The overhanging butterfly roof provides solar shading to south-facing, high-level windows in summer. Wherever possible, natural and sustainable materials with low VOCs have been used inside and out. The home touts low energy bills due to solar panels that generate power and high levels of insulation. [Read more](#)



Credit: Matthew Smith Architectural Photography/@msap_photo

Innovation



Schematic drawings of a window retrofitted with a SiCellA film (a) and an insulating glass unit with a SiCellA film inserted between glass panes. Credit: Nature Energy

See-Through, Energy Efficient Windows Made From Paper

Researchers from the University of Colorado Boulder team have introduced a paper-based concoction for an energy efficient window, working with affiliates at the International Institute for Sustainability with Knotted Chiral Meta Matter at Hiroshima University in Japan and the Energy Department's National Renewable Energy Laboratory. *Nature* published their research under the title, *Highly transparent silanized cellulose aerogels for boosting energy efficiency of glazing in buildings*. The team used paper pulp instead of cultivating bacteria. They reported a "scalable manufacturing of highly transparent silanized cellulose aerogels (SiCellAs) with material characteristics adequate for glazing applications," which could be sandwiched between glass panes or used to insulate walls. [Read more](#)

ASHRAE News

A promotional banner for the 2023 ASHRAE Annual Conference. The left side has a blue background with white text: "2023 ASHRAE Annual Conference" with a palm tree icon, "June 24-28, 2023 Tampa, Florida", and a "Register Today!" button. The right side shows a photograph of a modern city skyline at dusk with the ASHRAE logo in the top right corner.

2023 ASHRAE Annual Conference

June 24-28, 2023
Tampa, Florida

Register Today!

ASHRAE

ASHRAE is headed to **Tampa, FL** for the [2023 ASHRAE Annual Conference](#). Join us as we welcome new Society Officers, kick back at social events, and explore solutions to the demands of our ever-changing industry. Register before April 30 for the best rates.

The conference is organized by ASHRAE, American Institute of Architects (AIA), International Facility Management Association (IFMA), APPA and Building Owners and Managers Association (BOMA).

“The goal of this conference is to bring persons who work in all aspects of building design, construction, operation, ownership and management into the same room to address how the building industry as a whole can improve the impact buildings have on the global climate crises,” said ASHRAE President-Elect Ginger Scoggins. “Since building design, construction and operation contribute close to 40% of total global emissions of carbon, it is imperative that we all work together to develop a path forward to address our impact”.

The deadline to submit is May 1, 2023. If accepted, presentations will be due September 01, 2023. All speakers are expected to present their work in person at the conference venue. Learn more about the conference at ashrae.org/2023BuiltEnvironment.

A promotional banner for the 2023 Decarbonization Conference for the Built Environment. The top half has a blue background with white text: "2023 Decarbonization Conference for the Built Environment", "October 25-27, 2023", and "Renaissance Arlington Capital View Washington D.C. Metro Area". Below this is a green bar with "Submit a Proposal" in white. The bottom half has a dark blue background with white text: "Industry Leaders Seek Presentations for 2023 Decarbonization Conference for the Built Environment". The background features a stylized city skyline with a prominent dome.

2023 Decarbonization Conference for the Built Environment

October 25-27, 2023

Renaissance Arlington Capital View
Washington D.C. Metro Area

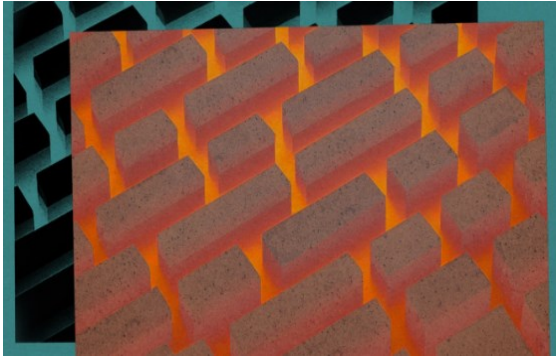
Submit a Proposal

Industry Leaders Seek Presentations for 2023
Decarbonization Conference for the Built Environment

ASHRAE News

Are Bricks the Next Breakout Star of Climate Technology?

