Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

ASHRAE Houston Chapter's

THE HOT AIR RECORDER

80th Volume No. 8

MARCH

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4		

MAR 14

MARCH CHAPTER MEETING

Join ASHRAE Houston from **11-1PM** on **March 14th** as we welcome Bob Reid, contributor to the ASHRAE Duct System Design Guide! Follow the link here to register.
Location: Dukessa Event Center

MAR 21

YEA HAPPY HOUR - Sponsored by Roessler

Date / Time: March 21, 2024 / 4PM - 7PM
Location: Post Oak Ice House
5610 Richmond Ave, Houston, TX 77057

APR 04

2024 ANNUAL SPRING GOLF TOURNAMENT

Date / Time: April 4th / Lunch Check-In / Afternoon Start
Location: BlackHorse Golf Club
12205 Fry Rd, Cypress, TX 77433
Sign up link will be posted on ASHRAE Houston website



ASHRAE SOCIETY WANTS YOUR FEEDBACK

ASHRAE®

SEASON PASS

8 Regular Chapter Meetings
$280 Value for $215

CLICK HERE TO BUY

2024 ANNUAL SPRING GOLF TOURNAMENT

4/4/2024

BlackHorse Golf Club 12205 Fry Rd Cypress, TX 77433

LINK POSTED SOON

APRIL 25 - 28, 2024

ASHRAE Region VIII CRC



CLICK HERE FOR INFO

2023-2024 Tabletop Sponsorship

$600



Sponsor the monthly Chapter Luncheon! Click HERE for more info

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster



ASHRAE Houston Chapter Presents:

2024 ANNUAL SPRING GOLF TOURNAMENT







04/04/2023

BlackHorse Golf Club

12205 Fry Rd

Cypress, TX 77433

TEAM OF 4

REGISTRATION	11:15 AM
LUNCH	11:45 AM
SHOTGUN START	1:00 PM

Includes alcoholic and non-alcoholic beverages, lunch, and dinner. $5 raffle tickets available for raffle prizes.
Awards for 1st, 2nd, and 3rd place will be presented.
Golf carts included with registration.
For questions, email Nick Janssen at nick.janssen@texasairsystems.com

SPONSORSHIP OPPORTUNITIES

Tailgate Sponsor	$2,500.00
Dinner Sponsor	$2,000.00
Beverage Sponsor	$1,750.00
Golf Ball Logo Sponsor	$1,500.00
Lunch Sponsor	$1,250.00
Snack Sponsor	$1,000.00
Gift Bag Sponsor	$1,000.00
Raffle Sponsor	$750.00
Koozie Sponsor	$750.00
Cigar Sponsor	$750.00
Tiger Hole Sponsor	$500.00
Closest to the Pin Sponsor	$500.00
Longest Drive Sponsor	$500.00
Putting Contest Sponsor	$500.00
Tee Box Sponsor	$250.00

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

PRESIDENT'S MESSAGE

Congratulations to **Nick** for an exciting Poker Tournament, big bucks for those that won money, and a shout-out to Roessler Equipment for hosting again this year!

I'm using the March article to shower you with new information and links to resources.







- A new video in the bimonthly video series on decarbonization has been uploaded **HERE**: It's short, only 2 minutes, and gives some great perspective on retrofit technologies.
- ASHRAE Society is seeking our feedback as they are initiating a new Strategic Planning process. You should have received an email requesting your input. I recently participated and it only took about 5 minutes to complete the survey **HERE**
- Be sure to check out the March ASHRAE Journal's feature article on the revision of ASHRAE Standard 100. This model building performance standard is an approach to energy and emissions for our existing buildings. In 2040, two-thirds (2/3) of the world's building stock will be buildings that exist today and with 85% of a buildings costs attributable to the period of occupancy, existing buildings are extremely important to the work that we do. The updates to Standard 100 are setting the stage for performance improvement and valuable financial savings. **HERE**

Finally, for our ladies in HVACR … a "Save the Date" was sent out for the upcoming "Women in ASHRAE 2024 Leadership Symposium" – September 26th – 27th in Chicago. Registration opens in May, but you should be planning now to attend. **REGISTER HERE**



