ASHRAE Philadelphia Chapter



# QUAKER CITY CLIMATE

December 2021
Volume 57, Issue 4

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**Thursday, December 9, 2021**
**12:00 PM to 1:00 PM**

**Virtual Meeting**

## "Electrifying DHW: The Emergence of HPWHs in Today's Market"

***Presented By:***
**Ryan Green**
Director of Strategic Accounts
Nyle Water Heating Systems

There is no charge for this session,
however, you must register in advance to receive
the login information.

The link to the webinar will be sent to all registrants
prior to the event start time.

See page 3 for more information.

**Click here to register.**

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ASHRAE Philadelphia Chapter Digital Directory

The link to the directory is on our home page on the website,
or you may click here to advertise.
Philadelphia Chapter Members have complimentary access!

**2021-2022**

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**Young Engineers in ASHRAE**
Tyler Holland

## PRESIDENT'S MESSAGE

Greetings Chapter Members,

December is upon us, and the Holiday Season is here! I hope that our Chapter Members enjoyed time with their families during the Thanksgiving break. During this time of giving, we ask that you think of ASHRAE, and Research Promotion in particular, and donate when and what you can. The Research Promotion donations are used for significant research in the area of human comfort, properties of materials, systems used in buildings, white papers, standards, and special design manuals that guide our industry.

If you decide to participate in the campaign, we ask that you consider earmarking your contributions for the Debra Kennoy Scholarship. The scholarship fund was established to encourage female college students to pursue studies in engineering. Debra Kennoy was a Philadelphia Chapter member whose work with Arkema in the refrigeration market was transformational in fighting global warming.

This past month, we welcomed Jim Vallort to join us with a talk and presentation on the topics of fundamentals of new construction and existing building commissioning. The presentation was well received by both people in the audience and by folks joining us virtually at home.

Our December meeting will be held virtually on Thursday, December 9th at Noon. We welcome Ryan Green to discuss strategies on implementing heat pump technologies for generating domestic hot water. Also, please keep an eye out for our yearly sporting event as we look to solidify this outing either in January or February.

Wishing all a happy and healthy Holiday Season and a prosperous New Year!

**Eric Feinschil**
Philadelphia Chapter President
c021@ashrae.net

## Become a 2021-2022 Corporate Sponsor !

Your firm's participation in this program would enable us to make a donation to Research Promotion which includes over $ 1.5 million in local research funding.

Some of the benefits your company will enjoy as a Corporate Sponsor includes a listing on the Chapter's website with a link to your own website, five free log-ins to the Digital Directory, a $100 discount on an advertisement in the Digital Directory, and tickets to attend our dinner meetings which include quality educational programs.

We offer a few different levels of corporate sponsorship. Each level will receive the same types of benefits, with some differences in quantities and discounting.

Contact hope@mmco1.com if you are interested.

**Thursday, December 9, 2021**
**12:00 PM to 1:00 PM**

## "Electrifying DHW: The Emergence of HPWHs in Today's Market"

***Presented By:***
**Ryan Green**
Director of Strategic Accounts
Nyle Water Heating Systems

**Click here to register.**

## Abstract

- Electrification & DHW market trends
- Review of available HPWHs
- Single-Pass vs. Multi-Pass
- Traditional Refrigerants vs. CO2
- HPWH All Electric Building Applications
- HPWHs as a utility side demand side management tool