A handful of startups think bricks that hold heat could be the key to bringing renewable energy to some of the world's biggest polluters. These bricks, or "heat batteries," could help cut emissions by providing new routes to using solar and wind power. Credit: Stephanie Arnett/MITTR/Getty



Alternative power sources that produce fewer greenhouse gases (like wind and solar) can't consistently generate the heat that factories need to manufacture their wares. Enter heat batteries. A growing number of companies are working to deploy systems that can capture heat generated by clean electricity and store it for later in stacks of bricks. Many of these systems use simple designs and commercially available materials, and they could be built quickly, anywhere they're needed. One demonstration in California started up earlier this year, and other test systems are following close behind. They're still in early stages, but heat storage systems have the potential to help wean industries off fossil fuels. [Read more](#)

Amazon Strikes Renewable Power Deal for Oregon Data Centers

After a dozen years operating data centers in eastern Oregon, Amazon says it has a deal to buy renewable energy to help power them. The company has started working with the local power utility to choose the electricity supply for its huge data center operations. Amazon's announcement follows reporting by the Oregonian/OregonLive on how the company's growing footprint in eastern Oregon has contributed to an enormous surge in regional carbon emissions, and an unsuccessful push by climate activists and state lawmakers to require large data centers to transition to clean power. [Read more](#)



ASHRAE Certification Program Adds New Building Decarbonization Related Job Tasks to Exams

ASHRAE recently approved Job Task Analyses for the Building Energy Modeling Professional (BEMP) and High Performance Building Design Professional (HBDP) certification exams to support building decarbonization efforts. The new and updated job tasks resulted from a job task analysis study, which included an industry-wide survey in which respondents were asked to rate how important and frequently the job tasks are performed. [Read more](#)

Cybersecurity: The Problem With Passwords

Cybersecurity has been a topic of increasing importance for several years. While fully securing a large and complex system can be very complicated, some basic precautions can easily be applied to any system, and some basic precautions can be implemented by the users of any system. This column will briefly explore an important aspect of identification and authentication: passwords. Other forms of authentication, such as ID badges, cryptographic keys and biometrics are also important, but are not discussed here. [Download here](#)

Small Business Energy Loan Enhancement Act

U.S. Representatives Jason Crow (D-CO-06) and Don Bacon (R-NE-02) have reintroduced the Small Business Energy Loan Enhancement Act. This bipartisan bill aims to increase the maximum loan amount available to small businesses for energy efficiency improvements through the Small Business Administration 504 Loan Program. The funds could be used for renovation and retrofit projects and for financing major capital investments such as highly efficient HVAC systems. This proposal would nearly double the loan amount, increasing the topline to \$10 million, up from \$5.5 million. You can find the full text of this bill [here](#).

New Funding Opportunity: Wildfire Smoke Preparedness Grant Program

Wildfire Smoke Preparedness in Community Buildings is a new federal grant program to support enhancing community wildfire smoke preparedness. It provides block grant funding to states, tribes, public schools, and non-profit organizations for the “assessment, prevention, control, and/or abatement of wildfire smoke hazards in community buildings and related activities.” This new funding is important because wildfire smoke is a serious public health problem, especially in fire prone western states. Health impacts can range from eye and throat irritation to heart attacks and premature death. These grants will be given out on a competitive basis for programs such as air quality monitoring, deployment of air cleaners, preparation of air shelters, and improvements to buildings HVAC systems. The deadline for applications is May 9th, and information on how to apply can be found [here](#).

