

# THE LONG ISLAND SOUNDER



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# President's Message

Dear ASHRAE Long Island Chapter Members,

The ASHRAE Long Island Chapter continues to build strong momentum as we move into the spring season. Our board members and committee chairs have been working diligently to deliver high-quality technical programming, meaningful networking opportunities, and impactful joint events with industry partners.

March is shaping up to be one of the most exciting months of our chapter year, highlighted by our largest event — the 3rd Annual HVAC & Plumbing Long Island Expo. Our 3rd Annual Long Island HVAC & Plumbing Expo is here — and it is shaping up to be the largest event our chapter has ever hosted.

Join us on:

March 10th, 2026

2:00 PM – 7:00 PM

Westbury Manor

This is not just another meeting — this is the Long Island HVAC industry event of the year.

We already have:

- 40+ premier vendors
- 150+ registered attendees (and growing)
- 3 PDH credits available throughout the day
- Networking with engineers, contractors, manufacturers, and industry specialists
- Exposure to the latest HVAC, refrigeration, and plumbing solutions
- Premium food served all day
- Open bar included the entire event
- Hourly raffles with great prizes

The level of manufacturer participation and attendee interest has been incredible. The energy around this show reflects the strength of the Long Island engineering community and the collaboration between ASHRAE and ASPE.

If you have not registered yet — now is the time. Bring a colleague, bring a client, bring a young engineer. Let's pack the room and make this our most successful Expo yet.

*Continued*

## **Recognition**

A SPECIAL THANK YOU to SMACNA for delivering an outstanding technical presentation on installing large ductwork systems.

The level of detail, coordination requirements, rigging challenges, and structural considerations were impressive. And I think many of us left thinking the same thing — who knew ductwork could get over 20 feet wide?!

It was a great reminder that while we often focus on controls, electrification, and high-efficiency equipment, the physical scale and craftsmanship behind large commercial duct systems are just as critical.

Thank you to the SMACNA team for sharing your expertise with our members.

## **Past Events**

The ASHRAE Long Island Chapter recently hosted a National Compressor field trip right here on Long Island, and it was a tremendous success.

What made it even stronger was hosting it as a joint meeting with the NYC Chapter, reinforcing collaboration within Region I and strengthening relationships between our engineering communities.

Members had the opportunity to see real equipment manufacturing up close, ask technical questions, and gain valuable insight into systems many of us specify regularly. Events like this highlight the value of ASHRAE — real-world engineering discussions, peer networking, and direct manufacturer engagement.

Thank you to everyone who attended and helped coordinate this excellent event.

Sincerely,

Matthew Catan

President

ASHRAE Long Island Chapter

2026



## Long Island's 3rd Annual HVAC&PlumbingTrade Show

Tuesday, March 10, 2026 | 2pm – 7pm  
Westbury Manor  
1100 Jericho Turnpike, Westbury, NY  
*The Latest Innovations In Construction Products*

**Hosted By:**



# Chapter Monthly Meeting - Program for 2023/2024

<p>September 9, 2025* At Westbury Manor</p> <p>Dinner Presentation – ASHRAE 62.1 Understanding the Indoor Air Quality Procedure</p> <p>Presenter: Tim Boyd</p> <p style="text-align: right;">**1 PDH*</p>	<p>March 10, 2026* At Westbury Manor</p> <p>Long Island Trade Show</p>
<p>October 14, 2025* At Westbury Manor</p> <p>Dinner Presentations - VRF and The A2L Refrigerant Transition</p> <p>Presenter- Anthony Frizalone</p> <p style="text-align: right;">**1 PDH**</p>	<p>April 14, 2026</p> <p>Dinner Presentation— TBD</p> <p style="text-align: right;">**1 PDH**</p>
<p>November 4, 2025 * At Westbury Manor</p> <p>Dinner Presentation— Creating an Underground Research Facility to Explore the Universe</p> <p>Presenter- Darryl K. Boyce</p> <p style="text-align: right;">**1 PDH**</p>	<p>May 2026 * Cherry Valley Club, Garden City, NY</p> <p>ANNUAL GOLF OUTING</p>
<p>December 9, 2025 * At Westbury Manor</p> <p>Dinner Presentation—TBD **1 PDH**</p>	<p>May 12, 2026</p> <p>Annual Field Trip—TBA</p>
<p>January 13, 2026 * At Westbury Manor</p> <p>Dinner Presentation— TBD</p> <p style="text-align: right;">**1 PDH**</p>	<p>June 2026 * At Westbury Manor</p> <p>Free Buffet Dinner for Members</p> <p>PAST PRESIDENTS NIGHT &amp; OFFICER INSTALLATION STUDENT SCHOLARSHIPS TO BE AWARDED ASHRAE History Quiz and prize Give-A-Ways</p>
<p>February 10, 2026</p> <p>Dinner Presentation— TBD</p> <p>Presenter: TBD</p>	<p>July 2026- TBD (4pm-8pm) * Dixie II @ Captree State Park Boat Basin, NY</p> <p>ANNUAL FISHING TRIP</p>
	<p>August 2026</p> <p>Chapters' Regional Conference (CRC) Region I GRANIT STATE</p>

