



DAYTON CHAPTER

WWW.DAYTONASHRAE.ORG

ISSUE IX | 2022

CURRENT OFFICERS

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AN OPPORTUNITY FOR STUDENTS

\$1,000

LEARN
NETWORK
TRAVEL

STUDENT TRAVEL GRANT

Submit by: **Sept 30th**

ASHRAE WINTER CONFERENCE
Atlanta, GA - Feb 4th - 8th

Travel to ASHRAE Winter Conference and be exposed to:

- Student Activities Committee meetings (non-executive session)
- The Student Program
- Seminars
- AHR Trade Show
- Technical Committees
- Governance

APPLY HERE

Shaping Tomorrow's Built Environment Today <https://www.ashrae.org/communities/student-zone/scholarships-and-grants/student-activities-travel-grant>

DEADLINE IS : SEPTEMBER 30TH !!!!!

Saturday, Feb. 4th –Student Welcome, Student/YEA mixer & Welcome Party

Sunday, Feb. 5th - Student Program, STEM Activities & Poster Fair

FROM THE PRESIDENT

As summer is coming to a close, we are preparing for our monthly meetings that are set to begin in October. We hope to see you at our lunch and dinner events.

PIVOT (Formerly Dayton Green Expo) is scheduled for **September 14th**. It is being held at **Sinclair Community College**. We appreciate your attendance and support for this event.

We are looking for a couple of volunteers to work on our local chapter committees. If you are interested, please reach out to a board member or committee chair.

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

Upcoming Events

Sept 21st

Board of Governors
8:00 AM, Virtual Meeting

Oct 19th

Board of Governors
8:00 AM, Virtual Meeting

Nov 16th

Board of Governors
8:00 AM, Virtual Meeting

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

CHAPTER HISTORY (1967-1968)

President:	Gifford Solem	Johnson Service
Vice Pres:	Norman Pleimann	Hughes Bechtol
Secretary:	Thomas Ferdelman	Ahart & Assoc.
Treasurer:	Glenn Black	Johnson Service
BOD:	John Patterson	Trane Company

Regional Director: Don Phillips

Meetings were held at the Dayton Engineering Club.
CRC held in Indianapolis, Indiana.

Committee Chairs

MEMBERSHIP

Vincent Caudill

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Environmental Comfort, LLC

HISTORY

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YEA (Chair)

Phillip Reid

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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!

July & August: Evangeline Klingbeil, Heather Sarkees

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!

1 Year: Seth Amuzu, Abigail Almanrode,

5 Years: Wayne Penn

20 Years: Roger Butler

50 Years: Parma Sinha

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

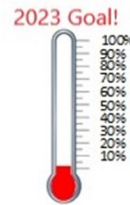
ASHRAE RP

Thank you to all those who helped us meet our goals for the 21-22 RP campaign. At this time, our 22-23 goals have not officially been set. Our expectation is that our goal will be close to \$20,000 again this year. For those looking to kick off the next 22-23 season, 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 = \$ 150
To go = \$ 19,530

% to GOAL: 1%



Partner Level

Honor Roll

Bronze Level

Steve Meier

Silver Level

Honorable Mention

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 Jobs

The Dayton Chapter is always looking for creative individuals
To help volunteer for different positions or events.

Please make sure to let us know
If you are willing to help out and
Share your ideas to help
Shape the world of
HVAC-R!

For more information or interest,
please contact:

Matt Dill at Matthew.dill@victaulic.com
Or at 937-269-9116



DOE Seeks Input through REScheck and COMcheck Workshops

The U.S. Department of Energy (DOE) Building Energy Codes Program is hosting two workshops on August 31st: a REScheck Virtual Workshop and a COMcheck Virtual Workshop. These workshops will provide a platform for users and experts to share information and feedback on their experience using REScheck and COMcheck. The comments will be used by the DOE as they launch a new effort to update their code compliance software. The sessions are open to the public.