Catherine Tinkler

ASHRAE Houston Chapter President 2023-2024

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

LAST MONTH'S MEETING

TOPIC: LABS2ZERO WITH I2SL



The International Institute for Sustainable Laboratories (I2SL) is devoted to the principles of sustainable laboratories and related high-technology facilities, from design to engineering to operation. Through worldwide partnerships and the exchange of technical expertise, I2SL will encourage the development of high-tech facilities that address the rapid pace of science, medicine, research, and development in an ever-changing and dynamic environment. Laboratories have an outsized impact on carbon emissions due to their energy-intensive nature, so it is vital to understand the steps that lab owners, managers, designers, and engineers can take to help decarbonize them. To develop a roadmap to decarbonize the world's high-tech research facilities, I2SL is creating the Labs2Zero program, comprised of a variety of options and information that address both the complexity of laboratories and the need to make them more efficient while reducing the emissions associated with their building and operations. Come join us in the unique partnership lunch meeting to learn how the Labs2Zero program can be implemented in lab designs today.

This is a great opportunity for engineers, owner, contractors, and architects in the lab community! We encourage grabbing your colleagues and clients to attend. Carpooling is also highly recommended- we will reward you with an extra raffle ticket for a prize at the end of the meeting for everyone that carpools.

GET TO KNOW THE SPEAKER:

GREG SMITHMYER

Greg Smithmyer, located in AEI's Chapel Hill, NC office, is a Senior Mechanical Engineer and Project Manager with nearly 15 years of experience in the design of high-performance laboratory, healthcare and higher education facilities. He is a registered Professional Engineer, LEED Accredited Professional, the Treasurer of the North Carolina Triangle Chapter of I2SL and an active member of the I2SL Labs2Zero Design Tools Technical Advisory Council.

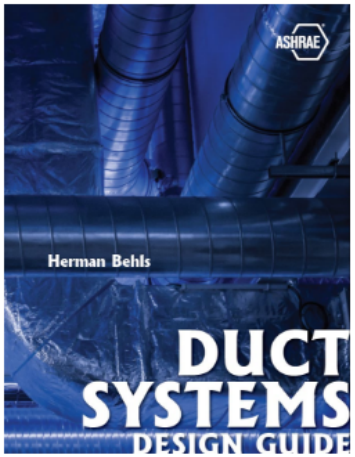
THANK YOU GREG FOR YOUR KNOWELDGE AND SUPPORT TO THE ASHRAE HOUSTON CHAPTER

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

THIS MONTH'S MEETING

ASHRAE Chapter Presentation: Duct Systems Design Guide



In December of 2002, RP-1180 was started as a funded ASHRAE research project for developing a guide for duct systems design. Many ASHRAE members spend a substantial part of their career designing duct systems. However, actual training in duct system design is often a mixture of isolated texts, commercial presentations and the tribal knowledge of the firms they work for. In the last few decades, the widespread use of computerized duct design programs led to competent designs, but without full knowledge of how and why the process works. ASHRAE saw a need for a comprehensive guide for their members that would explain the fundamentals of duct design, the accepted methods, the types and materials of duct, and the role of other parameters --- such as acoustics --- in a duct system design. This guide was intended as a textbook that could be used and understood by practitioners at all levels of HVAC system design and engineering.

Although ASHRAE had the best intentions of producing this guide as a Research Project and through an outside contract, it quickly became apparent that this project was too large for that method. The original contract was cancelled, and the task was taken up by the sponsoring technical committee, TC5.2 Duct Design and Construction. It was completed through the volunteer efforts of ASHRAE members that were passionate about the need for good duct system design. The bulk of this effort was coordinated and carried out by Herman Behls, a distinguished 50-Year Member Award recipient who, sadly, passed away in 2017 before seeing this work published. It was completed and published in 2021, and dedicated to the lasting legacy of Herman Behls.

A lot of things were happening in the world in 2021, and the members of ASHRAE may not have noticed that a research project was completed after 19 years and an important document was published by the Society. The members of ASHRAE TC5.2 are looking to introduce the ASHRAE Duct Systems Design Guide to local ASHRAE chapters and give an overview of the content and how it can be used. We understand that practitioners will not likely go back to the days of performing calculations with pencil and paper, but we believe that a greater understanding of the process of duct system design will lead to better duct system design.

