



DAYTON CHAPTER

WWW.DAYTONASHRAE.ORG

ISSUE XII 2023

CURRENT OFFICERS

PRESIDENT

Matt Dill

Matthew.dill@victaulic.com
Victaulic

PRESIDENT-ELECT

Trent Hayden

thayden@netgainsengineering.com
Netgains Engineering P.C.

TREASURER

Zak Schultz

zak.schultz@ferguson.com
Ferguson Enterprises, Inc.

SECRETARY

Kort Kugel

Kort.Kugel@aeroseal.com
Aeroseal

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Save the Date: January 21, 2023

*ASHRAE Holiday Party
Top of the Market
32 Webster Street
From 5:30 to 8:30*

Come enjoy dinner, dancing and friends.

*Please make sure to sign up through the link below, as it
will help us make sure we have enough food.*

<https://www.eventbrite.com/e/dayton-ashrae-holiday-party-tickets-488698579607>



FROM THE PRESIDENT

I hope everyone had a safe and enjoyable holiday season. Thank you to everyone that joined us for our December meeting. Tim Wentz gave his presentation on “The Ethics of Money: Bidding, Payment Applications and Change Orders”. This was a joint meeting with MCA/SMACNA so I would also like to thank them for attending the presentation.

We are planning our annual holiday party. The holiday party is scheduled for Saturday, January 21st. It is being held at Top of the Market from 5:30 to 8:30. Please make sure to RSVP.

Please reach out to a member of the board if you are interested in getting involved with the Dayton Chapter.

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

Upcoming Events

Jan 18th

Board of Governors
8:00 AM, Virtual Meeting

Jan. 21th

ASHRAE Holiday Party.
5:30pm to 8:30pm

Feb. 15th

Board of Governors
8:00 AM, Virtual Meeting

Feb. 15th

ASHRAE Chapter Mtg.
11:30 AM, Hybrid Meeting

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

CHAPTER HISTORY (1981-1982)

President:	Michael Nauman	Heapy Engineering
Vice Pres:	Robert Stan	Stan & Associates
Secretary:	Mark Ganser	Trane Co.
Treasurer:	Jack Putnam	Lorenz & Willams
BOD:	Jim Oost	Eaton Corp.
	Bob Shultz	WPAFB—AFIT
Education:	Bob Shultz	WPAFB—AFIT
Research Pro.:	Jim Wasson	Wasson Engterprises
Membership:	Jack Rosati	Carrier Corp.

Regional Director: Joe Olivieri

Meetings were held at the Dayton Engineering Club.
CRC held in Grand Rapids Michigan.

Total Members: 77

Committee Chairs

MEMBERSHIP

Vincent Caudill

Vcaudill@ecomfortohio.com
Environmental Comfort, LLC

HISTORY

Bryan Schenck

Brian.Schenck@waibelenergysystems.com
Waibel Energy Systems

COMMUNICATIONS

Nathan Lammers

Nathan.Lammers@waibelenergysystems.com
Waibel Energy Systems

RESEARCH PROMO

Brian Turner

bturner@elitaire.com
Elitaire

STUDENT ACTIVITIES

Russell Marcks

Russell.marcks@sinclair.edu
Sinclair Community College

CTTC

Evan Nutt

ENutt@elitaire.com
ElitAire

GOVERNMENT AFFAIRS

Brian Scullin

Brian.scullin@emerson.com
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!



December: Jim Church & Colin Ross

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!

1Year: Justin Miles, Brandon Quigley, Scott Eardley James Wright, Jerry Hsu, Isaac Maurer, Daniel Benjamin, Sahil Rajan, Andrew Estes, and Juan Catano

5 Years: Brian Knapke
10 Years: Steven Coppock and Joe Thacker



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

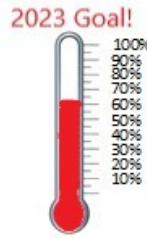
ASHRAE RP

Happy New Years! Thanks you to everyone who have contributed to the 22-23 ASHRAE campaign thus far. We are half way through the 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 = \$ 13,000
To go = \$ 6,680

% to GOAL: 66%



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

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



Aeroseal is a climate tech company using its leak sealing technologies to reduce the world's carbon emissions by 1 gigaton annually. With a presence in 27 countries and all 50 states across the U.S., Aeroseal's network of dealers have sealed nearly 200,000 projects and saved nearly \$2 billion in wasted energy. Small leaks are a BIG problem -

- The ducts and walls in buildings are inadequately sealed by manual solutions. Aeroseal's technologies - HomeSeal Connect and AeroBarrier Connect - inject a fog of sealant particles into these pressurized spaces. These particles safely seal leaks as big as 1/2" and as small as a human hair. Software tracks the entire process, creating a certificate of completion showing before and after leakage.