# Long Island Chapter Officers & Committees

ASHRAE 2024/2025 OFFICERS		
POSITION	NAME	EMAIL
President	Matthew Catan	c006@ashrae.net
President-Elect	Michael Razzano	c006pe@ashrae.net
Vice President	Zhiganag XU	c006vp@ashrae.net
Treasurer	Richard Smith	c006tr@ashrae.net
Secretary	Michael S. Gerazounis	c006sec@ashrae.net
Board of Governors	Thomas DiBenedetto	c006bog1@ashrae.net
Board of Governors	Pete Conte	c006bog2@ashrae.net
Board of Governors	Steven Gerazounis	c006bog3@ashrae.net
Board of Governors	Michael Nigro	c006bog4@ashrae.net
Board of Governors	Richard Smith	c006bog5@ashrae.net

ASHRAE 2023/2024		COMMITTEES	
COMMITTEE	NAME	EMAIL	
Programs & Special Events	Michael Nigro	c006pe@ashrae.net	
Membership (MP)	Michael Gerazounis	c006mep@ashrae.net	
Refrigeration	Kenny Balci	c006ref@ashrae.net	
Chapter Technology Transfer (CTTC)	Michael Razzano	c006cttc@ashrae.net	
Government Activities (GGAC)	Rich Smith	006ggac@ashrae.net	
Newsletter Editor	Alexis H. Smith	c006ne@ashrae.net	
Research Promotion (RP)	Peter Conte	c006rp@ashrae.net	
Historian	Elizabeth Jedrlinic	c006his@ashrae.net	
Student Activities (SA)	Katlyn Coolbaugh	c006sa@ashrae.net	
Young Engineers in ASHRAE (YEA)	Steven Gerazounis	c006yea@ashrae.net	
Webmaster	Frank Paradiso	c006web@ashrae.net	
Nominating	Michael Gerazounis, PE, LEED AP	nominating@ashraeli.org	
Reception & Attendance	Steven Gerazounis	reception@ashraeli.org	
PR & Engineering Joint Council of LI (EJCLI) Liaison	Andrew Manos, LEED AP	pr@ashraeli.org	
Golf Outing	Peter Gerazounis, PE LEED AP	golf@ashraeli.org	
Awards	Brian Simkins	c006ha@ashrae.net	
ASHRAE LI, P.O. Box 79, Commack, NY 11725			

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# Long Island Chapter - Past Presidents

1958	H. Campbell, Jr. PE	1982	Timothy Murphy, PE	2006	John Nally
1959	Clyde Alston, PE	1983	Leon Taub, PE	2007	Peter Gerazounis, PE, LEED AP
1960	Sidney Walzer, PE	1984	Raymond Combs	2008	Steven Friedman, PE, HFDP, LEED AP
1961	Sidney Gayle	1985	Edward W. Hoffmann	2009	Steven Giammona, P.E., LEED AP
1962	William Kane	1986	Jerome T. Norris, PE	2010	Nancy Román
1963	Louis Bloom	1987	Abe Rubenstein, PE	2011	Carolyn Arote
1964	Milton Maxwell	1988	Michael O'Rourke	2012	Brian Simkins, LEED AP
1965	Will Reichenback	1989	Mel Deimel	2013	Andrew Manos, LEED AP BD+C
1966	Joseph Minton, PE	1990	Robert Rabell	2014	Richard L. Rosner, P.E.
1967	Irwin Miller	1991	Gerald Berman	2015	Thomas J. Fields, P.E., LEED AP
1968	Walter Gilroy	1992	Donald Stahl	2016	Donald Kane, P.E.
1969	Charles Henry	1993	Ronald Kilcarr	2017	Andrew Dubel, P.E., LEED AP
1970	William Wright	1994	Jerald Griliches	2018	Richard Halley
1971	Louis Lenz	1995	Walter Stark	2019	Frank Paradiso
1972	Ronald Levine	1996	Joe Marino	2020	James Hanna
1973	Henry Schulman	1997	Norm Maxwell, PE	2021	Matthew J. Vitrano
1974	Myron Goldberg	1998	Alan Goerke, PE	2022	Murat Bayramoglu
1975	John N. Haarhaus	1999	Frank Morgigno	2023	Michael Nigro
1976	Richard K. Ennis	2000	Michael Gerazounis, PE, LEED AP	2024	Elizabeth Jedrlinic
1977	Kenneth A. Graff	2001	Ray Schmitt		
1978	Evans Lizardos, PE, LEED AP	2002	Steven M. Stein, PE		
1979	Albert Edelstein	2003	Andrew Braum, PE		
1980	Ralph Butler	2004	Claudio Darras, P.E.		
1981	Robert Rose, PE	2005	Craig D. Marshall, P.E.		



# YEA

Hello everyone, I am your YEA chair, Steven Gerazounis. For all the new members if you are unfamiliar with the YEA committee, its purpose is to provide ASHRAE members 35 years old or younger with opportunities to network, educate and grow themselves through chapter events. Please check back regularly to the newsletter and on ASHRAE's website for all the news and opportunities available. I look forward to seeing as many of you as possible in the upcoming months at ASHRAE and YEA events!