## Meet the Presenter

Ryan has been involved in the rep/manufacturer side of the HVAC and energy efficiency industry for just over 10 years – And like many in the industry, he started off sorting replacement parts, and putting together three-piece circulators for his father's manufacturer's rep firm. By his own curiosity, but mostly because of the many hours of organizing paper literature he became familiar with the various types of equipment that made up an HVAC system. He quickly moved into estimating and then into sales where he was first introduced to water-source heat pumps. During a training session, the concept of ground-coupling water-source heat pumps grabbed his attention. Although these systems had a perception of being too expensive and were notably harder to sell, it was this pursuit of selling something that could genuinely have a positive impact on society that drew him in. Since this time, Ryan has been mentored by some of the nation's leading GeoExchange designers and was most recently involved with the design and implementation of the largest thermal energy transfer system in North America to utilize wastewater heat recovery. In addition, Ryan has continually been involved with the non-profits in the industry. Before relocating to Denver, he was a board member for the El Paso Chapter of American Society of Heating Refrigerating and Air Conditioning Engineers (ASHRAE), a regional committee member for the United States Green Building Council (USGBC) West Texas Chapter Region, and regularly participated in various other sustainability groups. Now in Denver, he is a member of the Energy Efficiency Business Coalition of Colorado, the Lakewood Sustainability Cooperative, and is the Sustainability Committee Chairperson for the Rocky Mountain ASHRAE Chapter. Outside of the industry, you will likely find Ryan in the kitchen surrounded by his wife Gracie, and his two boys, Aidan and Kian. Whether they are out exploring colorful Colorado, cooking together in the kitchen, or up early on weekends cheering for Arsenal during a match of English Premier League Football, family is everything.

**2021 SPONSORS**

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**Sponsor**

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American Society of Highway Engineers, Southern New Jersey Section
American Water
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Institute of Industrial & Systems Engineers, South Jersey Delaware Valley Chapter
Institute of Transportation Engineers, Mid-Atlantic Section
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Sally and John Kampmeyer
Society of American Military Engineers, Philadelphia Post
Society of Fire Protection Engineers, Philadelphia-Delaware Valley Chapter
Thomas and Julie Gennaro

# FUTURE CITY® COMPETITION, PHILADELPHIA REGION

January 22, 2022

## *2021-2022 Sponsorship Program*

The Future City® Competition is a hands-on, real-world learning experience for middle school students to learn how engineers shape the world we live in today and tomorrow. Last year, despite the pandemic and a virtual competition, Future City Philadelphia introduced over 500 middle school students at over 40 schools to the engineering profession.

Over the past few years, the Future City Competition has won three national STEM program awards: US2020 STEM Mentoring Award for Most Innovative Hands-On Project (2017), Henry C. Turner Prize for Innovation in Construction (2016), and the UL (Underwriters Laboratories Inc.) Innovative Education Award Grand Prize Winner (2015).

To help support this educational program, complete and return the sponsorship form today!* The sooner the better so your sponsorship can be properly acknowledged in our publications and on our web site.

We look forward to including your name in the list of sponsors for the 2022 program!

**Invoicing accommodations can be arranged to meet your charitable giving requirements. Future City Philadelphia is a 501(c)3 outreach program of Discover E so your contribution is tax deductible as a charitable contribution to the extent the law permits.*

We have made the difficult decision that the competition on January 22, 2022 will be virtual, as it was last year. Given the nature of most of our expenses, they don't vary much between virtual or in person.



*49% of Future City participants are girls. 33% of participating schools enroll at least 50% of students in a free lunch program.*

*"I love Future City. It makes my brain sweat!"*
*– Future City Student Participant*

**This Year's Essay Challenge**:
***Designing A Waste-Free City:*** Design a waste-free city that uses the principles of a circular economy.

We will need many volunteers: mentors, judges, special award evaluators, conferencing platform technical support, and other tasks. Please encourage your colleagues to volunteer for the competition. Volunteers will need to sign up online at www.futurecityphilly.org.

**Questions?**

- Contact Susan Best, Sponsorship Coordination at susanbest54@gmail.com
- Visit our website: www.futurecityphilly.org, http://futurecityphilly.org/Sponsorship.html

APPROVED FOR LISTING NASSP 2021-2022 STUDENT CONTESTS, PROGRAMS & ACTIVITIES

## November Meeting Photos

**"Critical Facilities New Construction Commissioning and Existing Building Commissioning"**

***Presented By:***

**Jim Vallort**

**QA/QC + Commissioning Executive**



Eric Feinschil (left), ASHRAE Philadelphia Chapter President, presents speaker Jim Vallort with a Liberty Bell as thanks for his presentation.






