



**Minutes
Chapter Technology Transfer Committee**

Friday, June 23, 2023			
CTTC	8:00am – 12:00pm	Tampa Marriott Waterside, Meeting Room 11 (3)	Hybrid
Member Services Subcommittee	1:00pm – 5:00pm	Tampa Marriott Waterside, Meeting Room 11 (3)	Hybrid
Operations Subcommittee	1:00pm – 5:00pm	Tampa Marriott Waterside, Meeting Room 12 (3)	Hybrid
Saturday, June 24, 2023			
Executive Subcommittee	8:00am – 9:00am	Tampa Marriott Waterside, Meeting Room 11 (3)	Hybrid
CTTC	9:00am – 12:00pm	Tampa Marriott Waterside, Meeting Room 11 (3)	Hybrid

Action Items:

No. - Pg.	Assignment	Action Item
1 – 2	John	Work with TAC on creating recruitment-oriented sessions for TCs that are appealing to new members
2 – 3	Staff	Review if PAOE line item CT23 was utilized during the 21-22 SY
3 – 3	Operations Subcommittee	Review the CRC PPT to include this TC information
4 – 3	Andy & Staff	Create an email blast to relevant CTTC Chapter Chairs and RVCs to let them know about ULI and the NZI
5 – 3	Matthew Klok	Create procedure for chapter meeting attendees to download, complete, and submit a fillable PDF to the CTTC Chapter Chair for evaluating DLs/speakers
6 – 3	Promoting Awards Ad Hoc	Review the Dan Mills Chapter Programs Award for a decarbonization element
7 – 4	Member Services Subcommittee	Further development next steps for decarbonization efforts, including a motion that can be presented at the CRCs
8 – 4	Staff	Research average cost of DL cost – domestic vs. international
9 – 6	Abhi & John	Determine next steps for DL mixer video footage.
10 – 7	Award Ad Hoc	Review use of “promotion” within the categories on the Dan Mills Chapter Programs Award point tally form.
11 – 7	Staff	Distribute Mick’s slides for review
12 – 7	Staff	Make sure Tech Hours are available on the ASHRAE 365 app
13 – 7	Staff	Add the CRC PPT to Basecamp
14 – 7	DL Working Group	Research how to encourage more collaboration with DLs beyond CTTC
15 – 7	Staff	Staff to supply YEA with the Technology Award nomination, judging criteria, and PPT created by Matt and Chris.
16 – 7	Staff	Add a hyperlink (along with the existing QR code) to the digital evaluation form on the DL webpage.

Motions:

No. - Pg.	Motion	Vote
1 – 5	The DL Working Group recommends the following addition to the DL Evaluation spreadsheet...	17-0-0 CNV
2 – 5	Add “decarb program” to Item C in the Dan Mills Award points criteria section.	16-0-1 CNV

Attendance:

- Members Present: Daniel Robert, Andrew Reilman, Daniel Redmond, Frank Rivera, Abhi Khurana, Matthew Archey, Christopher Adams, Elizabeth Zakelj, Grant Page, Abigail Brophy, Tyler Bradshaw, Janice Peterson, Thiago Corrêa Fonseca Portes, Sivakumar Gadam, Osama Atef Khayata, John Constantinide, Heric Holmes, Wei Sun
- Members Absent: Arunabha Sau, Kenneth Shifflett, Mahroo Eftekhari
- Incoming Members Present: Matthew Klok, Eric Johansen, Kevin Muldoon, Matt Parkes, Conor Murray
- Guests: Devin Abellon, Julia Timberman, Kishor Khankari, Corey Metzger, Jim Arnold, Dennis Hassett, Larry Smith, Samir Hernandez, Julian Alvarez, Steve Grant
- Staff: Rhiannon Masterson, Anastasia Meadows, Tony Giometti

Full Committee Agenda – Friday, June 23, 2023

1. **Call to Order** – Robert
2. **Roll Call/Introduction of Guests** – Robert
3. **ASHRAE Code of Ethics Commitment** – Robert
In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, inclusiveness and respect for others, which exemplify our core values of excellence, commitment, integrity, collaboration, volunteerism and diversity, and we shall avoid all real or perceived conflicts of interests.
4. **ASHRAE Diversity Commitment** – Robert
ASHRAE is committed to providing a welcoming environment. Our culture is one of inclusiveness, acknowledging the inherent value and dignity of each individual. We proactively pursue and celebrate diverse and inclusive communities understanding that doing so fuels better, more creative and more thoughtful ideas, solutions and strategies for the Society and for the communities our Society serves. We respect and welcome all people regardless of age, gender, ethnicity, physical appearance, thought styles, religion, nationality, socio-economic status, belief systems, sexual orientation or education.
5. **Review of Agenda** – Robert
6. **Approval of Minutes** – February 3-4, 2023 during 2023 Winter Conference – Robert (**Attachment A**)
 - a. Moved by Matt, seconded by John. Vote: Unanimous approval.
7. **Review of Action Items** – Robert (**Attachment B**)
 - a. Action Item #7: Follow-up with DLs who did not respond to initial survey regarding in-person/virtual/hybrid visits. Status: partially complete.
8. **Remarks**
 - a. BOD Ex-Officio – Wei Sun (**Attachment L**)
9. **Special Reports**
 - a. John Constantinide, Tech Council “World of Tech @ ASHRAE” (**Attachment C**)
 - i. **Action Item #1:** John to work with TAC on creating recruitment-oriented sessions for TCs that are appealing to new members
 - ii. How can we incentivize recruiting for TCs at the chapter level?
 1. Encourage DLs to promote TCs they’re involved in
 2. Encourage chapters to review this topic at every chapter meeting; CTTC could create a couple of slides that could roll as the chapter meeting starts
 3. RVCs take this info to their CTTC Chapter Chairs, but we can streamline the process to make it as easy as possible – create marketing content/flyer that chapters can share

4. We award 100 PAOE points for every presentation that includes TC information (CT23). **Action Item #2:** Staff to review if this PAOE line item was utilized last SY.
5. **Action Item #3:** Review the CRC PPT to include this information
 - iii. Let the technology speak for itself
 - iv. Consistent and repetitive marketing – use a variety of formats
 - v. For the video, consider also making a shorter 2-minute version that could be shown at chapter meetings
- b. Grant Page, Certification Committee (**Attachment D**)
- c. Urban Land Institute and their [Net Zero Imperative](#) (NZI), that aims to accelerate decarbonization in the built environment
 - i. Daniel Robert had a call with ULI earlier this week. Looking to disseminate information about NZI to chapters that overlap with their program.
 - ii. **Action item #4:** Andy and Staff to create an email blast to relevant CTTC Chapter Chairs and RVCs to let them know about ULI and the NZI

10. Ad Hoc Reports

- a. DL Automation
 - i. Members: John (Chair), Grant, Abhi, Aru, Osama, Frank, Daniel Redmond
 - ii. Near completion with testing the digital DL Participation Form
 - iii. Next up is the DL Evaluation Form and then the DL Summary Form
 - iv. **Action Item #5:** Matthew Klok to create procedure for chapter meeting attendees to download, complete, and submit a fillable PDF to the CTTC Chapter Chair for evaluating DLs/speakers
- a. Promoting Award Nominations and Technology Awards
 - i. Members: Chris (Chair), Mahroo, Frank, Liz, Grant, Janice, Abby
 - ii. The new Technology Award nomination form is being used this Society Year, which eliminated the previous short and long nomination forms.
 - iii. **Action Item #6:** Review the Dan Mills Chapter Programs Award for a decarbonization element
- b. Decarbonization
 - i. Members: Daniel Robert (Chair), Daniel Redmond, Andy, John, Abhi, Aru
 - ii. Tried to create a program where we can offset our carbon footprint, especially with the number of in-person DL visits. We looked at using a third-party company, but decided against that. Instead we decided to put \$50,000 from the DL travel budget into an endowment that could be used toward decarbonization efforts; however, we were informed that we cannot transfer current CTTC funds into an ASHRAE endowment.
 - iii. Motion: CTTC recommends to the Board of Directors to create a committee or initiative to monitor Society decarbonization, effective February 1, 2024. Moved by John, seconded by Frank.
 1. Amendment from Heric: CTTC recommends to the Board of Directors to create a committee or initiative to monitor Society decarbonization activities including hiring of ESG consulting services, effective February 1, 2024.
 2. Motion withdrawn
 - iv. Motion: CTTC recommends to the Board of Directors to create an ESG Committee to coordinate with DEI and decarbonization activities, related to ASHRAE society operations, effective February 1, 2024.
 1. Background: The existing DEI Committee would report to this new ESG Committee
 2. Motion withdrawn
 - v. Alternative ideas:
 1. Present ideas at the BOD open comment session
 2. Have each RVC encourage a motion at their CRCs

3. **Action Item #7:** assign to Member Services Subcommittee for further development

11. **Review of Regional Statistics** – Robert (**Attachment E**)

- a. Out of 192 allocations, 190 have been used (there was one cancellation and one changed to a virtual visit)
- b. **Action Item #8:** Staff to research average cost of DL cost – domestic vs. international

12. **Liaison Talking Points** – Robert (**Attachment F**)