At a chapter level, we had a successful event on February 18th at National Compressor Exchange in Farmingdale. National Compressor Exchange has been serving the industry for decades as a full-service remanufacturer of replacement compressors, parts and solutions. Thank you to Richard Staiano, CEO/Founder, Jason Staiano, President, and Fred Trueblood, Director of Business Development, for giving an excellent tour of their factory and educating our group on how National Compressor remanufactures reciprocating, scroll and screw compressors and is in the sustainability solutions industry.

We have another great field trip in the works for May. Stay tuned for more details.



On a Society level, ASHRAE offers many programs and events that can enhance the professional development of YEA members, such as Leadership Weekend, Leadership U, LeaDRS, ASHRAE Connect, and the HVAC Design Scholarship.

## YEA Events



YEA Leadership Weekend 1.0

LEARN MORE



YEA Leadership Weekend 2.0

LEARN MORE



YEA Leadership International

LEARN MORE

## YEA Programs



Leadership U

LEARN MORE



LeaDRS

LEARN MORE



HVAC Design Scholarship

LEARN MORE



Presidential Initiative Challenge

(formerly YEA Design Initiative)

LEARN MORE



ASHRAE Connect

LEARN MORE

<https://www.ashrae.org/communities/young-engineers-in-ashrae-yea/yea-events-and-programs>

## Leadership U

If you wanted the opportunity to participate and follow regional and society officers there are two great options to do so! With Leadership U (4) YEA members will be selected for the winter or annual conference and attend all of their respective society officer's events, board meetings and social activities. Applications for the 2026 Winter Conference in Las Vegas are open now. Please use the link below to register and for more information.

<https://www.ashrae.org/communities/young-engineers-in-ashrae-yea/yea-events-and-programs/leadership-u>



### 2025 Winter Leadership U Participants

*Mohammed Murtaza, ASHRAE Falcon Chapter, RAL*

*Kaustubh Deepak Wani, Pune Chapter, Region XV*

*Bin Lin, Macao Chapter, Region XIII*

*Steven Gerazounis, Long Island Chapter, Region I*

<https://www.ashrae.org/communities/young-engineers-in-ashrae-yea/yea-events-and-programs/leadership-u>

## LeaDRS

Similar to the Leadership U program, LeaDRS allows a region to select any ASHRAE member to shadow their Director and Regional Chair (DRC) at an ASHRAE Conference. To apply for this program you must contact the DRC directly. For Long Island that would be Charles Bertuch.

Region I : Mr. Charles Bertuch

Email: [R01drc@ashrae.net](mailto:R01drc@ashrae.net)

<https://www.ashrae.org/communities/young-engineers-in-ashrae-yea/yea-events-and-programs/ashrae-region-leads-program>

## **HVAC Design Scholarship**

Are you looking for the chance to get a better grasp of the fundamentals and technical aspects to design, install and maintain HVAC systems? YEA has a fantastic program to cover all of those bases with an attendance scholarship for either level I or II training. Applications for this program will begin in October so please be on the lookout to take advantage of this opportunity!

<https://www.ashrae.org/communities/young-engineers-in-ashrae-yea/yea-events-and-programs/yea-scholarship-for-hvac-design-essentials-training>

## **Technical Committees**

Are you looking to get more involved with your industry or ASHRAE as a whole? Take a look to see if there are any technical committees that interest you!

<https://ashrae.org/technical-resources/technical-committees>

Getting more involved gives you the opportunity to directly impact our industry and expand your knowledge base. To learn more about these committees you can also reach out via phone or email at:

404-636-8400

tcstaff@ashrae.net

## **YEA Awards**

So many YEA members are deserving of awards for their hard work, dedication and faithful service to this society but don't receive them because people don't know they are eligible to be nominated. Please look into the numerous awards available for YEA members under the Honors and Awards tab.

<https://www.ashrae.org/communities/young-engineers-in-ashrae-yea/honors-and-awards>

For any awards that you cannot nominate yourself or another YEA member you may need to reach out to your YEA Regional Vice Chair, Society YEA Committee member or Director and Regional Chair to provide them with the information they require to submit a nomination form.

## **ASHRAE Connect**

Are you a first-time attendee at the ASHRAE Conference, or have you attended before but felt overwhelmed by the many options? This new shadowing program offers the perfect opportunity to gain first-hand experience by following a member of ASHRAE through committee meetings and conference events.

Designed for ASHRAE members seeking to build stronger connections and deepen their understanding of ASHRAE's processes, this program aims to help you navigate the conference with guidance and insight from experienced members. By participating, you'll not only gain valuable knowledge but also feel welcomed in committee meetings, ensuring you have a seat at the table and a voice in the discussions that shape our industry.