Underground Water Could be the Solution to Green Heating and Cooling

A new study suggests that using underground water to maintain comfortable temperatures could reduce consumption of natural gas and electricity by 40%. The approach, called aquifer thermal energy storage (ATES), could also help prevent blackouts caused by high power demand during extreme weather events. The study, [published in Applied Energy](#), is the first examination of how ATES could fit into the larger goal of decarbonizing U.S. energy systems by storing intermittent renewable energy to use when the sun isn't shining and the turbines aren't spinning. The authors found that ATES could help end our reliance on fossil fuel-derived backup power and enable a fully renewable grid. [Read more](#)



ATES uses naturally occurring underground water to store energy that can be used to heat and cool buildings.
Credit: Jenny Nuss/Berkeley Lab

ASHRAE News

ASHRAE Signs Letter on Pairing Energy Efficiency with Solar

ASHRAE joined a letter led by the Alliance to Save Energy sent to the U.S. Environmental Protection Agency (EPA) Administrator Michael Regan and Acting Director of the Greenhouse Gas Reduction Fund, Jahi Wise. The letter suggests the agency consider prioritizing energy efficiency prior to deploying solar when using the first tranche of funding from the \$7 billion for the Greenhouse Gas Reduction Fund created by the Inflation Reduction Act. The letter describes the added benefits of acting first on energy efficiency improvements before solar deployment, such as reduced carbon emissions, decreased energy capacity buildout, greater affordability and reliability, and ultimately positive health impacts. A copy of the letter can be found [here](#).

ASHRAE BOD Slate



President Ginger Scoggins, P.E., Fellow ASHRAE; President-Elect Dennis Knight, P.E., Fellow ASHRAE; Treasurer Bill McQuade, P.E., Fellow ASHRAE

Voting Begins for the 2023–24 ASHRAE Board of Directors Slate

Online voting for the Society year 2023-2024 ASHRAE ballot opens on April 25, 2023, 8 a.m. EDT and runs until June 24, 2023, 3 p.m. EDT. Nominees' current Society activities are provided to assist voters in choosing candidates to lead ASHRAE in the upcoming Society year. The 2023–24 Executive Committee will include the president, president-elect, treasurer, four vice presidents and secretary (who is a non-voting member). Ginger Scoggins, P.E., Fellow ASHRAE, will serve as Society president for 2023–24, as she was elected president-elect on the 2022–2023 ballot. [Read more](#)

ASHRAE News

ASHRAE Journal Podcast Presents...

Ventilation in Theory vs. Ventilation in Practice

Join Andrew Persily, Ph.D., Fellow/Life Member ASHRAE, and Meghan McNulty, P.E., Member ASHRAE, as they discuss disconnects between design intent and performance when ventilating buildings and how ventilation theory and research play out in real-world applications.



ASHRAE
JOURNAL
Podcast



ASHRAE Job Board

Manager - Engineering AMETEK; Keene, N.H.

Senior Mechanical Engineer AECOM; Atlanta, Ga.

Energy Lead Brightworks Sustainability; Berkeley, Calif.

Project Development Engineer FESCO Energy; Frederick, Md.

Engineering Manager Vital Materials, Inc.; Bowling Green, Ohio

Project Manager / Senior Project Manager Watry Design, Inc.; Long Beach, Calif.

Director of RHVAC Engineering City Building and Engineering Services; Burlington, Mass.

Mechanical Engineer/Designer Allen + Shariff; Columbia, Md.

Senior MEP Manager JLL; Washington, D.C.

HVAC Principal Design Engineer Fluor; Sugar Land, Texas

[View All](#)

May is Building Safety Month

Building Safety Month, which runs throughout May, is a campaign to raise awareness about building safety. The campaign emphasizes the importance of modern, up-to-date building codes and standards, with each week in May having a different theme to encompass the multifaceted nature of building safety.

- May 1st – 7th is “Building Safety Starts at Home”
- May 8th – 14th is “Building Safety Professionals and You”
- May 15th – 21st is “Prepare your Community”
- May 22nd – 28th is “Advocate for your Community”
- May 29th – 31st is “Solving Challenges Together”

You can find more information from the International Code Council on Building Safety Month activities [here](#). You can also find ASHRAE resources on how to have your chapter work with elected officials to issue a building safety month proclamation [here](#).