13. **Members Council Referrals**

- a. Motions from Spring 2023 CRCs assigned to CTTC:
 - i. Region XI, Regina, Motion #4: That the Chapter Technology Transfer Committee (CTTC) recommend to the Honors and Awards Committee (H&A) to consider offering ESA/DSA points for service on Judging panel for Society Technology Awards. 1 point for member per year and 1 1/2 points for chair of the committee per year. This would be the same points for Sub Committee members and Chairs.
 1. Background: Currently the service of the CTTC members of the Technology Awards Panel is not able to be recognized for points towards the ESA / DSA nomination. The time that is involved in reviewing and judging the Tech Awards is comparable to the work of most subcommittee that any member would sit on. YEA did this in the past to get approval to award points for the committee members that organize the YEA Leadership Weekends.
 2. Fiscal Impact: None
 3. Vote: 10-0-0-1 CNV
 4. CTTC Response: CTTC is in support of this motion going to the H&A Committee for further review. 15-0-1 CNV
 - ii. Region VI, La Crosse, Motion #6: That society provide an electronic form for the DL lecture surveys.
 1. Background: Having to print out DL lecture sheets for each DL, distributing, then collecting and tallying up the totals is a hassle to do that process manually. We propose to digitize the DL lecture survey to be able to take it on a smart phone or web browser so that the results can be collected automatically and sent to society reducing the time spent by each chapter manually tallying up the scores and reporting that to society. Save the trees and let's digitize the DL survey process.
 2. Fiscal Impact: App/website development cost. Could utilize the existing ASHRAE 365 app or ASHRAE.org website.
 3. Vote: 11-0-0-0 CNV
 4. CTTC Response: Already in progress with ASHRAE IT. Vote: 15-0-0-0 CNV
- b. Motion from Fall 2022 CRCs assigned to CTTC:
 - i. Region XIV, Cyprus Chapter, Motion #1: That Society increase the DL allocations to Region XIV from 8 to 12 in 2023-24.
 1. CTTC Response: The number of DL allocated visits are based on a formula of chapters and area assigned members. The allocations are reviewed by the DL Working Group and they make changes as they see fit. Any unused allocated visits are put into pool visits on December 1, which are available to any chapter on a first-come, first-served basis. Try to push for multi-chapter visits. Vote: 0-15 CNV
- c. Members Council asked for CTTC's insight and input for the MBO below. The CTTC Executive Subcommittee discussed this during their mid-year call and submitted the following feedback to Members Council:
 - i. Tech Hour meets the intent of this MBO and we plan on incorporating new ideas to improve global awareness, such as selecting a topic (i.e. refrigeration) and comparing its impact in two different countries and having a panel of 2-3 presenters from different areas that can speak on a topic and how it affects their geographical location.

- ii. We can encourage DLs to host virtual joint chapter presentations on topics of interest to both chapters. Maybe two DLS from two different countries could co-present on a topic for two different perspectives.

ASHRAE 2022-23 'Securing Our Future' Initiatives – Members Council MBOs						
MBO #	Initiatives	Action	Category	MC Assignment	Status	Update from Members Council
2	Harnessing the power of our relationships	Develop and conduct a program of virtual joint chapter meetings focusing on the critical issues of the day between North American ASHRAE Chapters and Chapters outside of North America.	Transparency	Region Operations Subcommittee	To be completed by the 2023 Annual Conference	MC Region Ops subcommittee referred to CTTC for program for this item.

Full Committee Agenda – Saturday, February 4, 2023

1. **Call to Order** – Robert
2. **Roll Call/Introduction of Guests** – Robert
3. **ASHRAE Code of Ethics Commitment** – Robert
In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, inclusiveness and respect for others, which exemplify our core values of excellence, commitment, integrity, collaboration, volunteerism and diversity, and we shall avoid all real or perceived conflicts of interests.
4. **ASHRAE Diversity Commitment** – Robert
ASHRAE is committed to providing a welcoming environment. Our culture is one of inclusiveness, acknowledging the inherent value and dignity of each individual. We proactively pursue and celebrate diverse and inclusive communities understanding that doing so fuels better, more creative and more thoughtful ideas, solutions and strategies for the Society and for the communities our Society serves. We respect and welcome all people regardless of age, gender, ethnicity, physical appearance, thought styles, religion, nationality, socio-economic status, belief systems, sexual orientation or education.
5. **Review of Agenda** – Robert
6. **Special Reports**
 - a. TAC – World of Tech, Larry Smith
 - i. Identify leaders within TCs and encourage them to apply to be a DL
 - b. Membership Promotion, Steve Grant
 - i. Cost of food at chapter meetings, which prompted a sponsorship opportunity. MP could use our help promoting this once it is ready to go – still being developed.
 - ii. The annual survey will now come from MP (per the Planning Committee).
7. **Subcommittee Reports**
 - a. Member Services – Reilman (**Attachment G**)
 - i. Presentation of the Donald A. Siller Refrigeration Award to Samir Hernandez of the Brasil Chapter.
 - ii. **Action Item #9:** Abhi & John to determine next steps for DL mixer video footage.
 - iii. **Motion #1:** The DL Working Group recommends the following addition to the DL Evaluation spreadsheet:
 1. In the DL Evaluation Sheet tab, under the “Bonus” group, add the following:
Tech Hour Presenter.
 - a. Make this category worth 1 point.
 2. In the DL Evaluation Rules & Guidance tab, under the "Evaluation Grading Category" grouping, add the following: Tech Hour Presenter.
 3. In the DL Evaluation Rules & Guidance tab, in the Explanation column adjacent to the added Tech Hour Presenter category, add the following: Has the DL or nominee been an ASHRAE Tech Hour presenter?
 - a. Background: As a way to further highlight the DL Program and utilize the expertise of our DLs to enhance the CTTC Tech Hour, adding a bonus point to DLs' grades for those DLs that presented a Tech Hour will encourage more DLs to present in CTTC Tech Hours. This is also a great way for nominees to compete to join the DL program by being a Tech Hour presenter.
 - b. Financial Impact: Staff costs to update documentation.
 - c. Vote: DL Working Group: 4-0-0 CV, Member Services Subcommittee: 6-0-0 CNV
 - i. Moved by Abigail. CTTC Vote: 17-0-0 CNV
 - iv. **Motion #2:** Add “decarb program” to Item C in the Dan Mills Award points criteria section.
 1. Background: Will be worth 10 points
 2. Moved by John, Second Janice
 3. Passed Unanimous, Chair not voting

4. CTTC Vote: Moved by Matt Archey. Vote: 16-0-1 CNV
 - v. **Action Item #10:** Award Ad Hoc to review use of “promotion” within the categories on the Dan Mills Chapter Programs Award point tally form.
- b. Operations – Redmond (**Attachment H**)
 - i. **Action Item #11:** Staff to distribute Mick’s slides for review
 - ii. **Action Item #12:** Staff to make sure Tech Hours are available on the ASHRAE 365 app.
 - iii. **Action Item #13:** Staff to add the CRC PPT to Basecamp
 - iv. **Action Item #14:** DL Working Group to research how to encourage more collaboration with DLs beyond CTTC
8. **Status of 2022-23 MBOs** – Robert (**Attachment I**)
9. **Old Business** – Robert
10. **New Business** – Robert
 - a. The YEA Committee is creating a new award and has asked if CTTC can provide guidelines/SOPs that we’ve created to audit and review project-based awards (Technology Awards). Their goal is to understand how CTTC reviews all of the applications that we receive.
 - i. **Action Item #15:** Staff to supply YEA with the Technology Award nomination, judging criteria, and PPT created by Matt and Chris.
11. **Change of Chair** – Robert/Reilman
 - a. Recognition of outgoing members:
 - i. Daniel Robert – Chair
 - ii. Aru Sau – Region V RVC
 - iii. Grant Page – Region VII RVC
 - iv. Janice Peterson – Region XI RVC
 - v. Mahroo Eftekhari – Region XIV RVC
 - b. Recognition of current members changing roles:
 - i. Andy Reilman – 1st Vice Chair to Chair
 - ii. Daniel Redmond – 2nd Vice Chair to 1st Vice Chair
 - iii. Heric Holmes – Tech Hour Coordinator to 2nd Vice Chair
 - iv. Liz Zakelj – Region VI RVC to Tech Hour Coordinator
 - c. Recognition of incoming members:
 - i. Matthew Klok – Region V RVC
 - ii. Eric Johansen – Region VI RVC
 - iii. Kevin Muldoon – Region VII RVC
 - iv. Matt Parkes – Region XI RVC
 - v. Conor Murray – Region XIV RVC
 - vi. Dennis Knight – Coordinating Officer
 - d. 2023-24 MBOs – Reilman (**Attachment J**)
 - i. **Action Item #16:** Add a hyperlink (along with the existing QR code) to the digital evaluation form on the DL webpage.
 - e. Appointment of 2023-24 Subcommittees and Mentors – Reilman (**Attachment K**)
12. **Next Meeting** – 2024 ASHRAE Winter Conference in Chicago, Illinois
13. **Adjournment**



Minutes
Chapter Technology Transfer Committee

Friday, February 3, 2023			
CTTC	8:00am – 12:00pm	Omni, Pine (A-South)	Hybrid
Member Services Subcommittee	1:00pm – 5:00pm	Omni, Pine (A-South)	In-person only
Operations Subcommittee	1:00pm – 5:00pm	Omni, Maple C (A-South)	In-person only
DL Mixer	5:15pm – 6:30pm	Omni, Pine (A-South)	In-person only
Saturday, February 4, 2023			
Executive Subcommittee	8:00am – 9:00am	Omni, Pine (A-South)	In-person only
CTTC	9:00am – 12:00pm	Omni, Pine (A-South)	Hybrid

Action Items:

No. - Pg.	Assignment	Action Item
1 – 2	Staff	Add CRC attendance breakdown (virtual vs. in-person) to Regional Statistics spreadsheet
2 – 2	DL Working Group	Simplify wording for virtual, in-person, or hybrid DL visits on Participation Form
3 – 3	Operations Subcommittee	Discuss font size requirements on Technology Award nominations
4 – 3	Staff	Does Society have a current decarbonization offset program? What would be the cost to use the airline proposed offset program (ATC)?
5 – 3	Award Ad Hoc	Add decarb element to the Dan Mills Point Tally Form
6 – 3	Operations Subcommittee	Update CTTC CRC presentation and include decarb information
7 – 3	DL Working Group	Survey DLs to determine willingness to travel and feedback on decarb efforts
8 – 3	Staff & John	Update Regional Statistics Spreadsheet to include virtual vs in-person chapter visits and remove liaison contacts. John to share his chapter visit check list on Basecamp.
9 – 5	Kenneth	Take CTTC's feedback regarding hotel sustainability to CEC
10 – 5	Member Services Subcommittee	Discuss alternative day/time for the DL Mixer
11 – 5	Operations Subcommittee	Research and provide feedback on how to handle PDH requests submitted to CTTC

Motions:

No. - Pg.	Motion	Vote
1 – 4	The DL Working Group recommends the removal of the following criterion from the DL Nomination Evaluation spreadsheet: "I watched the DL / nominee speak, and I give this rating."	18-0-0
2 – 4	The DL Working Group recommends the following addition and changes to the DL Nomination Evaluation spreadsheet...	18-0-0

3 – 5	Add “Exemplary decarbonization recognition” after Award of Engineering Excellence to application page 1, 4 th paragraph second sentence.	18-0-0
4 – 5	To reimburse transportation for the entrant (or one designated design team member from the award application) of the Technology Award of Engineering Excellence to attend the Plenary session starting with the 2024 Technology Awards.	18-0-0

Attendance:

- Members present: Daniel Robert, Andrew Reilman, Daniel Redmond, Frank Rivera, Abhi Khurana, Matthew Archey, Christopher Adams, Arunabha Sau, Elizabeth Zakelj, Grant Page, Kenneth Shifflett, Abigail Brophy, Tyler Bradshaw, Janice Peterson, Thiago Corrêa Fonseca Portes, Sivakumar Gadam, Osama Atef Khayata, John Constantinide, Heric Holmes, Wei Sun, Rhiannon Masterson, Anastasia Meadows
- Members absent: Mahroo Eftekhari

Minutes – Friday, February 3, 2023

1. **Call to Order** – Robert
2. **Roll Call/Introduction of Guests** – Robert
3. **ASHRAE Code of Ethics Commitment** – Robert
In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, inclusiveness and respect for others, which exemplify our core values of excellence, commitment, integrity, collaboration, volunteerism and diversity, and we shall avoid all real or perceived conflicts of interests.
4. **ASHRAE Diversity Commitment** – Robert
ASHRAE is committed to providing a welcoming environment. Our culture is one of inclusiveness, acknowledging the inherent value and dignity of each individual. We proactively pursue and celebrate diverse and inclusive communities understanding that doing so fuels better, more creative and more thoughtful ideas, solutions and strategies for the Society and for the communities our Society serves. We respect and welcome all people regardless of age, gender, ethnicity, physical appearance, thought styles, religion, nationality, socio-economic status, belief systems, sexual orientation or education.
5. **Review of Agenda** – Robert
6. **Approval of Minutes** – June 24 & 25, 2022 during 2022 Annual Conference – Robert (**Attachment A**)
 - a. Motion by Adams, second by Constantinide. Unanimous approval.
7. **Review of Action Items** – Robert (**Attachment B**)
 - a. #4: **Action Item #1:** Add CRC virtual vs. hybrid attendance to Regional Statistics spreadsheet
 - b. #5: **Action Item #2:** Add requirement to specify if DL visit was virtual, in-person, or hybrid
 - i. All virtual visits should be non-allocated
 - c. #8: Staff to Prepare plan for updated new member orientation
 - i. In the past we’ve hosted the new CTTC member orientation during the time that CTTC meets at the Annual Conference. After discussion during the 2022 Annual Conference in Toronto, we believe it would be more beneficial to host the new member training virtually prior to the Annual Conference, which would give the new committee members time to learn and review the information before the Annual Conference.
 - ii. The incoming CTTC members are typically decided in March or April, so we could set up the virtual new member orientation in May or early June.
8. **Remarks**
 - a. BOD Ex-Officio – Wei Sun
9. **Special Reports**
 - a. Certification Committee, Grant Page (**Attachment C**)
10. **Ad Hoc Reports**
 - a. DL Automation
 - i. Members: John (Chair), Grant, Abhi, Aru, Osama, Frank, Daniel Redmond
 - ii. Working with IT to finalize the digital DL form

- iii. Worked with the Nashville Chapter on the digital survey form. We need to work on getting that digital form directly to staff.
- a. Promoting Award Nominations and Technology Awards
 - i. Members: Chris (Chair), Mahroo, Frank, Liz, Grant, Janice, Abby
 - ii. New Technology Awards Nomination form being implemented this year – merged the previous short and long forms into one streamlined form
 - iii. Discussion on the value and optics of receiving second place
 - iv. How to increase the value of receiving a Technology Award, especially at the local level. Look at creating more of a buzz around the recipients when they are announced – put project profiles on the Tech Award page, use social media, Journal podcast
 - v. **Action Item #3:** The Operations Subcommittee will discuss font size requirements
- b. Decarbonization (**Attachment D**)
 - i. Members: Daniel Robert (Chair), Daniel Redmond, Andy, John, Abhi, Aru
 - ii. Start tracking flight miles for DLs at the Society level, and have chapters track flight miles for any other presenters
 - iii. **Action Item #4:** Does Society have a current offset program? What would be the cost to use the airline proposed offset program (ATC)?
 - 1. Society does not have a current offset program
 - 2. ATC: \$25 per 10k miles
 - iv. **Action Item #5:** Award Ad Hoc to add decarb element to Dan Mills Point Tally Form
 - v. **Action Item #6:** Modify CTTC CRC presentation to include decarb information
 - 1. Add CTTC CRC presentation updates to Operations Subcommittee responsibilities
 - vi. **Action Item #7:** Survey DLs to determine willingness to travel and feedback on decarb efforts
- 11. **Review of Regional Statistics** – Robert (**Attachment E**)
 - a. For chapter visits, track in-person vs. virtual. **Action Item #8:** Staff to update spreadsheet
 - i. What defines a chapter visit? Active participation. John will share his chapter visit check list on Basecamp.
 - b. Liaison contacts can be removed
- 12. **Liaison Talking Points** – Robert (**Attachment F**)
 - a. John to pull from this script to create talking point slides for RVCs to use at chapter visits

Full Committee Agenda – Saturday, February 4, 2023

1. **Call to Order** – Robert
2. **Roll Call/Introduction of Guests** – Robert
3. **ASHRAE Code of Ethics Commitment** – Robert
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5. **Review of Agenda** – Robert
6. **Special Reports**
 - a. Green Building Initiative (GBI), Vickie Worden (CEO & President)
 - i. GBI is collaborating with the ASHRAE Building EQ Committee on ways to feature the new Building EQ pathway as part of the Green Globes certification process.
7. **Subcommittee Reports**
 - a. Member Services – Reilman (**Attachment G**)
 - i. **Motion #1:** The DL Working Group recommends the removal of the following criterion from the DL Nomination Evaluation spreadsheet: “I watched the DL / nominee speak, and I give this rating.”
 1. Background: This criterion has hindered the DL evaluation process when using this form for the first time. Not all DLs know and have heard DLs present. Because of this inconsistency, the criterion was not considered in the previous DL evaluation. Passage of this motion would eliminate the criterion in column AG of the DL Evaluation Sheet tab and row 28 of the DL Evaluation Rules & Guidance tab. The CTTC Resource Manual would need to be updated to reflect the removal of this criterion.
 2. Financial Impact: Staff costs
 3. DL Working Group Vote: 4-0-0 CV. Full Committee vote: 18-0-0 CNV
 - ii. **Motion #2:** The DL Working Group recommends the following addition and changes to the DL Nomination Evaluation spreadsheet:
 - In the DL Evaluation Sheet tab, under the “Nomination / Update” group, add the following: In-Person, Virtual, & Hybrid Options
 - In the DL Evaluation Sheet tab, recalculate the “Complete Nomination / Update” category in the Bonus group to include the In-Person, Virtual, & Hybrid Options category
 - In the DL Evaluation Rules & Guidance tab, under the Nomination / Update Category, add the following: In-Person, Virtual, & Hybrid Options
 - In the DL Evaluation Rules & Guidance tab, in the Explanation column adjacent to the added In-Person, Virtual, & Hybrid Options category, add the following: For DLs and nominees, is there an indication that presentations can be made at in-person, virtual, and hybrid meetings?
 1. Background: In a post-COVID environment, North America chapters are moving back to in-person meetings, while a majority of chapters outside of North America are hosting both in-person, virtual, and hybrid meetings. This addition provides added transparency to Chapter-level CTTC Chairs when considering DLs for their Chapter meetings. The CTTC Resource Manual would need to be updated to reflect the removal of this criterion.