[ASHRAE Connect](#)

## **ASHRAE Chapter Leadership Academy**

Calling all future ASHRAE leaders! Are YOU interested in taking the next step and learning more about volunteering with ASHRAE? The YEA Committee is seeking engaged, active, and enthusiastic ASHRAE members to represent their regions at the 2026 ASHRAE Chapter Leadership Academy, March 6th – 7th at ASHRAE HQ in Atlanta. Attendees will gain a better understanding of how ASHRAE Society functions and obtain useful and practical knowledge essential for honing ASHRAE leadership skills. This program is specifically designed to provide an intimate learning experience for up-and-coming chapter leaders who have the potential to serve ASHRAE at the Society-level. To apply for this program you must contact the DRC directly by November 21st. For Long Island that would be Charles Bertuch.

Region I : Mr. Charles Bertuch

Email: R01drc@ashrae.net

## **Women in ASHRAE Leadership Symposium**

The Women in ASHRAE Leadership Symposium is now accepting speaker proposals for a YEA Speaker Session. This unique event brings together women in HVAC&R and the built environment to share experiences, strategies, and inspiration around leadership, career growth, and resilience. Please use the link below for the Call for Abstracts;

[2026 WiA Leadership Symposium - ConfTool Pro - Login](#)



## **2025-2026 Presidential Initiative Challenge**

The Presidential Initiative Challenge (previously the Decarbonization Challenge) is a year-long competitive fund (\$1,000 - \$10,000) program to implement projects within local chapters that are tied to the year's presidential theme. Bill McQuade has announced his presidential theme, Indoor Environmental Quality. This year's program will be centered around implementing IEQ projects. This program is implemented through the YEA committee with grass roots outreach through the YEA chairs/committees at each chapter. Applications for the program will remain open until November 3rd, 2025.

<https://www.ashrae.org/about/yea-presidential-initiative-challenge>

Please feel free to reach out to me with any questions or comments about YEA.

-Steven Gerazounis



# Government Affairs

## Intro and Commentary

Well, if you haven't experienced whiplash yet... Let's give it another go. It appears that common sense and inaccuracies in projections are creating a swell of "Why are we doing this?" Reactions even in Washington DC.

Even phrases like Cost Effective, Economically Feasible and "Based on False (Faulty) evidence are starting to appear in Legislative documents. These links below are directly from ASHRAE government Affairs Updates, not some independent or wacked out resources. The conversation is changing and long term goals are being realigned to meaningful gains such as preservation of available Electrical resources. Especially as we introduce new draws on the electric grid with DHW and Data centers which were not factored in on the demand curve.

## Legislation Introduced to Roll Back Energy Housing Codes

On January 30, Rep. Jeff Crank (CO) introduced the "Freeing Residential Affordable Markets from Excess Regulation (FRAMER) Act" which seeks to incentivize states to roll back energy housing codes. The legislation would require a state to reimburse home builders for the added total cost of state specific regulations that are more stringent than Department of Housing and Urban Development (HUD) current energy code minimum standard for homes built within a federal opportunity zone. More information on the legislation can be found [here](#).

## House to Vote on EPCA Reform Legislation

The U.S. House of Representatives is expected to consider H.R. 4626, the "Don't Mess With My Home Appliances Act." This legislation would make several changes to the Energy Policy & Conservation Act (EPCA), including modifying the criteria used to prescribe new or amended energy conservation standards, and allowing the Department of Energy Secretary to revoke a standard under certain conditions. This legislation passed out of the House Energy & Commerce Committee on party-line vote, and it is expected to pass the full House. More information on the legislation can be found [here](#).

## **EPA Repeals Endangerment Finding**

On February 12, the U.S. Environmental Protection Agency (EPA) finalized its rescission of the 2009 Greenhouse Gas Endangerment Finding. The endangerment finding concluded that greenhouse gas pollution endangers human health and requires regulation. The finding became the legal foundation for federal climate policy, including regulating carbon emissions and treating climate change as a public health issue under the EPA's authority. Repealing this authority could have implications for federal efforts to pursue building decarbonization. More information on the repeal can be found [here](#).

### DOE Issues Determination for Small Electric Motors

On February 13, the U.S. Department of Energy (DOE) issued a final determination for energy conservation standards for small electric motors (SEM), as required under the Energy Policy and Conservation Act (EPCA) of 1975. DOE determined energy conservation standards for SEMs should not be amended because more stringent energy conservation standards for SEMs would not be cost effective. The current SEM standards took effect in 2015. DOE's also determined not to amend the SEM standards in 2023. More information on the determination can be found [here](#).

### New Resources Available

#### 2026 Sustainable Energy in America Factbook Released

On February 18, the Business Council for Sustainable Energy (BCSE) released its 2026 Sustainable Energy in America Factbook which provides updated data and analysis about the performance of energy sectors by tracking year-on-year in addition to long-term trends for the U.S. energy economy. The factbook reported that in 2025, U.S. power generation reached its highest volume in two decades, driven by growth in renewable energy technologies and natural gas generation capacity, coupled with energy demand driven largely by data centers. More information, including a link to download the factbook, can be found [here](#).