Bob Reid is one of the contributors to the Duct System Design Guide, as well as a current voting member and former chair of TC5.2 Duct Design and Construction. His introduction to HVAC duct systems started in the shop and field in 1977. After graduating from Texas A&M University with a degree in Engineering Technology, his professional career began in early 1983 as a Regional Engineer for United McGill Corporation, teaching static regain design and promoting one of the first computerized design programs to use that method. In the 40 years since, he has held a number of positions with HVAC sales and manufacturing firms. He is currently doing business and product development for Spiral Pipe of Texas, a regional duct fabricator from Fort Worth, TX and Eco Support Products, a rooftop duct and equipment support manufacturer from London, Ontario.



MEETING INFO

Thursday, March 14th
11:00 AM - 1:00 PM

Dukessa Event Center
2840 Chimney Rock Road
Houston, TX 77056
https://www.dukessahouston.com/

SEASON PASSES TO ALL CHAPTER MEETINGS!!!

This year we are also offering a Season Pass ticket to 8 ASHRAE Houston Chapter meetings for chapter members. **Save $$$ on chapter meetings today!** You will still need to register for each meeting and pay $0!

SEASON PASS HERE

MEMBER

$35.00 Member Luncheon

$40.00 At the Door

NON-MEMBER

$45.00 Non-Members Lunch

$50.00 At the Door

REGISTER HERE

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

SOCIETY NEWS



Tim Navarro, Pablo Marin and Mason Hall will be representing ASHRAE Houston in Mexico City at this year's YEA Leadership weekend!

Are you interested in expanding your knowledge, meeting fellow engineers and having some fun along the way? Look no further than YEA Leadership Weekend! YEA Leadership Weekend is an opportunity for you—the future leaders of ASHRAE—to learn more about Society, develop soft skills and network with other young professionals. Over 1,100 YEA members have already taken advantage of this great opportunity…will you be next?

This event will include segments on understanding your own personality as well as other types, leadership development for young professionals, communication techniques and ASHRAE leadership opportunities.

Leadership Weekend Objectives

1. Leadership
2. Networking
3. Communication
4. Professional Development

Download the YEA Leadership Weekend flyer for more information. It's a great resource to supply your employer to support your attendance!

YEA LEADERSHIP WEEKEND FLYER

Registration

The Spring 2024 YEA Leadership Weekend will be held at the Mexico City Marriott Reforma Hotel in Mexico City, Mexico from March 22-24, 2024. Registration is $580 and includes hotel accommodations for Friday and Saturday, meals during the event (dinner on Friday, all meals on Saturday, and breakfast and lunch on Sunday), and all necessary materials and resources. Airfare and any ground transportation costs are **not** included.

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

LOCAL NEWS



AIA Houston *extends an invitation for ASHRAE Houston to attend this year's Gulf Coast Green conference. Once registration opens a discount code will be available for our members to attend at a reduced rate. Please mark your calendars and support this opportunity.*

GULF COAST GREEN 2024

Gulf Coast Green 2024 Symposium

SAVE THE DATE! MARCH 22, 2024



Wild by Design

For its 18th year, AIA Houston's Gulf Coast Green conference will explore the connection between design and nature, both inside buildings and out. The event will focus on nature-based solutions, including topics like biophilia, biomimicry, creating sustainable and resilient landscapes, reducing urban heat island effect, and minimizing the built environment's impacts on climate and biodiversity loss.