We are adding positions as we continue to grow:

Senior Electrical Engineer: <https://aeroseal.breezy.hr/p/f9c56a8ab67a-senior-electrical-engineer?source=aeroseal.com&popup=true>

Senior Mechanical Engineer: <https://aeroseal.breezy.hr/p/3078b0441c16-senior-mechanical-engineer?source=aeroseal.com&popup=true>

ASHRAE Professional Development News



Certification | ASHRAE Learning Institute | eLearning

ASHRAE Certification

See All

Certification Study Guides:

NEW! Building Commissioning Professional (BCxP)
Building Energy Modeling Professional (BEMP)
Certified HVAC Designer (CHD)

ASHRAE INFO



2023 ASHRAE WINTER CONFERENCE

ATLANTA, Feb 4-8 | AHR Expo, Feb 6-8

- AHR Expo
- Welcome Party
- Members Night Out
- Tech Tours
- YEA Reception
- Key Note Speakers
- ALI Courses

Save Your Spot

In-person and virtual registration is available. Use the conference [justification template emails](#) to easily request support for your attendance.

Build Your Schedule

This event is packed with technical sessions, industry-specific committee meetings, expert panels, social events and the AHR Expo.

Register

Schedule



2023 HVAC Cold Climate Conference

March 6-8, 2023

Registration for the 2023 HVAC Cold Climate Conference is now open! Co-sponsored by ASHRAE and SCANVAC, the goal of the conference is to share solutions and advancements addressing changes in climate while experiencing the culture of Alaska .

Learn more and lock in the lowest rates at ashrae.org/2023hvaccoldclimate!

South Africa to Receive \$8.5 Billion in Climate Financing

South Africa is the 13th biggest greenhouse gas emitter, and derives 80% of its electrical production from aging coal fired powerplants. Rolling blackouts are common as the nation's failing plants and grid shudder under increasing demand. An estimated \$87 Billion is required for the country to fully move away from coal over the next five years. So far, South Africa has only been able to secure about one-tenth of that, \$8.5 Billion, in climate financing from the world's richest economies under the Just Energy Transition Partnership framework. This funding will go toward building up the nascent sun and wind renewable sectors, which South Africa is geographically poised to develop. You can read more about this plan, and similar development schemes [here](#).

Germany and France Agree to Swap Electricity for Natural Gas

The Russian invasion of Ukraine continues to cause concerns amongst European countries about meeting their energy needs with winter approaching. Germany has been especially impacted by their prior dependence on Russian gas. France is facing a widening gap in energy supply and demand – four of the country's nuclear power plants are undergoing repairs. Showcasing their relationship, France has agreed to provide 100 gigawatt-hours of gas per day to Germany, and Germany will maximize the electricity export capacity by reversing the intended shutdown of certain nuclear power plants.

Senate Committee Approves International Nuclear Energy Bill

The Senate Foreign Relations Committee approved the International Nuclear Energy Act of 2022 (S. 4064), a bill that promotes and supports nuclear energy collaboration and global technology exportation. Specifically, the bill would create an international nuclear energy office within the White House and a program to address financing, education and safety concerns. The bill will now awaits consideration by the full Senate.

EPA Administrator Signs Proposed Rule to Phasedown HFCs

On December 7, EPA Administrator Michael Regan signed a new proposed rule titled "Phasedown of Hydrofluorocarbons: Restrictions on Certain Uses of Hydrofluorocarbons." The new rule proposes to restrict the use of hydrofluorocarbons in specific industrial sectors, and establish administrative channels for petitioning, recordkeeping, and reporting on the phasedown process. This rule-making would implement certain provisions of the American Innovation and Manufacturing Act, bipartisan legislation that passed into law in 2020 that directs the EPA to implement an 85 percent phasedown of the production and consumption of hydrofluorocarbons by 2035. You can read more on the EPA's proposed phasedown rule [here](#).

ASHRAE News

U.S. Companies Are Producing Heat Pumps That Work Below -20°F

A prototype of an air-source heat pump that can operate in temperatures below -20°F (-29°C) has been developed by a heating and cooling equipment company as part of the U.S. Department of Energy's (DOE) [Residential Cold Climate Heat Pump Challenge](#). The DOE launched this initiative, according to the program's [fact sheet](#), because “additional efforts are needed to address common technical and market barriers to wider adoption by consumers—which include performance at temperatures of 5°F and below, installation challenges and electricity grid impacts during peak demand periods.” The DOE is working with several manufacturers to test cold climate heat pumps' performance in labs. Field testing will take place over the next few years, and the DOE is aiming for commercialization of this technology in 2024. [Read more](#)

Why Resilient, Efficient U.S. Building Energy Codes Are Important

We've known for a long time that building energy codes make a real difference. In 1978, California adopted building codes designed to reduce the energy used for temperature control, and research indicates that the average house built just after 1978 uses [8% to 13% less electricity](#) for cooling than a similar house built just before 1978. More recently, energy consumption by the building sector has taken on heightened concern and is considered higher now than in the transportation sector. According to the IEA, the building sector globally consumed [36%](#) of total energy and emitted 39% of CO₂ in 2018. Conventional energy confers a certain finiteness on traditional buildings. Most buildings today use a lot of energy and conversely, [Zero Energy Buildings \(ZEB\)](#) seem to be a vision of the future rather than a contemporary feasibility. Yet, advancements in residential net-zero energy buildings can significantly reduce energy consumption and greenhouse gas emissions. [Read more](#)