2. Financial Impact: Staff costs
3. DL Working Group Vote: 4-0-0 CV. Full Committee vote: 18-0-0 CNV
- iii. **Motion #3:** Add “Exemplary decarbonization recognition” after Award of Engineering Excellence to application page 1, 4th paragraph second sentence.
 1. Subcommittee vote: 7-0-0. Full committee vote: 18-0-0 CNV
 2. ASHRAE honors only buildings and industrial facilities or processes that are outstanding in design innovation. An award in a category is not given if entries do not meet the highest standards. The Award of Engineering Excellence is given at the judges’ discretion.
- iv. Motion voted on at subcommittee meeting: To reimburse travel for the Technology Award of Engineering Excellence recipient to attend the Plenary session. Vote: 7-0-0
 1. Abhi motion, John second for edited motion:
 - a. **Motion #4:** To reimburse transportation for the entrant (or one designated design team member from the award application) of the Technology Award of Engineering Excellence to attend the Plenary session starting with the 2024 Technology Awards.
 - i. Fiscal Impact: Approximately \$1,500 reimbursed per ASHRAE’s Transportation Policy
 - ii. Vote: 18-0-0 CNV
 - v. Motions to approve new DL roster, Dan Mills Chapter Programs Award recipient, and Donald A. Siller Refrigeration Award recipient. **EXECUTIVE SESSION**
- b. Operations – Redmond (**Attachment H**)
 - i. Discussion on venue sustainability plans for conference hotels. **Action Item #9:** Kenneth will take CTTC’s feedback to CEC.
8. **Status of 2022-23 MBOs** – Robert (**Attachment I**)
 - a. #7: **Action Item #10:** Member Services Subcommittee to discuss alternative day/time for the DL Mixer. Should it be moved to Saturday?
9. **New Business** – Robert
 - a. How to handle PDH requests submitted to CTTC
 - i. **Action Item #11:** Operations Subcommittee to research and provide feedback
 - b. Succession planning
 - i. The following positions will roll off at the end of this Society Year:
 1. Region V RVC (Aru Sau)
 2. Region VI (Liz Zakelj)
 3. Region VII (Grant Page)
 4. Region XI (Janice Peterson)
 5. Region XIV (Mahroo Eftekhari)
 6. Tech Hour Coordinator (Heric Holmes)
10. **Next Meeting** – 2023 ASHRAE Annual Conference in Tampa, Florida
11. **Adjournment**

Action Items assigned during the 2023 Winter Conference in Atlanta

No. – Pg.	Assignment	Status	Action
1 – 2	Staff	Complete	Add CRC attendance breakdown (virtual vs. in-person) to Regional Statistics spreadsheet
2 – 2	DL Working Group	Complete	Simplify wording for virtual, in-person, or hybrid DL visits on Participation Form
3 – 3	Member Services Subcommittee	Complete; it is the responsibility of the RVC to review submissions and check for font size; staff sent an email reminder to RVCs	Discuss font size requirements on Technology Award nominations
4 – 3	Staff	Complete; Society does not have an offset program aside from the option to donate to an outside company when booking through ATC	Does Society have a current decarbonization offset program? What would be the cost to use the airline proposed offset program (ATC)?
5 – 3	Award Ad Hoc	Complete; the point tally form already incorporates decarb elements	Add decarb element to the Dan Mills Point Tally Form
6 – 3	Operations Subcommittee	Complete; CRC PPT was available for Spring 2023 CRCs and will review annually after Winter Conference	Update CTTC CRC presentation and include decarb information
7 – 3	DL Working Group	Partially Complete	Survey DLs to determine willingness to travel and feedback on decarb efforts
8 – 3	Staff & John	Complete	Update Regional Statistics Spreadsheet to include virtual vs in-person chapter visits and remove liaison contacts. John to share his chapter visit check list on Basecamp.
9 – 5	Kenneth	Complete; there is not a written sustainability plan, but CEC does look at sustainability when booking hotels	Take CTTC's feedback regarding hotel sustainability to CEC
10 – 5	Member Services Subcommittee	Complete; will keep at the same day/time	Discuss alternative day/time for the DL Mixer
11 – 5	Operations Subcommittee	Complete; CTTC provides a certificate of attendance, but any reporting is the responsibility of the user. Tech Hour PDHs are only applicable to that Tech Hour presentation.	Research and provide feedback on how to handle PDH requests submitted to CTTC

Motion presented by Larry Smith:

The Ops committee recommends Tech Council create a “World of Tech @ ASHRAE” committee to disseminate information on ASHRAE’s technical activities throughout our entire membership.

Background:

The technical activities of ASHRAE are experiencing a diminishing volunteer workforce that is aging, retiring, changing careers, and/or burn out. In addition, we are experiencing the absence of practicing engineers and academics due to the economic business climate. The challenge is how to increase and invigorate the technical volunteer resource pool to generate more and better technical work products. A larger resource pool of qualified volunteers will have a long-term favorable impact on Standards, Research, Handbooks, Functional Groups, and Programs to name a few.

The Chapter Technology Transfer Committee (CTTC) currently provides programs to bridge this gap:

1. Distinguished Lecturer Program,
2. Tech Hour, and
3. Program Resources (eLearning and Presentations).

However, outside of CTTC, there does not exist a gateway for the technical side of ASHRAE to speak directly to the members of ASHRAE with the aspiration of member engagement.

This motion would undertake the following monthly actions :

1. Produce a 5-minute video highlighting no more than 4 aspects of the World of Tech @ ASHRAE. For example, a new Standard, a current research project, and a Functional Group. This video would be posted on the ASHRAE website and pushed out to CTTC to encourage members to view at their monthly meetings.
2. Publish a 1-page article in the ASHRAE Journal highlighting the 90-120 second video with additional information.
3. Engage social media channels as a communication bridge between the technical and members sides of ASHRAE.

Benefits:

1. Attracting more members to participate in the technical aspects of ASHRAE.
2. Improving the brand of ASHRAE as an important technical resource.
3. Increase the engagement of the ASHRAE membership.
4. Increase the value of ASHRAE membership.

Staff impact:

Ask Stephanie

Financial impact:

None. Membership would be comprised of existing TAC, Standards, Handbook, Programs, and RAC membership so no extra travel will be required.

Implementation

1. Larry Smith is willing to devote his time to kick-start this initiative on a short-term basis.
2. Staff, minimum budget, and volunteers will be required to sustain this initiative on a long-term basis.



JUNE, 2023

ASHRAE CERTIFICATION: Information Chapters & Members Need

- ✓ Earn 100 and 50 PAOE points, respectively, for Member certification and recertification
- ✓ Need a Certification PAOE point chapter report for the Society Year? Contact Anastasia Meadows, Chapter Programs Coordinator at AMeadows@ashrae.org

NEW! Developments

- ✓ ASHRAE Full Members now may select one of three ASHRAE Certification Exam Study Guide PDFs as their ASHRAE Benefit selection, when they renew their Membership:
- [Certification Study Guide: Certified HVAC Designer \(CHD\)](#)
- [Certification Study Guide: Building Commissioning Professional \(BCxP\)](#)
- [Certification Study Guide: Building Energy Modeling Professional \(BEMP\)](#)
- ✓ **25% Application Discount through July 31: Test Sept. 1 – Nov. 30**

Recent Developments

- **Certification Study Guide: [Building Commissioning Professional](#) (BCxP)**
- **Over 1,000 [Test Center Locations](#) Worldwide**
- **“Certification” [Presentation](#) for Chapter Meeting Delivery**
- **“Certification” Articles in “Chapter Notes” Monthly Newsletter**



How can ASHRAE Certification help Chapters and Members?

Value for Chapters

- ✓ Grow Chapter membership | **Increase participation at education events.** Certificants need PDHs!
- ✓ **Earn 100 and 50 PAOE points**, respectively, for Member certification and recertification.

Value for Chapter Members

- ✓ **Validation** of specialized job knowledge, skills and ability
- ✓ Unparalleled **recognition** | **Career development**

Over **3,500 ASHRAE certifications** earned by built-environment professionals in these key jobs:

Commissioning Energy Auditing Energy Modeling HVAC Design
Healthcare Facility Design High-Performance Building Design

For assistance, including requests for promotional materials, please contact Tim Kline at tkline@ashrae.org.