Location: Houston Zoo, Brown Education Center, 1513 Cambridge Street, Houston, TX 77030

https://aiahouston.org/v/event-detail/Gulf-Coast-Green-2024/292/

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

RESEARCH PROMOTION

HOUSTON ASHRAE 2023-2024 RESEARCH PROMOTION FUNDRAISING EVENTS:

SPORTING CLAY TOURNAMENT	FALL GOLF TOURNAMENT	SPRING GOLF TOURNAMENT	POKER TOURNAMENT
9.05.2023	11.16.2023	04.04.2024	02.15.2023
Greater Houston Sports Club	The Golf Trails of The Woodlands	Blackhorse Golf Club	Roessler Equipment

2023-2024 ASHRAE ANNUAL SPONSORSHIP OPPORTUNITIES:

PLATINUM

$10,000

- Signage at each event as a Platinum Sponsor and ASHRAE Partner
- Recognition on the ASHRAE Houston website as a platinum sponsor with a link to your website
- (1) LinkedIn campaign for a product of your choosing
- ASHRAE Partner recognition at the annual conference
- One team (of 4) at both Golf Tournaments+ first buy ins for six (6) participants at the Poker Tournament
- Admission for four (4) to the Past President night
- Tailgate sponsor at the Golf Tournaments

CONTRIBUTE HERE

GOLD

$7,500

- Signage at each event as a Gold Sponsor
- Recognition on ASHRAE Houston website as a Gold Sponsor
- (1) LinkedIn campaign for a product of your choosing
- One team (of 4) at the Golf Tournament of your choice + first buy ins for four (4) participants at the Poker Tournament
- Hole sponsor signage at both Golf Tournaments
- Admission for two (2) to the Past President night

CONTRIBUTE HERE

SILVER

$5,000

- Signage at each event as a Silver Sponsor
- Recognition on the ASHRAE Houston website as a silver sponsor
- Two(2) participants at (1) Golf Tournament
- Hole sponsor signage at the both Golf Tournaments
- Table top display at (1) Golf Tournament
- First buy in for two (2) participants at the Poker Tournament
- Admission for two (2) to the Past President night

CONTRIBUTE HERE

BRONZE

$2,000

- Signage at each event as a Bronze Sponsor
- Recognition on the ASHRAE Houston website as a bronze sponsor
- Hole sponsor signage at the golf tournament of your choice
- Admission for one (1) to the Past President night

CONTRIBUTE HERE

CONSULTING ENGINEER

$1,000

- Available only to consulting engineering firms
- Signage at each event as a Consulting Engineer Sponsor
- 1) LinkedIn campaign for a product of your choosing
- Recognition on the ASHRAE Houston website as a consulting engineer sponsor
- Inclusion for free in the ASHRAE Houston directory
- Free job opening postings on the ASHRAE Houston website and HAR
- Hole sponsor signage at the golf tournament of your choice

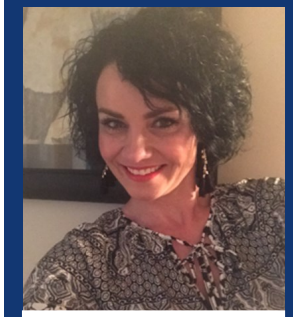
CONTRIBUTE HERE

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

MEMBERSHIP

2023-2024 MEMBERSHIP PROMOTION COMMITTEE



Shannon Yancey

Check out these resources to support our Membership Promotion initiatives

CONNECT-A-COLLEAGUE

We've kept it simple: Enter your name and email, your colleague's name and email, and press send. That's it! This pre-written invitation will be sent on your behalf, and includes options to reference an ASHRAE technical committee section, and to add a custom message.

CLICK HERE TO GET STARTED

GET YOUR BOSS ON BOARD

Most employers are happy to support involvement in a professional society like ASHRAE. Below are sample emails for new members looking to join, or current members looking to renew.

Support My ASHRAE Membership

Support My ASHRAE Membership Renewal

Join or renew (simple 4 step process) through **https://www.ashrae.org/join**
If you have any questions, contact Shannon Yancey at (832) 523-6619 or Shannon.Yancey@Caleffi.com
For more info: **https://www.ashrae.org/communities/regions**

TREASURER



23-24 Treasurer: Heather Camden

✓ Chapter is in good financial standing

Books have been transferred from Nick Janssen to Heather Camden

TAX Last year's taxes are filed

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

YEA





MARCH HAPPY HOUR

BROUGHT TO YOU BY
Roessler Equipment Company
Thursday, March 21st / 4PM - 7PM
Post Oak Ice House
5610 Richmond Ave, Houston, TX 77057
RSVP HERE

Roessler Equipment Open House

Don't miss their upcoming Open House in early April to learn more!
RSVP HERE

YEA SPONSORS (2023-2024)

WE ARE SEEKING SPONSORS TO HELP US SUPPORT OUR COMMITTEE

IF INTERESTED PLEASE CLICK **HERE**

YEA SPONSORS NEEDED

Join us at our next event!