### Cool and Exciting Development for the future

#### Nvidia Claims Hot Water can Cool Next-Gen Chips

In a [keynote speech](#) at Consumer Electronics Show, Jensen Huang, CEO of chipmaker Nvidia shared that its next-gen Vera Rubin chip systems, successor to their Grace Blackwell systems, will be able to be cooled by hot water, up to 45 degrees Celsius (113 degrees Fahrenheit). This will remove the need for chillers in some circumstances, leading to energy efficiency gains for large data centers. Other tech CEOs [also shared](#) that they think that two-phase cooling systems, where water is both a gas and a liquid at different points in a water-cooling system, have reached a point of greater market viability. Manufacturers noted that systems that usually work without chillers are already common, as are systems where chillers only activate during especially hot days when free cooling is less efficient.

Richard Smith – GAC Chair.

[006ggac@ashrae.net](mailto:006ggac@ashrae.net)



# Historian

“Those who forget their history are condemned to repeat it.”  
George Santayana (Philosopher)

“Those who forget their history are condemned to repeat it.”  
-George Santayana (Philosopher)

In the world of heating, ventilation, air conditioning, and refrigeration, history often guides our progress. The ASHRAE Long Island Chapter was established on a foundation of shared vision, technical rigor, and community support. This founding constitution, crafted with bold aspirations, laid down the fundamental principles and objectives that would drive the chapter’s mission over the decades to come.

This month’s article takes us back to the early days of the chapter’s formation, revisiting the foundational document that united local professionals around the shared goals of education, excellence, and industry advancement. The following page includes an excerpt from the ASHRAE Long Island’s founding constitution for your perusal.

Thomas DiBenedetto, PE  
Historian



# Sustainability

## Sustainable HVAC for Data Centers

Data centers are one of the fastest-growing energy users in the built environment. From financial institutions and healthcare systems to universities and cloud providers, facilities across the New York metropolitan area rely on data centers that operate 24/7. Unlike traditional office buildings, these spaces generate constant, high heat loads and require precise environmental control.

Cooling systems in data centers typically account for 30–40% of total facility energy use, making them a major opportunity for sustainability improvements. Even small efficiency gains can significantly reduce energy costs, greenhouse gas emissions, and strain on the electric grid.

New York's push toward electrification and emissions reduction means every kilowatt counts. While the grid is becoming cleaner, summer peak demand remains a challenge. Data centers, which cannot easily reduce load during peak hours, must focus on maximizing cooling efficiency without compromising reliability.

Corporate ESG goals and carbon reporting requirements are also increasing pressure to lower Power Usage Effectiveness (PUE) and improve overall energy performance.

### Practical Sustainability Strategies

#### 1. Increase Economizer Hours

New York's climate allows significant "free cooling" during shoulder seasons. Water-side economizers tied to cooling towers can reduce chiller operation and energy use.

#### 2. Raise Supply Air and Chilled Water Temperatures

ASHRAE thermal guidelines allow broader operating ranges than many legacy designs use. Slightly higher supply temperatures improve chiller efficiency and increase economizer availability.

#### 3. Improve Airflow Management

Hot aisle/cold aisle containment reduces mixing and increases return air temperatures, improving overall system efficiency. Proper containment often enables higher chilled water temperatures as well.

#### 4. Consider Liquid Cooling for High-Density Loads

As AI and high-performance computing increase rack densities, air cooling becomes less effective. Direct-to-chip and rear-door heat exchangers reduce fan energy and remove heat more efficiently.

#### 5. Address Water Use

Cooling towers can consume significant water. Sustainable design must balance energy efficiency with water conservation by optimizing blowdown, treatment, and drift control.

### **Reliability and Sustainability Go Together**

Sustainability does not mean sacrificing reliability. In fact, better airflow control, optimized setpoints, and modern controls often improve equipment life and system stability. Eliminating bypass air, reducing simultaneous cooling and reheating, and maintaining accurate sensors support both performance and resilience.

### **The Role of HVAC Professionals**

As digital infrastructure continues to expand across the region, sustainable cooling strategies will become increasingly important.

Data centers are no longer niche facilities—they are core infrastructure. Sustainable HVAC design for high-density loads is becoming an essential part of responsible engineering practice in the New York metropolitan area.



# Refrigeration

Check out an article regarding distributed refrigeration system. The article can be found via accessing the below link:

[Distributed Refrigeration Gets a Natural Boost with CO<sub>2</sub> | ACHR News](#)

## **Distributed Refrigeration Gets a Natural Boost with CO<sub>2</sub>**

New compression technology paves the way for ultra-low-GWP refrigeration flexibility

Distributed architecture is not a new concept in the commercial refrigeration industry. Smaller and more flexible than centralized systems, they've been deployed in food retail outlets for decades, from small to large formats, such as convenience stores, supermarkets, and hypermarkets.

Distributed systems have historically used refrigerants with high GWP, such as HCFCs and HFCs. With the refrigerant transition underway, industry stakeholders are applying eco-friendly alternatives to distributed system designs — including the sustainable natural refrigerant CO<sub>2</sub> (R-744).

