



DAYTON CHAPTER

WWW.DAYTONASHRAE.ORG

ISSUE XI | 2022

CURRENT OFFICERS

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Nov. 14th Hybrid Meeting!!!

Join in person at The Engineers Club (110 E Monument) or virtual!

Social Hour: 5:30 pm to 5:55 pm
Chapter Business: 5:55 pm to 6 pm
Main Presentation: 6:00 pm



**Main Presentation: Design Build—
Executing the Project (Based on ASHRAE
Design Build Survival Guide)**
Presenter: E. Mitchell Swann, P.E.
Managing Director for Resolution Mgt. Consultants

Topic: Long ago in a land not too far away, TC 1.7 published the ASHRAE Survival Guide to Design-Build. Well, since that time, the Design Build (DB) delivery method has exploded. The TC has listened to members in Forums and meetings as they've asked questions and shared their joys and sorrows with DB. This program takes a look a Design-Build as an execution system and a provides an overview of the Design-Build Survival Guide. The program will:

- Identify key elements of the Design-Build execution strategy
- Present project risk considerations in Design-Build execution.
- Present discuss selected business considerations in Design-Build execution.
Present emerging industry trends and technologies and their impact on Design-Build projects and practitioners.

Presenter Bio: Mr. Swann has over 30 years of experience in the areas of engineering design, project management and consulting for a wide array of clients in diverse industries in the USA and abroad. Mr. Swann's career has included engineering design of HVAC, Piping and Control systems; Project & Department Management, Commissioning, Forensic Engineering & Expert Witness engagements; Dispute Resolution and Project Execution Consulting. He has worked for clients on commercial, institutional and high-tech industrial projects. (More included on invite to come)

ASHRAE Theme: Student Night, Membership Promotions & Research Promotion

Please use the Eventbrite link to **sign up by November 10th.** <https://www.eventbrite.com/e/dayton-ashrae-november-chapter-meeting-tickets-449727054727>

Join Zoom Meeting Information:
<https://us02web.zoom.us/j/89612519947?>

FROM THE PRESIDENT

Unfortunately we had to cancel our October meeting so November's meeting will be our first of the year.

The November meeting is scheduled for 5:30 on the 14th at the Engineer's Club. E. Mitchel Swann is presenting "Design Build – Executing the Project". This meeting will also be our Student Night, Membership Promotion, and Research Promotion. We hope to see you there.

Please reach out to a member of the board if you are interested in volunteering your time to the Dayton Chapter. If you ever want to attend a Board of Governors meeting to see what it is all about, please let someone know and we can send you the Zoom invite.

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

Upcoming Events

Nov. 14th

ASHRAE Chapter Mtg.
5:30 PM, Hybrid Meeting

Nov 16th

Board of Governors
8:00 AM, Virtual Meeting

Dec. 12th

ASHRAE Chapter Mtg.
5:30 PM, Hybrid Meeting

Dec 14th

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

Vcaudill@ecomfortohio.com
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!

October: 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/ 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 Year: Phillip Reid, Jennifer Butsch & Austin Knick

15 Years: Lane Oatman

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

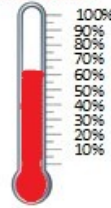
We are off and running with our 22-23 RP campaign. Our leadership team comprised of the Board of Governors and Officers are leading the way with their annual donations. Please note that in order to be recognized with a commemorative coin, and have your name published in the ASHRAE Journal, the minimum donation is \$150 for individuals and \$500 for Corporate Donors. For those looking to contribute to the 22-23 campaign, 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 = \$ 11,250
To go = \$ 8,430

% to GOAL: 57%

2023 Goal!



Partner Level

Emerson

Honor Roll

Steve Meier
Lorraine Kapka
Brian Turner
Jennifer Eller
Evan Nutt

Bronze Level

Russell Marcks

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 INFO

ASHRAE Job Board

[Associate, Senior, and Principal Lead Software Engineers \(Multiple Positions\)](#) Scientific Software Engineering Center - University of Washington; Seattle, Wash.
[Mechanical Project Managers](#) Shapiro CM; N.J.
[Assistant/Associate/Full Professor of Practice in Mechanical Engineering](#) UT Austin; Austin, Texas
[Mechanical Engineer](#) Gartek Engineering, Corp; Miami, Fla.; Hollywood, Fla.; Greenacres, Fla.
[Senior Electrical Engineer II](#) AXON; Scottsdale, Ariz.
[Senior Plumbing Designer](#) SmithGroup; Atlanta, Ga.