Want to Sponsor?

Reach out to Pablo Marin via email here

How to Sponsor?

After emailing Pablo, pick a date, time and location so that we can post in upcoming Newsletters!

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

REFRIGERATION

Sell-Trough Period for Low, Medium and High-GWP HVAC Equipment

WRITTEN BY: JAMES ROBINSON

Hello Houston Chapter. In December of 2023 , the EPA revised a key component of the AIM ACT to give the HVACR industry time to develop short and long term strategies for implementing Low-GWP refrigerants. This latest revision provides a much needed sell-through period for High-GWP split system refrigeration , air conditioning and heat pump applications manufactured or imported by January 1, 2025. High GWP-split system equipment that meets the criteria can now be sold and installed until January 1, 2026. Self-contained refrigeration, air conditioning and heat pump equipment manufactured or imported before January 1, 2025 continues to enjoy a sell-through period of three years, In the short term, for the retail food sector, this is great news since the market continues to grapple with identifying A1, A2L and natural refrigerant alternative the not only meet the new Low-GWP standards but also compares favorable to the operational efficiency of existing equipment.

In the long term, viable solutions will be the result of industry collaboration, refrigeration performance data analysis, and a built environment that complements Low-GWP refrigerants. For example, the retail food sector uses High-GWP A1 HFC refrigerants for low, medium, and high temperature refrigerant applications that can remain in use for the foreseeable future given the extended sell-through period. This extension also allows time for performance data analysis of new A1 prospects R-471A and R-515B. In terms of A2L and Natural Refrigerants, capital investments can be delayed until authorities having jurisdiction of potential new store construction sites complete updates and adopt new building codes which ultimately would cause manufacturers to increase commercial refrigerant equipment.

Finally, Heating, Air Conditioning, Refrigeration, Distributors International (HARDI) is a trade organization representing over 400 distributors who can help bridge the communication gap across all HVACR sectors so that industry can better align with the goals and objectives of the AIM ACT. Additional information can be obtained at https://hardinet.org

Refrigeration
CHAIRS

JAMES ROBINSON

DON INVESTER

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

STUDENT ACTIVITIES

STUDENT ACTIVITIES CHAIR



TARA DENNIS
STUDENT ACTIVITIES CHAIR



SADIA ASHRAF
LYNN G. BELLENGER
SCHOLARSHIP RECIPIENT



JOHN MCCULLOCH
DUANE HANSON
SCHOLARSHIP RECIPIENT

We are excited to announce that two Region VIII students were selected as 2023-24 Society $5,000 Scholarship Recipients! Please join me in recognizing both Sadia and John on their outstanding accomplishment!

***Sadia Ashraf**, Mechanical Engineering attending the University of Houston is the recipient of the Lynn G. Bellenger Engineering Scholarship which recognizes female undergraduate engineering students and is named in memory of the Society's first female president, who served as the Society's president in 2010-11.*

***John McCulloch**, Mechanical Engineering attending Texas A & M University and Texas University, is the recipient of the Duane Hanson Scholarship established by Gayner Engineers and is named for the company's former president.*

Stay up to date on the latest news and resources available to you by signing up for the student newsletter.

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

GRASSROOTS GOVERNMENT

Grassroots Government Advocacy Committee



To establish ASHRAE as a leading source for expertise in the built environment, and a resource for policymakers in the development of legislation and regulations affecting the public, the HVAC&R community, and the engineering profession.

Build Relationships

Between the Society and all levels of government.

Counsel and Assist

On matters affecting the public, engineering profession, and ASHRAE professional community.

Collect, Digest, and Disseminate

To members relevant information regarding current or anticipated government actions.

Pursue

Technology transfers independently or jointly with other appropriate organizations.