**CTTC Article**

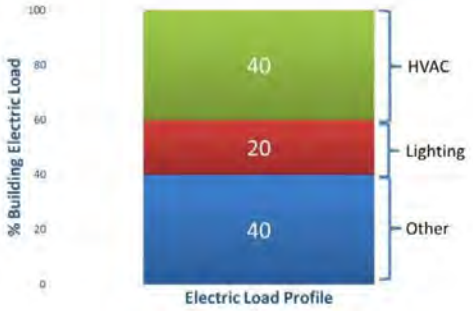
# Strengthening Your Bottom Line Through HVAC Energy Efficiency

## THE PROBLEM

**Energy accounts for 19% of a building's operating expenditures and HVAC is the single largest consumer of a typical commercial / industrial (C&I) building representing 40% of the building's electric load[1].**

**Most building electricity cost is a function of its peak demand, or the amount of electricity the utility must supply a customer at its most consumptive point in time. The HVAC system is what sets a building's peak demand charge, often accounting for 75% of a customer's electricity bill.**

**In addition to the sheer cost of operating HVAC systems, on hot summer days many building HVAC units struggle to keep up with the cooling demand because the units are undersized, aging, under-maintained or a combination of all three. This presents the building owner with additional risk of the HVAC units "tripping-out" or going offline when they are needed most.**




**Finally, many energy efficiency projects are capital intensive, burdening a building owner's balance sheet requiring large outlays of capital to install.**

## THE SOLUTION

**Evaporative pre-cooling can simultaneously lower a building owner's electricity bill while ensuring HVAC system reliability. Evaporative pre-cooling technologies will spray a fine pressurized mist of water in front of your HVAC unit's hot condenser coils to effectively trick the HVAC unit into thinking it is cooler outside than it actually is. As a result, the compressor uses less energy to cool the building space and there is a decreased risk of your unit going offline on those hot summer days.**

**An added benefit of the evaporative solution is that it protects your HVAC's condenser coils from the outside environment. As a result, you may go up to five years between coil cleanings. The money saved from coil cleanings can then be used for the simple maintenance required of the evaporative system.**

**The evaporative solution is designed for commercial and industrial scale applications, typically for units with 25 tons of cooling capacity or more.**




**[1] National Grid. "Managing Energy Costs in Office Buildings." Nationalgrid.com, last modified 2002, https://www9.nationalgridus.com/non_html/shared_energyeff_office.pdf**



**2022 ASHRAE Winter Conference**
**January 29–February 2, 2022**
**Las Vegas, Nevada**

**AHR Expo**
**Jan. 31–Feb. 2, 2022**
**Las Vegas Convention Center**

The 2022 ASHRAE Winter Conference will be a hybrid experience, offering both in-person and virtual options for participation for attendees. The in-person conference will be held in Las Vegas, Nevada at Caesars Palace.