[Senior Energy Analyst](#) Brightworks Sustainability; Portland, Or.
[Faculty Position](#) Weldon School of Biomedical Engineering Purdue University Weldon School of Biomedical Eng.; West Lafayette, Ind.
[Assistant and Associate Professors in Quantum Circuits, Architectures and Technology](#) Technische Universiteit Delft (TU Delft); Delft, Zuid-Holland, Netherlands (on-site)
[Design Engineer](#) TransAmerican Power Products Inc; Hybrid/Remote; Houston, Texas

[View All](#)



YEA PROGRAM

Presented by the ASHRAE Learning Institute, the [HVAC Design Essentials Training](#) allows attendees to gain the fundamentals and technical aspects to design, install and maintain HVAC systems.

To encourage attendance by young professional ASHRAE members, YEA offers attendance scholarships to the HVAC Design training. The full cost of registration to Level I or II of this training will be covered by ASHRAE. Any additional costs, such as airfare or hotel, are not covered by this scholarship.



Criteria: All applicants must be ASHRAE members and 35 years of age or younger as of July 1 of the current society year (student members not eligible)

Applications will open Monday, October 10th, 2022!!

APPLY

If you have any questions, please contact YEA at youngengineers@ashrae.org or (678) 539-1178.

ASHRAE News

Greece Runs Entirely on Renewable Energy For the First Time

On October 7, for a period of approximately 5 hours, the country of Greece ran entirely on renewable power, reaching a record high of 3,106 megawatt-hours. Renewable energy currently accounts for 46% of Greece's power mix in 2022, which is a slight increase over 42% in 2021. The country has established a target of installing 25 gigawatts of renewable capacity by 2030, and has installed approximately 10 gigawatts to date.

Energy Efficiency News: U.S. Treasury to Collect Data from Insurers on Climate Change Based Risk

Natural disasters exacerbated by climate change in states such as California and Florida are causing insurance companies to go bankrupt, and the surviving companies are raising consumer's rates. To study this phenomenon, the Biden administration has launched a new effort to collect and analyze detailed information about policies and claims from more than 200 large insurance companies and will assess "climate-related exposures and their effects on insurance availability." This data collection effort is expected to highlight how insurance companies are reducing the coverage they offer homeowners to shield themselves from increasing risks to due to climate change. This data may also show the Treasury which neighborhoods are the hardest to insure, and which regions are the most at risk for major disruptions to private insurance networks. More details can be found [here](#).

ASHRAE Journal Podcast

E17 | Are We Ready for Artificial Intelligence in Building Design?

Don't miss Dr. Zoltan Nagy, the director of the Intelligent Environments Laboratory at The University of Texas at Austin, and Dr. Rania Labib, who established the Artificial Intelligence and High-Performance Buildings Lab at Prairie View A&M University, as they talk with *ASHRAE Journal* Editor John Falcioni on the opportunities and challenges that come with artificial intelligence/machine learning in building design and operations. They also discuss the questions facing the industry in accepting these new tools and the difficulties in preparing the next generation of AI-savvy engineers.

Left, Zoltan Nagy; Rania Labib



ASHRAE
JOURNAL
Podcast

Play Episode

ASHRAE News

EHSC Hosts Webinar on Lighting Retrofits for Schools

The Efficient and Healthy Schools Campaign (EHSC) will host a webinar on October 27th discussing lighting retrofits for schools, including performance requirements, energy savings and costs. This webinar will provide access to experts, tools, and resources for schools to get started or further improve lighting to reduce energy costs, while creating healthier and safer spaces for learning. Jordan Shackelford from Lawrence Berkely National Laboratory will present on the program, while Axel Pearson from Pacific Northwest National Laboratory will present on the Department of Energy's Integrated Lighting Campaign and how schools can be a part of this campaign. You can find more information and register for this webinar [here](#).

IRS and Treasury Department Seeking Input on Climate and Energy Laws

The Inflation Reduction Act (IRA) produced \$370 billion in climate spending - \$270 million of the climate funds will come from tax incentives for EVs, energy-efficient buildings, solar power and other clean energy technologies. Now, the Internal Revenue Service (IRS) and Treasury Department are seeking input from the public on new or improved tax credits and deductions. There are five areas where input is being sought:

- Credits for clean vehicles ([2022-46](#));
- Energy security tax credits for manufacturing ([2022-47](#));
- Incentive provisions for improving the energy efficiency of residential and commercial buildings ([2022-48](#));
- Certain energy generation incentives ([2022-49](#));
- Elective payment of applicable credits and transfer of certain credits ([2022-50](#)); and
- Prevailing wage, apprenticeship, domestic content, and energy community requirements ([2022-51](#)).