ASHRAE Standards

55 Specify the combinations of indoor space environment and personal factors that will produce thermal environmental conditions acceptable to 80% or more of the occupants within that space.

62.1 Specify minimum ventilation rates and other measures intended to provide indoor air quality that is acceptable to human occupants and that minimizes adverse health effects

90.1 Establish the minimum energy efficiency requirements of buildings other than low-rise residential buildings for design, construction, and a plan for operation and maintenance and utilization of on-site, renewable energy resources

100 Provide criteria that will result in the conservation of energy resources in existing buildings

105 Specify consistent methods for determining and reporting the energy performance of buildings for use in comparing design alternatives and operational improvements and to support energy standards and reporting of building-related greenhouse gas emissions

188 Establish minimum legionellosis risk management requirements for building water systems.

189.1 Provides minimum requirements for the siting, design, construction and plan for operation of high-performance green buildings to balance environmental responsibility, resource efficiency, occupant comfort and well-being, and community sensitivity, and support the goal of development that meets the needs of the present without compromising the ability of future generations to meet their own. It is an alternate compliance path to the 2015 International Green Construction Code (IgCC) and will be the compliance path in the 2018 IgCC.

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

SUSTAINABILITY

CLEAN AND GREEN HOUSTON—2024 GREENEST CAR LIST BY ACEEE

The electric vehicles on the Greenest List had the lowest fueling costs because of their higher efficiency. EVs and plug-in hybrid electric vehicle (PHEV) models topped the list.

Rank	Make & Model	Powertrain	Green Score	MSRP	Est. Annual Fuel Cost*
1	Toyota Prius Prime SE	PHEV	71	$32,975	$529
2	Lexus RZ 300e	EV	67	$55,150	$651
3	Mini Cooper SE	EV	67	$30,900	$747
4	Nissan Leaf	EV	66	$28,140	$741
5	Toyota bZ4X	EV	66	$43,070	$689
6	Toyota RAV4 Prime	PHEV	64	$43,690	$741
7	Hyundai Elantra Blue	Gas Hybrid	64	$26,250	$864
8	Hyundai Kona Electric	EV	63	$34,050	$695
9	Toyota Camry LE	Gas Hybrid	63	$28,855	$907
10	Kia EV6	EV	63	$43,975	$689

*ACEEE analysis using EIA data of annual cost—from gasoline, electricity, or a combination—of driving 15,000 miles

GREENER CHOICES

The 2024 Greener Choices list includes model year 2024 cars that are available nationwide with among the lowest environmental impacts in each vehicle class but that didn't make the Greenest List. The Greener Choices list does not include EVs (including PHEVs) because some drivers do not have adequate access to EV charging.

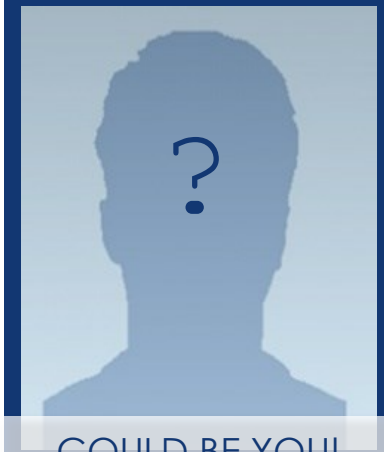
Rank	Make & Model	Powertrain	Vehicle Class	Green Score	MSRP	Est. Annual Fuel Cost*
1	Honda Accord	Gas Hybrid	Large Car	62	$33,990	$982
2	Kia Niro FE	Gas Hybrid	Compact SUV	61	$28,315	$885
3	Mitsubishi Mirage	Gas	Compact Car	59	$17,955	$1,189
4	Lexus ES 300h	Gas Hybrid	Midsize Car	59	$44,590	$1,073
5	Lexus NX 350h	Gas Hybrid	Midsize SUV	57	$43,465	$1,207
6	Ford Maverick	Gas Hybrid	Compact Pickup	55	$24,900	$1,297
7	Toyota Sienna	Gas Hybrid	Minivan	55	$39,080	$1,304
8	Mini Cooper Convertible	Gas	Subcompact Car	54	$35,700	$1,412
9	Toyota Highlander	Gas Hybrid	Large SUV	54	$40,720	$1,348
10	Kia Soul	Gas	Small Wagon	53	$21,565	$1,467

*ACEEE analysis using EIA data of the annual cost of driving 15,000 miles

SUSTAINABILITY CHAIR



Andreas Winardi, PE



COULD BE YOU!