Summary of CTTC Regional Statistics 2023 ASHRAE Annual Conference

ACTIVITY	Reg. I	Reg. II	Reg. III	Reg. IV	Reg. V	Reg. VI	Reg. VII	Reg. VIII	Reg. IX	Reg. X	Reg. XI	Reg. XII	Reg. XIII	Reg. XIV	RAL	Society Average/Sum
CRC (2023 calendar year)																
Total number of chapters in region	15	9	11	7	12	11	14	15	13	14	11	16	10	8	32	198
Total number of sections in Region	0	0	1	4	1	3	0	3	4	2	3	6	5	3	3	38
Number of chapters present								5			8					13
Number of CTT chapter chairs or co-chairs present in-person								2			5					7
Number of CTT chapter chairs or co-chairs present virtually								0			0					0
Percentage of chapter participation	0%	0%	0%	0%	0%	0%	0%	33%	0%	0%	73%	0%	0%	0%	0%	7%
Percentage of CTT chapter chair participation	0%	0%	0%	0%	0%	0%	0%	13%	0%	0%	45%	0%	0%	0%	0%	4%
CRC Workshop Evaluation Summary Completed																0
PAOE - Will be completed after July 15																
No. of Chapters Reporting PAOE Points:																0
No. of Chapters Making Society Minimum (550):																0
No. of Chapters Making Society PAR (1050):																0
No. of planning sessions held																0
No. of Chapters Reporting TC Presentations																0
Highest PAOE Points by a Chapter:																0
Percentage of chapters reporting	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.0%
Percentage of chapters making Society Minimum	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.0%
Percentage of chapters making Society PAR	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.0%
DISTINGUISHED LECTURERS																
Number of Allocations	17	10	14	8	11	14	10	15	13	15	12	13	10	8	22	192
Number of allocations used	6	5	3	3	7	8	3	8	12	12	3	5	10	8	15	108
Number of common pool visits used	8	4	1	5	7	5	9	4	11	3	2	3	3	7	10	82
Number of Multi-Chapter visits	0	0	0	0	1	1	0	4	0	0	1	2	3	2	2	16
Number of chapters hosting (inc. pool/multi visits)	15	9	11	7	12	11	14	15	13	14	11	16	10	9	32	199
Percentage of chapters hosting	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	113%	100%	100.8%
Percentage of used allocations	35%	50%	21%	38%	64%	57%	30%	53%	92%	80%	25%	38%	100%	100%	68%	56.8%
Total percentage of use:	82%	90%	29%	100%	127%	93%	120%	80%	177%	100%	42%	62%	130%	188%	114%	99%
Number of non-allocated visits	5	0	11	6	2	8	4	4	10	5	6	10	1	3	33	108
Total number of in-person visits	18	9	12	14	16	21	15	15	29	18	10	15	13	16	49	270
Total number virtual visits	1		3				1	1	4	2	1	3	1	2	9	28
Total number of DL visits	19	9	15	14	16	21	16	16	33	20	11	18	14	18	58	298
CHAPTER VISITS																
Number of in-person chapter visits made:	1	6	3	0		2	0	1	1	3	2	3	4	2	2	30
Number of virtual chapter visits made:			0	3				5		0		0	2		18	
Percentage of chapters visited:	7%	67%	27%	43%	0%	18%	0%	40%	8%	21%	18%	19%	60%	25%	63%	28%
CTTC AWARDS (Fall 2022)																
Dan Mills Chapter Programs Award	0	1	1	1	0	0	0	1	1	0	0	1	0	0	0	6
Donald A. Siller REF Award	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Technology Awards: Number of Regional Entries	1	7	6	3		16	6	3	0	6	9	4	5	0	0	66
Technology Awards: Number of Society Entries	1	5	2	0	4	6	3	0	0	5	4	1	4	0	0	35

ASHRAE CTTC SCRIPT FOR LIAISON INTRODUCTION

Sample script that a CTTC RVC can use to introduce CTTC to one of the Technical Committees, whether during the Sunday morning TC Chair meeting or one of the subcommittees. Each RVC should feel free to customize as they see fit.

Hello, I am the CTTC Liaison for your committee. Before I give you an update on our activities, I would like to ask a quick question. Aside from DLs in this room, how many of you are aware of what the CTT Committee's activities are? *(Most likely very few are)*

In the Chapter Technology Transfer Committee, or CTTC, we are responsible for enhancing the communication on technical issues between the chapters and Society. We do this through multiple programs that ASHRAE offers.

To enhance the flow of information from Society to chapters, CTTC focuses on three programs: the Distinguished Lecturer, or DL, program, Tech Hour, and the training of chapter-level CTTC Chairs. The DL program offers quality, recognized speakers for the chapters for a low cost. Tech Hours, the successor of the annual Webcast, provide 1-hour technical discussions that can be used for Chapter seminars and Professional Development Hours. Finally, chapter-level CTTC Chair training ensures that chapters are providing quality programs for local ASHRAE memberships.

To facilitate the flow of technical information from chapters to Society, CTTC also has three programs. The first is the Technology Awards, which recognizes excellent projects that our members have been involved in. Additionally, we promote Technical Committee membership to Chapter members. Lastly, we encourage Chapter members to collaborate on handbook chapter reviews.

I very much appreciate your time, as you have a lot on your plate this morning. I am available for questions if you have any now. Here is also my e-mail in case questions come to mind later. *(Hand out your e-mail address)*

CTTC LIAISON TALKING POINTS

- 2022-23 Tech Hours –
 - Tech Hours were implemented in 2020 to replace the annual Webcast and they provide a 1-hour technical discussion that can be used for PDHs.
 - We plan on releasing the following Tech Hour topics this Society Year:
 - Decarbonization
 - Refrigeration
 - www.ashrae.org/techhour
- 2022-23 DL Program
 - 71 lecturers
 - Representing 12 countries
 - Total of 11 different languages spoken
 - Multiple presentations approved for continuing education credits
 - Visit CTTC webpage for details
- Technology Awards – Encourage project entry at the TC and Chapter level
 - Regional Deadline – Check with your RVC
 - Society Deadline – September 1st
- Questions for the audience
 - What information can be taken from your TC/Committee to the Chapters?
 - What can CTTC assist your TC/Committee with?



Agenda
CTTC Member Services Subcommittee

Friday, June 23, 2023			
Member Services Subcommittee	1:00pm – 5:00pm	Tampa Marriott Waterside, Meeting Room 11 (3)	Hybrid

Action Items from the 2022 Annual Conference in Toronto:

No.	Assignment	Status	Action
1	Staff	In progress; pending beta test	Staff to continue to work with IT on testing the digital DL form (DL Participation Form and Evaluation Form)

Action Items from the 2023 Winter Conference in Atlanta:

3	Award Ad Hoc	Complete	Add decarb element to the Dan Mills Point Tally Form
4	DL Working Group	Pending	Survey DLs to determine willingness to travel and feedback on decarb efforts

Action Items from this Meeting:

No. - Pg.	Assignment	Action Item
1 – 2	Abhi & John	Determine next steps for DL mixer video footage

Motions:

No. - Pg.	Motion	Vote
1 – 2	The DL Working Group recommends the following addition to the DL Evaluation spreadsheet...	6-0-0 CNV
2 – 2	Add “decarb program” to Item C in the Dan Mills Award points criteria section.	6-0-0 CNV

1. **Call to Order** – Reilman
2. **Roll Call** – Reilman
 - a. Subcommittee Members: Andy (Chair), Chris, Abigail, John, Grant, Janice, Thiago, Abhi
3. **ASHRAE Code of Ethics Commitment** – Reilman
In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, inclusiveness and respect for others, which exemplify our core values of excellence, commitment, integrity, collaboration, volunteerism and diversity, and we shall avoid all real or perceived conflicts of interests.
4. **ASHRAE Diversity Commitment** – Reilman
ASHRAE is committed to providing a welcoming environment. Our culture is one of inclusiveness, acknowledging the inherent value and dignity of each individual. We proactively pursue and celebrate diverse and inclusive communities understanding that doing so fuels better, more creative and more thoughtful ideas, solutions and strategies for the Society and for the communities our Society serves. We respect and welcome all people regardless of age, gender,

ethnicity, physical appearance, thought styles, religion, nationality, socio-economic status, belief systems, sexual orientation or education.

5. **Review of Agenda and Previous Meeting Minutes (Attachment A)** – Reilman

6. **Action Items**

7. **DL Program**

- a. ASHRAE completed the [digital DL Participation Form](#) and is testing in preparation for a July 1 launch. ASHRAE IT is finalizing the digital DL Evaluation Form based on beta use feedback.
- b. DL Orientation was successful with nearly all new DLs participating.
- c. DL Nomination Virtual Interest Session will be scheduled for June or July.
- d. The DL Evaluation spreadsheet was updated to offer bonus points for DLs who have presented a CTTC Tech Hour.
- e. We previously discussed the option of moving the DL Mixer to a later day during the Winter Conference, but ultimately decided to keep it on Fridays from 5:15-6:30pm. For the next mixer we will offer drink tickets and no food to avoid food waste.
- f. **Action Item #1:** Abhi & John to determine next steps for DL mixer video footage.
- g. **Motion #1:** The DL Working Group recommends the following addition to the DL Evaluation spreadsheet:
 - i. In the DL Evaluation Sheet tab, under the “Bonus” group, add the following: Tech Hour Presenter.
 1. Make this category worth 1 point.
 - ii. In the DL Evaluation Rules & Guidance tab, under the "Evaluation Grading Category" grouping, add the following: Tech Hour Presenter.
 - iii. In the DL Evaluation Rules & Guidance tab, in the Explanation column adjacent to the added Tech Hour Presenter category, add the following: Has the DL or nominee been an ASHRAE Tech Hour presenter?
 1. Background: As a way to further highlight the DL Program and utilize the expertise of our DLs to enhance the CTTC Tech Hour, adding a bonus point to DLs' grades for those DLs that presented a Tech Hour will encourage more DLs to present in CTTC Tech Hours. This is also a great way for nominees to compete to join the DL program by being a Tech Hour presenter.
 2. Financial Impact: Staff costs to update documentation.
 3. Vote: DL Working Group: 4-0-0 CV, Member Services Subcommittee: 6-0-0 CNV

8. **Technology Awards**

- a. The Society-level deadline is September 1.
- b. RVCs, please review the font size on your Region's entries. The application form states the following requirements: font size 12, double-spaced, 1-inch margins, 8.5x11 inch paper. There were issues last year with entries using a smaller font to fit more information on a nomination.
- c. CTTC is recommending to H&A to add a point option to the DSA/ESA point ally form for those who have served on the Society-level Technology Award judging panel.