REScheck Virtual Workshop; August 31st, 1pm – 2pm ET; [Register Here](#)

COMcheck Virtual Workshop; August 31st, 3pm – 4pm ET;
[Register Here](#)

City of San Diego Plans to Ban Natural Gas in New Homes and Retrofit Existing Buildings

In early August, the San Diego City Council voted unanimously to approve a new Climate Action Plan that calls for banning fossil fuels in new construction, while also electrifying nearly all existing buildings over the next 12 years. This would align with the city's existing goal of reaching net-zero emissions by 2035. Multiple cities have restricted the installation of gas stoves and heaters in new construction, but San Diego would be the first in California to focus on retrofitting existing buildings as a major component of their electrification goal. Phasing out natural gas from existing buildings, including all those owned by the city, would represent nearly 40% of all greenhouse gas reductions by 2035. Under the previous plan, drafted in 2015, building retrofits composed less than 2% of total greenhouse gas reductions. A new building ordinance, along with a detailed implementation and funding plan, is expected in early 2023.

Clearing the Air: Healthier, Safer, More Efficient Buildings with Germicidal UV Systems

On September 15th at 1pm ET, the U.S. Department of Energy (DOE) Better Buildings Lighting Systems Technology Research Team is hosting a webinar to explain how well-designed germicidal UV systems offer a more effective and energy efficient approach to preventing the spread of airborne illnesses. Presenting the latest research will be Gabe Arnold and Belal Abboushi; Lighting Research Engineers at the Pacific Northwest National Laboratory (PNNL). Attendees will have the opportunity to provide input and suggestions on how DOE resources like the Better Building Solution Center can maximize their impact. Register for the event [here](#).

Harvard Researchers Design a Cheaper, More Efficient Air Conditioner

A multidisciplinary team at Harvard University's Wyss Institute is working on a design for a new type of air conditioner that uses a fraction of the energy typically needed by current air conditioners and uses water instead of ultra-polluting refrigerants. Called ColdSNAP (SNAP stands for "superhydrophobic nano-architecture process"), the design incorporates a coating that repels liquids inspired by the way duck feathers stay dry. The team realized that if it selectively applies this coating to certain places on ceramic, they can use it in a new type of evaporative cooler. [Read more](#)

Krill Could Help Make Buildings More Efficient

You may know krill for its role as whale food, but these crustaceans are more complex than most think and may even have a lot to teach us about making buildings more energy efficient. In a [paper](#) published in *Nature*, researchers at the University of Toronto propose adapting an HVAC technique from Antarctic krill, which use pigments stored in their skin to protect themselves from the sun. They want to apply this principle to buildings by making windows filled with two types of fluid: one that absorbs sunlight and another that allows it to pass through. [Read more](#)

ASHRAE News

Energy Provider Aims To Convert Boston's Steam Network To Run on Clean Energy



District energy provider Vicinity Energy is pursuing its [eSteam plan](#) for the nearly 90-year-old district steam system serving about 65 million square feet of buildings in Boston and Cambridge, Mass. Vicinity plans to augment its fossil-gas-fired cogeneration plant in downtown Cambridge with electric-powered boilers and industrial-scale heat pumps. The plan could serve as a model for how some cities can move toward climate-friendly heating and cooling of buildings.

[Read more](#) *This steam plant in downtown Boston could become the hub of an all-electric district energy system.*

Credit: Vicinity Energy

Present State and Future of Environmental Control Systems in Space

By John Constantinide, P.E., Member ASHRAE; Hamidreza Najafi, Ph.D., Associate Member ASHRAE

The International Space Station is a working example of how to design for the temperature extremes of deep space. This article also presents the need for standards, guidelines and codes relating to the indoor environment for these applications. [Download here](#)

Heatwave Puts Europe's Energy Systems to the Test

A heatwave in parts of Europe has piled pressure on energy systems as demand for air-conditioning risks driving prices higher and adding to the challenge of building up stocks to protect against any further cuts to Russian gas supplies. Sweltering temperatures have arrived earlier than usual this year, notably in [France and Spain](#), prompting consumers to turn on air conditioning despite historically high power prices. To read more, please visit [here](#).

ASHRAE Referenced in New CDC Study on Ventilation Strategies in Public Schools

On June 10, the U.S. Centers for Disease Control and Prevention (CDC) issued a report titled "Ventilation Improvement Strategies Among K–12 Public Schools — The National School COVID-19 Prevention Study." The study found that in U.S. K-12 public schools, "higher-cost and resource-intensive ventilation improvement strategies...were less frequently reported" and that "focusing support on schools least likely to have implemented resource-intensive ventilation strategies might facilitate equitable implementation." The study noted that [ASHRAE's Guidance for Schools and Universities](#) emphasizes numerous ways to improve ventilation, with strategies varying in both financial cost and ease of implementation. The full study can be found on the CDC website [here](#).