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

COMMISSIONING

2023-2024 COMMISSIONING CHAIR

ADAM SEGOVIS



WRITTEN BY: ADAM SEGOVIS

Building Commissioning, in accordance with ASHRAE standards, is a systematic and comprehensive process aimed at ensuring that newly constructed or renovated building functions efficiently, reliably, and in accordance with the owner's requirements. ASHRAE particularly in Standard 202, outlines the guidelines for the commissioning process. This entails a series of activities, starting from the design phase, through construction, and into the occupancy phase. It involves the verification and documentation of all building systems, including HVAC, electrical, plumbing, and controls, to confirm they meet performance criteria and are integrated seamlessly. By adhering to ASHRAE standards for Building Commissioning, owners and occupants can benefit from enhanced energy efficiency, improved indoor air quality, reduced operating costs, and an overall optimized building performance. Over the next few months we will be covering Standard 202 in more detail.

USEFUL RESOURCES

Here is a link to a short video describing the benefits of continuously commissioning existing buildings
https://www.youtube.com/watch?v=U9wvpHsLOPU&t=58s

If commissioning is part of your process, expert guidance is essential.
ASHRAE offers several resources to help guide your team through this critical phase of a new construction project
https://www.ashrae.org/technical-resources/bookstore/commissioning

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

BOG MINUTES

ASHRAE Houston Chapter

February 6, 2024 Meeting Agenda

I. Approve January Meeting Minutes
II. Monthly Meeting Team Reporting – action before the meeting and then report completed
- ✓ Update on MBO & month's activities sent to RVC, Pres, BOG, Officer, and Chair Team
- ✓ PAOE points entered
- ✓ Uploads to Region 8 Basecamp and/or Houston Basecamp
- ✓ Communications content for current & next month

a. (Operations Team) Alan Neely + President + Historian + GAC + H&A
b. (Programs Team) Ken Shifflett + CTTC/President-Elect + Refrigeration + Sustainability + Commissioning
c. (Stakeholder Team) Greg Tinkler + RP/Vice President + YEA + WiA
    i. 130 attendees at last YEA event.
    ii. YEA had new banner made.
    iii. WiA – women in construction already having a meet up on March 21st – opportunity for WiA to collaborate.
d. (Nuts & Bolts Team) Keith Reihl + Treasurer + Newsletter + Communications
    i. Treasurer – gathering information, yea funds etc.
    ii. Newsletter – advertising Poker Tourney, Golf Tourney and other news.
        1. Mason, Tim, Pablo attending YEA Leadership retreat.
    iii. Communications – if you need anything communicated, send what you need to Rachel Haines.
e. (Engagement Team) Mike Langton + Secretary + Membership Promotion + Student Activities
    i. Membership Promotion – Shannon is trying to secure again caleffi or Grundfos to sponsor 10 memberships – counts toward membership promotion and participation.
    ii. Student Activities – BUDGET Discussion – due to inflation etc. lets look into increasing future budget for attending winter meetings.

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

BOG MINUTES

III. Old Business
  a. Storage unit has been transferred – We still need keys
    i. Still need keys.
  b. Reminder about CRC next April in Dallas – book hotel now if possible
    i. Reminder, this is approaching.
  c. Recap of Treasurer position discussion
    i. Catherine – spoke with Joe Sanders in Chicago – did not have info for supporting Treasurer position. Society may be working on something/may have some resources.
    ii. Keith – it is up to local chapter to decide on officer position and roles.
    iii. Ken – was under impression this would be discussed at CRC.
    iv. Push this discussion to March Meeting