Although CO<sub>2</sub> refrigeration has more commonly been deployed in large, centralized booster systems, the case for CO<sub>2</sub> distributed systems is getting stronger. Recent advancements in CO<sub>2</sub> scroll compression technology have expanded the potential of R-744 in smaller, distributed refrigeration units. This innovation has helped enable commercial refrigeration equipment manufacturers to develop the next generation of optimized, efficient, and reliable CO<sub>2</sub> distributed units in North America.

For large- and small-format retailers seeking all the scalability and efficiency benefits of distributed refrigeration — while supporting sustainability targets and complying with refrigerant regulations — a new era of distributed CO<sub>2</sub> refrigeration has arrived in North America.

### Distributed System Advantages

Compared to traditional centralized direct-expansion systems — where large compressor racks supply low- and medium-temperature cooling throughout a store — distributed systems have often been specified for their flexibility, performance, and efficiency advantages.

This involves deploying mini-rack systems in strategic locations — either on the sales floor, in a back room, or roof — closer to a row of display cases. For example, five to six smaller refrigeration systems may be located around a store instead of having two to three large racks in a machine room. For small-format operators, one or two distributed systems may be all that is needed.

“Today, this remains a popular option for many large retailers, regardless of refrigerant type. Even with legacy, high-GWP refrigerants, this distributed approach offers multiple benefits over centralized systems:

- Smaller system size reduces refrigerant charge and piping
- Reduced piping/connections lower annual leak rates, and cut carbon emissions
- Suction lines can group fixtures with similar saturated suction temperatures, allowing them to operate at higher SSTs, which improves system efficiency
- Distributed refrigeration reduces downtime and improves redundancy, eliminating the risks of centralized, full-system failure and associated product loss
- Heat recovery and reclaim can be leveraged for HVAC system heating and dehumidification.

The refrigerant transition is also driving retrofit and remodel decisions that may favor distributed refrigeration architectures. As operators evaluate end-of-life strategies for their existing centralized HFC systems, distributed systems present opportunities to phase out underperforming sections of their systems and replace them with lower-GWP options.

All these advantages apply to CO<sub>2</sub> distributed systems, with the added sustainability benefits that include:

- Low GWP of 1
- Non-flammable and non-toxic (i.e., A1 classification)
- Globally accepted and applied as a future-proof, next-gen refrigerant
- Higher potential for heat reclaim than HFC systems.

### **Scalable Sustainability**

The barriers to developing CO<sub>2</sub> distributed refrigeration units have been mostly technological. First, it's a matter of scale: compressors used in large, centralized CO<sub>2</sub> systems are simply oversized for use in distributed systems.

Second, CO<sub>2</sub> compression must be able to operate at the high pressures that occur, especially in a CO<sub>2</sub> booster system's transcritical mode, which happens any time ambient temperatures reach above 75 °F (assuming the system uses a dry gas cooler).

The next generation of smaller-footprint CO<sub>2</sub> transcritical-rated compression is now ready to be explored. Copeland has cleared technological hurdles with the launch of its transcritical CO<sub>2</sub> scroll compressor platform, which can be applied in distributed CO<sub>2</sub> booster system architectures. It can also be used in a single-compressor, medium-temperature system, such as a condensing unit.

Copeland transcritical CO<sub>2</sub> scroll compressors are available in fixed- and variable-speed configurations and feature dynamic vapor injection technologies. Variable speed enables precise capacity matching and efficiency, leveraging a brushless permanent magnet motor design and optimized drive pairing. Variable-speed compression technology is more efficient than induction motor/drives in low-load scenarios and can overspeed to match the demands of high-load conditions.

A new era of distributed CO<sub>2</sub> refrigeration has arrived in North America, driven by the need for greater design flexibility and lower-impact refrigerants. Innovative transcritical CO<sub>2</sub> scroll compressors with DVI technology are helping make distributed systems simpler and more scalable, with all the sustainability benefits of the natural refrigerant CO<sub>2</sub>.

Copeland's dynamic vapor injection process enhances system efficiency and performance, allowing most of the intermediate-pressure vapor (refrigerant gas) to be digested through the compression cycle in one of two ways, depending on the system design: 1. Economized vapor injection uses a heat exchanger to subcool refrigerant at the gas cooler's outlet and digest the exiting vapor. 2. Flash tank vapor injection digests the excess flash tank vapor, similar to parallel compression. However, this dynamic feature allows the flash tank pressure to rise with ambient temperatures, enabling additional energy savings. Note: To use this option, the system's flash tank and liquid line must be rated for higher pressures (60 to 90 bar). From a system design perspective, dynamic vapor injection eliminates the need for a parallel compression strategy to digest vapor, resulting in improved efficiencies, increased design simplicity, and lower applied costs — all of which align with the advantages of distributed systems. As such, Copeland CO2 scroll compression technology offers favorable total cost of ownership advantages that include:

- Easier installation and maintenance
- Fewer components (no additional parallel compressor and drive needed) •Simplified piping system
- Smaller rack in size and weight.

-Kenny Balci



## **CTTC Corner: Industry Connections in Action**

The Long Island engineering community has been busy lately, and it's been great to see the continued momentum across our chapter through technical events, industry collaboration, and opportunities to connect with colleagues across the HVAC and plumbing industry.