Pushing the Boundaries of Air Cooling in High-Density Environments

Data centers have seen an ongoing increase in average power density over the past decade. During this time, many have wondered if air-cooled IT equipment (ITE) has reached its power limits and if liquid cooling is really the only long-term solution. Some high-performance computing (HPC) ITE is available as liquid- or air-cooled versions. However, the bulk of standard ITE is still air cooled, and most new mainstream data centers continue to be designed for air-cooled ITE. This has led to renewed efforts by ITE manufacturers and data center operators to push the boundaries of air cooling. [Read more](#)

HHS Addresses Greenhouse Gas Emissions in the Health Sector

The Department of Health and Human Services (HHS) has called on health care providers to take a pledge to reduce greenhouse gas emissions by 50 percent by 2030 and to net zero by 2050. The U.S. health care sector contributes approximately 10 percent of U.S. greenhouse gas emissions. Health care providers that take the pledge will be recognized at a White House Ceremony later this month. HHS Secretary, Xavier Becerra, took the initiative to create a new Office of Climate Change and Health Equity to encourage all HHS departments to make efforts to address climate change and its health effects. Until now, only two HHS offices – the Centers for Disease Control and Prevention and the National Institutes of Health – doing work related to climate change of Health. Earlier this month the HHS also announced a joint initiative with the National Academy of Medicine to form partnerships with private-sector health care providers to conduct research on reducing greenhouse emissions from the industry.

DOE Announces \$39 Million to Study Converting Buildings into Carbon Storage Structures

The U.S. Department of Energy (DOE) announced it will support 18 projects aiming to develop decarbonizing building materials that can serve as net carbon storage structures. The Harnessing Emissions into Structures Taking Inputs from the Atmosphere (HESTIA) program is led by ARPA-E and aligns with President Biden's goal to reach zero emissions by 2050. Awardees include:

- National Renewable Energy Lab – cost-effective, bio-based insulation
- Purdue University – transformational “living” wood with the strength of steel, a self-healing capability and carbon sequestering benefits
- SkyNano LLC – composite panel that contains bio-derived fibers that are mechanical, functional and maintain a carbon-negative footprint

University of Pennsylvania – medium-sized buildings with high-performance floor system with carbon absorption

Find information on all 18 HESTIA projects that received funding [here](#).

ASHRAE Joins in Message to Congress on the Importance of Keeping Building Provisions in any Climate and Energy Bill

ASHRAE joined the Building Action Coalition for Sustainable Buildings in sending a letter to congressional leadership, explaining the importance of keeping building provisions in any climate or energy legislation. The provisions of interest come from the Build Back Better Act (H.R. 5376) passed by the House, as well as the draft language from Senate Committees during earlier reconciliation negotiations. The provisions would improve buildings, save energy, build resilience to natural disasters and spur job creation. For example, there are proposals to expand financing for green buildings; provide rebates for home retrofits; assist in improving efficiency in schools, public and non-profit buildings; and train a workforce adept in energy efficient and healthy buildings. A copy of the letter can be found [here](#).

ASHRAE News

Global Clean Energy Action Forum

Members in your chapter may be interested to know about the **Global Clean Energy Action Forum** in Pittsburgh, PA Sept. 21-23 hosted by the U.S. Department of Energy and Carnegie Mellon University. Thirty-one countries from around the world will take part in this first ever forum, a joint convening of the 13th Clean Energy Ministerial and 7th Mission Innovation Ministerial, where interested parties and decision makers will join together in a three-day event where discussions and presentations will focus on a broad goal aimed at accelerating global deployment of clean energy technologies over the next decade and beyond. Registration is currently open and free of charge.

[>> Learn More](#)



INTERNATIONAL BUILDING DECARBONIZATION 2022 CONFERENCE OCTOBER 5-7 IN ATHENS, GREECE



ASHRAE is organizing its first International Building Decarbonization Conference, which will take place October 5-7, 2022, in Athens, Greece. The conference will be an information and idea exchange among stakeholders in the built environment industry concerning the reduction of greenhouse gas emissions from buildings. A primary goal of the conference is to bridge North America and Europe collaboration in decarbonization efforts.

Registration is now open. Early bird pricing ends August 8. To find out more and register, please visit [here](#).