IV. New Business
  a. Chapter TC Liaison –
    i. Catherine would like to know what TCs you are on – TC Liaisons to chapter meetings for more frequent reporting. Opportunity for chapter to help society recruit for more TC's.
    ii. Regular Participants:
      1. Ken
      2. Greg
      3. CAT – 7.3/9.7
      4. Keith
      5. Garrett
      6. Mike
      7. Alan – participates in 4 or 5 technical committees.
  b. YEA Leadership Retreat – funding request for 3 participants
    i. Requested use of funds
      1. $580 registration + $320 flight = $900/person x3 = $2,700.00 Budget
      2. Keith Motioned to appropriate $900/person to attend the leadership retreat – appropriate as necessary.
        a. Second by: Greg T, Keith, Heather,
        b. Vote Count 6 yes – 0 No – 2 Abstained (Tim & Catherine – not voting)
  c. Nominating Committee:
    i. work begins now within our chapter charter – confirms that all officers continue on in our roll through process.
    ii. Identify new appointee for Secretary
      1. Alan, Greg

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

BOG MINUTES

d. Audit Committee –
   i. Treasurer Incoming
   ii. Treasurer Outgoing
   iii. President Incoming
   iv. President Outgoing
e. Chapter Officers attend Decarb 101 Training
   https://www.ashrae.org/about/decarbonization-101-a-four-part-video-series
   i. Part 1 (January) Keith, CAT
   ii. Part 2 (February) Keith
   iii. Part 3 (March)
   iv. Part 4 (April)
f. Houston Hall of Fame – Century Club – for esteemed individuals who do something significant.
   i. Alan Neely would like to nominate Greg Tinkler into the Houston Hall of Fame because he holds a golden gavel.
      1. Discuss at next meeting

MEETING ADJOURNED 2/6/24 @ 4:53pm

Quick Links

Cover Page
Golf Tournament
President's Message
Last Month's Meeting
This Month's Meeting
Society News
Local News
Research Promotion
Membership
Treasurer
YEA
Refrigeration
Student Activities
Grassroots Government
Sustainability
Commissioning
BOG Minutes
Roster

ROSTER

2023-2024 Houston Chapter Volunteer Leadership

Operations Team	
Alan Neeley, Board of Governors	alan_neely@pghcorning.com
Catherine Tinkler, President	CTinkler@pagethink.com
Bruce Flaniken, Historian	BLFlaniken@houstonmethodist.org
Ken Shifflett, Government Affairs Committee Chair	kshifflett@distribaire.com
Keith Reihl, Government Affairs Committee Chair	reihl@swbell.net
Alan Neeley, Honors and Awards Committee Chair	alan.neely@owenscorning.com
Garrett Neubauer, Past President	gneubauer@pagethink.com
Programs Team	
Ken Shifflett, Board of Governors	kshifflett@distribaire.com
Julie Thomet, CTTC/President-Elect	juliet@mjec.com
James Robinson, Refrigeration Committee Chair	jamesrobinsonblazer@outlook.com
Don Ivester, Refrigeration Committee Chair	Don.Ivester@graymechanical.com
Adam Segovis, Commissioning Committee Chair	ASegovis@convergentz.com
Andreas Winardi, Sustainability Committee Chair	AndreasW@McKinstry.com
Stakeholder Team	
Greg Tinkler, Board of Governors	GTinkler@pagethink.com
Nick Janssen, RP/Vice President	nick.janssen@texasairsystems.com
Amanda Ackerman, YEA Committee Co-Chair	aackerman@ssr-inc.com
Jacob Busch, YEA Committee Co-Chair	jacob.busch@carrier.com
Franco Madrigali, YEA Committee Co-Chair	franco.madrigali@jci.com
Pablo Marin, YEA Committee Co-Chair	pablo.marin@engineeredair.com
Nuts & Bolts Team	
Keith Reihl, Board of Governors	reihl@swbell.net
Heather Camden, Treasurer	camden@eceng.com
Mason Hall, Newsletter	mhall@unifyes.com
Rachel Haines, Webmaster & Social Media	rachel@sshvac.com
Engagement Team	
Mike Langton, Board of Governors	mlangton@langtonenergy.com
Tim Navarro, Secretary	Tim.Navarro@carrier.com
Shannon Yancey, Membership Promotion	shannon.yancey@caleffi.com
Tara Dennis, Student Activities	tdennis@resource-innovations.com