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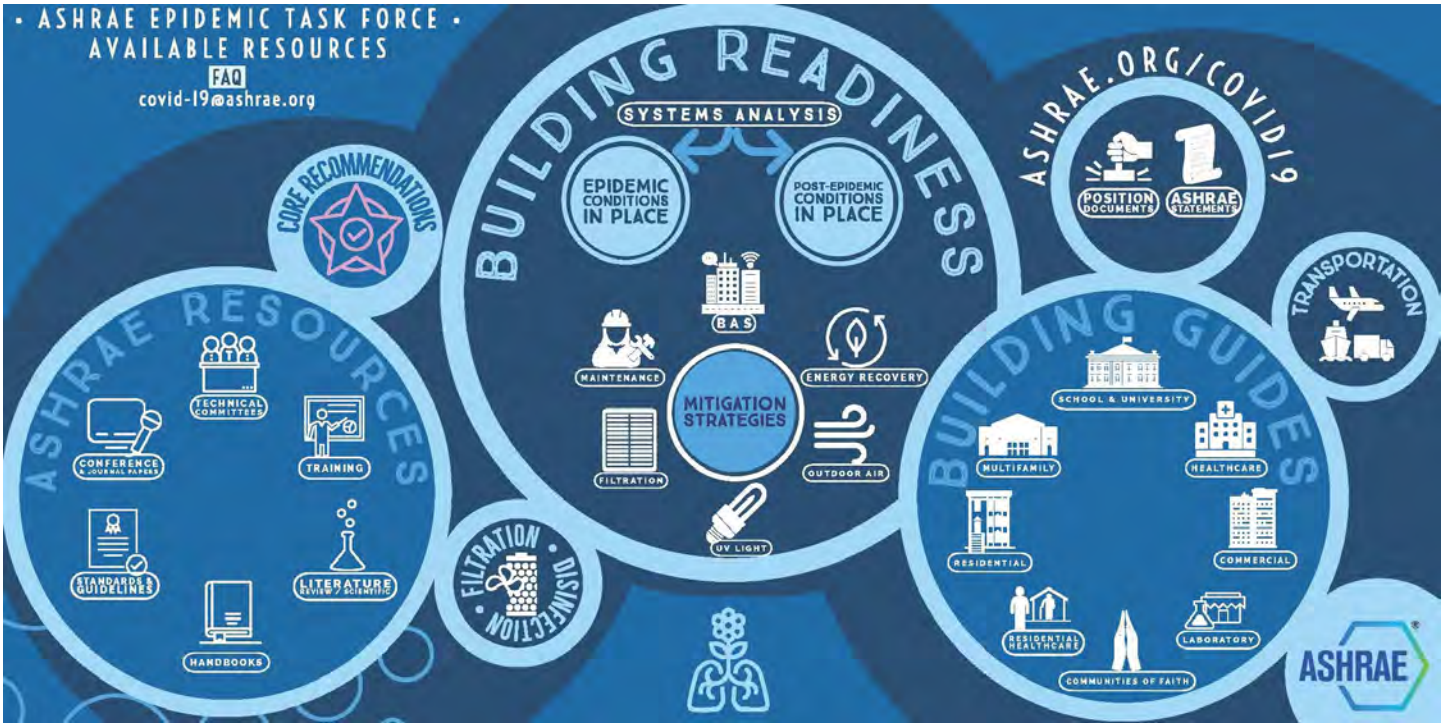
## Our 2021-2022 Chapter Digital Directory is now available.

This digital version has replaced the paper versions from years past. This provides flexibility during these challenging times, having access anywhere. It's easy to use, highly interactive, and always up to date. We hope you enjoy this refreshed publication.

The link to the directory is on our home page on the website, or you may click here to advertise or purchase access to the directory!

ASHRAE Philadelphia Chapter Digital Directory

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of the
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Refrigerating and Air
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Hope Silverman
P 610-971-2169
hope@mmco1.com

Material can include letters to the editor, member news, upcoming events, comments on chapter programs or issues, etc.

## New Philadelphia Chapter & Society Members

### New Chapter Members
Tammy Lee

### New Student Member
Jyrteanna Teo
Sydney Bradshaw
Li Chen

### New Society Member
John Heller

**If you are currently experiencing hardship, especially with the current COVID-19 pandemic, please contact our Member Services Department at members@ashrae.org**
One of our Member Services Representatives will assist you in determining your hardship case and provide guidance with respect to an adequate adjustment to your dues and other member benefits for the 2021 – 2022 Society Year.

## What are the benefits of paying Philadelphia Chapter dues* ?

**Discounts:**

$200 Discount for Basic Class
$150 Discount for 90.1 Seminar
Free access to the Digital Directory
And much more!

* Note that Philadelphia Chapter Membership Dues are $35/year.

To receive discounts, please remit you Chapter dues when renewing online or applying for a new membership. Feel free to upgrade online by clicking here or contact c021@ashrae.net for assistance.

## Membership Advancement

If you are currently an ASHRAE Associate Member, becoming a full Member is easier than you think! The following count toward the required **12 points** to advance to full membership status. You must update your ASHRAE online biography and send an email to membership@ashrae.org to advance.

Non-accredited degree = 4 points
PE = 4 points
Accredited degree = 6 points
Industry experience = 1 point/year