On February 18th, our chapter had the pleasure of visiting National Compressor Exchange in Farmingdale for a fantastic factory tour hosted by their team. A sincere thank you goes out to National Compressor Exchange for opening their doors and providing such an informative and engaging evening. Attendees were able to see firsthand the level of craftsmanship and technical expertise that goes into compressor remanufacturing and the important role these components play in keeping HVAC and refrigeration systems running smoothly. Beyond the technical insight, the tour was also a great reminder that some of the best learning in our industry happens not just in presentations or classrooms but standing around equipment with fellow engineers asking questions and occasionally pointing at something and saying, "That's pretty impressive."

Continuing that spirit of industry collaboration, we're excited to announce the 3rd Annual Engineering & HVAC Industry Trade Show, hosted jointly by the ASHRAE Long Island Chapter and the ASPE Long Island Chapter, taking place on Tuesday, March 10th, 2026 from 2:00 PM to 7:00 PM at Westbury Manor. This event has quickly grown into one of Long Island's premier gatherings for engineers, contractors, manufacturers, and industry professionals. With 50+ vendor exhibits, three PDH presentations throughout the day, and plenty of opportunities to network with colleagues from across the industry, the Expo continues to showcase the innovation and collaboration that make our field so dynamic. And of course, in true industry fashion, the event will also feature great food, an open bar, and hourly raffles, which we all know helps encourage a little extra "networking."

Events like these highlight what makes our professional community special. Whether it's learning something new on a factory floor, exchanging ideas with manufacturers, or connecting with peers at an industry gathering, these opportunities help strengthen the relationships and knowledge sharing that move our profession forward.

We look forward to seeing many of you at the HVAC & Plumbing Long Island Expo on March 10th and continuing another great year of technical engagement for the ASHRAE Long Island Chapter.

Michael H. Razzano  
CTTC Chair  
ASHRAE Long Island Chapter



# Diversity, Equity & Inclusion

Exciting news in ASHRAE, the DEI advisory committee is transitioning to a Standing Committee in ASHRAE. They will continue to report to the board of directors for the time being, but they will now have their own POAE goals and directives. ASHRAE's committee structure is the mechanism that makes the Society run. Through this structure, members formulate policy, develop procedures, and direct Society activities. Decisions made by the Board of Directors are based on the recommendations of committees. Because of this, the Board of Directors is only as effective and efficient as the Society committees. New ideas and new programs are usually initiated in committees, which also serve as management training centers for future Society leaders. ASHRAE remains committed to its DEI initiatives. At this past winter conference, they hosted a great Seminar:

## **Forum 3: Creating Better Teams: Practical Approaches to Inclusive Engineering Culture**

11:00 AM – 12:00 PM PST

Caesars Palace Las Vegas, (P), Neopolitan III/IV

Are you navigating the challenges of creating a more inclusive and equitable culture within your organization or chapter? This forum provides an opportunity to gain insight to incorporate meaningful change across three phases: building awareness, taking informed action, and maintaining accountability. Panelists will share their experiences, lessons learned, and common challenges to overcome, leaving plenty of time to engage directly during an open Q&A session.

Chair:

Jennifer Leach, PE

Craig Wanklyn, PE

Jonathan Smith, PE

Elizabeth Jedrlnic

DEI Chair



# Research Promotion

"If we knew what we're doing it wouldn't be called research"  
– Albert Einstein

I would like to thank the companies who have participated in the annual Product Directory of Manufacturers and their Representatives. The product Directory has been prepared as a service to all its members and as a service to the local HVAC industry. It will be made available to all ASHRAE and non-ASHRAE members at no-cost and can be obtained from our monthly meetings or directly from our website.

This year's overall research promotion goal is \$2,720,000 with many research projects on board. Our chapter is expected to raise \$56,987.00 towards the overall goal. I am hoping that I can count on the continued support of all our past contributors who have generously supported us over the years. I also look forward to gaining the support of new contributors this coming year. Last year we were successful in beating our goal and am hopeful that this year we can continuously raise the bar.

We are hosting the 2025 ASHRAE REGION 1 CRC and have sponsorship packages available.

Thank you to our contributors!  
Individuals

Mr. John D. Nally  
Mr. Peter J. Conte, PE  
Ms. Elizabeth Jedrlinic  
Mr. Kenny Balci  
Mr. Steven Gerazounis  
Mr. Murat Bayramoglu  
Mr. Michael Steven Gerazounis  
Mr. Matthew K. Catan  
Mr. Thomas Arthur DiBenedetto

Mr. Zhigang Xu  
Mr. Michael Nigro  
Mr. Richard W. Smith  
Mr. Donald W. Kane, PE  
Mr. Michael H. Razzano  
Mr. Frank Paradiso  
Mr. Michael F Schiavo  
Mr. James R Tauby, PE  
Mr. James W Armstrong

**Contributions can be made in the following ways:**

Mail checks, made out to ASHRAE Research Promotion to:

Peter Conte

ASHRAE Research Promotion Chair

PO BOX 79

Commack, NY 11725

Hand check to me at any of the chapter meetings.