9. **CTTC Awards**

- a. The Dan Mills Chapter Programs Award and the Donald A. Siller Refrigeration Award have a September 30 deadline.
- b. For the current 2022-23 SY, we received six Dan Mills nominations and one Donald Siller nomination.
- c. The Refrigeration Committee is working to update the Milton Garland nomination form.
- d. **Motion:** Add “decarb program” to Item C in the Dan Mills Award points criteria section.
 - i. Background: Will be worth 10 points

- ii. Moved by John, Second by Janice
- iii. Passed Unanimous Chair not voting

10. Ad Hocs

- a. DL Automation Ad Hoc
 - i. Members: John (Chair), Grant, Abhi, Aru, Osama, Frank, Daniel Redmond
- b. Promoting Award Nominations and Technology Awards Ad Hoc
 - i. Members: Chris (Chair), Mahroo, Frank, Liz, Grant, Janice, Abby



**Minutes
CTTC Operations Subcommittee**

Friday, June 23, 2023			
Operations Subcommittee	1:00pm – 5:00pm	Tampa Marriott Waterside, Meeting Room 12 (3)	Hybrid

Action Items from 2023 Winter Conference in Atlanta:

No.	Assignment	Status	Action
2	Staff	Pending	Work with the web team to update and reformat the CTTC webpages

Action Items from this meeting:

No. - Pg.	Assignment	Action Item
1 – 2	Staff	Distribute Mick's slides for review
2 – 2	Staff	Make sure Tech Hours are available on the ASHRAE 365 app
3 – 2	Staff	Add the CRC PPT to Basecamp
4 – 2	DL Working Group	Research how to encourage more collaboration with DLs beyond CTTC

1. **Call to Order** – Redmond
2. **Roll Call** – Redmond
 - a. Subcommittee Members: Daniel Redmond (Chair), Matt, Tyler, Heric, Liz, Osama, Siva, Frank
 - b. Incoming Subcommittee Members: Matthew Klok
 - c. Subcommittee Members Not Present: Aru, Kenneth
 - d. Other Attendees: Rhiannon Masterson
3. **ASHRAE Code of Ethics Commitment** – Redmond
In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, inclusiveness and respect for others, which exemplify our core values of excellence, commitment, integrity, collaboration, volunteerism and diversity, and we shall avoid all real or perceived conflicts of interests.
4. **ASHRAE Diversity Commitment** – Redmond
ASHRAE is committed to providing a welcoming environment. Our culture is one of inclusiveness, acknowledging the inherent value and dignity of each individual. We proactively pursue and celebrate diverse and inclusive communities understanding that doing so fuels better, more creative and more thoughtful ideas, solutions and strategies for the Society and for the communities our Society serves. We respect and welcome all people regardless of age, gender, ethnicity, physical appearance, thought styles, religion, nationality, socio-economic status, belief systems, sexual orientation or education.
5. **Review of Agenda and Previous Meeting Minutes (Attachment A)** – Redmond
6. **Action Items**

- a. #2: Staff will work with the web team following the Annual Conference on the CTTC webpage reformatting
- 7. **Tech Hour**
 - a. The Tech Hour Working Group (Heric, Frank, Abhi, Liz, Tyler) met multiple times since the start of the Society Year.
 - i. Completed Tech Hours:
 - 1. Hospital Decarbonization with Walt Vernon – went live February 23
 - 2. Emotional Intelligence with Karine Leblanc – went live May 23
 - ii. Tech Hours to record:
 - 1. Building Decarbonization with Mick Schwedler – scheduled to record virtually on July 20.
 - a. **Action Item #1:** Staff to distribute Mick’s slides for review
 - 2. The Fraternal Twins of Decarbonization with Erin McConahey – trying to schedule a July virtual recording.
 - b. **Action Item #2:** Staff to make sure Tech Hours are available on the ASHRAE 365 app.
 - c. Heric will work on a transition process for Liz to take over in 23-24.
 - d. Look at recording Tech Hours at the Winter Conference. We would want to record at least two Tech Hours to make it worth the cost of bringing in the producer to the conference.
- 8. **Chapter Notes Newsletter**
 - a. We had an eLearning article in February from Liz and a decarb article in March from Mick Schwedler
- 9. **MOP & Resource Manual Updates**
 - a. At the 2023 Winter Conference we agreed to eliminate the CTTC Resource Manual and make sure that any information is included on the CTTC webpages. Staff will work on this with ASHRAE’s web team. Tied to action item #2.
- 10. **CTTC CRC Presentation**
 - a. This group met on March 28 to review and update the CTTC CRC presentation, which has been posted to the CTTC CRC Workshop Materials webpage.
 - b. Continue to review the CRC PPT after every Winter Conference.
 - c. **Action Item #3:** add the CRC PPT to Basecamp
- 11. **PAOE**
 - a. As discussed at our mid-year call, the 2nd Vice Chair will continue to serve as the PAOE representative for Members Council.
- 12. **New Business**
 - a. Getting CTTC RVCs more involved with DL visits are scheduled
 - b. Should we get notifying other RVCs within the region when a DL is coming and presenting a certain topic?
 - i. For example, when a decarbonization topic is scheduled Staff can reach out to that Region’s GAC RVC, SA RVC, and DRC to get them involved
 - c. **Action Item #4:** DL Working Group to research how to encourage more collaboration with DLs beyond CTTC

Management by Objectives (MBOs)

Chapter Technology Transfer Committee | ASHRAE Society Year 22-23 | Daniel Robert, Chair

MBO	Status	Due Date	Assigned To	ASHRAE Strategic Plan	MBO Comments
1. Complete four Tech Hour recordings and broadcast a minimum of three during the year.	Partially Complete: recorded & broadcast 2	June 2023	Operations Subcommittee, Tech Hour Working Group, RVCs	1, 2, 3	To continue to develop the ASHRAE Tech Hour program to deliver multiple relevant and innovative Tech Hour programs during the 22-23 SY.
2. Continue to work towards reaching a fully operational DL platform that covers DL requests, approval, evaluation, and logging capabilities with a long-term vision of having this platform available to all chapter presenters.	Complete and ongoing: continue to work with IT	June 2023	Member Services Subcommittee, DL Automation Ad Hoc	3	The current DL operations includes inefficient manual DL forms for the request, approval, and evaluation process. The digital platform should greatly help minimize this by help managing all this online. Once the DL version is under operation, the plan would be to gather the info of all the speakers invited at Chapter events and share valuable info amongst all chapters.
3. Work with all RVCs to increase the number of Technology Awards submissions, both regionally and at the Society level.	Incomplete	June 2023	RVCs	4	Each chapter should have at least one submission to the regional level. Increase the overall number of Society submissions by 25% (compared to 21-22). At least one submission to Society from these areas: Region VIII (Mexico), Region XII (Caribbean, Central/South America), Region XIII, Region XIV, and RAL.
4. Enroll a minimum of four TC members as Distinguished Lecturers (DLs).	Complete; 16 new & approx. 57 existing	January 2023	Member Services Subcommittee	1, 2, 4	There has always been a gap between TC members and Chapter members. By getting TC members to participate in the DL program, we will reduce the gap between both entities and allow a greater diffusion of knowledge.
5. Conduct two mid-year virtual subcommittee meetings per year.	Complete	Fall 2022, Spring 2023	Operations and Member Services Subcommittees	3	We will continue to enhance CTTC communications to ensure we are all meeting our goals in a timely manner.
6. Work toward reducing our carbon footprint while continuing to provide member benefits and services.	Ongoing	June 2023	All Subcommittees	4	ASHRAE is promoting decarbonization to reduce GHG. CTTC needs to embrace this and find ways to reduce our carbon footprint, which shows everyone that we not only promote decarbonization, but we are doing our best to practice it.
7. Reestablish the DL mixer at the 2023 Winter Conference in Atlanta with the target of having 50% or more of DLs present.	Complete; 50% attendance	February 2023	Member Services Subcommittee	3, 4	The DL mixer started about five years ago at Winter Conferences and was put on hold due to the pandemic. This event allows CTTC members and DLs to get together to socialize and discuss ideas for the DL program.
8. Increase submissions for the Dan Mills Chapter Programs Award and the Donald A. Siller Refrigeration Award (at least one submission from each Region for Mills and three submissions for Siller).	Incomplete	November 2022	Member Services Subcommittee, RVCs	4	Interest for these awards is declining. CTTC will review the submittal form and required points. RVCs will play an active role in seeking out qualified candidates.