New Energy Standards for Federal Buildings Will Spur Renovations

U.S. residential and commercial buildings represent 35% of CO₂ emissions. With 80% of all existing U.S. buildings expected to remain in service in 2050, electrifying existing buildings is essential to achieve the Administration's climate goals. The Council on Environmental Quality's Federal Building Performance Standard is requiring agencies to cut energy use and electrify equipment and appliances to achieve zero scope 1 emissions in 30% of their buildings by 2030. To reach that mark, agencies will be buying American-made products such as heat pumps, electric water heaters and other energy efficiency and building system technologies supported by the Inflation Reduction Act. [Read more](#)

The Approachable Green: Integrating Living Walls in Biophilic Interior Spaces

The term *biophilia* was coined by German psychologist Erich Fromm to describe the physiological tendency towards all living-beings—the “passionate love of life and of all that is alive.” Later, E.O. Wilson and Stephen Kellert's groundbreaking introduction of the Biophilia Hypothesis to the design disciplines helped reveal the mechanism of humans' inherent inclination to nature and other lifelike processes from the biologicistic and evolutionary perspectives. According to Stephen Kellert and colleagues' biophilic design framework, the integration of daylight, natural materials and vegetation are the fundamental applications that reconnect people to nature. While incorporating a courtyard could be constrained by spatial programming or financial limitations, a vertical greening system, also known as a vertical garden, could be a great substitute. This system is a living wall or simply a green wall that provides numerous benefits to the indoor occupants and the environment at large. [Read more](#)

The Golden Age of Cooling: Historic Theaters and Their Impact on Air Conditioning Today

Much of the drive for air conditioning in the early 20th century was from owners of movie theaters who had to limit their offerings in the summer. This need spurred many innovations in the industry, including the centrifugal compressor. [Download here](#)

NOAA Research Outlines Methods for Studying Atmospheric Carbon Removal

The National Oceanic and Atmospheric Administration (NOAA) released a draft report on the science and strategy behind atmospheric carbon removal. The report does not specify best technologies for atmospheric carbon removal, but instead recommends a three-phase study path in preparation for any congressional direction for studying carbon removal technologies. The strategic pathway would be to assess the effectiveness of carbon removal technologies using NOAA's observation and monitoring resources, analyze results, identify more detailed experiments and technologies, and then implement and study large-scale carbon removal projects on the global carbon cycle.

Montgomery County, Maryland Bans Natural Gas in New Buildings

In early December, the County Council in Montgomery County, Maryland voted unanimously to ban the use of natural gas in new buildings and require all new buildings to have electric heating, hot water heating, and cooking starting in 2026. However, income-restricted housing and schools will have additional time to comply, until the end of 2027. Montgomery County has a population of approximately 1 million, and 50% of greenhouse gas emissions in the county come from buildings. Montgomery County is the first county on the East Coast to implement a natural gas ban.

Ann Arbor, Michigan Proposes Ban on Natural Gas in New Buildings

The city of Ann Arbor, Michigan is considering a potential prohibition on natural gas connections for new buildings starting in 2023. The city's existing goals include electrifying 30% of homes and 25% of rental properties by 2030, as well as having at least 2,120 net zero residential units and 160 net zero commercial units by 2030. This ban was originally proposed to begin as soon as January 2023, but public comments at a December hearing led the Commission to postpone the final decision until March 2023, with the ban, if approved, possibly taking effect in September. The Commission also plans to hold at least one informational meeting on building electrification early next year. More information can be found on the City website [here](#).

ASHRAE News



Join us in Atlanta, Feb. 4-8, for the 2023 ASHRAE Winter Conference and co-sponsored AHR Expo.

Lock in Early Bird rates by registering for the conference by Oct. 30.

[Learn More & Register](#)

ASHRAE Journal Podcast Presents...

E19 | The Implications of IIJA and IRA on HVAC&R

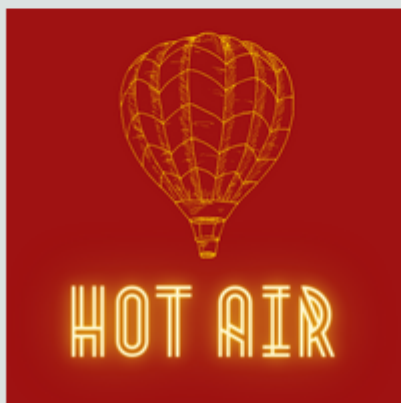
How do the Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA) impact ASHRAE members and the HVAC&R industry as a whole? Join Alice Yates, director of government affairs for ASHRAE, and Matthew Young, manager of government affairs, as they provide an overview of the bills and discuss the breadth of their funding.

Left, Alice Yates; Matthew Young

[Play Episode](#)



ASHRAE JOURNAL Podcast



E1 | "Math Matters"

Join our host and technical editor, Rebecca Matyasovski, in a quick chat with ASHRAE Journal Refrigeration Applications columnist Andy Pearson. Hot Air is a new series presented by ASHRAE Journal Podcast. In this premiere episode, we dive into ASHRAE Journal's December 2022 column, "Math Matters," as Pearson gives advice on learning how to love the way numbers work.

[Play Episode](#)