PayPal from the ASHRAE Long Island Website

Click Donate Button

[www.ashrae.org](http://www.ashrae.org)

Please make sure you accredit the contribution to the Long Island Chapter 006





# Student Activities

Hello everyone — and welcome to a brand new month of opportunity, growth, and connection! I'm honored to serve as your Student Activities Chair for 2025–2026, and I look forward to working with all of you to make this year one of our best yet.

This section of the newsletter will keep you informed about programs, events, scholarships, and ways to get involved. I also encourage you to share your ideas, projects, and successes — we want to spotlight your amazing work!

## **Spotlight on Hofstra University**

One of our highlights this past few weeks has been the incredible momentum we've built with Hofstra University. We proudly helped establish Hofstra as an official ASHRAE Student Branch, expanding our student network and deepening our commitment to future professionals in the HVAC&R field. Our team has also had the pleasure of attending Hofstra's student branch meetings, where we've delivered talks about the value of ASHRAE — from scholarship and research opportunities to networking and career development. It's been inspiring to witness the enthusiasm and curiosity of Hofstra students, and we look forward to continuing our collaboration in the coming year!

## **ASHRAE Scholarships — 2026–2027 Cycle**

Are you looking for funding to support your education while making an impact in the HVAC&R industry?

Through ASHRAE's Scholarship Program, we aim to support students pursuing degrees in engineering, technology, and related fields that contribute to sustainable built environments.

### **Key Details:**

- Scholarships range from **\$3,000 to \$12,500**
- Applications typically open in **October**
- Awards are for the **2026–2027 academic year**
- Multiple categories available: Undergraduate, Engineering Technology, Regional/Chapter, and University-specific

I strongly encourage all eligible students to apply — I'll share reminders and tips once the application period opens.

[\*\*SCHOLARSHIPS\*\*](#)

## **2025–2026 High School Design Competition**

Calling all students aged 13–18 who are interested in HVAC, design, or sustainability! This year's **High School Design Competition** is a fantastic opportunity to learn how to design a system for a hypothetical building while applying real-world engineering principles.

### **Important Dates:**

- Submission Deadline: **December 30, 2025**
- Topic and guidelines will be posted in **early fall**

Form a team with friends from school or a local club, and bring your creative and technical skills to life!

[2025-2026 ASHRAE High School Design Competition](#)

## **Undergraduate Program Equipment Grants**

For those working on senior projects or capstone designs: you may be eligible to secure funding for materials and equipment related to ASHRAE-relevant work.

### **Grant Highlights:**

- For engineering, technical, or architectural programs
- Typically supports projects lasting one academic term up to one year
- **Application deadline:** December 15, 2025

## **About Undergraduate Program Equipment Grants**

### **Get Involved**

- **Leadership Opportunities:** ASHRAE offers society-level leadership development, mentoring, and committee involvement. Programs like Leadership U and LeaDRS are a great way to grow.
- **Contribute to the Newsletter:** Have you recently completed a research project, internship, or won an award? We'd love to highlight your achievements.
- **Branch Events & Webinars:** I'll be working with student branches to host local events, webinars, and mixers. Got ideas? Let's talk!

I'm truly excited to get this year underway and help make it meaningful for everyone involved. If you have questions, want to collaborate, or have suggestions for student engagement — please don't hesitate to reach out.

Here's to a productive, engaging, and inspiring 2025–2026!

Warmly,

Katlyn Coolbaugh

Student Activities Chair, ASHRAE Long Island

## Certification



**Certified**

*ASHRAE, accredited by ANSI under ISO/IEC 17024 for the High-Performance Building Design Professional (HBDP) program, has certified more than 2,000 Built Environmental Professionals.*

Energy Assessment

Energy Modeling

Commissioning

Healthcare  
Facility Design

High-Performance  
Building Design

Building Operations

### ASHRAE certification programs:

- Are developed by industry practitioners who understand the knowledge and experience that are expected for superior building design and system operation
- Assure employers and clients of subject mastery
- Serve as a springboard for continued professional development
- Offer an easy-to-apply process

FOR MORE INFORMATION GO TO - <https://www.ashrae.org/education--certification/certification>

# Join ASHRAE on Social Media!



## Social Media

Follow **ASHRAE** on **Twitter** @ashraenews for up-to-date news, events, and articles about HVAC&R. Search #MyASHRAE on Twitter to see member photos from around the world.

Follow us on [Twitter](#)



### Most Popular Tweets

**Does It Cost More To Build Green? Benefits include reduced operating costs & construction waste.**

**Online Thermal Comfort Compliance Tool Included In New ASHRAE User's Manual.**

**87% of households in the US have #AC, 5% do in India. India's tough choice on air-conditioning and climate.**



**The November issue of the Journal is tested for binding strength to see how many times a page can be turned before the binding would fail.**

**Harvard & SUNY Upstate Medical University find that workers are healthier and happier in certified green buildings.**

**ASHRAE Standard 90.1 has been redefining energy savings since 1975. A new version is available now.**

**Adapting historical buildings for sustainable reuse.**

Get To Know ASHRAE





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