*ASHRAE Strategic Plan Initiatives – 1: Resilient Buildings and Communities, 2: Indoor Environmental Quality, 3: Organizational Streamlining, 4: Improve Chapter Engagement, Capacity and Support

Management by Objectives (MBOs)
Chapter Technology Transfer Committee
ASHRAE Society Year 2023-2024
Andrew Reilman, Chair

MBO	STATUS	Due Date	Assigned To	ASHRAE Strategic Plan	MBO Comments
1. Encourage recruitment of diverse representation in Chairs and RVCs with quarterly email to Chapter Presidents, CTTC Chairs and RVCs	New	June 2024	Staff, Members SVCs	4	Diverse representation results in proactive outreach. CTTC can provide a quarterly email flyer that Chapters can forward to their membership to promote awareness that Grassroot Committees are actively seeking members of underrepresented groups from our community.
2. Ensure that 100% of Regions report their regional statistics and give time to review and discuss challenges, achievements and trends.	New	Fall 2023, Spring 2024	RVCs, Operations	3, 4	Statistics for PAOE and other Regional data provide a valuable metric for evaluating the health of Chapter operations. Recent years have shown a decline in consistent reporting.
3. At least 50% of Chapter Programs (including DL) use electronic eval form.	Ongoing	Fall 2023, Spring 2024	RVCs, Chairs, Members Services	3, 4	The newly developed electronic form and process needs more promotion, testing and fine-tuning.
4. Work with RVCs to solicit Donald Siller Refrigeration awards submission.	New	June 2024	RVCs, Members Services	1, 2, 4	Current, major, changes in refrigerant technology and regulation have a significant effect on members. Promotion of refrigeration activities and recognition through awards will highlight the need for tech transfer related to the "R" in ASHRAE.
5. Complete four Tech Hour recordings and broadcast a minimum of three during the year. At least one non-technical topic and one decarbonization topic.	Ongoing	June 2024	Operations Subcommittee, Tech Hour Working Group, RVCs	1, 2, 3	To continue to develop the ASHRAE Tech Hour program to deliver multiple relevant and innovative Tech Hour programs during the 23-24 SY.
6. Work toward reducing our carbon footprint while continuing to provide member benefits and services.	Ongoing	June 2024	All Subcommittees	4	ASHRAE is promoting decarbonization to reduce GHG. CTTC needs to embrace this and find ways to reduce our carbon footprint, which shows everyone that we not only promote decarbonization, but we are doing our best to practice it.
7. Work with all RVCs to increase the number of Technology Awards submissions, both regionally and at the Society level.	Ongoing	June 2024	RVCs	4	Each chapter should have at least one submission to the regional level. At least one submission to Society from these areas: Region VIII (Mexico), Region XII (Caribbean, Central/South America), Region XIII, Region XIV, and RAL.

8. Conduct two mid-year virtual subcommittee meetings per year.	Ongoing	Fall 2023, Spring 2024	Operations and Member Services Subcommittees	3	This has shown to be a very valuable practice and has resulted in more rapid completion of CTTC initiatives. We will continue to enhance CTTC communications to ensure we are all meeting our goals in a timely manner.
9. Work with all chapters to appoint at least one CTTC Co-Chair (vice-chair) per chapter (Target: at least 80% of chapters)	Ongoing	June 2024	All RVCs	4	Many other MBOs and initiatives are reliant on enough volunteers to share the tasks. Work with all chapters to appoint at least one CTTC Co-Chair (vice-chair) per chapter (Target: at least 80% of chapters)

*ASHRAE Strategic Plan Initiatives – 1: Resilient Buildings and Communities, 2: Indoor Environmental Quality, 3: Organizational Streamlining, 4: Improve Chapter Engagement, Capacity and Support

2023-2024
Chapter Technology Transfer Committee (CTTC)
Assignments

Member Services Subcommittee

Daniel Redmond – Chair
John Constantinide
Christopher Adams
Abigail Brophy
Thiago Corrêa Fonseca Portes
Abhi Khurana
Osama Atef Khayata
Frank Rivera
Matthew Klok
Matt Parkes

Distinguished Lecturer Working Group John Constantinide – Chair Abhi Khurana Abby Brophy Osama Atef Khayata Frank Rivera Matthew Klok	Dan Mills Chapter Programs Award Working Group Abhi Khurana – Chair Thiago Corrêa Fonseca Portes Conor Murray	Donald A. Siller Refrigeration Award Working Group Christopher Adams – Chair Matthew Klok Matt Parkes
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Operations Subcommittee

Heric Holmes – Chair
Liz Zakelj
Matt Archey
Tyler Bradshaw
Kenneth Shifflett
Sivakumar Gadam
Eric Johansen
Kevin Muldoon
Conor Murray

Tech Hour Working Group Liz Zakelj – Chair Frank Rivera Abhi Khurana Tyler Bradshaw Eric Johansen Conor Murray	PAOE Working Group Heric Holmes – Chair Matt Archey
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Technology Awards Judging Panel

Member	Position
Charles Bertuch	Chair
Spencer Morasch	Region I Representative
TBD	Region II Representative
Tyler Berry	Region III Representative
Chris Adams	Region IV Representative
Mahroo Eftekhari	Region XIV Representative
Krishnan Gowri	Technology Council Representative
Roland Charneux	CTTC Chair's Choice

Council/Committee Liaisons

Members Council	Andy Reilman
Members Council PAOE Subcommittee	Heric Holmes
Building EQ	John Constantinide
Technical Activities Committee	John Constantinide

Mentors

Incoming CTTC Member	Mentor
Matthew Klok, Region V	Abby Brophy
Eric Johansen, Region VI	Heric Holmes
Kevin Muldoon, Region VII	Daniel Redmond
Matt Parkes, Region XI	Andy Reilman
Conor Murray, Region XIV	John Constantinide

Ad Hoc Committees

Promoting Award Nominations & Technology Awards

Chris Adams – Chair
Frank Rivera
Liz Zakelj
Abby Brophy



Leadership Presentation

2023 ASHRAE Annual Conference

By CTTC ExO

ASHRAE Policies



Code of Ethics

"We will act with honesty, fairness, courtesy, competence, inclusiveness and respect for others, which exemplify our core values of excellence, commitment, integrity, collaboration, volunteerism and diversity, and we shall avoid all real or perceived conflicts of interest."

Harassment and Discrimination Policy

ASHRAE strictly prohibits and does not tolerate discrimination against members or applicants for membership because of such individual's race, color, religion, age, sex, sexual orientation, national origin, physical or mental disability, pregnancy, genetic information, veteran status, uniformed service member status, or any other category protected under applicable law.

Commercialism

ASHRAE's Commercialism Policy allows for Society activities that fulfill the mission of technological advancement with adherence to business plans that generate income to offset operational expenses such as AHR Exposition, ASHRAE periodicals, website, and Society conference events such as the Welcome Party, luncheons, registration kits, and receptions.

[ashrae.org/commercialism](https://www.ashrae.org/commercialism)

View ASHRAE Governing Documents at [ashrae.org/about/governance](https://www.ashrae.org/about/governance)



ASHRAE Appreciates You & Your Employer!

2022-23 ASHRAE President Farooq Mehboob would like to thank your employer for supporting your volunteer contributions over the last year.

Please carefully fill out the form to have a message of gratitude immediately sent to your employer, from the ASHRAE President.

Login is required. **Submit by August 12.**



Questions? Contact boardservices@ashrae.org.



2023-24 Board of Directors

Executive Committee



President



Ginger Scoggins, P.E.
Fellow ASHRAE,
Raleigh,
North Carolina

President-Elect



Dennis Knight, P.E.
Fellow ASHRAE
Mt. Pleasant
South Carolina

Treasurer



Bill McQuade, P.E.
Fellow ASHRAE
Jessup,
Maryland

Secretary



Jeff Littleton
Peachtree
Corners, Georgia

Vice Presidents



Billy Austin, P.E.
Fellow ASHRAE,
BCxP, BEAP, BEMP,
HBDP, HFDP, OPMP
Charlotte, North
Carolina



Ashish Rakheja,
Noida, Uttar Pradesh,
India



Wade Conlan, P.E.
BCxP, CxA
Maitland, Florida



Chandra Sekhar, Ph.D.,
CPEng.
Fellow ASHRAE
Singapore

2023-24 Board of Directors

Director and Regional Chairs



Region I



Steven C. Sill
Sterling, New York

Region II



Ronald Gagnon
Quebec, Canada

Region III



Mark Tome, P.E., HFDP
Harrisburg, Pennsylvania

Region IV



Bryan Holcomb
Oak Ridge, North Carolina

Region V



James Arnold, P.E.
Dublin, Ohio

Region VI



Susanna Hanson
La Crosse, Wisconsin

Region VII



Scott Peach, P.E.
Mobile, Alabama

Region VIII



Joseph Sanders
Oklahoma City, Oklahoma

Region IX



Jonathan Smith, P.E.
Lenexa, Kansas

Region X



Buzz Wright, P.E.
Tucson, Arizona

Region XI



Eileen Jensen, P.E.
Vancouver, Washington

Region XII



John Constantinide, P.E.,
Merritt Island, Florida

Region XIII



Cheng Wee Leong, P.E.,
Singapore

Region XIV



Mahroo Eftekhari, C.Eng., CDPHil
Loughborough, England

Region-at-Large



Richie Mittal
New Delhi, India

2023-24 Board of Directors

Directors-at-large



Doug Cochrane, P.Eng.
Mississauga, Ontario, Canada



Blake Ellis, P.E.
Overland Park, Kansas



Dru Crawley, Ph.D., BEMP
Washington, D.C.



Corey Metzger, P.E.
Ames, Iowa



Art Giesler
Colleyville, Texas



Wei Sun, P.E.
Ann Arbor, Michigan



Kishor Khankari, Ph.D.
Ann Arbor, Michigan



Luke Leung, P.E.
Clarendon Hills, Illinois



Heather Schoppelin-Anderson, P.E.
Santee, California

Diversity, Equity, & Inclusion (DEI) in ASHRAE



Members



Kishor Khankari
(Chair)



Susanna Hanson
(Vice Chair)



Devin Abellon



Mahroo Eftekhari



Bill Cheng Wee Leong



Dunstan Macauley



Heather Schopplein-Anderson



Jonathan Smith



Tanisha Meyers-Lisle
(Staff Liaison)

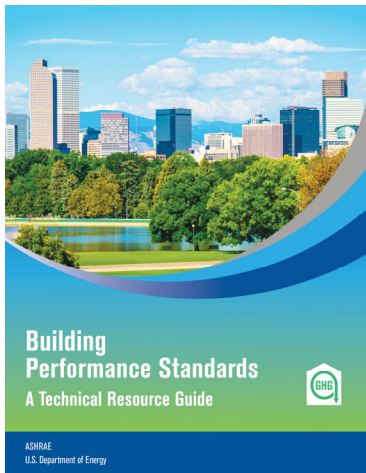
Purpose

Provides recommendations and advice to the Board of Directors on the following:

- Matters relating to improving organizational awareness and performance relating to DEI amongst both staff and the Society membership.
- Develop a DEI strategic plan and annual budgets for the program.
- Recommend policies to increase and improve inclusion within ASHRAE and the HVAC&R Industry and help the Society meets its commitments to fairness and equal opportunities.