Notably, ASHRAE plans to submit comments on the incentive provisions for improving the energy efficiency of residential and commercial buildings because of the substantial changes to the 179D tax deduction for energy efficiency in commercial buildings. Written comments should be submitted to the Federal eRulemaking Portal (IRS-2022-0048) by Friday, November 4th.

Duke Energy and NREL Partner to Reach Net-Zero

Electric utility giant Duke Energy has partnered with the National Renewable Energy Laboratory to research methods of cost-efficient and carbon-free power for the Carolinas. So far, the research has shown solar and wind power are capable of meeting future energy demands, with the caveat that an "extended weather" cold snap in 2036, equal to the one experienced in 2018, could cause excessive stress to the proposed evolving power system. Implementation of these plans is projected to cost between 1.9 percent and 2.7 percent. Phase 1 of the plan can be found here, and phase 2 of the plan can be found [here](#).

ANSI Hosts Worlds Standards Week Gathering

The American National Standards Institute hosted a week of events in celebration of World Standards Week. There were meetings of the ANSI International, National, and Intellectual Property Rights Policy Advisory Groups – each with a panel of stakeholders to discuss present issues and opportunities. ASHRAE was represented by Matt Young, Manager of Federal Government Affairs, who sat on a panel of SDOs providing updates on energy, carbon, and climate related opportunities. There was also a Keynote address delivered by Laurie Locascio, Director of the National Institute of Standards and Technology (NIST). Highlights from the event can be found [here](#).

Meta Plans Shift to Liquid Cooling for its Data Center Infrastructure

Meta's vision of an immersive metaverse will require powerful hardware to process the artificial intelligence to create these digital worlds. At the Open Compute Summit, Meta introduced a new AI computing platform, along with updates to its Open Rack and a roadmap for a gradual shift to a water-cooled AI infrastructure. The company plans to use cold plates to provide direct-to-chip cooling for AI workloads on its GPU servers and is preparing several designs for managing the temperature of supply water as rack power densities increase.

[Read more](#)



A key advantage of this design is that it combines the unique benefits of insulation, evaporation and radiation.

Credit: denboma/Adobe Stock

New MIT System Could Cool Buildings up to 10°C— Without Electricity

MIT researchers have made important steps toward overcoming the challenges of passive cooling. Within a flat three-layered panel, Zhengmao Lu and colleagues at MIT combined several passive cooling techniques—each counteracting the shortcomings of the others. The panel's top layer features a highly insulating aerogel: an ultra-light, sponge-like material featuring sparse networks of cross-linked polymers where a vast majority of the volume is taken up by empty space. This structure makes aerogels highly insulating to heat, while allowing gases and other kinds of radiation to readily pass through.

[Read more](#)

Report Finds Solar With Storage Can Provide Reliable Residential Backup Power

Behind-the-meter solar-plus-energy storage systems (PVESS) can generally provide at least minimum levels of backup power during power interruptions, according to [a new report](#) by Lawrence Berkeley National Laboratory. The report found that backup performance of PVESS can vary depending on a variety of circumstances. The best performance observed in the report, which included both simulations and historical analysis of how PVESS would have performed during a sample of actual historical events, was for residential buildings. If heating and cooling loads are excluded from those residences, a small PVESS with 10 kilowatt hours of storage can fully meet basic backup power needs over a three-day outage in virtually all U.S. counties and in any month of the year. [Read more](#)

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 confer-
ence by Oct. 30.

[Learn More & Register](#)



ASHRAE
Learning Institute
**HVAC DESIGN
TRAINING**
In-Person and Virtual

Level I: Essentials

31 Oct-2 Nov. 2022 | 8:00 a.m.–5:00 p.m. **(Live in Atlanta)**

7-11 Nov. 2022 | 8:00 a.m.–12:00 p.m. (Virtual)

14-16 Nov. 2022 | 8:00 a.m.–5:00 p.m. **(Live in Austin)**

5-9 Dec. 2022 | 8:00 a.m.–12:00 p.m. (Virtual)

(All virtual training shown in Eastern Time.)

Level II: Applications

3-4 Nov. 2022 | 8:00 a.m.–5:00 p.m. **(Live in Atlanta)**

14-16 Nov. 2022 | 8:00 a.m.–12:00 p.m. (Virtual)

17-18 Nov. 2022 | 8:00 a.m.–5:00 p.m. **(Live in Austin)**

12-14 Dec. 2022 | 8:00 a.m.–12:00 p.m. (Virtual)

[Register Online](#)