Resources Available at [ashrae.org/dei](https://www.ashrae.org/dei)

Task Force for Building Decarbonization



Download the guide
[ashrae.org/decarb](https://www.ashrae.org/decarb)

Through its Working Groups with over 100 volunteers from around the world the **Task Force For Building Decarbonization** (TFBD) is working to implement strategy, direction, and successful products and services for the industry relating to building decarbonization.

Products and Services Include:

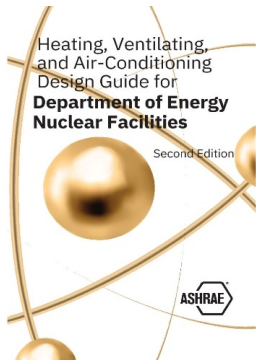
- Seven Guides
- Creating content for a Knowledge Hub
- Establishing relevant training & education



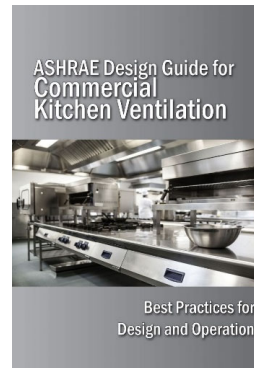
[ashrae.org/decarb](https://www.ashrae.org/decarb)

Publications

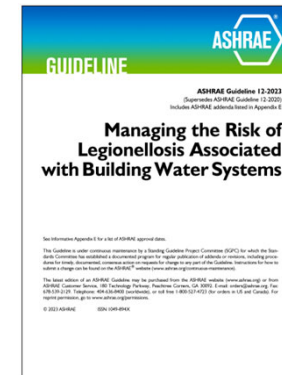
Recently published items available at [ashrae.org/bookstore](https://www.ashrae.org/bookstore)



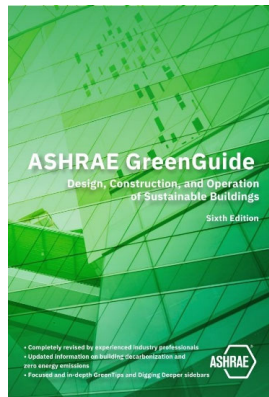
Heating, Ventilating, and Air-Conditioning Design Guide for Department of Energy Nuclear Facilities, Second Edition



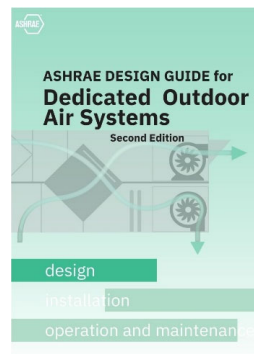
ASHRAE Design Guide for Commercial Kitchen Ventilation: Best Practices for Design and Operation



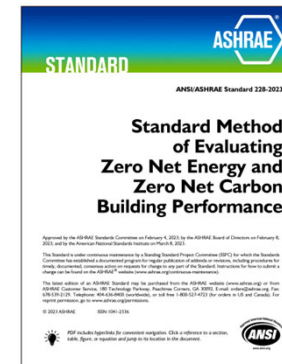
ASHRAE Guideline 12-2023, Managing the Risk of Legionellosis Associated with Building Water Systems



ASHRAE GreenGuide: Design, Construction, and Operation of Sustainable Buildings, Sixth Edition



ASHRAE Design Guide for Dedicated Outdoor Air Systems, Second Edition



Standard 228-2023, Standard Method of Evaluating Zero Net Energy and Zero Net Carbon Building Performance

Society Snapshot

Download the Snapshot at ashrae.org/society-snapshot



TECHNOLOGY

21
STANDARDS & GUIDELINES
PUBLISHED

39 ACTIVE
PROJECTS
4 COMPLETED
PROJECTS

3,800+
TOTAL TECHNICAL
INQUIRIES

MEMBER SERVICES

ASHRAE CONFERENCES



53,000
TOTAL SOCIETY MEMBERS
+1,200 from previous
membership year

198
TOTAL
CHAPTERS

282 (Virtual and
In-Person)
DISTINGUISHED
LECTURER VISITS

450
STUDENT
BRANCHES

PUBLISHING AND EDUCATION

23
NEW PUBLICATIONS

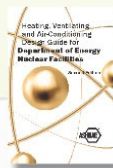
9,680
COURSE ATTENDEES

243
COURSE INVENTORY

145
TOTAL EDUCATION
COURSES PRESENTED

280
HOURS OF TRAINING
IN eLEARNING PORTAL

2,000
CERTIFICATIONS
HELD



Printed on 100% recycled paper

DEVELOPMENT

Forecasted SY 22-23 Results RP CAMPAIGN TOTAL

\$2.6M

WITHIN THE RP CAMPAIGN
\$2M RAISED FOR
RESEARCH

\$15,000 RAISED
FOR YEA

\$29,000 RAISED
FOR EDUCATION

\$2.9M TOTAL
RAISED

\$8,900 RAISED FOR
DECARBONIZATION EFFORTS

\$45,000 TOTAL
RAISED

\$6,000 TOTAL
RAISED

\$735,000 ASHRAE FOUNDATION
TOTAL ADDED
including gifts raised through RP

\$653,581 SUPPORTING ASHRAE PROGRAMS

73 SCHOLARSHIPS AWARDED

These totals represent more than 5,000 contributions from Members, Organizations and other Associations.

MARKETING



2,554,709
VISITS TO ASHRAE.ORG

71,512 LIKES

145,738 FOLLOWERS

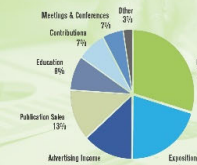
22,598 FOLLOWERS

7,346 SUBSCRIBERS

3,530 FOLLOWERS

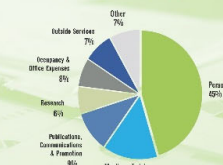
FINANCIAL

ASHRAE SOURCE OF FUNDS 12 Months ended June 30, 2023



\$28,147M REVENUE

ASHRAE APPLICATION OF FUNDS 12 Months ended June 30, 2023



\$28,186M EXPENSE

GOVERNMENT AFFAIRS

**GOVERNMENT
OUTREACH
EVENTS**

87 EVENTS

408 MEMBER
PARTICIPANTS

**GOVERNMENT UPDATE
NEWSLETTERS**

493 ARTICLES
& **2,382** READERS

LETTERS & TESTIMONY

35 MESSAGES IN
SUPPORT OF ASHRAE'S
PUBLIC POLICY
PRIORITIES & POSITIONS

1,200 New ASHRAE Members in 2022-23!

Nominations



Council and Committee Nominations

**JUN
2023**

Speak with your committee ExO/CO if your current appointment/elected position ends in **June** to be nominated for another position.

**SEP
2023**

Nominations for elected positions are due **September 2023**. (Publications & Education Council, Tech Council, RAC, TAC, Standards, Handbook, Nominating)

**FEB
2024**

Nominations for appointed committees are due **February 2024**.

Submit nominations for others and/or yourself
[ashrae.org/committee-nominations](https://www.ashrae.org/committee-nominations)

Honors & Awards Nominations

ASHRAE's awards fall into one of six categories:

1. Personal Honors
2. Personal Awards for General & Specific
3. Society Activities
4. Paper Awards
5. Society Awards to Groups or Chapters
6. Chapter and Regional Awards

Depending on the award, deadlines are either
May 1 or **December 1** each year.

Awards information and nomination forms
[ashrae.org/honorsandawards](https://www.ashrae.org/honorsandawards)

Upcoming Tradeshows & Events



WHAT?	WHEN?	WHERE?
AHR Expo Mexico	Sept. 19-21, 2023	Mexico City, Mexico
Greenbuild	Sept. 26,29, 2023	Washington, DC
COP28	Nov. 30 – Dec. 12, 2023	Dubai
AHR Expo Chicago	Jan. 22-24, 2024	Chicago, IL
ACREX	Feb. 15-17, 2024	Delhi NCR, India



- Educational Resources
- Discounts on Publications
- Free ASHRAE Giveaways



Learn More and Find Resources for Tradeshows ashrae.org/marketingcentral

ASHRAE Conferences



SEPT
2023

2023 Building Performance Analysis Conference

September 11-13, 2023 | Austin, TX

OCT
2023

2023 Decarbonization Conference for the Built Environment

October 25-27, 2023 | Washington, DC

NOV
2023

8th International Conference on Energy Research and Development

November 28-30, 2023 | Kuwait

APR
2024

2024 ASHRAE International Conference on Building Decarbonization

April 17-19, 2024 | Madrid, Spain



NEW Conference Hotel

Marriott Marquis Chicago

Marriott is connected via sky bridge with McCormick Place for easy access to the AHR Expo!

Registration opens fall 2023 at ashrae.org/2024winter.

ashrae.org/conferences

Thank you!
Questions or Comments?